



CAHSPR ACRSPS

Canadian Association for Health
Services and Policy Research

L'Association canadienne pour la
recherche sur les services et les
politiques de la santé

CAHSPR.CA

***A Learning Healthcare System:
Let the Patient Revolution Begin!***

Conference Program

Annual CAHSPR Conference

May 10–12, 2016 • Pre-Conference Day: May 9, 2016

Hilton Hotel Toronto • Toronto, ON

CAHSPR wishes to thank the conference sponsors for their generous support!

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ANDREAS LAUPACIS, Executive Director, Li Ka Shing Knowledge Institute of St. Michael's (Conference co-chair)

MARIE-PASCALE POMEY, Associate Professor, Department of Health Administration in the Université de Montréal Faculty of Medicine (Conference co-chair)

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Welcome to the 2016 CAHSPR Conference

It is our pleasure to welcome you to the 2016 CAHSPR Conference, our thirteenth, held this year in Toronto. This year's conference is entitled "**A Learning Healthcare System: Let the Patient Revolution Begin!**" In the distant past, when I was a hospital administrator, carrying out a patient survey asking about the food was considered revolutionary. It will be very clear very quickly at our conference just how far we have come from that time. We expect a robust attendance at our CAHSPR conference, so you should find old friends and new acquaintances with whom to share your love and passion of health services and policy research. Several of our plenary sessions promise to advance this theme of learning from each other.



We are particularly excited this year about a special joint session, organized with Academy Health, and held on Monday, May 9 looking at the question of scaling up. Our speakers include Dr. Bob Bell, Deputy Minister of Health in Ontario and Dr. Mai Pham, Chief Innovation Officer at the Center for Medicare and Medicaid Innovation.

In the opening plenary session on Tuesday, May 10, Leslee Thomson newly appointed President of Accreditation Canada will speak to the theme of "**How Patient Involvement Enhances Quality.**" Leslie's presentation will be followed by presentations from Kristin Carman, from the research perspective and from Vincent Dumez, reflecting his experience both as a patient and as someone working within the healthcare system.

On Tuesday afternoon, our focus turns to the question of patient involvement in research, with an exciting panel moderated by Andreas Laupacis, co-chair of CAHSPR's Scientific Planning Committee. Wednesday morning brings the annual Hall Laureate keynote presentation, this year presented by Greg Marchildon, now the Ontario Research Chair in Health Policy and System Design.

Finally, our closing plenary session looks at lessons we can learn from other sectors on how best to involve patients in the healthcare system. In between, there are many, many exciting sub plenary and concurrent sessions, too numerous to mention here.

It is a veritable buffet for the mind. Once again, the conference will provide an opportunity for CAHSPR's theme groups to meet. Researchers and policy makers with a special interest in the areas of Child and Maternal Health, Primary Health Care, Collaborative Healthcare Improvement Partnerships, Applied Research in Cancer Care, and Health Human Resources will have a chance to meet with colleagues who share their interests. Of course, CAHSPR thrives on the energy of its student participants. We have a dedicated student theme group, and we expect to see Canada's future leaders make their debut in our poster sessions and rapid fire presentations.

We would particularly like to thank Andreas Laupacis and Marie-Pascale Pomey who co-chaired the program committee, and all of the committee members who planned this year's event. Special thanks to Kim McGrail and Roxanne Borges Da Silva for leading the abstracts review process. Finally, we thank Sally Cleford and her team at Face2Face Events Management for all their hard work to make this year's conference a success.

We hope you enjoy the conference. You can learn more about CAHSPR at our website www.cahspr.ca. Please join us at the CAHSPR Annual General Meeting on. We look forward to greeting all of you this week.

With best wishes,

FRANK MARKEL

Executive Director, CAHSPR

2016 Conference Co-Chairs



ANDREAS LAUPACIS

*Executive Director
Li Ka Shing Knowledge Institute of St. Michael's
(Conference co-chair)*



MARIE-PASCALE POMEY

*Associate Professor
Department of Health Administration
Université de Montréal Faculty of Medicine
(Conference co-chair)*

2016 Scientific Co-Chairs



KIM MCGRAIL

*Associate Professor
University of British Columbia
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and Policy Research
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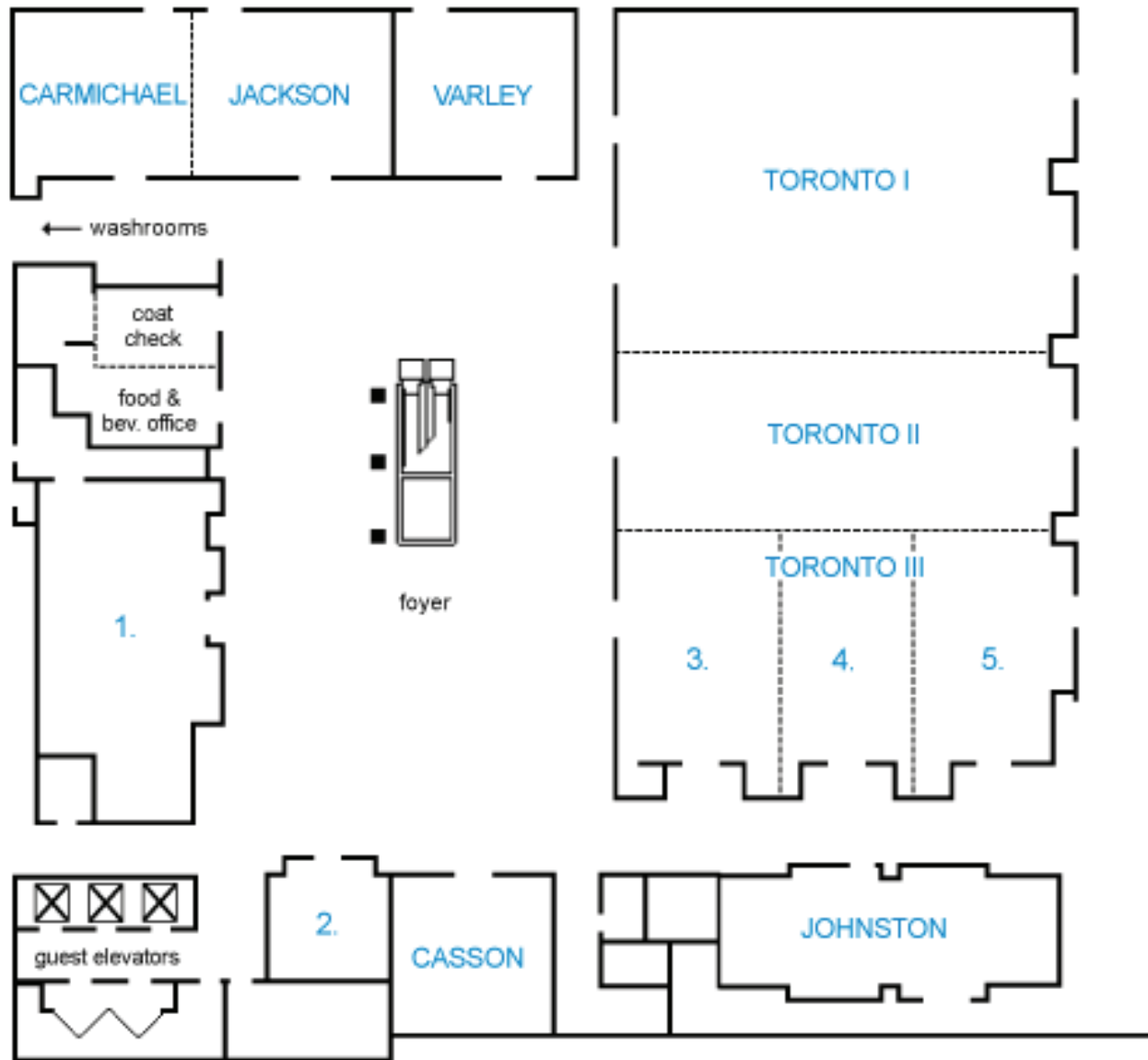


ROXANE BORGES DA SILVA

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(Scientific Co-chair)*

Floorplan

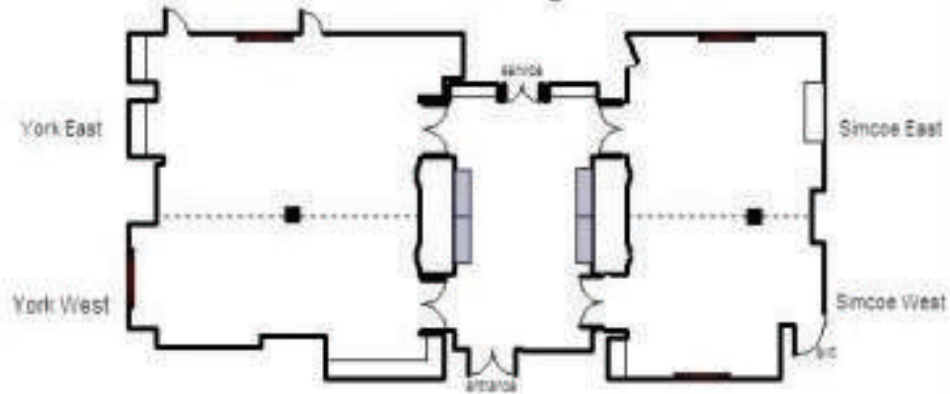
HILTON TORONTO - CONVENTION LEVEL



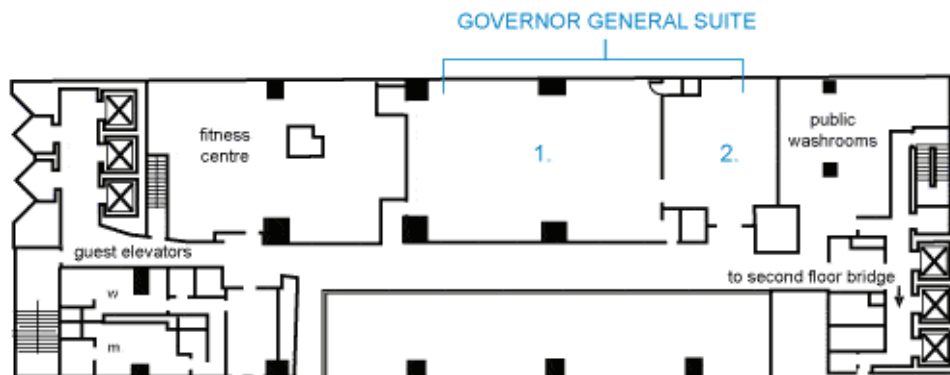
1. TOM THOMSON
2. FITZGERALD

3. TORONTO: HARRIS
4. TORONTO: MACDONALD
5. TORONTO: LISMER

HILTON TORONTO - LOBBY LEVEL

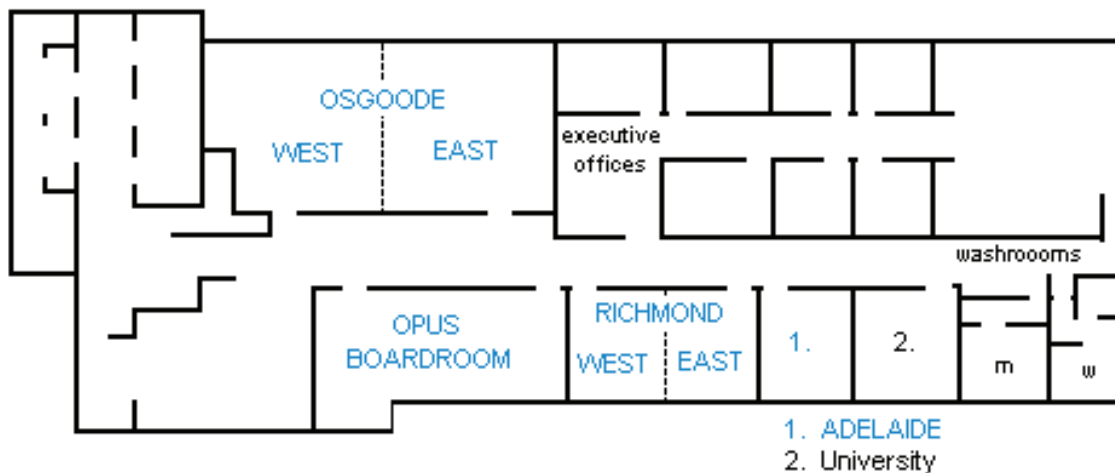


HILTON TORONTO - SECOND FLOOR



- 1. GOVERNOR GENERAL MAIN
- 2. GOVERNOR GENERAL PARLOR

HILTON TORONTO - THIRD FLOOR



Program Agenda

Monday, May 9, 2016 (Pre-Conference Day)

8:30am – 5:00pm	Canada's Applied Research in Cancer Control Conference (ARCC) CAHSR Conference participants can attend the ARCC Conference at a 10% discount. To learn more about this exciting event, visit http://cc-arcc.ca/arcc-conference-2016 . Please note there are pre-conference activities for this event taking place on Sunday, May 8, 2016.	
1:00pm – 2:30pm	Primary Healthcare CAHSR Theme Group Meeting	Simcoe (Lobby Level)
1:00pm – 4:00pm	How to Design a Research Project to Engage Public, Citizens, Researchers and Patients Presented by JULIA ABELSON , McMaster University This session is organized by the CAHSR Student Working Group . A workshop catered to students, this 3-hour workshop invites you to learn about the current landscape of research in public engagement and patient engagement in the Canadian political context. This event will start with an interactive lecture with Dr. Julia Abelson from McMaster University. The SWG academic subcommittee has developed a handbook to guide students to write research proposals that integrate voices of patients and publics in topics in health services and policy research. In the third segment, students will be invited to present their research proposals to participants to facilitate learning from each other while we navigate writing research proposals together as students.	York (Lobby Level)
1:00pm – 5:00pm	CHIPS CAHSR Theme Group Workshop	Varley (Convention Level)
2:30pm – 4:30pm	Where is the Uber of Health Services?: How can we transition promising innovations from health services research to health services delivery? A special CAHSR session in collaboration with Academy Health – Sponsored by the Institute of Health Policy, Management and Evaluation, University of Toronto Presented by NANCY NAYLOR , Associate Deputy Minister Health and Long-Term Care / MAI PHAM , Chief Innovation Officer and Acting Director, Policy and Programs Group - Center for Medicare and Medicaid Innovation / NOAH IVERS , Scientist, Women's College Research Institute; Family Physician, Women's College Hospital / AMNA HUSAIN , Family Physician; Research Lead, Temmy Latner Centre for Palliative Care, Mount Sinai Hospital This panel will discuss the transition from smaller scale pilots or pockets of excellence to policies and programs that are scaled across the health system by learning from successes and failures to help health system decision makers understand which projects to transition and how to support that transition. Researchers will gain new insights about how to develop and test innovations with scalability and sustainability in mind so that their research-grant-funded projects are more likely to transition to operating-fund-supported initiatives. Panelists hope to kick-start conversations about enabling promising research pilots to become funded operational programs and explore how policy and funding barriers to this process might be addressed. A reception will be held after the presentation from 4:30pm to 6:00pm.	Governor General Suite (2nd Floor)
5:00pm – 6:00pm	CAHSR Pre-Conference Primer This session is organized by the CAHSR Student Working Group . Presented by DENIS ROY , President, Canadian Association for Health Services and Policy Research / ANDREAS LAUPACIS , Executive Director, Li Ka Shing Knowledge Institute; 2016 CAHSR Conference Co-Chair / MARIE-PASCALE POMEY , Associate Professor, Department of Health Administration and Organization, School of Public Health, University of Montréal; 2016 CAHSR Conference Co-Chair / LEAH SMITH , past Student Working Group Chair The CAHSR-SWG Pre-Conference Primer is a great way for new and returning attendees to become acquainted with the annual CAHSR Conference! You are invited to join Denis Roy (CAHSR President), along with Andreas Laupacis and Marie-Pascale Pomey (2016 CAHSR Conference Co-Chairs), as well as past Student Working Group Chair Leah Smith, as they provide an overview of the conference and discuss the significance of this year's conference theme. This is also a great opportunity to hear about CAHSR's latest initiatives and to ask any questions to our CAHSR leadership.	Tom Thompson (Convention Level)
6:00pm – 8:00pm	CAHSR Welcome Reception	Foyer (Convention Level)
	Join CAHSR executives and participants of the conference for a welcome reception to kick off the 2016 conference.	

Tuesday, May 10, 2016 (Conference Day 1)

7:00am – 8:00am	BREAKFAST	Foyer (Convention Level)
8:00am – 8:10am	OPENING REMARKS & WELCOME FROM THE CONFERENCE CHAIRS	Toronto I & II (Convention Level)
	Presented by MARIE PASCALE POMEY , Associate Professor, Department of Health Administration and Organization, School of Public Health, University of Montréal; 2016 CAHSPR Conference Co-Chair / ANDREAS LAUPACIS , Executive Director, Li Ka Shing Knowledge Institute; 2016 CAHSPR Conference Co-Chair	
8:10am – 8:15am	OFFICIAL ABORIGINAL WELCOME	Toronto I & II (Convention Level)
	Presented by ANDREW WESLEY , Elder-in- Residence at First Nation House, University of Toronto	
8:15am – 9:30am	KEYNOTE PANEL – HOW PATIENT INVOLVEMENT ENHANCES QUALITY	Toronto I & II (Convention Level)
	What is the evidence that respecting the role of patients in the healthcare system does in fact enhance quality? Moderated by MARIE PASCALE POMEY , Associate Professor, Department of Health Administration and Organization, School of Public Health, University of Montréal; 2016 CAHSPR Conference Co-Chair Presented by LESLEE THOMPSON , President, Accreditation Canada / KRISTIN CARMAN , Vice President of Research and Evaluation, American Institutes for Research / VINCENT DUMEZ , Co-director, Office of Collaboration and Patient Partnership, Faculty of Medicine, University of Montreal	
9:30am – 9:45am	BREAK	Foyer (Convention Level)
9:45am – 10:45am	SUB-PLenary SESSIONS	
	SP1	Tom Thompson (Convention Level)
	Patient Engagement in the Strategy for Patient-Oriented Research SUPPORT Units: Challenges and Opportunities Presented by CAROLYN SHIMMIN , Manitoba SPOR SUPPORT Unit / VASANTHI SRINIVASAN , Ontario SPOR SUPPORT Unit / MARIE-DOMINIQUE BEAULIEU , Administrative and Scientific Director of the Quebec SUPPORT Unit / ADRIAN LEVY , Maritime SPOR SUPPORT Unit	
	SP2	Carmichael (Convention Level)
	What is Evidence? Defining the Role of Patient Stories Moderated by JENNIFER GIBSON , University of Toronto Presented by ANDREAS LAUPACIS , Executive Director, Li Ka Shing Knowledge Institute; 2016 CAHSPR Conference Co-Chair / FRANK GAVIN , CFAN Representative, The Canadian Child and Youth Health Coalition; Research Advisory Committee Member, CIHR's Parenting Matters project; and Board Member, The Institute of Families for Child and Youth Mental Health / JENNIFER MOLSON , WBHC Diagnostic Breast Rounds Coordinator, Ages Cancer Assessment Clinic, The Ottawa Hospital	
	SP3	Toronto I & II (Convention Level)
	Social Media: A Lifeline for Rare Disease patients and their caregivers Moderated by FRANK MARKEL , Executive Director, CAHSPR Presented by MAUREEN SMITH , Secretary, Canadian Organization for Rare Disorders / LAURA WILLIAMS , Interim Director, Patient, Caregiver & Public Engagement at Health Quality Ontario / ETIENNE RICHER , Assistant Director, CIHR Institute of Genetics	
10:45am – 11:00am	BREAK	Foyer (Convention Level)
11:00am – 12:15pm	CONCURRENT SESSIONS A	
	A1: HEALTH POLICY & SYSTEM PERFORMANCE	Carmichael (Convention Level)
	A2: HEALTH SYSTEM PERFORMANCE	Tom Thompson (Convention Level)
	A3: QUALITATIVE RESEARCH METHODS	Casson (Convention Level)
	A4: PROGRAM OR POLICY EVALUATION	Varley (Convention Level)
	A5: STATISTICS / ECONOMETRICS	Simcoe (Lobby Level)
	A6: PATIENT ENGAGEMENT	York (Lobby Level)
	A7: PRIMARY HEALTH CARE	Governor General (2nd Floor)
	A8: CHRONIC DISEASE MANAGEMENT	Osgoode (3rd Floor)
12:15pm – 1:30pm	LUNCH	Toronto I & II (Convention Level)

1:30pm – 2:45pm	CONCURRENT SESSIONS B	
	B1: HOME CARE & LONG TERM CARE	Carmichael (Convention Level)
	B2: COLLABORATIVE HEALTHCARE IMPROVEMENT PARTNERSHIPS	Tom Thompson (Convention Level)
	B3: HEALTH ECONOMICS & CHRONIC DISEASES	Casson (Convention Level)
	B4: MATERNAL AND CHILD HEALTH	Varley (Convention Level)
	B5: KNOWLEDGE TRANSLATION & EXCHANGE (INCLUDES KTE METHODS)	Simcoe (Lobby Level)
	B6: ACCESS & EQUITY IN CHRONIC DISEASES	York (Lobby Level)
	B7: HEALTH POLICY AND HEALTHCARE REFORM	Governor General (2nd Floor)
	B8: MENTAL HEALTH	Osgoode (3rd Floor)
2:45pm – 3:00pm	BREAK	Foyer (Convention Level)
3:00pm – 4:15pm	KEYNOTE PANEL – PATIENT INVOLVEMENT IN RESEARCH	Toronto I & II (Convention Level)
	<p>How can researchers involve patients and what are the results? Moderated by ANDREAS LAUPACIS, Executive Director, Li Ka Shing Knowledge Institute; 2016 CAHSPR Conference Co-Chair Presented by ANTOINE BOIVIN, Département de médecine de famille, Centre de recherche du centre hospitalier de l'Université de Montréal / NICOLAS FERNANDEZ, Professeur, Département d'éducation et formation spécialisées, UQAM / MARIE CHANTAL FORTIN, Associate Professor, Department of Medicine, Université de Montréal / SANDRA HOLDSWORTH, Provincial Director, Canadian Transplant Association in Ontario / KIRK SCHULTZ, Director, Michael Cuccione Childhood Cancer Research Program</p>	
4:15pm – 5:30pm	POSTER VIEWING RECEPTION	Toronto III & Johnston (Convention Level)
	Stretch your legs, and enjoy a complimentary beverage while visiting the poster presentations during this poster viewing reception.	
5:15pm – 6:30pm	PRIMARY HEALTHCARE CAHSPR THEME GROUP NETWORKING RECEPTION	Richmond (3rd Floor)
5:30pm – 6:30pm	HEALTH HUMAN RESOURCES CAHSPR THEME GROUP MEETING	Carmichael (Convention Level)

Wednesday, May 11, 2016 (Conference Day 2)

7:00am – 8:15am	BREAKFAST	Foyer (Convention Level)
8:15am – 9:30am	JUSTICE EMMETT HALL LAUREATE KEYNOTE PRESENTATION	Toronto I & II (Convention Level)
	<p>Situating Politics in Health Services and Policy Research Moderated by MARIA MATHEWS, President, Justice Emmett Hall Foundation Presented by GREG MARCHILDON, Professor, Ontario Research Chair in Health Policy and System Design Institute of Health Policy, Management and Evaluation, University of Toronto Politics plays a significant role in all publicly-financed health systems. This role has often been written out of health services and policy research or perceived to be a negative force in the formulation and maintenance of evidence-based health policy. This lecture will provide a very different perspective on politics that will argue for a more nuanced understanding of the democratic process and the inclusion of “politics” as a necessary component of health services and policy research.</p>	
9:30am – 9:45am	BREAK	Foyer (Convention Level)
9:45am – 11:00am	CONCURRENT SESSIONS C	
	C1: ACCESS AND EQUITY	Carmichael (Convention Level)
	C2: CANCER	Tom Thompson (Convention Level)
	C3: CHRONIC DISEASE MANAGEMENT & ELDERLY	Casson (Convention Level)
	C4: PATIENT ENGAGEMENT	Varley (Convention Level)
	C5: QUALITATIVE RESEARCH METHODS	Simcoe (Lobby Level)
	C6: MIXED METHODS	York (Lobby Level)
	C7: HEALTH SYSTEM PERFORMANCE	Governor General (2nd Floor)
	C8: HEALTH SYSTEM PERFORMANCE	Osgoode (3rd Floor)
11:00am – 11:15am	BREAK	Foyer (Convention Level)

11:15am – 12:30pm	CONCURRENT SESSIONS D	
	D1: HOME CARE & LONG TERM CARE	Carmichael (Convention Level)
	D2: HEALTH ECONOMICS	Tom Thompson (Convention Level)
	D3: HEALTH POLICY AND HEALTHCARE REFORM	Casson (Convention Level)
	D4: PRIMARY HEALTH CARE	Varley (Convention Level)
	D5: PATIENT ENGAGEMENT	Simcoe (Lobby Level)
	D6: ACCESS & EQUITY	York (Lobby Level)
	D7: MICROSIMULATION / NEW DATA ANALYTICS	Governor General (2nd Floor)
	D8: MENTAL HEALTH & YOUTH AND EMERGING ADULTS	Osgoode (3rd Floor)
12:30pm – 1:45pm	NETWORKING LUNCH	Toronto I & II (Convention Level)
12:30pm – 1:15pm	CAHSPR ANNUAL GENERAL MEETING Members of CAHSPR are invited to attend the annual general meeting taking place for the first half hour of the lunch hour.	Toronto III (Convention Level)
1:15pm – 1:45pm	HALL FOUNDATION ANNUAL GENERAL MEETING Members of the Hall Foundation are invited to attend the annual general meeting taking place for the second half hour of the lunch hour.	Toronto III (Convention Level)
1:45pm – 3:00pm	CONCURRENT SESSIONS E	
	E1: ACCESS & EQUITY – PRIMARY CARE	Carmichael (Convention Level)
	E2: PRIMARY HEALTH CARE	Tom Thompson (Convention Level)
	E3: ACCESS & EQUITY IN MENTAL HEALTH	Casson (Convention Level)
	E4: MATERNAL AND CHILD HEALTH	Varley (Convention Level)
	E5: PHARMACEUTICAL POLICY	Simcoe (Lobby Level)
	E6: MENTAL HEALTH	York (Lobby Level)
	E7: HEALTH SYSTEM PERFORMANCE	Governor General (2nd Floor)
	E8: QUALITATIVE RESEARCH METHODS	Osgoode (3rd Floor)
3:00pm – 3:15pm	BREAK	Foyer (Convention Level)
3:15pm – 4:30pm	CONCURRENT PANEL SERIES	
	CP1: PRIMARY HEALTH CARE	Carmichael (Convention Level)
	CP2: HEALTH POLICY AND HEALTHCARE REFORM	Tom Thompson (Convention Level)
	CP3: HOME CARE AND LONG TERM CARE	Casson (Convention Level)
	CP4: COLLABORATIVE HEALTHCARE IMPROVEMENT PARTNERSHIPS	Varley (Convention Level)
	CP5: COLLABORATIVE HEALTHCARE IMPROVEMENT PARTNERSHIPS	Simcoe (Lobby Level)
	CP6: MATERNAL AND CHILD HEALTH	York (Lobby Level)
	CP7: PATIENT ENGAGEMENT	Governor General (2nd Floor)
	CP8: PATIENT ENGAGEMENT	Osgoode (3rd Floor)
4:30pm – 5:45pm	POSTER VIEWING RECEPTION Stretch your legs, and enjoy a complimentary beverage while visiting the poster presentations during this poster viewing reception.	Toronto III & Johnston (Convention Level)
5:15pm – 7:00pm	MATERNAL CHILD CAHSPR THEME GROUP RECEPTION	Simcoe (Lobby Level)
5:30pm – 7:00pm	SWG STUDENT-MENTOR NETWORKING EVENT Notable academics and decision-makers in the field of health services and policy research will lead small group discussions on topics of interest to students and junior researchers, such as publishing and career development. Students will have the chance to rotate through each of the stations to speak with, and learn from, each mentor. Appetizers will be served and there will be an opportunity for open networking afterwards. Hosted by the CAHSPR Student Working Group .	York (Lobby Level)
6:00pm – 7:00pm	CHIPS CAHSPR THEME GROUP RECEPTION	Richmond (3rd Floor)
7:00pm – 11:00pm	STUDENT WORKING GROUP SOCIAL Please join us at the Art Gallery of Ontario, 317 Dundas Street West, Toronto, from 7-9pm to socialize and view some of the best art in North America. This event is free (see http://www.ago.net/admission for further information). Afterwards, from 9-11pm, students and student members of CAHSPR are welcome to gather at Café La Gaffe, 24 Baldwin Street, Toronto, for appetizers and engaging conversation. Hosted by the CAHSPR Student Working Group .	See location below

Thursday, May 12, 2016 (Conference Day 3)

7:30am – 8:15am	BREAKFAST	Foyer (Convention Level)
8:15am – 8:30am	TED FREEDMAN AWARD FOR INNOVATION IN EDUCATION Presented by Longwoods	Toronto I & II (Convention Level)
8:30am – 9:15am	RAPID FIRE ABSTRACTS!	Toronto I & II (Convention Level)
	<p>The five top rated abstracts submitted to the 2016 CAHSPR Conference will each present a 5-minute summary of their abstract to the audience in this opening session. (See session details in "Concurrent Sessions Guide")</p> <p>Presented by:</p> <ul style="list-style-type: none"> ▪ LUCY BARKER – "Predicting psychiatric readmission: sex-specific models to predict 30-day readmission following acute psychiatric hospitalization" (G6.1) ▪ LAUREN GRIFFITH – "Patterns of Health Service Use in Community Living Older Adults with Dementia, Diabetes or Stroke in the Context of Comorbidity: Lessons Learned from Three Retrospective Cohort Studies in Ontario, Canada" (C3.3) ▪ PETER J GILL – "Predictors of using the emergency department as a first point of contact for a mental health problem in Ontario" (G2.4) ▪ LINDSAY HEDDEN – "The Provision of Out-of-Office and After Hours Care by BC's Primary Care Physicians" (A7.1) ▪ JENNIFER WALKER – "Trajectories of health system use and survival for community-dwelling persons with dementia: a population-based analysis from Ontario, Canada" (C3.4) 	
9:15am – 9:30am	BREAK	Foyer (Convention Level)
9:30am – 10:45am	CONCURRENT SESSIONS F	
	F1: ACCESS & EQUITY	Carmichael (Convention Level)
	F2: HOME CARE & LONG TERM CARE	Tom Thompson (Convention Level)
	F3: CHRONIC DISEASE MANAGEMENT	Casson (Convention Level)
	F4: HEALTH HUMAN RESOURCES	Varley (Convention Level)
	F5: HEALTH ECONOMICS	Simcoe (Lobby Level)
	F6: PATIENT ENGAGEMENT	York (Lobby Level)
	F7: PRIMARY HEALTH CARE	Governor General (2nd Floor)
	F8: HEALTH SYSTEM PERFORMANCE	Osgoode (3rd Floor)
10:45am – 11:00am	BREAK	Foyer (Convention Level)
11:00am – 12:15pm	CONCURRENT SESSIONS G	
	G1: KNOWLEDGE TRANSLATION & EXCHANGE	Carmichael (Convention Level)
	G2: MATERNAL AND CHILD HEALTH	Tom Thompson (Convention Level)
	G3: CHRONIC DISEASE MANAGEMENT	Casson (Convention Level)
	G4: PHARMACEUTICAL POLICY	Varley (Convention Level)
	G5: HEALTH HUMAN RESOURCES	Simcoe (Lobby Level)
	G6: MENTAL HEALTH	York (Lobby Level)
	G7: KNOWLEDGE TRANSLATION & EXCHANGE	Governor General (2nd Floor)
	G8: HEALTH POLICY AND HEALTHCARE REFORM	Osgoode (3rd Floor)

12:15pm – 1:30pm	LUNCH AND AWARDS Health Human Resources Theme Group Awards Presented by HHR CAHSPR Theme Group Harkness Fellowship Award Presented by Canadian Foundation for Healthcare Improvement (CFHI) Jack Boan Student Essay Award Presented by Justice Emmett Hall Foundation Rising Star Award Presented by Canadian Institute for Health Research (CIHR-IHSPR) Article of the Year Award Presented by Canadian Institute for Health Research (CIHR-IHSPR) Student Poster Award Presented by Canadian Institute for Health Research (CIHR-IHSPR) Pat Martens Memorial Student Prize for Best Student Abstract Presented by Maternal and Child Health CAHSPR Theme Group Primary Healthcare Student Poster Award Presented by Primary Healthcare CAHSPR Theme Group	Toronto I & II (Convention Level)
1:30pm – 1:45pm	BREAK	Foyer (Convention Level)
1:45pm – 3:00pm	KEYNOTE PRESENTATION	Toronto I & II (Convention Level)
	<p>What do other fields teach us about involving people (citizens, the public, consumers) that we can apply to patients in the healthcare system?</p> <p>Moderated by DENIS ROY, President, Canadian Association for Health Services and Policy Research</p> <p>Presented by MICHEL VENNE, Director General, Institut du nouveau monde / KATE ROBSON, NICU Family Support Specialist, Sunnybrook Health Sciences Centre / DANIELA KRAEMER, Anthropologist, InWithForward</p>	
3:00pm – 3:15pm	CLOSING REMARKS & ADJOURNMENT	Toronto I & II (Convention Level)



Invited Speakers



Antoine Boivin

Antoine Boivin, MD, PhD is a family physician and researcher at University of Montreal, Canada. He holds a Canada Research Chair in Patient and Public Partnership. After his family medicine training in Canada, he completed his MSc and PhD in health services research in the United Kingdom and the Netherlands. His research program focuses on patient engagement in health system improvement, research and policy. He led the first randomized trial of patient engagement in priority setting. He was a founder of the Guideline International Network Patient and Public Involvement Working Group. He is co-director of the patient and public partnership strategy for the Quebec SUPPORT unit, a 30M\$ patient-oriented research initiative in Canada.



Kristin L. Carman

Dr. Carman leads a team of more than 100 professionals conducting research on issues of public importance in patient and family engagement, health care quality, public deliberation, access to care, health care organization and financing, comparative effectiveness research, health systems improvement, health-related communications, and family and social services. She also serves as director of AIR's Center for Patient and Consumer Engagement. Kristin is a nationally known expert and pioneer in the field of patient and family engagement, leading the development of the Patient and Family Engagement Framework (Carman, et. al, Health Affairs, 2013) and the Gordon and Betty Moore Foundation-funded Patient and Family Engagement Roadmap (<http://patientfamilyengagement.org>). She recently completed a large, randomized controlled deliberative methods demonstration for the Agency for Healthcare Quality and Research to expand public input into comparative effectiveness research and to advance the field of public deliberation.



Vincent Dumez

Mr. Vincent Dumez holds a finance degree and a master in science of management from Montreal's international business school Hautes Études Commerciales (HEC). Up until 2010, Mr. Dumez was an associate in one of Montreal's most influential consulting firm where he acted as a senior strategic consultant. Suffering from severe chronic diseases for more than three decades, M. Dumez has been actively involved in the thinking and the promotion of the 'patient partner' concept at Montreal University. This involvement has come forward over the recent years through the completion of his masters dissertation on patient-doctor relationship, his contribution to the training of patients, his work on various boards of community organizations and his involvement as a speaker in forums and workshops addressed to healthcare professionals. In the past years, Mr. Dumez has been a key collaborator for the Education Centre (CPASS) of the Faculty of medicine of the University of Montreal. From October 2010 to June 2013, he had founded and led the Faculty Office of the Patient Partner Expertise. He is now co-director of a larger faculty unit, which integrates inter professional collaboration and patient partnership competencies development. Since 2015, he is also the co-leader of the patient partnership strategy for the Quebec SPOR Support Unit.



Nicolas Fernandez

Nicolas Fernandez is Professor of the Faculty of Educational Sciences of the Université du Québec à Montréal (UQAM) and Associate Professor at the Center for Applied Pedagogy in the Health Sciences (CAPHS) of the Faculty of Medicine at the Université de Montréal. Recipient of a transplanted kidney in 2008, Nicolas learned to manage his dialysis treatments, both peritoneal and hemodialysis, over a period of eight years. This life transforming experience, combined with his academic career in educational research and teaching, allowed Nicolas to develop unique insights into self-management of chronic illness as well as into development of patient self-efficacy. His doctoral thesis was completed in large part during treatment sessions in the dialysis unit of his local hospital. Nicolas has published in the field of higher education and cognitive science as well as in the field of group development and collaboration. Since 2010, Nicolas has been active in The Collaboration and Patient Partnership Directorate of the CAPHS and contributes regularly to initiatives aimed at integrating patient perspective into training of health professionals, health research and organizational change in clinical settings.



Marie-Chantal Fortin

Marie-Chantal Fortin is a transplant nephrologist at the Centre hospitalier de l'Université de Montréal and a researcher at the Centre de recherche du CHUM. After her training in nephrology, she completed a PhD in bioethics at the Université de Montréal. Dr Fortin is leading the Patient-Researcher Partnership Platform within the Canadian National Transplant Research Program. Her research interests include patient partnership, ethical issues related to kidney exchange programs and organ donation after physician assisted death. She received research grants from the CIHR and the Kidney Foundation of Canada. She is a research scholar of the Fonds de recherche santé Québec.



Frank Gavin

Frank Gavin is a parent who has worked as a volunteer to advance child health and family-centred care since 1995. He served on and chaired the Family Advisory Committee to The Hospital for Sick Children and in 2002 helped found The Canadian Family Advisory Network (CFAN), chairing or co-chairing CFAN in its first six years. He now directs CFAN's national activities, represents CFAN on The Canadian Child and Youth Health Coalition, participates on the Research Advisory Committee of CIHR's Parenting Matters project, and is a board member of The Institute of Families for Child and Youth Mental Health. In September 2011 Frank was appointed by The Canadian Agency for Drugs and Technologies in Health as one of two public members of The Canadian Drug Expert Committee. He taught English at Centennial College in Toronto for nearly thirty years. Frank received the first Volunteer Humanitarian Award from The Hospital for Sick Children in 2002 and the Contribution to Child Health Award from The Canadian Association of Paediatric Health Centres in 2008.



Sandra Holdsworth

Sandra Holdsworth, a liver recipient of 19 years, is the Provincial Director of the Canadian Transplant Association in Ontario. Sandra has been a long-time Volunteer for Trillium Gift of Life Network; (received the 2015 TGLN Champion Award) and founder of Muskoka and Simcoe County Gift of Life Associations. For over 30 years, Sandra has worked in the Banking industry, and is now using the knowledge and experience she has gained over the last two decades with her personal experience in the transplant community to help make a difference in the organ & tissue donation awareness and transplantation fields. She recently held a contract position with Canadian Blood Services as an Event Coordinator in South Central Ontario. She is a member of the CBS South Central Ontario Liaison Committee. She is also a Steering Committee member of CanRestore and is actively working with Canadian National Transplant Research Program (CNTRP) as a patient co-lead. Sandra is currently work with a team of dedicated volunteers to bring the 8th Canadian Transplant Games to Toronto this August.



Daniela Kraemer

Daniela is an anthropologist who loves nothing more than being immersed in different cultures and groups of people asking "why do you do this?" and "what does this mean?" She has asked these questions in South Africa, Germany, London UK, Canada and also in the South Pacific. She has a PhD in social anthropology from the London School of Economics where she explored experiences of belonging, place making and urban community development. She spent nearly two years researching these topics among a gang of marginalised urban young men in Vanuatu, South West Pacific. She publishes in academic journals and is also 1/4 way through her novel "If I die here my mother will kill me". She joins InWithForward as their lead social scientist on the Toronto In/Out project.



Gregory P. Marchildon

Gregory P. Marchildon is Ontario Research Chair in Health Policy and System Design and Professor at the Institute of Health, Policy and Evaluation at the University of Toronto. He also has a teaching cross-appointment at the School of Public Policy and Governance, University of Toronto. He is a Fellow of the Canadian Academy of Health Sciences, a member of the editorial board of the European Observatory on Health Systems and Policies and an originating member of the Pan-Canadian Health Reform Analysis Network (PHRAN). After obtaining his PhD at the London School of Economics and Political Science, he taught for five years at Johns Hopkins University's School of Advanced International Studies in Washington, DC. He served as Deputy Minister of Intergovernmental Affairs (1994-96) and Deputy Minister to the Premier and Cabinet Secretary (1996-2000) in the provincial government of Saskatchewan. In 2001-02, he was the Executive Director of a federal Royal Commission on the Future of Health Care in Canada (the Romanow Commission). When he returned to academic life in 2003, he was appointed a Canada Research Chair in Public Policy and Economic History (Tier 1) and helped create the Johnson-Shoyama Graduate School of Public Policy with campuses at the Universities of Regina and Saskatchewan. Dr. Marchildon is the author of numerous journal articles on comparative health policy and the history of medicare in Canada. His books include two editions of Health Systems in Transition: Canada co-published by the WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies and the University of Toronto Press.



Jennifer Molson

Ms. Jennifer Molson was diagnosed with Relapsing Remitting Multiple Sclerosis at the age of 21 in 1996. After multiple failed therapies, she took part in a clinical trial at the Ottawa Hospital involving stem cell at the age of 27. The trial was a stem cell bone marrow transplant to treat Secondary Progressive MS as an auto immune disease. As of 2006, Ms. Molson has actively been involved with the Stem Cell Network on the Research Management Committee as a Patient Advocate, as well as, with the Canadian Stem Cell Foundation since their inception in 2009, as their first volunteer. Ms. Molson is currently employed at the Ottawa Hospital since 2008 as a Research Assistant at the Ages Cancer Assessment Clinic. Ms. Molson has a passion for stem cell research and speaking to the public about her experiences being involved in a clinical trial.



Kate Robson

Kate Robson is the mother of two girls born preterm, one at 25 weeks and one at 32 weeks. She has spent time as a patient and as a parent in 4 different hospitals and 3 different NICUs. She now works at Sunnybrook Hospital as a family support specialist, working closely with families and helping the unit deliver family centred care. Her background in Adult Education and Community Mediation, when combined with her personal experiences, helps her bring families and staff together as collaborators. She is Executive Director of the Canadian Premature Babies Foundation, co-chair of the Canadian Family Advisory Network, and has had the opportunity to speak at dozens of conferences around the world on topics related to developmental care, family-centred care, and the impact of prematurity on babies and families.



Denis A. Roy

Dr. Denis A. Roy holds a community medicine specialty and is a Harkness Fellow of the Commonwealth Fund in Health Policy. Since May 2015, he serves as Vice-President, Science and Clinical Governance at Institut national d'excellence en santé et services sociaux. He is also Acting President of the Canadian Association of Health Services and Policy Research (CAHSPR / ACRSPS) and member of the Board of the Canadian Institute of Health Information. From 2009 to 2015, as Vice-President, Scientific Affairs, he has been responsible of the Institut National de Santé Publique du Québec comprehensive scientific program on the determinants of population health. Dr. Roy has also been president of the Board of l'Initiative sur le Partage des Connaissances et le Développement des Compétences, a province-wide capacity building consortium aimed at health system improvement. He is the proud co-author of a reference book on health networks' management and governance. Previously, Dr. Roy has occupied three other executive leadership positions at l'Agence de la Santé et des Services Sociaux de la Montérégie, at the Quebec Health and Social Services Ministry and at the Montreal Public Health Department. Dr. Roy holds an MD from Laval University. In addition, he earned a Master of Public Health at University of California, Berkeley, and a Master of Science (Epidemiology) at McGill University. A fellow of the Royal College of Physicians in Community Medicine, he has been honoured with some prestigious awards, including an Excellence Award by the Quebec Association of Community Health Physicians. He is currently the only Canadian to have received twice the Canadian Health Research Advancement Award, which he obtained due to his outstanding work with two different teams, in the Montréal and Montérégie regions.



Kirk Schultz

Dr. Kirk Schultz is a Professor at the University of British Columbia, BC Children's Hospital, and the Child and Family research Institute (CFRI). Dr. Schultz is a Pediatric Hematologist/Oncologist focused on new therapies and rejection in Blood and Marrow Transplantation (BMT) and immune therapy of blood cancers. Dr. Schultz is a past recipient of the CIHR/Wyeth Clinical Research Chair in Transplantation and past chair of the Pediatric BMT Consortium the largest children's BMT clinical trials group in the world. Dr. Schultz is also a fellow of the Canadian Academy of Health Sciences. He is currently the director of the Michael Cuccione Childhood Cancer Research Program group at the BC Children's Hospital and CFRI.



Leslee Thompson

Leslee Thompson joined Accreditation Canada as President and Chief Executive Officer on February 1, 2016. Leslee is an experienced senior executive who has led multiple public and private sector organizations through major change, including Kingston General Hospital where she served as President & CEO for seven years. She has been appointed to many system leadership roles over the years and most recently these include: former Chair of the Canadian Foundation for Healthcare Improvement, former Chair of Council of Academic Hospitals of Ontario, and member of the Ontario Health Innovation Council. Leslee is internationally recognized for her pioneering work on co-creating the future of health and health care with patients and families. Leslee has received multiple awards over the years for her leadership, including being named one of Canada's top 100 most powerful women.



Michel Venne

Journalist by trade, Michel Venne has been the founding president of l'Institut du Nouveau Monde for the past twelve years, a world-renowned organization dedicated to promoting the engagement of citizens in democratic life. In 2007, Mr. Venne was appointed Vice-Chairman of the Working Group on Health System Funding by the Government of Quebec, which is chaired by Claude Castonguay. In 2015, he was involved in launching a community of practice on health and social services. He is the author of research papers on citizen engagement in healthcare and has facilitated several participatory consultation processes in this area. Mr. Venne was also a member of the National Collaborating Center for Healthy Public Policy (NCCHPP)'s Advisory Board. Extolled as an example of social entrepreneurship in Quebec and abroad, Mr. Venne chaired le Réseau québécois en innovation sociale (a social innovation network in Quebec). He is also a Fellow of Ashoka, an international organization and network of 3000 social innovators from around the world. He is a Fellow of the Carold Foundation, a Canadian organization dedicated to citizen engagement and social change. He is a member of the board of directors and co-founder of Esplanade Montreal, an incubator/accelerator of leading-edge innovation and social entrepreneurship projects. He is well known for his tireless efforts around the civic education of youth. An esteemed manager, Mr. Venne is recognized as one of the best political pundits in the country. Since 2003, he has published L'état du Québec, a yearly reference publication on the state of the nation and is the author of several books on the global issues of our day. It is as a journalist that he first made his mark, among other things, as Quebec's parliamentary correspondent, columnist and eventually News Director for the French-language daily Le Devoir from 1990 to 2002. He left the newspaper to create the INM in 2003, but maintained a weekly column for four years.

Concurrent Sessions at a Glance

**Séances simultanées
en un coup d'œil**

Day 1: Tuesday, May 10 / Jour 1 : Le mardi 10 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

11:00am – 12:15pm CONCURRENT SESSIONS A		11 h 00 – 12 h 15 SÉANCES SIMULTANÉES A	
A1: HEALTH POLICY & SYSTEM PERFORMANCE		POLITIQUES DE SANTÉ ET RENDEMENT DU SYSTÈME	
Carmichael (Convention Level)			
A1.1	Moments that mattered: Building organizational capacity for quality palliative/end-of-life care through practice development Presented by DON WILDFONG , Chair, Continuing Education & Specialty Programs, Conestoga College Institute of Technology and Advanced Learning		
A1.2	Quality and impact of government-funded medication management services in Ontario Presented by LINDA MACKEIGAN , Associate Professor, Leslie Dan Faculty of Pharmacy, University of Toronto		
A1.3	Understanding Drug Formulary Listing Decisions in Canadian Provinces Presented by CHARLES THOMPSON , Graduate Student, University of Ottawa		
A2: HEALTH SYSTEM PERFORMANCE		RENDEMENT DU SYSTÈME DE SANTÉ	
Tom Thompson (Convention Level)			
A2.1	Co-design of patient relations indicators across the acute care, long-term care and home care sectors to improve care and public reporting Presented by ANITA SINGH , Measurement Specialist, Health Quality Ontario		
A2.2	Miser sur des indicateurs soutenus par les meilleures preuves scientifiques pour mesurer la qualité des services dispensés par les équipes de soins infirmiers Presented by CARL-ARDY DUBOIS , Professeur, Université de Montréal		
A2.3	Learning from comparing provincial health care internationally Presented by GRACE CHEUNG , Senior Analyst, Canadian Institute for Health Information		
A2.4	Adoption of the National Early Warning Score: a survey of hospital trusts in England, Northern Ireland and Wales Presented by UGOCHI NWULU , Research Associate, University of Kent		
A3: QUALITATIVE RESEARCH METHODS		MÉTHODES DE RECHERCHE QUALITATIVES	
Casson (Convention Level)			
A3.1	Patient typologies for cost-related non-adherence to prescription medications Presented by LAURIE GOLDSMITH , Researcher, Simon Fraser University		
A3.2	Barriers To high quality coding of hospital chart information to administrative data: A qualitative study Presented by KELSEY LUCYK , PhD Candidate and Research Associate, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary		
A3.3	The Impact of Information Technology on Interprofessional Collaboration for Chronic Disease Management: A Systematic Review Presented by NEIL BARR , PhD Candidate, McMaster University		
A3.4	The effect of timely outpatient follow-up after hospital discharge on 30-day readmission: an analysis using time-specific propensity scores Presented by BRUNO RIVERIN DESCHÊNES , Doctoral student, McGill University		
A4: PROGRAM OR POLICY EVALUATION		ÉVALUATION DES PROGRAMME ET DES POLITIQUES	
Varley (Convention Level)			
A4.1	Examining payment incentives for the care of patients with chronic disease in BC: Methodological choices and their impact on results of policy evaluation Presented by RUTH LAVERGNE , Postdoctoral Fellow, McGill University		
A4.2	Effect of an Intensive Multi-Modal Intervention for Attention-Deficit Hyperactivity Disorder (ADHD) on Equity in Children's Health and Educational Outcomes Presented by DAN CHATEAU , Assistant Professor, University of Manitoba		
A4.3	Rethinking the Role of the Ambulance in Primary Care: From Policy to Practice Presented by LAURA WILKINSON-MEYERS , Senior Lecturer in Health Services Research, University of Auckland, School of Population Health		
A4.4	Sex differences in the risk of receiving potentially inappropriate prescriptions among older adults Presented by STEVE MORGAN , Professor, University of British Columbia		

A5: STATISTICS / ECONOMETRICS		STATISTIQUES / ÉCONOMÉTRIE	
Simcoe (Lobby Level)			
A5.1	Adolescent pregnancy termination and childbearing - the impact of an older sister's pregnancy outcome Presented by ELIZABETH WALL-WIELER, Student, University of Manitoba		
A5.2	Association between immigration status & cervical cancer screening: Systematic review & meta-analysis Presented by SYEDA KINZA RIZVI, Master's Candidate, University of Calgary		
A5.3	A Comparison of Risk Adjustment Models for Hospital Length of Stay Presented by JASON JIANG, Statistical Research Analyst, University of Calgary		
A5.4	Informing Health System Policy & Planning for Persons with Dementia: The Multi-Layered Role of Secondary Data Presented by JENNIFER WALKER, Scientist, Institute for Clinical Evaluative Sciences / SUSAN BRONSKILL, Senior Scientist, Institute for Clinical Evaluative Sciences		
A6: PATIENT ENGAGEMENT		PARTICIPATION DU PATIENT	
York (Lobby Level)			
A6.1	Improving patient-centred system performance: A scoping review of patient-centred quality indicators Presented by RACHEL JOLLEY, Research Associate, University of Calgary		
A6.2	How to implement a successful partnership between patients, health care professionals, and managers, and its effects on healthcare quality and safety Presented by NATHALIE CLAVEL, PhD student (Health care administration), Université de Montréal / ANNA-PAULINA EWALDS, Master's degree candidate, Université de Montréal		
A6.3	Knowing What's Going On: Insights from Patients, Family Caregivers and Healthcare Providers around Care Transitions from Acute to Rehabilitation Settings Presented by MADELYN LAW, Associate Professor, Brock University		
A6.4	Involving “Persons with Patient Experiences” in Healthcare Quality Improvement and Redesign: Lessons from Region Jönköping County, Sweden Presented by GALINA GHEIHMAN, Medical Student, Harvard Medical School		
A7: PRIMARY HEALTH CARE		SOINS DE SANTÉ PRIMAIRES	
Governor General (2nd Floor)			
A7.1	The Provision of Out-of-Office and After Hours Care by BC's Primary Care Physicians Presented by LINDSAY HEDDEN, Post-doctoral Fellow, Centre for Clinical Epidemiology and Evaluation		
A7.2	Informing policy through a quantitative epidemiological approach: Understanding geographic variation in non-urgent emergency department utilization Presented by TARA TODD, MPP Candidate, Johnson-Shoyama Graduate School of Public Policy		
A7.3	The receipt of information about emergency room care by family physicians in the community Presented by LIISA JAAKKIMAINEN, Senior Scientist, Family Physician, Institute for Clinical Evaluative Sciences		
A7.4	Evaluating the performance of an Alberta Primary Care Network using the Primary Care Assessment Tool (PCAT) Presented by GRACE MOE, Executive Director, Strategic Planning, Westview Primary Care Network/Westview Physician Collaborative ALLAN L. BAILEY, Westview Primary Care Network; Westview Physician Collaborative		
A8: CHRONIC DISEASE MANAGEMENT		GESTION DES MALADIES CHRONIQUES	
Osgoode (3rd Floor)			
A8.1	The importance of communication and documentation in chronic disease management Presented by ANNE STEEN, Supervisor, Clinical Analytics and Development, Canadian Medical Protective Association		
A8.2	Effectiveness of knowledge translation tools addressing multiple high-burden chronic diseases affecting older adults: A systematic review Presented by MONIKA KASTNER, Scientist, Li Ka Shing Knowledge Institute of St. Michael's Hospital; University of Toronto		
A8.3	Low Socioeconomic Status is Associated with Adverse Events in Children and Teens on Insulin Pumps under a Universal access program: A population-based cohort study Presented by RAYZEL SHULMAN, Staff Physician, The Hospital for Sick Children		
A8.4	Predicting non-insulin antidiabetic drug adherence using a theoretical framework based on the theory of planned behaviour in adults with type 2 diabetes: A prospective study Presented by HERVÉ TCHALA VIGNON ZOMAHOUN, Coordonnateur de recherche, Centre de recherche du CHU de Québec - Université Laval		

1:30pm – 2:45pm CONCURRENT SESSIONS B		13 h 30 – 14 h 45 SÉANCES SIMULTANÉES B	
B1: HOME CARE & LONG TERM CARE		SOINS À DOMICILE ET SOINS DE LONGUE DURÉE	
Carmichael (Convention Level)			
B1.1	Impacts of the Long-Term Care Homes Act, Public Reporting and Quality Improvement Collaboratives on Restraint and Antipsychotic Use in Ontario Long-Term Care Homes Presented by WALTER WODCHIS , Associate Professor, Institute of Health Policy, Management, and Evaluation, University of Toronto		
B1.2	Interprofessional Medication Review as a Facilitator of the Appropriate Use of Antipsychotics Policy in Alberta Presented by MUBASHIR ARAIN , Research & Evaluation Consultant, Alberta Health Services		
B1.3	Long-Term Care (LTC) Practice Reports: The collaborative development of an audit and feedback tool for physicians in LTC to aid quality improvement efforts to optimize antipsychotic medication prescribing and quality of care Presented by CARA MULHALL , Senior Methodologist, Health Quality Ontario / HASMITA SINGH , Research Analyst, Health Quality Ontario		
B1.4	Exposure to potentially inappropriate medication among long-term care residents with cognitive impairment in Ontario: Is there an association with frailty? Presented by SUSAN BRONSKILL , Senior Scientist, Institute for Clinical Evaluative Sciences		
B2: COLLABORATIVE HEALTHCARE IMPROVEMENT PARTNERSHIPS		PARTENARIATS DE COLLABORATION POUR L'AMÉLIORATION DES SOINS DE SANTÉ	
Tom Thompson (Convention Level)			
B2.1	Engaging patients, families and professionals at the bedside using whiteboards Presented by SUSAN LAW , Principal Scientist and Associate Professor, St. Mary's Research Centre and McGill University / MARCELA HIDALGO , Patient engagement coordinator, St. Mary's Research Center		
B2.2	Integrating Influenza and Pneumococcal Screening in Acute Care Presented by GRACE SHEN-TU , Evaluation Associate, Alberta Health Services		
B2.3	An Evaluation Framework for Research-Oriented Communities of Practice Presented by KAILEAH MCKELLAR , PhD Candidate, University of Toronto		
B2.4	Early integration of palliative care in Ontario: INTEGRATE quality improvement project Presented by FRANCES WRIGHT , Consultant, Multidisciplinary Cancer Conferences, Cancer Care Ontario		
B3: HEALTH ECONOMICS & CHRONIC DISEASES		ÉCONOMIE DE LA SANTÉ ET MALADIES CHRONIQUES	
Casson (Convention Level)			
B3.1	Work Loss Costs Associated with Osteoarthritis in Canada from 2010 to 2031 Presented by BEHNAM SHARIF , Postdoctoral Fellow, University of Calgary		
B3.2	Chipping away at high health care utilization: understanding the role of mental illnesses and addictions among high cost patients Presented by CLAIRE DE OLIVEIRA , Health Economist, Centre for Addiction and Mental Health		
B3.3	The cost of major depression and subclinical depression: A population-based cohort study in Ontario, Canada Presented by MARIA CHIU , Staff Scientist, Institute for Clinical Evaluative Sciences		
B3.4	The Use and Cost of Diabetes Drugs in Public Plans, 2008/09 to 2014/15 Presented by GARY WARWICK , Senior Economic Analyst, Patented Medicine Prices Review Board		
B4: MATERNAL AND CHILD HEALTH		SANTÉ MATERNELLE ET INFANTILE	
Varley (Convention Level)			
B4.1	Postpartum Hospital Admissions and Emergency Department Visits Among Women with Intellectual and Developmental Disabilities Presented by HILARY BROWN , Postdoctoral Fellow, Women's College Research Institute		
B4.2	Factors associated with postpartum psychiatric admission in a population-based cohort of women with schizophrenia Presented by SIMONE VIGOD , Psychiatrist and Researcher, Women's College Hospital		
B4.3	Women's perceptions of pregnancy-related care: Informing Ontario's maternal-newborn health strategy Presented by PREETI NIGAM , Program Manager, The Provincial Council for Maternal and Child Health		
B4.4	Neonatal and Childhood Neurodevelopmental, Health and Education Outcomes of Children Exposed to Antidepressants and Maternal Depression During Pregnancy: Study Protocol Presented by DEEPA SINGAL , PhD Candidate, University of Manitoba, Department of Community Health Sciences		

B5: KNOWLEDGE TRANSLATION & EXCHANGE (INCLUDES KTE METHODS)		APPLICATION ET ÉCHANGE DES CONNAISSANCES (ET LEURS MÉTHODES)	
Simcoe (Lobby Level)			
B5.1	How do hospitals in Ontario adopt and use health literate discharge practices? A qualitative analysis Presented by JENNIFER INNIS, PhD student, University of Toronto		
B5.2	Living Life to the Full for Older Adults: An Ontario Pilot Project Presented by SCOTT MITCHELL, Director, Knowledge Transfer, Canadian Mental Health Association, Ontario		
B5.3	Emergency Physician's Perspectives on Patient Reported Outcome Measures for Emergency Department Care Presented by KATIE DAINITY, Scientist, Li Ka Shing Knowledge Institute, St. Michael's Hospital		
B5.4	Exploring barriers and facilitators to implementing family support in Early Psychosis Programs in Ontario: A systematic review Presented by AVRA SELICK, Research Coordinator, Centre for Addiction and Mental Health		
B6: ACCESS & EQUITY IN CHRONIC DISEASES		ACCÈS ET ÉQUITÉ DANS LE DOMAINE DES MALADIES CHRONIQUES	
York (Lobby Level)			
B6.1	Waiting time management strategies for musculoskeletal outpatient physiotherapy services in Quebec Presented by SIMON DESLAURIERS, Master's student, Université Laval		
B6.2	Preventing HIV in Botswana: Using Social Network Analysis to identify and engage young women in a structural intervention for HIV prevention Presented by DAVID LOUTFI, PhD Student, McGill University		
B6.3	Champlain BASE eConsultation service. Five year utilization and impact data Presented by ERIN KEELY, Chief, Division of Endocrinology and Metabolism, The Ottawa Hospital		
B6.4	Out-of-pocket expenditure and foregoing healthcare due to cost among people with chronic conditions Presented by LISA CORSCADDEN, Senior Researcher, Bureau of Health Information		
B7: HEALTH POLICY AND HEALTHCARE REFORM		POLITIQUES DE LA SANTÉ ET RÉFORME DES SOINS DE SANTÉ	
Governor General (2nd Floor)			
B7.1	Preparing for a Devolved, Population-Based Approach to Primary Care Presented by DALE MCMURCHY, President, Dale McMurphy Consulting		
B7.2	First Emergency Department Mental Health Contact: A Measure of Ambulatory Access to Care Presented by PAUL KURDYAK, Director, Health Outcomes and Performance Evaluation, Centre for Addiction and Mental Health		
B7.3	The Family/Friend Caregiver Experience in Ontario: Results of an Online Pilot Study Presented by ELIZABETH LIN, Research Scientist, Centre for Addiction and Mental Health		
B7.4	Views on the collaborative practices among health profession organizations for health policy development in Ontario Presented by OLENA SCHELL, PhD Candidate, University of Regina		
B8: MENTAL HEALTH		SANTÉ MENTALE	
Osgoode (3rd Floor)			
B8.1	A fresh approach to reform? The development and implementation of Ontario's mental health and addictions strategy Presented by HEATHER BULLOCK, PhD student, McMaster University		
B8.2	Conceptual mapping of youth to adult mental health transition programs and strategies: Application of a conceptual framework Presented by MARK EMBRETT, Doctoral Candidate, McMaster University		
B8.3	The Chez Soi trial of Housing First in Montreal: Results and implications of a natural experiment at 4 years Presented by ERIC LATIMER, Professor, McGill University		
B8.4	The Choice and Partnership Approach (CAPA): Improving Access to Mental Health Care Presented by WILLIAM GARDNER, Professor, University of Ottawa		

Day 2: Wednesday, May 11 / Jour 2 : Le mercredi 11 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

9:45am – 11:00am CONCURRENT SESSIONS C		9 h 45 – 11 h 00 SÉANCES SIMULTANÉES C	
C1: ACCESS AND EQUITY		ACCÈS ET ÉQUITÉ	
Carmichael (Convention Level)			
C1.1	CLEAR toolkit advanced pilot study: Helping health workers address the social causes of poor health Presented by TAL CANTOR, Student, St. Mary's Research Centre		
C1.2	"Talk with me": Perspectives on services for men with problem gambling and housing instability Presented by SARA GUILCHER, Assistant Professor, University of Toronto		
C1.3	Equity in active living among youth: understanding the influence of school policies and programs on screen time through gender and geography-specific analytical approaches Presented by TARUN KATAPALLY, Assistant Professor, Johnson-Shoyama Graduate School of Public Policy		
C1.4	Canadian data sources on ethnic classifications Presented by KELSEY LUCYK, PhD Candidate and Research Associate, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary		
C2: CANCER		CANCER	
Tom Thompson (Convention Level)			
C2.1	Does clinical guidelines affect healthcare quality and populational health : Quebec colorectal cancer screening program Presented by NIZAR GHALI, Health Economist, MSSS		
C2.2	Economic evidence for screening high-risk individuals for lung cancer in Canada Presented by SONYA CRESSMAN, Researcher, Canadian Centre for Applied Research in Cancer Control		
C2.3	Cancer and the healthy immigrant effect: a statistical analysis of cancer diagnosis using a linked Census-cancer registry administrative database Presented by TED MCDONALD, Professor of Economics, University of New Brunswick		
C2.4	“I can’t make a choice if I’m not well informed”: Ontarians’ advice for improving provincial breast cancer screening program materials Presented by LAURA TRIPP , Research Coordinator, McMaster University		
C3: CHRONIC DISEASE MANAGEMENT & ELDERLY		GESTION DES MALADIES CHRONIQUES ET PERSONNES ÂGÉES	
Casson (Convention Level)			
C3.1	Chronic disease, risk factors, and Quality of Life of older adults residing in Ontario subsidised housing Presented by GINA AGARWAL, Associate Professor, McMaster University		
C3.2	Opioid use in adults 65 years and older with chronic pain Presented by MARY-ELLEN HOGAN, PhD student, University of Toronto		
C3.3	Patterns of Health Service Use in Community Living Older Adults with Dementia, Diabetes or Stroke in the Context of Comorbidity: Lessons Learned from Three Retrospective Cohort Studies in Ontario, Canada Presented by LAUREN GRIFFITH, Associate Professor, McMaster University		
C3.4	Trajectories of health system use and survival for community-dwelling persons with dementia: a population-based analysis from Ontario, Canada Presented by SUSAN BRONSKILL, Senior Scientist, Institute for Clinical Evaluative Sciences		
C4: PATIENT ENGAGEMENT		PARTICIPATION DU PATIENT	
Varley (Convention Level)			
C4.1	Using patient stories for organizational learning and improvement Presented by CAROL FANCOTT, Clinical Research Leader, University Health Network		
C4.2	Spreading and Sustaining Patient Engagement Practices in Quality Improvement Presented by ALAIN BIRON, Assistant to the Director, McGill University Health Centre		
C4.3	Transformation from theory to practice: patient involvement with interprofessional teams and the integration of patient-centered practice in mental health settings Presented by MAY HELFAWI, Masters Graduate, University of Ontario Institute of Technology		
C4.4	Goals of care discussions among hospitalized long-term care residents: predictors and associated outcomes of care Presented by HANNAH WONG, Assistant Professor, York University		

C5: QUALITATIVE RESEARCH METHODS		MÉTHODES DE RECHERCHE QUALITATIVES	
Simcoe (Lobby Level)			
C5.1	Barriers and Facilitators to implementation and adoption of the Telehomecare Program for patients with chronic obstructive pulmonary disease and heart failure in Ontario, Canada Presented by VALERIA RAC , Associate Program Director & Director, Clinical Research Division, THETA Collaborative; Assistant Professor, University of Toronto		
C5.2	The challenges of informed choice from the patient's perspective: Results from deliberations with Ontario citizens about mammography screening Presented by JULIA ABELSON , Professor, McMaster University		
C5.3	Examining Choosing Wisely Canada: A nongovernment initiative to reduce unnecessary healthcare services Presented by MARK EMBRETT , Doctoral Candidate, McMaster University		
C5.4	Using Qualitative Research Methods to Produce Ethics and Values Evidence for Health Policy Decision-Making: A case study of women's values and personal experiences with Non-Invasive Prenatal Testing Presented by MEREDITH VANSTONE , Assistant Professor, McMaster University		
C6: MIXED METHODS		MÉTHODES COMBINÉES	
York (Lobby Level)			
C6.1	Why are so many patients dissatisfied with knee replacement surgery? Reflections and results from a multiphase mixed methods study in British Columbia Presented by STIRLING BRYAN , Professor, University of British Columbia / LAURIE GOLDSMITH , Assistant Professor, Simon Fraser University		
C6.2	Can 12 primary health care (PHC) research teams with different objectives and methodologies join forces to collect data that supports the production and measurement of common PHC measures? Presented by SABRINA WONG , Professor, University of British Columbia		
C6.3	The diffusion of indirect comparison meta-analytic methods in the study of drugs: a systematic review and co-authorship network analysis Presented by JOANN BAN , Master's of Science Student, University of Toronto		
C6.4	Building Access to Specialists through eConsultation Presented by CLARE LIDDY , Clinician Investigator, C.T. Lamont Primary Health Care Research Centre		
C7: HEALTH SYSTEM PERFORMANCE		RENDEMENT DU SYSTÈME DE SANTÉ	
Governor General (2nd Floor)			
C7.1	Evaluating the accuracy and usability of the Quebec Drug Information System Presented by AUDE MOTULSKY , Post doctoral fellow, McGill University		
C7.2	Quebec's centralized waiting lists for unattached patients may exacerbate social health inequalities Presented by MYLAINE BRETON , Professeure, Université de Sherbrooke		
C7.3	Improving Patient Flow: The Impact of an Emergency Department Consults Rotation in Two Canadian Teaching Hospitals Presented by SIMON LANDMAN , Internal Medicine Resident, London Health Sciences Centre		
C7.4	Re-defining the Major Determinants of Emergency Department Wait Times Presented by MALCOLM DOUPE , Assistant Professor, University of Manitoba		
C8: HEALTH SYSTEM PERFORMANCE		RENDEMENT DU SYSTÈME DE SANTÉ	
Osgoode (3rd Floor)			
C8.1	Pre-specification of analysis plans: presenting the case for health services research Presented by DOUG MANUEL , Senior Scientist, Ottawa Hospital Research Institute / DAVID HENRY , Senior Core Scientist Aboriginal Health Lead, Institute for Clinical Evaluative Sciences (ICES)		
C8.2	Hospital readmissions after primary unilateral hip or knee replacements: A comparison of inpatient and day surgery Presented by YURIY CHECHULIN , Senior Methodologist, Ontario Ministry of Health and Long-Term Care / MAJA STUPAR , Health Analyst Ontario Ministry of Health and Long-Term Care		
C8.3	PHC Presentation: The Promises and Perils of Big Data in Primary HealthCare Research: What's in it for Patients? (30 minute session) Presented by ALAIN VANASSE , Full Professor, Department of Family Medicine, Faculty of Medicine and Health Sciences, Université de Sherbrooke / EMILY GARD MARSHALL , Associate Professor, Primary Care Research Unit, Dalhousie Family Medicine & Community Health and Epidemiology / FRANK SULLIVAN , Gordon F. Cheesbrough Research Chair and Director of UTOPIAN Family Medicine Teaching Unit, North York General Hospital, Professor, Department of Family & Community Medicine and Dalla Lana School of Public Health, University of Toronto . Honorary Professor, University of Dundee		

11:15am – 12:30pm CONCURRENT SESSIONS D		11 h 15 – 12 h 30 SÉANCES SIMULTANÉES D	
D1: HOME CARE & LONG TERM CARE		SOINS À DOMICILE ET SOINS DE LONGUE DURÉE	
Carmichael (Convention Level)			
D1.1	Understanding the factors that influence seniors having dementia with light care needs being placed into residential care rather than remaining in the community Presented by JACQUELINE GREGORY , Senior Analyst, Canadian Institute for Health Information		
D1.2	Do-not-Resuscitate/Do-not-Hospitalize Orders in Nursing Homes: Are they being done and do they make a Difference? Presented by PETER TANUSEPUTRO , Investigator, Bruyere Research Institute		
D1.3	Hidden risk: Suicide-related behaviour among community-residing older adults receiving home care services in Ontario, Canada Presented by EVA NEUFELD , Senior Research Associate, CRaNHR, Laurentian University		
D1.4	Caregiver distress described through data and understood through lived experience Presented by MAAIKE DE VRIES , Senior Methodologist, Health Quality Ontario		
D2: HEALTH ECONOMICS		ÉCONOMIE DE LA SANTÉ	
Tom Thompson (Convention Level)			
D2.1	Private Drug Plans in Canada: Cost Drivers, 2005 to 2015 Presented by NEVZETA BOSNIC , Senior Economic Analyst, PMPRB		
D2.2	Health Care Costs and Health Behaviours: Estimating the Contribution of Smoking, Unhealthy Alcohol Consumption, Poor Diet, and Physical Activity on Health Care Costs in Ontario Presented by CAROL BENNETT , Senior Research Associate, Ottawa Hospital Research Institute		
D2.3	Venture capital supports valuable health technologies by accident, not by design Presented by PASCALE LEHOUX , Professeur titulaire, Département d'administration de la santé, Université de Montréal		
D3: HEALTH POLICY AND HEALTHCARE REFORM		POLITIQUES DE LA SANTÉ ET RÉFORME DES SOINS DE SANTÉ	
Casson (Convention Level)			
D3.1	Canada's Regulation of Two-Tier Care and the Relationship to Wait Times Presented by COLLEEN FLOOD , Professor, Centre for Health Law, Policy and Ethics, University of Ottawa		
D3.2	Addressing 'waste' in health systems: A critical interpretive synthesis Presented by MICHAEL WILSON , Assistant Professor, McMaster University		
D3.3	Towards a better health technology innovation system: A scoping review of patient and public involvement in technology design and technology assessment Presented by FIONA MILLER , Associate Professor, University of Toronto		
D3.4	eHealth Policy in Canada: A Time for Renewal Presented by KARIM KESHAVJEE , CEO, InfoClin		
D4: PRIMARY HEALTH CARE		SOINS DE SANTÉ PRIMAIRES	
Varley (Convention Level)			
D4.1	Erectile Dysfunction Medications: A Gateway Drug for Men Presented by SEAN SKELDON , MSc Student; Resident, Centre for Health Services and Policy Research, School of Population and Public Health, University of British Columbia; Department of Community and Family Medicine, University of Toronto		
D4.2	Potentially unnecessary diagnostic imaging for low back pain in Alberta Presented by XI-KUAN CHEN , Program Lead, Canadian Institute for Health Information		
D4.3	Patient perspectives on electronic consultation as an acceptable alternative to traditional referrals: the Champlain BASE eConsult service Presented by JUSTIN JOSCHKO , Research Assistant, C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute		
D4.4	A Complex Intervention to Optimize the Health of Older Adults: Understanding the Implementation of Health TAPESTRY Presented by LISA DOLOVICH , Research Director & Associate Professor, Department of Family Medicine, McMaster University		

D5: PATIENT ENGAGEMENT		PARTICIPATION DU PATIENT	
Simcoe (Lobby Level)			
D5.1	Experiences with Hospital Discharge Communication among Older Adults: Results from the 2014 Commonwealth Fund International Health Policy Survey Presented by KYLE KEMP, PhD Student, University of Calgary		
D5.2	Creating a Patient and Family Centred Hospital: A Case Study of an Ontario Hospital Presented by ERICA BRIDGE, Graduate Student, Brock University / MADELYN LAW, Associate Professor, Brock University		
D5.3	Patient engagement in the Primary and Integrated Health Care Innovation Networks: Learnings to date Presented by SABRINA WONG, Professor, University of British Columbia		
D5.4	Making it work: Developing, building, implementing and researching useful digital tools for medication management Presented by KELLY GRINDROD, Assistant Professor, University of Waterloo / ANNETTE MCKINNON, ePatient, Patient Researcher		
D6: ACCESS & EQUITY		ACCÈS ET ÉQUITÉ	
York (Lobby Level)			
D6.1	Clinical Telemedicine Utilization in Ontario over the Ontario Telemedicine Network: geographic patterns Presented by JOHN HOGENBIRK, Senior Research Associate, Centre for Rural and Northern Health Research		
D6.2	Variations in the availability and utilization of colonoscopy resources in Ontario Presented by COLLEEN WEBBER, PhD Candidate, Queen's University		
D6.3	The effect of cost on access to prescription medicines for older adults in Canada and ten comparable countries Presented by AUGUSTINE LEE, Student, University of British Columbia / STEVE MORGAN, Professor, University of British Columbia		
D6.4	Trends and determinants of potentially inappropriate prescribing of Diane-35 for oral contraception among young women in British Columbia Presented by SUZANNE MAGINLEY, Graduate student (MSc), Centre for Health Services & Policy Research, School of Population & Public Health - University of British Columbia		
D7: MICROSIMULATION / NEW DATA ANALYTICS		MICROSIMULATION / NOUVELLES MÉTHODES D'ANALYSE DES DONNÉES	
Governor General (2nd Floor)			
D7.1	Describing and Assessing Record Linkage between Ontario Administrative Health Data and the Citizenship and Immigration and Vital Statistics—Death Registries Presented by MARIA CHIU, Staff Scientist, Institute for Clinical Evaluative Sciences		
D7.2	Projecting diabetes prevalence in Canada: An application of microsimulation modeling Presented by DOUGLAS MANUEL, Senior Scientist, Ottawa Hospital Research Institute		
D7.3	The relationship between primary care physician utilization and hospitalizations for uncomplicated hypertension, an ambulatory care sensitive condition Presented by ROBIN WALKER, Research Associate, Libin Cardiovascular Institute of Alberta		
D7.4	Evaluation of Healthcare Financing Alternatives, Using a Microsimulation Tool: The Case of Medical Saving Accounts Presented by SAHBA EFTEKHARY, PhD student, University of Toronto, Institute of Health Policy, Management and Evaluation		
D8: MENTAL HEALTH & YOUTH AND EMERGENGING ADULTS		SANTÉ MENTALE ET ADOLESCENTS ET JEUNES ADULTES	
Osgoode (3rd Floor)			
D8.1	Collateral benefits: Unintended consequences of the Roots of Empathy program Presented by RANDY FRANSOO, Research Scientist, Manitoba Centre for Health Policy, University of Manitoba		
D8.2	Institutional Policy Barriers to Appropriate Care Settings: Youth Receiving Adult Mental Health Services in Ontario Presented by ASHLEIGH MIATELLO, PhD Candidate, Health Policy, McMaster University		
D8.3	Enhancing Health System Performance and Continuity of Care: Opportunities to Improve the Mental Health of Emerging Adults in Canada Based on Lessons From A Case Study of Youth to Adult Mental Health Service Transitions in Ontario Presented by GILLIAN MULVALE, Assistant Professor, Health Policy and Management, McMaster University / LARA DI TOMASSO, Research and policy analyst, Mental Health Commission of Canada		

1:45pm – 3:00pm CONCURRENT SESSIONS E		13 h 45 – 15 h 00 SÉANCES SIMULTANÉES E	
E1: ACCESS & EQUITY – PRIMARY CARE		ACCÈS ET ÉQUITÉ - SOINS PRIMAIRES	
Carmichael (Convention Level)			
E1.1	Access to primary care: cumulative barriers and disparities across 11 countries Presented by LISA CORSCADDEN, Senior Researcher, Bureau of Health Information		
E1.2	The relationship between rates of avoidable hospitalization and local access to primary healthcare in Manitoba First Nations Communities: Results from the Innovation in Community-based Primary Healthcare Supporting Transformation in the Health of First Nations in Manitoba (IPHIT) Study Presented by NASER IBRAHIM, University of Manitoba		
E1.3	Can a nursing/community staff-centric primary healthcare system deliver on health outcomes in rural and remote First Nation communities? Presented by JOSÉE G. LAVOIE, Associate Professor, University of Manitoba		
E1.4	Does a pay-for-performance program for primary care physicians alleviate health inequity in childhood vaccination rates? Presented by JENNIFER ENNS, Post-doctoral fellow, Manitoba Centre for Health Policy		
E2: PRIMARY HEALTH CARE		SOINS DE SANTÉ PRIMAIRES	
Tom Thompson (Convention Level)			
E2.1	A Population Based Analysis of the Impact of a Provincial Quality Improvement Program on Primary Health Care in Ontario Presented by MICHAEL GREEN, Director, Queen's University Centre for Health Services and Policy Research		
E2.2	How does primary care organization and funding model impact quality of patient care? Presented by ALAN KATZ, Director, Manitoba Centre for Health Policy, University of Manitoba		
E2.3	What provider and practice characteristics predict the offering of non-office based services (care in other settings and community outreach) among family physicians? Findings from the Models and Access Atlas of Primary Care Providers in Nova Scotia (MAAP-NS) Study Presented by EMILY GARD MARSHALL, Researcher, Dalhousie University		
E2.4	Effect of comprehensive primary care model on end-of-life care and care outcomes: A population-based retrospective cohort study in Ontario, Canada Presented by MICHELLE HOWARD, Assistant Professor, PhD, Department of Family Medicine, McMaster University		
E3: ACCESS & EQUITY IN MENTAL HEALTH		ACCÈS ET ÉQUITÉ EN SANTÉ MENTALE	
Casson (Convention Level)			
E3.1	Canada's Residential School System: Measuring the impact of familial attendance on health and mental health outcomes Presented by CHRISTINA HACKETT, PhD Student, McMaster University		
E3.2	Time Trends in Mental Health and Addictions Service Utilization in Immigrant Children and Youth in Ontario, Canada Presented by NATASHA SAUNDERS, Staff Pediatrician, The Hospital for Sick Children		
E3.3	Mental health service utilization in Canadian Veterans living in Ontario: a retrospective study of using administrative healthcare data Presented by ALYSON MAHAR, PhD Candidate, Queen's University		
E3.4	A Population based Study of Access to Psychiatric Services among Ontario Nursing Home Residents Presented by CHRISTOPHER PERLMAN, Assistant Professor, University of Waterloo		
E4: MATERNAL AND CHILD HEALTH		SANTÉ MATERNELLE ET INFANTILE	
Varley (Convention Level)			
E4.1	The Prenatal Care of Women Who Give Birth to Children With Fetal Alcohol Spectrum Disorder: A Missed Opportunity for Prevention of Alcohol Exposed Pregnancies Presented by DEEPA SINGAL, PhD Candidate, University of Manitoba, Department of Community Health Sciences		
E4.2	Reducing Caesarean sections with CARE Presented by ESTHER SHOEMAKER, PhD Candidate, University of Ottawa IVY BOURGEOULT, CIHR Chair in Gender, Work and HHR, University of Ottawa		
E4.3	False positive newborn screening results for cystic fibrosis: Impact on infants' and mothers' health service utilization Presented by ROBIN HAYEEMS, Assistant Professor, Institute of Health Policy Management and Evaluation, Hospital for Sick Children Research Institute		
E4.4	Determining the Optimal Timing of Delivery for Women with Gestational Diabetes Presented by AMY METCALFE, Assistant Professor, University of Calgary		

E5: PHARMACEUTICAL POLICY		POLITIQUE PHARMACEUTIQUE	
Simcoe (Lobby Level)			
E5.1	A population-based analysis of long-term sedative use among community-dwelling adults Presented by DEIRDRE WEYMANN , Health Economist, BC Cancer Agency & University of British Columbia School of Population and Public Health		
E5.2	Generic Drugs in Canada, 2014 Presented by ELENA LUNGU , Manager, National Prescription Drug Utilization Information System, Patented Medicine Prices Review Board / Government of Canada		
E5.3	Shining Light on Pharmaceutical Governance: An Inventory of Policy and Structural Issues and Corresponding Anti-Corruption Measures Presented by JILLIAN KOHLER , Associate Professor, Leslie Dan Faculty of Pharmacy, University of Toronto		
E5.4	Risks of chronic prescription opioid use among incident prescription opioid users: a population-based analysis Presented by KATE SMOLINA , Professor, University of British Columbia		
E6: MENTAL HEALTH		SANTÉ MENTALE	
York (Lobby Level)			
E6.1	Schizophrenia, Diabetes and Quality of Care: A Population-Based Study Presented by PAUL KURDYAK , Director, Health Outcomes and Performance Evaluation, Centre for Addiction and Mental Health		
E6.2	Considering Seniors' Mental Health in Policy and Healthcare Reform Presented by KIMBERLEY WILSON , Assistant Professor, Adult Development & Aging, University of Guelph		
E6.3	Ascertainment of Dementia: Where do Patients Receive Care? Presented by MATHIEU CHALIFOUX , Methodologist, Institute for Clinical Evaluative Sciences		
E6.4	The Influence of Care Philosophies on Transitions between Child and Adult Mental Health Services: Perceptions of Youth, Family Members and Service Providers in Ontario Presented by GILLIAN MULVALE , Assistant Professor, Health Policy and Management		
E7: HEALTH SYSTEM PERFORMANCE		RENDEMENT DU SYSTÈME DE SANTÉ	
Governor General (2nd Floor)			
E7.1	Relationship between Hospital Patient Safety Events and Medico-Legal Cases Presented by QIAN YANG , Manager, Medical Care Analytics & Development, Canadian Medical Protective Association / CATHY ZHANG , Supervisor, Statistical & Data Analysis / Senior Statistician, Canadian Medical Protective Association		
E7.2	Measuring Patient Safety in Canadian Hospitals Presented by JOSEPH EMMANUEL AMUAH , Sr. Researcher, Canadian Institute for Health Information / JENNIFER RODGERS , Patient Safety Improvement Lead, Canadian Patient Safety Institute		
E7.3	The gridlock in Canadian Hospitals: which patients are overstaying, to what extent, and why? Presented by KISALAYA BASU , Senior Economic Advisor, Health Canada		
E8: QUALITATIVE RESEARCH METHODS		MÉTHODES DE RECHERCHE QUALITATIVES	
Osgoode (3rd floor)			
E8.1	Understanding the Landscape of Oncology Medication Incident Reporting in Ontario: A Provincial Initiative Presented by JANE YAO , Specialist, Policy, Cancer Care Ontario		
E8.2	Institutional Ethnography in Health Systems Research Presented by EMILY ROWLAND , Doctoral Student, University of Toronto		
E8.3	How do Early Intervention Services for First Episode Psychosis Facilitate the Benefits of Having a First Episode Psychosis? Presented by GERALD JORDAN , Student, McGill University		
E8.4	Using qualitative survey data for quality improvement in palliative care: Patient experiences in homecare, hospice, and hospital Presented by DARYL BAINBRIDGE , Senior Research Coordinator, McMaster University		

Day 2: Wednesday, May 11 / Jour 2 : Le mercredi 11 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

3:15pm – 4:30pm CONCURRENT PANEL SERIES		15 h 15 – 16 h 30 SÉRIE DE PANELS SIMULTANÉS	
PRIMARY HEALTH CARE		SOINS DE SANTE PRIMAIRES	
Carmichael (Convention Level)			
CP1	In a sea of data and measures how do we navigate to ensure the right information reaches its destination? Creating a learning system using primary care performance reporting for patients, policy makers and providers. Presented by SABRINA T. WONG , Professor , Centre for Health Services and Policy Research & School of Nursing, University of British Columbia / JULIA LANGTON , Research Associate, Centre for Health Services and Policy Research, University of British Columbia / SHARON JOHNSTON , Associate Professor, Department of Family Medicine, University of Ottawa & Bruyere Research Institute / JULIA ABELSON , Professor, Department of Clinical Epidemiology & Biostatistics, Centre for Health Economics and Policy, Analysis, McMaster University / MARY BYRNES , Manager, Primary Health Care Information, Canadian Institute for Health Information		
HEALTH POLICY AND HEALTHCARE REFORM		POLITIQUES EN MATIÈRE DE SANTÉ ET RÉFORME DES SOINS DE SANTÉ	
Tom Thompson (Convention Level)			
CP2	We asked, you answered. An innovative method to sourcing answers to pressing health policy and health care questions. A panel discussion. Moderated by SIMON HAGENS , Director, Benefits Realization, Canada Health Infoway Presented by ERIKA YATES , Senior Research Project Manager, Institute for Clinical Evaluative Sciences / TRACY JOHNSON , Director, Health System Analysis and Emerging Issues, Canadian Institute for Health Information / CHI-LING JOANNA SINN , PhD Candidate, School of Public Health and Health Systems, University of Waterloo / GREG HORNE , National Lead, Healthcare, SAS / YOSHIKO NAKAMACHI , ASP Lead, Program Manager, Sinai Health System - University Health Network Antimicrobial Stewardship Program		
HOME CARE AND LONG TERM CARE		SOINS À DOMICILE ET DES SOINS DE LONGUE DURÉE	
Casson (Convention Level)			
CP3	Improving Quality in Long Term Care by Collaborating between Decision Makers and Researchers Presented by WALTER WODCHIS , Associate Professor, Institute of Health Policy, Management, and Evaluation - University of Toronto / ANNA GREENBERG , Vice-President Health System Performance, Health Quality Ontario / GAIL DOBELL , Director, Performance Measurement , Health Quality Ontario / FREDRIKA SCARTH , Director, HQO Liaison and Program Development, Ontario Ministry of Health and Long-Term Care		
COLLABORATIVE HEALTHCARE IMPROVEMENT PARTNERSHIPS		PARTENARIATS DE COLLABORATION AU SERVICE DE L'AMÉLIORATION DES SOINS DE SANTÉ	
Varley (Convention Level)			
CP4	Pan-Canadian Real-world Health Data Network (PRHDN): A joint update with CIHI, Statistics Canada and CIHR and a dynamic consultation Presented by P. ALISON PAPRICA , Director, Strategic Partnerships, Institute for Clinical Evaluative Sciences / BRENT DIVERTY , Vice President, Programs, Canadian Institute for Health Information / LYNN BARR-TELFORD , Director General, Health, Justice and Special Surveys Statistics Canada / ROBYN TAMBLYN , Scientific Director, CIHR – Institute of Health Services and Policy Research / KIMBERLYN MCGRAIL , Scientific Advisor and Chair of the Advisory Board Population Data BC		

COLLABORATIVE HEALTHCARE IMPROVEMENT PARTNERSHIPS

PARTENARIATS DE COLLABORATION POUR L'AMÉLIORATION DES SOINS DE SANTÉ

Simcoe (Lobby Level)

CP5 Integrated Knowledge Translation: The Current State of Play

Presented by **ANNA GAGLIARDI**, Scientist, University Health Network / **INGRID BOTTING**, Assistant Professor and Director WRHA, Winnipeg Regional Health Authority / **GAYLE SCARROW**, Director, Knowledge Translation, Michael Smith Foundation for Health Research / **BEVERLEY HOLMES**, Vice-President, Research & Impact, Michael Smith Foundation for Health Research / **IAN GRAHAM**, Senior Scientist/Professor, Ottawa Hospital Research Institute/University of Ottawa

MATERNAL AND CHILD HEALTH

SANTÉ MATERNELLE ET INFANTILE

York (Lobby Level)

CP6 Improving Pediatric Care with Innovative Models of Patient/Family Engagement

Moderated by **WILLIAM GARDNER**, PhD (Moderator). CHEO Research Institute – University of Ottawa Chair in Child and Adolescent Psychiatry and Professor of Epidemiology, University of Ottawa

Presented by **KATHLEEN PAJER**, MD MPH. Chief of Psychiatry, Children's Hospital of Eastern Ontario and Professor of Psychiatry, University of Ottawa / **JANA DAVIDSON**, MD. Vice-President Medical Affairs & Psychiatrist in Chief, British Columbia Children's Hospital / **MIREILLE BROUSSEAU**, Patient/Family Engagement Specialist at CHEO / **SIMON DAVIDSON**, MD. Professor of Psychiatry & Pediatrics, University of Ottawa

PATIENT ENGAGEMENT

PARTICIPATION DES PATIENTS

Governor General (2nd Floor)

CP7 Caregiver voices: how engaging caregivers informs our work

Moderated by **SUSAN BRIEN**, Director, Public Reports, Health Quality Ontario

Presented by **CAROLE ANN ALLOWAY**, Caregiver / **CHRISTA HAANSTRA**, Executive Lead, Communications, The Change Foundation / **LAURA VISSER**, Facilitator, Client & Caregiver Engagement, Toronto Central Community Care Access Centre / **SARAH CRAWFORD**, Caregiver / **PAUL HOLYOKE**, Director, St Elizabeth Research Centre / **SARA SHEARKHANI**, Caregiver

PATIENT ENGAGEMENT

PARTICIPATION DES PATIENTS

Osgoode (3rd Floor)

CP8 Patient engagement: the new hard currency in healthcare

Presented by **MARIA JUDD**, Senior Director, Canadian Foundation for Healthcare Improvement / **ANGELA MORIN**, Patient and Family Experience Advisor, Kingston General Hospital and Southeast Regional Cancer Centre / **CAROL FANCOTT**, Clinical Research Leader, Collaborative Academic Practice University Health Network / **PATRICIA O'CONNOR**, Senior Advisor, Patient Engagement, McGill University Health Centre and Clinical Improvement Advisor, Canadian Foundation for Healthcare Improvement

Day 3: Thursday, May 12 / Jour 3 : Le jeudi 12 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

9:30am – 10:45am CONCURRENT SESSIONS F		9 h 30 – 10 h 45 SÉANCES SIMULTANÉES F	
F1: ACCESS & EQUITY		ACCÈS ET ÉQUITÉ	
Carmichael (Convention Level)			
F1.2	The persistence of health inequalities over time: a study measuring trends in income-related inequality and identifying areas for action Presented by EZRA HART, Analyst, Canadian Institute for Health Information		
F1.2	Using Equity Measures to Evaluate Policies and Interventions Effect on Health Equity Presented by DAN CHATEAU, Assistant Professor, University of Manitoba		
F1.3	Socioeconomic gradient in health in Canada: Is the gap widening or narrowing? Presented by MOHAMMAD HAJIZADEH, Assistant Professor, School of Health Administration, Dalhousie University		
F1.4	Diminishing sex differences: a study of 20 year trends in male and female mortality in Ontario Presented by LAURA ROSELLA, Assistant Professor, University of Toronto		
F2: HOME CARE & LONG TERM CARE		SOINS À DOMICILE ET SOINS DE LONGUE DURÉE	
Tom Thompson (Convention Level)			
F2.1	Does increased home nursing lead to decreased hospital costs?: An end-of-life costing analysis in three provinces Presented by HSIEN SEOW, Associate Professor, McMaster University		
F2.2	Disability in Nursing Home Residents: The Role of Resident and Nursing Home Characteristics Presented by NATASHA LANE, MD/PhD Candidate, University of Toronto		
F2.3	Multimorbidity Prevalence and Patterns in Ontario Older Adults Receiving Home Care Services Presented by DAVID KANTERS, Health Research Methodology Master's Student, McMaster University		
F2.4	The variation of statin therapy among long-term care residents, physicians, and facilities in Ontario Presented by MICHAEL CAMPITELLI, Staff Scientist, Institute for Clinical Evaluative Sciences		
F3: CHRONIC DISEASE MANAGEMENT		GESTION DES MALADIES CHRONIQUES	
Casson (Convention Level)			
F3.1	Risk Factors and Avoidability of Readmission within 7 Days after Hospitalization for Heart Failure: A Mixed Methods Health Record Audit Presented by CATHY EASTWOOD, Senior Research Associate, University of Calgary		
F3.2	Characteristics and Healthcare Utilization Patterns of COPD Patients across Multiple Sectors of Care in Alberta Presented by SARA GRIMWOOD, Sr.Analyst, Canadian Institute for Health Information		
F3.3	Registered Nurse Staffing and Health Outcomes of Patients with Type 2 Diabetes within Primary Care in South Eastern Ontario Presented by JULIA LUKEWICH, Assistant Professor, Memorial University of Newfoundland		
F3.4	Potentially inappropriate medications in elderly patients: prevalence and changes during hospital stay Presented by DANIALA WEIR, Doctoral Candidate, McGill University		
F4: HEALTH HUMAN RESOURCES		RESSOURCES HUMAINES EN SANTÉ	
Varley (Convention Level)			
F4.1	The Personal Support Worker Training System Presented by KEIRA GRANT, MSc Candidate, University of Toronto		
F4.2	A Synthesis of Recent Analyses of Health Human Resources Requirements and Labour Market Dynamics in High-Income OECD Countries Presented by GAIL TOMBLIN MURPHY, Senior Analyst, Dalhousie University		
F4.3	Enhancing the job stickiness of new nursing graduates: Does the employer organization participation in the Nursing Graduate Guarantee initiative make a difference? Presented by MOHAMAD ALAMEDDINE, Associate Professor and Chairperson, American University of Beirut		
F4.4	Nurse staffing policies and patient death in acute care hospitals: A longitudinal study Presented by CHRISTIAN ROCHEFORT, Assistant Professor, University of Sherbrooke		
F5: HEALTH ECONOMICS		ÉCONOMIE DE LA SANTÉ	
Simcoe (Lobby Level)			
F5.1	Cost-effectiveness of Argus II Retinal Prosthesis System for Advanced Retinitis Pigmentosa Presented by HONG ANH TU, Health Economist, Health Quality Ontario		
F5.2	Realization of training and credentialing milestones of Canadians who study abroad and other IMG Presented by MARIA MATHEWS, Professor of Health Policy/Health Care Delivery, MUN		
F5.3	Health utilities in socioeconomically marginalized chronic hepatitis C patients Presented by YASMIN SAEED, Master's student, Leslie Dan Faculty of Pharmacy, University of Toronto		

F6: PATIENT ENGAGEMENT		PARTICIPATION DU PATIENT
York (Lobby Level)		
F6.1	The Evolution of Patient Engagement: Experience-based Co-design in a Process Improvement Initiative Presented by KOTHAI KUMANAN , Student/Research Associate, Saint Mary's University/Nova Scotia Health Authority	
F6.2	Improving end-of-life care in the community using the RESPECT on-line prognostication tool Presented by AMY HSU , Research Fellow, Ottawa Hospital Research Institute / SARAH BEACH , Research Associate, Ottawa Hospital Research Institute / CAROL BENNETT , Epidemiologist, Ottawa Hospital Research Institute	
F6.3	General Public Views on Uses and Users of Administrative Health Data Presented by P. ALISON PAPRICA , Director, Strategic Partnerships, Institute for Clinical Evaluative Sciences / MICHAEL SCHULL , President & CEO Institute for Clinical Evaluative Science	
F6.4	A network perspective on patient engagement and its impact on health outcomes in Canada and other jurisdictions Presented by YI-SHENG CHAO , Postdoctoral fellow, Université de Montréal	
F7: PRIMARY HEALTH CARE		SOINS DE SANTÉ PRIMAIRES
Governor General (2nd Floor)		
F7.1	Were there health system cost savings associated with changing from fee-for-service to capitation payment for primary care patients in Ontario? Presented by RICHARD GLAZIER , Senior Scientist, Institute for Clinical Evaluative Sciences	
F7.2	Physicians who do and do not bill incentives in British Columbia: a demise of primary care? Presented by KIM MCGRAIL , Associate Professor, Centre for Health Services and Policy Research, University of British Columbia	
F7.3	Canada and The Commonwealth Fund 2015 International Health Policy Survey of Primary Care Physicians Presented by ALISON YTSMA , Senior Analyst, Canadian Institute for Health Information	
F7.4	Implementation Issues of a Case Management Program for Frequent Users with Chronic Diseases in Primary Care Presented by MAUD-CHRISTINE CHOUINARD , Professor, Université du Québec à Chicoutimi	
F8: HEALTH SYSTEM PERFORMANCE		RENDEMENT DU SYSTÈME DE SANTÉ
Osgoode (3rd Floor)		
F8.1	Developing a Measure of 'Public Health Sensitive Conditions' for Child Health Presented by ELAINE BURLAND , Research Manager, Manitoba Centre for Health Policy	
F8.2	Hip fracture mortality by teaching status of treating hospital Presented by KATIE SHEEHAN , Postdoctoral Fellow, University of British Columbia	
F8.3	WatLX®: A system-wide patient experience measure for rehabilitation Presented by JOSEPHINE MCMURRAY , Assistant Professor, Wilfrid Laurier University	
F8.4	Variations in post-acute care pathways for hip fracture patients Presented by KRISTEN PITZUL , PhD Candidate, University of Toronto	

11:00am – 12:15pm CONCURRENT SESSIONS G		11 h 00 – 12 h 15 SÉANCES SIMULTANÉES G	
G1: KNOWLEDGE TRANSLATION & EXCHANGE		APPLICATION ET ÉCHANGE DE CONNAISSANCES	
Carmichael (Convention Level)			
G1.1	AGREE-HS: A new knowledge translation tool to direct the development, reporting, and appraisal of health systems guidance Presented by KAREN SPITHOFF, Research Program Manager, Department of Oncology, Faculty of Health Sciences, McMaster University		
G1.2	"It's very challenging for everyone": Working with interprofessional teams to enhance their capacity to care for hospitalized older adults with impaired cognition Presented by ROBIN URQUHART, Assistant Professor, Dalhousie University		
G1.3	Iterative design of patient mailouts post-myocardial infarction Presented by HOLLY WITTEMAN, Assistant Professor, Université Laval		
G1.4	Do I become a living organ donor for my sick relative? Understanding drivers of decision making in adult-to-adult living liver donation Presented by JUSTYNA BARTOSZKO, Graduate Student, Institute of Health Policy, Management and Evaluation / ALEXANDRA SHINGINA, Gastroenterology Fellow, University of Toronto		
G2: MATERNAL AND CHILD HEALTH		SANTÉ MATERNELLE ET INFANTILE	
Tom Thompson (Convention Level)			
G2.1	Aboriginal children's acute care hospitalization in Canada, 2006 to 2008 Presented by ANNE GUEVREMONT, Senior Research Analyst, Statistics Canada		
G2.2	Recent progress in the prevalence of overweight and obesity in Canadian children Presented by CELIA RODD, Associate Professor, University of Manitoba		
G2.3	Infant Health Outcomes and economic fluctuations: Evidence for Canada Presented by SANDRA MILICIC, PhD Candidate, McMaster University		
G2.4	Predictors of using the emergency department as a first point of contact for a mental health problem in Ontario children and youth Presented by PETER GILL, Paediatric Resident, The Hospital for Sick Children, Department of Paediatrics, University of Toronto		
G3: CHRONIC DISEASE MANAGEMENT		GESTION DES MALADIES CHRONIQUES	
Casson (Convention Level)			
G3.1	Small area variation in rates of high-cost health care use in Nova Scotia: Why are some areas more costly than others? Presented by GEORGE KEPHART, Professor, Community Health and Epidemiology, Dalhousie University		
G3.2	Improving access and reducing costs of care for overactive bladder through a multidisciplinary delivery model Presented by TRAFFORD CRUMP, Adjunct Lecturer, University of Calgary		
G3.3	Multimorbidity in Canada: Examining Prevalence and Patterns of Multiple Chronic Diseases Using a National Electronic Medical Record Database Presented by KATHRYN NICHOLSON, Doctoral Candidate, Western University		
G3.4	Patients' and healthcare providers' experiences with community-based wound care services in Toronto Presented by VALERIA RAC, Associate Program Director & Director, Clinical Research Division, THETA Collaborative; Assistant Professor, University of Toronto		
G4: PHARMACEUTICAL POLICY		POLITIQUE PHARMACEUTIQUE	
Varley (Convention Level)			
G4.1	CompassRx, 2014/15 - A PMPRB Annual Public Drug Plan Expenditure Report Presented by ELENA LUNGU, NPDUI, Patented Medicine Prices Review Board		
G4.2	Policy and Practice: Evaluating Good Governance Policies in Brazil's Pharmaceutical Sector Presented by MARTHA GABRIELA MARTINEZ, Student, University of Toronto		
G4.3	An evaluation of conflict of interest policies adopted by Canadian professional medical associations pertaining to accredited continuing medical education Presented by ADRIENNE SHNIER, Ph.D. candidate, York University		
G4.4	Geographic Variations in Prescription Opioid Dispensations and Deaths Among Women and Men in British Columbia, Canada Presented by EMILIE GLADSTONE, Pharmaceutical Policy Researcher, School of Population and Public Health, University of British Columbia		
G5: HEALTH HUMAN RESOURCES		RESSOURCES HUMAINES EN SANTÉ	
Simcoe (Lobby Level)			
G5.1	A look into the employment challenges of new certified medical specialists in Canada Presented by DANIELLE FRECHETTE, Executive Director, Office of Health Systems Innovation and External Relations		
G5.2	Do Northern Ontario School of Medicine medical graduates practice close to home? Presented by JOHN HOGENBIRK, Senior Research Associate, Centre for Rural and Northern Health Research		
G5.3	Signs of Change: What the Medical Workforce Knowledgebase tells us about Canada's future physician workforce Presented by SHANNA DIMILLO, Data and Research Analyst, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada CAROLE JACOB, Manager, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada		
G5.4	Exit Strategies: The Timing and Pattern of Physician Retirements in British Columbia Presented by LINDSAY HEDDEN, Post-doctoral Fellow, Centre for Clinical Epidemiology and Evaluation		

G6: MENTAL HEALTH		SANTÉ MENTALE	
York (Lobby Level)			
G6.1	Predicting psychiatric readmission: sex-specific models to predict 30-day readmission following acute psychiatric hospitalization Presented by LUCY BARKER , Psychiatry Resident, University of Toronto		
G6.2	Major mental illness among super-users of medical services Presented by JENNIFER HENSEL , Physician, Women's College Hospital		
G6.3	Factors associated with 30 day hospital readmission in adults with dual diagnosis Presented by ELIZABETH LIN , Provincial System Support Program, Centre for Addiction & Mental Health		
G6.4	Hospital Care for Children and Youth with Mental Disorders in Canada Presented by MICHELLE PARKER , Program Lead, Health Reports, Canadian Institute for Health Information		
G7: KNOWLEDGE TRANSLATION & EXCHANGE		APPLICATION ET ÉCHANGE DE CONNAISSANCES	
Governor General (2nd Floor)			
G7.1	Policy court: Where participation, policy and research meet at the Rehabilitation research living lab (Mall as a living lab) Presented by KEIKO SHIKAKO-THOMAS , Assistant Professor, McGill University		
G7.2	Using a Surgical Quality Improvement Plan to Bridge the Gap between Data and Improvement Presented by TIMOTHY JACKSON , Provincial Surgical Lead, General Surgeon Health Quality Ontario, University Health Network		
G7.3	Evaluating a training program designed to support evidence-informed policymaking: Lessons from Health Systems Learning Presented by KAELAN ANDREW MOAT , Scientific Lead, Health Systems Evidence and Learning, McMaster Health Forum		
G7.4	A Systematic Assessment of Barriers, Facilitators, Context, and Knowledge Translation Tactics within a Provincial Knowledge Translation Consult Service Presented by KELLY MRKLAS , KT Implementation Scientist, Alberta Health Services		
G8: HEALTH POLICY AND HEALTHCARE REFORM		POLITIQUES DE SANTÉ ET RÉFORME DES SOINS DE SANTÉ	
Osgoode (3rd Floor)			
G8.1	Unpacking regional variations in hysterectomy rates across Ontario: where is the quality gap? Presented by ERIK HELLSTEN , Manager, Quality Standards Strategy, Health Quality Ontario		
G8.2	Effects of British Columbia Hospital Closures on Delivery of Health Care Services and the Population's Health Presented by DIMITRA PANAGIOTOGLOU , PhD Candidate, University of British Columbia		
G8.3	A Review of the Ranked Performance of Canada's Health System on the International Stage Presented by SAID AHMAD MAISAM NAJAFIZADA , PhD Candidate, University of Ottawa/Population Health / DEBORAH COHEN , Senior Researcher, Adjunct Professor, Canadian Institute for Health Information, University of Ottawa		
G8.4	Post-discharge mortality, readmissions and emergency department visits in the context of Canadian innovations in primary care delivery Presented by BRUNO RIVERIN DESCHÉNES , Doctoral student, McGill University		

Concurrent Sessions Guide

Guide des séances simultanées

Day 1: Tuesday, May 10 / Jour 1 : Le mardi 10 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

11:00am – 12:15pm CONCURRENT SESSIONS A

SOINS DE SANTÉ PRIMAIRES

A1: HEALTH POLICY & SYSTEM PERFORMANCE

POLITIQUES DE SANTÉ ET RENDEMENT DU SYSTÈME

Carmichael (Convention Level)

A1.1 Moments that mattered: Building organizational capacity for quality palliative/end-of-life care through practice development

Presented by **DON WILDFONG**, Chair, Continuing Education & Specialty Programs, Conestoga College Institute of Technology and Advanced Learning

This session will describe an innovative organizational knowledge translation initiative between an academic health sciences centre and an existing local residential hospice. The purpose of this collaboration was to prepare registered nurses and personal support workers with the capabilities to staff a new hospice with diverse care needs. A customized practice development approach was undertaken to meet workforce requirements for an expanding residential hospice organization. A capability-driven model and unique pedagogical framework were used to respond to the needs for increasing organizational capacity for excellence in practice within the hospice organization, specifically in addressing areas identified through a needs-based gap analysis. Extensive stakeholder consultation and subject matter engagement informed priority-setting related to the design and development of two new educational programs that targeted capacity needs of the local service delivery organization. The programs were intended to be additive and complimentary to existing education in the field. Two cohorts in both the Enhanced Personal Support Worker Program - Palliative/End-of-Life Care (125 hours) and Nursing - A Palliative Approach to Care Program (180 hours) participated in the organizational practice development initiative. The first cohort was completed in June 2015, in advance of the opening of the new hospice caring for people with diverse life-limiting illnesses and ranging across the lifespan, and the second was completed in March 2016. A multi-level impact analysis was completed to determine achievement of desired outcomes, including contributions to national and local strategies to integrate a palliative approach to care. Both programs have recently been offered with other local residential hospices and are being offered in a mixed cohort delivery model through formal continuing education at Conestoga College. The education-practice collaborative partnership between Conestoga College and Lisaard House/Innisfree House was recognized as the Best Corporate/Not-for-Profit Partnership in 2015. The success of this initiative has yielded interest from residential hospices across Ontario, resulting in several opportunities to bring these capacity-capability-building programs to scale within the province.

Co-Author(s): Don Wildfong, Conestoga College Institute of Technology and Advanced Learning / Connie Dwyer, Lisaard House/Innisfree House Residential Hospices

A1.2 Quality and impact of government-funded medication management services in Ontario

Presented by **LINDA MACKEIGAN**, Associate Professor, Leslie Dan Faculty of Pharmacy, University of Toronto

In 2007 Ontario began reimbursing community pharmacies for medication reviews (MedsCheck Annuals) for patients taking multiple medications. MedsCheck Diabetes followed in 2010 and Pharmaceutical Opinions to prescribers in 2011. This study aimed to determine the quality of these medication management services (MMS) and their impact on patients, physicians, and pharmacists/pharmacies. The mixed methods design included linked health administrative database analyses (2007-2013 dataset); 46 key informant interviews with pharmacy corporation executives and managers, pharmacy owners, and external policy stakeholders; audit of a random sample of 1700 MMS records in 38 community pharmacies; surveys of MC recipients (N=380) and community pharmacists (in progress); and physician interviews (in progress). Quantitative analyses used both descriptive and regression modelling techniques. Interpretative content analysis was applied to interview data. Service quality and clinical impact assessments were based on audit data: 2 clinical pharmacists independently applied pre-established criteria to service records and arrived at consensus ratings. Key informants' reports that implementation strategies prioritized maximizing service volume for MedsCheck Annuals (MCA) were supported by significant MCA claims growth from 2010 onwards. As service volume increased patient complexity decreased (fewer seniors, lesser disease burden, fewer prescription medications). Similarly, informants' acknowledgement that quality received little attention was corroborated by audit data showing high variability in completeness of service documentation for both MCAs and Pharmaceutical Opinions (POs). However, for the 50% of POs that clearly met eligibility requirements, 67% were judged to have moderate to marked clinical impact, consistent with claims data indicating that 73% of POs resulted in a prescription change. Over 6 years 36% of MCA recipients had a second MCA; only 3.5% of MCD recipients had a followup claim within 12 months. Implementation of MMS in Ontario has been successful in terms of growth over time and community pharmacy participation. For MC, service volume and efficiency have taken priority over service quality and access for complex patients. Scanty documentation impedes determination of the full clinical impact of POs. Outcomes analyses are underway.

Co-Author(s): Linda MacKeigan, Leslie Dan Faculty of Pharmacy, University of Toronto / Lisa Dolovich, Dept of Family Medicine, McMaster University / Nedzad Pojskic, Greenshield Canada / Lori MacCallum, Banting and Best Diabetes Centre, University of Toronto / Suzanne Cadarette, Leslie Dan Faculty of Pharmacy, University of Toronto / Petros Pechlivanoglou, Toronto Health Economics and Technology Assessment Collaborative, University of Toronto / Lusine Abrahamyan, Leslie Dan Faculty of Pharmacy, University of Toronto / Giulia Consiglio, Leslie Dan Faculty of Pharmacy, University of Toronto / Nadine Ijaz, Leslie Dan Faculty of Pharmacy, University of Toronto / Bojana Petrovic, Leslie Dan Faculty of Pharmacy, University of Toronto / Val Rac, Leslie Dan Faculty of Pharmacy, University of Toronto / Elizabeth Bojarski, Leslie Dan Faculty of Pharmacy, University of Toronto

A1.3 Understanding Drug Formulary Listing Decisions in Canadian Provinces

Presented by **CHARLES THOMPSON**, Graduate Student, University of Ottawa

To determine which factors significantly predict drug formulary listing decisions in nine Canadian provinces and in particular to determine whether those factors predict success differently in separate provinces. Data on formulary listing decisions (n=206) were extracted from lists published online and in consultation with provincial drug benefit plans. Data on independent variables were found from various publicly available sources including provincial public accounts and Common Drug Review reports. Logistic regression models were fit describing the effects of a series of factors on formulary listing success in nine provinces. Dependent variables included formulary listing success or failure. Independent variables included factors such as Common Drug Review recommendation, relative price of therapy, economic and clinical uncertainty, therapeutic category, the status of the province's budget, and peer effects. Different sets of dependent variables significantly affected formulary listing decisions in different provinces. Pseudo R-squared values ranged from 0.31 (Manitoba) to 0.51 (New Brunswick) indicating acceptable fit. A Do Not List recommendation from the Common Drug Review was the only factor that significantly impacted decisions in every province. Peer effects were most significant in British Columbia and Manitoba, though these could not be measured in Atlantic Canada due to paucity of data. Neither clinical nor economic uncertainty were significant predictors of listing success when controlling for CDR recommendations. Large relative prices were significant predictors of failure in Manitoba and Ontario, though the lack of a relative price was significant in BC, Saskatchewan, Manitoba and Ontario. The significance of other factors varied widely between provinces. Provinces appear to base formulary listing decisions on a markedly different set of factors, though their dependence on assessments from the Common Drug Review are well-established. Budgetary considerations explain some discrepancy in inter-provincial formularies, but not all. Listing decisions are likely influenced by a series of factors not explored here.

A2.1 Co-design of patient relations indicators across the acute care, long-term care and home care sectors to improve care and public reporting

Presented by **ANITA SINGH**, Measurement Specialist, Health Quality Ontario

Patient complaints include a range and severity of issues, from room temperature to an event resulting in harm to a patient. Our objective is to co-design an indicator-based measurement framework for hospital, community and long-term care sectors to understand and improve the patient experience and healthcare system through complaints-process reporting. This work used a modified Delphi process. Initially, a long-list of 48 indicators was extracted from an environmental scan of mature patient relations measurement frameworks used in BC, Australia, United States and UK. The indicator list was refined through a set of guiding principles and considered for alignment with Ontario's patient relations legislation. The resulting short-list of 20 indicators were rated by a multi-sector expert panel for relevance, feasibility for data collection and actionability. The panel then used a consensus process to finalize a short-list of five indicators that provide measurement across the complaints process (open, escalation, resolution and satisfaction). Through this work, three issues challenged our ability to measure standardized and comparable indicators across the system, facilities and sectors: Patient complaints are not defined or recorded uniformly (e.g. 20 percent of hospitals still have a paper-based complaints recording system, while some use more sophisticated systems); Large differences in complaint escalation and resolution processes; and Significant differences in targets for complaint acknowledgement and resolution. To address these challenges, we needed to develop: 1. Technical specifications with mechanisms to ensure data validity, collectability, and reportability across all sectors; 2. Complaints definition, categories and severity, including accounting for the variety of complaint-types across sectors; and 3. Minimum data set that facilitates data collection, recognizing various levels of technology and existing collection maturity, ensuring the process is simple, all-inclusive, and sustainable over time. There continues to be a significant change effort required to develop and report indicators for patient complaints in Ontario. This presentation highlights some of the key considerations for this nascent field for public reporting that could be extrapolated as lessons-learned for other sectors or jurisdictions.

Co-Author(s): Anita Singh, Health Quality Ontario / Patricia Sullivan-Taylor, Health Quality Ontario / Anna Greenberg, Health Quality Ontario

A2.2 Miser sur des indicateurs soutenus par les meilleures preuves scientifiques pour mesurer la qualité des services dispensés par les équipes de soins infirmiers

Presented by **CARL-ARDY DUBOIS**, Professeur, Université de Montréal

1) Identifier, sur la base des preuves scientifiques actuelles, les indicateurs qui doivent être privilégiés pour mesurer la qualité et la performance des services prodigués par les équipes de soins infirmiers; 2) Examiner la place accordée aux indicateurs sensibles aux soins infirmiers dans les systèmes nationaux de mesure. Le premier volet de l'étude a consisté en une recension systématique des écrits (1990-2014) qui a permis d'élaborer un cadre conceptuel de la performance des soins infirmiers et de dresser un répertoire des indicateurs potentiellement sensibles aux soins infirmiers. Les indicateurs qui doivent être privilégiés ont été sélectionnés à partir d'une cotation basée sur 5 critères: sensibilité aux soins infirmiers; pertinence; faisabilité; possibilité d'établir des comparaisons; potentiel d'utilisation aux fins d'amélioration. Le deuxième volet a consisté en une revue de systèmes nationaux (7 pays et territoires incluant le Québec) et transnationaux de mesure de la qualité et de la performance. 58 indicateurs potentiellement sensibles aux soins infirmiers ont été répertoriés, regroupés en 14 dimensions et 3 fonctions. Sur la base des critères susmentionnés, 12 indicateurs ont été retenus pour une attention prioritaire : 3 liés à la fonction d'acquisition, de déploiement et de maintien des ressources (quantité et intensité des ressources; charge de travail; composition des équipes); 3 liés à la transformation des ressources en services infirmiers pertinents (gestion des symptômes, interventions infirmières de prévention et de promotion; planification du congé); 6 liés à la production de changements pertinents dans les conditions des patients (plaies de pression; erreurs de médicaments; infection urinaire par cathéter; chutes; durée de séjour hospitalier; réadmission). La revue des systèmes nationaux a montré un faible niveau d'implantation de ces 12 indicateurs. Les systèmes de santé sont encore à une phase précoce de mise en place de systèmes de mesure de la qualité et de la performance des soins infirmiers. Comme point de départ, cette étude propose un ensemble réaliste d'indicateurs sensibles aux soins infirmiers, soutenus par les meilleures preuves scientifiques.

Co-Author(s): Carl-Ardy Dubois, Université de Montréal / Danielle D'Amour, Université de Montréal

A2.3 Learning from comparing provincial health care internationally

Presented by **GRACE CHEUNG**, Senior Analyst, Canadian Institute for Health Information

There is increasing interest in comparing health system performance internationally to identify potential areas for improvement and cross-national learning. We compared Canadian provinces' health systems with countries of the Organisation for Economic Co-operation and Development (OECD) on 50 indicators that describe several areas of health and health system performance. To compare 50 indicators over 5 dimensions of care (health status, non-medical determinants of health, access to care, quality of care and patient safety), data from several sources were used. Country-level data were collected from OECD Health Data 2015. Provincial-level results were either calculated by Statistics Canada or the Canadian Institute for Health Information using OECD methodologies. Data from the 2013 and 2014 Commonwealth Fund International Health Policy surveys were also used for both levels. Indicator results were normalized to present multiple indicators on the same scale and compared to the international average, 25th and 75th percentiles. In general, Canada's results were similar to the international average for most indicators; however, in every dimension of care, there were indicators where Canada's results were higher or lower than the international average. When compared to specific countries, no countries were found to be consistently higher than Canada across all indicators. When comparing provinces to other countries, each province's profile was unique: in some areas the results were higher than the average, in others they were lower. But similar to national-level results, no province was consistently higher or lower than the international average across all indicators. International comparisons can help provinces identify areas where they can learn from other countries. The provinces' profiles remove the barrier of data complexity and allow patients, health professionals, researchers and policy makers to be part of the discussion.

Co-Author(s): Grace Cheung, Canadian Institute for Health Information / Deborah Schwartz, Canadian Institute for Health Information / Mark McPherson, Canadian Institute for Health Information / Katerina Gapanenko, Canadian Institute for Health Information

A2.4 Adoption of the National Early Warning Score: a survey of hospital trusts in England, Northern Ireland and Wales

Presented by **UGOCHI NWULU**, Research Associate, University of Kent

The primary objective was to elicit the uptake of a standardised vital signs early warning score - National Early Warning Score (NEWS) in hospitals in England, Wales and Northern Ireland. In 2012, a Royal College of Physicians' taskforce developed NEWS in order to standardise vital signs monitoring on acute wards. A short survey was sent to 223 hospitals in July 2014. Hospitals were members of a regional critical care network and had an adult general critical care unit. The hospitals were contacted using the Freedom of Information Act (2000), an act of the United Kingdom parliament that creates a public "right of access" to information held by public authorities. Hospitals were asked if they used NEWS or had plans to adopt it, if they used electronic health records and a computerized vital signs monitoring system in their non-critical care wards. Data received from 217 of the 223 hospitals were analysed. 27% of hospitals have some form of electronic health record system in their non-critical care wards and 20% of hospitals use computerized methods to record vital signs. All but one hospital uses a multiple parameter early warning score. Over half (55.5%) of hospitals use NEWS and 17% had plans to adopt it. Some hospitals wished to use it as part of an electronic health record system rollout planned for later in the financial year. Half of the hospitals which had no plans to adopt NEWS (24 of 44) gave explicit reasons as to why with the number one reason being that they already used a similar score. Absence of a parameter used in other scores (urine output) was also an issue for non-adopters of NEWS. The results suggest that there is a steadily increasing level of acceptance of NEWS. The increased use of electronic health records appears to have helped some hospitals to adopt NEWS. A small number of hospitals disclosed that they had adapted NEWS which is a threat to the standardisation intended.

Co-Author(s): Ugochi Nwulu, University of Kent / Jamie Coleman, University of Birmingham

A3.1 Patient typologies for cost-related non-adherence to prescription medications

Presented by **LAURIE GOLDSMITH**, Researcher, Simon Fraser University

While prior work has indicated that cost-related non-adherence (CRNA) to prescription drugs exists for many Canadians, we know little about the experience of patients who report CRNA. We conducted the first (to our knowledge) qualitative examination of CRNA to provide an in-depth understanding of this phenomenon from the patient's perspective. We conducted semi-structured, in-depth interviews with 39 adults with experience with CRNA in British Columbia (Vancouver and Prince George) and Ontario (Toronto and Hamilton). Participants were purposefully recruited through posters in community and health care settings, and online and newspaper advertisements. Our initial sampling criteria used key characteristics previously identified with CRNA; we refined our purposeful sampling criteria as we learned more about CRNA from the patient's perspective. We used framework analysis to create patient CRNA typologies. Framework analysis includes initial theoretical coding to develop a working analytical framework, which is then refined through applying the framework to each individual. Our CRNA typology combines two characteristics related to prescription drug costs and two characteristics related to the individual: (1) the out-of-pocket cost of the drug to the individual relative to the individual's budget; (2) the primary reason an individual's drug insurance plan or uninsurance status does not protect against CRNA; (3) the importance of the drug to the patient; and (4) the individual's overall financial flexibility. Each of the four categories contains multiple subcategories, for a total of 192 possible combinations. This presentation reports on the major CRNA combinations in our data, such as experiencing CRNA due to a high cost drug relative to an individual's budget despite the drug having high quality of life effects and the individual having drug insurance and adequate income. The resulting typology framework broadens and deepens our understanding of CRNA from the patient's perspective. The typology framework also allows for a more nuanced policy discussion of specific types of CRNA, including targeted approaches for amelioration of specific types of CRNA.

Co-Author(s): Laurie Goldsmith, Simon Fraser University / Ashra Kolhatkar, University of British Columbia / Michael Law, University of British Columbia

A3.2 Barriers to high quality coding of hospital chart information to administrative data: A qualitative study

Presented by **KELSEY LUCYK**, PhD Candidate and Research Associate, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary

Administrative data are widely used in research, health policy, and the evaluation of health service delivery. We undertook a qualitative study to explore the barriers to high quality coding of chart information to administrative data, at the level of coders in Canada. Our study design is qualitative. We recruited professional medical chart coders and data users working across Alberta, Canada, using a multimodal recruitment strategy. We conducted an in-depth, semi-structured interview with each participant. All interviews were audio-recorded and transcribed. We conducted thematic analysis (e.g., line-by-line open coding) of interview transcripts. Codes were then collated into themes and compared across our dataset to ensure accurate interpretations of the data. The study team met to discuss emergent themes, modify them, and interpret them in the context of the barriers to coding administrative data. We recruited 27 coding specialists. In general, coders had high job satisfaction and sense of collegiality, as well as sufficient resources to address their coding questions. They believed themselves to be adequately trained and consistently put in the extra effort when searching charts to find additional information that accurately reflected the patient journey. Barriers to high quality coding from the coder perspective included: 1) Incomplete and inaccurate information in physician progress notes and discharge summaries; 2) Difficulty navigating a complex hybrid of paper and electronic medical records; 3) Focus on productivity rather than quality by the employer, which at times resulted in inconsistent instructions for coding secondary diagnoses and discordant expectations between the employer and the coders' professional standards. Future interventions to improve the quality of administrative data should focus on physician education of necessary components in charting, evaluation of electronic medical records from the perspectives of those who play a key role in abstracting data, and evaluation of productivity guidelines for coders and their effects on data quality.

Co-Author(s): Karen Tang, University of Calgary / Kelsey Lucyk, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary / Hude Quan, University of Calgary

A3.3 The Impact of Information Technology on Interprofessional Collaboration for Chronic Disease Management: A Systematic Review

Presented by **NEIL BARR**, PhD Candidate, McMaster University

Information technology (IT) is often lauded as the key to enhancing communication among health care providers. However, its impact on interprofessional collaboration (IPC) remains unclear. The objective of this study was to evaluate the extent to which IT improves communication, and subsequently, enhances IPC in chronic disease management. A systematic review of academic literature was conducted using two electronic platforms: HealthSTAR and Web of Science. Keywords related to IPC and chronic disease management were used in conjunction with terms related to IT. In addition, reference lists of the included articles were examined to identify additional relevant studies. To be eligible for inclusion in the review, articles needed to be: 1) peer-reviewed; 2) accessible in English; and 3) focused on how IT might support IPC in the provision of chronic disease management. Studies were assessed for quality and analyzed for insights. The searches identified 209 articles; six were included in the final analysis (three used qualitative methods, two were descriptive in nature, and one used mixed methods). Various forms of IT were described, including electronic health records, online communities/learning resources, and telehealth/telecare. Three major themes that impact the ability of IT to enhance IPC emerged from the selected studies: 1) the application of IT to enhance communication may result in more health care providers having access to information, which can lead to conflict over professional roles/responsibilities; 2) IT services rarely fulfill their potential if they are developed without input from end-users; and 3) the effective incorporation of IT requires that participants be willing and able to devote the time needed to acquire new skills. The success of IT in enhancing IPC for chronic disease management ultimately depends upon supporting the social relationships/organization in which the technology will be placed. Decision-makers should take into account, and work toward balancing, the impact of IT and the professional/cultural characteristics of diverse health care teams.

Co-Author(s): Neil Barr, McMaster University / Diana Vania, McMaster University / Glen Randall, McMaster University / Gillian Mulvale, McMaster University

A3.4 The effect of timely outpatient follow-up after hospital discharge on 30-day readmission: an analysis using time-specific propensity scores

Presented by **BRUNO RIVERIN DESCHÊNES**, Doctoral student, McGill University

Post-discharge outpatient follow-up is promoted as a strategy to reduce readmission. The evidence on the optimal timing of post-discharge follow-up is less clear. We used propensity scores to mimic randomization on the precise timing of follow-up to examine its effect on 30-day readmission among hospitalized elderly or chronically ill patients. We extracted insurance billing data on 620 656 admissions for any cause from 2002-2009 in Quebec, Canada. We considered 30-day readmission as our primary outcome. We estimated time-specific propensity scores for the receipt of physician follow-up on any post-discharge day. We then derived inverse-probability-treatment-weights to balance covariates across exposure groups. We estimated adjusted risk differences (RD). We examined effect heterogeneity 1) among patients hospitalized due to acute myocardial infarction, heart failure or chronic obstructive pulmonary disease; 2) by subgroups of patient morbidity level; and 3) separately for follow-up by a primary care physician only or by a medical specialist only. The risk of 30-day readmission was reduced by 10.6%-point in patients who received post-discharge outpatient physician follow-up (95% CI: 10.3%-10.8%). We observed the largest reduction among patients who received follow-up within 21 days post-discharge (21-day RD: 11.1%-point, 95% CI: 10.9% - 11.3%), after which time there was no additional risk reduction. There was a similar time trend and even larger risk reductions for patients hospitalized due to AMI, HF or COPD (21-day RD: 14.9%-point, 95% CI: 14.4%-15.4%) and for patients with the highest morbidity level (21-day RD: 15.0%-point, 95% CI: 14.2%-15.8%). The risk difference was larger for outpatient follow-up visits with a primary care physician only (30-day RD: 11.7%-point, 95% CI: 11.5%-12.0%) rather than with a medical specialist only (30-day RD: 8.1%, 95% CI: 7.8%-8.3%). Our study provides robust evidence that post-discharge outpatient follow-up yields large reductions in the risk of 30-day readmission. Future policies to reduce 30-day readmission should target timely post-discharge follow-up and emphasize follow-up in the primary care setting within the first 3 weeks of discharge, particularly for high-risk patients.

A4.1 Examining payment incentives for the care of patients with chronic disease in BC: Methodological choices and their impact on results of policy evaluation

Presented by **RUTH LAVERGNE**, Postdoctoral Fellow, McGill University

Between 2003 and 2010 the province of British Columbia (BC) implemented incentive payments to primary care physicians for the management of patients with chronic and complex conditions. We examined the impact of this program on primary care access and continuity, hospitalization rates, and costs, using multiple approaches to study design. Our basic approach was a quasi-experimental interrupted time series, using a cohort of patients who qualified for the incentives based on recorded diagnoses. We also compared patients who received incentives to population-based controls with similar timing of diagnosis, and propensity-matched controls based on baseline characteristics, including service use. We conducted analysis in calendar time, with the intervention date set as the date of province-wide incentive introduction, as well as in study time, aligning patients on their individual date of incentive billing. We tracked primary care contacts and continuity, hospitalizations, and healthcare spending, for two years before and after the intervention. We found that BC's incentive payments had no impact on primary care contacts or continuity of care, and that hospitalization rates were constant or increased, relative to pre-intervention trends. Increases in spending reflect the cost of the payments themselves, as well as some additional spending on both hospital and physician services. Patients who did and did not receive incentives for their care differed markedly on baseline characteristics. Patients without incentives had lower continuity, higher hospitalization rates, and higher spending in the pre-intervention period, compared to those who would later have incentives billed. They also differed in their patterns of contact with the healthcare system after the introduction of incentives, which shaped opportunities for physicians to bill incentives for their care. This program did not improve primary care access or continuity, or constrain resource use elsewhere in the system. These conclusions are consistent using multiple study designs, though methods that do not take into account selection and patterns of contact with the healthcare system prior to incentive billing generate misleading results.

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A4.2 Effect of an Intensive Multi-Modal Intervention for Attention-Deficit Hyperactivity Disorder (ADHD) on Equity in Children's Health and Educational Outcomes

Presented by **DAN CHATEAU**, Assistant Professor, University of Manitoba

The objective of this study was to determine whether an intensive multi-modal ADHD intervention for children and teens resulted in improved long-term health and educational outcomes and in reduced inequity in these outcomes across the socioeconomic gradient. We used administrative data from the healthcare and education sectors in the Population Health Data Repository at the Manitoba Centre for Health Policy. We identified children and teens aged 5-17 who had 3+ visits to the ADHD intervention program between 2007 and 2012. A matched control group was constructed, and confounders were controlled using inverse probability of treatment weights. We examined rates of hospital episodes, emergency department visits, psychostimulant use and adherence, contact with child and family services, and whether the children were in the school grade appropriate to their age. We calculated concentration indices to measure changes in inequity. There were 485 children in the ADHD intervention group and 1,884 controls. Children who received the intervention were more likely to be prescribed medication (patients with 1+ prescription(s), rate ratio [RR] 1.21, 95% CI 1.08-1.36) and be adherent to their medication (RR 1.42, 95% CI 1.03-1.96). They were also more likely to be in their age-appropriate grade (RR 1.33, 95% CI 1.09-1.63) compared to controls. Moreover, the intervention was associated with reduced inequity in these outcomes across income deciles. No difference in the rates of hospital episodes or emergency department visits was found, nor in rates of contact with child and family services. A multi-modal ADHD intervention program was associated with increased use and adherence to medication, and may boost academic achievement for vulnerable children and teens. It contributed to closing the equity gap between children from low- and high-income families. ADHD interventions that combine approaches may be more effective than medication alone.

A4.3 Rethinking the Role of the Ambulance in Primary Care: From Policy to Practice

Presented by **LAURA WILKINSON-MEYERS**, Senior Lecturer in Health Services Research, University of Auckland, School of Population Health

This study evaluated the implementation and impact of the Auckland-based St John Transport Initiative (SJTI) that offered appropriate low-acuity ambulance patients transport to Accident & Medical (A&M) facilities rather than Emergency Departments and covered the co-payment of the A&M visit during the first two years (December 2011- November 2013). A mixed-methods approach was undertaken including routinely collected utilisation data, a patient survey (n=74), individual interviews with key leaders and managers (n=7) as well as ambulance users (n=11) and a focus group with intensive care paramedics (n=4). Structured interview and focus group schedules asked participants about the role of the ambulance, the relative success of SJTI, as well as barriers and facilitators to implementation. Data analysis involved descriptive statistics and thematic analysis of qualitative data. Two percent of all ambulance transfers were taken to an A&M facility (2,967 patients) with the majority being successfully managed in primary care settings (88%). Transfer rates to A&Ms plateaued over this time. While overall stakeholders viewed SJTI as being successful, the majority agreed it had not reached its potential. Factors influencing performance included lack of additional funding for the initiative; lack of awareness about the initiative; A&M and St John capacity and capability; concerns about patient safety; confidence of ambulance staff; and patient choice. Given appropriate funding and support there is significant potential for the ambulance service to help integrate primary and secondary care ensuring patients get the right care at the right time in the right place in the health system.

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A4.4 Sex differences in the risk of receiving potentially inappropriate prescriptions among older adults

Presented by **STEVE MORGAN**, Professor, University of British Columbia

We sought to compare rates of dispensation of potentially inappropriate prescriptions among older women and men. We did this using a retrospective cohort study of adults aged 65 and older in British Columbia, Canada. We measured 2013 period prevalence of prescription dispensations satisfying the 2012 Beers criteria. We used logistic regressions to test for associations between this outcome and a number of health, health services, and sociodemographic factors. A larger share of women (31%) than of men (26%) filled one or more potentially inappropriate prescription. The odds of receiving potentially inappropriate prescriptions are associated with several health, health services, and sociodemographic factors. After controlling for those factors, women were at 18% higher odds of receiving a potentially inappropriate prescription than men (adjusted odds ratio = 1.18, 95% confidence interval = 1.14-1.23). Much of this sex difference stemmed from women's increased odds of receiving potentially inappropriate prescriptions for benzodiazepines and other hypnotics, for tertiary tricyclic antidepressants, and for non-selective NSAIDs. There are significant sex differences in older adults' risk of receiving a potentially inappropriate prescription as a result of complex intersections between gender identities and relationships and with other social constructs. Appropriate responses will therefore require changes in the information, norms and expectations of both prescribers and patients.

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A5.1 Adolescent pregnancy termination and childbearing - the impact of an older sister's pregnancy outcome

Presented by **ELIZABETH WALL-WIELER**, Student, University of Manitoba

An older sister's teenage pregnancy status is known to influence whether or not a younger sister also has a teenage pregnancy. This study examines whether the outcome of an older sister's (incomplete or complete) teenage pregnancy impacts the odds of the younger sister terminating her teenage pregnancy. This study used linkable administrative databases housed at the Manitoba Centre for Health Policy (MCHP). The cohort consisted of 17,115 women born in Manitoba between April 1, 1979 and March 31, 1994, who stayed in the province until at least their 20th birthday, had at least one older sister, and had no missing values on key variables. Logistic regression, controlling for a variety of confounders, is used to determine the association between an older sister's teenage pregnancy status (no teenage pregnancy, incomplete teenage pregnancy, and teenage mother) and a younger sister's teenage pregnancy outcome (terminated or live birth). When adjusting for a variety of time-invariant neighborhood and family covariates, and time-invariant and time-varying individual-level covariates, the status of an older sister's teenage pregnancy had significant implications for the odds of a younger sister terminating her teenage pregnancy. The odds of terminating a teenage pregnancy were higher for those whose older sister terminated her pregnancy than for those whose older sister either did not have a teenage pregnancy (OR = 1.75, 95% CI 1.3-2.4) or those whose older sister bore a child before age 20 (OR 2.50, 95% CI 1.8-2.5). The odds of teenage pregnancy termination were higher for those whose older sister did not have a teenage pregnancy than those whose older sister was a teenage mother (OR 1.43, 95% CI 1.1-1.8). An older sister's teenage pregnancy outcome has a significant impact on whether or not a younger sister terminates her teenage pregnancy. Younger sisters are least likely to terminate a teenage pregnancy if their older sister was a teenage mother.

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A5.2 Association between immigration status & cervical cancer screening: Systematic review & meta-analysis

Presented by **SYEDA KINZA RIZVI**, Master's Candidate, University of Calgary

In developed countries, much invasive cervical cancer, and the highest mortality rates occur in women who never had a Pap test. Immigrants appear less likely to be screened for cervical cancer than non-immigrants. We aimed to determine the magnitude of association between immigration status and cervical cancer screening in developed countries. The search used guidelines of the Center for Reviews and Dissemination, using a combination of keywords related to cervical cancer and screening. Data was extracted using the 2009 PRISMA checklist. The Newcastle-Ottawa Quality Assessment Scale was used for confounding and quality assessment. From 7426 citations, ten articles were included in the systematic review and eight in meta-analysis. The studies were published between 2001 to 2013 from Australia, UK, USA, Canada & Spain. Immigrants are less than half as likely to have ever been screened as non-immigrants in Canada (pooled OR = 0.44; 95% CI: 0.386- 0.511), Spain (OR = 0.41; 95% CI: 0.365-0.467), and Australia (OR = 0.44; 0.376-0.508). In the UK, the ratio is worse (OR = 0.23; 0.210-0.244). In the USA, the trend was similar but not significant (pooled OR = 0.62; 0.190-2.083). Demographics showed immigrants are less likely to be educated, have lower income and are uninsured. Women born in Asia had lower odds of ever being screened compared to other immigrant groups. A statistically significant association was found between immigration status and cervical cancer screening but there are limitations due to data reporting. Efforts to increase cervical cancer screening should focus on newly arrived immigrants, immigrants with low levels of education and low household annual income. Improving access to care is important.

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A5.3 A Comparison of Risk Adjustment Models for Hospital Length of Stay

Presented by **JASON JIANG**, Statistical Research Analyst, University of Calgary

Length of stay (LOS) is an important resource utilization indicator. Before LOS can be used by policy makers, it requires risk adjustment. However, LOS data is highly skewed. This is problematic for statistical prediction. This study compares regression-based risk adjustment models for predicting LOS in a hospital inpatient population. Administrative data from the Discharge Abstract Database for Alberta, Canada, which consists of about 2.5 million who were admitted between 2008 and 2010, was used to compare the accuracy of these risk adjustment models among inpatients with normal and prolonged LOS. The risk adjustment models include ordinary least squares (OLS) regression, hierarchical linear regression (HLR), and robust regression. Predictive performance of each risk adjustment model was evaluated using mean absolute prediction error (MAPE) and root mean square error (RMSE). Logistic regression analysis was used to assess the discriminatory power of the clinical variables included in each risk adjustment model. The mean inpatient LOS was 6.5 days for patients with LOS \leq 90 days, while individuals with prolonged LOS ($>$ 90 days) had a mean inpatient LOS of 179.5 days. Cross-validation results suggested that hierarchical linear regression based on log-transformed LOS data resulted in the best predictive accuracy (i.e., smallest root mean square error and mean absolute prediction error) among the three investigated models both for individuals with normal LOS and those with prolonged LOS. Using large population-based Canadian data, our study confirms that HLR, commonly used in commercial risk adjustment and predictive models, is more accurate in predicting LOS in Canada.

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A5.4 Informing Health System Policy & Planning for Persons with Dementia: The Multi-Layered Role of Secondary Data

Presented by **JENNIFER WALKER**, Scientist, Institute for Clinical Evaluative Sciences / **SUSAN BRONSKILL**, Senior Scientist, Institute for Clinical Evaluative Sciences

Across Canada and internationally, health systems are responding to the increasing number of persons living with dementia. It has been previously reported that 1.5% of the overall population in Canada had Alzheimer's and related dementias in 2008, and this proportion was projected to increase to 2.8% by 2038 (ASC, 2010). Foundational to planning appropriate health system supports for this population is the ongoing, comparable and accurate estimation of the prevalence and incidence of dementia across Canada, as well as associated patterns of health services use by persons with dementia in community and long-term care settings. This comparative information is critical to understanding the impact of policy decisions designed to address dementia-related health care needs at a population level. In several Canadian jurisdictions, efforts are underway to improve the use of secondary data to fill gaps in evidence and to inform health system planning for persons with dementia. The purpose of this presentation is to: (1) provide a review of the current and emerging approaches using secondary data in dementia health services research in Canada, with a focus on Ontario, Saskatchewan and Quebec; (2) discuss the advantages and limitations to the use of secondary data and methods available; and (3) make recommendations for future steps to collaborate and harmonize approaches to using secondary data for health services research and health system planning in Canada. Specifically, the presentation will highlight experiences in developing and validating case definitions of dementia, in electronic medical record data and administrative data. We will outline the application of these definitions to estimate the prevalence, incidence and health system use for persons with dementia for use by provincial policy-makers. We will also highlight emerging microsimulation models that are being developed as an alternate way to summarize incidence, prevalence, health care use and health burden in Ontario. We will discuss distinct considerations when using administrative data to describe dementia in First Nations populations.

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A6.1 Improving patient-centred system performance: A scoping review of patient-centred quality indicators

Presented by **RACHEL JOLLEY**, Research Associate, University of Calgary

Currently in Canada there are no mechanisms in place for measuring and evaluating healthcare from a patient-centred approach. We conducted a scoping review to identify existing patient-centred quality indicators (PC-QIs) that have been implemented and evaluated across various settings, and identified best practices in patient-centred monitoring strategies. Relevant studies were identified through searching electronic databases (MEDLINE, EMBASE, Cochrane Library, CINAHL, PsychINFO, Social Work Abstracts, Social Services Abstracts) and through a grey literature search. Search terms included but were not limited to: quality improvement, quality indicators, healthcare quality, patient-centred care, culture/ethnicity - specific care, patient's experiences and patient's beliefs. Articles were reviewed for inclusion through a title and abstract stage and full text review stage. Articles were included if they described patient-centric quality measurement tools. Data collected included publication year and type, patient population, quality indicator, study design, country, and outcomes and study quality was assessed. Upon searching the electronic databases, 19,391 abstracts were retrieved. After duplicates were removed, 14,640 citations were reviewed. The first round of screening title and abstracts left 925 citations for inclusion (n=13,543 were excluded). A second round of abstract and title review resulted in 117 articles that went on to full-text review. Out of these, 10 articles were selected for inclusion into the study. Most of the included studies were performed in the Netherlands (n=4), followed by the USA, Canada, Australia and Belgium. Indicators were developed in a wide array of patient populations and settings including colonoscopy, fertility, patients needing home and community care supports, cancer, surgical and the chronically ill. Measure domains included doctor-patient relationship, emotional and psychosocial support, physical support, and aftercare or follow-up. The identification of PC-QIs in this scoping review is a key first step in laying the groundwork in developing patient-centred and evidence-based quality indicators that will be prioritized by patients and will further the development of validated healthcare tools assessing healthcare quality from a patient-centred approach.

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A6.2 How to implement a successful partnership between patients, health care professionals, and managers, and its effects on healthcare quality and safety

Presented by **NATHALIE CLAVEL**, PhD student (Health care administration), Université de Montréal / **ANNA-PAULINA EWALDS**, Master's degree candidate, Université de Montréal

Objectives: This study aims to identify the best clinical and organizational practices of patient engagement on the level of care and services. It also seeks to know the effects of this engagement on the quality and safety of care, as perceived by the patients, the health care professionals as well as the managers. **Methodology:** A case study including three different models of patient engagement has been realised in several health care organisations in Quebec. Four cases are included in the study: two in oncology and two in mental health. The study is based on a qualitative method where interviews and focus groups have been carried out with patients, health care professionals and managers, in order to better understand the implemented engagement initiatives and their impact on the quality and safety of care. **Results:** Among best practices on the organizational level are: The integration of patient engagement in the strategic planning, formal support and leadership of the general management of the organizations. On the clinical level, among others, the following practices are observed: The integration of patients in continuous quality improvement committees, as well as the allocation of resources for training of patients and health care professionals in order to work together. Several positive effects on the quality of care and services have been observed, including: Better care experiences, effectiveness and coordination of care and services, patients' "empowerment" and quality of life, improved patient-health care professional relationship. **Conclusion:** These results show the existence of promising patient engagement practices that, when well structured, are generating positive effects on the quality of care within health care organizations. Based on these findings, the question of sustainability remains.

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A6.3 Knowing What's Going On: Insights from Patients, Family Caregivers and Healthcare Providers around Care Transitions from Acute to Rehabilitation Settings

Presented by **MADELYN LAW**, Associate Professor, Brock University

Poorly executed care transitions involving older patients' results in adverse events, avoidable re-admissions, and increased healthcare costs. Little is known about patient, caregiver, and healthcare provider experience of inter-organizational care transitions. To address this gap, a study was undertaken to explore how best to enhance care transition for older adults. A qualitative study using semi-structured interviews and observations was conducted to explore the perspectives from patients, family caregivers, and healthcare providers associated with inter-organizational care transitions. Purposeful sampling was used to identify older adults with complex care needs transitioning from an acute care hospital to a rehabilitation setting. Their family caregivers and healthcare providers' part of their circle of care were also invited to participate. Interview and observation/ field notes were analyzed using an iterative directed content analysis approach. 61 interviews were conducted with patients, caregivers, and their healthcare providers from two acute care hospitals and one complex continuing care/rehabilitation setting. The following themes have emerged: 1) patient and caregiver uncertainty of the care transition experience; 2) varying levels of patient and caregiver involvement in advocating and navigating the healthcare continuum; and 3) the visibility/invisibility of the nurse in the care transitions process. Key insights from participants on optimizing care transitions included knowing what is going on by having 1) more care plan discussions earlier on that engage family caregivers and explore expectations around care transitions; 2) a centralized care plan document that patients and their caregivers can refer to; and 3) a more central role for the nurse in the care transitions process. Our study provides an integrated perspective on care transitions including current experiences and recommendations to enhance care transitions across the healthcare system. Clearly, efforts are required to better inform and engage patients and caregivers in the planning and executing of care transitions across the health care system.

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A6.4 Involving "Persons with Patient Experiences" in Healthcare Quality Improvement and Redesign: Lessons from Region Jönköping County, Sweden

Presented by **GALINA GHEIHMAN**, Medical Student, Harvard Medical School

The purpose of this project was to: (1) explore how patient involvement is defined, conceptualized, and implemented in Region Jönköping County, Sweden; (2) identify the barriers and facilitators to involving patients; and (3) highlight the value of involving patients in improvement work, as well as best practices for doing so. Involving patients in healthcare quality improvement is increasingly recognized as key to achieving person-centred care and the Triple Aim. While relatively new in Canada, strengthening engagement has been a policy aim in Jönköping, Sweden for over three decades and unique approaches to partnering with patients have thus developed there. Twenty-three semi-structured interviews with health system stakeholders, as well as site-visits and in-person observations at two of the county's three hospitals were conducted. Participants included healthcare providers, administrators, and managers, improvement coaches, political leaders, and "persons with patient experiences". Key themes, findings, and strategies were identified using conventional qualitative content analysis. Patient involvement takes various forms and occurs at multiple levels within the healthcare system. In Jönköping, such involvement began twenty years ago with the introduction of "microsystem thinking" and has since evolved. Challenges to involvement are psychological and cultural barriers (providers believing they know what's best, being hesitant to share mistakes, or resisting ceding control to patients while taking on a "coaching role") and logistic barriers (time, resources, recruitment). Key provider-, patient-, and system-based facilitators include open-minded and humble professionals, effective patient partners, and leadership support for a culture of improvement, respectively. Benefits to involvement are understanding patients' experiences, selecting more relevant improvement projects, and proposing innovative solutions. Moreover, purposeful engagement increases patients' knowledge and self-management, and may give meaning to a traumatic illness experience. Patient partners contribute significantly to quality improvement, focusing efforts on meaningful change and offering expertise on the experience of care. Engagement also promotes person-centred care by developing new systems and ways of working together. This project offers lessons on why patients should be engaged and how best to do so.

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A7.1 The Provision of Out-of-Office and After Hours Care by BC's Primary Care Physicians

Presented by **LINDSAY HEDDEN**, Post-doctoral Fellow, Centre for Clinical Epidemiology and Evaluation

The provision of out-of-office and after-hours care are important measures of both access to and comprehensiveness of primary care services in BC. The objective of this study was to examine the trends in and determinants of out-of-office and after-hours care provision among primary care physicians in BC. We used population-based, physician-level administrative data resources from Population Data BC and the College of Physicians and Surgeons of BC, including patient and physician registries, and physician billing records (for all fee-for-service (FFS) encounters) and APP (non fee-for-service) payments for the years 2005/06-2011/12. We examined the impact of primary care physician (PCP) demographic and practice characteristics on the levels of provision of out-of-office and after-hours care, and examined changes in the proportion of physicians providing these services over time using longitudinal mixed effects logistic and linear models. Model variables included physician sex, age, training location and practice location. 42.49% and 54.82% of primary care physicians provided no out-of-office care and no after-hours care respectively between 2005 and 2012. The provision of care in any out-of-office location (hospital, long term care facility, home and emergency room) also declined by 17% percent ($p < 0.0001$) and after-hours by 19% ($p < 0.0001$) over the study period. Female PCPs had 1.74 times higher odds of being "in office only" and 0.55-times the odds of billing for care provided outside of regular office hours. The provision of both out-of-office and after-hours care also declined with advancing physician age. Compared to those practicing in metropolitan centres, physicians working in rural-dominated areas had significantly higher odds of providing out-of-office and after-hours care. The provision of out-of-office/after-hours declined significantly over the study period. That, and the combination of an increasing proportion of PCPs who are female, with the much lower out-of-office/after-hours participation rates amongst females, points towards increasing issues with access to and comprehensiveness of primary care in BC.

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A7.2 Informing policy through a quantitative epidemiological approach: Understanding geographic variation in non-urgent emergency department utilization

Presented by **TARA TODD**, MPP Candidate, Johnson-Shoyama Graduate School of Public Policy

A significant proportion of emergency department (ED) usage is for low-acuity medical conditions (i.e., non-urgent) that could effectively be managed by non-emergency clinics. This study's objective is to investigate geography-specific patterns of low-acuity ED use and provide policy options to maximize ED efficiency using a quantitative epidemiological approach. This research used a quasi-experimental design where data were obtained from the National Ambulatory Care Reporting System and included all low-acuity ED visits occurring in Regina and Saskatoon in 2012-13. Variables included age, gender, location of patient residence, locational socio-economic status (SES) based on residential postal code, primary care centres located in patient's immediate neighbourhood of residence, and main medical problem presented at the time of ED visit. Descriptive and multivariable linear regression analyses were conducted to identify characteristics of low-acuity ED users, including patterns of ED usage within the cities of Regina and Saskatoon. In both Regina and Saskatoon, males and females were found to use EDs for low-acuity conditions in nearly equal proportions, while patients aged 20 to 29 years utilized EDs for low-acuity conditions more than any other age group. Further, within both urban centers, the highest utilization areas corresponded with those areas attaining the lowest median income. The highest utilization areas were also found to have the greatest number of alternative primary care services per neighbourhood population. The next steps in the analytical plan will be directed towards identifying patterns that would inform evidence-based public policies to redirect low-acuity patients to appropriate care settings. The focus will be on the identification of geography-specific patterns, including exploration of variations in medical problems presented during low-acuity ED visits. The greatest proportion of patients seeking low-acuity ED care reside in low-income neighbourhoods and the presence of alternative primary care centres near patients' residences does not avert the use of EDs for low-acuity medical conditions. This knowledge will be translated to policymakers to influence policies to reduce low-acuity ED usage.

A7.3 The receipt of information about emergency room care by family physicians in the community

Presented by **LIISA JAAKKIMAINEN**, Senior Scientist, Family Physician, Institute for Clinical Evaluative Sciences

Objectives: Canadians are known to be the most frequent users of emergency room (ER) care amongst the Commonwealth nations. The purpose of this study was to determine whether FPs received information about their patient's ER visit and the patient and provider characteristics related to the receipt of this information. Approach: Descriptive record linkage study of FP Electronic Medical Record (EMR) data linked to health administrative data (called EMRALD). A convenience sample of 301 community-based FP practices throughout Ontario. For all patients who visited an ER in 2013, the proportion of ER notes received into the FPs EMR was calculated. The receipt of the ER note was examined in relation to patient characteristics (age, sex, co-morbidity, socioeconomic status and FP continuity of care) and FP provider characteristics (age, sex, rurality and primary care model). A chi square was performed to compare those patients/providers receiving and not receiving an ER note. Results: Amongst the 252,932 eligible patients in EMRALD, there were 48,259 ER visits in 2013. For 6.3% of ER visits, a note received within 30 days, for 7.3% a note was received within 60 days and for 7.9% a note received within 90 days after leaving the ER. For 89.0% of ER visits, no note about their ER visit was ever received by the patients' FP. Patient age and comorbidity and FPs practice location and payment model were associated whether they received any information about their patients' ER visit. Conclusions: Community-based FPs are not receiving information about their patient's visit to the ER. Mechanisms are needed to promote the timely transfer of information to FPs and all community providers of care.

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A7.4 Evaluating the performance of an Alberta Primary Care Network using the Primary Care Assessment Tool (PCAT)

Presented by **GRACE MOE**, Executive Director, Strategic Planning, Westview Primary Care Network/Westview Physician Collaborative | **ALLAN L. BAILEY**, Westview Primary Care Network; Westview Physician Collaborative

The 2005-incepted Alberta Primary Care Network (PCN) of this study implemented team-based care in member family practice clinics. Study objective is to examine the extent of changes in the quality of "care received" in four attributes—accessibility, continuity, coordination and comprehensiveness—as perceived by the PCN service population. Design: Repeated cross-sectional telephone surveys using "computer-assisted telephone interviewing (CATI)" system. Data Collection Years: 2007, 2010, 2013 and 2016. Tool: an internally-designed instrument "Community and Family Practice Population Survey", which embeds Johns Hopkins's Primary Care Assessment Tool (PCAT) that generates 7 subscale and 1 summary scores. Sampling: a stratified random sample of 1000 at 5-year age/gender groupings, further portioned by clinic quotas for representation and power. Analyses: Descriptive statistics and comparisons between years for PCN and by clinics; plus, between-clinic and between-program comparisons. PCAT item mean scores were compared using Independent T-tests; calculated subscale scores were compared using one-way ANOVA. 2016 survey is underway. With introduction of the PCN between 2007 and 2013, PCAT scores—range 1-4, higher scores indicate higher performance—remained high in Affiliation (3.81 Vs 3.89) and First Contact Utilization (3.81 Vs 3.80); improved insignificantly in Access (2.21 Vs 2.53) and Primary Care Score (3.21 Vs 3.38). Using Haggerty's threshold of "acceptable performance" (at PCAT>3), Relational Continuity (3.31 Vs. 3.16) and Coordination-Care (3.47 Vs 3.21)—though decreased significantly—remain "acceptable"; while Access (2.21 Vs 2.53), Coordination-Information (2.74 Vs 2.68) and Comprehensiveness (2.41 Vs 2.40) continued as "sub-standard". Between-group comparisons—"Team User" Vs "Non-Team User" Clinics—indicate the latter scored statistically higher performance in Access (2.53 Vs 3.01, $p < .001$), Relational Continuity (3.25 Vs 3.67, $p < .001$) and Primary Care Score (21.19 Vs 22.18, $p = .019$). Study population shows strong attachment and "appropriately-intended" utilization of their family doctor both pre- and post-PCN implementation. Introduction of team-based care did not enhance perception of "care received". Perhaps transition from "physician-as-gatekeeper" to a robust collaborative primary care model requires time and additional investment; the 2016 data may provide insight.

A8.1 The importance of communication and documentation in chronic disease management

Presented by **ANNE STEEN**, Supervisor, Clinical Analytics and Development, Canadian Medical Protective Association

Integration and coordination of care for patients with chronic diseases has received much attention recently. The Canadian Medical Protective Association (CMPA) undertook a review of medico-legal cases involving select chronic diseases to identify the role that ineffective communication and inadequate documentation may play in the management of chronic diseases. A review of the CMPA's medico-legal data from 2010 to 2014 identified 1,140 cases involving chronic cardiovascular (e.g. hypertension and stroke), respiratory conditions (e.g. chronic obstructive pulmonary disease, asthma), and diabetes. The analysis focused on the 718 (63.0%) cases with peer expert criticism and explored the role communication issues played in treating patients with these conditions. The CMPA uses an in-house coding system to capture clinical issues in patient care as well as their associations. We examined how these issues and their associations contributed to patient outcomes. Descriptive statistics were used to summarize the themes identified in the analysis. The top 3 areas of concern in the 718 cases were diagnostic issues (58.4%), deficiencies in verbal communication and documentation (47.4%), and medication issues (18.5%). The communication issues included ineffective communication between the healthcare professional and the patient or family, inefficient inter-professional team communication, a lack of communication of the role of other physicians in the patient's care, and poor documentation. Such issues, either directly or through their contribution to other clinical issues, were felt by peer experts to be associated with poor patient outcomes. Of the communication issues in the 340 cases, 54.7% contributed to diagnosis issues, 36.4% contributed to treatment delays, and 18.2% led to inefficient medication management. Of the 340 cases, 43.2% of the patients had a severe clinical outcome, including death. This analysis of medico-legal data demonstrates the complexity of chronic disease management and the importance of more effective and timely communication with the patient and family, as well as better coordination across inter-professional teams.

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A8.2 Effectiveness of knowledge translation tools addressing multiple high-burden chronic diseases affecting older adults: A systematic review

Presented by **MONIKA KASTNER**, Scientist, Li Ka Shing Knowledge Institute of St. Michael's Hospital; University of Toronto

One reason that older adults (age ≥ 65 years) are not receiving the care recommended may be that chronic disease management (CDM) tools are primarily focused on a single disease. We conducted a systematic review of tools targeting management of more than one chronic disease to optimize their care. We searched MEDLINE, EMBASE, CINAHL, AgeLine, and the Cochrane Library to identify experimental, quasi-experimental, and qualitative studies investigating CDM tools that integrate the care of ≥ 2 high-burden chronic diseases affecting older adults (e.g., diabetes). Reviewer pairs independently screened articles, extracted data, and assessed risk of bias. Outcomes included impact of CDM tools for improving chronic disease management. Data abstraction and risk of bias assessment were performed independently. Analysis involved descriptive summaries and meta-analysis if appropriate (assessment of statistical, methodological and clinical heterogeneity). We also explored individual elements of interventions using Cochrane's EPOC criteria to identify factors contributing to their impact. Of 46,802 identified articles, 1730 were reviewed in full text, and 26 articles were included (15 RCTs, 7 mixed-methods or other, 4 qualitative). Most disease clusters were dyads. The most frequent disease cluster dyads were combinations of cardiovascular/metabolic (19.2%) and mental health/musculoskeletal (11.5%). Preliminary findings indicate that there are 30 components comprising the CDM interventions (range 2-5 elements per intervention). These include patient and provider education (ED), case management (CM), disease management (DM), care pathway management (CPM), and self-management (SM). The majority of studies included at least ED (85%); 16 studies included at least CM or CPM (62%). The most frequent combination of intervention elements were those that included CM+ED (n = 10); DM+ED (n = 7); and CPM+CM+ED (n = 6). Our final analysis will reveal which intervention elements have the most potential for impact across different disease cluster dyads. These findings will be used to inform the development of a multi-chronic disease tool that will address the needs of older adults with multiple chronic conditions.

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A8.3 Low Socioeconomic Status is Associated with Adverse Events in Children and Teens on Insulin Pumps under a Universal access program: A population-based cohort study

Presented by **RAYZEL SHULMAN**, Staff Physician, The Hospital for Sick Children

To describe adverse events in pediatric insulin pump users since the introduction of universal funding for pumps in Ontario and explore the role of patient socioeconomic status and diabetes centre resources such as provision of 24 hour support. Observational population-based cohort study of youth (≥ 19 years) with type 1 diabetes (n=3193) under a universal access program in Ontario, Canada from 2006-2013. We linked 2012 survey data from 33 pediatric diabetes centres to health administrative databases. The relationship between patient and centre-level characteristics and time to first diabetic ketoacidosis (DKA) admission or death was tested using a Cox proportional hazards model and the rate of diabetes-related ED visits and hospitalizations with a Poisson model, both using generalized estimating equations. There were 635 episodes of DKA (5.28 episodes/100 person-years). There were 8 deaths; the rate of death was 0.033/100 person-years. Compared with those in the least deprived quintile, the risk of DKA or death for those in the most deprived quintile was significantly higher (HR 1.58 (95% CI 1.05-2.38)) as was the rate of diabetes-related acute care use (RR 1.60 (95% CI 1.27-2.00)). Access to 24 hour support was not associated with these outcomes. Other factors associated with a higher risk of DKA or death were poor glycemic control, an episode of DKA prior to pump start, older age, and being followed at a centre with a higher nursing patient load. The safety profile of pump therapy is similar to other jurisdictions and unrelated to 24 hour support. Factors including higher deprivation were associated with an increased risk of adverse events and could be used to inform the design of interventions aimed at improving outcomes in high risk individuals.

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A8.4 Predicting non-insulin antidiabetic drug adherence using a theoretical framework based on the theory of planned behaviour in adults with type 2 diabetes: A prospective study

Presented by **HERVÉ TCHALA VIGNON ZOMAHOUN**, Coordonnateur de recherche, Centre de recherche du CHU de Québec - Université Laval

Understanding the process behind non-insulin antidiabetic drug (NIAD) non-adherence is necessary for designing effective interventions to resolve this problem. This study aimed to explore the ability of Theory of planned behaviour (TPB), known as a good predictor of behaviours, to predict future NIAD adherence in adults with type 2 diabetes. We conducted a prospective study of adults with type 2 diabetes. They completed a questionnaire on TPB variables (the attitude towards the behaviour, the subjective norms, the perceived behavioural control, and the intention to adhere to the NIAD) and external variables. Linear regression was used to explore the TPB's ability to predict the future NIAD adherence, which was prospectively measured as the proportion of days covered by at least one NIAD. The interaction between past NIAD adherence and intention was tested. The sample included 340 people. There was an interaction between past NIAD adherence and intention to adhere to the NIAD (p-value= 0.0324). Intention did not predict future NIAD adherence in the past adherers and non-adherers groups, but its association measure was high among past non-adherers [$\beta= 5.686$; 95%CI= (-10.174, 21.546)]. In contrast, intention was mainly predicted by perceived behavioural control both in the past adherers [$\beta= 0.90$, 95%CI= (0.796, 1.004)] and non-adherers groups [$\beta= 0.76$, 95%CI= (0.555, 0.966)]. There was a gap between intention to adhere and actual NIAD adherence, which is partly explained by the past adherence level in adults with type 2 diabetes. However, we have not had quite statistical power to show a statistically significant effect of intention on NIAD adherence among past non-adherers.

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B1.1 Impacts of the Long-Term Care Homes Act, Public Reporting and Quality Improvement Collaboratives on Restraint and Antipsychotic Use in Ontario Long-Term Care Homes

Presented by **WALTER WODCHIS**, Associate Professor, Institute of Health Policy, Management, and Evaluation, University of Toronto

We evaluated the impact of the Long-Term Care Homes Act (LTCHA), Public Reporting and Quality Improvement Collaboratives on restraint use in Ontario Long-Term Care Homes. Since a reduction in restraint use could lead to an increase in antipsychotic use, we also assessed the effect of these interventions on antipsychotic use. Our analyses used resident-level data from the Resident Assessment Instrument (RAI) collected in long-term care homes in Ontario from 2008 to 2012. The study population included 1.2 million assessments from 167,170 residents. We used Generalized Estimating Equations to estimate the relationship between restraint and antipsychotic use and legislation, public reporting and quality improvement initiatives. We controlled for a series of home-level factors (size, profit status, etc.), as well as individual resident-level characteristics (sex, age, marital status, diagnosis, etc.) in each model. Immediately after the implementation of the LTCHA there were level increases in the odds of restraint and antipsychotic use in Ontario's LTCHs. These were followed by slope changes such that the rate of decline in the likelihood of restraint and antipsychotic use became significantly steeper. The odds of restraint use were 5% lower and the odds of antipsychotic use were 3% higher after homes started participating in Public Reporting. The odds of restraint and antipsychotics use were 17% lower and 3% higher, respectively, for residents residing in homes participating in a Quality Improvement Collaborative as compared to residents residing in homes before participation or in homes that never participated. Individual and home level covariates were found to be significantly associated with each outcome. Findings suggest that the LTCHA, Public Reporting and Quality Improvement Collaboratives contributed to a reduction in restraint use in Ontario's long-term care homes. The odds of antipsychotic use increased after the implementation of these three initiatives which may indicate an unintended consequence of the effort to reduce physical restraint use.

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B1.2 Interprofessional Medication Review as a Facilitator of the Appropriate Use of Antipsychotics Policy in Alberta

Presented by **MUBASHIR ARAIN**, Research & Evaluation Consultant, Alberta Health Services

The Appropriate Use of Antipsychotics (AUA) policy was implemented to address dementia related responsive behaviors in long term care (LTC). Interprofessional medication reviews are integral to its success. We evaluated the medication review process, identified how interprofessional collaboration was enacted and determined the challenges for the sustainability of the process. This formative evaluation utilized qualitative methodology. Using a semi-structured interview guide we interviewed staff at four LTC sites focusing on the medication review process, interprofessional collaboration and sustainability. We aimed for maximum variation in our sampling to ensure we obtained all possible perspectives. We also observed medication review meetings at each of the four sites using a checklist developed for this purpose. This checklist was based on medication review guidelines specific to the AUA policy. The checklist was validated with participants as a potential tool for future use to enhance interprofessional collaboration during medication reviews. Our results showed variation in processes and efficiencies of how sites implemented medication reviews and also how successful they were in working interprofessionally. Despite the variation sustainability was achievable for all sites. Sites experienced both successes and challenges with enacting competencies associated with successful interprofessional collaboration, as outlined by the Canadian International Health Collaborative. The most common challenge noted by participants was communicating medication review decisions to physicians. Physicians were often the gatekeeper of whether medication review decisions to reduce antipsychotics were adopted or not because changing prescriptions are not in the scope of practice for most other health professions. Successes were most often described by participants in terms of the positive changes in resident behaviors and quality of life. Sites that included a nurse practitioner were more efficient in their medication review process due to their scope of practice including prescribing. LTC could benefit from exploring the use of alternative providers (nurse practitioners, expanded scope of practice for pharmacists) rather than relying on physicians to support the AUA policy.

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B1.3 Long-Term Care (LTC) Practice Reports: The collaborative development of an audit and feedback tool for physicians in LTC to aid quality improvement efforts to optimize antipsychotic medication prescribing and quality of care

Presented by **CARA MULHALL**, Senior Methodologist, Health Quality Ontario / **HASMITA SINGH**, Research Analyst, Health Quality Ontario

Using audit and feedback reports, the goal is to provide timely and accurate quantitative data quarterly that informs quality improvement efforts among physicians working in LTC homes to achieve optimal use of antipsychotic medications for their residents. Also, to provide comprehensive resources for quality improvement for this topic. Work incorporated literature reviews, data analysis and stakeholder engagement to select indicators and design reports including change ideas and quality improvement resources. Four indicators of antipsychotic prescribing were selected using a modified Delphi approach. Algorithms based on OHIP and Ontario Drug Benefit data was refined to identify the LTC cohort, and to assign residents to a most responsible physician (MRP). Sensitivity analyses were conducted to assess the reliability of algorithms to identify the cohort and MRP, and assess the indicators. Results were validated with a group of volunteering physicians. Over 260 physicians receive reports since the launch in September 2015. The indicators capture different aspects of antipsychotic dispensing as a surrogate for prescribing: prevalence, incidence, continuous use and antipsychotic polypharmacy. Data is presented over time at the physician, LHIN, and provincial level as well as by diagnosis of any type of psychosis or dementia. Sensitivity analysis showed that the algorithm used to identify the LTC cohort captured the majority of LTC residents in Ontario when compared to CCRS data. Among Ontario LTC residents with dementia but no recorded diagnosis of psychosis the unadjusted rate of antipsychotic dispensing has decreased from 31.5% in (2013FY Q2) to 27.2% (2015FY Q1). As well, the new starts rate for the most recent quarter is only 2.4%. Currently, over 300 physicians working in LTC have registered for the reports. The rate of antipsychotic new starts is very low, and the prevalence rate of antipsychotic dispensing is declining among those with dementia. The change ideas promote a team approach to quality improvement, and we anticipate this tool will aid in further decreasing the use of antipsychotics among residents with dementia.

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B1.4 Exposure to potentially inappropriate medication among long-term care residents with cognitive impairment in Ontario: Is there an association with frailty?

Presented by **SUSAN BRONSKILL**, Senior Scientist, Institute for Clinical Evaluative Sciences

Among persons entering long-term care (LTC), the identification of frailty, in addition to dementia and cognitive impairment, may help to characterize those most at risk for potentially inappropriate medication (PIM) use. Our objective was to describe the prevalence of PIM use at LTC entry and characterize any association with frailty. This population-based, retrospective, cohort study used administrative data from Ontario, Canada to identify 31,266 older adults aged 66 years and older, and newly admitted to LTC with dementia or severe cognitive impairment between April 1st 2011 and March 31st 2014. PIM included the use of antipsychotics, H2 receptor antagonists, non-benzodiazepines, benzodiazepines, and drugs with strong anticholinergic properties, in accordance to Beers (2015) criteria. Frailty was measured using an index that includes physical, cognitive and psychosocial criteria. Descriptive statistics were used to examine and compare the prevalence of PIM by frailty status (frail, pre-frail, robust) at admission. Among older adults with dementia and/or severe cognitive impairment, 46% were characterized as frail, 36% were pre-frail, and 18% were robust on entry to LTC. At admission, 48% of residents were on at least one PIM and an average number of 1.5 ± 0.8 (mean \pm SD) PIMs. The most common subclass was antipsychotics (30%), followed by benzodiazepines (17.2%). The relative risk of PIM use was higher among pre-frail (RR=1.10; 95% CI 1.06 to 1.15) and frail (RR=1.26; 95% CI 1.22 to 1.31) residents compared to those who were robust. Findings suggest an association between PIM use and frailty among residents entering LTC with dementia and/or severe cognitive impairment. Further research examining the extent to which PIM is discontinued, and the impact of PIM use on outcomes, is required to inform patient safety and prescribing guidelines at the facility level.

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B2.1 Engaging patients, families and professionals at the bedside using whiteboards

Presented by **SUSAN LAW**, Principal Scientist and Associate Professor, St. Mary's Research Centre and McGill University / **MARCELA HIDALGO**, Patient engagement coordinator, St. Mary's Research Centre

The use of whiteboards has become standard practice in health institutions across many jurisdictions despite limited evidence of effectiveness. This project evaluates the impact of whiteboards installed in patient rooms as a communication tool for patients/family and clinical teams on general medical wards at a community-based hospital in Montreal. As part of hospital-wide efforts to improve patient/family experiences, we adopted a participatory action research approach with mixed methods to assess patient and professional experiences of care, perceptions of information/communication gaps, and to design and evaluate the use of whiteboards on 2 medical wards. A controlled, pre-post design involved: qualitative interviews with patients and focus groups with staff on both units pre-implementation; post-discharge mailing of the Canadian Patient Experiences Survey (CPES) to eligible patients on both units (pre and post); installation of whiteboards and staff training on one unit; post-implementation interviews, focus groups and surveys on both units. Patient/family interviews were conducted pre-implementation (20) on each medical unit, and post-implementation (20) on the ward where whiteboards had been installed. 2 staff focus groups were held on each of the wards pre-implementation, and 2 on the post-implementation ward. Patients/families were more optimistic vs. clinicians regarding the potential value or impact. Post-implementation, family members vs. patients were higher users; communication was reported to improve; implementation challenges related to physician compliance, practical details such as whiteboard pens. About 500 CPES surveys were mailed pre and post-implementation. Response rate averaged about 30% (expected with elderly population). Final aspects of design, training and implementation were informed by the results of the pilot. The study also served to sensitize staff to evolving patterns of practice in patient-centered care. Evidence from this study suggests that the use of whiteboards does contribute to sustainable improvements in patient/family and professional communication, despite initial staff concerns. Lessons from this pilot will inform further design, dissemination and evaluation of this 'technology' in other areas of the hospital.

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B2.2 Integrating Influenza and Pneumococcal Screening in Acute Care

Presented by **GRACE SHEN-TU**, Evaluation Associate, Alberta Health Services

There are significant missed opportunities for prevention within acute care, with influenza and pneumococcal immunizations being an example. The Every Opportunity Project aimed to test the feasibility and acceptability of integrating seasonal influenza and pneumococcal immunization screening and administration into routine acute care practices. The project was implemented at 3 different acute care sites between October 2014 and September 2015. Three different models of care to integrate influenza and pneumococcal immunization screening and administration were tested: Model 1 was a Single Care Provider model, where one dedicated nurse performed influenza and pneumococcal eligibility screening and vaccination. Model 2 was an Integrated Model where pharmacists screened patient eligibility for influenza and/or pneumococcal vaccines and nurses administered the vaccine(s). Model 3 was a Single Profession model. Pharmacists on each pilot unit screened for influenza/ pneumococcal vaccine eligibility and administered the vaccine. Site implementing Model 1 reported 100% screen rate with vaccination rates of 9% (flu) and 7% (pneumococcal) among eligible patients. Model 2 reported 41% screening for flu and 61% for pneumococcal. Vaccination rates were at 2% (flu) and 20% (pneumococcal). Site implementing Model 3 recorded 32% average screen rate followed by 23% pneumococcal vaccination rate. Reasons for low vaccination rates despite eligibility included: unfit to receive vaccine; concerns about side effects; prescribers unable to sign order; and patients unable to give consent. Primary reason for patient ineligibility was prior receipt of vaccination. Qualitative interviews revealed primary success factors as: site leadership engagement, on-site coordinators, adequate training, and dedicated human resources. Key feasibility factors were: tailored Integrated Care Plan, linking IT systems, and acute care-specific immunization policies/guidelines. Model 1 demonstrated high screening rate and smooth workflow. Models 2 and 3 had lower screening rates, but better workload sharing and integration into routine. In integrated models, when workload is high, screening becomes a lower priority. Adequate support is essential for sustainability of integrated processes in acute care.

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B2.3 An Evaluation Framework for Research-Oriented Communities of Practice

Presented by **KAILEAH MCKELLAR**, PhD Candidate, University of Toronto

Communities of Practice (CoPs) are groups of people with common interests who share knowledge to build a common practice. CoPs are increasingly used in healthcare; however limited research exists on evaluating their benefits. The purpose of this study was to develop an evaluation framework to improve understanding of potential achievements. The development of the framework involved the collection of data from a number of sources: literature reviews, including a review of empirical research on CoPs, and a scoping review of evaluation frameworks for CoPs and knowledge networks; key informant interviews with members of CoPs; and a teleconference focus group to obtain feedback on the evaluation framework. Analysis was inductive across multiple methods, producing an evidence-informed framework and incorporating CoP members' reflections and perceptions about the mechanisms that drive CoPs and contribute to their resilience and sustainability. The framework highlights different forms of value that can be produced by a CoP and the level at which impacts can occur. Drawing from Wenger and colleagues (2011), the types of value are immediate, potential, realized, applied and transformative. The levels of impact are individual (core and peripheral), CoP, external stakeholder, and the field. The framework can be used to assess the value fostered by CoPs, as well as to understand the connections between the different forms of value, and how CoP activities relate to the different types of values. A CoP's goals and evaluation questions (and the funder's evaluation questions, if applicable) will inform how the framework is used and what types of data and analysis are best suited to answering the evaluation questions. We have produced a framework, linked to theory of how CoPs function. The presentation will offer a series of indicators and will conclude with a proposed approach to applying the evaluation framework. The evaluation framework can be a resource for CoPs looking to inform their evaluation or incorporate evaluative thinking.

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B2.4 Early integration of palliative care in Ontario: INTEGRATE quality improvement project

Presented by **FRANCES WRIGHT**, Consultant, Multidisciplinary Cancer Conferences, Cancer Care Ontario

The INTEGRATE Project aims to identify and manage patients who would benefit from a palliative approach to care early in the illness trajectory and across healthcare settings, through educational resources for primary care (PC) and oncology providers and through the testing of integrated models designed to manage identified patients. Palliative care integrated models are being pilot tested in 4 regions in Ontario (4 cancer centres (CCs) and 4 primary care (PC) practices). All participating sites completed Pallium Canada's LEAP module, which provides primary level palliative care education. The need for a palliative care approach for a given patient is identified using the Surprise Question "Would you be surprised if this person died in the next 6-12 months?" Data collection began following implementation, and sites are routinely submitting data to evaluate the integrated models and its impact on patients' care. Implementation of the surprise question began in November 2014 and to date, 97 patients have been identified through participating PC practices, and 292 patients through regional CCs within their multidisciplinary cancer conferences (MCCs). The integrated models specify that identification of patients with the surprise question should initiate a palliative approach to care, including symptom assessment, Advance Care Planning and Goals of Care discussions, and referrals as needed. PC practices have reported a variety of life-limiting diagnoses for their patients including cancer, heart disease, and renal disease, among others. Participating CCs targeted specific cancer sites: lung, gastrointestinal, glioblastoma and head and neck. Further analyses will include completion rates of Advance Care Planning discussions, palliative care referrals and healthcare utilization. Implementation continues through 2016. This project has the potential for significant impact on organizational and health system design for patients and their families who will benefit from earlier identification of palliative care needs in both the PC and oncology setting. The results of evaluation will translate into provincial recommendations for Ontario.

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B3.1 Work Loss Costs Associated with Osteoarthritis in Canada from 2010 to 2031Presented by **BEHNAM SHARIF**, Postdoctoral Fellow, University of Calgary

To estimate and project the work loss cost (WLC) associated with osteoarthritis (OA) in Canada using a population-based health microsimulation model (POHEM). We integrated an employment module based on 2006 Canadian Census into the previously developed microsimulation model of OA (POHEM-OA). The Canadian Community Health Survey (CCHS) Cycle 2.1 with a large OA sample ($n=7,067$) between ages of 25-64 was used to calibrate the results of the employment module and to estimate the fraction of non-employment attributable to OA. Probabilities of non-employment together with attributable fractions were then implemented in POHEM-OA to estimate WLCs associated with OA from 2010 to 2031. An annual economic growth of 1% per year was used for increase in earnings and costs were reported in current dollars. Probability that non-employment due to illness was attributable to OA was 44.4% and 59.4% for those not working a full-year and a part-year, respectively. The size of the working age population with OA was projected to increase by 13%, from 1.5 million in 2010 to 1.7 million in 2031. The WLC associated with OA increased by 46% from \$12 billion in 2010 to \$17.5 billion in 2031. Most (62%) of the increase was due to economic growth and 38% was due to the increase in OA prevalence and changes in demographics. Male and female OA patients between 55-65 years of age had the highest total projected WLCs. In a sensitivity analysis, where equal income was assigned to males and females, females had the highest WLC. The total WLC associated with OA in Canada is substantial and is projected to increase in future years. Results of this study could be used to inform policies aiming to reduce WLCs and increase employment sustainability for individuals with OA.

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B3.2 Chipping away at high health care utilization: understanding the role of mental illnesses and addictions among high cost patientsPresented by **CLAIRE DE OLIVEIRA**, Health Economist, Centre for Addiction and Mental Health

Previous work has found that mental health and addictions high costs patients incur over 30% more costs than other high cost patients. We posit that mental illnesses and addictions may be an important factor to consider even among other high cost patients. We examined all other high cost patients (i.e. those with less than 50% of mental health and addictions-related costs) among the top 10% of the cost distribution in 2012 using administrative health care data from Ontario. We considered all health care services paid for by the ministry of health under a comprehensive universal health care insurance plan. Other high cost patients were divided into two groups: those with any mental health and addictions-related costs and those without. We examined socio-demographic and clinical characteristics, utilization, and costs for both patient groups. In addition, we modelled costs using appropriate regression techniques. We found that among the top 10%, other high cost patients that had any mental health and addictions-related costs incurred over 40% more costs than those that did not (\$27,883 CAD vs. \$19,702 CAD, respectively). Patients with any mental health and addictions-related costs were older, lived in poorer neighbourhoods and had higher levels of comorbidity compared to those without. Many of these patients had a hospital diagnosis of dementia and, to a lesser extent, addictions. Once we controlled for relevant socio-demographic and clinical variables through regression analysis, we found that having any type of mental health and addictions-related utilization increased costs by roughly \$2,700 CAD. Furthermore, we found that having a diagnosis of psychosis, mood disorders or dementia increased costs by more than \$7,500 CAD. High cost patients with mental illnesses and addictions incur higher costs of care compared to those without. When considering interventions aimed at high cost patients, policy makers should consider the complex nature of these patients, in particular both their physical and mental health and addictions-related comorbidities.

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B3.3 The cost of major depression and subclinical depression: A population-based cohort study in Ontario, CanadaPresented by **MARIA CHIU**, Staff Scientist, Institute for Clinical Evaluative Sciences

Depression is a growing public health concern. An important area of study is subclinical depression, where individuals have depressive symptoms but do not meet the criteria for major depressive disorder. We estimated direct healthcare costs associated with major, subclinical and no depression in a single payer healthcare system. Participants from the Ontario component of the 2002 Canadian Community Health Survey on Mental Health and Well-Being were linked to administrative health care data and followed until March 31, 2013. Major depression was identified using the World Mental Health Composite International Diagnostic Interview and subclinical depression was defined as a score of ≥ 8 on the Kessler-6 distress scale. All costs were estimated in 2013 Canadian dollars, weighted using survey sample weights and adjusted for age and sex. Population-level costs were calculated by multiplying individual-level costs by the population size of each group. Our sample consisted of 10,155 individuals, of whom 657 and 420 had subclinical and major depression, respectively. The age- and sex-adjusted annual per-capita absolute costs for subclinical (\$4, 95% CI: \$3404-\$4801) and major (\$3915, 95%CI: \$2943-\$4887) depression were higher than those for the non-depressed group (\$3206, 95% CI: \$2820-\$3591); with similarly higher costs in all healthcare sectors, i.e., outpatient, emergency department, and hospital services. Despite similar per-capita costs, the greater prevalence of subclinical depression resulted in considerably higher population-wide costs. Total costs among those with subclinical depression were \$2.45 billion per year, compared to \$1.38 billion among those with major depression. The population-level excess costs were more than double for subclinical depression than for major depression (\$535 million vs \$250 million per year). Our results indicate that the direct healthcare costs associated with subclinical and major depression are substantial. Examining how individuals with varying levels of depression utilize the healthcare system may provide insight into how to allocate limited healthcare resources while maintaining high quality mental health care.

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B3.4 The Use and Cost of Diabetes Drugs in Public Plans, 2008/09 to 2014/15Presented by **GARY WARWICK**, Senior Economic Analyst, Patented Medicine Prices Review Board

The cost of diabetes treatment is rapidly growing in Canadian public drug plans. This study analyzes jurisdictional variations in cost and determines to which extent growth is attributable to the increased prevalence of diabetes or increased use of drugs, in particular newer more expensive treatments. Using public plan data from the CIHI NPDUIIS Database, the study examines trends in the use and cost of diabetes drugs from 2008/09 to 2014/15. An inter-jurisdictional comparison is provided for the public drug plans participating in the NPDUIIS initiative. The analysis focuses on the prevalence rates of the disease, the utilization rates of particular drugs, the demographic breakdown, the formulary status of various drug treatments and the trend in diabetes drug costs. Insight into the treatment profile of the patients using dipeptidyl peptidase-4 inhibitors and extent of their concomitant use of insulins is analyzed in this study. The results of this analysis confirm those of earlier studies that suggest that prevalence rates of diabetes increased over time. However, the increased number of beneficiaries and their increased volume of drug use explain only part of the rise in diabetes treatment costs in public drug plans in recent years. In fact, the results suggest that the increased use of newer more expensive treatments, such as dipeptidyl peptidase-4 inhibitors and newer insulins, are contributing to a great extent to the increased cost of diabetes for the public drug plans that reimburse these drugs. New drugs drove the increase in the cost of diabetes in some plans by 20% or more in recent years. Given the high-cost of the newer and more expensive diabetes drugs, their uptake will determine the growth in the cost of diabetes treatments in public plans. Understanding the actual use of these drugs and associated cost pressures will provide valuable insight to policy makers and the health technology assessment community.

B4.1 Postpartum Hospital Admissions and Emergency Department Visits Among Women with Intellectual and Developmental Disabilities

Presented by **HILARY BROWN**, Postdoctoral Fellow, Women's College Research Institute

Women with intellectual and developmental disabilities (IDD) have high rates of pregnancy complications. However, their health during the postpartum period is largely unknown. Our objective was to compare the risks for postpartum hospital admissions and emergency department visits among women with and without IDD. This was a population-based cohort study. We used linked Ontario (Canada) health and social services administrative data to identify singleton live births to women with IDD (N=3,083) and women without IDD (N=378,313) (fiscal years 2002-2012). Outcomes were hospital admissions and emergency department visits overall and in the early postpartum period (0-7 days after delivery discharge) and late postpartum period (8-42 days after delivery discharge). We classified these encounters as medical or psychiatric based on the recorded primary diagnosis. Women with IDD, compared to those without IDD, had increased risk for any postpartum hospital admission (2.4% vs. 1.2%; adjusted RR 1.76, 95% CI 1.44-2.18). They had similar risks for medical hospital admissions at 0-7 days and 8-42 days but had higher risks for psychiatric hospital admissions at 0-7 days (0.3% vs. 0.02%) and 8-42 days (0.2% vs. 0.01%). Women with IDD had increased risk for any postpartum emergency department visit (17.5% vs. 8.5%; adjusted RR 1.82, 95% CI 1.68-1.97). They had increased risks for medical emergency department visits at 0-7 days (10.0% vs. 6.0%) and 8-42 days (3.0% vs. 1.2%) and for psychiatric emergency department visits at 0-7 days (0.4% vs. 0.1%) and 8-42 days (0.4% vs. 0.03%). Women with IDD have elevated risks for postpartum hospital admissions and emergency department visits. These findings suggest the need to improve postpartum follow-up of women with IDD to prevent and monitor for complications. Such efforts may improve medical and psychiatric postpartum health in this population.

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B4.2 Factors associated with postpartum psychiatric admission in a population-based cohort of women with schizophrenia

Presented by **SIMONE VIGOD**, Psychiatrist and Researcher, Women's College Hospital

About 20% of women with schizophrenia requires psychiatric admission perinatally; with the highest risk period in the first 4 weeks postpartum. Little is known about how to identify women at risk for this outcome. We aimed to identify factors associated with postpartum psychiatric admission in schizophrenia. In a population-based cohort study of 1,433 mothers with schizophrenia in Ontario, Canada (2003-2011), we compared women with and without psychiatric admission in the 1st year postpartum on demographic, maternal medical/obstetrical health, infant health and psychiatric health and service utilization variables. We developed a multivariable Poisson regression model to identify factors independently associated with psychiatric admission within 1 year of delivery; presenting risk ratios, and 95% confidence intervals (95% CI) to convey the strength of each variable in its association with postpartum psychiatric admission. Admitted women (n=275, 19%) were less likely to be adolescents, more likely to be low income and less likely to have received prenatal ultrasound before 20 weeks gestation compared to non-admitted women. They also had higher rates of pre-delivery psychiatric comorbidity and mental health service use. Factors independently associated with postpartum admission were age (< 20 vs. > 35 years: adjusted risk ratio, aRR, 0.48, 95% CI 0.24-0.96), income (lowest vs. highest income: aRR 1.67, 1.13-2.47), and the following mental health service use factors in pregnancy: prior admission (> 35 days/year vs. none, aRR 4.54, 3.65- 5.65), outpatient mental health care (no visits vs. > 2 visits aRR 0.35, 0.27-0.47) and presence of a consistent mental health care provider during pregnancy (aRR 0.69, 0.54-0.89). Certain subgroups of women with schizophrenia may benefit from targeted intervention to mitigate risk for postpartum admission. The role of a consistent mental health provider during pregnancy - for women requiring psychiatric care - should be further evaluated for its potential to reduce risk for postpartum admission in this population.

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B4.3 Women's perceptions of pregnancy-related care: Informing Ontario's maternal-newborn health strategy

Presented by **PREETI NIGAM**, Program Manager, The Provincial Council for Maternal and Child Health

In developing Ontario's Low Risk Maternal-Newborn Strategy, we surveyed women to understand their experiences within the healthcare system, relating to their pregnancy, and gather feedback on the initially developed components of the strategy. The components women commented on include the strategy's vision, values, guiding principles, and essential elements of care. A survey tool was developed from a review of the literature and key informant discussions. The final tool used a mix of close- and open-ended questions. A self-administered online survey was disseminated across the province using social media platforms and direct engagement with key healthcare and community service providers. Women who gave birth in Ontario in the last five years were eligible to participate. We used survey research methods to reach a large number of women representing different geographical regions of Ontario. We used qualitative thematic analysis to determine the recurring categories/themes. A total of 3445 women completed the survey over a two week period. The majority of respondents (55%) were cared for by midwives during labour and delivery, followed by obstetricians (42%), family physicians (5%), and other healthcare providers (12%). Seventy-eight percent of the women gave birth at a hospital, while 20% had a home birth. The results of the thematic analysis indicate strong agreement with the four key components of the strategy, including the vision, values, guiding principles, and the essential components of maternal and newborn care. The emergent themes from the analysis include: right to informed choice of birth plan, ongoing pre- and postnatal support, quality care based on evidence and women's unique needs, and an equitable and accessible maternal-newborn health system. The survey findings support the components of the Low Risk Maternal-Newborn Strategy, and reaffirm women's desire to be active participants in their own care. Further, the results describe women's vision for an equitable and accessible maternal-newborn healthcare system. These findings will inform Ontario's strategy to better serve mothers and babies.

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B4.4 Neonatal and Childhood Neurodevelopmental, Health and Education Outcomes of Children Exposed to Antidepressants and Maternal Depression During Pregnancy: Study Protocol

Presented by **DEEPA SINGAL**, PhD Candidate, University of Manitoba, Department of Community Health Sciences

Antidepressants are commonly prescribed during pregnancy; however, their use during the prenatal period remains controversial. This study will investigate short- and long-term neurodevelopmental, physical and mental health, and educational outcomes of children who have been exposed to antidepressants and/or maternal depression during pregnancy. Administrative data will be used to generate three exposure groups from all children born in Manitoba between 1996 and 2014 whose mother had a prescription for antidepressants: (1) throughout the prenatal period; (2) in early pregnancy (not during the 90 days before delivery); (3) in late pregnancy only (prescription refill 90 days, or shorter, before delivery), and one unexposed group consisting of children whose mothers had a diagnosis of depression during pregnancy but did not use antidepressants. Propensity scores and inverse probability treatment weights will be used to adjust for confounding. Multivariate regression modelling will determine whether prenatal exposure to antidepressant medications or untreated mood/anxiety disorder is associated with: (1) adverse birth and neonatal outcomes, including: preterm birth, low birth weight, low Apgar scores, respiratory distress, congenital malformations, and persistent pulmonary hypertension compared to untreated prenatal mood/anxiety disorders; (2) adverse early childhood outcomes, including: early childhood educational challenges, diagnosis of neurodevelopmental disorders, and diagnosis of mental disorders compared to untreated prenatal mood/anxiety disorders. We will determine if exposure effect differs between types of antidepressants prescribed, specifically between SSRIs and SRNIs, and determine if exposure effect differs between gestation timing of exposure to antidepressants. This is the first Canadian study that will conduct a comprehensive longitudinal investigation on the effects of in-utero antidepressants on the long-term outcomes of children exposed to these medications. Results will provide high quality evidence that can assist in making informed decisions regarding the use of antidepressants during pregnancy.

B5.1 How do hospitals in Ontario adopt and use health literate discharge practices? A qualitative analysis

Presented by **JENNIFER INNIS**, PhD student, University of Toronto

To examine how Ontario hospitals adopt and use evidence-based health literate discharge practices. These are practices that meet the health literacy needs of patients and families at the time of hospital discharge and include language assistance, medication review and use of a written discharge plan. Health literate discharge practices have been associated with improved patient and health system outcomes. Key informant interviews were conducted with 20 managers, administrators and front-line staff from 10 hospital sites across the province in the summer and fall of 2015. Using the results of a recently published scoping literature review on the factors, context and processes that influence the uptake of evidence-based practice in health care organizations, and using an organizational learning perspective, participants were asked about how their organizations adopted and used health literate discharge practices. Thematic analysis was used in analyzing the interview data. Large scale routines, or "metaroutines" have been observed in other study settings as organizations adopt and apply practice innovations. Our thematic analysis led to the identification of eight metaroutines that were associated with the adoption and use of health literate discharge practices in the hospitals we studied, including: allocating resources, building and nurturing external relationships, fostering internal networks, standardizing processes, responding to environmental mandates, engaging patients and families, fostering participative decision making and scanning the external environment. Several barriers to the use of these metaroutines were identified. We offer a series of propositions, based on our findings and extant research on organizational learning, to form a new conceptual model regarding the adoption and use of health literate discharge practices in hospitals. The results of this qualitative study offer insights into the metaroutines that hospital managers and leaders use to support the uptake of health literate discharge practices. The findings of this study could be extended to the adoption and use of other evidence-based practices to improve patient care and outcomes.

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B5.2 Living Life to the Full for Older Adults: An Ontario Pilot Project

Presented by **SCOTT MITCHELL**, Director, Knowledge Transfer, Canadian Mental Health Association, Ontario

Living Life to the Full is a 12-hour, 8-week course based on cognitive behaviour therapy (CBT) principles, that provides participants with skills to cope with life's challenges. Study objectives were to evaluate the effectiveness of Living Life to the Full on measures of mental well-being with older adults aged 50+. Local partnerships were built between 15 Canadian Mental Health Association (CMHA) branches and 16 older adult centres in communities across Ontario. Each partnership was responsible for delivering two Living Life to the Full courses. Participants were self-referred via community advertising. Study participants completed measures of quality of life and mental well-being before the course began (T1), immediately post-course (T2) and 3 months post (T3), and a measure of course satisfaction at T2. A clinical study was also conducted. Clinical research participants completed additional measures of depression and anxiety at T1, T2, and T3. Focusing on pre to post-course, participants exhibited statistically significant improvement on measures of well-being. More specifically, participants' symptom levels of anxiety, depression, cognition, quality of life psychological domain, and mental well-being significantly improved after attending Living Life to the Full. These improvements were maintained 3 months post-course for all measures. Furthermore, the quality of life social domain became statistically significant after 3 months. Among self-reported benefits, 75% learned new skills for coping with stress, 65% met new people, and 62% reported improvements in mood. Three months later, participants reported experiencing greater social support and understanding the importance of behaviour change. Over 90% of participants said they were satisfied with the program and would recommend it to a friend. Results demonstrate that CBT-based group education sessions can lead to sustainable improvements for older adults. The Living Life to the Full course is an effective method for improving symptoms of depression and anxiety, and enhancing quality of life, cognition, and overall well-being for seniors when delivered in a community setting.

B5.3 Emergency Physician's Perspectives on Patient Reported Outcome Measures for Emergency Department Care

Presented by **KATIE DAINTY**, Scientist, Li Ka Shing Knowledge Institute, St. Michael's Hospital

There is a growing emphasis on including patients' perspectives on outcomes as measures of quality care; to date this has been a challenge in emergency departments (ED). To begin to unpack this challenge we explored ED physicians' perspectives on roles, responsibilities and data-informed practice to help inform an intervention design. ED physicians from hospitals across Canada were invited to participate in the interviews using a snowballing sampling technique starting with those hospitals affiliated with the Rescu research program at St. Michael's Hospital. Semi-structured interviews were conducted by phone with questions focused on the role and practice of ED physicians, their relationship with their patients, what information they use to learn from practice, follow-up after discharge and their thoughts on patient-reported feedback as a quality metric. Transcripts were analyzed for themes using standard descriptive content analysis techniques and a modified version of the constant comparative method. Interviews were completed with 30 individual physicians. Respondents were diverse in location (rural vs. urban and community vs. academic hospital), training (EM Residency vs. EM Certificate vs. Other) and years in practice (Range 1-35 years). Physicians reported being interested in post-discharge data including adverse events, return visits or readmissions, other physician's notes, etc. in a select group of complex patients but saw "patient-reported" feedback as less valuable due to perceived biases. They felt patient reported measures may be useful for identifying systemic issues but unsure about personal practice change due to the episodic nature of their work. Implications about how it is collected and when it was provided as well as concerns about their clinical and ethical responsibilities to follow-up if poor outcomes were discussed. Data collection & feedback are key elements of a learning health system. While patient-reported outcomes may have a role, ED physicians are conflicted about the actionability of such data and ethical implications that may exceed their scope of practice. These findings have important implications for intervention design in this area.

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B5.4 Exploring barriers and facilitators to implementing family support in Early Psychosis Programs in Ontario: A systematic review

Presented by **AVRA SELICK**, Research Coordinator, Centre for Addiction and Mental Health

Family support is part of the Early Psychosis Intervention (EPI) model and has been shown to lead to improved outcomes. Despite this a recent Ontario survey found only moderate levels of implementation. This presentation reports results of a literature review on facilitators and barriers to delivering family support in EPI. A search was conducted of four electronic databases, Medline, EMBASE, PsycINFO and Joanna Briggs, from January 2000 to September 2015 using terms related to early onset psychosis, family work and implementation. 3396 unique studies were identified, seven of which met inclusion criteria. These were abstracted independently by two researchers using a standardized template. Barriers and facilitators were coded and aggregated to higher level themes using a consensus approach. Of the 7 studies, all but one assessed family psychoeducation. Four key themes emerged. Three were related to uptake by families: family/ client interest and readiness to participate; family ability to access supports; and family support needs/preferences. The fourth theme focused on implementation by programs, including staff training and resources to provide family support. A key finding across the identified studies was that families have different needs and preferences regarding the timing, length, intensity and content of the intervention. One size does not fit all and many families do not require the intensive psychoeducational programs typically provided. These findings also align with implementation science research, which identifies similar program supports as critical to successful implementation. The pyramid of family care recommended in the Mental Health Commission of Canada guidelines offers a flexible approach with escalating intensity. Our findings indicate this approach may be appropriate for EPI programs. It reduces program burden, since few families require intensive supports, and increase uptake, due to more flexible options.

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B6.1 Waiting time management strategies for musculoskeletal outpatient physiotherapy services in QuebecPresented by **SIMON DESLAURIERS**, Master's student, Université Laval

Access to public outpatient physiotherapy in Quebec is currently limited by long waiting lists. Yet, several management strategies could help improve timely access. The objective of this research project was to investigate waiting time management strategies used in musculoskeletal outpatient physiotherapy services in the province of Quebec. A mixed-mode survey was conducted between June and November 2015 across all publicly funded hospitals offering outpatient musculoskeletal physiotherapy services to adults in Quebec (n=98). Waiting list managers were the key respondents. Data were collected via an Internet questionnaire (on a Limesurvey platform) and a subsequent telephone interview was performed for more complex questions related to the waiting list. A descriptive analysis was carried out to understand the use of waiting time management strategies in these settings. Data were collected from 97 public hospitals in Quebec; the response rate was 99%. The waiting time management strategies most frequently used were administrative strategies: attendance and cancellation policies (99%), referral prioritization (96%) and redirecting to another resource (e.g. private clinics) (87%). Approximately two thirds of outpatient physiotherapy services had a computerized waiting list. Other management strategies related to clinical practice, such as offering group interventions (39%) or using standardized discharge criteria (30%), were less frequently used. Among the 14 potential waiting time management strategies surveyed in this study, respondents reported using an average of 7.8 different strategies. Multiple management strategies are used to reduce waiting time for outpatient physiotherapy services in Quebec. Administrative strategies were found to be more frequently used than strategies related to clinical practice. Further research is needed to identify which waiting time management strategies are effective.

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B6.2 Preventing HIV in Botswana: Using Social Network Analysis to identify and engage young women in a structural intervention for HIV preventionPresented by **DAVID LOUTFI**, PhD Student, McGill University

Within a trial of a structural intervention for HIV prevention in Botswana, we use social network analysis to understand networks of young women at particular risk of HIV, and to suggest effective methods of reaching the most vulnerable young women and encouraging them to participate in government structural support programmes. In a district of Botswana, we interviewed young women aged 16-29, who were not in education and not in work, in four settings: two wards of the district town, a large village, and a small remote village. The questionnaire asked them who they go to when looking for information, for socialising, and for emotional support. For the reported contacts it asked about: their age and sex, their place of residence and role in the community, and the closeness of the relationship. Young women from within the district conducted the interviews and recorded responses on hand held android devices. The results of an ego-centric analysis describe the extent and nature of the young women's networks. We interviewed 192 young women and asked them to list up to 5 people they would seek for 3 types of social support. On average, participants reported 2.7 contacts for informational support, 2.8 for socialising, and 1.8 for emotional support. Young women in the villages reported larger networks than those in the district town across all 3 types of support. Socializing (2.9 vs. 2.5 p=0.0426); informational support (2.9 vs. 2.5 p=0.0155); emotional support (2.0 vs. 1.5 p=0.0032). The poorest young women reported larger networks than better off young women. Socializing (3.2 vs. 2.6 p=0.0016); informational support (3.5 vs. 2.5 p<0.0001); emotional support (2.1 vs. 1.6 p=0.0336). We have found limited reports of using social network analysis to identify and engage vulnerable groups. Our findings will contribute to improving the reach of the structural intervention for HIV prevention, and could have implications for reaching vulnerable groups in other contexts.

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B6.3 Champlain BASE eConsultation service. Five year utilization and impact dataPresented by **ERIN KEELY**, Chief, Division of Endocrinology and Metabolism, The Ottawa Hospital

To report on the utilization and impact of the Champlain Building Access to Specialists through eConsultation (BASE) multiple specialty eConsult service Excessive wait times for specialist appointments pose a significant barrier to patient care. In 2010 we launched the Champlain BASE eConsult service in order to improve access to specialist care and reduce wait times. We routinely collect several indicators including time interval to access to care, type of advice received, avoidance of face to face referral and overall satisfaction. This cross sectional study of all eConsult cases submitted from April 2011 to Dec 31, 2015 describes the utilization and impact of the service. As of Dec 31, 2015, 937 primary care providers (784 MDs, 153 NPs) from 322 clinics in 87 towns/cities were registered. 11,461 cases directed to 84 different specialty services were completed with a median response time of 0.8 days. The large majority of cases (80%) required less than 15 min for the specialist to answer the question. Over 60% of cases did not require a face to face referral, and in 40% of cases an unnecessary referral was avoided. In 57% of cases the provider got good advice for a new or additional course of action and in 39% of cases the provider confirmed a course of action they originally had in mind. The Champlain BASE eConsult model demonstrates sustained high user uptake and impact on access to specialist advice. Our lessons learned and results can be used to inform other regions interested in implementing similar systems. Ongoing research includes policy development, economic impact, education opportunities and patient perspective.

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B6.4 Out-of-pocket expenditure and foregoing healthcare due to cost among people with chronic conditionsPresented by **LISA CORSCADDEN**, Senior Researcher, Bureau of Health Information

This analysis explores the relationship between out-of-pocket healthcare expenditure and its impact on barriers to access to care for people with chronic conditions. It highlights international variation and countries from which lessons may be learned on how to reduce barriers to accessing care for chronic conditions. Cross sectional analysis using logistic regression models is used to assess the relationship between chronic conditions, out-of-pocket costs and skipping care due to cost using the Commonwealth Fund International Health Policy Survey of adults aged 18 years and over conducted in 2013. We examine the association between chronic conditions and reported out-of-pocket costs; next how these factors are associated with skipping care due to cost. The likelihood of people with chronic conditions skipping care due to cost in Canada is compared to other countries. Analysis is stratified by country and patterns for Canada are compared to 10 other countries. Based on survey data, the average out-of-pocket expenditure on healthcare for adults in Canada were an estimated \$760 US - comparable to estimates from administrative data. Canadian adults living with chronic conditions had significantly higher out-of-pocket expenditure compared to people with no conditions; findings were similar for most countries. People with chronic conditions and those with higher out of pocket costs are also significantly more likely to report foregoing care due to cost. However, in Canada people with chronic conditions skip care less often than in other countries. Out-of-pocket costs act as a barrier to accessing treatment for people with chronic conditions. While the extent of cost barriers appears smaller in Canada than in the United States and Australia, lessons may be learned from other countries where people with conditions do not face additional barriers.

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B7.1 Preparing for a Devolved, Population-Based Approach to Primary CarePresented by **DALE MCMURCHY**, President, Dale McMurphy Consulting

Ontario is exploring models for the devolution to the sub-LHIN level of planning and service delivery for a defined population. Stakeholders are preparing themselves for a transition to locally integrated primary care services. This review provides information on population-based planning and commissioning in other jurisdictions to inform potential reforms. A comprehensive review of published and grey literature - as well as a review of government and commissioned documents and qualitative key informant interviews (academics, administrators and practitioners) in jurisdictions with commissioning groups in primary care - was undertaken. The documents collected were reviewed for methodologic quality and relevance. Findings were synthesized and grouped into themes and sub-themes. The resulting report included detail on the structure and experiences of commissioning groups in the U.K., Australia and New Zealand, insights and parallels from recent Ontario reform efforts, and key considerations for implementing the proposed reform. Experience and evidence indicate several key considerations for initiating and implementing primary care transformation with commissioning groups. The review identified three key areas for consideration. For Start Up key factors are: making a compelling case; the right balance between prescription and experimentation; governance; application process and requirements; how funds flow; roles and responsibilities; time for change; realistic cost estimates; and geography. The key Levers for Change are: addressing barriers to change; changing culture and a culture of change; leadership; provider engagement; integrated decision-making; financial incentives; and performance measurement. For Organizational Development and Management focal areas include: organizational barriers; managing for transformation; enabling environments; practice level change; hiring for fit; standardizing clinical and management systems; training; size and type of practices; and conflicts of interest. Addressing these factors leads to greater success. Most critical are: vocal commitment to aspirational goals of high-quality primary care; acknowledgement of accountability to health system goals; strong, visionary and risk-taking leadership; strong governance and management structures with skilled individuals; clear roles and responsibilities; significant practice change; and data and evidence.

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B7.2 First Emergency Department Mental Health Contact: A Measure of Ambulatory Access to CarePresented by **PAUL KURDYAK**, Director, Health Outcomes and Performance Evaluation, Centre for Addiction and Mental Health

Some mental health-related ED visits may be avoidable if individuals have access to effective ambulatory care. The study objective was to describe individuals whose mental health ED contact was their "first contact" with mental health services, and factors associated with this potential indicator of suboptimal access to care. From a population-based cohort of Ontarians 16 years of age and older with an incident mental health-related ED visit between 2012 and 2014 (n=181, 265), we compared patients with and without outpatient mental health physician visits in the prior 2 years (first contact) on demographic, clinical and health service use variables. We used multivariable models to identify factors independently associated with first contact. All analyses were stratified based on ED disposition: whether the incident ED visit resulted in a hospitalization (n=35,382, 19.5%) or discharge home (n=145, 883, 80.5%). The incident ED visit was the first contact for 46% of patients overall, including 37% (n=13,018) of patients who were hospitalized and 48% (n=70,277) of patients discharged home. The factors independently associated with first contact were similar regardless of ED disposition. There was an increased likelihood of first contact for those who were: in the youngest or oldest age category, male, immigrant, rural, and having a substance use disorder or self-harm/suicide attempt. Increasing number of comorbid conditions, having a usual care provider, and presenting to the ED with high acuity were associated with a decreased likelihood of first contact. First contact is common among mental health ED patients. The factors associated with first contact ED visits are known to be associated with poor access in general. Therefore, measuring first contact mental health ED visits may be a useful way to evaluate population-based access to mental health care.

B7.3 The Family/Friend Caregiver Experience in Ontario: Results of an Online Pilot StudyPresented by **ELIZABETH LIN**, Research Scientist, Centre for Addiction and Mental Health

Family/friend caregivers are critical to Canada's healthcare system, with an estimated economic value of \$25 billion. Integrated policies are needed to support this valuable resource but systematic information to inform policy is lacking. This study describes development of a survey to collect systematic and relevant information across all Ontario caregivers. Selected survey domains reflected personal stress-burden and occupational demand theoretical frameworks. A three-phase process was used to develop and test the survey: 1) a literature review to identify relevant standardized tools/questions and populate the domains; 2) cognitive testing to refine the tool, with input from a multidisciplinary advisory committee and 30 caregiver interviews; and 3) online pilot testing with 302 Ontario caregivers. Items were added to allow comparison between the survey sample and the 2012 StatsCan General Social Survey on Caregiving (GSS). A specialized module focused on caregivers of young people with mental health and/or addictions problems was also developed. Results indicate that the survey is feasible and user-friendly, but lengthy (average time: 43 minutes). Respondents represented a diverse sample of caregivers. The top three health problems of care receivers were mental health (31%), dementia (14%), and neurological disorders (10%). Tasks identified as the most time consuming as well as the most difficult to perform included emotional support (69%/36%), monitoring symptoms (44%/26%) and managing behaviour (41%/44%). The most commonly used caregiver service was "health and other therapies", while "system navigation" was the most needed but unused. Comparison with Ontario GSS data reveals that respondents were older and more invested in caregiving; 46% spent 20+ hours caregiving (vs. 13.4%, GSS). Our sample was also better informed, with 30.5% receiving caregiver-related federal tax credits (vs. 4.1%, GSS). Understanding caregiver experiences and needs is critical for determining how this workforce supports Canadians with physical and mental health problems. Results demonstrate that an online tool can collect relevant information to inform policy and program delivery. Pilot results will be used to finalize the survey and initiate ongoing data collection.

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B7.4 Views on the collaborative practices among health profession organizations for health policy development in OntarioPresented by **OLENA SCHELL**, PhD Candidate, University of Regina

The study aims to evaluate the role of health profession organizations in the development of health policy in Ontario. Given the propensity for team-based care models, it is important to understand how these organizations are adapting their practices to develop collaborative policies at a provincial level. A mixed methods approach was developed. The first part included an archival search and document analysis of grey literature sources, providing a general assessment of health policy-making. The second stage included semi-structured interviews conducted with key participants from various regulatory colleges and professional associations in Ontario. Interviews were developed to gather the insights of the actors directly involved in the health policy process to better understand the roles and relationships between health profession organizations and the Ontario Ministry of Health and Long-Term Care (MOHLTC). Ten interviews are currently being conducted and will be completed by the end of March 2016. Preliminary results demonstrate a collaborative effort between regulatory colleges and professional associations to develop health policies. These health profession organizations rely on feedback from each other to support a policy issue or identify potential disagreement that may emerge in formal consultative processes with the MOHLTC. Most participants felt their organizations were able to influence policy decisions by providing research to inform evidence-based policies. However, non-physician professional organizations felt that provincial medical associations continue to have privileged access and control over decisions affecting funding and budgets. In sum, while participants felt current health care challenges have allowed the professional development of their respective professions, they continue to view medical dominance as barrier for collaborative funding models. Most critics argue that medical dominance has declined but this study suggests that provincial medical associations continue to exert significant influence over policy decisions, the allocation of resources, and the work place environment for all health professions. Results will be used to complete a comparative case study with Saskatchewan.

B8.1 A fresh approach to reform? The development and implementation of Ontario's mental health and addictions strategy

Presented by **HEATHER BULLOCK**, PhD student, McMaster University

Open Minds, Healthy Minds, Ontario's Comprehensive Mental Health and Addictions Strategy (2011) commits to the transformation of services for all Ontarians. We present an analysis of the policy formulation and policy implementation stages of the Strategy focusing on how this process represented a departure from previous attempts at reform. A document analysis was conducted using: publicly available government documents and presentations; government committee hearing transcripts; internet search and website scan; press releases; and academic literature. First, documents were classified as either being related to policy formulation or implementation and a timeline was created identifying key activities and documents. Documents were reviewed again according to the types of institutions, interests and ideas that contributed to the document or process being described. Finally, a thematic analysis was conducted according to the question of interest, namely: What set this process apart from previous attempts and increased the prospects for system reform? Three activities in the policy formulation stage (Select Committee on Mental Health and Addictions, Minister's Advisory Group, and an interministerial assistant deputy ministers group) and several processes at the policy implementation stage (continuation and expansion of interministerial approaches, distribution of leadership and accountability for initiatives to non-government actors) were indicative of a policy network and horizontal governance approach being taken. Three features set this policy process apart from previous attempts and increase the prospects for reform: an expansion of the actors and policy network to those outside of health and mental health, an extension of a policy network approach beyond policy formulation and into implementation, and the presence of both political and policy leadership. This account suggests that there is some reason for optimism that the policy formulation and implementation stages of the Strategy as currently constructed have increased the prospects for reform through the use of a policy network and horizontal governance approach.

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B8.2 Conceptual mapping of youth to adult mental health transition programs and strategies: Application of a conceptual framework

Presented by **MARK EMBRETT**, Doctoral Candidate, McMaster University

The gaps in service youth sometimes experience during transition to adult mental health service are often visualized via a clinical lens. However, solutions typically require policy interventions. This study applies a policy-based conceptual framework aimed to classified transition support programs in order to better understand how to facilitate policy change. This study used a modified scoping review approach to identifying relevant mental health transition support programs. Studies were identified using results from a series of seven literature reviews conducted by the research team, and advice from the project's steering committee, which consisted of providers, policymakers, youth and family members. This process resulted in the identification of 110 documents that were used in the analysis. Using predefined eligibility criteria, information about the transition programs identified in the documents were systematically extracted and the programs were classified based on conceptual framework criteria. Thirty-three transition programs were identified and classified into the conceptual framework. The review identified 23 programs that worked by implementing change at the micro policy level and nine at the meso policy level programs. No programs implemented change at the macro policy level that would have provided support to individuals throughout their lifespan. Findings indicate that many health systems do not incorporate mechanisms that seamlessly transition youth into adult mental health services. Instead, many jurisdictions address gaps by funding bridging initiatives, rather than focusing on a patient-centred health system. The absence of any system level approaches indicates that policymakers prefer to 'layer' new policies over existing ones, rather than revising current policies that lead to a gap in transition. Viewing gaps in clinical care through the application of a policy-based conceptual framework revealed that transition support programs have often been designed in a way that encourages the rigidity of the system and make the delivery of patient-centred care more difficult to achieve.

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B8.3 The Chez Soi trial of Housing First in Montreal: Results and implications of a natural experiment at 4 years

Presented by **ERIC LATIMER**, Professor, McGill University

Scattered-site Housing First (HF) is an evidence-based intervention to help homeless people with mental illness quickly find an apartment and then meet other goals. We compare the effects on housing stability of transitioning to usual services after 2-3 years of HF between high-need and moderate-need individuals. The Montreal site of the At Home/Chez Soi study recruited 469 individuals between October 2009 and May 2011, classified as high-need (n=163) or moderate-need (n=306). High-need participants were randomized to either HF with a high-intensity team (n=81), or treatment as usual (TAU). Moderate-need participants were randomized to one of two teams, CSSSJM (n=104) or Diogenes (n=100), or TAU. Multiple outcomes were tracked at 3- or 6-month intervals for up to two years, until March 2013. Funding was then maintained for only one team, Diogenes. Participants were interviewed once more about 4 years post-randomization, between February 2014 and October 2015. The Montreal site succeeded in interviewing 426 participants (91% of 469) at the end of the initial follow-up period, and 362 (77%) at 4 years. By the 3-month interview, high-need HF participants were stably housed more than 70% of the time, remaining at that level until the two-year follow-up. Meanwhile, TAU rose from 7% to 30%. Preliminary results indicate that about two years after that, following transition to usual services, HF participants were stably housed on average only 48% of the time, vs 41% for TAU. Gains were better maintained for moderate-need participants who were transitioned to usual services: at 4 years, Diogenes and CSSSJM had declined almost identically, from 84% to about 75%, while TAU had risen from 36% to about 56%. Results suggest that transitioning high-need individuals from HF to usual services after only 2-3 years may be much more deleterious than transitioning moderate-need individuals. This has important implications for plans to reduce homelessness. Further research is needed to better define how individuals can successfully be transitioned to regular services.

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B8.4 The Choice and Partnership Approach (CAPA): Improving Access to Mental Health Care

Presented by **WILLIAM GARDNER**, Professor, University of Ottawa

CAPA is a service transformation system designed to improve mental health care. It seeks to increase the efficiency of care, enhance patient and family engagement, and match patients' needs with clinicians' expertise. Our study tested whether CAPA improved access to outpatient mental health care in an academic pediatric hospital. CAPA's first appointment ("Choice") is a collaboration between the patient, family, and clinician to develop a shared treatment plan. If the next step in care involves the health centre, that "Partnership" appointment is booked so that the family leaves "Choice" with a clear plan. We evaluated how CAPA affected outpatient mental health services access using de-identified administrative data on referrals and waiting times for first and second mental health visits for children and youth served by a large pediatric mental health and addictions program. We compared access for January to June 2011 (pre-CAPA) and the same months in 2013 (post-CAPA). First appointments increased 130% from 364 in 2011 to 838 in 2013. Staffing increased from 22.3 FTEs in 2011 to 29.4 FTEs in 2013. Therefore, there were 32.6 first appointments/FTE/Year in 2011 compared to 57.0 first appointments/FTE/Year in 2013 (24% increase in productivity). In 154 charts reviewed from 2011, there were 86 second appointments (56% of first appointments). In 794 charts from 2013, 487 (61%, p = .24) had second appointments. Days from referral to the first appointment decreased 59%, from M = 225.3 (SD=138.8) in 2011 to M = 93.0 (SD=55.5, p less than .001) in 2013. Days from referral to second appointment decreased 38%, from M = 271.2 (SD=163.3) in 2011 to M = 168.9 (SD=82.4, p less than .001) in 2013. Use of CAPA was associated with more patients served, higher staff productivity, and decreased patient waiting times. CAPA facilitates patient and family engagement, promotes the efficient flow of care, and increases access to care. CAPA should be considered as a transformational model for child and adolescent mental health programs.

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Day 2: Wednesday, May 11 / Jour 2 : Le mercredi 11 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

9:45am – 11:00am CONCURRENT SESSIONS C

9 h 45 – 11 h 00 SÉANCES SIMULTANÉES C

C1: ACCESS AND EQUITY

ACCÈS ET ÉQUITÉ

Carmichael (Convention Level)

C1.1 CLEAR toolkit advanced pilot study: Helping health workers address the social causes of poor health

Presented by **TAL CANTOR**, Student, St. Mary's Research Centre

To assess whether training family medicine residents to use a clinical decision aid (CLEAR toolkit) to help them ask about and address the social determinants of health in clinical practice improves health and social outcomes for their patients. A mixed-methods study design involving a pilot randomized controlled trial with nested in-depth interviews was used including a workshop with health workers and community organizations to create a locally relevant version of the CLEAR toolkit. First year family medicine residents at a large university-training program were recruited following a core teaching session. From those who agreed, half were randomly selected to receive further training (how to use the toolkit) and the other half received no further training. A brief questionnaire was administered with their patients and in-depth interviews were also conducted with their patients, health workers and community organizations. The majority of first year family medicine residents regularly came into contact with vulnerable patients. These patients, who seldom made the link between their social situation and their health conditions, rarely brought up social issues during their visit to the doctor. As well, these patients were often unaware of their rights and unable to identify pathways for accessing health and social care. While the family medicine residents understood the importance of asking about the social determinants of health of their patients, few obtained a detailed social history due to time constraints and feeling uncomfortable asking about sensitive social issues. Patients were more transparent and forthcoming regarding their social vulnerabilities during interactions with local community organizations where they often felt more comfortable sharing personal information. Health workers may understand the relevance of the social determinants of health, but patients are unlikely to raise these issues during a doctor's visit. Health workers need to help their patients feel at ease in discussing their social challenges, understanding their rights, and navigating through the health and social systems.

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C1.2 "Talk with me": Perspectives on services for men with problem gambling and housing instability

Presented by **SARA GUILCHER**, Assistant Professor, University of Toronto

Problem gambling and homelessness are recognized as important public health concerns significantly impacting individuals, their friends and families, communities and broader society. We aimed to explore the experiences with health and social services of men who had a history of problem gambling, and housing instability in Toronto, Ontario. We used a community-based participatory approach with the Good Shepherd Ministries (GSM). We conducted qualitative interviews with men who had experienced problem gambling and housing instability. Our interviews (n=30) focused on open-ended questions to elicit men's perceptions of services related to housing instability, problem gambling and other comorbid conditions (e.g., mental illness, substance use). We reviewed relevant nodes related to experiences with services (e.g., 'Use of and feedback on: health and social services, housing services, justice/legal aid services, substance use services, gambling services; stigma; goals; triggers; physical health, coping strategies; finances; relationships; barriers to services and recommendations for services). The concept of person-centred engagement was identified as a main overarching theme, and seemed to be lacking in most of the men's experiences of services. Person-centred engagement for these men entailed empowerment and autonomy; empathy, compassion and sincerity; respectful communication; and tailored and holistic life plans. While there was a strong emphasis placed on independence, the men identified the importance of positive therapeutic relationships as being critical aspects of the recovery process. Several recommendations were identified: 1) Increasing general awareness of services for problem gambling; 2) Delivering integrated services in a one-stop-shop; 3) Addressing mental health with psychotherapy and pharmacotherapy; 4) Providing timely access to prevention and recovery services; and 5) Enhancing life skills with peer support. Our study highlighted that most of the men we interviewed were not having their health and social needs met. Services need to address the intersection of problem gambling, housing instability, and other comorbidities. Ensuring services are grounded in person-centred engagement seems to be critical for optimal service delivery.

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C1.3 Equity in active living among youth: understanding the influence of school policies and programs on screen time through gender and geography-specific analytical approaches

Presented by **TARUN KATAPALLY**, Assistant Professor, Johnson-Shoyama Graduate School of Public Policy

Excessive screen time in youth has detrimental effects on physical, mental, social and emotional health and wellbeing. With schools being a critical context in youth's life course, hypothesizing that impact of school policies extends beyond school hours, this study aims to understand how school active living policies influence screen time. This cross-sectional study is part of COMPASS, a large population health investigation to evaluate the impact of school policies and programs on multiple health behaviours in >50,000 grade 9 to 12 students in 89 schools in Alberta (10) and Ontario (79). School policy, programming and behavioural data were obtained via validated surveys. Screen time was daily sum of minutes spent watching television, playing video games, and surfing Internet. Key independent variables included a wide-range of school policies and programs, built environment around schools, gender, age and geography-specific weather. Statistical analyses included four gender and geography-specific random-intercept multilevel linear regression models. The presence of varsity sports programs decreased the likelihood of screen time accumulation, with swimming and tennis being the significant programs (p<0.05) in Ontario boys and girls, respectively, and football being the significant program in Alberta girls. Policies determining access to physical activity were also significant, with access to indoor physical activity areas during non-instructional school time being associated with lower screen time in Ontario girls and access to gymnasiums being associated with lower screen time in Alberta boys. Built environment around schools was an important factor as well, with presence of physical fitness facilities around the schools being associated with lower screen time in Ontario boys. Overall, across both provinces and genders, non-white youth were more likely to accumulate greater screen time. Impact of school policies and programming did extend beyond school hours to influence overall screen time, with variations observed across geography and gender. School policies and programming can play a key role in enabling equity in active living among youth to ultimately influence important health behaviours such as screen time.

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C1.4 Canadian data sources on ethnic classifications

Presented by **KELSEY LUCYK**, PhD Candidate and Research Associate, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary

A thorough understanding of the health status of Canadians must take into account their ethnicity, given the genetic and social effects of race and ethnicity on health. Our objective was to describe Canadian data sources that collect ethnicity data and the degree of granularity that exists for ethnic classifications. Our methods were informed by those of an environmental scan. We searched publicly available government documents, peer-reviewed literature, and contacted key informants to gain a comprehensive understanding of the sources available in Canada for collecting nationally representative ethnicity data. Two investigators, using qualitative content analysis, analyzed these sources independently. The study team then met to discuss the findings, interpretations, and themes that emerged from these sources. There are four main sources of ethnicity data in Canada, used for health research: 1) Provincial health insurance registries, 2) Canadian Health Measures Survey, 3) Canadian Community Health Survey, and 4) Census. Of these, ethnicity data are most limited in the provincial health insurance registries, flagging only Aboriginal status. The other three data sources are nationally administered, with all three asking individuals to select, out of 11 categories, self-identified racial or ethnic groups. The latter two data sources also have a separate question about ethnic ancestry. The categories for self-identified racial and ethnic groups are broad and lacking in granularity. There is much greater granularity collected for ethnic ancestry, with the ability to use free-text to describe ethnic ancestry in the Census. There is a need for greater granularity in ethnic classifications to reflect the diversity of the Canadian population. Because ethnicity is a socio-cultural concept, consideration should be made to incorporate sense of belonging with the identified ethnic ancestry, rather than relying solely on reported ethnic origin and race.

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C2.1 Does clinical guidelines affect healthcare quality and populational health : Quebec colorectal cancer screening programPresented by **NIZAR GHALI**, Health Economist, MSSS

The colorectal cancer screening program was introduced in Quebec in the objective to control for volume and cost imperfection. This program is based on clinical standards. In this analysis, we want to assess for the reform causal effect on healthcare quality and populational health. We have data on admissions episodes and deaths for 8 years. We use first competing risks models to assess for the reform impact on the hospital length of stay and discharge types. Then we use multistate model analog to difference in difference approach to estimate reform effect on the transition probability between different states for each patient. We introduced unobserved heterogeneity between hospitals. Our results shows that the reform reduced length of stay without deterioration in hospital mortality or readmission rate. The program also contributed to decrease the hospitalization rate and a less invasif treatment approach for colorectal surgeries. This is a sign of healthcare quality and population health improvement. We demonstrate in this analysis that physicians behaviour can be affected by both clinical standards and financial incentives even if offered to facilities. We assess for clinical guidelines effect on healthcare quality and populational health. We showed first that financial incentives is not always the principal lever for change, clinical strategy may be sufficient to change behaviour and second that the behaviour of physicians may be altered by financial incentives offered to hospitals.

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C2.2 Economic evidence for screening high-risk individuals for lung cancer in CanadaPresented by **SONYA CRESSMAN**, Researcher, Canadian Centre for Applied Research in Cancer Control

To develop a decision analytic model to evaluate the cost-effectiveness of lung cancer screening for Canadians with a high calculated risk of developing lung cancer. We used evidence from the Pan-Canadian early detection of lung cancer study and a large, American, randomized controlled trial (the National Lung Cancer Screening trial) as inputs for a cost-effectiveness model. Screening was offered only to high-risk individuals who qualify based on a risk prediction calculator. A decision-tree plus markov modelling approach was taken to determine the expected difference in costs and outcomes for screening high-risk individuals using a 30 year, life-time horizon. Selecting high-risk individuals before screening reduced the number needed to screen by 50% in the Canadian study and 80% in the American study. The base case incremental cost effectiveness ratio was \$10 212 per quality-adjusted life year gained for screening versus standard care. Variation in non-lung cancer mortality rates, smoking status and screening costs and quality of life would decrease cost-effectiveness, marginally, while rising drug costs and increased survival time for non-curative treatment improved the cost-effectiveness of screening. The cost-effectiveness of screening versus standard care was insensitive to all other key parameters in deterministic and probabilistic analysis. Screening high-risk individuals with low dose computed tomography is likely to be considered a cost-effective cancer intervention and could offer overall cost savings if the prices paid for drugs that treat lung cancer increases five-fold over the next ten years.

C2.3 Cancer and the healthy immigrant effect: a statistical analysis of cancer diagnosis using a linked Census-cancer registry administrative databasePresented by **TED MCDONALD**, Professor of Economics, University of New Brunswick

Describe a linked Census-administrative database for analysis of the person-level socioeconomic and demographic determinants of cancer. Demonstrate that immigrants have lower likelihood of a cancer diagnosis, after controlling for personal socioeconomic status and other factors, including smoking. Demonstrate that results vary by cancer site, country of birth, time in Canada. This paper uses a large datafile from Statistics Canada that links Census information on immigrant status, socioeconomic status including educational attainment, and other person-level information with administrative data on cancer and mortality over a thirteen year period of observation. Discrete time Logistic duration models that account for age, sex and known correlates such as education level are used to estimate differences between immigrants and non-immigrants in the likelihood of any cancer diagnosis and diagnosis of different types of cancer. Historical smoking behavior at the individual level is not observable in the dataset but is accounted for indirectly using various methods. Estimates confirm a healthy immigrant effect for cancer in that immigrants to Canada – even immigrants from English speaking developed countries - are less likely than non-immigrant Canadians to be diagnosed with cancer, overall and by specific cancer site. The odds of US born men diagnosed with any form of cancer are 0.723 ($p=.000$) that of non-immigrant men. However, substantial variation by region of birth is found, with immigrants from developing countries exhibiting the lowest likelihood. South Asian born men have half the odds of cancer diagnosis ($OR=0.494$, $p=.000$) than men from the US. For some cancers/groups the gap narrows over time in Canada, for others a gap persists into the second generation. Controlling for subgroup-specific lifetime smoking behavior has a minor effect on differences. Immigrants to Canada have a lower likelihood of being diagnosed with cancer, and the specificity of the results by cancer type, gender, immigrant status and ethnicity provides useful guidance for future research by helping to narrow the possible channels through which social and economic characteristics may be affecting cancer incidence.

Co-Author(s): Ted McDonald, University of New Brunswick / Michael Farnworth, University of New Brunswick / Zikuan Liu, University of New Brunswick

C2.4 “I can’t make a choice if I’m not well informed”: Ontarians’ advice for improving provincial breast cancer screening program materialsPresented by **LAURA TRIPP**, Research Coordinator, McMaster University

Recently, there has been a growing critique of the information materials produced by breast cancer screening organizations driven by concerns that they are disproportionately pro-screening and not reflective of the current state of evidence. We sought the input of Ontario citizens on this topic through a series of focused discussions. Four citizen deliberations were held across Ontario to elicit citizens' values on mammography screening and informed decision-making. Fifty individuals participated across the four panels. Deliberations were informed by presentations from oncology and primary care providers, and written material, summarizing the evidence about mammography screening. Deliberations focused on the citizen values that should be reflected in screening programs, and how to support informed-decision making, including the types of information that should be provided. In small-group sessions, participants reviewed 3 – 5 examples of program materials from provincial breast screening programs and provided constructive critiques of their usefulness to support decision-making. Existing decision aids were found to be insufficient to promote informed decision-making. Participants reflected on their lack of knowledge of the harms and benefits of mammography prior to participation, despite the fact that most had made decisions regarding screening. Major critiques of materials included a lack of balanced information and poor language choices that assumed screening was the 'right' decision. Although the evidence on mammography is evolving, participants expressed a strong desire for potential harms, including overdiagnosis, to be addressed in the materials with statistics provided. The lack of transparency about these harms in existing materials eroded individuals' trust in screening organizations. Participants provided concrete advice about how the materials could be improved to ensure balanced, unbiased information would be presented consistently across the country. Our results provide insights that can be used by policy makers, program providers, and other decision-makers to inform the design and delivery of breast cancer screening programs and information tools that more closely reflect citizens' values and needs.

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C3.1 Chronic disease, risk factors, and Quality of Life of older adults residing in Ontario subsidised housingPresented by **GINA AGARWAL**, Associate Professor, McMaster University

Older adults living in subsidised seniors have lower socio-economic status, increasing risk of cardiovascular events, poor quality of life, and consequently use high cost emergency/hospital services frequently. This study aimed to understand the prevalence of cardiovascular disease, diabetes, and risk factors and how this relates to their quality of life. Residents, aged 55 years and older, from 12 subsidised apartment buildings in urban areas, were surveyed. The Health Awareness and Behaviour Tool (HABIT) is an interviewer-led compilation of validated instruments or portions of validated instruments that measures five domains: detailed demographics and SES, health status and quality of life, knowledge and risk factors for cardiovascular disease and diabetes, health utilization and access, and perceived concern and understanding of risk, including intent to change and actual change. Participants were given a \$10 grocery card after completion of the HABIT. Descriptive analysis and linear/logistic regression were conducted. 437 residents completed the survey; 73% were female; 71% high-school educated or less; 91% lived alone (single/divorced/separated); 42% reported poor-fair health; 27% reported having diabetes; 55% had hypertension; 39% high cholesterol; 33% were obese; and 33% overweight. Cardiovascular risk-factor knowledge scores were good (> 80%); having hypertension, female gender, younger age and higher education were associated with better knowledge. Only 67% ate one or more servings of fruits/vegetables daily, 29% frequently added salt; 44% did at least 30 minutes physical activity daily. Quality of life (QoL) was poor/fair overall. 40-70% reported pain or discomfort, mobility problems, anxiety, or depression. Participants' perceived ability to handle crisis, confidence in making lifestyle changes, level of physical activity, having hypertension, heart problems, stroke were significantly associated with their QoL. Older adults in subsidized housing have high prevalence of chronic disease and lifestyle risk, good knowledge of risk factors, do not eat enough fruits and vegetables, are insufficiently active and have poor QoL. Community programming, not just education, supporting healthy behaviours is needed to improve lifestyle/QoL in this population.

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C3.2 Opioid use in adults 65 years and older with chronic painPresented by **MARY-ELLEN HOGAN**, PhD student, University of Toronto

Little is known about patterns of opioid use in adults ≥65 years with chronic pain. We aimed to describe prescription opioid use in a matched sample with and without chronic pain using Ontario administrative healthcare data. We conducted a retrospective cohort study of Ontario respondents from the Canadian Community Health Survey ≥65 years and their linked administrative healthcare data from 2000 to 2011. Cases with chronic pain were matched to controls without chronic pain on demographics and comorbidity using propensity methods and followed for one year after their survey date. Oral and transdermal prescriptions for opioids from the Ontario Drug Benefit database were converted to daily morphine equivalents. Those with daily doses of less than 200mg (the "watchful dose" threshold from the Canadian guideline for chronic pain) were identified. There were 6,078 pairs of adults ≥65 years with and without chronic pain. Average age was 75 years and 66% were female. For cases, 37.0% had at least one prescription for an opioid compared to 17.4% of controls. The proportions receiving ≥90 days of opioids were 13.5% for cases and 3.0% for controls. Most received daily morphine equivalents below the "watchful dose" of 200mg: 12.4% of 13.5% for cases and 2.9% of 3.0% for controls. In those who rated their pain as mild, moderate or severe, the proportion receiving ≥90 days' supply of opioids rose: 5.6%, 12.5% and 26.7% (all comparisons p<0.01). More people with chronic pain had ≥90 days of opioids. Most received daily morphine equivalents of ≤200mg. The percentage of opioid use in adults ≥65 years with chronic pain is comparable to patients with knee osteoarthritis (36%) and higher than opioid use in the general population ≥15 years (15%).

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C3.3 Patterns of Health Service Use in Community Living Older Adults with Dementia, Diabetes or Stroke in the Context of Comorbidity: Lessons Learned from Three Retrospective Cohort Studies in Ontario, CanadaPresented by **LAUREN GRIFFITH**, Associate Professor, McMaster University

Most studies examine the impact of co-morbidity on health service utilization for single index-conditions. After undertaking index-specific analyses in people with dementia, diabetes and stroke, we found striking similarities. We highlight those similarities to further the understanding of multiple chronic conditions and the impacts on health services use more generally. We used multiple linked administrative databases from the Institute for Clinical Evaluative Sciences to obtain health service utilization from 2008-2013 for the three cohorts. Index conditions and comorbidities were identified using algorithms developed for use with administrative data. Total costs for each service were determined by multiplying volumes (utilization) by unit costs obtained from the Ontario Ministry of Health and Long Term Care Health Data Branch web portal. The cohorts were compared in relation to the most common individual comorbidities and comorbidity clusters, utilization by service type, and costs at the population and per-patient level. The baseline population (index condition prevalence) was: 376,434 (22%) for diabetes, 95,399 (5%) for dementia, and 29,671 (2%) for stroke. Comorbidity prevalence differed, with 75% of the stroke cohort having 3 or more comorbidities, compared to 50% for dementia and 46% for diabetes. However, comorbidity types were similar, with hypertension and arthritis accounting for over 75% of comorbidity in each cohort. Utilization of all services increased consistently with comorbidity. Although per-patient annual costs differed for the cohorts (highest for stroke, followed by dementia and diabetes), the relative pattern of costs over time was similar. In each cohort, as comorbidity increased total service costs increased with acute care services increasing the most. Age effects independent of comorbidity effects were seen, with different patterns by service type. Although the amount of comorbidity differed among the disease groups, we found similar relationships between multimorbidity and utilization and costs. In each group hypertension and arthritis were by far the most common comorbidities implying that health service planning needs to consider these conditions regardless of the index condition under study.

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C3.4 Trajectories of health system use and survival for community-dwelling persons with dementia: a population-based analysis from Ontario, CanadaPresented by **SUSAN BRONSKILL**, Senior Scientist, Institute for Clinical Evaluative Sciences

Efforts to enable persons with dementia to remain home longer and reduce use of demanding and costly acute care resources are at the forefront of policy agendas internationally. Our aim was to determine population-based trajectories of health system use, transitions to long-term care and mortality among community-dwelling persons with dementia. This population-based cohort study used linked health administrative data from Ontario, Canada, and a validated case definition, to identify 62,622 community-dwelling adults aged 66 years or older with pre-existing dementia on April 1, 2007. Individuals were followed for seven years. Persons with dementia were compared to a 1:1 matched control group based on age, sex and comorbidity level. Trends in the intensity with which individuals, who remained alive and in the community, used health services over time were assessed using regression models for serially correlated data. Cumulative incidence functions were used to compare patterns of survival and long-term care placement. At the end of seven years, 49.1% of persons with dementia had been placed in long-term care (10.2% controls) and 64.8% had died (41.0% controls). Over the study period, those with dementia were more likely to use acute care, emergency departments, home care and physicians than matched controls; in particular home care services (RR 3.02, 95% CI 2.93 to 3.11). Over time, community-dwelling persons with dementia used home care at an increasing rate (10.7% per year, p trend <0.0001) but rates of acute care hospitalization remained stable (p trend 0.38). These trends were similar in matched controls. Our findings illustrate that as persons with pre-existing dementia remain in the community over time, they use home care and long-term care services at increasing rates -- over and above what might be expected for their age and sex profiles. Use of other services, however, does not show this trend.

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C4.1 Using patient stories for organizational learning and improvement

Presented by **CAROL FANCOTT**, Clinical Research Leader, University Health Network

There has been a recent upsurge in the use of patient stories, particularly to improve quality and safety of care. This study explored the types of patient stories that are told and for what purposes, within which contexts, and with what impact stories have had on organizational learning and improvement. Using a constructivist case study methodology with qualitative methods, this study examined four healthcare organizations that are known leaders in the systematic and deliberate use of patient stories, exploring the storytellers, the types of stories told and their purposes, the contexts that enable the use of stories, and the impact they have had on organizational learning and quality improvement. Thirty-eight patients, family members, and leaders were interviewed, observations conducted of meetings where patient stories were told, and documents retrieved that related to the organizational patient and family centered care practices. An interpretive analytic approach used layered reads and situational maps. Specific types of stories were told by patients and of patients, co-constructed from stories of chaos into quest stories for learning, to become "authorized stories" shared for particular purposes. The storytellers who emerged were those who had extended their involvement as patient advisors/members, determined by leaders to be the "right fit" and at the "right time" to share their stories. Strong leaders modeled and supported the philosophical orientation toward patient and family-centred care that patient stories helped to develop and sustain. Leaders also created the organizational structures and processes required to gather and share stories, and to link them purposefully with learning and improvement. Tensions emerged relating to what stories are told, how, by whom, and for what purposes. The act of storytelling is not a simple one. Organizations demonstrated how they were thinking with stories, learning at individual, team, and organizational levels. Ongoing reflective practice is required to better appreciate the power and privilege that exists within organizations, an area to explore further in organizational learning theory.

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C4.2 Spreading and Sustaining Patient Engagement Practices in Quality Improvement

Presented by **ALAIN BIRON**, Assistant to the Director, McGill University Health Centre

The overall objective of this project was to spread and sustain patient engagement practices in quality improvement across an academic healthcare organization through the creation of a new multi-level infrastructure and the standardization of the recruitment of patient advisors and the training of patients, clinicians, and staff. To meet the stated objectives, a patient advisory forum, a clinical program-based quality improvement team with patient advisors, and a Patient Partnership Coordination Committee to oversee the organization-wide patient engagement strategy were created. The second intervention involved the implementation quality improvement projects to test the recruitment and training process. Quantitative and qualitative approaches were used to evaluate the impact. Quantitative data was used to measure the impact of the impact of the training on staff and patients (team effectiveness scale, readiness to partner, and satisfaction with training). Qualitative data involved focus groups and patient narratives to provide contextual information. Overall, the selected interventions to support the spread and sustainability of patient engagement practices in QI activities proved to be useful. Participant's readiness to partner with patients and team effectiveness both improved during the QI projects. These observed improvements could partially be explained by the training offered upon the QI projects initiation. The qualitative data revealed that the quality advisor facilitating the improvement work plays a pivotal role for both ensuring that patients participating in a quality improvement project become equal members of the improvement team and in the capacity of that QI team to successfully complete the improvement project. Qualitative data also indicated that patients had a major influence in selecting the specific issue to be tackled by the improvement team. The selected interventions to spread and sustain patient engagement practices in quality improvement seem effective. QI projects appeared particularly well suited to create effective partnership with patients as opportunity to co-build the objectives and see concrete results of their actions.

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C4.3 Transformation from theory to practice: patient involvement with interprofessional teams and the integration of patient-centered practice in mental health settings

Presented by **MAY HELFAWI**, Masters Graduate, University of Ontario Institute of Technology

To document and examine the views of patients with mental illness, and their role on and involvement with interprofessional teams in a mental health inpatient setting. This case study design used a mixed method approach with survey and observational and interview data. The sample had 10 inpatients and 11 health and social service providers in the Mental Health Unit of a Canadian community hospital. Data collection included contextual observations of daily interprofessional team meetings, a questionnaire completed by providers, and individual interviews with the inpatients and providers. Descriptive analysis of the survey data was completed, and interview and observational data were analyzed using the National Interprofessional Competency Framework. Shortage of social workers, low interprofessional team diversity, and a lack of patient education created negative patient experiences. Analysis revealed delays in patient discharge plans and increased patient wait times and readmissions on the Mental Health Unit. Improving patient satisfaction and adherence to treatment plans was associated with developing decision-support aids for patient education about their mental illness, medication use and effects, as well as including a diverse group of professionals and community partners. Shared decision making is a fundamental component of patient centered care. Addressing patient needs requires a focus on patient education to improve mental healthcare outcomes. Patients are empowered by their involvement with interprofessional teams, and feel better equipped to access and use community based services.

C4.4 Goals of care discussions among hospitalized long-term care residents: predictors and associated outcomes of care

Presented by **HANNAH WONG**, Assistant Professor, York University

There is limited data on the occurrence and impact of goals of care (GOC) discussions during acute hospitalization for seriously ill elderly patients, particularly for residents of long-term care (LTC). To determine how often LTC residents have GOC discussions, what prompts these discussions and what are the outcomes of discussions. The study was a retrospective chart review of 200 randomly sampled LTC residents hospitalized via the Emergency Department and admitted to the General Internal Medicine service from January through December 2012. We applied logistic regression models to identify predictors and outcomes of these discussions. 9.4% (665 of 7084) of hospitalizations were patients from LTC. In the sample of 200 patients, 37.5% had a documented discussion. No baseline patient characteristic was associated with GOC discussions. Low Glasgow Coma Scale, high respiratory rate and low oxygen saturation were associated with GOC discussions. Patients with documented discussions had higher rates of physician orders for no resuscitation (80% vs 55%) and orders for comfort measures only (7% vs 0%). In adjusted analyses, patients with documented discussions had higher odds [95% CI] of in-hospital death (52.0 [6.2-440.4]) and 1-year mortality (4.1 [1.7-9.6]). Nearly 75% of patients with a change in their GOC did not have this documented in the discharge summary. In LTC patients requiring hospitalization, GOC discussions occurred infrequently and were triggered by illness severity. Orders for advance directives, in-hospital death and 1-year mortality were associated with discussions. Rates of GOC documentation in the discharge summary were poor. Efforts to improve GOC discussions and communication back to LTC are needed.

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C5.1 Barriers and Facilitators to implementation and adoption of the Telehomecare Program for patients with chronic obstructive pulmonary disease and heart failure in Ontario, Canada

Presented by **VALERIA RAC**, Associate Program Director & Director, Clinical Research Division, THETA Collaborative; Assistant Professor, University of Toronto

Telehomecare program was introduced in Ontario in 2007. With the expected increase in recruitment rate, a program evaluation is warranted. This abstract reports the results of a qualitative comparative case study, which evaluates multi-level factors (facilitators and barriers) related to implementation including program, patients, providers, administrators and decision makers. Over thirty hours of ethnographic observation and 82 semi-structured interviews (39 patients, 16 nurses, 7 physicians, 12 administrators, 13 decision-makers and 2 technicians) were conducted across three Local Health Integration Networks (LHINs) in Ontario, with each LHIN representing a case study. Combination of purposeful and snowball sampling was used to recruit study participants. Phone or in-person interviews were conducted and ranged from 20 minutes to 2 hours in duration. Interviews were audio-taped, transcribed, and coded inductively using a descriptive content analytic approach to identify common themes and patterns (constant comparison) within and across the LHINs. Key findings include common themes of high case-load and unrealistic enrolment targets found across the LHINs. High patient case-load such (60 or higher) was identified as a strong barrier in providing quality patient care. Common critical facilitators found were patient motivation, confidence and willingness. Organizational culture also emerged as a predominant theme across all LHIN. More specifically, when the organizational culture is open and respectful, all levels of staff were able to connect with each other and feel their beliefs and insights were valued. Similarly, the role of an 'Engagement Lead' was found as a critical facilitator for program implementation contributing to increased awareness and referrals to the program. Key barriers and facilitators impacting the implementation and adoption of Telehomecare across the province were identified. Some were common across all LHINs, while others were context driven and LHIN specific. By strengthening program facilitators and successfully addressing the barriers, the implementation and adoption of Telehomecare can be significantly improved.

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C5.2 The challenges of informed choice from the patient's perspective: Results from deliberations with Ontario citizens about mammography screening

Presented by **JULIA ABELSON**, Professor, McMaster University

Mammography screening guidelines encourage women to make decisions about screening that are informed by evidence and personal values. The contested nature of the evidence for mammography screening, particularly estimates of "overdiagnosis", present challenges to achieving this aim. These challenges were revealed in recent discussions on this topic with Ontario citizens. Citizen deliberations of 11-14 participants each were convened in 4 Ontario communities between March 2015 and April 2016. Each meeting was preceded by expert presentations, and written material, summarizing the evidence about mammography screening. Citizens deliberated on 4 topics: 1) what citizen and patient values should be reflected in breast cancer screening programs? 2) what principles should guide the development of materials to support informed decision making about breast cancer screening? 3) what should be included in government-sponsored materials about breast cancer screening? and 4) how should information about the risks and benefits of breast cancer screening be presented? Most participants had not thought about mammography screening as a choice. It was generally viewed as a social norm – 'just something you do' – and the 'responsible' thing to do. Few had considered that there were risks associated with mammography screening. They felt they were simply following the advice of their provider, and the provincial screening program, to be screened when necessary. When presented with current evidence about mammography screening, some participants responded with shock and anger and indicated their intention to give more serious consideration to their future screening decisions. Others shared personal experiences with early diagnosis and premature death that seemed to trump concerns about risks associated with screening. Discussions left some participants feeling confused and uncertain about their future screening decisions. Evidence-informed citizen deliberations on contested topics such as mammography screening can generate emotional responses, confusion and a sense of unease. Efforts to support informed decision making in areas like mammography screening will require time, sensitivity and a range of approaches.

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C5.3 Examining Choosing Wisely Canada: A nongovernment initiative to reduce unnecessary healthcare services

Presented by **MARK EMBRETT**, Doctoral Candidate, McMaster University

The Choosing Wisely Canada (CWC) campaign has been adopted to reduce unnecessary healthcare services. The objectives of this study were to: (1) explain the rationale for CWC campaign's approach to reducing unnecessary care; and (2) analyze stakeholder perceptions regarding the features and interventions of CWC aimed to reduce unnecessary care. Procedures of grounded theory data collection and analysis were used to develop grounded explanations. Purposive sampling was initially used to recruit a wide breadth of members of the medical community that were involved with CWC. After several interviews, government decision makers and patient group representatives were recruited to help drive theory generation. Interview data and analytic memos were analyzed together using the constant comparative method through three stages of coding: open, axial and selective. We developed grounded explanations by comparing and reconstructing categories (made of various but similar codes) that were formed at each stage. Twenty-one key informants were interviewed for the study. The responses of participants provided several insights into perceived reasons for and characteristics of CWC to reduce unnecessary services. Participants, including leaders of many medical specialty societies, reported that the time had come for the medical community to respond to existing pressures from government, patients and the public. Under these pressures, physicians considered themselves at risk of losing some of their autonomy, power and reputation. Their response was a campaign that focused on the clinical encounter to promote a discussion with patients about unnecessary services. Although participants supported the initiative as an alternative to government policies, they consensually agreed that CWC does not truly address many underlying reasons why unnecessary services continue to be provided. The success of CWC will depend upon physicians' willingness to objectively apply available evidence during the clinical encounter. However, physician participants typically refused to their central role in providing unnecessary care. Until physicians take responsibility for their ordering practices, behavioural change is unlikely and CWC's success is also unlikely.

C5.4 Using Qualitative Research Methods to Produce Ethics and Values Evidence for Health Policy Decision-Making: A case study of women's values and personal experiences with Non-Invasive Prenatal Testing

Presented by **MEREDITH VANSTONE**, Assistant Professor, McMaster University

To demonstrate how qualitative research methods can be used to produce empirical ethics evidence to inform policy decision-making about morally complex health issues. We will do this by describing a recent project that elicited women's personal experiences, values, and ethical beliefs pertaining to a new technology: Non-Invasive Prenatal Testing (NIPT). Using the qualitative methodology of constructivist grounded theory, we conducted interviews with 38 women who have had personal experiences with NIPT. Through iterative data collection and analysis, we developed a broad description of the range of values and opinions on this technology from women who have experienced it. By using a range of ethical theories to examine the expressed and implicit values in our data, we are able to offer interpretive suggestions of how these values pertain to ethical policy-making about NIPT. In this presentation we focus on the arguments that women make to explain and justify their decisions about NIPT; we used multiple ethical theories to highlight a wide range of ethical issues inherent in this arguments. For example, examining this data through the lens of relational autonomy highlights the way that a woman makes decisions about her pregnancy and child while embedded in a particular social location; from a policy-making perspective this highlights the need for additional resources and support for people with disabilities as a corollary to additional resources for prenatal testing. In contrast, using the theory of utilitarianism highlights the potential savings (financial, organizational, emotional) of lowering the number of amniocentesis tests performed by increasing the number of NIPT tests available. On the topic of NIPT, our work describes a range of ethical issues important to women while also highlighting specific issues that women emphasized as important. Methodologically, this work demonstrates one way in which qualitative research methods can be used to generate ethical and values evidence for policy decision-making.

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- C6.1 Why are so many patients dissatisfied with knee replacement surgery? Reflections and results from a multiphase mixed methods study in British Columbia**
Presented by **STIRLING BRYAN**, Professor, University of British Columbia / **LAURIE GOLDSMITH**, Assistant Professor, Simon Fraser University
- Total knee arthroplasty (TKA), the most common joint replacement in Canada, has a 20% post-surgery dissatisfaction rate. This statistic is troubling but offers potential for service improvement. Through our mixed methods PEAK (Patient Experience of Arthroplasty of the Knee) project, we investigated factors associated with dissatisfaction. Our project explored patient satisfaction and outcomes quantitatively (using survey and administrative data collected at baseline, 6 and 12 months) and qualitatively (interviews at 7 and 13 months post-surgery). We recruited a cohort of 515 patients from across BC, 57 of whom were purposefully sampled for the qualitative portion. To explain variation in survey-reported satisfaction, we used bivariate and multivariate models (multilevel logistic regression with time varying predictors). Analysis of our qualitative data consisted of line-by-line examination of interview transcripts, including three coding types: open, axial and focused. All team members are involved in regular qualitative and quantitative data discussions. A highly engaged patient cohort has been achieved, evidenced through very high response rates to our postal surveys (91% at 6 months, 88% at 12 months). Our survey data indicate a dissatisfaction rate of approximately 15% at both 6 and 12 months. Key drivers of variation in survey-reported dissatisfaction include: pre-surgery patient expectations and mental health (particularly depression); and post-surgery health outcomes, most notably pain and functional limitations (e.g., stiffness, mobility, usual activities, etc.). The qualitative data are supportive and complementary to our quantitative findings. Patients' descriptions of their TKA experience were primarily concerned with concept of 'support'. Support expectations were formed in advance of their surgery and in response to emergent needs. The three key domains of support were informational, clinical and personal. Our work indicates where the TKA process and the health care system might be able to provide better patient-centered care. Areas highlighted include patient selection, and post-operative care and support, particularly challenging the boundaries of where the health care system ends its relationship with the patient.
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- C6.2 Can 12 primary health care (PHC) research teams with different objectives and methodologies join forces to collect data that supports the production and measurement of common PHC measures?**
Presented by **SABRINA WONG**, Professor, University of British Columbia
- To develop a mutually acceptable set of measures and common approaches to data collection across twelve cross-jurisdictional community-based primary health care (PHC) research teams across Canada; three teams have Indigenous partners and 3 have international partners. We report on our deliberative processes and the final set of common indicators. We created a working group with representatives from each of the 12 teams, the Canadian Institutes for Health Research and the Canadian Institute for Health Information. Despite heterogeneity in terms of study design and methodology within and across each of the 12 teams, the working group was able to identify set of common dimensions, indicators, and measures. These were agreed upon through an iterative process of discussion and consideration of existing PHC measures (e.g., CIHI pan-Canadian indicators). Specific efforts focused on incorporating feedback on the measures from teams' First Nation and Inuit partners. Across the 12 teams, we are collecting data on core dimensions of PHC including: accessibility; comprehensiveness, coordination, and effectiveness of care; and equity. Data sources include patient, provider and organizational surveys, administrative claims data and qualitative data captured through interviews, focus groups and case studies. Attention to group process and utilizing all expertise (funders, researchers, community partners) resulted in a mutually acceptable set of measures and common approach to data collection. Collaboration across the 12 PHC teams now provides the largest source of patient reported experiences, impacts and outcome measures and on the climate of PHC teams in Canada. The measurement tools can serve as a standard set of patient, provider and practice reported items and scales for common performance reporting across Canada. This unprecedented process of collaboration across interdisciplinary research teams provided a unique opportunity for new knowledge generation, over and above any knowledge that could be developed within each team. This work provides the largest pan-Canadian opportunity for cross-jurisdictional learning and new knowledge of the impact and outcomes of PHC delivery.
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- C6.3 The diffusion of indirect comparison meta-analytic methods in the study of drugs: a systematic review and co-authorship network analysis**
Presented by **JOANN BAN**, Master's of Science Student, University of Toronto
- Utilizing indirect evidence to compare the relative effects between two or more comparators in meta-analysis was first introduced in 1997. Refined methods were published in 2002 (network meta-analysis) and 2004 (mixed-treatment comparisons). We sought to characterize the diffusion of indirect comparison meta-analytic methods in the study of drugs over time. We completed a systematic keyword (Cochrane, EMBASE, and MEDLINE) and citation (Web of Science and SCOPUS) search to identify papers that utilized indirect comparison meta-analytic methods to study drugs through to December 2013. Two independent reviewers abstracted authorship and methodological details, including terminology used to describe the methods. The number of papers was plotted by year and type (methodological contribution, review, or empirical application), and sociograms were created to visualize the co-authorship network and identify social clusters (components). Countries affiliated with the first and last authors of each empirical application were used to ascribe regional credit to each application. We identified 477 studies (74 methodological contributions, 42 reviews, and 361 empirical applications) by 1,689 distinct authors published from 1997 to 2013. Prior to 2011, only 147 (31%) empirical applications were published. A rapid increase in use was noted since 2011, with 330 (69%) applications published in only 3 years. The co-authorship network consisted of 129 components, yet 90 (70%) included only a single paper. Overall, 49% of papers were from Europe (22% United Kingdom, 27% other), 37% were from North America (26% USA, 11% Canada), and 15% were from other regions around the world (Africa, Australasia, South America). Of the 361 empirical applications, 259 (72%) used a single term to describe the meta-analytic methods. Network meta-analysis was most commonly used (31%). Indirect comparison meta-analysis is an important innovation in drug safety and effectiveness research. While Europe has the most publications, there has been wide diffusion worldwide, and significant variation in the terminology used to describe these meta-analytic methods. Developing naming standards may facilitate identification, comprehension, and application of these methods.
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- C6.4 Building Access to Specialists through eConsultation**
Presented by **CLARE LIDDY**, Clinician Investigator, C.T. Lamont Primary Health Care Research Centre
- Excessive wait times for accessing specialist care is one of the most significant problems facing many health care systems. Electronic consultation (eConsult) services can improve access to specialist care. The objective of this study is to understand the effectiveness, population impact, and cost savings associated with an eConsult service. We used an integrated knowledge translation approach including a mixed methods design to evaluate the Champlain BASE (Building Access to Specialists through eConsultation) eConsult service based in Eastern Ontario. The Quadruple Aim was the guiding framework to assess eConsult across the following four dimensions: population health, patient experience, provider experience, and reducing costs. We utilized data routinely collected through the service including a mandatory five question close out survey for each case. Additional data was collected through: (1) an exploratory qualitative study to examine patients' perspectives, and (2) an online survey to explore specialists' perspectives. The eConsult service has completed 10,793 cases and registered 913 PCPs. Specialists' average response time to eConsults was 2 days. Over 60% of cases did not require a face-to-face specialist visit, and an unnecessary referral was avoided in 40% of cases. 86% of patients stated that eConsult was useful and 96% stated that they would ask their primary care provider (PCP) to use eConsult on their behalf in the future. 94% of PCPs reported the service as having high or very high value. Specialists stated the service improves communication between specialists and PCPs (94%), has educational value for PCPs (91%), and is user friendly (82%). The service has a weighted average cost of \$47.35/eConsult versus \$133.60/visit for a traditional face-to-face referral. The eConsult service is an innovative, effective, and low-cost way of improving access to specialist care. Patients, PCPs, and specialists considered the service to have high value. We are currently working on strategies to help support the implementation of similar systems in other health regions.
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C7.1 Evaluating the accuracy and usability of the Quebec Drug Information SystemPresented by **AUDE MOTULSKY**, Post doctoral fellow, McGill University

Improving the quality of medication use is crucial. To do so, most provinces have implemented Drug Information Systems (DIS), a population-based repository of all drugs dispensed to individuals. Using comprehensive dispensing data for clinical activities has revealed unexpected challenges. This study evaluated the accuracy of the Quebec DIS. An observational study was conducted from June 2014 - January 2015 at a tertiary care hospital in Montreal. Patients with a medication list in the DIS, who were taking more than 3 medications and were over 65 years old, were eligible. The list of current medications was obtained from the community pharmacies by fax, and compared to the list from the DIS. The status of the medications (current or not) was compiled based on the date of the last dispensation at the pharmacy. Any discrepancy between the two lists was documented, along with reasons for discrepancies. Descriptive characteristics were estimated. One hundred and eleven patients were included (mean age 76; 51% female). A total number of 442 discrepancies in 1,232 medications dispensed to 71 (64%) patients were observed. Three types of discrepancy were observed: a) 44.6% occurred when medications were listed as current in the DIS but should not have been (false positive); b) 43.9% when medications were not listed as current but should have been (false negative); c) 11.5% were duplicate medications in the DIS. 67.2% of the discrepancies were due to data from the dispensing process that were not managed by the DIS (e.g. medication stopped by the pharmacist when not taken by the patient); 21.3% were related to the rules for defining current versus past medications in the DIS. Sixty four percent of patients had an inaccurate current medication list in the DIS. To construct appropriate business rules for converting dispensing data from community pharmacies into usable clinical information, a better understanding of community pharmacy work processes is required.

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C7.2 Quebec's centralized waiting lists for unattached patients may exacerbate social health inequalitiesPresented by **MYLAINE BRETON**, Professeure, Université de Sherbrooke

Patients from high material deprivation areas are more likely to be unattached and to use healthcare services inappropriately. Several Canadian provinces have implemented centralized waiting lists to increase attachment. We examine the effectiveness of Quebec's centralized waiting lists for unattached patients from high material deprivation areas. We analyzed administrative data from centralized waiting lists in five local health networks in Quebec from 2010 to 2015 (n= 39 526 patients waiting for attachment; n=55 118 patients attached to a physician). We used patients' postal codes to determine the material deprivation index for the area in which they live, a provincial index developed by Pampalon et al. based on 2006 census data. We then compared the proportions of patients on the lists, having been attached to a physician through the lists and wait times before being attached to a physician for different quintiles of material deprivation. Patients from the lowest material deprivation areas are overrepresented while those from the highest deprivation areas are underrepresented amongst both those currently waiting in the centralized waiting lists (31.0% vs. 11.6%) and those who have been attached to a physician through the lists (26.4% vs. 16.7%). For patients without a medical condition or risk factor, average wait times before being attached to a family physician increase with each quintile of material deprivation, being shortest for patients from the lowest deprivation areas and longest those from the highest deprivation areas (148 days vs. 219 days, p < 0.001). There were no significant differences in wait times between patients from the lowest deprivation and highest deprivation areas for those with a least one medical condition. Patients from areas with the highest material are underrepresented in centralized waiting lists for unattached patients. They wait longer for a physician unless they have one or more medical conditions/risk factors in which case there are no significant differences. Health planners must take this into account and adapt services accordingly.

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C7.3 Improving Patient Flow: The Impact of an Emergency Department Consults Rotation in Two Canadian Teaching HospitalsPresented by **SIMON LANDMAN**, Internal Medicine Resident, London Health Sciences Centre

Evaluate the impact of a daily Internal Medicine consult service provided to the Emergency Department on patient flow in two teaching hospitals. Analyze the impact of the Emergency Department Consults rotation (EDCR) on resident education and satisfaction. Process mapping; identify areas that require optimization to improve patient flow. Parameters related to patient flow were obtained for all patients referred to Internal Medicine (IM) from the ED between January 1 and November 30, 2015. These included time from ED registration to physician initial assessment, time to IM consult, time to disposition decision, time to inpatient registration, time waiting in the ED for an available bed, and hospital length of stay. A daily ED consult service was introduced July 1, 2015 to augment existing IM services. Flow parameters from patients seen by this service were compared to patients seen before EDCR implementation. Statistical significance was attributed at the 5% level. 6090 patients were referred to IM during the period of whom 5716 had complete time-stamp data available. Mean time intervals for all patients seen after the introduction of the EDCR (n=2869) compared to those seen before EDCR introduction (n=2847) were as follows: ED registration to physician initial assessment (min): 64.72 vs. 81.31, (P less than 0.001); ED registration to IM consult (min): 248.03 vs. 251.78, (P=0.346); ED registration to disposition decision (min) : 408.11 vs. 427.86, (P less than 0.001); ED registration to inpatient registration (min) : 404.61 vs. 422.99, (P=0.001); ED wait time for an available bed (min) : 485.55 vs. 595.90, (P less than 0.001). Hospital length of stay (hrs) : 184.65 vs. 235.76, (P=0.003) The EDCR is associated with several favourable changes in hospital metrics, including a significant 51.1 hour reduction in length of hospital stay. Improved patient flow in these academic centres will hopefully translate into better patient outcomes and financial efficacy. Data on mortality benefit, resident satisfaction, and educational outcomes are pending.

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C7.4 Re-defining the Major Determinants of Emergency Department Wait TimesPresented by **MALCOLM DOUPE**, Assistant Professor, University of Manitoba

Most literature concludes that hospital-related factors most strongly influence emergency department (ED) wait times. Most this literature however, does not measure the effect of throughput factors (e.g., the number and types of diagnostic procedures performed). The relative effect of these versus hospital-related factors on ED wait times remains unknown. Using administrative files from MCHP, analyses were conducted on the population of ED users during the 2012/13 fiscal year. Each ED (index) visit was linked to a set of existing visits using pre-established criteria, and existing visits were defined by various input (volume of incoming visits by acuity level), throughput (number/type of diagnostic procedures conducted) and output (patients waiting for hospital admission) factors. Quantile regression with second order effects was used to define how median index visit waiting room times were affected by existing visit characteristics. Pseudo R2 values were used to determine the relative importance of variables. Overall, 1.1% of index visits (N=1,717) were highly acute (CTAS 1, resuscitation), while 15.3% and 43.1% were triaged as emergent (CTAS 2) and less/non urgent (CTAS 4/5), respectively. Median (inter-quartile range) waiting room times (WRTs) ranged from 8 (5-15) minutes (CTAS 1 visits), 39 (16-145) minutes (CTAS 2 visits), to 99 (43-196 minutes (CTAS 4/5 visits). The adjusted WRT of CTAS 2 visits was more strongly effected by throughput versus output factors. As EDs went from being 10% to 20% filled with visits having diagnostic tests, this median WRT increased from 76.6 to 139.7 minutes. When EDs were filled similarly with inpatients, this median WRT increased from only 39.6 to 44.9 minutes. Similar results exist for all lower acuity visits. This research uniquely concludes that throughput and not output factors are the strongest determinants of ED waiting room times. Policy implications include developing clinical guidelines for performing ED diagnostic tests, and refining other throughput processes to improve patient flow.

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C8.1 Pre-specification of analysis plans: presenting the case for health services research

Presented by **DOUG MANUEL**, Senior Scientist, Ottawa Hospital Research Institute / **DAVID HENRY**, Senior Core Scientist Aboriginal Health Lead, Institute for Clinical Evaluative Sciences (ICES)

Objectives: 1) To present the case for pre-specification of analysis plans; 2) To present illustrative examples where pre-specification of analysis has been employed in observational research involving routinely-collected data; and 3) To discuss lessons learned and steps moving forward. Using routinely-collected health administrative data for research provides a number of opportunities for researchers. However, there are concerns that observational studies that use routinely collected data are often biased. This prevention will present two case studies of research that has fully pre-specification of analysis plans using routinely-collected data as a critical step for improving the quality of the research. Dr. David Henry will present the approach of from the perspective of post-market surveillance of the safety and effectiveness of drugs used in real world. Dr. Doug Manuel will present the perspective of predictive studies. The presenters will pose three questions for discussion and debate: 1) Should all studies that use routinely-collected data pre-specify and publish the analysis plan? If not all studies, what are the highest-priority studies? 2) What are the key benefits and limitations of pre-specification of analysis plans? 3) What are the most important aspects of pre-specification of analysis plans?

C8.2 Hospital readmissions after primary unilateral hip or knee replacements: A comparison of inpatient and day surgery

Presented by **YURIY CHECHULIN**, Senior Methodologist, Ontario Ministry of Health and Long-Term Care / **MAJA STUPAR**, Health Analyst Ontario Ministry of Health and Long-Term Care

Day surgery (DS) could be a safe and cost-efficient alternative to inpatient surgery (IPS) in many situations. Quality-Based Procedures (QBPs) in Ontario include primary unilateral hip and knee replacements. We examined all-cause non-elective readmissions within 30 days and the related inflation-adjusted incremental costs of DS vs IPS. We used propensity score matching to compare DS to IPS. We matched day surgery to inpatient cases on age, sex, Charlson comorbidity index, previous inpatient and ER admission within 365 days (proxy for complexity), case mix (hip versus knee) and year based on Ontario FY2009-2013 data. Costs of initial treatment and costs including readmissions were compared using paired t-tests. We used conditional logistic regression for matched pairs to estimate odds of readmission for DS versus IPS. We found no effect modification by location of surgery; therefore, we did not report our results separately for hips and knees. Risk-adjusted readmission rates on the matched sample were 2.5 times higher in DS (6.1%; 95% CI: 4.7%-7.5%) than in IPS (2.4%; 1.5%-3.3%). Costs of initial treatment were \$7,657 (7,604-7,710) in DS and \$8,930 (8,760-9,101) in IPS, a difference of -\$1,273 (p<0.001). The difference in costs including readmissions was -\$1,181 (p<0.001) suggesting that higher readmission rates in DS offset some savings in initial cost of DS treatment. We found that there is a statistically significant increase in the odds of readmission for DS compared to IPS based on our conditional logistic regression analysis [odds ratio 2.58 (1.59-4.21)]. Since the readmission rate could serve as an objective quality outcome, these results suggest a potential lack of quality in DS compared to IPS for this type of surgery. Hip and knee replacements in Ontario are performed predominantly in IPS settings (99%). Based on the study results, careful considerations should be given before this surgery is further expanded to DS settings. The QBP funding definition may need to be limited to IPS only (exclude DS).

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C8.3 PHC Presentation: The Promises and Perils of Big Data in Primary HealthCare Research: What's in it for Patients? (30 minute session)

Presented by **ALAIN VANASSE**, Full Professor, Department of Family Medicine, Faculty of Medicine and Health Sciences, Université de Sherbrooke / **EMILY GARD MARSHALL**, Associate Professor, Primary Care Research Unit, Dalhousie Family Medicine & Community Health and Epidemiology / **FRANK SULLIVAN**, Gordon F. Cheesbrough Research Chair and Director of UTOPIAN Family Medicine Teaching Unit, North York General Hospital, Professor, Department of Family & Community Medicine and Dalla Lana School of Public Health, University of Toronto, Honorary Professor, University of Dundee

The value of 'Big Data' to inform the planning and evaluation of primary healthcare services is gaining traction with governments and health care organizations. This panel will critically examine the opportunities and advantages that come with the use of Big Data in patient-focused primary healthcare research and the potential pitfalls we need to be concerned about. Our interdisciplinary pan-Canadian panel of 3 primary healthcare researchers will each address this objective in a 7-8 minute presentation. The session will conclude with a brief time for questions from and discussion with the audience.

D1.1 Understanding the factors that influence seniors having dementia with light care needs being placed into residential care rather than remaining in the communityPresented by **JACQUELINE GREGORY**, Senior Analyst, Canadian Institute for Health Information

This study focuses on seniors having dementia with light care needs. With the appropriate supports, these seniors could potentially be cared for in the community, if the appropriate supports are available. It examines the factors that influence seniors being placed into residential care rather than remaining in the community. All seniors considered for support - either in the community or residential care - receive a comprehensive assessment using the RAI-HC (Home Care). This index assessment is used to assist in making decisions on the types of care provided. Seniors residing in regions in Western Canada and Ontario with an index assessment in 2012 were followed for two years by linking home care (RAI-HC) and residential care (MDS-RAI 2.0) data. Logistic regression was performed to study factors (diagnoses, behaviours and impairments, patient factors, hospitalisation) associated with placement into residential care for seniors with dementia and light care needs. In 2012, 3755 seniors with dementia and light care needs with an index assessment either received a subsequent home care assessment or were placed into residential care. Of these individuals, 13% were placed into residential care, with regional rates ranging from 5% to 33%. The logistic regression results indicate that individuals who had an informal caregiver are less likely to be placed into residential care. Seniors who wandered, had a caregiver who experienced distress, required more help with activities of daily living (e.g., eating, dressing, walking), had more cognitive impairment, had higher CHES (Changes in Health, End-Stage Disease, Signs, and Symptoms Scale) scores or who were hospitalised at the time of their index assessment were more likely to be placed into residential care. Better understanding of these seniors, and the factors that influence their care path, supports planning by identifying seniors who potentially could live in their homes or in assisted living. When services are aligned with their needs, it may be possible for seniors to live independently in the community longer.

Co-Author(s): Jacqueline Gregory, Canadian Institute for Health Information / Steve Atkinson, Canadian Institute for Health Information / Brandon Wagar, Canadian Institute for Health Information

D1.2 Do-not-Resuscitate/Do-not-Hospitalize Orders in Nursing Homes: Are they being done and do they make a Difference?Presented by **PETER TANUSEPUTRO**, Investigator, Bruyere Research Institute

To describe the rate of do-not-resuscitate (DNR) and do-not-hospitalize (DNH) orders among residents admitted into long-term care homes (i.e., nursing homes). We also assessed the impact of DNR and DNH on other quality indicators such as death in hospital. We conducted a retrospective cohort study of new admissions in 640 publicly funded long-term care facilities in Ontario, Canada. A population-based cohort of 49,390 incident admissions into long-term care facilities between January 1, 2010 and March 1, 2012 was observed. We examined if a DNR and/or DNH was recorded on each resident's admission assessment. We then followed all individuals forward in time until death, discharge, or end of study (March 31, 2014) to ascertain rates of several quality of care indicators. Upon admission, 60.7% were recorded to have a DNR and 14.8% received a DNH order. Those receiving a DNR or DNH were generally older, lived in higher income neighborhoods prior to entry, more likely to be widowed, and had higher levels of cognitive impairment; however, they possessed similar levels of comorbidity. Those receiving DNR or DNH were more likely to die outside of hospital versus those who did not (8.4% vs. 4.8% for DNR and 6.7 vs. 2.5% for DNH, respectively). There were significant variation in rates of burdensome transitions, uncontrolled symptoms, and other quality of care indicators across Ontario and by DNR/DNH status. A large number of long-term care residents received a DNR order upon admission, and less so for DNH. Both orders led to lower rates of hospital deaths, burdensome transitions, and other indicators of poor outcome; nevertheless, a significant number of residents with a DNH order were transferred to hospital.

Co-Author(s): Peter Tanuseputro, Bruyere Research Institute / Mathieu Chalifoux, ICES

D1.3 Hidden risk: Suicide-related behaviour among community-residing older adults receiving home care services in Ontario, CanadaPresented by **EVA NEUFELD**, Senior Research Associate, CRaNRH, Laurentian University

Suicide prevention strategies for community-residing older adults receiving home care services have received little attention in the research literature. The objective of the current study was to examine the risk and protective factors associated with suicide-related behaviour among community residing older adults receiving home care services in Ontario, Canada. Record linkages between hospital data (DAD, NACRS, OMHRS) and home care data (HCRS) were employed to examine risk and protective factors associated with suicide-related behaviour. Information in the HCRS is based on the Resident Assessment Instrument - Home Care (RAI HC), an assessment tool used to identify strengths, preferences and needs of long-stay home care clients. The sample included Ontario home care clients aged 60 years or older assessed with the RAI HC between April 2007 and September 2010 (N = 222,149). Clients' initial assessment HCRS records were linked to data on corresponding emergency department visits, hospital admission records, and admissions to adult mental health beds where the diagnostic codes or problems were coded for intentional self-harm (ISH). Univariate and multivariate analyses were performed. Hospital records of intentional self-harm were present in 9.3 cases per 1000 home care clients. These clients were younger on average, aged 60 to 74 years and more likely male. Main predictors of intentional self-harm included younger age (OR=3.31, CI: 2.89-3.77), psychiatric diagnosis (OR=2.9, CI: 2.90-3.77), alcohol use and dependence (OR=1.68, CI: 1.33-2.11), and depressive symptoms (OR=1.68, CI: 1.49-1.89). Interaction effects were also found between gender and marital status and gender and social involvement. Results indicated several key areas to be assessed in practice by home care professionals to reduce risk in older home care clients. As demand for home care in Canada increases, these findings provide evidence to inform policies and practices surrounding suicide risk assessment and mental health promotion among older adults in the home care sector. Implications and the next steps of the research are discussed.

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D1.4 Caregiver distress described through data and understood through lived experiencePresented by **MAAIKE DE VRIES**, Senior Methodologist, Health Quality Ontario

Informal caregivers experience multiple stressors, which can lead to feelings of distress or the inability to continue in their caregiving role ("caregiver distress"). A closer look at caregiver distress through data and lived experiences offers a greater understanding of the key issues, trends in caregiving and need for formal supports. Five years of RAI-HC assessment data on long-stay home care patients in Ontario was used to determine the proportion of patients whose caregivers were distressed and to explore trends in the last five years. Patient and caregiver characteristics as well as hours of informal and formal care were examined among patients who reported having a primary informal caregiver. Lived experiences from seven caregivers enhanced the interpretation of the analysis and provided stories of caregiving. The combination of administrative data and lived experiences enabled a fuller picture of the factors related to caregiver distress in Ontario. From 2009/10 to 2013/14, the population supported by publicly funded home care in Ontario got older, more cognitively impaired and more functionally disabled. Along with the increase in complexity of patients, caregiver distress doubled over that same time period (15.6% to 33.3%). Average hours of informal and formal support also increased. Caregiver distress was particularly high among those caring for patients who exhibited responsive behaviours (61.0%) or wandered (64.0%). Focus group consultation with caregivers confirmed some of the findings, but also highlighted important areas not captured by the data. Caregivers described being overtaxed, overworked and overwhelmed by caregiving responsibilities and found little support in system navigation. Informal caregivers are vital to maintaining patients in the community and ensuring high quality health care. Data and lived experiences shed new light on factors related to caregiver distress and provide an opportunity to inform best practices, programs and policies that aim to support both caregivers and home care patients.

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D2.1 Private Drug Plans in Canada: Cost Drivers, 2005 to 2015Presented by **NEVZETA BOSNIC**, Senior Economic Analyst, PMPRB

After a few years of low growth, prescription drug expenditure in private drug plans in Canada are rebounding in recent years. This study identifies the most important cost pressures, measures their impact on expenditure levels, and delves into the factors determining trends in costs, pricing and utilization in private plans. The analysis uses the IMS Brogan® Private Drug Plan database for the period from 2005 to 2015. The centerpiece of the report is a cost-driver analysis that dis-aggregates various factors that contribute to overall drug and dispensing fee costs: price, fees, volume, demographic and drug-mix effects. The analysis also delves into a provincial-level analysis and comparisons with public drug plans. Trends in plan-paid amounts are identified, with a focus on plan size. After years of low growth rates in drug expenditures in private drug plans in Canada, recent trends indicate a marked increase in costs driven largely by newer and more expensive drugs. The generic price reductions and the greater availability of generic molecules that pulled expenditures downward in previous years are now less pronounced and no longer able to offset the increasing cost pressures coming from the drug-mix. There are important provincial variations in the amounts reimbursed per beneficiary by private drug plans, which are in part dependent on the plan design of the public plan. Plan-paid amounts reimbursed by private plans as a proportion of prescription drug costs are on a slight decline with the beneficiaries picking up an increased share of their drug cost. A greater understanding of the forces driving expenditures in private drug plans in Canada will inform policy and stakeholder discussions related to the ability to anticipate, manage and respond to evolving cost pressures and will thus contribute to the sustainability of private drug plans.

D2.2 Health Care Costs and Health Behaviours: Estimating the Contribution of Smoking, Unhealthy Alcohol Consumption, Poor Diet, and Physical Activity on Health Care Costs in OntarioPresented by **CAROL BENNETT**, Senior Research Associate, Ottawa Hospital Research Institute

Ontario policy makers and public health practitioners are interested in the broader impact of health behaviours on health care use. This study is in response to requests to provide further insights into the health care system and, both, economic and health equity impacts of preventive strategies. We examined the relationship between behavioural risks and health care costs using the Ontario sample of the Canadian Community Health Survey (CCHS) cycles 2.1, 3.1 and 4.1. The CCHS respondents were individually linked to all records of health care use paid for by the Ontario Ministry of Health and Long-Term Care; cost associated with each record was estimated using costing methods developed for health administrative data. We created multivariable models to identify the risk of health care costs related to health behaviours. Using these models, we assessed temporal trends (2003-2013) in the health care burden attributable to health behaviours. The health care cost attributed to the four behavioural risks was calculated using responses from 80,749 Ontarians surveyed between 2003 and 2008. In total, there were 312,952 person-years of follow-up. While annual health care costs are large and increasing over time, the attribution of health behaviours to health care costs improved by 2.2% (preliminary estimate) between 2003 and 2013. This 2.2% (preliminary estimate) reduction equates to \$2.1 (preliminary estimate) billion in health care costs. Overall, health behaviours attributed to \$57.4 billion (preliminary estimate) in health care costs between 2003 and 2013. Smoking and physical activity were the leading health behaviours for attributable health care costs; however, the cost savings achieved have been primarily achieved through improvement in smoking attributable costs. This study suggests that a considerable reduction in health care expenditure in Ontario could be achieved through healthier living. To date, improvements in smoking prevalence have contributed to a significant reduction in health behaviour attributable health care costs.

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D2.3 Venture capital supports valuable health technologies by accident, not by designPresented by **PASCALE LEHOUX**, Professeur titulaire, Département d'administration de la santé, Université de Montréal

To stimulate innovation and economic growth, industrialized countries establish policy environments that are favourable to venture capital. Since health policy scholars call for technologies that bring more value to healthcare, there is a need to understand the influence of venture capital over innovations that make their way into healthcare systems. Our research program examined the trajectory of Montreal-based academic health technology spin-offs over a thirteen-year period and documented the role key actors play at different stages. Our qualitative data included key informant interviews (n=34), focus groups (n=19), and a document and press coverage analysis (n=858). While this paper focuses on the institutional logics and rules of capital investment, our analyses examine their impact on the way other innovation stakeholders interact and contribute to technology development. Innovation policies support the development of technologies that capital investors identify as valuable. Health technology based-ventures that are seen as more congruent with the mandate of venture capital and less risky possess similar characteristics; their innovations address very large and reachable markets and enable physicians to generate revenues. For an "exit" to take place and "Return on Investment" (ROI) to be generated, these ventures also need to be acquired, within a relatively short timeframe, by an established medical device manufacturer. These risk-averse logics partly explain why technologies with a marginal clinical value are easily supported and why other types of innovation may never come into existence. While venture capitalists' mandate and worldview are extraneous to healthcare, they shape health technologies in several, tangible ways. To help tackle key challenges of healthcare systems, public policies should be equipped to promote innovations that address the needs of a growing elderly population, support patients who are chronically ill and reduce health disparities. Such knowledge can only come from clinical leaders and health services and policy scholars.

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D3.1 Canada's Regulation of Two-Tier Care and the Relationship to Wait Times

Presented by **COLLEEN FLOOD**, Professor, Centre for Health Law, Policy and Ethics, University of Ottawa

Ongoing Charter challenges allege that Canada's restrictions on two-tier care are draconian and exacerbate wait times, violating patients' right to 'security of the person.' Is this borne out by the evidence? Our research looks at how two-tier health care is regulated across the OECD, and the relationship to wait times. Our approach relies on comparative analysis of law and health policy across OECD countries. As part of this multi-year research project, we are working with experts in law and health policy from each country under studied, who are assisting us in exhaustively gathering and analyzing primary legal and policy documents bearing on two-tier care. Our research also involves a thorough review of the secondary and grey literature, synthesizing expert opinion on the regulation of two-tier care across the OECD and its relationship (if any) to wait times. Canada is somewhat unique in its reliance on statutory measures to tamp down dual practice, which include prohibitions on parallel private insurance and physician dual practice (i.e., moonlighting in the private sector while working in the public system). Our international comparison finds, however, that the majority of OECD countries restrict two-tier care using less direct means. The methods by which two-tier care is restricted are complex and vary from country to country, reflecting broader variations in health system design and health care politics. This finding complicates efforts to draw causal links Canada's restrictions on two-tier with long wait-times: it appears that many health systems limit two-tier care in a manner that is functionally comparable to Canada's approach, with varying results in terms of wait times. Canada's approach to the regulation of two-tier care falls on a continuum with approaches taken by other OECD countries. Attempts to draw causal links between Canada's regulatory approach and its long wait times are, at this stage, highly speculative and do not mean the evidentiary burden for a constitutional challenge.

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D3.2 Addressing 'waste' in health systems: A critical interpretive synthesis

Presented by **MICHAEL WILSON**, Assistant Professor, McMaster University

Our objective was to conduct a critical interpretive synthesis to understand: 1) whether, how and under what conditions health systems address 'waste' (i.e., agenda setting and prioritization); 2) how health systems have chosen to address the issue (i.e., policy development); and 3) how health systems have implemented approaches. We searched 15 databases in May 2015 to identify all empirical and non-empirical articles focused on disinvestment at a system level. Two reviewers independently screened records, assessed for inclusion and conceptually mapped included articles. Using the conceptual mapping findings, we selected a purposive sample of articles, and created structured summaries of key findings from each using frameworks related to government agendas, policy development and implementation, and health system arrangements. We used the structured summaries to thematically synthesize the results across our domains of interest. Our search strategy identified 3537 references, from which we included 254 papers that were classified as relevant to agenda setting/prioritization (n=65), policy development (n=46) and implementation (n=60). The focus on addressing 'waste' in health systems emerges from the need to ensure value for money spent on health systems and to prevent harm in patients. Approaches for addressing 'waste' include: 1) processes to identify and diagnose the types of overused or misused health services (e.g., health technology reassessment); 2) stakeholder- or patient-led approaches (e.g., the Choosing Wisely campaign); and 3) government-led initiatives (e.g., changing lists of reimbursed products and services and using financial incentives or disincentives). Key implementation considerations include the need to develop 'buy in' from key stakeholders (particularly physicians) and citizens. Ensuring the use of high-value health services to keep citizens healthy and avoid harm is a priority across health systems. Our synthesis can be used by policymakers, stakeholders and researchers to understand how the issue has been prioritized, approaches that have been used to address it and implementation considerations.

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D3.3 Towards a better health technology innovation system: A scoping review of patient and public involvement in technology design and technology assessment

Presented by **FIONA MILLER**, Associate Professor, University of Toronto

Technological innovation in health has important implications for patients and publics, with the potential to affect care processes and outcomes, as well as the efficiency and sustainability of health systems. Yet approaches to integrating the values and priorities of patients and the public into processes of technological innovation remain undeveloped. We conducted a scoping review of patient and public involvement (PPI) in health technology innovation, examining PPI by industry (medical technologies, pharmaceuticals) in health technology design (HTD) as well as PPI by health technology assessment (HTA) agencies, which inform coverage and access. We searched across 4 databases and used a qualitative descriptive approach to synthesize heterogeneous literature. 93 unique articles were included in our analysis. Industry and HTA agencies showed little recognition of each other's role but approached PPI in broadly similar ways, related to understanding needs, ensuring acceptability, and addressing challenges. However, important differences were apparent: HTA engaged patients and publics but HTD engaged only patients; patients were expert informants for HTA, but users for medical technology design and political stakeholders for pharmaceutical design; finally, the theme of ensuring acceptability evoked legitimacy for HTA but sales for HTD. PPI may be conducted in different ways at different stages of the technology life cycle, and across industries. This has profound implications for the innovation system's capacity to fairly address the needs and priorities of patients and the public. Robust policy strategies are needed across the technology life cycle.

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D3.4 eHealth Policy in Canada: A Time for Renewal

Presented by **KARIM KESHAVJEE**, CEO, InfoClin

Canada's eHealth policies are now over 10 years old. Given massive changes in technologies, sea changes in medical technologies (e.g., biologics, genomics, proteomics, mhealth, etc) and new attitudes towards patient engagement, Canada needs a new set of ehealth policies. We engaged over 90 stakeholders from 8 different stakeholder groups to better understand their needs with regards to ehealth technologies for their work. Stakeholders included: members of the public, health providers, provider associations, health charities, ministry of health, researchers and academics, guideline implementation organizations and ehealth implementation agencies. We conducted 1-on-1 interviews, starting with a draft architecture for the next generation of ehealth technologies that was derived from literature review and projection based on current trends in medical technologies. Interviews identified needs and capabilities of the architecture to meet those needs. The architecture was evolved based on stakeholder input. Although the goals of stakeholders and subsequently their needs varied significantly, all agreed that high quality, standardized data was important to achieve their goals. For most stakeholders, data currently captured in EMRs is not adequate for their needs, whether it be for health system management, clinical decision support, quality improvement, communication with patients for chronic disease management, research or surveillance. We designed and validated an IT infrastructure that can collect high quality data for a variety of purposes and for multiple stakeholders, but requires intensive involvement of multiple stakeholders. The proposed IT infrastructure can support the development of a Learning Health System. The infrastructure also supports continuous quality improvement and knowledge translation at the point of care and can support patient engagement and involvement. Canada needs a revitalized eHealth architecture to support current and future needs of the healthcare system and to take advantage of recent innovations in technology. Our proposed IT architecture is robust, meets the needs of multiple stakeholders and is a good start to a revitalized ehealth policy in Canada.

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D4.1 Erectile Dysfunction Medications: A Gateway Drug for Men

Presented by **SEAN SKELDON**, MSc Student; Resident, Centre for Health Services and Policy Research, School of Population and Public Health, University of British Columbia; Department of Community and Family Medicine, University of Toronto

Erectile dysfunction (ED) can be a sentinel marker for future cardiovascular disease and has been described as providing a 'window-of-curability' for men to receive targeted cardiovascular risk assessment. Whether the prescription of phosphodiesterase-type-5-inhibitors (PDE5i) for ED leads to the detection and treatment of previously undiagnosed cardiometabolic risk-factors (CMRFs) remains unclear. We performed a retrospective, population-based cohort study of residents of British Columbia, Canada using linked health care databases (PopData BC, PharmaNet) from 2004 to 2011. An individual-level time series analysis with switching replications was used to determine changes in drug utilization for CMRFs (hypertension, hypercholesterolemia, diabetes) following the first prescription for a PDE5i in men aged 40-59. The observation window for each patient was 720 days prior to and 360 days following the index date. The primary outcome was changes in prescriptions for antihypertensives, statins, and oral antidiabetic drugs, with secondary outcomes being laboratory tests for plasma cholesterol and glucose. 6,702 men aged 40-59 years newly prescribed a PDE5i were included in the analysis. We found a sudden increase in prescriptions for antihypertensives (28 per 1,000, $p=0.03$), statins (15 per 1,000, $p<0.001$), and antidiabetics (18 per 1,000, $p=0.002$) in the 90 days following a new prescription for a PDE5i. For both hypercholesterolemia and diabetes, relevant screening tests performed in the 30 days following PDE5i prescription were responsible for this change. Only 11% and 13% of men that did not have a screening test for cholesterol or glucose, respectively, in the year prior to their PDE5i prescription went on to have one in the following month. Treatment for ED can be a trigger for the early detection and treatment of CMRFs provided physicians perform the requisite screening investigations. The paucity of screening tests observed in our study suggests that physicians should be educated on the recommended screening guidelines for men newly diagnosed with ED.

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D4.2 Potentially unnecessary diagnostic imaging for low back pain in Alberta

Presented by **XI-KUAN CHEN**, Program Lead, Canadian Institute for Health Information

Choose Wisely Canada recommends that don't do imaging for low-back pain unless red flags are present. The purpose of this study is to examine the rates of potentially unnecessary diagnostic imaging for patients with LBP, and explore potential risk factors of scan rates and a zone variation of scan rates. Linking diagnostic imaging data to physician billing data in 2011/12, we identified adult patients with non-persistent LBP who sought medical care from family physicians in Alberta. We excluded LBP patients with any red flags recommended by CWC. We determined whether they had a potentially unnecessary X-ray or CT/MRI within 6 months after index visits. Generalize estimating equations were used to identify significant risk factors at patient, physician and community levels. In Alberta, about 30% of LBP patients had potentially unnecessary scans within 6 months of index visits to family physicians. Most patients had an X-ray; about 5% had a CT/MRI. Patients who were older, male or living in high income neighborhoods had higher scan rates. Physicians who saw fewer patients with LBP ordered more imaging. Those practicing in rural regions ordered more CT/MRI. Fee-for-service physicians ordered more X-rays than alternative payment physicians. X-ray scan rates were similar across health zones, but CT/MRI scan rates were lower in the urban zones (Edmonton and Calgary) compared to the rural zones. More than 1/3 LBP patients are receiving potentially unnecessary diagnostic imaging, and the imaging rates are associated with risk factors at the patient- and physician-levels.

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D4.3 Patient perspectives on electronic consultation as an acceptable alternative to traditional referrals: the Champlain BASE eConsult service

Presented by **JUSTIN JOSCHKO**, Research Assistant, C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute

Electronic consultation (eConsult) services can greatly reduce wait times for specialist care and avoid unnecessary referrals. However, patients' perspectives on eConsult services remain relatively unexplored. We examined patients' perspectives of the acceptability of eConsult as an alternative to face-to-face specialist consultations. We conducted an exploratory qualitative study of patients who received care using the Champlain BASE (Building Access to Specialists through eConsultation) eConsult service located in Ottawa, Ontario. Primary care providers enrolled with eConsult discussed the study with patients. Interested patients were contacted by telephone and completed fifteen-minute semi-structured interviews between June 2015 and January 2016. Questions pertained to patients' experiences with the eConsult service, their attitudes towards its use in their care, and their opinions on it as an alternative to traditional face-to-face specialist referrals. Interviews were transcribed and are undergoing qualitative analysis using a constant comparative approach. Twenty-eight interviews have been completed, with an additional 6 scheduled. Over half of all respondents received a follow-up call or appointment within one week. 86% of patients stated that eConsult was useful in their case, citing such benefits as speed of response, avoidance of hassle, a sense of reassurance that their primary care provider was receiving informational support in their care, and the opportunity for their primary care provider to act as an advocate during the referral process. Participants unanimously agreed that eConsult was an acceptable way to access specialist care, and 96% stated that they would ask their primary care provider to use eConsult on their behalf in the future. Our preliminary findings show that eConsult is a highly acceptable patient-centered alternative model of accessing timely specialist advice. Patients value the service's speed and convenience and would request its use on their behalf in the future. Full results will be available prior to the conference.

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D4.4 A Complex Intervention to Optimize the Health of Older Adults: Understanding the Implementation of Health TAPESTRY

Presented by **LISA DOLOVICH**, Research Director & Associate Professor, Department of Family Medicine, McMaster University

To describe the implementation of Health TAPESTRY (Health Teams Advancing Patient Experience: Strengthening Quality), a complex intervention aiming to optimize the health of individuals living in their homes by meeting their health goals and screening for health risks using community volunteers, interprofessional primary care teams, community engagement, and technology. A mixed-methods approach was used to understand the implementation processes of Health TAPESTRY during a randomized trial studying its effectiveness in people 70 years of age and older rostered with the McMaster Family Health Team. Selected quantitative program measures include participant responsiveness, number of volunteers and volunteer visits, volunteer confidence, completeness of tools administered by volunteers, personal health record (PHR) use, and number and type of healthcare team actions in response to goals and risks highlighted by Health TAPESTRY reports. Additionally, qualitative data on the quality and extent of healthcare team functioning and the patient and volunteer experience was examined. Of 1848 eligible and invited patients, 659 (35%) people mailed in their consent form ($n=659$) and 360 (19%) participants enrolled. To date, 121 participants have completed the 6-month intervention. Volunteers ($n=75$) completed 532 home visits. Volunteers sent 236 reports visits with 855 alerts sent to the clinic for review and action. Information most acted on included suboptimal physical activity (42%), interest in advance care planning (35%) and high nutritional risk (32%). On average, participants logged into their PHR 2.6 times (range 0 to 46 log-ins), with "adding documents" most commonly used. Focus groups or interviews were conducted with management, the interprofessional team (Health TAPESTRY report intake team and other clinical members), volunteers, and patients. A measure of organizational readiness for change was also completed. Volunteers successfully gathered information using novel technology that was used by the rest of the healthcare team to develop care plans. Understanding a nonlinear, dynamic, interdependent intervention has helped the research team, practitioners and policy makers understand factors to support scalability of Health TAPESTRY within a changing primary healthcare system.

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D5.1 Experiences with Hospital Discharge Communication among Older Adults: Results from the 2014 Commonwealth Fund International Health Policy SurveyPresented by **KYLE KEMP**, PhD Student, University of Calgary

Communication between patients and healthcare providers has been associated with unplanned hospital readmissions. The study objectives were to compare four aspects of discharge communication in 11 developed countries (including Canada), and to compare Canada to its counterparts using data from the 2014 Commonwealth Fund International Health Policy (IHP) Survey. The IHP survey was conducted via landline with 25,530 respondents (5,279 in Canada). The overall response rate was 28%. The complete dataset was obtained from the Canadian Institute for Health Information (CIHI). Four questions pertaining to discharge communication comprised the outcome variables: a) receiving written discharge instructions, b) having arrangements for post-discharge follow-up, c) discussion of discharge medications, and d) receiving contact information for any follow-up questions. Response frequencies (yes/no) were tabulated by country. Multivariate logistic regression examined the relationship between country (Canada vs. others) and each outcome, while controlling for a variety of demographic factors. Unweighted results are reported. The study sample was 5,974 adults (55 years and older) who reported overnight hospitalization in the previous 2 years. The sample was predominantly female (55.5%) and 17.4% Canadian. Overall, 68.0% reported receiving written discharge instructions (76.1% Canada; rank=4). 76.3% reported having arrangements for follow-up care (79.9% Canada; rank=6). 69.9% reported discussing the purpose of taking their discharge medications (73.2% Canada; rank=6), and 86.5% reported knowing who to contact with any questions (87.1% Canada; rank=4). Canadians were more likely to receive written information (aOR=1.57, 95%CI: 1.33-1.85), have follow-up arrangements (aOR=1.28, 95%CI: 1.07-1.52), and discuss discharge medications (aOR=1.27, 95%CI: 1.09-1.48). No difference was observed for post-discharge contact information. Within one month of discharge, 90 respondents (1.5%) reported hospital readmission and/or emergency department visit(s) due to post-discharge complications. Older Canadians reported favourable outcomes compared to their counterparts in other countries. However, we identified universal gaps; particularly in receiving written discharge instructions and communication around post-discharge medications. Quality improvement efforts targeting these items may improve patient safety while reducing healthcare utilization via emergency department visits and unplanned readmissions.

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D5.2 Creating a Patient and Family Centred Hospital: A Case Study of an Ontario HospitalPresented by **ERICA BRIDGE**, Graduate Student, Brock University / **MADELYN LAW**, Associate Professor, Brock University

The Patient Declaration of Values (PDov) is conceptualized as a way to improve patient-centred care. The study objectives were to: a) understand the role of the PDov in practice and policy within a leading Ontario hospital, and b) examine how a leading hospital incorporated these values into their organizational structures. Using a single-case study methodology, a leading Ontario hospital was selected using purposeful sampling. An expert consultation process was used to elicit a list of leading hospitals and one was then contacted via a letter of invitation to participate in the study. Individual interviews were conducted with staff (i.e., CEO, physicians, directors and managers from various programs, nurses, PSW/OT/PT, environmental staff, and patients) and relevant documents (i.e., quality improvement plans, organizational structure documents, and policy documents) were collected and analyzed in January 2015. A constant comparative method was used to understand the major themes that emerged from the data. The results provide five themes for patient and family centred care (PFCC) that could be considered by other healthcare organizations: 1) setting the stage, 2) inspiring the people, 3) organizational capacity, 4) organizational and environmental barriers and 5) reflection and improvement, to create a culture of PFCC in an acute care environment. These five themes translate into 12 core strategies: 1) community engagement, 2) examining potential organizational/environmental barriers, 3) developing a strategic plan with guiding principles, 4) translating the guiding principles into expected behaviours, 5) creating a patient advisor role, 6) defining PFCC, 7) motivating the people, 8) empowering patients and families, 9) fostering a supportive environment, 10) continuous improvement, 11) addressing system barriers, and 12) evaluating culture shift. This study is the first of its kind to examine how the PDov, a component of the ECFAA, was used in policy and practice. The findings demonstrate how the PDov was utilized to inform policies and practices, leading to the development of core strategies to foster PFCC within an organization.

D5.3 Patient engagement in the Primary and Integrated Health Care Innovation Networks: Learnings to datePresented by **SABRINA WONG**, Professor, University of British Columbia

The objective of this panel is to discuss how the Strategy for Patient-Oriented Research (SPOR) Primary and Integrated Health Care Innovation Network (PIHCIN) have begun developing their infrastructure, with a foundational piece around engaging patients in their development and operations. The PIHCIN is a network of networks with one territorial and 10 provincial network nodes. Investigators from different Canadian provinces in the PIHCIN nodes will present their successes and challenges in engaging patients/citizens in informing the research priorities and implementing the networks. Canada's Strategy for Patient-Oriented Research (SPOR), CIHR and partners have created the PIHCIN that focuses on two key areas: (1) new approaches to delivery of primary and integrated health care for people with complex care needs across the life course and (2) multi-sector integration of prevention strategies with care delivery models. The overall goal of this network is to support evidence-informed transformation and the delivery of more cost effective primary and integrated health care that improves individual and population health, health equity, and health system outcomes. We conducted a survey of the PIHCINs to examine how they have engaged patients/citizens. To date, patients/citizens have participated to varying degrees in the development and implementation of the network nodes. Participation has ranged from individuals to organizations such as the Patients as Partners/Patient Voices network in BC. Each network has approached patient/citizen engagement differently. While each of these meets the CIHR requirement, the true contribution and impact on the work of the network of networks is still under development. The PIHCIN is an opportunity for patients to be engaged in guiding the research and developing the learning research communities. Careful attention to ensuring a diversity of patient voices informs the research in the area of primary and integrated health care innovations is needed.

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D5.4 Making it work: Developing, building, implementing and researching useful digital tools for medication managementPresented by **KELLY GRINDROD**, Assistant Professor, University of Waterloo / **ANNETTE MCKINNON**, ePatient, Patient Researcher

The objective of this session is to explore the challenges facing developers of digital adherence tools (apps, smart pillboxes, patient portals) and to highlight strategies for engaging patients to support improved design, implementation and evaluation. With almost one third of seniors taking five or more medications, medication management has become a central component of primary care. This growing polypharmacy has led to an explosion of digital tools that claim to help patients and healthcare providers manage medication therapy, including tools that support adherence, decision-making and medication reconciliation. However, these tools often oversimplify large and complex medication-related problems and the related processes. With adherence for example, most mobile applications provide patients with list-making tools and reminders but fail to account for other critical elements such as affordability, adverse events, drug interactions, and disease-related disability. It is critical that we research digital health tools for medication management with target end users, including older patients who take multiple medications, and other vulnerable populations such as racial/ethnic minorities and patients living with low income, low health literacy, mental illness and language barriers. This presentation will focus on the design and evaluation of digital medication management tools, both for research and practice. The presentation will include the dual perspectives of a clinician researcher and an ePatient/patient researcher. Dr. Grindrod will share her experiences studying digital health tools, including mobile apps, wearables and electronic health records, with non-traditional technology users. As an ePatient living with inflammatory arthritis and an active research partner, Ms. McKinnon will share her perspective on the role of the patient expert in research.

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D6.1 Clinical Telemedicine Utilization in Ontario over the Ontario Telemedicine Network: geographic patterns

Presented by **JOHN HOGENBIRK**, Senior Research Associate, Centre for Rural and Northern Health Research

With 88% of the province's land mass and only 6% of its population, Northern Ontario has different barriers to access than Southern Ontario. We assessed telemedicine utilization in rural and urban areas of Northern and Southern Ontario to determine how telemedicine overcame barriers imposed by distance and low population densities. We used Ontario Telemedicine Network (OTN) utilization data collected through the Ontario Health Insurance Plan, provided by the Ministry of Health and Long Term Care. Data were aggregated by census subdivision, therapeutic area of care, and month and year of visit. We categorized census subdivisions as Northern or Southern Ontario using Local Health Integration Network boundaries and as urban or rural using Statistics Canada's Statistical Area Classifications. We calculated utilization rates per fiscal year for 2008/09 to 2013/14 by geographic region (north, south, urban, rural) and by therapeutic area of care. There were 652,337 clinical patient visits through OTN during 2008/09 to 2013/14. The average annual utilization rate was highest in rural Northern Ontario (52.0 visits per 1000 people per year) and urban Northern Ontario (32.1 visits per 1000 people per year). Southern Ontario rates for rural and urban areas were 6.1 and 3.1 visits per 1000 people per year, respectively. The majority of usage in Ontario was in mental health and addictions (61.8%). Utilization in other areas of care such as surgery, oncology, and internal medicine were highest in the rural north, whereas primary care use was highest in the urban south. Per capita utilization was highest and therapeutic areas of care most diverse in rural Northern Ontario. Utilization was higher in urban Northern Ontario than in Southern Ontario. This suggests that telemedicine is being used to improve access to medical care services in sparsely populated or medically underserved regions of Ontario.

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D6.2 Variations in the availability and utilization of colonoscopy resources in Ontario

Presented by **COLLEEN WEBBER**, PhD Candidate, Queen's University

Evidence of long colonoscopy wait times and variations in colonoscopy utilization across Ontario highlight the need for improved colonoscopy capacity in the province. This study measured colonoscopy resource availability and referral patterns in Ontario and evaluated regional variations in colonoscopy resource availability, location and utilization. A population-based cross-sectional study of colonoscopy resource availability in Ontario from 2007 to 2013 was undertaken using linked databases from the Institute for Clinical Evaluative Sciences (ICES). We defined the catchment areas for colonoscopy resources using virtual physician networks that were built upon existing patient flow patterns, with comparisons to patient travel patterns to ensure the networks reflected colonoscopy referral patterns. Colonoscopy physicians were identified from physician billing data. Network-level availability was measured in terms of physician density, specialty, and quality, use of private colonoscopy clinics, and distance that patients travel for colonoscopy. The availability of colonoscopy resources in Ontario increased between 2007 and 2013. Physician density increased from 8.7 full-time equivalent (FTE) physicians per 100,000 residents in 2007 to 9.4 FTE per 100,000 residents in 2013. The proportion of colonoscopy physicians who achieved the recommended colonoscopy completion and polypectomy rates increased from 60% to 77%, and 28% to 53%, respectively. Use of private colonoscopy clinics also increased. However, strong geographic variation in these measures of colonoscopy resource availability exists across the province. Analysis of colonoscopy referral patterns indicated that patients sometimes travelled long distances, both within and outside of their local physician network, to receive colonoscopy. Availability of colonoscopy resources in Ontario improved between 2007 and 2013. However, concern remains that certain areas of Ontario may be under-resourced and the distance patients must travel for colonoscopy may be a barrier to care. Ongoing analyses will explore the association of colonoscopy resource availability and colonoscopy utilization.

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D6.3 The effect of cost on access to prescription medicines for older adults in Canada and ten comparable countries

Presented by **AUGUSTINE LEE**, Student, University of British Columbia / **STEVE MORGAN**, Professor, University of British Columbia

We sought to compare rates of cost-related non-adherence (CRNA) to prescription drugs for people over the age of 55 in Canada and 10 comparable countries, 9 of which have universal health care systems that include prescription drug coverage. We used data the Commonwealth Fund's 2014 International Health Policy Survey of Older Adults. We computed sample-weighted CNRA prevalence rates based on survey respondents that reported not filling a prescription or skipped doses within the last 12 months due to out-of-pocket costs. To determine significance of cross-national differences, we ran a logistic regressions on the surveyed countries, controlling for age, sex, health status, and household income. Rates of CRNA among older adult populations varied from less than 3% in France, Norway, Sweden, and the UK to over 16% in the US. Canada had the highest rate of CRNA (7.4%) among countries with universal health care systems (all but the United States). Differences in CRNA rates appeared to follow lines of availability of prescription drug coverage and the extent of direct patient charges for prescriptions. After adjusting for age, sex, health status, and income, older adults in Australia, Canada, New Zealand, and the US were more likely to report CRNA than older residents of the UK (p < 0.03). The odds of Canadians reporting CRNA were nearly three times greater than those residing in the UK (OR = 2.89, p < 0.001). There are large, statistically significant international differences in the extent that older adults experience financial barriers to accessing prescribed medicines. Older Canadians face the greatest barriers among countries with universal health care systems, a difference that appears to be due to availability and comprehensiveness of prescription drug coverage.

D6.4 Trends and determinants of potentially inappropriate prescribing of Diane-35 for oral contraception among young women in British Columbia

Presented by **SUZANNE MAGINLEY**, Graduate student (MSc), Centre for Health Services & Policy Research, School of Population & Public Health - University of British Columbia

Although approved only for short-term treatment of severe acne, and despite repeated Health Canada safety warnings, Diane-35 is known to be prescribed off-label as an oral contraceptive (OC). In this study, we examine the influence of patient and physician characteristics on potentially inappropriate Diane-35 use in British Columbia. This retrospective analysis of population-based, de-identified linked administrative datasets containing health care, pharmaceutical, and socio-demographic information from 2006–2013. Our study cohort included female residents of British Columbia, aged 15–35 years, who received an initial prescription for OCs or Diane-35 during the study period. We excluded Diane-35 users who had evidence of medically diagnosed or treated acne. We calculated rates of incident use of all OCs and Diane-35 over time, and performed multivariate logistic regression analyses to examine the influence of age, geography, ethnicity, socioeconomic status, and physician characteristics on risk of exposure to potentially inappropriate prescribing of Diane-35. During our study period, 182,393 women received an initial prescription for OCs or Diane-35, including 2,146 (1%) women who received Diane-35 without evidence of acne. We observed a downward trend in incident Diane-35 use among women aged 15–35; similarly, incident OC prescriptions declined from 169 per 10,000 women in 2006 to 83 per 10,000 women in 2013. Age, geography, and income had no statistically significant effects on the odds of receiving potentially inappropriate Diane-35 prescriptions. However, the odds of receiving a potentially inappropriate Diane-35 prescription were higher for women who were identified as being of South Asian descent (OR = 1.30, 95% CI 1.07–1.59), and for women whose physicians were aged >65 (OR = 1.59, 95% CI 1.26–2.0). South Asian women and patients of older physicians may be at higher risk of receiving a potentially inappropriate Diane-35 prescription, despite the wide availability of safer alternatives. The overall decline in incident Diane-35 and OC dispensations may suggest a growing preference for non-oral contraceptive methods among young women in BC.

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D7.1 Describing and Assessing Record Linkage between Ontario Administrative Health Data and the Citizenship and Immigration and Vital Statistics—Death Registries

Presented by **MARIA CHIU**, Staff Scientist, Institute for Clinical Evaluative Sciences

Ontario's health care administrative data has been enriched with the Immigration, Refugees and Citizenship Canada (IRCC) Permanent Resident database and the Office of the Registrar General's Vital Statistics-Death (VSD) registry. Our objectives were to estimate linkage rates and compare characteristics of individuals in the linked versus unlinked files. We used both deterministic and probabilistic linkage methods to link the IRCC database (1985-2012) and VSD registry (1990-2012) to the Ontario's Registered Persons Database. Linkage rates were estimated and standardized differences were used to assess differences in socio-demographic and other characteristics between the linked and unlinked records. The overall linkage rates for the IRCC database and VSD registry were 86.4% and 96.2%, respectively. Unlinked and linked files were similar for most characteristics, such as age and marital status for IRCC and sex and most causes of death for VSD. However, lower linkage rates were observed among people born in East Asia (78%) in the IRCC database and certain causes of death in the VSD registry, namely perinatal conditions (61.3%) and congenital anomalies (81.3%). The linkages of immigration and vital statistics data to existing population-based healthcare data will enable many novel cross-sectional and longitudinal studies to be conducted. Analytic techniques to account for linkage rates may be required in studies of certain ethnic groups or certain causes of death among children and infants.

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D7.2 Projecting diabetes prevalence in Canada: An application of microsimulation modeling

Presented by **DOUGLAS MANUEL**, Senior Scientist, Ottawa Hospital Research Institute

Diabetes prevalence is rising in Canada, driven by both population aging and increases in risk factor prevalence, particularly obesity. The objective of this study was to use microsimulation modelling to project diabetes prevalence in Canada to 2031, considering future trends in BMI and other diabetes risk factors. The Population Health Model (POHEM) is a longitudinal, dynamic, microsimulation model developed at Statistics Canada to project chronic disease incidence and prevalence for the Canadian population. The Diabetes Population Risk Tool (DPoRT) was integrated into the POHEM framework to calculate diabetes incidence based on dynamic projections of diabetes risks produced by the model. Projections of diabetes risks and prevalent diabetes cases were validated against estimates from the Canadian Community Health Survey (CCHS) and Ontario Diabetes Database (ODD). Various scenarios of BMI reduction were applied to the population and the impact on diabetes prevalence was investigated. POHEM projected estimates of diabetes risks show good agreement with the CCHS estimates across age, sex, obesity, smoking, hypertension and education status in 2011. The age-standardized diabetes prevalence rate in Ontario is projected to reach almost 16% in 2031 and follows the same rising trend as estimates from the ODD. The Canadian projections of diabetes prevalence from 2001 to 2031 mirror the observed Ontario trend; however, no national validation estimates were available for comparison. Projections by BMI category and education status show different rates of diabetes prevalence by levels of these variables. Illustrative scenarios of BMI reduction—reducing BMI in the population by 7% and 3%, over different time horizons—demonstrate a decrease in diabetes prevalence. Using the DPoRT algorithm integrated into the POHEM microsimulation tool provides accurate projections of diabetes prevalence rates by different levels of important risk factors and socioeconomic groups. Such information is important for policy-makers interested in population health surveillance, as well as planning and intervention design.

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D7.3 The relationship between primary care physician utilization and hospitalizations for uncomplicated hypertension, an ambulatory care sensitive condition

Presented by **ROBIN WALKER**, Research Associate, Libin Cardiovascular Institute of Alberta

Hospitalizations for ambulatory care sensitive conditions (ACSC) represent an indirect measure of access and quality of community care. The purpose of this study was to examine the association between one ACSC, uncomplicated hypertension, and prior primary care physician (PCP) utilization. A cohort of patients with hypertension was identified using administrative databases in Alberta between fiscal years 1994 and 2008. We applied the Canadian Institute for Health Information's case definition to detect patients with uncomplicated hypertension as the most responsible reason for hospitalization and/or ED visit. We assessed hypertension-related and all-cause PCP visits. The overall adjusted rate of ACSC hospitalizations and ED visits for uncomplicated hypertension was 7.1 and 13.9 per 10,000 hypertensive patients, respectively. The likelihood of ACSC hospitalization for uncomplicated hypertension was associated with age, household income quintile, region of residence, and Charlson comorbidity status (all $p < 0.0001$). The adjusted rate of ACSC hospitalizations for uncomplicated hypertension increased from 4.8 per 10,000 hypertensive patients for those without hypertension-related PCP visits prior to diagnosis to 10.5 per 10,000 hypertensive patients for those with 5 or more hypertension-related PCP visits. The rate of ACSC hospitalizations and/or ED visits for uncomplicated hypertension increased as the number of hypertension-related PCP visits increased even after stratifying by demographic and clinical characteristics. As the frequency of hypertension-related PCP visits increased, the rate of ACSC hospitalizations and/or ED visits for uncomplicated hypertension increased. This suggests that ACSC hospitalization for uncomplicated hypertension may not be a particularly good indicator for access to primary care.

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D7.4 Evaluation of Healthcare Financing Alternatives, Using a Microsimulation Tool: The Case of Medical Saving Accounts

Presented by **SAHBA EFTEKHARY**, PhD student, University of Toronto, Institute of Health Policy, Management and Evaluation

To evaluate the micro and macro-economic impacts of implementing alternative healthcare financing options such as Medical Saving Accounts (MSAs) in the family and government levels by using an enhanced version of the Social Policy Simulation Database and Model (SPSD/M) microsimulation tool with added health status, healthcare utilization and costs data. Five main phases of this study included: 1) Data enhancement to add health status, healthcare usage and cost data 2) Developing scenarios and their elements 3) Model enhancement with scenario parameters and variables 4) Model execution 5) Developing a framework for interpretation of the results. The enhanced version of the SPSPD/M was used to determine the impact of alternative healthcare financing options including an MSA program on Canadian families and the government. MSAs are individualized accounts that can be used to pay for designated medical expenses being paid out-of-pocket; they can be financed through different sources and may be subject to varying tax treatments. Comparing proposed scenarios to current practice, we determined the financial impact of implementing alternatives on families' disposable income, unmet medical expenses and income tax payable. Winners and losers varied according to the scenario elements configuration and tax-treatment. The impact of the alternatives on equity was examined through income redistribution. There is also assessment of the winners and losers and unmet medical expenses based on total income categories and health status. Some scenarios made low income families better off and some higher income families. This applied to the health status as well. The size of the change in government's tax revenue and healthcare budget were identified through changes in total /federal taxes payable by families and total contributed amounts (or used amounts depending on scenarios) respectively. Powerful tools, such as microsimulation modelling, offer a method of evaluation that allows policy-makers to examine potential impacts of proposed policy changes. This analysis incorporates health status, healthcare usage and costs and extends the scope of this already-validated model to provide a better understanding of the alternative healthcare financing methods.

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D8.1 Collateral benefits: Unintended consequences of the Roots of Empathy program

Presented by **RANDY FRANSOO**, Research Scientist, Manitoba Centre for Health Policy, University of Manitoba

Roots of Empathy is a school-based mental health program with demonstrated effectiveness in reducing bullying & aggression, and increasing pro-social behaviours. This study examines the program's impact on several broader long-term health and social outcomes related to the program's goals, but not specifically targeted by the program's design or objectives. This study used administrative health, education, and social service records for children and youth in Manitoba who participated in the ROE program, and a comparison group. Propensity scores were used along with hard matching on key variables to ensure comparability of groups. Outcomes include a number of health, social, and educational indicators, including Injury hospitalization or death, Health service use for mental illness, Teen pregnancy rates, Involvement with the criminal justice system, and High school graduation rates. Analyses were performed at the Manitoba Centre for Health Policy (MCHP), using SAS. Findings from analyses of the pilot (N=688) reveal several 'collateral benefits' that may be related to the program, though most did not reach statistical significance in this initial sample. (Results from the full sample will be available shortly; N > 8000.) Compared to matched counterparts who did not receive the program, ROE participants had lower rates of teen pregnancy (6.6% vs 9.6%; p=0.19), and school grade repetition (2.4% vs 3.8%, p=0.09), and higher rates of high school graduation (77.7% vs 73.5%, p=.36). However, they also had higher rates of injury-related hospitalization (6.4% vs 5.0%, p=0.14). For some outcomes, sub-group analyses showed significant differences for some strata but not others. Additional outcomes to be compared include suicide rates and use of social services. These findings provide intriguing evidence suggesting beneficial impacts in longer-term health and social outcomes that could feasibly be related to participation in the Roots of Empathy program. Results from the full sample will provide more conclusive results, and allow sub-group analyses – most notably, by grade level.

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D8.2 Institutional Policy Barriers to Appropriate Care Settings: Youth Receiving Adult Mental Health Services in Ontario

Presented by **ASHLEIGH MIATELLO**, PhD Candidate, Health Policy, McMaster University

Mental disorders often begin during adolescence. Acute care for these individuals frequently occurs in emergency departments or adult mental health inpatient units. The objective of this study is to understand factors that contribute to and the experiences of youth receiving adult mental health services. We employed a case study approach, incorporating two data sources. First, we conducted a systematic literature search using six electronic platforms: CINAHL, Embase, HealthSTAR, MEDLINE, PsycINFO, and Web of Science. Keywords included variations of "mental health", "youth", "adult", and "inpatient care". Second, we analyzed interview data collected as part of a larger study examining transitions from child to adult mental health services in Ontario. Interviews that discussed factors contributing to or experiences of youth receiving adult mental health services were analyzed. Participants included youth with mental disorders, family members of youth with mental disorders, mental health service providers and decision-makers. Results are clear that emergency departments and adult inpatient units are not optimal venues for youth requiring mental health care. Literature suggests that youth are at risk of worsening symptoms while awaiting care in emergency departments where staff is often not adequately trained to work with youth who are experiencing mental disorders. Interview participants described the "horrible" experiences of youth receiving care with older adults, who are often dealing with severe mental disorders. Rationales provided for youth receiving adult services in emergency departments and adult inpatient units were largely related to institutionalised policies that have an impact on funding, staff training and location of available services. Understanding user experiences and delivering person-centred care are identified as priorities across health systems. Institutional barriers make it difficult for organizations to implement care delivery that is age-appropriate for youth experiencing acute episodes of mental illness. Removing barriers to patient-centred care is one way of improving experiences in mental healthcare.

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D8.3 Enhancing Health System Performance and Continuity of Care: Opportunities to Improve the Mental Health of Emerging Adults in Canada Based on Lessons From A Case Study of Youth to Adult Mental Health Service Transitions in Ontario

Presented by **GILLIAN MULVALE**, Assistant Professor, Health Policy and Management, McMaster University / **LARA DI TOMASSO**, Research and policy analyst, Mental Health Commission of Canada

Transitions between youth and adult mental health services are often arduous experiences, where services may be reduced or even unavailable at the time of transition, leaving these youth to "fall through the cracks" of the health system, with potential detrimental impacts on their general health and well-being. The Mental Health Commission of Canada (MHCC) recently hosted a Consensus Conference on the mental health of emerging adults, the goal of which was to develop a consensus statement with concrete recommendations aimed at improving the mental health of emerging adults and addressing the challenges they face in current service systems. The vulnerability of these groups during a crucial developmental stage, the heterogeneity of mental health problems, and the diversity of services required that may cross multiple government ministries makes this an instructive policy challenge for enhancing health system performance more generally. The objective of this presentation is to report on the findings of a study that was funded through the Ontario Ministry of Health and Long Term Care and how the lessons learned can help to advance the key recommendations put forward in the consensus statement developed by the jury, emerging adult innovators, and stakeholder delegates from across Canada at the MHCC Consensus Conference. The study included a series of seven systematic literature reviews and interviews with 78 participants involved with receiving or delivering care through 12 different organizations in Ontario. The purpose of the study was to: investigate gaps in youth to adult mental health service delivery; develop a framework to better conceptualize the gap and solutions; and develop tools to support more reflective and evidence-based decision making by youth/families and providers/policy-makers. This study was conducted with the support of a project Steering Committee which is comprised of representatives from: (1) the Ontario government (Ministries of Health and Long-Term Care, Children and Youth Services, and Education); (2) several Local Health Integration Networks (LHINs); (3) family members of transitions-aged youth; and 4) transitions-aged youth who have received mental health services. This presentation creates an opportunity to share the growing evidence base about how to improve youth to adult mental health transitions with conference delegates who in turn can assist jurisdictions across Canada to advance the key recommendations put forward in the consensus statement on improving the mental health of emerging adults.

E1.1 Access to primary care: cumulative barriers and disparities across 11 countries

Presented by **LISA CORSCADDEN**, Senior Researcher, Bureau of Health Information

As part of the Innovative Models Promoting Access-to-Care Transformation (IMPACT) research program — a Canadian–Australian collaboration to improve access to primary care for vulnerable populations, we conducted a secondary analysis to compare equity in access to primary care between and within Canada and Australia and nine other countries. We did secondary analysis of the 2013 and 2014 Commonwealth Fund International Health Policy Surveys to highlight patterns of disparities in access to primary care across 11 countries, including Canada and Australia. Survey questions were mapped to five domains of access in an established access framework: approachability, acceptability, affordability, availability and appropriateness of care. Indicators were dichotomized to denote access barriers. Separate multiple logistic regression models for 15 measures of access from the two surveys were used to assess disparities across population groups within countries. Recurring vulnerable population groups and the most common access issues are compared across countries. Within Canada, across 12 measures in the 2013 survey, access barriers were greater for people with below-average income (nine measures) and with a mental health condition (eight measures) compared to above-average income and no condition groups. While cost barriers are less frequent in Canada than Australia (5% vs. 10% skip a consultation due to cost), income-associated disparities are more pronounced in Canada. In contrast, while Canadians were more likely to report having difficulty accessing after-hours care (32% vs. 27%), there were larger disparities for people with a mental health conditions in Australia. Vulnerabilities associated with low-income and mental health persisted for Canada in analysis of access barriers among older adults with a chronic condition. Results for other countries highlight variations in disparity patterns. Accessibility starts before a patient seeks care and does not end when they get to the provider's door – barriers happen at many points in a patient's care path. This analysis discusses incremental barriers to access in different countries. Results may inform innovations aimed at improving access for vulnerable populations.

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E1.2 The relationship between rates of avoidable hospitalization and local access to primary healthcare in Manitoba First Nations Communities: Results from the Innovation in Community-based Primary Healthcare Supporting Transformation in the Health of First Nations in Manitoba (IPHIT) Study

Presented by **NASER IBRAHIM**, University of Manitoba

The objective of this study was to assess the performance of models of primary healthcare (PHC) delivered in First Nations communities in Manitoba, using hospitalization rates for Ambulatory Care Sensitive Conditions (ACSC) (acute, chronic and mental health related) as a key indicator. The IPHIT study is a partnership between the First Nations Health and Social Secretariat of Manitoba (FNHSSM), researchers from the University of Manitoba, Manitoba Health, and 63 First Nations Communities from Manitoba. Administrative claims data (1986-2011) comprising 140111 people housed at the Manitoba Centre for Health Policy was analyzed using generalized estimating equation logistic regression, controlled for age, sex, and socioeconomic status, to find the relationship between hospitalization rates for ACSC and models of PHC in First Nations communities. Hospitalizations rates for acute and chronic conditions have decreased over time in First Nations communities, but the rates are increasing for mental health related ACSC. First Nations communities served by Nursing Stations have the lowest admission rates for all ACSC. Communities served by Health Office or Health Centre show consistently significantly higher rates of admission for these conditions. Our results suggest that local access to a broader complement of responsive PHC is associated with lower rates of avoidable hospitalization. Improving access to PHC in First Nation communities, to an extent comparable to a Nursing Station model could result in a reduction in avoidable hospitalization rates in these communities.

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E1.3 Can a nursing/community staff-centric primary healthcare system deliver on health outcomes in rural and remote First Nation communities?

Presented by **JOSÉE G. LAVOIE**, Associate Professor, University of Manitoba

Sustainability challenges as well as on-going issues with diseconomies of scale creating challenges to the provision of responsive primary healthcare services in rural and remote communities. This presentation reports on findings from the BC Closing the Gap study, which assessed the performance of rural and remote primary healthcare services. We used adjusted rates of hospitalization (episodes of hospital care) for ambulatory care sensitive conditions (ACSC) to identify trends in primary healthcare needs in British Columbia First Nation rural and remote communities. We used GEE modeling to identify communities with similar characteristics, aggregated data across time (1994-2010). Finally, we used 5 year rolling samples to attenuate the impact of small sample size. Nursing/community staff-centric models of care delivery have existed for many years in rural and remote First Nations communities. Of particular interest in this study is the nursing station model, which includes nurses providing primary care (expanded scope of practice), as well as community staff providing prevention and outreach services. Our results show that this is positively associated with lower rates of ACSC hospitalizations and premature mortality. The strength of association is particularly noticeable for all ACSC conditions and chronic conditions suggesting that the models of care in communities served by nursing stations is sufficient to ensure a lower premature mortality rate from ACSC and is comparable to urban centres. Attempts at meeting the primary care needs of rural and remote communities, outside of First Nation reserves, have to date largely focused on increasing access to family physicians. Our findings instead show that a nursing/community staff-centric model can meet the needs of rural and remote communities.

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E1.4 Does a pay-for-performance program for primary care physicians alleviate health inequity in childhood vaccination rates?

Presented by **JENNIFER ENNS**, Post-doctoral fellow, Manitoba Centre for Health Policy

Childhood vaccination rates in Manitoba populations with low socioeconomic status (SES) fall significantly below the provincial average. This study examined the impact of a pay-for-performance (P4P) program called the Physician Integrated Network (PIN) on childhood vaccination rates, and determined whether PIN could alleviate health inequity in vaccination. The study used administrative data housed at the Manitoba Centre for Health Policy. We included all children born in Manitoba from 2003–2010 who were patients at PIN clinics receiving P4P funding and matched them with controls at non-participating clinics. We examined rates of completion of the childhood primary vaccination series by age 2 across income quintiles (Q1–Q5). We estimated the distribution of income using the Gini coefficient, and calculated concentration indices to determine whether the P4P program altered SES-related differences in vaccination completion. The PIN cohort included 6,185 children. Fifty-one percent were male, and 84% were from rural communities. Percentages of vaccination completion did not change in any of the quintiles over the course of the study (baseline 0.53–0.69 [Q1–Q5], study end 0.52–0.70 [Q1–Q5]). Income was unequally distributed both at baseline and at study end, but did not change over the course of the study in PIN clinics (difference in Gini coefficient 0.002; 95%CI -0.004, 0.007) or non-PIN clinics (difference in Gini coefficient -0.002; 95%CI -0.004, 0.008). Over the course of the study, SES-related inequity in vaccination completion worsened in non-PIN clinics (difference in concentration index 0.037; 95%CI 0.013, 0.060), but remained constant in P4P-funded clinics (difference in concentration index 0.006; 95%CI -0.008, 0.021). The P4P program mitigated an increase in health inequity in childhood vaccination, but did not alleviate existing inequity. Future research should take into consideration not only whether primary care renewal initiatives have an impact on health, but also the role of social determinants in driving inequities in healthcare.

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E2.1 A Population Based Analysis of the Impact of a Provincial Quality Improvement Program on Primary Health Care in Ontario

Presented by **MICHAEL GREEN**, Director, Queen's University Centre for Health Services and Policy Research

In Ontario, a province wide CQI initiative modeled on the IHI breakthrough series methodology was implemented to support improved outcomes in Family Health Teams (FHTs). This study reports on a population based evaluation of the impact of this program on diabetes care, cancer screening and health care utilization. We conducted a population based controlled before and after study comparing patients cared for by physicians participating in the quality improvement program to all other patients in FHTs. Administrative data including physician billings, hospitalizations and emergency room visits, publicly funded medications, cancer screening and ordering of lab tests was used to assess outcomes. These included diabetes process of care measures such as test ordering, screening for retinopathy, medication prescribing and diabetes specific chronic disease management billing codes, colorectal and cervical cancer screening and health care utilization including emergency room visits, ambulatory care sensitive hospitalizations, specialist visits and continuity of care. We identified 78,192 patients from 53 intervention physicians and 1.66 million patients from 1178 control physicians. Diabetes process of care measures improved more in the intervention group than in the controls: HbA1C up to date 4.3% more ($p=0.006$), retinal screening 2.5% more ($p=0.005$), and diabetes preventive care visits 8.9% more ($p=0.004$). Medication prescribing also improved for use of statins (3.4% more, $p=0.01$), and use of ACE/ARB (4.1% more, $p<0.001$). Colorectal cancer screening improved 5.4% more ($p<0.001$), and cervical cancer screening improved 2.7% more ($p=0.004$). There were no significant differences in any of the healthcare utilization outcomes. This large controlled evaluation of a broadly implemented learning collaborative based quality improvement initiative showed improvement for diabetes process of care and cancer screening outcomes, but not for proxy measures of access related to healthcare utilization. This supports the use of CQI approaches to improving outcomes in PHC.

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E2.2 How does primary care organization and funding model impact quality of patient care?

Presented by **ALAN KATZ**, Director, Manitoba Centre for Health Policy, University of Manitoba

To determine the relationships between five models of primary care service delivery and quality of care indicators in an urban population. Two fee-for-service (FFS) and three alternative-funded models of primary care service delivery were studied. We allocated all Manitoba residents who had at least three visits to any primary care provider (PCP) at any Winnipeg clinic between 2010-2013 to the most responsible PCP ($N = 626,264$). We then allocated each PCP to a model of primary care service delivery. We created general linear mixed models to describe the relationship between each model of primary care and the dominant, traditional fee-for-service model for health services use, while controlling for a variety of PCP and patient factors. There were no differences among the models for hospital readmission within 30 days or specialist referral by the assigned PCP. Hospitalizations for ACSC were higher for one alternative funded model (1.98 OR, 1.38-2.83 95% CI), while non-indicated low back X-rays were lower for a different alternative funded model (0.14 OR, 0.03-0.59 95% CI). Ambulatory care visits to any PCP were lower for all three alternative funded models than the two FFS models, but more visits to these clinics were associated with calls to the provincial, nurse-managed telephone information service. The family medicine academic teaching sites had lower rates of continuity of care ($p<0.5$). Overall, no model of primary care consistently outperformed the others. FFS models had higher rates of visits, but appeared to satisfy patient needs better because they had less use of telehealth services following visits. Teaching sites appeared to sacrifice continuity of care potentially to support other academic activities.

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E2.3 What provider and practice characteristics predict the offering of non-office based services (care in other settings and community outreach) among family physicians? Findings from the Models and Access Atlas of Primary Care Providers in Nova Scotia (MAAP-NS) Study

Presented by **EMILY GARD MARSHALL**, Researcher, Dalhousie University

There are concerns Canadian family physicians (FP) have reduced scope of practice, such as the provision of non-office based practice (i.e., care in other settings and community outreach). This study examines non-office based practice using data from the Models and Access Atlas of Primary Care Providers in Nova Scotia (MAAP-NS). The MAAP-NS provider fax survey collected provider and practice information for all NS family physicians (response rate=60%, $n=388$). Univariate, bivariate and multivariate analyses were conducted. Logistic regression controlled for: age, sex, training location, years in practice, retirement plans, hours worked/week, size and location of practice and presence of a nurse. Non-office based practice outcomes were predicted individually (i.e., intrapartum care, home visits, outreach to vulnerable populations, specialized programs, end-of-life home care, care in long-term care facilities (LTCF) and hospitals, and community outreach); and then predicted in multivariate models and as an index of non-office based practice with scores ranging from 0-7. Service prevalence ranged from 15% (intrapartum care and community outreach) to 84% home visits. Regression: Intrapartum care was more likely female FP ($OR=3.05, p=0.002$), less likely rural ($OR=0.20, p=0.01$); home visits more by Canadian-trained ($OR=6.92, p<0.001$) and those working more hours ($OR=1.04, p=0.02$); outreach to vulnerable populations predicted by having a nurse ($OR=1.75, p=0.03$); more specialized programs with more years in practice ($OR=1.04, p=0.008$) and with a nurse ($OR=2.1, p=0.003$); more end-of-life home care by Canadian-trained ($OR=5.03, p<0.001$) and those with a nurse ($OR=2.21, p=0.004$); LTCF less by females ($OR=0.44, p=0.003$), more with a nurse ($OR=4.52, p<0.001$), rural providers ($OR=4.16, p<0.001$), and less likely by practices of 6+ ($OR=0.19, p<0.001$); more community outreach by females ($OR=2.34, p=0.03$) and rural ($OR=2.5, p=0.02$); hospital care decreased with age ($OR=0.97, p=0.02$) and those in practice of 6 ($OR=0.6, p<0.001$). Providers had higher index scores if Canadian-trained ($B=-0.8, p<0.001$), have a nurse ($B=0.93, p<0.001$), and rural ($B=0.6, p<0.001$); score was lower in practices of 6+ ($B=-0.99, p=0.002$). Rates of non-office based services are generally low, with a particular need to focus on increasing participation of international medical graduates. Having a nurse in practice was the most common predictor of service and lends support for the capacity-enhancing power of interprofessional models. Rural-urban and gender differences are also explored.

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E2.4 Effect of comprehensive primary care model on end-of-life care and care outcomes: A population-based retrospective cohort study in Ontario, Canada

Presented by **MICHELLE HOWARD**, Assistant Professor, PhD, Department of Family Medicine, McMaster University

Primary care is organized and funded in various ways in Canada. Comprehensive primary care may at the end of life can facilitate palliative care access. This study examined the association of primary care model with end-of-life care and care outcomes, including where decedents spend their end of life. This retrospective cohort study used health administrative data to identify deaths in Ontario from April 1, 2010 to March 31, 2013 ($n=194,112$). We examined the type, volume, and cost of health services used in the last 6 months of life for community-dwelling decedents in 3 models of primary care: enrolled to a physician remunerated mainly by capitation, with incentives for comprehensive care and funded allied health practitioners in some (Capitation); remunerated mainly from fee-for-service (FFS) and enrollment encouraged, (Enhanced FFS); and not enrolled, seeing physicians remunerated solely through fee-for-service (Traditional FFS). Decedents in the Capitation model had greater involvement (more than half of physician claims) by their own family physician (44.8%) than in the other models (38.6% and 34.3% in Enhanced and Traditional FFS, respectively), and more days of community home care (27, 24, and 22 days respectively). 63% died in an institution. Controlling for potential confounders, there were significantly more days in institution among decedents in the Enhanced FFS (1.1 days) and Traditional FFS (2.1 days) in the last six months of life and there was a greater risk of dying in an institution compared to patients in the Capitation model. This study found decreased days in an institution, decreased likelihood of dying in an institution and greater involvement of the usual primary care provider among decedents who were enrolled to Capitation models of primary care. Comprehensive primary care appears to be beneficial for patients near the end of life.

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E3.1 Canada's Residential School System: Measuring the impact of familial attendance on health and mental health outcomes

Presented by **CHRISTINA HACKETT**, PhD Student, McMaster University

to estimate the intergenerational relationship between the Residential School (RS) attendance of an older generation family member, and physical and mental health outcomes. This paper uses the 2012 Aboriginal Peoples Survey (APS) to model the impact of older generational family attendance of residential school (attendance of parents, aunts, uncles, and/or grandparents) on the current physical and mental health of off-reserve First Nations, Métis and Inuit Canadians. This effect is modeled using regression analyses, across five outcomes (self-perceived health & mental health, mental distress, suicidal ideation, and suicide attempt). Each outcome estimation includes models showing the direct (univariate) and indirect (multivariate) effects of family RS attendance. Familial RS attendance is shown to directly effect all five health and mental health outcomes, being associated with lower self-perceived health and mental health, and a higher risk for distress and suicidal behaviours. Background, mediating and structural-level variables influence the strength of direct association. The odds of being in lower self-perceived health and of having experienced a suicide attempt in the past 12 months remained positive and significant in all multi-variate models. These results have implications for healthcare delivery and health system policy in addressing health and mental health issues facing indigenous Canadians. Addressing the proximal symptoms of health disparities resulting from family RS attendance, could be a first step in developing health policy responsive to the goal of reducing these disparities.

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E3.2 Time Trends in Mental Health and Addictions Service Utilization in Immigrant Children and Youth in Ontario, Canada

Presented by **NATASHA SAUNDERS**, Staff Pediatrician, The Hospital for Sick Children

Understanding how global migration influences the burden of mental health and addictions (MHA) problems in immigrants and their subsequent MHA service use is important for optimizing care delivery. We sought to describe trends in MHA service use by children and youth in Ontario by immigration status and within immigrant subgroups. Retrospective population-based repeat cross-sectional study of children and youth ages 10 to 24 years residing in Ontario, Canada from 1996 to 2012 using linked health administrative databases and Immigration, Refugee and Citizenship Canada's Permanent Resident Database. The main exposure was immigration status (recent immigrants (RI) vs. long-term residents (LTR)). Secondary exposures were region of origin, recency of immigration, and refugee status. Main outcome measures were MHA hospitalizations, emergency department (ED) visits, and outpatient visits within consecutive 3-year time periods. Data were analyzed using Poisson regression models to estimate rate ratios (RR) for each outcome. The MHA hospitalization rate increased over the study period in LTR (4.1 to 6.3 admissions/1000 person years (PYRs); RR=1.08; 95% CI 1.08-1.08) and RI (2.1 to 2.8 admissions/1000 PYRs; RR=1.04; 95% CI 1.04-1.04). MHA ED visit rates increased over time among LTR (12.0 to 19.1 visits/1000 PYRs; RR=1.16; 95% CI 1.16-1.16) and RI (5.3 to 7.0 visits/1000 PYRs; RR=1.09; 95% CI 1.08-1.09). However, the MHA outpatient visit rate increased in LTR (35.2 to 45.4 visits/100 PYRs; RR=1.05; 95% CI 1.04-1.05) but declined in RI (21.9 to 17.0 visits/100 PYRs; RR=0.94; 95% CI 0.94-0.94). Comparable divergent trends in acute care and outpatient service use were found among all immigrant subgroups regardless of region of origin, recency of immigration, and visa class. MHA service utilization is lower among RI compared with LTR. Acute care visits are increasing over time but at a faster rate among LTR. Simultaneously, outpatient MHA visits are increasing in LTR but decreasing in RI. This highlights emerging disparities in outpatient care among RI that warrant further attention.

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E3.3 Mental health service utilization in Canadian Veterans living in Ontario: a retrospective study of using administrative healthcare data

Presented by **ALYSON MAHAR**, PhD Candidate, Queen's University

The mental health of Canadian Veterans is a national priority. Approximately 22% of Veterans report being diagnosed with a mental disorder. Little data exist describing the use of mental health services. In this presentation, we use longitudinal data to describe mental health services utilization of Canadian Veterans following release. This retrospective cohort study uses administrative data to study publicly funded, mental health services utilization in Canadian Armed Forces (CAF) and RCMP Veterans residing in Ontario between 1990-2012. Psychiatric hospitalizations and emergency department (ED) visits, psychiatrist visits, and mental health-related primary care visits were measured. Hospitalizations and ED visits were identified using primary ICD-9 and 10 diagnostic codes. A validated algorithm captured mental health in primary care. Descriptive statistics and measures of error are reported for categorical and continuous variables. Repeated measures are presented in 5-year intervals following entry into the cohort, stratified by age at entry into the cohort. We identified a cohort of 23,818 Veterans living in Ontario. In the first five years following entry into the public healthcare system, 29% of Veterans had mental health-related primary care visit. Almost 8% of Veterans age 30-40 at the time of release saw a psychiatrist in the first five years, compared to only 4% of Veterans ≥50 and were persistently higher users of psychiatrists. Veterans in the youngest age category at release (<30 years) were the most frequent users of emergency department services for a mental health related reason (5.1% had at least one ED visit). The median length of stay for a mental health related hospital admission was 8 days (IQR 2-27) among Veterans <30 and 29 days (15-48) among Veterans ≥ 50. The use of provincially funded mental health services is not uncommon in Canadian Veterans, differences in use may exist by age, and needs may change over time. These data may be used to help plan appropriate and adequate healthcare services, as well as prevent unnecessary hardship and suffering.

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E3.4 A Population based Study of Access to Psychiatric Services among Ontario Nursing Home Residents

Presented by **CHRISTOPHER PERLMAN**, Assistant Professor, University of Waterloo

We examined the potential need for psychiatric care among long-term care (LTC) residents in Ontario and access to psychiatric services. Psychiatric conditions such as dementia, depression, serious mental illness and psychological symptoms are common among LTC residents but individuals with such need may have limited access to psychiatric care. Psychiatric needs were examined among 65,896 nursing home residents in Ontario between 2007 and 2013 using Resident Assessment Instrument (RAI) data, including indicators of psychosis, depression, and aggressive behaviour. By linking these data to a number of other population datasets, such Ontario Health Insurance Program billing codes, the Ontario Mental Health Reporting System, and the National Ambulatory Care Reporting System, we were able to identify psychiatry services based on consultations by psychiatrists, inpatient and community care, and other forms of psychiatric consultations. We then examined individual and regional factors associated with receipt of psychiatric services. Approximately 43% of residents were identified to have mental health needs. Of those with needs, 6% were found to receive any type of psychiatric service. The types of services received include new psychiatric and geriatric consults as well as follow-up consults. Outpatient care was received both within (1.6%) and outside (1.8%) of the nursing home while 1.4% utilized inpatient care. Factors predictive of receiving psychiatric care included younger age, being male, having a current or past marriage, higher income, the presence of mental health or substance use disorders, any delusions or hallucinations, aggressive behaviour, and health region. The strongest predictors were the receipt of previous psychiatric care in the last 90 to 180 days. This study highlights that while psychiatric needs are quite prevalent in nursing homes the receipt of psychiatric services is low. Perhaps most interesting is the variation in the distribution of receipt of psychiatric service across LHINs in Ontario.

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E4.1 The Prenatal Care of Women Who Give Birth to Children With Fetal Alcohol Spectrum Disorder: A Missed Opportunity for Prevention of Alcohol Exposed Pregnancies

Presented by **DEEPA SINGAL**, PhD Candidate, University of Manitoba, Department of Community Health Sciences

Prenatal care (PNC) is a widely used preventative healthcare service that could be effective in decreasing prenatal alcohol consumption. We investigated differences in PNC utilization among women who gave birth to children with Fetal Alcohol Spectrum Disorder (FASD) (exposed) compared to women who gave birth to children without FASD (unexposed). We linked population-level health and social services data to clinical data on FASD diagnoses to identify exposed (n=719) and unexposed (n=2107) women matched 1:3 on date of birth of child, region of residence and socioeconomic status. Regression modeling produced adjusted Relative Rates for late initiation of PNC, low number of PNC visits, and for inadequate, adequate and no PNC. The revised Graduated Index of Prenatal Care Utilization (R-GINDEX) was used to define the adequacy of PNC. Characteristics of women who gave birth to children with FASD were examined for those who had inadequate/no PNC compared to those who did not. Relative rates were higher among the exposed group for: late initiation of PNC (aRR= 1.64, 95% CI 1.37-1.96), low number of PNC visits (aRR = 3.01, 2.46-3.68), inadequate prenatal care (aRR = 1.65, 1.34-2.04), and no PNC (aRR = 2.29, 1.45-3.62). Among the exposed group, inadequate PNC was associated with a diagnosis of prenatal psychological distress (p = 0.02) and the presence of a physical health condition (diabetes, hypertension, total respiratory disease) (p = 0.01). Despite the subgroup of women with inadequate/no PNC, 55% of women in the exposed group did have adequate PNC and continued to drink during pregnancy. Interventions are needed to educate women with alcohol dependence about the importance of PNC. Evaluations of the knowledge PNC providers have regarding screening and treatment for at risk alcohol use during pregnancy are needed in order to implement systematic screening and brief intervention programs in prenatal health care settings.

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E4.2 Reducing Caesarean sections with CARE

Presented by **ESTHER SHOEMAKER**, PhD Candidate, University of Ottawa / **IVY BOURGEOULT**, CIHR Chair in Gender, Work and HHR, University of Ottawa

In 2010, a Canadian hospital in collaboration with health researchers developed and implemented the CARE (Caesarean REDuction) strategy to reduce proportions of Caesarean section among low risk women. A prospective pre-post cohort study with control group was used to examine changes in proportions of Caesarean section for 12 months before initiation of the CARE strategy compared to 12 months after its full implementation. The intervention hospital is a level II community hospital with a birth volume of approximately 3000 births annually, located in the Greater Toronto Area in Ontario, Canada. The control group is an aggregate of all level II hospitals in the province of Ontario, Canada. Data was obtained from the Better Outcomes Registry and Network ("BORN") Ontario. The proportion of Caesarean sections decreased at the intervention hospital by 3.9% (p0.05).

The strategy appeared to have had the strongest effect on Caesarean sections in Robson group 1 (Nulliparous, singleton, cephalic, ≥37 weeks, spontaneous labour) with a reduction of 3.3% and on Caesarean sections in Robson group 5 (Multiparous, singleton, cephalic, ≥37 weeks, previous cesarean) with a reduction of 5.6%. Unnecessary interventions such as Caesarean sections during childbirth for low risk pregnant women are expensive and can cause unnecessary harm to mothers and infants. The intervention hospital has been able to reduce its proportion of Caesarean sections by 3.9% since the implementation of the CARE strategy.

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E4.3 False positive newborn screening results for cystic fibrosis: Impact on infants' and mothers' health service utilization

Presented by **ROBIN HAYEEMS**, Assistant Professor, Institute of Health Policy Management and Evaluation, Hospital for Sick Children Research Institute

Evidence is mixed with respect to the impact of false positive (FP) newborn screening results on health service utilization patterns. Using cystic fibrosis (CF) as an example, we determined the association of FP newborn screening results with healthcare use in infants and their mothers. We conducted a population-based cohort study of all infants with FP CF results from Newborn Screening Ontario (N=1564) and screen negative matched controls (N=6256) born between April 1, 2008-Nov 30, 2012 using linked, health administrative datasets. Outcomes included maternal and infant physician visits, emergency department care, and inpatient hospitalizations from the infant's 3rd-15th month of age. Negative binomial regression was used to test associations of newborn screening status with outcomes, adjusting for other infant (comorbidities, neighbourhood income quintile, rurality) and maternal (age, history of mental health conditions) characteristics. A greater proportion of infants with FP results had >2 outpatient specialist visits compared to controls (16.2% vs. 13.2%; p=0.003). The proportion of visits to genetics and respiratory were slightly greater among FP infants compared to controls (genetics: 1.8% vs. 0.7%; respiratory: 1.0% vs. 0.6%). A greater proportion of infants with FP results had >2 hospital admissions compared to controls (1.5% vs. 0.7%; p=0.005); CF related admissions were not significantly different (p>0.05). After adjustment, FP infants had higher rates of specialist visits (RR 1.39, 95% CI 1.23, 1.57) and hospital admissions (RR 1.70, 95% CI 1.30, 2.21). In a sensitivity analysis examining 1st-13th months, infant FP status was associated with a moderate increase in maternal outpatient mental health visit rate (RR 1.16, 95% CI 1.00-1.35). Higher use of outpatient specialist services among false positive infants and their mothers may relate to follow-up carrier testing or heightened perceptions of vulnerable infant health. Increased rates of hospitalization might signal increased medicalization of these healthy infants.

E4.4 Determining the Optimal Timing of Delivery for Women with Gestational Diabetes

Presented by **AMY METCALFE**, Assistant Professor, University of Calgary

Women with gestational diabetes (GDM), and their infants, have increased risks of birth injuries due to excess fetal growth. Earlier delivery, when fetuses are smaller, may reduce these risks. We attempted to determine the optimal time to deliver these pregnancies by quantifying the week-specific risks of maternal and perinatal morbidity/mortality. Data on all singleton deliveries in Canada (excluding Quebec) from 2004 to 2013 were obtained from the Canadian Institute of Health Information's Discharge Abstract Database. Subcohorts of interest included women with GDM and a healthy control group who delivered at ≥36 completed weeks of gestation. Primary outcomes of interest included severe maternal and perinatal morbidity/mortality. Neonatal morbidity associated with increased infant size was examined separately. Multivariate logistic regression was used to determine the week-specific rates of severe maternal and perinatal morbidity/mortality among women delivered electively versus those who delivered later following a period of expectant management. Overall, 89,890 women with GDM and 1,748,701 control women were included in the study. In women with GDM, severe maternal morbidity/mortality rates increased with advancing gestation, and elective delivery was associated with lower risk compared with expectant management at all gestational ages. Rates of neonatal morbidity related to fetal size increased with advancing gestation. Overall perinatal morbidity/mortality rates were significantly lower following elective delivery between 38 and 40 weeks (rate ratio at 38 weeks: 0.86, 95% CI 0.81-0.92; 39 weeks: 0.74, 95% CI 0.69-0.80; 40 weeks: 0.88, 95% CI: 0.78-0.98). A similar pattern was observed for healthy controls, although rates of severe maternal and perinatal morbidity/mortality were significantly higher for women with GDM at all gestational ages. The clinical decision regarding elective delivery is complex and contingent on many factors related to maternal and fetal wellbeing. This study suggests that similar to healthy women, elective delivery at 38, 39 or 40 weeks optimizes maternal and neonatal outcomes among women with GDM.

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E5.1 A population-based analysis of long-term sedative use among community-dwelling adults

Presented by **DEIRDRE WEYMANN**, Health Economist, BC Cancer Agency & University of British Columbia School of Population and Public Health

Chronic use of benzodiazepine and z-drug sedatives presents serious risks to patients of all ages. However, little is known about chronic sedative use in young adult populations. We aim to assess trends and variations in long-term sedative use among all community-dwelling adults in British Columbia, including patients under age 65. Using population-based linked health care databases, we estimated rates of short-term and long-term benzodiazepine and z-drug sedative use among different age groups of community-dwelling adults from 2004 to 2013. For each calendar year, we classified all adults in British Columbia as non-users, short-term users, or long-term users of sedatives based on the patterns of sedative prescriptions dispensed to them in that calendar year. For calendar year 2013, we estimated logistic regression models to identify health and socio-economic risk factors associated with long-term sedative use. More than half of long-term users of sedatives in British Columbia are under the age of 65. From 2004 to 2013, long-term sedative use remained stable among adults aged 65 and older and increased slightly among adults under age 65. Use of benzodiazepines decreased during this period; however, that trend was offset by equal or greater increases in the long-term use of z-drugs. Being older, sicker, poorer, and single increased the risk of long-term sedative use, while having a surname of Chinese origin decreased this risk. Despite substantial efforts to stem such patterns of medication use, long-term sedative use increased in British Columbia between 2004 and 2014, driven largely by increased prevalence among adults under the age of 65. Future deprescribing efforts should target use among young adult populations as well as older adult populations.

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E5.2 Generic Drugs in Canada, 2014

Presented by **ELENA LUNGU**, Manager, National Prescription Drug Utilization Information System, Patented Medicine Prices Review Board / Government of Canada

To analyze the latest developments in generic drug pricing and markets in Canada and compare them with those of other industrialized countries. The analysis covers a broad array of drugs and countries, and tackles the issue of generic pricing in Canada from various angles, including market segmentation. The analysis compares the 2014 manufacturer ex-factory generic prices of 554 leading drugs in Canada with international prices for the same drugs. The main international markets considered are France, Germany, Italy, Sweden, Switzerland, the United Kingdom and the United States. Data was collected from the IMS AG MIDAS™ Database for Canadian and international generic and brand prices. After a substantial decline in generic price levels between 2010 and 2013, there was virtually no change in 2014. Price differentials between Canadian and foreign markets decreased appreciably by 2013, with a minimal relative gain in 2014. Nevertheless, Canadian generic prices remain considerably higher than foreign prices in 2014. The reduction in the generic price differential between Canadian and foreign markets was mainly attributable to provincial generic pricing policies. The gap between foreign and Canadian prices was wider for molecules with higher sales and those with a greater number of domestic suppliers. Fewer firms are supplying newer generics (launched starting with 2011) than older generics (launched prior to 2011), and the sales are more concentrated for molecules with two suppliers for newer generics. The reduction in generic prices that took effect in Canada by the end of 2013 markedly reduced the gap between Canadian and foreign prices. Nevertheless, foreign prices were still 21% lower than in Canada in 2014, as the 2014 Canadian generic prices remained virtually unchanged compared with the 2013 levels.

E5.3 Shining Light on Pharmaceutical Governance: An Inventory of Policy and Structural Issues and Corresponding Anti-Corruption Measures

Presented by **JILLIAN KOHLER**, Associate Professor, Leslie Dan Faculty of Pharmacy, University of Toronto

Identify the main global policy and structural issues that increase the pharmaceutical sector's vulnerability to corruption. Describe how the policy or structural issue has contributed to corruption. Discuss global anti-corruption strategies to mitigate the risk of corruption in the pharmaceutical sector. Findings from the research are derived from a literature review to capture main issues as well as findings from over 30 key informant interviews with global experts. Case studies created based on thematic findings. Public policy is the main driver of how healthcare and pharmaceutical care are administered. Therefore, in order to tackle corruption, there is a need to create policies that will successfully address weaknesses in the public health sector that leave room for engaging in corrupt behavior. Still, anticorruption policies are prone to being formulated quickly and without the appropriate research to ensure their proper design and successful implementation. Information, knowledge, and understanding of corruption continue to be a great weakness for the formulation and prioritization of anticorruption initiatives. Fighting corruption would therefore also entail addressing management issues as well as the motivations and opportunities for engaging in corrupt behavior. This would include addressing ineffective managerial structures, inappropriate financing mechanisms, insufficient healthcare capacity, and ineffective allocation of resources. The involvement of civil society in the formulation of policies and monitoring of the overall pharmaceutical system is a necessary element to fighting corruption. Civil society is a 'third sector' of society that can help enhance the control and accountability of governments and institutions.

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E5.4 Risks of chronic prescription opioid use among incident prescription opioid users: a population-based analysis

Presented by **KATE SMOLINA**, Professor, University of British Columbia

Despite risks associated with chronic prescription opioid use, there is limited information about the likelihood of becoming a chronic user among those first prescribed such medicines. We sought to characterize factors associated with the risk and timing of transitions to chronic prescription opioid use following an incident prescription. We conducted a cohort study using population-based, de-identified linked administrative datasets for British Columbia, 2004-2013. We selected individuals who received an incident opioid prescription in 2007, 2008, or 2009 and no opioid prescriptions for at least 3 years prior. Individuals were followed up for at least 3 years after the initial dispensation and until the first episode of chronic use. We used cumulative incidence method for survival data developed by Fine and Gray, with adjustment for the competing risk of death. Approximately 500,000 individuals met our study inclusion criteria. At five years after the incident prescription, the risk of having at least one episode of chronic use was 4.5% for men and 5% for women. Factors associated with higher risk of chronic use following an incident opioid prescription included older age, lower income, higher level of comorbidities, and characteristics of the initial opioid prescription. Our findings suggest that approximately 1 in 20 individuals dispensed an opioid prescription will go on to become a chronic user. Some factors associated with increased risk of chronic use, including type of initial opioid prescription, are potentially modifiable.

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E6.1 Schizophrenia, Diabetes and Quality of Care: A Population-Based Study

Presented by **PAUL KURDYAK**, Director, Health Outcomes and Performance Evaluation, Centre for Addiction and Mental Health

Individuals with schizophrenia are more likely to develop diabetes than individuals without schizophrenia. The objective of this study was to determine the quality of diabetes care and diabetes-related health outcomes among individuals with and without schizophrenia. We conducted a retrospective cohort study. We identified all individuals with diabetes in Ontario who were alive as of April 1, 2011. We identified individuals who had a diagnosis of schizophrenia prior to April 1, 2011. We measured quality of diabetes care (guideline-concordant testing for HbA1c, lipid testing, eye exams) and diabetes-related Emergency Department visits and hospitalizations between April 1, 2011 and March 31, 2013. We estimated the quality of care and diabetes outcomes with schizophrenia as our primary exposure adjusting for demographic, illness severity, and health service utilization variables. We identified 1,131,181 individuals with diabetes, among whom 19,433 had schizophrenia. Individuals with schizophrenia were younger, more likely to be female and to live in low income neighbourhoods. Individuals with schizophrenia had a higher number of primary care physician visits than individuals without schizophrenia (mean (SD): 9.2 (10.3) vs. 6.6 (6.7)). Individuals with schizophrenia were 40% less likely to receive optimal diabetes care (all 3 of HbA1c, lipid testing, and eye exams) than individuals without schizophrenia (OR (95% CI): 0.60 (0.57-0.63)) but 32% more likely to have a diabetes-related hospitalization (OR (95% CI): 1.32 (1.24-1.41)). Individuals with diabetes and schizophrenia have poorer diabetes quality of care and worse diabetes-related outcomes than individuals diabetes but without schizophrenia. The poor quality of care exists despite more frequent primary care contact. Delivering high quality diabetes care for individuals with schizophrenia likely requires integrated and intensive health service delivery.

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E6.2 Considering Seniors' Mental Health in Policy and Healthcare Reform

Presented by **KIMBERLEY WILSON**, Assistant Professor, Adult Development & Aging, University of Guelph

This presentation highlights findings from a comparative policy analysis that examined how seniors' mental health is addressed in provincial policies with a particular focus on implications for future policy development and healthcare reform. Using the Policy Triangle Framework and Framework Analysis policy landscapes were compared across four Canadian provinces: Alberta, British Columbia, Ontario and Nova Scotia. Socio-demographic characteristics, party in power considerations and policy differences were used to select these provinces. The theoretical perspectives of political economy and the life course were used as analytic lenses. Twenty-three critical policy documents and data from eighteen key informant interviews were analyzed. A key finding from this research is that seniors are often excluded from mental health policies; this gap is exacerbated by a reductionist idea that dementia is the only mental health concern in late life. Framing dementia as an organic brain disease or medical illness, and outside the domain of mental health/illness has created a false dichotomy within the policy landscape. The lack of recognition of the need for services to support other facets of seniors' mental health is evidenced in policy documents related to seniors and in provincial mental health agendas. To best meet the needs of an aging population, it is recommended that policy should be shaped around an individual's experience and support needs, as opposed to diagnosis. As we enter an era of demographic change, this is a crucial time to ensure that the aging population is sufficiently addressed in health and mental health policies. As governments prepare to respond to the needs of aging population a holistic policy approach to seniors' mental health is required.

E6.3 Ascertainment of Dementia: Where do Patients Receive Care?

Presented by **MATHIEU CHALIFOUX**, Methodologist, Institute for Clinical Evaluative Sciences

Dementia ascertainment from administrative data usually focus on capture from physician care services. We examine the contribution of continuing care services (i.e. home care, complex continuing care, and long term care) as additional sources for identifying patients in the population with dementia. This study identified all living Ontario residents aged 66 and older between April 1st 2013 and March 31st 2014 (n = 1,902,007), excluding residents without a valid provincial health care card. Dementia identification was performed through looking back in time in 6 different data sources: 1) hospital discharges, 2) physician billing, 3) drug claims, 4) long term care (nursing home) assessments, 5) complex continuing care assessments, and 6) home care assessments. The earliest identification date was marked as the dementia diagnosis date. A total of 133,862 residents (7.04%) were identified as having dementia. They tended to be older, more likely to be female, had lower SES, and more co-morbidity than people with no dementia. Patients captured in the different sectors were similar. A total of 80,470 patients (60.11%) were first identified through physician care services, whereas 53,280 patients (39.80%) were first identified through continuing care services. Overall, a total of 33,827 patients (25.27%) with dementia only have contact with physician care services and 20,664 patients (15.44%) only have contact with continuing care services. The majority of patients (79,371, 59.29%) were in contact with both services during the study period. While most current dementia ascertainment methods focus on identification through physician care services, examining continuing care services enables a more complete population capture. The majority of people living with dementia access care through multiple sectors of the health care system.

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E6.4 The Influence of Care Philosophies on Transitions between Child and Adult Mental Health Services: Perceptions of Youth, Family Members and Service Providers in Ontario

Presented by **GILLIAN MULVALE**, Assistant Professor, Health Policy and Management

The objective was to expand upon the findings of a recent systematic review that hypothesizes four mechanisms by which differences in care philosophies between child and adolescent mental health services (CAMHS) and adult mental health services (AMHS) may hamper effective transitions between services, and assess their relevance in Ontario. A case study approach was used. We extracted data pertaining to care philosophies and their impact on transitions from interviews with 78 participants from a larger study of transitions funded by the Ontario Ministry of Health and Long-Term Care (the Ontario Transitions study). Purposive sampling was used to capture a diversity of perspectives including young people with mental disorders, their family members, service providers, and policy advisors from four local health integration networks. An initial coding framework was derived from hypothesized relationships obtained from the systematic review. Analysis proceeded by participant type, followed by comparisons across groups. Participants consistently pointed to differences in care philosophies between CAMHS and AMHS in Ontario. These included variations in: how the causes of mental disorders are understood; the emphasis placed on the youth's family and social context; and the expectations of responsibility each service places on young people. In addition, participants described how philosophical differences could affect service delivery in ways that place young people at risk for ineffective transitions. For example, corresponding adult services may not exist for some disorders treated in CAMHS (e.g., autism spectrum, attention deficit hyperactivity and developmental disorders). Several young people also discussed being inadequately prepared, and feeling overwhelmed by the responsibility placed upon them in adult services, particularly in the absence of family involvement. Differences in care philosophies necessitate better planning for effective mental health service transitions in Ontario. Care providers should educate youth and family members about differences across services and empower their decision-making regarding transitions. Policy makers should foster an environment of collaboration across services to promote person-centred care throughout transition processes.

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E7.1 Relationship between Hospital Patient Safety Events and Medico-Legal Cases

Presented by **QIAN YANG**, Manager, Medical Care Analytics & Development, Canadian Medical Protective Association / **CATHY ZHANG**, Supervisor, Statistical & Data Analysis / Senior Statistician, Canadian Medical Protective Association

It is generally assumed that better hospital safety performance would lead to fewer medical malpractice cases. We conducted a study to quantify the relationship between inpatient patient safety incidents and medico-legal cases of the Canadian Medical Protective Association (CMPA). Using the Canadian Institute of Health Information (CIHI)'s Discharge Abstract Database (DAD), fiscal year 2005/06 to 2014/15, we identified safety incidents using Patient Safety Indicators (PSI) developed by the Agency for Healthcare Research and Quality (AHRQ). We included medico-legal cases that occurred in the same time period in the CMPA database. Quebec cases were excluded to be consistent with the DAD which did not include Quebec data. We applied Poisson regressions to explore whether volume changes in patient safety incidents was associated with volume changes in medico-legal cases - while controlling for yearly trends and repeated measures within geographic regions. We confirmed a highly significant (p-value less than 0.0001) positive association between the volume changes in patient safety incidents and malpractice cases. On average, a region with a 10% decrease of in-hospital patient safety incidents would also see a corresponding decrease of 16.9% in medico-legal cases. We noted the degree of positive associations varied by specialty group. In obstetrics, when patient safety incidents decreased by 10%, the medico-legal cases decreased by 31.1% (p-value = 0.014). For surgical specialties, when patient safety incidents decreased by 10%, the medico-legal cases decreased by 10.6% (p-value less than 0.0001). Even though many factors contribute to the generation of medico-legal cases, the positive association between volumes of in-hospital patient safety incidents and medico-legal cases provides evidence that, by improving safety performance in Canadian hospitals, patients and medical providers could benefit from a reduction in malpractice cases.

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E7.2 Measuring Patient Safety in Canadian Hospitals

Presented by **JOSEPH EMMANUEL AMUAH**, Sr. Researcher, Canadian Institute for Health Information / **JENNIFER RODGERS**, Patient Safety Improvement Lead, Canadian Patient Safety Institute

We have developed an approach to patient safety using existing administrative data to provide a comprehensive and repeatable measure of patient harm. We will present three components of this work; a) the approach and concept behind the measure; b) a first look at analytic results and; c) resources for improvement. The measure uses CIHI's administrative data from the Discharge Abstract Database to calculate the prevalence of a selection of events that can potentially cause harm to a patient. This list was based on previous published research and expert consultations. For an event to be included it had to be 1) important for patients, families and care providers; 2) actionable, within the hospitals span of control 3) impact to the patient such that treatment is required. We found that in Canadian hospitals, most patients experience safe care however, there is room for improvement. Approximately 1 in 15 (or over 125,000) patients experience an occurrence of harm while in hospital. These occurrences span all areas of care: from Healthcare Associated Infections (42%) and Healthcare/Medication Associated Conditions (36%), to Procedure Associated Conditions (19%) and Patient Accidents (3%). Some patients were at higher risk than others; surgical patients had a higher risk of harm, however, medical patients made up over half (64%) of patients experiencing harm. Patients who were more complex prior to admission were also more at risk for harm but comprise a small proportion of all patients who experienced harm. For the first time in Canada there is measure of patient safety that will allow decision makers to monitor progress and determine where to focus improvement efforts. This report, in conjunction with the big dot measure and resource library, provides a roadmap for future steps in achieving safer healthcare.

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E7.3 The gridlock in Canadian Hospitals: which patients are overstay, to what extent, and why?

Presented by **KISALAYA BASU**, Senior Economic Advisor, Health Canada

To study the characteristics of Alternate Level of Care (ALC) patients i.e., those who are staying in hospitals when acute care is no longer needed (overstaying); the extent of overstay; and if it is due to the lack of timely availability of home care services and care facilities (long-term care/hospices). We used the Discharge Abstract Database (2007-08 and 2010-11), a large administrative database, containing demographic, clinical, and administrative information on all patients discharged from Canadian hospitals. Patients' characteristics were compared for acute care and ALC patients by demographics, length of stay, morbidity, comorbidity, and mortality. To understand the extent of overstay, we calculated the ratio of ALC bed-years to total bed-years. We compared the discharge disposition (destination from hospitals) of the patients (acute care/ALC) to see if significantly more ALC patients were eventually transferred to care facilities/home care, implying that readily available care facilities/home care would have prevented the overstay. In 2010-11, 5,740 ALC-bed-years constituted 14% of the total bed-years. Compared to acute care patients, ALC patients were more likely to be eventually discharged to other care facilities (76.9% vs. 15.6%). Moreover, ALC patients were more likely to be admitted on urgent basis (85% vs. 55%) and to be discharged dead (10.2% vs. 2.7%). The ALC patients were older (76.2 years vs. 53.1 years), stayed longer in acute care (18.6 days vs. 4.4 days), and had more comorbidities (6.9 vs. 2.2) on average. Patients with Alzheimer's and other dementias, Parkinson's, ischemic stroke, osteoporosis, acute but ill-defined stroke, and intracerebral haemorrhage were more likely to be designated as ALC patients. There were variations across provinces, but not between years. In 2010-11, approximately 436,000 patients could have been provided acute care with the ALC-bed-years (given no other constraints), if the beds in care facilities/home care were readily available. This highlights the efficiencies that could be gained from the timely availability of more appropriate care facilities.

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E8.1 Understanding the Landscape of Oncology Medication Incident Reporting in Ontario: A Provincial Initiative

Presented by **JANE YAO**, Specialist, Policy, Cancer Care Ontario

Incident reporting is a critical component of patient safety. As chemotherapy is a high-alert class of medication, this study examined internal and system-level reporting of cancer medication incidents to inform a provincial approach for improving Ontario's culture of safety through centralized reporting via the National System for Incident Reporting (NSIR). A provincial agency conducted an environmental scan of current practices in systemic treatment (ST) related incident reporting across the 14 Ontario Local Health Integrated Networks (LHINs) in winter 2014/15. A semi-structured online questionnaire was distributed to all 77 regional systemic treatment facilities to capture qualitative and quantitative responses to elucidate three areas of interest: (1) internal incident reporting behaviour at Ontario hospitals, (2) characteristics of internal risk management systems and reported incidents, and (3) the current state of external reporting to NSIR. All survey questions were specific to oncology medication incidents. Survey outcomes (78% response rate) showed that critical and non-critical ST-related medication incidents are systematically reported and managed at 90% of the responding facilities, mostly through the use of proprietary electronic software (76%) and much less so through paper-based systems (14%). In contrast, only 67% of the respondents indicated they would report ST-related critical incidents to NSIR upon occurrence, despite the mandate from the Ministry of Health and Long-Term Care to report all critical medication-related incidents. In particular, no facility has yet to adopt NSIR's batch uploading functionality, which expedites the external reporting process via batched data transmission. Results showed converging themes and misconceptions that may cause a reduced incident reporting volume to NSIR and impede adoption of batch uploading. The provincial survey revealed systematic gaps in reporting chemotherapy-related incidents into NSIR, highlighting the need for a coordinated approach in communicating and integrating centralized reporting. Accordingly, this led to provincial prioritization of local batch uploading for system-level incident management and development of a user forum to strengthen Ontario's safety culture.

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E8.2 Institutional Ethnography in Health Systems Research

Presented by **EMILY ROWLAND**, Doctoral Student, University of Toronto

Qualitative research in the health care system has made tremendous strides in the last decade to better understand patient experiences in the Canadian health care system. What is often overlooked, are the influences that the internal structures, policies and people have on the individuals that use health services. An institutional ethnographic (IE) approach was used for two research studies exploring how patients and families experience hospital units. Specifically, how families engage with care providers, policies and processes in various neonatal intensive care units. Data was captured through IE techniques such as document analysis and key informant interviews that facilitate understanding the perspectives from the patient's position. IE is a qualitative approach that aims to capture everyday life within the boundaries of an institution at various social ecological levels. This methodology provides in-depth understanding of how individuals interact with people, processes, policies and structures that create our healthcare system. In the first study, results illustrated the significant feeling of powerlessness mothers experienced due to internal structures and policies enforced within the unit. Common themes included the impacts of separation from infants, interactions with care providers and physical boundaries that made mother-infant bonding challenging. The second study illustrated the fragmentation in the communication process regarding transitions of care between healthcare professionals thus leading to a stressful and sometimes unfavourable discharge. Not including the patient family early on in the discharge communication left family members feeling "not ready" to take their infant home or to another unit/hospital. Both of these qualitative studies captured everyday living for individuals engaging with health care services because of the usefulness of institutional ethnography. Institutional ethnography goes beyond understanding the experience of an individual and goes deeper into how systems influence behaviours, experiences and perceptions.

E8.3 How do Early Intervention Services for First Episode Psychosis Facilitate the Benefits of Having a First Episode Psychosis?

Presented by **GERALD JORDAN**, Student, McGill University

Through treatment at early intervention services (EIS) for first episode of psychosis (FEP), many service-users achieve recovery. However, some grow or thrive following treatment, a possibility that has received little attention. The purpose of this study is to reveal how EIS supports growth following FEP. Using a purposeful sampling method, six service-users in treatment for FEP at an EIS were recruited until theoretical saturation was achieved. Semi-structured individual interviews lasting between 45 minutes and 1 hour were conducted during which the primary investigator asked participants why they were being treated at the EIS; how they felt they changed through their experience of being treated for FEP at the EIS; and what they felt facilitated such changes. Interviews were audiotaped and transcribed verbatim. Reflexive notes and an audit trail were kept. Transcripts were coded using inductive and deductive methods, and subject to a thematic analysis. Through the process of analysis, the primary investigator identified themes reflecting how service-users grew and what facilitated growth. Themes reflecting how service-users grew included developing a stronger, more authentic, and emotionally-connected self; developing stronger bonds with known individuals, making new connections (friends and romantic partners), and shedding superficial, less genuine and valuable relationships; as well as experiencing new opportunities, such as becoming peer support workers, building new communities, taking part in new artistic endeavours, and navigating new career and educational paths. Themes reflecting facilitators of growth included having received psychotherapy delivered by empathetic psychotherapists; experiencing the warm, normalizing atmosphere at the EIS; and being supported by clinicians. The role of medication was minimized, and service-users called for greater opportunities to receive peer support. Service-users reported growth following FEP through positive experiences at the EIS. These findings support the motivation to make EIS for FEP readily available across provincial and territorial jurisdictions. Since access to psychotherapy is not always available within EIS, funding therapists in EIS should be a priority for decision makers.

Co-Author(s): Gerald Jordan, McGill University / Tovah Cowan, Concordia University

E8.4 Using qualitative survey data for quality improvement in palliative care: Patient experiences in homecare, hospice, and hospital

Presented by **DARYL BAINBRIDGE**, Senior Research Coordinator, McMaster University

Patient-reported outcomes of the palliative care experience are receiving increased attention towards directing quality improvement and value assessment of these services. We examined the utility of using open-ended survey responses from bereaved caregivers of patients who received palliative care towards informing improvement of these services compared to qualitative data alone. This was a retrospective observational study involving bereaved caregivers of decedents who had received palliative care and died at home, in residential hospice, or in an oncology ward, in select areas in Ontario. Respondents were asked to write what was good and what was bad about the services provided in the last three months of life, as part of the CaregiverVoice Survey. A qualitative, constant comparison approach was used to derive themes from the responses. These data were compared to the scores of the caregivers' quantitative ratings of the service. A total of 1,100 caregivers responded to the study questions: 90% commented on something that was good about care, and 55% on something that was bad. The care experiences were generally positive, however perceived levels of support and nature of issues differed by care setting type. The predominant issues in the home were the need for more support services, insufficient pain and symptom management, and providers having inadequate training. In contrast, caregivers expressed fewer concerns about hospice, with them being most dissatisfied with the delay and rough transition to admission. Overall, the qualitative data were more informative about deficiencies in care in all setting types compared to the quantitative data. A practical approach is proposed for incorporating care experiences into palliative care quality improvement initiatives. The qualitative data provided for key recommendations towards improving palliative care. Program planners and frontline providers need access to care experience data in a rapid-feedback cycle, so that they can refine their services in a timely manner to better meet the needs of patients and their families.

Co-Author(s): Daryl Bainbridge, McMaster University / Hsien Seow, McMaster University

Day 2: Wednesday, May 11 / Jour 2 : Le mercredi 11 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

3:15pm – 4:30pm CONCURRENT PANEL SERIES

15 h 15 – 16 h 30

PRIMARY HEALTH CARE

SOINS DE SANTÉ PRIMAIRES

Carmichael (Convention Level)

CP1 In a sea of data and measures how do we navigate to ensure the right information reaches its destination? Creating a learning system using primary care performance reporting for patients, policy makers and providers.

Presented by **SABRINA T. WONG**, Professor, Centre for Health Services and Policy Research & School of Nursing, University of British Columbia / **JULIA LANGTON**, Research Associate, Centre for Health Services and Policy Research, University of British Columbia / **SHARON JOHNSTON**, Associate Professor, Department of Family Medicine, University of Ottawa & Bruyere Research Institute / **JULIA ABELSON**, Professor, Department of Clinical Epidemiology & Biostatistics, Centre for Health Economics and Policy, Analysis, McMaster University / **MARY BYRNES**, Manager, Primary Health Care Information, Canadian Institute for Health Information

Background: Stronger primary care systems are associated with reduced costs and better health outcomes. Better and more data sources are increasingly available for primary care including national, provincial and practice-based survey data, EMR data, and routinely collected health data. We need to develop an effective system to use these data to monitor and improve the performance of primary health care systems across Canada. With hundreds of different measures available, it is essential to get the right information to the appropriate audience. Research suggests that different audiences have an interest in different types and amount of information. The aim of the TRANSFORMATION team grant is to develop an actionable regional-level primary care information system for providers, policy makers and patients across Canada. We have advanced the science and methodology of performance measurement and reporting in primary care by developing a comprehensive data infrastructure that includes patient, provider and primary care organization surveys and administrative claims data. Approach: In this panel, we will present our methodology for comprehensive practice-based performance measurement and regional reporting. We will discuss best practices and challenges with public primary care performance reporting to different target audiences. Dr Wong will present the overall TRANSFORMATION strategy for comprehensive primary care performance measurement and reporting with a focus on stakeholder consultation and engagement at the heart of the TRANSFORMATION project. Dr Langton will discuss our analytic approach and how it can be harnessed to present information for different audiences and our strategy for the dissemination of information. Dr Johnston and Dr Abelson will discuss the methodology and results from six patient engagement dialogues held in BC, ON and NS where patient and citizen perspectives were sought about which and how primary care performance information should be reported to the public. Ms Byrnes will respond to the progress to date and, highlight how research projects like TRANSFORMATION can align with the work done by national agencies, such as CIHI, and the stakeholders whom they serve. A patient representative will respond to the results and provide a patient's view on the utility of publicly reporting on primary care performance. Conclusions: There are key ways to improve primary care performance measurement and reporting to support a multi-stakeholder learning system. There is a need to strike the balance between comprehensive, all-inclusive information systems with those that present the information of most use to respective end-users. Indeed, the quality of information alone will not guarantee uptake of information and substantial resources are required to optimize the presentation and communication of information. Experiences from other jurisdictions such as the UK suggest it is important to engage in market research for different audiences and consolidate existing information systems rather than re-inventing the wheel. Since primary care performance measurement is relatively new in Canada, we have an opportunity to target efforts and work together across the country towards.

HEALTH POLICY AND HEALTHCARE REFORM

POLITIQUES EN MATIÈRE DE SANTÉ
ET RÉFORME DES SOINS DE SANTÉ

Tom Thompson (Convention Level)

CP2 We asked, you answered. An innovative method to sourcing answers to pressing health policy and health care questions. A panel discussion.

Moderated by **SIMON HAGENS**, Director, Benefits Realization, Canada Health Infoway

Presented by **ERIKA YATES**, Senior Research Project Manager, Institute for Clinical Evaluative Sciences / **TRACY JOHNSON**, Director, Health System Analysis and Emerging Issues, Canadian Institute for Health Information / **CHI-LING JOANNA SINN**, PhD Candidate, School of Public Health and Health Systems, University of Waterloo / **GREG HORNE**, National Lead, Healthcare, SAS / **YOSHIKO NAKAMACHI**, ASP Lead, Program Manager, Sinai Health System - University Health Network Antimicrobial Stewardship Program

As evidence-informed policy and practice become the norm, decision-makers have important yet unanswered questions. The rapid evolution of digital health has generated a diverse and disparate array of data across Canada, some of which are rich and underutilized. The purpose of this panel discussion is to inform and engage participants in a dialogue about an innovative method used to crowd-source answers to important health issues and what those answers revealed. Learning objectives: Attendees of the panel discussion will be able to: Describe the method used to answer important health policy and health care questions; and contribute to a discussion about the process used and the implications. Activities, methods, innovations: In spring 2015, a series of fourteen research questions were identified based upon information needs of the Canadian Institute for Health Information (CIHI), the Canadian Association for Health Services Policy Research (CAHSPR), Choosing Wisely Canada and Canada Health Infoway. Question examples include: Rate of repeated tests; Effect of timely receipt of discharge summaries on readmissions and/or emergency department visits; and rate of adherence to select Choosing Wisely Canada recommendations. While the answers to these questions were not readily available, across the country, various clinicians, health care providers and agencies had amassed health care data of relevance. As part of Canada Health Infoway's ImagineNation Challenges, a series of national digital health innovation challenges, teams were invited to look into the data available to them and respond. Participants agreed to comply with all applicable guidelines and processes related to the data sets being used (e.g. privacy rules, ethics approval), and had the appropriate authorization to use the data for the purposes of the Challenge. Teams submitted their answers online using the Challenge platform. The submissions required data sources, timeframes, sample sizes and a summary of the analysis. Findings were described with a specified numerator and denominator, and included limitations and interpretation. Outcomes, results, lessons learned: In just 64 days, 41 responses were received. Submissions came from six provinces, and a wide spectrum of organizations including primary care, hospitals, private sector and academia. Some drew upon widely accessed data sets and others upon more novel sources. A panel of 35 judges reviewed the submissions. New evidence from these submissions has increased our understanding of levels of appropriateness of care today and how this varies across patient groups and other factors. This is already sparking discussion and beginning to inform policy and practice. The panelists will represent organizations contributing questions and managing the challenge, as well as participants who submitted answers and judges. The panel will discuss the process, findings, lessons learned and how this approach may be used again. Conclusion: There is a strong drive for evidence-informed practice, management and policy. Novel approaches to filling evidence gaps can support this direction and address key questions from clinicians, managers and policy-makers.

CP3 Improving Quality in Long Term Care by Collaborating between Decision Makers and Researchers

Presented by **WALTER WODCHIS**, Associate Professor, Institute of Health Policy, Management, and Evaluation - University of Toronto / **ANNA GREENBERG**, Vice-President Health System Performance, Health Quality Ontario / **GAIL DOBELL**, Director, Performance Measurement, Health Quality Ontario / **FREDRIKA SCARTH**, Director, HQO Liaison and Program Development, Ontario Ministry of Health and Long-Term Care

Residents in Long Term Care (LTC) have considerable difficulties in caring for themselves, suffer the impact of multiple medical conditions, and are often cognitively impaired. While staff in LTC homes do their best to care for these complex residents, homes must manage demands of resident and families as well as provincial legislation and regulations with limited financial resources. Variations in quality have been identified as a concern in LTC homes by the media, researchers and policy makers. Government response to such quality concerns often include increased regulation and public reporting of quality. Quality improvement collaboratives have also been encouraged as a positive support to improve quality in LTC. Ontario is a particularly active environment for regulatory, public reporting and QI approaches in LTC. In particular, the Ontario Ministry of Health and Long Term Care (MOHLTC) introduced a new LTC Homes Act and regulations on July 1, 2010. At the same time, Health Quality Ontario (HQO) began actively trying to help LTC Homes improve quality of care by engaging with homes in a province-wide Quality Improvement (QI) program called Residents First. HQO also began publicly reporting on measures of the quality of care in LTC Homes. Researchers used time series analysis and Generalized Estimating Equations to evaluate the impacts of these initiatives on resident quality of care using 1.2 million assessments from 167,170 residents in more than 600 LTC Homes over a four year study period. This panel presentation includes senior decision-makers from HQO, the MOHLTC and researchers who have partnered to implement and evaluate the effects of legislation, public reporting and quality improvement on the quality of care in Ontario LTC homes. The context and activities from all three perspectives will be shared in coordinated presentations. The objectives of this panel are: 1) to explain the implementation of the Act, public reporting and Residents First; 2) to demonstrate the observed effects of these initiatives on quality; and 3) to highlight the advantages of collaboration between government, quality councils and researchers in activities that can lead to improvements in the health care delivery system. Anna Greenberg, Vice-President Health System Performance at HQO will present implementation of public reporting in Ontario LTC, while Gail Dobell, Director at HQO will describe the implementation, uptake and spread of Residents First highlighting the role that HQO played in supporting QI collaborative activities among 490 participating homes across the province. Walter Wodchis, Associate Professor at the University of Toronto will discuss the observed effects of this initiative on quality of care with an emphasis on the focal topics of the QI collaboratives. Fredrika Scarth, Director from the Ontario Ministry of Health and Long Term care will highlight the ways that the collaboration between researchers, government and other government agencies informed improvements and government action. This session will describe the activities and effects in Ontario and offer lessons to other provinces and jurisdictions regarding the effects of regulation and quality improvement programs on LTC residents, staff and homes.

**COLLABORATIVE HEALTHCARE
IMPROVEMENT PARTNERSHIPS****PARTENARIATS DE COLLABORATION POUR
L'AMÉLIORATION DES SOINS DE SANTÉ****CP4 Pan-Canadian Real-world Health Data Network (PRHDN): A joint update with CIHI, Statistics Canada and CIHR and a dynamic consultation**

Presented by **P. ALISON PAPRICA**, Director, Strategic Partnerships, Institute for Clinical Evaluative Sciences / **BRENT DIVERTY**, Vice President, Programs, Canadian Institute for Health Information / **LYNN BARR-TELFORD**, Director General, Health, Justice and Special Surveys Statistics Canada / **ROBYN TAMBLYN**, Scientific Director, CIHR – Institute of Health Services and Policy Research / **KIMBERLYN MCGRILL**, Scientific Advisor and Chair of the Advisory Board Population Data BC

The objectives of this panel are (a) to provide an update on the PRHDN status (b) to share information and gain attendee feedback about potential collaborative activities with key partners and (c) to spend a minimum of 20 minutes on real-time voting to obtain attendee input on short-term PRHDN priorities (e.g., priority algorithms to be validated). Provincial centres across Canada hold rich sources of health and social data that are linked at the person-level. The Strategy for Patient Oriented Research at CIHR has provided further investments to strengthen provincial data resources and research capacity. In addition to this, a subset of standardized and enriched administrative health care data is managed nationally by the Canadian Institute for Health Information (CIHI), an extensive array of complementary survey- and census-based social and geography-based information is collected and maintained by Statistics Canada, and several pan-Canadian investments are creating large, national survey data sets. While Canada has an immense depth and breadth of information, health data are often not comparable from one province to another, or cannot be shared across provincial boundaries due to legislation or other barriers, thereby limiting use to single-province studies. There is now growing interest in enabling multi-province studies even when data are not directly comparable and in sharing experiences to make effective use of linked or linkable administrative data. The Pan-Canadian Real-world Health Data Network (PRHDN) would establish deliberate overlap so that leading provincial and pan-Canadian organizations from across Canada work together on investments which evolve existing Canadian data and expertise into world-class multi-province data infrastructure. The PRHDN will be a distributed data network that allows researchers and policy/decision makers to make effective use of real-world administrative data holdings without requiring that data leave provincial boundaries. Under the PRHDN, organizations from across Canada will independently hold prepared data that are comparable, and researchers, policy makers and decision makers will be provided with services, tools and resources to enable coordinated use of the data. Most of the elements required for a world-class data platform exist in Canada already, as can be seen from member organizations of the PRHDN and participants on this panel. Working from and building upon the expertise and current infrastructure at existing provincial and national organizations, the PRHDN will bring together and make available existing and new core research data infrastructure in the form of algorithms, harmonized common data and common analytic protocols in priority areas. Key partnerships will ensure that the PRHDN has a transformative impact. The PRHDN is committed to engaging with and being responsive to researcher needs. After providing an update on relevant activities from each participating organization, we will pose a series of questions to attendees, seeking their input on PRHDN objectives for the coming year. Specifically, we are interested in hearing what key data need to be developed (e.g. geography-based information to add to detailed individual-level health data) and what priority algorithms (e.g. chronic disease, costs, continuity) will help seed cross-provincial research. The panel will use live voting technology to solicit audience input.

**COLLABORATIVE HEALTHCARE
IMPROVEMENT PARTNERSHIPS****PARTENARIATS DE COLLABORATION POUR
L'AMÉLIORATION DES SOINS DE SANTÉ****CP5 Integrated Knowledge Translation: The Current State of Play**

Presented by **ANNA GAGLIARDI**, Scientist, University Health Network / **INGRID BOTTING**, Assistant Professor and Director WRHA, Winnipeg Regional Health Authority / **GAYLE SCARROW**, Director, Knowledge Translation, Michael Smith Foundation for Health Research / **BEVERLEY HOLMES**, Vice-President, Research & Impact, Michael Smith Foundation for Health Research / **IAN GRAHAM**, Senior Scientist/Professor, Ottawa Hospital Research Institute/University of Ottawa

Objectives: 1) To share and discuss the complexities of executing and reporting integrated knowledge translation strategies; 2) To identify strategies to advance research related to integrated knowledge translation given the identified knowledge gaps; and 3) To identify and understand funding sources for integrated knowledge translation in Canada. The session will include three presentations and interactive discussion: 1) The first presentation will report on a recently submitted scoping review of the literature related to integrated knowledge translation. The presentation is entitled, "Characterizing the Evidence on How to Foster and Achieve integrated Knowledge Translation: Results of a Scoping Review"; 2) The second presentation will showcase the results of a qualitative study examining the issues of collaborative research conducted by a team that has previous experience working together. This presentation is entitled, "Beyond 'Two Cultures': The Complexity of Researcher-Knowledge User Research Collaboration in Health Services Research"; and 3) the final presentation will describe the current funding landscape and opportunities for collaborative research.

CP6 Improving Pediatric Care with Innovative Models of Patient/Family Engagement

Moderated by **WILLIAM GARDNER**, PhD (Moderator). CHEO Research Institute – University of Ottawa Chair in Child and Adolescent Psychiatry and Professor of Epidemiology, University of Ottawa

Presented by **KATHLEEN PAJER**, MD MPH. Chief of Psychiatry, Children's Hospital of Eastern Ontario and Professor of Psychiatry, University of Ottawa / **JANA DAVIDSON**, MD. Vice-President Medical Affairs & Psychiatrist in Chief, British Columbia Children's Hospital / **MIREILLE BROSEAU**, Patient/Family Engagement Specialist at CHEO / **SIMON DAVIDSON**, MD. Professor of Psychiatry & Pediatrics, University of Ottawa

The 2012 Strategy proposed by the Mental Health Commission of Canada has, as its first point of action, "...people living with mental health problems and illnesses and their families [should] become more engaged in the planning, organization, delivery and evaluation of mental health services, treatments and supports." Although the principle of patient and family engagement is widely endorsed, it is less clear how this ambitious goal should be implemented. This panel will present four models of patient/family engagement in pediatric care. 1) Kathleen Pajer will discuss the Choice and Partnership Approach (CAPA), a service transformation system designed in the UK to increase patient access, flow, and quality of pediatric mental health care. A core feature is a shared decision-making model between the family, patient, and clinician, based on tools from motivational interviewing and solution-focused interventions. 2) Jana Davidson will discuss the ongoing effort in BC to actively engage children, youth, and families in system improvement and system navigation. This will include a description of BC Children's Hospital's contract with the FORCE Society for Mental Health, a not-for-profit family advocacy group, to have both a Youth in Residence (YiR) and a Parent in Residence (PiR) in the Kelty Mental Health Resource Centre – a provincial resource (virtual and actual) for children, youth, families and professionals for child and youth mental health. The YiR's and PiR's have lived experience in the mental health system. She will also describe the leadership of families and youth in BC in the Provincial Collaborative in Child and Youth Mental Health which is aimed at improving access to child and youth mental health services provincially. 3) Mireille Brosseau will discuss her experience testing Experience-Based Co-Design (EBCD), which is a process that uses qualitative methods to capture experiences of patients, families and staff, and collaborative approaches to deepen mutual understanding leading to the co-design of quality improvement projects. The talk will describe how EBCD is improving care on a Pediatric Oncology service. 4) The last model, discussed by Simon Davidson, emphasizes the importance of authentic rather than pro forma engagement of youth. Authentic engagement requires not only youth taking responsibility for their own health care, but also partnering with others in the visioning, planning and implementation of systems of care in which they are involved, a particularly salient approach for engaging youth transitioning from pediatric to adult care.

PATIENT ENGAGEMENT**PARTICIPATION DES PATIENTS****Governor General (2nd Floor)****CP7 Caregiver voices: how engaging caregivers informs our work**

Moderated by **SUSAN BRIEN**, Director, Public Reports, Health Quality Ontario

Presented by **CAROLE ANN ALLOWAY**, Caregiver / **CHRISTA HAANSTRA**, Executive Lead, Communications, The Change Foundation / **LAURA VISSER**, Facilitator, Client & Caregiver Engagement, Toronto Central Community Care Access Centre / **SARAH CRAWFORD**, Caregiver / **PAUL HOLYOKE**, Director, St Elizabeth Research Centre / **SARA SHEARKHANI**, Caregiver

As researchers, system leaders and health care providers, we often fail to capture the unheard voices of the 8.1 million Canadians who play an unparalleled role in the Canadian health system the informal caregivers. Increasingly, organizations in Ontario and across Canada are engaging patients, caregivers and people with lived experiences in designing research, monitoring and reporting on health system performance, guiding the development of engagement strategies and providing care to patients and their caregivers. The objectives of this panel are to: 1) discuss how informal caregivers are being engaged in the work of health system organizations, health care providers and support groups; and 2) speak to the importance and value of caregiver engagement in this work. Anna Greenberg (Vice President) from Health Quality Ontario, will lead the panel discussion by describing the involvement of informal caregivers in public reporting on health system performance, and how their experiences guided interpretation of data on distress in Ontario's informal caregivers. Next, Cathy Fooks (President and Chief Executive Officer) will discuss the involvement of informal caregivers in the two initiatives: The Caring Experience and the Structured Family Caregiver Interviews being led by The Change Foundation that engage caregivers to understand and improve caregiver experiences. Anne Wojtak (Chief Performance Officer) will outline how informal caregivers are involved in guiding innovations in client and caregiver support at the Toronto Central Community Care Access Centre. Paul Holyoke (Director) will follow with examples of caregiver engagement in research that has been carried out by the Saint Elizabeth Research Centre. Caregivers involved in research on best-practice caregiver education and support influenced the direction of the findings by keeping the research focused on caregiver needs. To close the panel, Sara Shearkhani and Carole Ann Alloway, co-founders of Family Caregivers Voice, a family caregiver-led group will provide caregivers' perspective to discuss what caregiver engagement means to them and the value they see in involving caregivers in research, system leadership and providing health care.

PATIENT ENGAGEMENT**PARTICIPATION DES PATIENTS****Osgoode (3rd Floor)****CP8 Patient engagement: the new hard currency in healthcare**

Presented by **MARIA JUDD**, Senior Director, Canadian Foundation for Healthcare Improvement / **ANGELA MORIN**, Patient and Family Experience Advisor, Kingston General Hospital and Southeast Regional Cancer Centre / **CAROL FANCOTT**, Clinical Research Leader, Collaborative Academic Practice University Health Network / **PATRICIA O'CONNOR**, Senior Advisor, Patient Engagement, McGill University Health Centre and Clinical Improvement Advisor, Canadian Foundation for Healthcare Improvement

Engaging patients, families and caregivers in co-designing care, improving service delivery and determining research priorities is emerging as a critical new feature of health system transformation. Evidence suggests that the level of engagement influences the outcomes, with "partnership" or co-design strategies being more likely to result in macro-level outcomes such as service re-design. In 2014, the Canadian Foundation for Healthcare Improvement (CFHI) launched a Pan-Canadian Collaborative "Partnering with Patients and Families for Quality Improvement" that supported 22 organizations to build organizational capacity in co-designing quality improvement with patient advisors as partners. This session provides an overview of why patient engagement is critical, and will describe the methods, outcomes and lessons learned from these 22 teams and from other research. Via multiple case examples, this presentation illustrates key elements of successful partnerships, the challenges teams faced, frameworks and evaluation methods used. Patient, staff and organizational outcomes demonstrated that involving patients/families in quality improvement service redesign accelerated both patient engagement and the work of improvement teams. Panelists and participants together will: Understand why "Nothing about me, without me" has become the maxim for engaged patients, families and caregivers; Summarize the research evidence on engagement-capable environments from four countries and how patient engagement contributes to improved outcomes; Consider evaluation needs and methods related to patient partnerships including social network analysis; and Describe the winning conditions for partnering with patients and families to create and sustain improvements in quality and safety based on multiple case studies. Each section will include interactive reflective discussion with the audience.

Day 3: Thursday, May 12 / Jour 3 : Le jeudi 12 mai

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

9:30am – 10:45am CONCURRENT SESSIONS F

9 h 30 – 10 h 45 SÉANCES SIMULTANÉES F

F1: ACCESS & EQUITY

ACCÈS ET ÉQUITÉ

Carmichael (Convention Level)

F1.2 The persistence of health inequalities over time: a study measuring trends in income-related inequality and identifying areas for action

Presented by **EZRA HART**, Analyst, Canadian Institute for Health Information

The objectives of this study were to examine trends in income-related inequality over the past decade for 16 health indicators in Canada and the provinces, and to highlight promising interventions for addressing these inequalities. A suite of products were developed to disseminate findings to meet different stakeholder needs. The World Health Organization Framework on the Social Determinants of Health informed the selection of 16 health indicators that were measured using administrative and survey data. Age standardized indicator rates by income quintile and sex at the national and provincial level were calculated for each year, and the magnitude of inequality between quintiles was examined using both relative and absolute measures of inequality. An online interactive tool was developed to allow stakeholders to generate data visualizations and explore and tailor the analysis to their needs. A comprehensive review of academic and grey literature identified promising indicator-specific interventions to reduce inequality. Income-related health inequalities widened over the past decade for three indicators - smoking, self-rated mental health and chronic obstructive pulmonary disease hospitalizations for people younger than age 75. Analysis also revealed persisting inequalities for 11 indicators, and narrowing inequalities for 2 indicators. Drilling down by province and sex revealed notable patterns; for example, inequality in obesity was observed for women in most provinces but was not seen in men. Initial stakeholder feedback on the interactive tool has been positive and a more in-depth stakeholder survey is underway. Intervention scanning identified promising practices across the country (e.g., targeted smoking cessation programs), but reinforced the need for more evidence on effective interventions for addressing health inequality. In adopting the Rio Declaration on the Social Determinants of Health in 2011, Canada made a commitment to reducing inequalities. The persistence of inequalities over time reinforces the need for continued measurement and reporting at the provincial and local levels and increased economic evidence on interventions to reduce inequalities.

Co-Author(s): Ezra Hart, Canadian Institute for Health Information / Erin Pichora, Canadian Institute for Health Information / Geoff Hynes, Canadian Institute for Health Information / Sara Allin, Canadian Institute for Health Information / Jean Harvey, Canadian Institute for Health Information

F1.2 Using Equity Measures to Evaluate Policies and Interventions Effect on Health Equity

Presented by **DAN CHATEAU**, Assistant Professor, University of Manitoba

This presentation provides a brief description of issues in the application of equity measures to health data. Our experience in applying equity measures for the PATHS program of research at the Manitoba Centre for Health Policy is used to illustrate some of the possibilities and practical limitations of these measures. With the rising interest in health equity, measures first developed in other disciplines have been applied to health outcomes. The Concentration Curve and Concentration Index reveal the distribution of health outcomes as they relate to income. The Kakwani progressivity index can reveal how health inequality may be 'better' or 'worse' than income inequality. The absolute and relative indexes of inequality partition the upper and lower portions of the population to evaluate disparity between the 'haves' and 'have-nots'. Evaluating change in equity over time, and between groups, such as exposed and unexposed treatment groups, introduces new complications to their use. When these measures are applied to health equity, they can be impacted by factors not initially considered by investigators. The application of Concentration measures in health frequently use dichotomous outcomes, and the prevalence of the health outcome can affect the degree of inequity that is possible, with highly prevalent outcomes showing very little divergence from the line of equity. Comparing concentration measures to the inequality indices can produce contradictory and seemingly incompatible results. Sample selection that alters the distribution of income from the population can also change the apparent equity of health outcomes. The relative and absolute indexes of inequality can be misleading when applied to changes over time. Examples from the PATHS equity program of research are presented that illustrate some of these issues. Population and public health research that looks to examine the impact of policies or interventions on health equity needs to carefully consider how equity should be measured, and what impact the choice of outcome or its operational definition can have on the conclusions that are drawn from analyses.

Co-Author(s): Dan Chateau, University of Manitoba / Nathan Nickel, University of Manitoba / Marni Brownell, University of Manitoba / Alan Katz, University of Manitoba / Elaine Burland, Manitoba Centre for Health Policy

F1.3 Socioeconomic gradient in health in Canada: Is the gap widening or narrowing?

Presented by **MOHAMMAD HAJIZADEH**, Assistant Professor, School of Health Administration, Dalhousie University

Notwithstanding a general improvement in health status, the socioeconomic gradient in health remains a public health challenge worldwide. In this study, we sought to determine whether socioeconomic gradients in health in Canada have widened or narrowed. Using longitudinal data from the National Population Health Survey (NPHS, n= 17,276), we examined socioeconomic gradients in two widely used health indicators: the Health Utility Index (HUI) and the Frailty Index (FI), each applied to Canadian adults (30 and above years) between 1998/9-2010/11. The relative and slope indices of inequality (RII and SII, respectively) were employed to summarize income- and education-based inequality in the FI and HUI in Canada as whole, and in five regions: the Atlantic provinces (Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland), Quebec, Ontario, the Prairies (Alberta, Saskatchewan and Manitoba) and British Columbia. We found that education- and income-related inequalities in health were present in all five regions of Canada. These socioeconomic inequalities in health widened over the period between 1998/99 and 2010/11. The estimated RIIs (SIIs) suggested that education-related inequalities in the FI and the HUI increased biennially by 2.2 (0.2) and 0.6 (0.7) percent, respectively. Moreover, the estimated RIIs (SIIs) revealed that income-related inequalities in the FI and the HUI also increased by 2.1 (0.4) and 0.8 (1) per cent every two years. These results showed that income and education gradients in health have increased over the period between 1998/99 and 2010/11. This suggests that policies aimed at mitigating inequalities in health in Canada would do well to focus on the distributions of education and income as two determinants of health disparities.

Co-Author(s): Mohammad Hajizadeh, Dalhousie University / Arnold Mitnitski, Geriatric Medicine Research, Faculty of Medicine, Dalhousie University / Kenneth Rockwood, Geriatric Medicine Research, Faculty of Medicine, Dalhousie University

F1.4 Diminishing sex differences: a study of 20 year trends in male and female mortality in Ontario

Presented by **LAURA ROSELLA**, Assistant Professor, University of Toronto

Historically, all-cause and sex-specific mortality rates have been higher among males compared to females. Our objective was to analyze sex-specific differences in mortality from 1992 to 2012 using data from a large, population-based sample to determine if there was evidence of convergence of all-cause and cause-specific mortality rates in Ontario. We conducted a population-based study using all deaths recorded in Ontario from 1992 to 2012 using the Ontario Registrar's General Death file (ORG-D). We calculated both absolute (i.e., direct age-adjusted mortality rates) and relative mortality differences (i.e., mortality rate ratios) for all-cause and cause-specific mortality trends, including circulatory-, cancer-, respiratory- and injury-related deaths. We statistically assessed trend differences, both for the overall population and by socio-economic quintile, using negative-binomial regression. Negative binomial prediction models were constructed based on the previous 20 years of data to forecast future sex-specific trends to identify at what year sex convergence would likely occur. In the 20-year period from 1992 to 2012, age-adjusted mortality declined by 39.2% among males and 29.8% among females. During this time, the age-adjusted male to female mortality ratio decreased by 13% (1.51 to 1.31); in contrast, the absolute difference between all-cause male and female mortality rates decreased 56%. Relative declines in cause-specific mortality were greater among males for cancer-, respiratory-, and injury-related deaths. Circulatory deaths among declined at similar rates among males and females; however, the absolute decline was greater among males. An inverse relationship between neighbourhood-level income quintile and mortality rates were observed for both sexes; notably, relative differences increased over time among women. If current trends continue, the convergence of male and female mortality rates could be reached by 2020 in Ontario. The narrowing gap between male and female mortality rates over the past 20 years signals an important change in sex-specific mortality patterns which has critical implications for public health and healthcare in Canada. Greater consideration of the impact of these differences is needed among both health and social system planners.

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F2.1 Does increased home nursing lead to decreased hospital costs?: An end-of-life costing analysis in three provincesPresented by **HSIEN SEOW**, Associate Professor, McMaster University

Research has demonstrated that increasing palliative homecare nursing is associated with reducing the rate of subsequent hospitalizations. However, little evidence exists on the cost-savings potential of palliative nursing investigating whether the increased nursing costs to support patients at home outweigh potential reduced hospital costs. Our retrospective cohort study included cancer decedents from British Columbia (BC), Ontario (ON), and Nova Scotia (NS) that received any palliative nursing in the last six months of life. Data were compiled across five fiscal years, between 2004 and 2009. A Poisson regression analysis was used to determine the association of increasing nursing costs in a 2-week block on the relative average hospital costs in the subsequent two weeks and on overall total costs (hospital costs plus nursing costs in prior 2-week block). The study cohort included 58,022 cancer decedents (BC n=17,368; ON n=39,542; NS n=1,112). For analysis in the last month of life, our results showed an association between increasing nursing costs and decreasing relative hospital cost compared to the reference group (1 hr nursing/block): maximum decrease of 55% (ON), 31% (BC), and 38% (NS) respectively. We also found that more nursing costs in the last month was virtually always associated with lower total costs compared to the reference: for example, cost-savings ranged from \$376 (10+ nursing hr) to \$1,124 (4-6 nursing hr) in BC per person-block. In the last month of life, more palliative nursing costs were associated with lower relative hospital costs in subsequent 2-week blocks and lower total costs, compared to the reference cost of 1 hr/block. This association was observed across three provinces, strongly suggesting a cost-savings potential of increased community-based palliative nursing.

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F2.2 Disability in Nursing Home Residents: The Role of Resident and Nursing Home CharacteristicsPresented by **NATASHA LANE**, MD/PhD Candidate, University of Toronto

Activities of daily living (ADL) disability is common among nursing home residents. The contribution of resident versus nursing home characteristics to residents' disability has implications for nursing home accountability policies. We examined the association of resident characteristics with disability, adjusting for features of the nursing homes in which they live. This cross-sectional study used health administrative data from 77,165 residents assessed in 614 Ontario nursing homes within three months of April 1st, 2011. Disability was measured using the 29-point ADL long-form score in the RAI-MDS, with higher scores indicating higher level of disability. Linear regression models with random effects for nursing homes estimated the association between disability and resident demographic characteristics, chronic conditions, geriatric syndromes and nursing home characteristics. Proportion of variance in residents' disability explained by resident versus nursing home characteristics was also determined. Differences in findings across sex, age and cognitive impairment strata were examined in sensitivity analyses. The mean disability score for study residents was 16.1 (SD: 8.4). A resident with this mean score might be completely dependent on nursing home staff for four activities (e.g. personal hygiene, toileting, eating and dressing) or have less severe disability across all activities. Residents' demographic characteristics and morbidity explained 62.5% of the variance in disability score; nursing home variables, such as intensity of rehabilitation services or ownership type (for-profit versus not-for-profit), explained an additional 2% of the variance. In multivariable models the association between disability and geriatric syndromes, such as balance impairment (coefficient: 5.72, p<0.0001) or cognitive impairment (coefficient: 5.22, p<0.0001) was far stronger than that between disability and chronic conditions, such as heart failure (coefficient: 0.351, p<0.0001) or chronic kidney disease (coefficient: 0.301, p<0.0001). Most of the variance in nursing home residents' disability scores is explained by residents' demographic characteristics and morbidity. There is little systematic association with nursing home factors. Geriatric syndromes may be more relevant targets for prevention of disability than chronic conditions; these relationships should be further explored in longitudinal studies.

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F2.3 Multimorbidity Prevalence and Patterns in Ontario Older Adults Receiving Home Care ServicesPresented by **DAVID KANTERS**, Health Research Methodology Master's Student, McMaster University

This study estimates the prevalence of common chronic conditions and compares the co-occurrence of conditions using four different approaches. The multimorbidity patterns identified using different approaches can inform stakeholders of health care delivery systems about the complexity of multimorbidity and how to design services to better address it. InterRAI data (2007-2012) for older adults receiving home care services in Ontario were used to estimate the prevalence of self-reported chronic conditions and the co-occurrence of conditions. Multimorbidity patterns were identified and compared using four approaches: 1) identification of the most common single, pairs and triplets; 2) cluster analysis; 3) principal component analysis; and 4) latent class analysis. The twenty chronic conditions captured in the dataset included the most common conditions observed in older adults (e.g., heart disease, stroke, cancer, diabetes, arthritis). All analyses were stratified by gender and split-half reliability was used to evaluate and validate the approaches. Of 319,694 participants in the dataset (36% male), 269,339 (84%) had two or more chronic conditions. The most prevalent conditions were arthritis 155,939 (49%), hypertension 132,270 (41%), coronary heart disease, 80,350 (25%), and diabetes 79,297 (25%). The most common pairs and triplets were combinations of the common single conditions. Multimorbidity patterns varied across gender, with musculoskeletal conditions being more common in women and stroke more common in men. Factor and cluster analyses identified four disease clusters: cardiometabolic, psychological, musculoskeletal, and stroke. A seven class model provided the best data fit in the latent class analysis. Four classes were consistent with those found in the factor and cluster analyses, and the additional classes represented either combinations of these four classes or subsets of conditions from them. The results show consistency in disease clustering across different methodological approaches commonly used in multimorbidity research. Disease clustering was non-random, clinically meaningful, and similar to clusters reported in the broader literature. The results also suggest there may be gender differences in resource needs relating to multimorbidity.

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F2.4 The variation of statin therapy among long-term care residents, physicians, and facilities in OntarioPresented by **MICHAEL CAMPITELLI**, Staff Scientist, Institute for Clinical Evaluative Sciences

There is limited evidence from randomized trials and observational studies to guide clinical practice regarding the use of statins in long-term care (LTC). This study examines the extent to which statins are currently used in LTC and measures variability in statin use across residents, physicians, and facilities in Ontario. We used population-based health administrative databases to conduct a cross-sectional study of 76,866 residents from LTC facilities (n=631) in Ontario between April 1, 2013 and March 31, 2014. Prevalent statin use was identified on the date of the most recent LTC assessment during the study period. Each resident was assigned to the LTC physician (n=1913) who had provided the majority of recent care. Mixed-effects multivariate logistic regression was used to assess resident-level predictors (age, sex, comorbidity, and functional status) of statin use and examine the variation of statin use across LTC physicians and facilities after controlling for resident-level characteristics. At the time of their most recent LTC assessment, 25,177 (32.8%) residents were receiving a statin. The median proportion (interquartile range) of residents receiving a statin across facilities was 31.8% (24.6%-39.7%) and across LTC physicians was 32.3% (16.7%-44.2%). After adjustment, male residents (Adjusted Odds Ratio [aOR] 1.25; 95% Confidence Interval [CI] 1.20-1.29) and residents who had a previous myocardial infarction/stroke (aOR 2.90; 95% CI 2.78-3.01), were significantly more likely to be receiving statins. Those with worsening functional status and cognitive performance scores were significantly less likely to be receiving statins. After accounting for all measured resident-level characteristics, the assigned LTC physician (P <0.001) and LTC facility (P <0.001) were significantly, and independently, associated with the likelihood of a resident receiving a statin. These data suggest significant variation of statin use among LTC residents, prescribing physicians, and facilities. Further research examining the effectiveness of statins in the LTC community is required to inform clinical practice guidelines and standardize the utilization of statins in this population.

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F3.1 Risk Factors and Avoidability of Readmission within 7 Days after Hospitalization for Heart Failure: A Mixed Methods Health Record Audit

Presented by **CATHY EASTWOOD**, Senior Research Associate, University of Calgary

In Alberta, nearly 6% of patients hospitalized for heart failure (HF) were readmitted within 7 days of discharge, which is considered highly avoidable. Objectives: To describe factors associated with readmission within 7 days of discharge; and determine the potential avoidability of these early readmissions among HF patients. A health record audit was undertaken of patients discharged after hospitalization for HF from 3 Calgary, AB hospitals between 2004-2012. Logistic regression was used to identify risk factors for readmission within 7 days compared with age-, sex-, and year-matched patients who were not readmitted within 7 days. Content analysis was undertaken to describe factors that precipitated readmission. Avoidability was qualitatively examined, scores assigned, and categories were described. Results: Of 191 matched pairs (n=382) (50% female; mean age 78 years), 35% were frail (>75 years, >3 comorbidities, requiring assistance with activities of daily living). After risk adjustment, only frailty (OR 2.2, 95% CI 1.35-3.67) and specialist as attending physician (OR 2.2, 95% CI 1.37-3.63) were associated with increased likelihood of readmission. Instructions for patients to see a physician within one week of discharge (OR 0.56, 95% CI 0.36-0.88) predicted less likelihood of readmission. Reasons for readmission included HF (41%) then gastrointestinal, other cardiac, and respiratory problems. 57% of readmissions were deemed potentially avoidable due to patients returning with the same symptoms, social or self-care issues not addressed, adverse events related to index admission, high disability or palliation with no added services. 43% of the readmissions were deemed less avoidable due to presentation with new health issues, recurring symptoms after being stable at index discharge, or refusal of care during the index admission. Despite care by specialists and referral to HF clinics, complex frail patients were discharged with unresolved symptoms or inadequate community support. We provided novel criteria for identifying potential avoidability of 7-day readmissions that could be used for assessing HF patients' readiness for discharge.

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F3.2 Characteristics and Healthcare Utilization Patterns of COPD Patients across Multiple Sectors of Care in Alberta

Presented by **SARA GRIMMWOOD**, Sr.Analyst, Canadian Institute for Health Information

This study describes the socio-demographic characteristics and health care utilization patterns of chronic obstructive pulmonary disease (COPD) patients in Alberta across sectors of health care with a focus on differentiating high users of acute care services from non-high users to inform strategies to reduce potentially avoidable acute care use. This study draws on CIHI data linked at the individual level across hospitals, emergency departments, primary care and long-term care along with Statistics Canada survey data linked at the neighbourhood level to provide comprehensive portraits of healthcare utilization and socio-demographic characteristics for four COPD patient groups: High users of inpatient care - Non-high users of inpatient care - Emergency Department (ED) users (with no inpatient stays) - Primary Care users (with no inpatient stays or ED visits) - The high users and non-high users groups were identified using CIHI's recently developed High Users of Inpatient Acute Care Services indicator. Four COPD patient groups were created and the following characteristics were described and compared between groups: Demographics (age, sex, Aboriginal status, rurality); Socio-economic status (neighbourhood income, social and material deprivation); Number of additional health conditions (comorbidities); Acute care utilization in past year (number of hospitalizations, length of stay, discharge disposition); Emergency department visits in past year; Primary care visits in past year; Long-term care utilization in past year and the year following acute care admission (length of stay, number of transfers to and from acute care). The analysis was performed at the provincial and regional levels. This study demonstrates the value in linking data across databases and reveals variability in the characteristics and health care utilization of COPD patients in Alberta. Highlighting differences within jurisdictions between COPD populations and comparing high users from non-high users can assist health care planners to improve care delivery and outcomes.

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F3.3 Registered Nurse Staffing and Health Outcomes of Patients with Type 2 Diabetes within Primary Care in South Eastern Ontario

Presented by **JULIA LUKEWICH**, Assistant Professor, Memorial University of Newfoundland

Nurses form the core of interdisciplinary teams within the primary care setting. In acute care, positive associations between nurse staffing and quality of care have been established. This study was conducted to explore associations between nurse staffing and patient health outcomes in the primary care setting. This study utilized nurse staffing data acquired through a cross-sectional survey of Family Health Teams (FHTs) (n=15) and patient data from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) in south eastern Ontario to explore relationships between the presence of Registered Nurses and Type 2 diabetes outcomes. The patient sample was comprised of individuals with diabetes, between the ages of 18-100, and who had ≥1 primary care encounter between April 1, 2013-March 31, 2014 (n=6673). The diabetes outcomes explored included: hemoglobin A1c (HbA1c), fasting plasma glucose, blood pressure, low-density lipoprotein cholesterol (LDL-C), and urine albumin creatinine ratio. 86.7% of practices had ≥1 Registered Nurse. The presence of ≥1 Registered Nurse in a FHT was associated with increased odds of diabetic patients having their HbA1c (OR=1.43, 95% CI: 1.20-1.69), fasting plasma glucose (OR=1.35, 95% CI: 1.08-1.68), blood pressure (OR=1.51, 95% CI: 1.27-1.81), and LDL-C (OR=1.46, 95% CI: 1.19-1.79) measurements on-target. Practices with the lowest ratios of diabetic patients-per-Registered Nurse had a significantly greater proportion of patients who had HbA1C and fasting plasma glucose measurements on-target compared to practices with the highest ratios of diabetic patients-per-Registered Nurse. The findings suggest that FHTs utilizing a model of care that incorporates Registered Nurses exhibit better patient outcomes. This study demonstrated the ability to link nurse staffing data acquired through an organizational survey to patient data housed within the Canadian Primary Care Sentinel Surveillance Network. The results from this study set the groundwork for further exploration of nursing contributions within the primary care setting.

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F3.4 Potentially inappropriate medications in elderly patients: prevalence and changes during hospital stay

Presented by **DANIALA WEIR**, Doctoral Candidate, McGill University

Inappropriate prescribing in older patients is a major cause of preventable adverse drug events. At the time of hospital admission, there is an opportunity to stop potentially inappropriate medications (PIMs). The objectives of this study were to estimate the prevalence of PIMs upon admission and describe changes made during hospitalization. We conducted a prospective cohort study of patients seen at the McGill University Health Center in Montreal, Quebec, Canada from May 2014-October 2015 who were over the age of 65. Medications patients were taking upon admission to hospital were obtained from drugs dispensed in the past 3 months retrieved from the provincial pharmacy system as was their reconciliation action. The STOPP criteria were utilized to identify PIMs affecting the central nervous system (CNS) and included use of 1st generation antihistamines & prolonged use (≥4 weeks) of benzodiazepines, tricyclic antidepressants (TCA's) & antipsychotics since they are commonly prescribed. Among the 2,042 included patients, mean age (SD) was 77 (8), and 44% were female. Patients were admitted to hospital with a total of 19,282 drugs (9 on average per patient). A total of 718 CNS drugs were considered to be potentially inappropriate; 570 (28%) patients were admitted with at least one PIM. Of the 718 inappropriate medications at admission, 417 (58%) were benzodiazepines, 221 (31%) were antipsychotics, 30 (4%) were antihistamines and 50 (7%) were TCA's. Within the subgroup of patients (n=742) for which we had information on medication reconciliation actions, 29% of PIMs at admission were stopped upon discharge from hospital; antihistamines were the least likely to be discontinued (36%) while antipsychotics were the most likely (22%). Additionally, 31% of benzodiazepines were discontinued. The prevalence of treatment with PIMs was high in elderly patients upon admission to hospital with the most common PIMs including benzodiazepines. The majority of PIMs were not discontinued at discharge, therefore future research should evaluate interventions to increase the discontinuation of PIMs during the hospital stay.

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F4.1 The Personal Support Worker Training System

Presented by **KEIRA GRANT**, MSc Candidate, University of Toronto

The study's goals were to explore PSW certificate programs and on the job training. While graduation from a certificate program has become a common requirement for obtaining work as a PSW, there is limited scholarship regarding the content of the programs and its suitability to PSW responsibilities and patient needs. There are three types of institutions that offer PSW certificate programs in Ontario. The study explored similarities and differences between the institution types. The primary methods of data collection were document analysis, and key informant interviews. The document analysis looked at materials such as government training standards, PSW text book, educational program materials, and employer documents. A total of 30 individual interviews were conducted with a variety of stakeholders, using maximal variation sampling. The objectives of the interviews was to corroborate information from the documents and fill in gaps in the researcher's understanding of the subject matter. As of September 2015, there is a common training standard for PSW programs. However, each institution type has its own quality assurance mechanisms, making it challenging to verify that all programs are meeting the standard equally. While graduation from a certificate program is not a legal requirement for obtaining work as a PSW in most settings, employers in many care settings now request this credential. The informants concurred that PSWs need formal training to meet current demands. PSWs are required to be knowledgeable in a mix of applied and conceptual domains. Stakeholders reported significant gaps in knowledge concerning the conceptual dimension of the role, including professional boundaries, client-centred care, interprofessional communication, and scope in health care settings, especially homecare. PSW is still seen as a vocation rather than a profession. As a result, training emphasizes the applied rather than conceptual dimension of the role. PSW performance could be improved if more teaching was provided by PSWs, and if more opportunities for PSWs and nurses to learn collaboratively were created.

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F4.2 A Synthesis of Recent Analyses of Health Human Resources Requirements and Labour Market Dynamics in High-Income OECD Countries

Presented by **GAIL TOMBLIN MURPHY**, Senior Analyst, Dalhousie University

The aims of this study were to: a) conduct a rapid review of recent analyses of health human resources (HHR) requirements and labour market dynamics in high-income Organization for Economic Cooperation and Development (OECD) member countries, and b) identify a methodology to simulate future HHR requirements for these countries. A systematic search of the peer-reviewed literature, targeted website searches, and multi-stage reference mining were conducted. To supplement these efforts, an international advisory group provided additional potentially relevant documents. All documents were assessed against predefined inclusion criteria and reviewed using a standardized data extraction tool. Criteria for identifying a methodology to simulate future HHR requirements for these countries were developed based on the results of the review as well as input from the advisory group. In total, 223 documents were included in the review. The HHR supply in included countries is generally expected to grow, but it is not clear whether that growth will be adequate to meet health care system objectives in the future. Several recurring themes regarding factors of importance in HHR planning were evident across the documents reviewed, such as aging populations and health workforces as well as changes in disease patterns, models of care delivery, scopes of practice and technologies in health care. However, the most common HHR planning approaches found through the review do not account for most of these factors. The HHR evidence base from high-income OECD countries, although large and growing, does not provide a clear picture of their expected future HHR situations. Most reviewed documents appeared to derive HHR policy questions based on predetermined planning methods as opposed to developing planning methods to address explicit HHR policy questions.

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F4.3 Enhancing the job stickiness of new nursing graduates: Does the employer organization participation in the Nursing Graduate Guarantee initiative make a difference?

Presented by **MOHAMAD ALAMEDDINE**, Associate Professor and Chairperson, American University of Beirut

The nursing graduate guarantee initiative (NGG) was launched by Ontario Ministry of Health and Long-Term Care in 2007 to increase full-time employment of nurse graduates in Ontario. This study aims at evaluating the effect of employers' participation in the NGG on full-time employment and workforce retention of new nursing graduates. All practicing Ontario nurses must register yearly with the College of Nurses of Ontario. Linking their annual registration records for 2007-2014 to create a longitudinal database, we generated a new variable (using postal codes) to indicate whether nurses were employed in an NGG-participating organization. New nurse graduates were defined as being less than 30 years old, and registered for the first time a year before. Year-to-year employment transition probability (stickiness) (probability of working in the same organization in years t and $t+1$) was computed. Analyses were carried out by sector of employment, nurse group (RN vs RPN) and work status. The NGG improved stickiness of new nurse graduate working on a full-time basis in hospitals. Comparing NGG-participating hospitals to NGG-non-participating hospitals, the difference in stickiness for full-time new nurses ranged from 5-28%, depending on year, for registered nurses (RNs) and 1.5-28% for registered practical nurses (RPNs). Similar findings held for part-time and casual hospital RNs and RPNs. However, this did not apply to LTC institutions, where stickiness was negatively associated with the organization's participation in the NGG initiative. This could possibly be attributed to many of these nurses subsequently moving to hospital employment, or to the community sector, which employed too few new nurse graduates to allow stickiness trends to be examined. The NGG is indeed enhancing the stickiness of new nurse graduates, both RNs and RPNs, in FT positions in Ontario hospitals. However, the NGG initiative by itself does not overcome trends discouraging employment of nurses in FT positions in the LTC and Community sectors.

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F4.4 Nurse staffing policies and patient death in acute care hospitals: A longitudinal study

Presented by **CHRISTIAN ROCHEFORT**, Assistant Professor, University of Sherbrooke

Recent cross-sectional studies have suggested that certain nurse staffing policies (e.g., using overtime hours to meet peak staffing demands or hiring less qualified staff in lieu of Registered Nurses) are associated with an increased risk of patient death in acute care hospitals. The objectives of this longitudinal study are to further examine these associations and to identify the staffing policies that are of greatest risk. A dynamic cohort of all adult medical, surgical and intensive care unit patients admitted to a Canadian university health network between 2010 and 2014 was followed during the inpatient stay to examine the association between patient exposure to selected nurse staffing policies and the occurrence of in-hospital death. Patient exposure to three nurse staffing policies was measured on every shift of the hospitalization using electronic payroll data: 1) staffing intensity, 2) overtime use and, 3) skill mix. The association between these staffing policies and the risk of death was assessed with Cox proportional hazards regression models, while adjusting for patient and nursing unit characteristics. Over the study period, a total of 5,729 (4.5%) hospitalizations resulted in the patient's death. Patients who died were older, had more comorbidities and higher severity of illness on admission as compared with patients who survived throughout their hospitalization. In multivariate analysis, after having adjusted for patient and nursing unit characteristics, every 5% reduction in skill mix per patient per shift was associated with a 5% increase in the risk of patient death (hazard ratio per shift, 1.049; 95%CI: 1.037-1.061; $p < .001$). Similarly, every 5% increase in the proportion of overtime hours per patient per shift was associated with a 3% increase in the risk of patient death (hazard ratio per shift, 1.031; 95%CI: 1.012 – 1.05; $p < .01$). We found that lower skill mix and higher use of overtime hours were both independently and significantly associated with an increased risk of in-patient death. These findings reinforce the need to match staffing policies with patients' needs for nursing care.

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F5.1 Cost-effectiveness of Argus II Retinal Prosthesis System for Advanced Retinitis Pigmentosa

Presented by **HONG ANH TU**, Health Economist, Health Quality Ontario

Retinitis pigmentosa (RP) causes progressive retinal degeneration and blindness. The Argus II retinal prosthesis system can improve visual function in blind patients with advanced RP. We conducted a cost-effectiveness of the Argus II system for advanced RP to inform policy decision-making on the public funding of this technology in Ontario. We developed a Markov decision-analytic model to determine the cost-effectiveness of the Argus II system compared with standard care in RP patients from the Canadian public payer perspective. The main outcomes of the model were costs, quality-adjusted life-year (QALY) and the incremental cost-effectiveness ratio (incremental cost per QALY gained). The model was followed over a 10-year time horizon. Clinical model parameters (effectiveness and safety) of the Argus II system were obtained from the literature. Costs (i.e., implants, surgery, maintenance and treatment) were included. We also conducted univariate and probabilistic sensitivity analyses to explore the robustness of the model's parameters. In the base-case analysis, compared with standard care, using the Argus II system would result in 1.13 QALYs gained (3.12 versus 2.08) at an additional cost of \$234,606 (CDN) (\$361,034 versus \$126,428) over 10-year time horizon. This translates into an ICER of \$207,616 per QALY gained. Univariate sensitivity analyses showed that the model was most sensitive to health-related utility of RP patients, and the cost of implantation and device. Probabilistic sensitivity analyses showed that at the willingness-to-pay of \$100,000 and \$200,000 per QALY, the probability that the Argus II would be cost-effective is 21% and 45%, respectively. The Argus II system improved the quality of life of RP patients but would not be considered cost-effective according to commonly accepted cost-effectiveness thresholds. However, in part because retinitis pigmentosa is a rare disease, other factors (patient engagement) should be considered in deciding whether the device should be publicly funded.

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F5.2 Realization of training and credentialing milestones of Canadians who study abroad and other IMG

Presented by **MARIA MATHEWS**, Professor of Health Policy/Health Care Delivery, MUN

Canadians who study medicine abroad (CSA) compete with other international medical graduates (IMG) to realize milestones needed for full licensure. Besides legal status, country of training is believed to influence milestone realization. We examined the entry-to-practice milestone realization of CSA and non-CSA IMG who attended a Western (W) and a non-Western (NW) medical schools. We used the Canadian Post-MD Education Registry's National IMG Database, the most comprehensive source of information on IMG in Canada; data were provided by physician training and credentialing organizations in Canada. We examined the rates and predictors of 1) obtaining a post-graduate position (residency/fellowship); 2) passing the Medical Council of Canada Examination Part 2 (MCCQE2); and 3) obtaining a specialty designation (CCFP, FRCPC/SC). We examined non-visa, non-US IMG (CSA and non-CSA) who had completed pre-requisites for each milestone, and who could have potentially realized the milestones between 2005 and 2011 (the period covered by the Database). Among 6,925 eligible IMG, 31% obtained a post-graduate position. Of the 1,214 admitted to post-graduate programs, 92.8% passed the MCCQE2 and 73.2% obtained a specialty designation. After controlling for other significant predictors, CSA-W (OR= 4.89; 95% CI=4.00-6.00); CSA-NW (OR=1.57; 95% CI=1.37-1.79) were more likely to obtain a post-graduate position than non-CSA-NW. There was no difference among the IMG groups in passing the MCCQE2. After controlling for other significant predictors CSA-W (OR=4.85; 95% CI= 1.21-18.64) were more likely to obtain a specialty designation than non-CSA-NW. Being a Canadian (citizen/permanent resident) and attending a Western medical school influence IMG's realization of milestones needed to enter practice in Canada. Further research is underway to examine how legal status and training site influence the selection and preparation of IMG wishing to enter practice in Canada.

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F5.3 Health utilities in socioeconomically marginalized chronic hepatitis C patients

Presented by **YASMIN SAEED**, Master's student, Leslie Dan Faculty of Pharmacy, University of Toronto

We elicited health utilities (quality of life scores) from socioeconomically marginalized chronic hepatitis C (CHC) patients. Marginalized individuals are disproportionately affected by CHC, but have previously been underrepresented in utility studies. This is an important limitation because economic evaluations often rely on utility scores. In this pilot study, we measured the health utilities of 101 chronic hepatitis C patients participating in the Toronto Community Hep C Program (TCHCP) at 3 sites in downtown Toronto. The TCHCP is a community-based interprofessional program designed to provide hepatitis C treatment, support, and education to individuals who have difficulty accessing main healthcare due to socioeconomic and other barriers. This unique program allowed us to reach this marginalized population. Patients were asked to complete the EQ-5D, HUI 2/3, VAS, and TTO utility instruments. Preliminary data have been analyzed from 75 patients to date. Most patients were male (65%) with an average age of 51. Patients primarily had Genotype 1 hepatitis C (68%) and METAVIR F0-F2 fibrosis (61%). Many patients also had a low level of education (67%), were unemployed (95%), had a history of substance dependence (89% IVDU, 63% alcohol), and/or had a history of mental illness (67%). The mean (SD) utilities were: EQ-5D 0.692 (0.235); HUI2 0.696 (0.215); HUI3 0.510 (0.353); VAS 0.617 (0.191); and TTO 0.763 (0.324). Multivariable regression showed that the variables with the greatest impact on utility ($p \leq 0.05$) were: liver cirrhosis, a history of mental illness, and low education. These factors were associated with lower utility scores. Our preliminary results suggest that utilities for marginalized CHC patients are lower than those published in previous CHC utility studies and used in economic analyses to date. Because the burden of hepatitis C is greatest in marginalized individuals, it is crucial to include this population in future economic evaluations.

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F6.1 The Evolution of Patient Engagement: Experience-based Co-design in a Process Improvement Initiative

Presented by **KOTHAI KUMANAN**, Student/Research Associate, Saint Mary's University/Nova Scotia Health Authority

Patient involvement in decision-making is an effective way to improve quality of care. This study aims to explore evidence-based co-design (EBCD) as a potential approach to deeper engagement with stakeholders and as an effective methodology to re-design processes to be increasingly patient-centred in an emergency department. A participatory action research design was utilized to identify and understand critical moments in the care process that may impact overall patient experience in an emergency department and to pilot EBDC for potential, future use throughout the organization for quality improvement initiatives. Focus group data provided patient, healthcare provider (HCP), and staff perspectives on service redesign. The study focused specifically on identifying signage issues, based on earlier work that suggested simpler, timely, visual communication delivered at key moments in a patient's journey would improve overall patient experience by helping to educate, inform and set realistic expectations for emergency room patients. Data were analyzed for emergent themes using the framework approach. Findings suggest a clear understanding of wait-times based on outlining the entire process to patients as they initially enter the ER is critical for both patients and staff. Current signage was deemed insufficient and confusing. This is of particular relevance in the context of the ED as vulnerable groups, including the elderly and frail, mental health consumers, visible minorities, those with lower education levels and the homeless, are frequent ED consumers. Disparities between staff and non-staff responses further suggests that incorporating EBDC is necessary for organizational commitment to patient engagement in decision-making. EBDC emerged as a viable organizational tool for service redesign and to further the level of patient engagement to inform quality improvement initiatives. The implications of EBDC for process improvement, service re-design, and ultimately, patient-centred care are illustrated. EBDC, an extension of the participatory trajectory that is traditionally taken in healthcare settings, positions the patient in the unique position of the holder of experiential knowledge and predicts further democratization of the healthcare system.

F6.2 Improving end-of-life care in the community using the RESPECT on-line prognostication tool

Presented by **AMY HSU**, Research Fellow, Ottawa Hospital Research Institute / **SARAH BEACH**, Research Associate, Ottawa Hospital Research Institute / **CAROL BENNETT**, Epidemiologist, Ottawa Hospital Research Institute

People in the community who are frail may receive fragmented care in many jurisdictions - especially as they near the end-of-life - due to poor prognostication. One challenge is the lack of tools to identify people across a spectrum of care needs. RESPECT (Risk Evaluation for Support: Predicting Elderly life in the Community Tool) is a prognostic tool developed using population-level data from Ontario. The study base consists of Ontarians who received a structured home care assessment using the Resident Assessment Instrument for Home Care (RAI-HC) between January 1, 2007 and January 1, 2014. The RAI-HC data will be used to assess risk factors for mortality. The derivation cohort will consist of 485,881 home care recipients (1,307,928 person-years) who received care within our study period. During this period there were 285,975 deaths. Risk prediction models will be developed using survival analysis. To assess the value of prognostication tools in community care, we held four focus groups (two patient/caregiver sessions in Ottawa and two home care practitioner sessions in Windsor-Essex County) to evaluate the preliminary online tool, potential metrics and additional communication information. Preliminary results through consultations and pilot-phase interviews with community care providers suggest that risk stratification instruments play an important role in community care planning. The on-line implementation of this prognostication algorithm with an adaptive design enables its ease of use by health care providers, the patients, as well as their caregivers. This proves to be a valued feature in knowledge translation and risk communication. As the research is on-going, further evaluation with a larger community focus group will take place in the fall of 2016. Preliminary results suggest on-line implementation of RESPECT presents a valued opportunities for research knowledge translation and patient engagement.

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F6.3 General Public Views on Uses and Users of Administrative Health Data

Presented by **P. ALISON PAPRICA**, Director, Strategic Partnerships, Institute for Clinical Evaluative Sciences / **MICHAEL SCHULL**, President & CEO Institute for Clinical Evaluative Science

High profile initiatives and reports highlight the potential benefits that could be realized by increasing access to health data, but do members of the general public share this view? The objective was to gain insight into the general public's attitudes toward users and uses of administrative health data. In fall 2015, four professionally-moderated focus groups with a total of 31 Ontario participants were conducted; two in Thunder Bay, two in Toronto. Participants were asked to review and comment on: general information about research based on linked administrative health data, a case study and models through which various users might use administrative health data. Support for research based on linked administrative health data was strongest when people agreed with the purposes for which studies were conducted. The main concerns related to the security of personal data generally (e.g., Canada Revenue Agency hacking incidents were noted) and potentially inappropriate uses of health data, particularly by the private sector (e.g., strong reservations about studies done solely or primarily with a profit motive). Participants were reassured when provided with information about the process for removing or coding identifying information from health data, and about the oversight provided by the Information and Privacy Commissioner of Ontario. However, even when fully informed of privacy and security safeguards, participants still felt that risks unavoidably increase when there are more people and organizations accessing data. Members of general public were generally supportive of research based on linked administrative health data but with conditions, particularly when the possibility of private sector research was discussed. Notably, and citing security concerns, focus group participants preferred models that had a limited number of individuals or organizations accessing data.

F6.4 A network perspective on patient engagement and its impact on health outcomes in Canada and other jurisdictions

Presented by **YI-SHENG CHAO**, Postdoctoral fellow, Université de Montréal

Engaging patients in their own care had been proposed to improve health outcomes and improve health care quality. However, it is unclear what dimensions of contexts could affect patient engagement. This study aims to test whether contextual factors or interventions may lead to better health outcomes through patient engagement. We used the Commonwealth Fund 2014 International Health Policy Survey of Older Adults that provides information from adults age 55 years and over in 11 jurisdictions with details in patient characteristics, jurisdictional health systems, patient-physician communication and other factors related to patient engagement. Patient engagement was measured as the involvement in health care. Bayesian networks consisting of nodes and arcs that represented variables of interest and the relationships between them were used. The relationships between variables were described in conditional dependencies and tested with score-based methods. The bnlearn package was used to construct networks. Among 25,530 participants, the mean age was 68.51 years and 57.40% were females. The distributions of age, sex, education, heart disease, diabetes, and end-of-life planning were significantly different across jurisdictions ($p < 0.001$). In a network model, implementation of patient engagement could be classified to specialist-care and chronic-illness pathways. In specialist care, the frequencies of being told all treatment options or getting involved in care were associated with better coordination with other care providers ($p < 0.001$). In chronic-illness care, written plans and clear instructions were associated with whether a treatment plan was designed to be manageable for chronic illness patients ($p < 0.001$) that subsequently related to the helpfulness of the treatment plan ($p < 0.001$). These treatment plans and the written lists of all prescriptions were associated with general health ($p < 0.001$). Patient engagement is linked to health care delivery and patient characteristics. The network perspective is particularly useful to 1) search for the upstream interventions or contexts that may have extensive influence over patient engagement and health outcomes and 2) set priorities to engage patients without leading to self-conflicting results.

F7.1 Were there health system cost savings associated with changing from fee-for-service to capitation payment for primary care patients in Ontario?

Presented by **RICHARD GLAZIER**, Senior Scientist, Institute for Clinical Evaluative Sciences

Blended capitation is now the most common primary care physician payment model in Ontario. In theory, physician payment under capitation should be more stable than in fee-for-service with less incentive for provider-induced office visits. Our objective was to examine health system costs associated with patients changing from fee-for-service to capitation. Within Ontario medical homes, we examined patients that changed from fee-for-service to the most common capitation model, the Family Health Organization, between 2006/07 and 2008/09 and followed them for 3 years following the year of conversion. Health system costs were measured before and after a change in payment model, with the primary outcome being geometric growth in health system costs 1-3 year after changing payment models. Health system costs included physician payments, diagnostic services, publicly-covered prescriptions, hospital admissions, emergency department visits, homecare and other institutional care. Propensity weighting was used to compare patients that changed with those that did not. Between 2006/07 and 2008/09, 685,920 patients changed from fee-for-service to capitation and 1,698,073 patients did not change. Compared with those that did not change, patients that changed were of similar age, sex and co-morbidity but lived in areas with higher income, were more likely to be rural, and were less likely to be recent immigrants. In years 1-3 after changing, propensity-weighted health system costs increased from a mean of \$2,126 to \$2,501 per person in patients that changed to capitation (geometric growth 8.46%) compared with a propensity-weighted increase from \$2,020 to \$2,342 (geometric growth 7.67%) in patients that did not change. The findings without propensity weighting were similar to those with weighting and findings were similar for mean and median costs. Ontario's health system did not save costs at the patient level following a large shift from primary care medical homes that were mainly fee-for-service to those paid under blended capitation. The timeframe was early in the adoption process and follow-up may have been too short to observe costs savings.

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F7.2 Physicians who do and do not bill incentives in British Columbia: a demise of primary care?

Presented by **KIM MCGRAIL**, Associate Professor, Centre for Health Services and Policy Research, University of British Columbia

Investments in incentive payments for chronic disease were intended to change practice in British Columbia by placing a monetary value on accepting longitudinal care for patients. Not all general / family practitioners are billing the incentives. This paper assesses predictors of participation in the incentive program. We use administrative data on fee-for-service payments to physicians, physician demographics, and patient demographics from 2003/04 – 2012/13. We limit analyses to primary care physicians who see at least 100 but no more than 6500 unique patients in a year, and excluded those who did not see any patients eligible for the incentives, and those who provided non-fee-for-service care. Geographic region of practice and five variables that help identify style of practice were also included. We used logistic and linear regression to identify associations with likelihood of billing incentives. Thirty percent of primary care physicians do not bill any incentives. The number of eligible patients for whom an incentive was billed, among those who did bill, ranged from almost none to almost all. Both the likelihood and amount of billing incentives is related to age (highest for physicians between 40 and 60 years old). Physicians in the North are more likely to bill incentives, but there are no differences by region in amount given some billing. Males and females are equally likely to bill, but given some billing males bill more. By far the greatest predictor, however, is practice style, with "low responsibility" physicians not likely to bill incentives. There is growing evidence of a concerning bifurcation in practice style among primary care physicians in British Columbia. Previous analyses show that about one third of those physicians are operating walk-in style practices, and this analysis confirms those practices are apparently not accepting responsibility for longitudinal care.

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F7.3 Canada and The Commonwealth Fund 2015 International Health Policy Survey of Primary Care Physicians

Presented by **ALISON YTSMA**, Senior Analyst, Canadian Institute for Health Information

The objectives of this report are to: Tell the Canadian story on the experience of primary care doctors and their perception of the health care system. Highlight how their experiences and perceptions vary across Canadian provinces and relative to other countries. The Commonwealth Fund 2015 International Health Policy Survey (IHP) of Primary Care Physicians reflects physicians experiences from a random sample of primary care physicians in 10 countries: Australia, Canada, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States. A total of 2,284 respondents were interviewed in Canada through mail and online surveys from March to June 2015. The data were weighted by age and gender, and subsequently by primary care physician distribution across Canada. Significance testing was done to compare Canadian and provincial results against the average of 10 countries. Canadian primary care doctors reported that timely access to care continues to pose significant challenges for patients. When asked about coordination of care with other health or social services providers, results are mixed in Canada and show room for improvement overall. Canadian primary care doctors are less likely than their peers in other countries to use information technology to manage patient care, and to measure and monitor the performance of their clinics. In general, Canadian results that can be compared over time seem to be improving. Further analysis suggests that doctors practicing in new models of primary care have better outcomes in measures of access and coordination of care, as well as the use of information technology. The 2015 IHP survey results suggest that there is room for improvement in Canada at the national and the provincial levels in access to care, coordination of care, information technology usage, and performance measurement. To improve, we can learn from policies and programs shown to be effective in other jurisdictions.

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F7.4 Implementation Issues of a Case Management Program for Frequent Users with Chronic Diseases in Primary Care

Presented by **MAUD-CHRISTINE CHOUINARD**, Professor, Université du Québec à Chicoutimi

Case management has emerged as an approach that improves the condition of patients with chronic diseases who are frequent users of health care services. Our study aimed to examine implementation issues of a case management intervention by primary care nurses for this population, based on the perspectives of various stakeholders. V1SAGES is a case management demonstration project that was implemented in four Family Medicine Groups of the Saguenay-Lac-Saint-Jean region (Quebec) and offered to 247 frequent users. The intervention, led by case management nurses, included: evaluation of patient needs and resources, creating and monitoring an individualized services plan, coordination of services between providers and self-management support. To examine implementation issues, a descriptive qualitative approach was conducted. Data were collected from various stakeholders through in-depth interviews (25 patients, 6 case management nurses, 9 managers) and focus groups (8 family members and 21 family physicians) and analyzed using thematic analysis. The perception of stakeholders was overall positive regarding the case management intervention in primary care, but important issues regarding its implementation were reported. Before implementation, special consideration should be paid to the presentation of the intervention to encourage more significant involvement of stakeholders. Patient selection (case finding) is an important issue that can influence the effects of the intervention. Family physicians and case management nurses should work together to target those who actually need it. Training and action learning of nurses are required to improve their skills and practice, to develop interactions between them for mutual support and to enhance their leadership into multidisciplinary teams. Our results show that effective communication can help to promote collaboration between the providers who offered services. The implementation of case management in primary care requires efficient case finding. Case management nurses need specific skills to perform their role that can be developed by the implementation of support activities. Effective communication among stakeholders helps to increase their involvement and to improve the integration of services.

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F8.1 Developing a Measure of 'Public Health Sensitive Conditions' for Child Health

Presented by **ELAINE BURLAND**, Research Manager, Manitoba Centre for Health Policy

Analogous to 'Ambulatory Care Sensitive Conditions', this project's objective is to develop a measure that quantifies the success of uppublic health (PH) and social policies/programs related to child health. It will include conditions, outcomes, practices and/or services that could be positively affected given successful PH efforts (e.g., vaccine-preventable diseases). The Delphi Method will be used to gather feedback from national/international research and program/policy experts (e.g., provincial medical officers of health, public health practitioners) regarding which indicators should remain on a final list for validity testing. Consensus will be sought over multiple rounds of feedback. Before approaching potential participants, this method and a preliminary list of indicators will be pilot tested with several local public health experts, and revised according to feedback received. Those indicators reaching consensus will be maintained on a final list. Phase 2 will involve testing the validity of this final list of indicators using administrative data. In an effort to create a list of provincially comparable 'public health sensitive' measures, an initial list of nationally measurable indicators was compiled (n=129) from various sources of administrative data (e.g., CIHI, CCHS). From this list, indicators that were (i) applicable to children (0-19 years) and (ii) measurable at the provincial level or lower were retained for further analysis (n=52). The final list of indicators must be capable of reflecting variations in geography, socioeconomic status, gender, and/or time. Examples of indicators retained on the list to be pilot tested include bicycle helmet use, smoking, alcohol use, physical activity, sexual behaviour and influenza immunization. Indicators not meeting the age and/or measurement-level criteria, including mammography, coronary artery bypass grafts, and hip replacement, were removed from the list. This work is part of the 'PATHS Equity for Children' program of research being conducted at the Manitoba Centre for Health Policy. It will lead to research on validating this measure to determine its suitability for providing an indication of how well specific aspects of upPH efforts are working.

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F8.2 Hip fracture mortality by teaching status of treating hospital

Presented by **KATIE SHEEHAN**, Postdoctoral Fellow, University of British Columbia

There is inconsistent evidence for an association between treatment setting and hospital mortality after hip fracture. This study compares the risk of hospital death between patients treated in teaching and community hospitals, controlling for potential confounders and length of stay. Analysis of 167,816 hip fracture patients aged 65 years and older entered into Canadian acute hospital discharge abstracts from 2004-2012. Cumulative incidence of hospital death by in-patient day, accounting for discharge as a competing event for teaching and community hospitals. The cumulative incidence of hospital death at in-patient day 30 was lowest for teaching hospital admissions (7.3%) and highest for small community hospital admissions (11.5%). The adjusted odds of hospital death were 12% (95% CI 1.06-1.19), 25% (95% CI 1.17-1.34), and 64% (95% CI 1.50-1.79) higher for large, medium, and small community versus teaching hospital admissions. The adjusted odds of nonoperative death were 1.6 (95% CI 1.42-1.86), and 3.4 times (95% CI 2.96-3.94) higher for medium and small community versus teaching hospital admissions. The adjusted odds of postoperative death were 14% (95% CI 1.07-1.22) and 20% (95% CI 1.10-1.31) higher at large and medium community versus teaching hospitals. The adjusted odds of postoperative death were largest at small community hospitals (OR=1.25, 95% CI 0.92-1.70). A higher proportion of hip fracture patients die at non-teaching compared to teaching hospitals accounting for length of stay. Higher mortality at small community hospitals may reflect disparities in access to resources and delay to treatment.

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F8.3 WatLX©: A system-wide patient experience measure for rehabilitation

Presented by **JOSEPHINE MCMURRAY**, Assistant Professor, Wilfrid Laurier University

Continuity of care and positive experiences with providers can impact adherence and outcomes for rehabilitative care patients. Rehabilitation often involves many providers and settings, making system-level assessment of care quality difficult. We report psychometric testing of a patient experience measure for rehabilitation that can be used across multiple care settings. Through a systematic review, we created an inventory of 508 psychometrically tested rehabilitative care experience questions and identified six themes that represent important rehabilitation patient experience constructs (McMurray et al., 2015a, 2015b). The resulting WatLX© questionnaire is a parsimonious set of questions from these themes. It was tested for content and face validity through a focus group interview with patients and caregivers (n=5) and consultations with healthcare decision makers (n=2) and providers representing diverse roles across the rehabilitative care system (n=137). Cognitive interviewing (Willis, 2015) tested usability. Feasibility and reliability were tested with 70 clients in two outpatient rehabilitation clinics. The WatLX© survey contains ten questions, demographic information tick boxes, and an open-ended question. Cognitive interviewing with nine patients and three iterations of the WatLX© refined survey items and improved usability. The six theme areas of patient engagement, ecosystem, pain and function, group identity, provider-patient relations, and open-ended response, are captured through the final items. The survey administration and data collection protocol minimally impacted workflow. Test-retest reliability and internal consistency were acceptable over the two month course of the study. Measuring patients' perceptions of system integration and patient-centred care demands the use of psychometrically sound, cross-continuum measurement tools such as WatLX©. A provincial proof of concept study, in progress, will allow for comparison of WatLX© items by grouping (age, gender, and care setting).

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F8.4 Variations in post-acute care pathways for hip fracture patients

Presented by **KRISTEN PITZUL**, PhD Candidate, University of Toronto

Fragility hip fractures result in extensive morbidity, mortality, and health care use worldwide. To optimize care delivery, determining which patients use which post-acute resources is imperative. This study describes the post-acute care pathways for hip fracture patients within a 1-year episode of care in Ontario, Canada. This is a retrospective cohort study of community-dwelling adults aged 66+ who were admitted to acute care for hip fracture between 2008 and 2013. Post-acute care pathways were characterized by linking patients to various destination databases using a unique identifier. Patients were defined as being discharged to the community if they were alive but had no admission dates in any of the post-acute destination databases. Patient characteristics and process of care measures were described for each Ontario health region. Statistical differences (P<0.05) were detected using analysis of variance for continuous variables and chi-square analyses for categorical variables. A total of 40,944 hip fracture patients were included in the study with a median age of 81 years, 70% females, and 70% of patients having a Charlson score of 0 or 1. Of the 38,215 patients discharged from hospital alive, most were discharged to short-term rehabilitation (36.7%), followed by home care (26.7%), long-term rehabilitation (15.2%), community without support (13.1%), and long term care (9.0%). There were significant differences in the proportion of patients discharged to short-term rehabilitation between health regions (22%-62%), yet there were no significant differences between the demographic and clinical characteristics of patients between health regions (SD<0.2). Results suggest there is either an inappropriate resource allocation or inequity with regards to which hip fracture patients use which post-acute resources. Inappropriate resource allocation and inequitable delivery of care are concerns for any health system: hip# utilization in the post-acute period must be further researched.

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G1.1 AGREE-HS: A new knowledge translation tool to direct the development, reporting, and appraisal of health systems guidance

Presented by **KAREN SPITHOFF**, Research Program Manager, Department of Oncology, Faculty of Health Sciences, McMaster University

Health Systems Guidance (HSG) assists in addressing a health system challenge, but there is a dearth of high quality HSG on policies and interventions that impact HS performance/efficiency. Our goal was to develop a HSG appraisal tool that will be used to direct the development, reporting, and appraisal of HSG. This study consisted of three sequential stages. In Stage 1, we conducted a critical interpretive synthesis to generate a candidate list of concepts for the tool. In Stage 2, we conducted a survey across the six World Health Organization regions to evaluate the importance of the candidate concepts, assess the appropriateness of their descriptions, and identify any missing components, in order to generate a beta version of the HSG tool. In Stage 3, we conducted another international survey to test the usability of the beta version of the HSG tool to determine its feasibility of application and ease of understanding. For stage 1, we identified 30 concepts that are relevant to the appraisal of HSG and clustered them into three meaningful domains: process principles, content and context principles. For stage 2, the findings from the concept evaluation survey were universally favourable, and this led to the creation of a Beta version of the tool (AGREE-HS). For stage 3, the usability testing survey, a favorable consensus was reached with participants agreeing that the AGREE-HS items were easy to understand and easy to apply. There was an overall agreement for the importance of AGREE-HS as a tool to systematically direct the development, appraisal and reporting of HSG. Version 1 of the AGREE-HS tool was developed, complete with 32 items, 4 domains and a 5-point response scale. Appraisal of Guidelines for Research and Evaluation for Health Systems (AGREE-HS) defines expectations of HSG and facilitates informed decisions among policymakers on HS delivery, financial, and governance arrangements and it supports the production, evaluation and reporting of high quality HSG for the purposes of strengthening health systems locally and internationally.

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G1.2 "It's very challenging for everyone": Working with interprofessional teams to enhance their capacity to care for hospitalized older adults with impaired cognition

Presented by **ROBIN URQUHART**, Assistant Professor, Dalhousie University

Managing impaired cognition represents a challenging area of care on acute care inpatient units. The aim of this study was to evaluate interprofessional team members' views on whether and how an educational intervention enhances their care of hospitalized older adults with impaired cognition. This study took a participatory approach to develop an educational intervention for interprofessional teams in acute care. It was conducted on two acute care units and involved three phases: four pre-intervention focus groups to inform intervention design; implementation of the intervention; and three post-intervention focus groups to evaluate the intervention. The intervention was based on participants' learning needs, incorporated principles from experiential learning and adult learning theory, and involved in-service training, a resource manual, and point-of-care tools to facilitate patient care and management. The Framework Method was used to analyze the focus group data. Thirty-four interprofessional care team members participated in the pre-intervention focus groups; 18 in the intervention; and 13 in the post-intervention focus groups. Data from the pre-intervention focus groups were organized into four main categories: the existence of many knowledge gaps related to caring for older adults with dementia and responsive behaviors, delirium, and depression; a reliance on outside (off-unit) expertise; limited involvement in care planning; and a preference for in-person, skills-based training. Data from the post-intervention focus groups were organized into three main categories: addressing learning needs and preferences; awareness and use of best practices; and many factors affect knowledge application. The data, though self-reported, suggested the intervention resulted in improvements in knowledge and the ability to apply this knowledge into patient care. That such a low-tech intervention resulted in perceived changes in practice is important to consider in an environment wherein resources are constrained and more comprehensive interventions have faltered because of high resource requirements. Future research should assess objective measures of practice change and whether they are sustained over time.

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G1.3 Iterative design of patient mailouts post-myocardial infarction

Presented by **HOLLY WITTEMAN**, Assistant Professor, Université Laval

Taking all recommended medication and attending cardiac rehabilitation significantly reduces mortality in the year following a heart attack. However, many people stop taking medication or do not complete rehab. We aimed to develop a theory-informed intervention to help address these issues in a scalable, feasible way. To develop our materials, our interdisciplinary research team partnered with a design firm including a patient representative to undertake an iterative, user-centred design process. User-centred design requires (1) considering users' needs, goals, strengths, limitations, context, and intuitive processes, (2) designing prototypes adapted to users accordingly, (3) observing how potential users respond to the prototype, and (4) using those data to refine the design. We conducted user research to develop personas, developed a preliminary prototype, and conducted two design cycles, testing materials via think-aloud and interviews with a total of 10 patients who had experienced a heart attack and 1 caregiver. Patients' responses prompted significant changes to the materials. For example, responses to early prototypes revealed that some images were not relatable for patients due to a lack of match in perceived age, suggesting that patients' acceptance of the intervention may depend on how well their self-perception is represented within it. Testing also presented some tension that required compromises. For example, many patients indicated that they would like to receive the materials sooner than is feasible. Another example of tension occurred around patients' responses to embedded action-planning exercises. Many patients responded poorly to these despite their strong theoretical grounding and empirical evidence. To address patients' lack of interest in the exercises, we changed the way we introduced them in the booklets. Theory-informed interventions must be operationalized in a way that fits with user needs. Tension arising between users' wants and needs and health care system goals and constraints must be identified and addressed if possible. A cluster randomized controlled trial of the final intervention is currently underway.

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G1.4 Do I become a living organ donor for my sick relative? Understanding drivers of decision making in adult-to-adult living liver donation

Presented by **JUSTYNA BARTOSZKO**, Graduate Student, Institute of Health Policy, Management and Evaluation / **ALEXANDRA SHINGINA**, Gastroenterology Fellow, University of Toronto

Liver transplantation is the only life-saving option for patients with end stage liver disease. Due to the scarcity of deceased donors the option of living donation has emerged. The donor decision making process has not been well characterized, and it is unclear how health teams can best support potential donors. Decision analysis was used to create a model in the form of a decision tree with a one year time horizon. A representative donor based on the most commonly reported characteristics in the literature was used as the base case. Alternate scenarios to reflect the diversity in potential donors were compared. Two strategies were evaluated: Agreeing to evaluation for donation after being approached by the recipient, and refusing to be evaluated. The outcomes was donor quality-adjusted life years (QALY). For close relatives with a bond to the recipient, the preferred strategy was undergoing evaluation for donation, as it had the highest one-year donor QALY (0.95) compared to refusing evaluation (0.93). If the donor is a caregiver for a recipient with deteriorating health the QALY difference is strongly in favour of donation. These results were sensitive to the donor disutility of undergoing major surgery (economic losses, personal inconvenience, pain) and the impact of recipient death on the donor. Under a range of assumptions within their clinically plausible ranges, including donor mortality from major surgery, the preferred strategy remained donation. All probabilities in the model were varied simultaneously using a Monte Carlo Simulation with 10,000 recalculations. The preferred strategy remained donation for the base case donor. In adult-to-adult live liver donation, the value the donor places on preserving the recipient's life is an important driving factor, and exploring the donor-recipient relationship can help ambivalent donors. Optimizing arrangements for post-operative convalescence is important for offsetting personal costs associated with donation.

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G2.1 Aboriginal children's acute care hospitalization in Canada, 2006 to 2008Presented by **ANNE GUEVREMONT**, Senior Research Analyst, Statistics Canada

This study provides national-level estimates of acute care hospital service use and the leading most responsible diagnoses of acute-care hospitalizations for Aboriginal (First Nations living on and off reserve, Métis, Inuit living in Inuit Nunangat) and non-Aboriginal children and youth aged 0 to 9 and 10 to 19. The data source for this study was the 2006 Census (long-form) linked to the Discharge Abstract Database (DAD) from 2006/07 through 2008/09 for all Canadian jurisdictions excluding Quebec. Age-standardized hospitalization rates (ASHRs) per 100,000 population and 95% confidence intervals were calculated for Canada (excluding Quebec), by each Aboriginal identity group including the non-Aboriginal population. To reduce the variation that can occur with small numbers, hospital discharge records from all three fiscal years (2006/07 through 2008/09) that linked to the 2006 Census long-form respondents were combined to produce estimates of acute care hospitalizations. ASHRs were consistently higher among Aboriginal children and youth relative to their non-Aboriginal counterparts. For 0 to 9 year olds, hospitalization rates were about 1.5 times higher, and for 10 to 19 year olds, rates were 2.0 to 3.8 times higher. For 0 to 9 year olds, the leading causes of hospitalization were conditions related to "diseases of the respiratory system", which was consistent for Aboriginal and non-Aboriginal children. For 10 to 19 year olds, the leading cause of hospitalization was conditions related to "pregnancy, childbirth, and the puerperium." This was the leading cause for all Aboriginal groups, whereas the leading cause for non-Aboriginal 10 to 19 year olds was conditions related to "injuries, poisoning and other consequences of external causes." Results from the linkage of the 2006 Census to hospital administrative data provide information regarding the degree to which hospitalization frequency varies for children and youth of Aboriginal identity relative to non-Aboriginal youth.

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G2.2 Recent progress in the prevalence of overweight and obesity in Canadian childrenPresented by **CELIA RODD**, Associate Professor, University of Manitoba

Previous studies demonstrated an increase in the prevalence of overweight or obesity in Canadian children from 23.3% to 34.7% (1978–2004). This study sought to assess subsequent temporal trends, by applying current Canadian definitions of overweight and obesity based on WHO body mass index thresholds and recently validated waist-circumference norms. We examined directly measured height and weight data from the Canadian Community Health Survey (Cycle 2.2, 2004-2005) and the Canadian Health Measures Survey (2009-2013). We calculated Z-scores for BMI, height, and weight based on the 2014 WHO Growth Charts for Canada, including their new extension of weight-for-age beyond 10y. For waist circumference and waist-height ratios, we used new charts from the NHANES III reference population (1988-1994). Data were available for 14,014 children aged 3-19y from 2004-2013. Using current WHO definitions based on BMI, we observed a decline in the proportion 'overweight or obese' from 30.7% (29.7–31.6) to 27.0% (25.3-28.7, $p<0.001$) and a stabilizations in obesity rates at ~13%. These trends persisted after regression adjustment for age, gender, and race-ethnicity. Although declining, median Z-scores for BMI, weight, and height were positive and higher than the WHO reference. Waist-circumference and waist-height ratio Z-scores were negative, indicating less central adiposity than American children in historic or contemporary NHANES cohorts. Further subgroup analyses demonstrated marked differences in rates of decline based on household income, education levels, family structure, and geographic region. After a period of dramatic growth, BMI-Z-scores and the prevalence of overweight or obesity appear to be declining in Canadian children. Progress appears to be confined to children from families with higher socioeconomic status, which raises important issues as to the most appropriate strategies for targeting at risk populations.

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G2.3 Infant Health Outcomes and economic fluctuations: Evidence for CanadaPresented by **SANDRA MILICIC**, PhD Candidate, McMaster University

We provide Canadian estimates for the association of infant birth and health outcomes with economic fluctuations. More specifically, we look at variation in unemployment rates at the provincial level to understand how local labour market changes affect the crude birth rate, measures of weight, and measures of infant mortality. We use Canadian Vital Statistics data over the 1976 to 2011 period to investigate how economic conditions are associated with infant mortality, neonatal mortality, postneonatal mortality, crude birth rate, birthweight, percentage of babies born weighing less than 2500 grams and percentage of babies born weighing less than 1500 grams. A model with province and year fixed effects, clustered at provincial level is estimated. This model differences out time invariant unobserved heterogeneity over the period studied and provides unbiased coefficient estimates. For example, some geographic areas may experience both poor health and high unemployment but a causal relationship does not exist. We find evidence of significant relationship between economic fluctuations and infant health. This finding is in contrast to the current evidence for Canada that finds no such relationship. More specifically, we find that the fraction of babies born weighing less than 1500 grams increases when economic conditions are worse. The fraction of babies born weighing less than 2500 grams also increases and so too do the measures of infant mortality, when economic conditions worsen, but we note the importance in the pattern of estimates since the relationships are not statistically significant. These results are different from the evidence established using data from the U.S. which finds that the infant health outcomes improve when the economy worsens. Since infant health outcomes worsen as economic conditions worsen, the broad conclusion that if improving infant health outcomes is a policy objective because of the negative effects associated with worse infant health outcomes, policymakers can improve decisions made relating to improving infant health and maternal health, especially during fiscal restraint.

G2.4 Predictors of using the emergency department as a first point of contact for a mental health problem in Ontario children and youthPresented by **PETER GILL**, Paediatric Resident, The Hospital for Sick Children, Department of Paediatrics, University of Toronto

To describe children and youth who present to the Emergency Department (ED) as a first contact for mental health related problems and to determine predictors of use to better contextualize the use of first contact as a health system performance measure. Population-based cohort study using a number of pre-existing, linked, and encoded health administrative and demographic datasets available at the Institute for Clinical Evaluative Sciences. We included all children and youth ages 10 to 24 years in Ontario, Canada who had an unscheduled incident ED visit for a mental health condition from April 1, 2010 to March 31, 2014. We compared characteristics of children and youth by prior ambulatory mental healthcare use in the two years preceding the incident ED visit. Lastly, we determined predictors of first contact ED visit using a multivariable regression model. Among 116,928 children and youth who had a first contact ED visit between 2010 and 2014, over half (52.8%) had no prior outpatient care. Most visits were due to substance-related disorder (27.4%), anxiety (20.9%), depression (17.2%) and acute stress (9.9%) but serious illnesses like schizophrenia (3.2%) were important. Two-thirds of first presenters had not used the ED for any reason in the preceding year; 14.1% were admitted to hospital at first presentation. Younger children, females, urban residents, non-immigrants, and those with a usual provider of primary care were more likely to receive outpatient care prior to first contact ED visit. Those without prior outpatient care were more likely to visit the ED at night but were less likely to be admitted to hospital. Over half of children and youth who present to the ED with a mental health condition have not previously sought care in an outpatient setting. Identifying factors associated with first contact for a mental health diagnosis will help to develop strategies for improving outpatient access to care and early intervention.

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G3.1 Small area variation in rates of high-cost health care use in Nova Scotia: Why are some areas more costly than others?

Presented by **GEORGE KEPHART**, Professor, Community Health and Epidemiology, Dalhousie University

To determine (1) the extent of small area rate variation (SARV) in high-cost health care use among 78 areas in Nova Scotia, and (2) the extent to which SARV in high-cost use can be explained by differences in demographic composition and chronic disease patterns. We used administrative data on residents age 30 years and over with >365 days exposure between 2010 and 2013. High-cost users were persons in the top 5% of combined annualized inpatient and physician expenditures. We estimated rates of high-cost use for postal code "forward sortation areas" using random effects logistic regression on person-level data. Area rates were sequentially adjusted for demographic variables (age, sex, and end-of-life), and chronic disease (types and number). We classified areas into types according to the extent to which demographics or disease patterns explained deviations of their rates from the provincial mean. The top 5% of users accounted for 2/3 of total costs. There was significant SARV in high-cost use across areas. Of 78 areas, 51 of 78 areas were significantly different (26 higher and 25 lower) than the provincial mean, with rates ranging from a low of 2.5% (half the provincial mean) to a high of 7.4% (50% higher than the provincial mean). Adjustment resulted in significant change in the pattern of SARV, but significant SARV remained after adjustment for demographic and disease patterns. The 51 areas were classified according to whether adjusting for demographics variables or chronic disease patterns explained their rate deviations (higher or lower) from the provincial average. The resulting typology suggests where and how efforts to reduce high-cost use can be targeted. This projects lays groundwork for a learning health care system. Estimating SARV in high-cost use, along with the estimated contribution of demographics, end-of-life, disease patterns and other determinants to area rates may help target interventions to improve patient and system outcomes. Changes in estimates can measure the effectiveness of interventions.

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G3.2 Improving access and reducing costs of care for overactive bladder through a multidisciplinary delivery model

Presented by **TRAFFORD CRUMP**, Adjunct Lecturer, University of Calgary

The overall objectives of this study are to compare the effect of a multidisciplinary delivery model on the 1) volume of care for OAB, 2) direct costs to the health care system, and 3) number of cystoscopies. Two cohorts of OAB patients were defined for this study. The first represents all OAB patients treated by two urologists in the year prior to establishing the new clinic (2010). The second represents OAB patients seen by the new clinic in the year after it was established (2012). Health records for both cohorts were linked to administrative data sources. Changes in the number patients treated and types of visits were measured. Costs were measured by the proportional number of visits to ambulatory clinics, emergency rooms, and discharges from hospital. The proportional number of patients treated with cystoscopies was also measured. There were a total of 173 visits in 2010 and 1,495 visits in 2012. The average number of visits per patient increased 50% between 2010 and 2012, from 1.15 to 1.73. The proportional distribution of patients accessing ambulatory care services significantly (Pearson chi-square=160.3, p<0.0001) decreased from 81% to 28% between 2010 and 2012, respectively. There was also a significant (Pearson chi-square=145.5, p<0.0001) reduction in the proportional use of bladder-related emergency care, from 37% to 6% in 2010 and 2012, respectively. Significantly (Pearson chi-square=6.0, p=0.014) fewer patients were also discharged from hospital, dropping from 6% in 2010 to 2% in 2012. The proportional number of cystoscopies fell from 53% in 2010 to 21% in 2012. Developing a multidisciplinary care team for OAB which includes family medicine doctors as front line MDs improves access to care, reduces healthcare costs, and reduces need for costly procedures such as cystoscopy.

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G3.3 Multimorbidity in Canada: Examining Prevalence and Patterns of Multiple Chronic Diseases Using a National Electronic Medical Record Database

Presented by **KATHRYN NICHOLSON**, Doctoral Candidate, Western University

Multimorbidity (coexistence of multiple chronic diseases), is a burden for patients, primary health care (PHC) providers and policy-makers alike. Enhanced understanding of multimorbidity in Canada is needed. Objectives: 1) Determine prevalence and characteristics of PHC patients with multimorbidity; 2) Explore patterns of multimorbidity; 3) Examine progression of multimorbidity over time. Data were derived from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) electronic medical record (EMR) database, which collects longitudinal, de-identified clinical data from PHC practices across Canada. Patients who had > 1 in-office encounter recorded in their EMR and who were > 18 years at first encounter date were included (N=367,743). Chronic disease diagnoses were identified using the International Classification of Diseases, 9th Revision (ICD-9) and a list of 20 chronic disease categories was used to identify patients with multimorbidity. Computational analyses were conducted using a customized JAVA program, while statistical analyses were conducted using Stata 13.1 software. Overall, 42.6% of adult PHC patients were living with ≥ 2 chronic diseases or multimorbidity. These patients had an average age of 55.5 years (SD: 16.9) and majority were female (59.1%) and living in an urban setting (73.8%). The most frequently occurring combinations of chronic diseases were: 1) anxiety/depression and musculoskeletal problem; 2) hypertension and musculoskeletal problem; 3) hypertension and hyperlipidemia; and 4) hypertension and diabetes. The most prevalent chronic diseases were also explored among patient age groups, and demonstrate changing burden of disease among older patients with multimorbidity. Preliminary survival analyses have shown a decrease in time elapsing between subsequent chronic diseases, from an average of 698.7 days between first and second diagnoses, to an average of 381.2 days between fourth and fifth diagnoses. This research explores the prevalence and clinical profiles of adult PHC patients with multimorbidity in Canada. These findings will contribute the Canadian context to the international multimorbidity literature. This information can also be used strategically to inform more effective health care policy, clinical practice guideline redevelopment and health care delivery.

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G3.4 Patients' and healthcare providers' experiences with community-based wound care services in Toronto

Presented by **VALERIA RAC**, Associate Program Director & Director, Clinical Research Division, THETA Collaborative; Assistant Professor, University of Toronto

Chronic wounds pose a significant socio-economic burden on both the individuals and the healthcare system. We sought to explore patients' experiences with the community-based wound care services in Toronto as well as perspectives of the healthcare providers involved in the provision of the chronic wound care. This qualitative study was nested within a randomized controlled trial of community-based wound care implemented in Toronto in 2013. Patients were randomized to receive either usual care (Control) or systematic referral to multidisciplinary wound care teams (MDWCT) with comprehensive primary care (Intervention). The main research question was focused on the elements of the treatment that patients or healthcare providers perceived as helpful/not helpful with the wound symptoms, quality of life, wound management and healing. We conducted semi-structured interviews with 16 patients and 12 clinicians sampled by maximal representation. The data was analyzed inductively using the thematic framework method. Patients expressed great appreciation for community-based wound care services. Caring attitude and competence of nurses, convenient locations of walk-in clinics, chiropody service and health education were the most helpful aspects of service. Patients reported following aspects as not helpful: family physicians lacked wound care knowledge, best-practice treatment not covered by OHIP, lack of service coordination, lack of psychosocial support, heavy nursing workload and long waiting time at MDWCT clinics. Healthcare providers emphasized the importance of the caring attitude, patient education, expert wound care orders from MDWCTs, job satisfaction and wound care research. They identified challenges associated with inappropriate treatment orders from referral doctors, best-practice therapies not being covered by OHIP, long waiting time for referral to specialists, non-adherence to treatment and lack of training opportunities. The existing wound care provided by Toronto Central Community Care Access Centre is patient-centred and highly valued by patients. Recommendations for building capacity and closing gaps include: OHIP coverage for the best-practice therapies, expedite access to specialists, continuous training opportunities for nurses, psychosocial support and patient education to enhance adherence.

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G4.1 CompassRx, 2014/15 - A PMPRB Annual Public Drug Plan Expenditure ReportPresented by **ELENA LUNGU**, NPDUIS, Patented Medicine Prices Review Board

After a few years of low or negative growth, prescription drug expenditures rebounded in 2014/15 for many public drug plans. The 3rd edition of the CompassRx highlights important cost pressures, measures their impact on expenditures, and delves into factors behind trends in costs, pricing and utilization in public drug plans. The analysis uses claims-level pharmaceutical data extracted from the Canadian Institute for Health Information (CIHI) NPDUIS database for the period from fiscal years 2010/11 to 2014/15. A complex cost-driver model disaggregates various factors that contribute to drug and dispensing fee costs: drug-mix, drug prices, dispensing fees, volume and demographic effects. An analytical framework compares effects that reduce or 'pull-down' drug costs such as reductions in generic prices, with effects that increase or 'push' expenditures upward, such as the introduction of high-cost drugs. One of the most pronounced 'push' effects was drug mix, which captured the recent growth of newer, more expensive drugs such as biologics. Biologics have experienced double-digit growth rates in recent years, and now account for one-quarter of drug cost in public drug plans. Although reductions in generic drug prices and the 'patent cliff' - with its widespread generic entry - had substantial 'pull-down' effects in the past, these effects are no longer able to offset the drug-mix effect, resulting in positive net growth in drug expenditures in several public plans. Dispensing fee expenditures have risen markedly in recent years, capturing an increasing share of total prescription cost. An important driver of fee expenditure is prescription frequency, and this issue will be highlighted. A greater understanding of the forces driving expenditures in Canadian public drug plans will inform policy and stakeholder discussions related to the ability to anticipate, manage and respond to evolving cost pressures and thus promote informed policy decisions.

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G4.2 Policy and Practice: Evaluating Good Governance Policies in Brazil's Pharmaceutical SectorPresented by **MARTHA GABRIELA MARTINEZ**, Student, University of Toronto

To examine how good governance policy development and implementation can be improved to minimize corruption and increase medicine and healthcare access within the context of Brazil. We conducted a desk review of legislation and policies in Brazil within the last 10 years designed to ensure transparency, accountability and civil society inclusiveness in the selection, procurement and distribution of medicines. The desk review was guided by the World Health Organization's Good Governance in Medicines (GGM) Transparency Assessment Instrument. 30 key informant interviews were conducted with government officials, pharmacists, and civil society groups to gain insight into whether and how these policies influence their everyday practices. Data was analyzed using Braun & Clarke's qualitative thematic approach. Preliminary results illuminate that Brazil has robust public policies to ensure civil society inclusiveness in the development of health policies, as well as mechanisms for the actualization of accountability and transparency in its pharmaceutical system. Despite this, cases of corruption and inefficiencies are evident in the procurement and selection of medicines. We also have found a lack of government support for including civil society in the formulation and monitoring of health policies despite the presence of policies that ensure their inclusion. This is a result of good governance policies not being followed in practice due to budget and time constraints as well as lack of government support to ensure they are correctly implemented and followed. We preliminarily conclude that good governance policies exist in Brazil's pharmaceutical system, but they are not effectively implemented and practiced due to budget constraints and a lack of government support. As a result, the pharmaceutical system is left vulnerable to corruption and inefficiencies, impacting medicine availability and healthcare costs.

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G4.3 An evaluation of conflict of interest policies adopted by Canadian professional medical associations pertaining to accredited continuing medical educationPresented by **ADRIENNE SHNIER**, Ph.D. candidate, York University

Professional medical associations (PMAs) play a crucial role in providing accredited continuing medical education (CME) to physicians. These CME initiatives may be questioned because PMAs receive funding from the pharmaceutical industry. We conduct a policy analysis to examine whether Canadian PMAs permit industry funding and involvement in CME. Our study examines publicly-available policies on CME and industry interactions, adopted by each Canadian PMA by December-2015. We use an original scoring tool that was reviewed by an expert panel, pilot tested, and revised for clarity and consistency between scores. The tool comprises 30 categories, two questions, and three enforcement measures. Each of the 30 categories is scored on a 4-point scale, ranging from 0=no policy to 3=strong/restrictive policy. The two questions inquire about PMAs' funding generally and specifically CME funding from industry. Enforcement measures interrogate whether a party is responsible for policy oversight, sanctions for, and investigations into, noncompliance. We assessed 227 policies adopted by 59 Canadian PMAs (range, 0 to 13 policies). Preliminary results indicate that PMAs received summative scores that range from 0% to 43.3%. Twenty-seven PMAs received an overall score of 0%, indicating that these associations had either no policies pertaining to CME or that the policies that they had adopted did not address the items in the scoring tool. The highest mean scores were achieved in the areas of: review process for accredited CME activities (mean, 1.01/3), review of external funding for accredited CME (mean, 1.00/3), and restriction of educational funds (mean, 1.00/3). The lowest average scores were achieved for industry-sponsored awards, scholarships, and fellowships (mean, 0.00/3) and accreditation of CME with industry funding (mean, 0.03/3). Preliminary results suggest that PMAs' policies on industry involvement in CME are generally weak or non-existent; therefore, the accredited CME that is provided to Canadian physicians may be viewed as biased. We encourage all Canadian PMAs to strengthen these policies to avoid the potential for commercial influence in CME.

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G4.4 Geographic Variations in Prescription Opioid Dispensations and Deaths Among Women and Men in British Columbia, CanadaPresented by **EMILIE GLADSTONE**, Pharmaceutical Policy Researcher, School of Population and Public Health, University of British Columbia

Regional variations in opioid prescribing and related harms are infrequently studied; available research documents substantial geographic variation in opioid dispensing. We quantify patterns in opioid dispensations to individuals who suffered an opioid-related death. Additionally, we examine the relationship between opioid dispensations and related deaths in geographic regions of British Columbia. We used population-based administrative data on prescription drug dispensations to identify patterns in opioid dispensations to individuals who suffered a prescription opioid-related death. We also computed the quantity of opioids dispensed (morphine equivalents) in small geographic regions in BC from 2004 to 2013. We identified prescription opioid-related deaths in these small geographic areas using mortality data from BC Vital Statistics and investigated the relationship between rates of opioid dispensing and rates of prescription opioid death in small geographic areas in BC by sex. We examined differences in our results when limiting opioid dispensations to strong opioids and weak opioids. Many individuals who suffered a prescription opioid-related death did not have an active opioid prescription in the 60 days before death (46% of women and 71% of men). Rates of prescription opioid dispensing and opioid-related deaths vary substantially across geographic regions in BC. The area-level relationship between rate of prescription opioid dispensing and rate of unintentional prescription opioid-related death is positive and statistically significant for both men and women ($P < 0.001$). This relationship holds when opioid prescribing is limited to strong opioids. If regions in the bottom quartile of prescribed opioid purchases had levels of such purchases matching those in the top quartile, those LHAs would be expected to experience at least 30 additional deaths per 100,000 population over the study period. Wide variation in opioid prescribing practices and in rates of prescription opioid-related death within Canada and within Canadian provinces should be recognized. Targeted efforts to reduce high levels of opioid prescribing in BC, particularly dispensations of strong opioids and codeine, may substantially reduce opioid-related harms.

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G5.1 A look into the employment challenges of new certified medical specialists in Canada

Presented by **DANIELLE FRECHETTE**, Executive Director, Office of Health Systems Innovation and External Relations

To gain further insight into reported employment challenges reported by the Royal College of Physicians and Surgeon's new certificants since 2011, a complementary follow-up cross-sectional study, referred to as the employment "cohort" study, was launched in 2014. The employment cohort study consists of a short on-line survey, which replicates selected questions from the employment study survey and additional questions specific to the cohort. Invitations to participate in the online survey are sent via e-mail between 16-18 months from certification for specialists and between 11-12 months for subspecialists. Areas of inquiry include: Current employment status; Type of placement (e.g., full time, locum, non-clinical, return of service); Setting (e.g., academic, community based, rural, remote); Factors contributing to employment status; Length of time to secure employment following certification. Of the 169 eligible study participants, 72 responded. Of these, 58% reported that they had secured a position. Finding a position after obtaining certification varied from 8 to 75 weeks, with surgical specialists experiencing the longest delay. The study also revealed that employment in certain disciplines calls for additional qualifications beyond certification, creating a barrier to employment post-certification.

Willingness to relocate, additional training/fellowships, recruiters and contacts were often cited as employment enablers. Of those who had yet to secure a position (n=30), 77% indicated that they were pursuing additional training and 6% reported still being unemployed. While data collection for the 2014 cohort is still ongoing (49% response rate at time of submission), respondents reveal higher ongoing unemployment rates compared to the 2013 cohort. As we continue to gather data over time, we aim to build a comprehensive view of trends, barriers and enablers related to employment. Findings will help elucidate career choice, workforce planning, research and decision-making in an area where no other pan-Canadian data is currently available.

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G5.2 Do Northern Ontario School of Medicine medical graduates practice close to home?

Presented by **JOHN HOGENBIRK**, Senior Research Associate, Centre for Rural and Northern Health Research

The Northern Ontario School of Medicine (NOSM) selects medical students from smaller communities or underserved regions with the expectation that learners will return to practice in their hometown region. This study examined the relationship of demographic or educational factors and distance of practice location from physician's hometown. We analyzed survey and administrative data on family physicians (FPs) who attended NOSM for undergraduate (UG), postgraduate (PG) medical education or both and have been in independent practice since 2011-2013. Hometown was defined as the location where physicians lived the longest during pre-school (0-5 years of age), elementary school (6-12 years), high school (13-18 year), or overall (0-18 years). This study examined the association between demographic characteristics (age, gender, language, minority status), educational experience (NOSM UG only, NOSM PG only, NOSM UG and PG) and the distance between the physicians practice location as of September 2015 and hometown. Collectively, 61% of 3 cohorts of NOSM-trained Canadian Medical Graduates had lived for 18 years in Northern Ontario or northern Canada and 26% had lived for 18 years in rural communities. Previous research found that 61% of these FPs were practising in Northern Ontario, while 22% were in rural Ontario at 2-4 years into independent practice. Interestingly, logistic regression did not identify northern background as a significant predictor, but did identify NOSM PG and NOSM UG plus PG as significant predictors of a northern Ontario practice location. Our current analyses used distance measures, rather than the regional categories that we used previously, to assess the influence of demographic or educational factors on distance of practice location to hometown. There is very little published information on this relationship, including the association, if any, between a physician's linguistic/cultural background and proximity of practice location to hometown. Findings may help inform medical school admission policies or educational opportunities that seek to balance community needs with physician's choice of practice location.

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G5.3 Signs of Change: What the Medical Workforce Knowledgebase tells us about Canada's future physician workforce

Presented by **SHANNA DIMILLO**, Data and Research Analyst, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada / **CAROLE JACOB**, Manager, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada

There have been repeated calls to produce a physician workforce that meets the needs of Canadians. While emphasis is on achieving the right number, mix and distribution of physicians, little has been done to monitor change. The Medical Workforce Knowledgebase tracks physician supply and draws attention to areas of change. The Knowledgebase brings several physician workforce supply trends together in a single environment. Comprehensive, pan-Canadian data is reported for the number of post-M.D. residency positions offered, the number of first year medical trainees, the number of new specialist certificants, and the size and age distribution of the licensed physician workforce. For each supply trend, the most recent 3-5 years of data is presented for 32 disciplines, covering family medicine, medical, surgical and laboratory specialties. For each specialty, descriptive statistics indicate physician supply rates and relative workforce age. Signs of growth and decline are clearly illustrated in an overall specialty-specific summary. Since 2010, overall physician supply has increased according to all Knowledgebase supply trends. Mirroring the overall trend, six specialties have grown by every measure: Family Medicine, Anatomical Pathology, Emergency Medicine, Internal Medicine, Physical Medicine and Rehabilitation, and Psychiatry. Psychiatry has seen a 7% increase in the number of residency positions, a 13% increase in the number of entry level trainees, a 75% increase in the number of new certificants and an 11% increase in the size of the active Psychiatrist workforce. In contrast, 26 of 31 (84%) medical, surgical and laboratory specialties show signs of possible workforce decline. For example, the number of Orthopedic Surgery residency positions decreased 21% since 2013 and the number of first year General Surgery trainees decreased 21% since 2010. Calls to align physician supply with societal need underscore the importance of tracking change. By highlighting trends across a broad data spectrum, ranging from the number of residency spots to the size and composition of the licensed physician workforce, the Knowledgebase offers decision-makers relevant information for monitoring and possible course-correction.

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G5.4 Exit Strategies: The Timing and Pattern of Physician Retirements in British Columbia

Presented by **LINDSAY HEDDEN**, Post-doctoral Fellow, Centre for Clinical Epidemiology and Evaluation

The provision of out-of-office and after-hours care are important measures of both access to and comprehensiveness of primary care services in BC. The objective of this study was to examine the trends in and determinants of out-of-office and after-hours care provision among primary care physicians in BC. We used population-based, physician-level administrative data resources from Population Data BC and the College of Physicians and Surgeons of BC, including patient and physician registries, and physician billing records (for all fee-for-service (FFS) encounters) and APP (non fee-for-service) payments for the years 2005/06-2011/12. We examined the impact of primary care physician (PCP) demographic and practice characteristics on the levels of provision of out-of-office and after-hours care, and examined changes in the proportion of physicians providing these services over time using longitudinal mixed effects logistic and linear models. Model variables included physician sex, age, training location and practice location. 42.49% and 54.82% of primary care physicians provided no out-of-office care and no after-hours care respectively between 2005 and 2012. The provision of care in any out-of-office location (hospital, long term care facility, home and emergency room) also declined by 17% percent (p<0.0001) and after-hours by 19% (p<0.0001) over the study period. Female PCPs had 1.74 times higher odds of being "in office only" and 0.55-times the odds of billing for care provided outside of regular office hours. The provision of both out-of-office and after-hours care also declined with advancing physician age. Compared to those practicing in metropolitan centres, physicians working in rural-dominated areas had significantly higher odds of providing out-of-office and after-hours care. The provision of out-of-office/after-hours declined significantly over the study period. That, and the combination of an increasing proportion of PCPs who are female, with the much lower out-of-office/after-hours participation rates amongst females, points towards increasing issues with access to and comprehensiveness of primary care in BC.

G6.1 Predicting psychiatric readmission: sex-specific models to predict 30-day readmission following acute psychiatric hospitalization

Presented by **LUCY BARKER**, Psychiatry Resident, University of Toronto

Readmission to hospital following discharge occurs for ~10% of psychiatric patients. Understanding the predictors of readmission can help target interventions to prevent readmission. While readmission rates in men and women are similar, it is unknown whether the factors that predict readmission are different for men and women. We conducted a population-based cohort study to derive and validate separate predictive models of 30-day readmission risk for men and women. Using sociodemographic and health administrative data, we identified and described all men and women admitted to acute psychiatric units in Ontario, Canada between 2008 and 2011. We randomly divided each gender cohort in half (derivation and validation samples). Using the derivation sample, we created successive predictive models of readmission to optimize discrimination power and retain clinical feasibility. We then validated each model, generating odds ratios (OR) for individual predictors and c-statistics (discrimination) for the derivation and validation samples. We identified 33,353 women and 32,436 men, of whom 3,030 (9.1%) and 3,014 (9.3%) were readmitted within 30 days, respectively. Many predictors for readmission were consistent across sex, with number of previous admissions, unplanned discharge, mental health ED visits, threat to self, aggressive behaviour, psychotic disorder diagnosis, and length of stay significant for both sexes. For women only, temporary residence, personality disorder diagnosis, positive symptom rating, depression rating, and stressful life events were significant predictors in the model. For men only, number of mental health visits, criminal activity, and inability to care for self (admission and discharge) were significant predictors in the model. Both models had moderate discrimination (women: derivation c-statistic 0.644, validation c-statistic 0.652; men: derivation c-statistic 0.659, validation c-statistic 0.653). Although many predictors for readmission are consistent across sex, certain predictors vary. The sex-specific models of readmission we derived and validated in this study could assist in guiding clinical and policy interventions for men and women to reduce the rates of psychiatric readmission to hospital.

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G6.2 Major mental illness among super-users of medical services

Presented by **JENNIFER HENSEL**, Physician, Women's College Hospital

To quantify the burden of diagnosed major mental illness (psychotic, major mood and substance use disorders) and its impact on the distribution of costs and service utilization among super-users of medical services in Ontario. A population level, cohort study using health administrative data from 2011/2012 for all Ontarians with valid OHIP as of April 1, 2011 (N=10,909,351). All individuals were ranked based on hospital and home-based medical care costs and the super-users (top 10%) were identified. The top 11-50%, bottom 50% and a referent group of zero-cost non-users were also categorized. The rate of major mental illness in each group was compared to the zero-cost referent group with odds ratios. Among the super-users we examined distribution of costs and service utilization across the various medical services between those with mental illness and those without. Rates of major mental illness increased across cost groups affecting 13.2% of the top 10% of users versus 5.7% of the zero-cost group (OR=2.53, 95%CI 2.50-2.56). This was most pronounced for psychotic disorders (2.3% vs. 0.7%, OR=3.54, 95%CI 3.46-3.63), and persisted for mood disorders (8.0% vs. 3.3%, OR=2.52, 95%CI 2.49-2.56) and substance use disorders (5.5% vs. 2.3%, OR=2.41, 95%CI 2.37-2.45). Compared to the no mental illness group, mean cost/user among those with a mental illness was significantly higher for all medical services except same day surgeries and cancer/dialysis care. Similarly, individuals with a major mental illness were 2.5 times as likely to have ≥5 unplanned medical ED visits (OR=2.47, 95%CI 2.38-2.56), and 1.5 times as likely to have ≥3 medical inpatient admissions (OR=1.52, 95%CI 1.47-1.56). A high burden of major mental illness among super-users of medical services, and particularly those with frequent visits, warrants its consideration in the design and delivery of services targeting these high-costing individuals.

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G6.3 Factors associated with 30 day hospital readmission in adults with dual diagnosis

Presented by **ELIZABETH LIN**, Provincial System Support Program, Centre for Addiction & Mental Health

Persons with developmental disabilities (DD) are often hospitalized/re-hospitalized at high rates, particularly for psychiatric conditions. Understanding repeat hospitalizations is a priority for the Ontario government. The objective of this research was to examine the odds of experiencing a repeat hospitalization in persons with DD and mental/or addictions disorders. We created a cohort of adults who were hospitalized in 2010 (n=55 362; ages 19-65) and created three groups: individuals with DD and mental illness/substance-related addictions disorder (MI/SRAD), referred to as a dual diagnosis (DD-plus), persons with either DD but no MI/SRAD (DD-only), and MI/SRAD but no DD (Non-DD). We compared the odds of readmission to a hospital within 30 days of discharge across all three groups and further examined the results based on socio-demographic factors. The odds of being re-hospitalized within 30 days of leaving the hospital were higher in the DD-plus group compared to DD-only or the Non-DD groups. Similar to the Non-DD group, the most important factor contributing to being re-hospitalized among those with DD-plus relate to a high level of co-morbidity. Age was protective against being re-hospitalized for younger adults in the Non-DD group and older adults with DD-plus. However, factors protective for the Non-DD group (e.g., being female, living in wealthier neighbourhoods) had no significant impact on re-hospitalization for either the DD-plus or DD-only groups. Results highlight the complexity of providing services for individuals with DD. Adults with dual diagnosis have increased odds of being re-hospitalized even after controlling for factors such as neighbourhood income, and morbidity; this indicates that the combination of DD plus MI/SRAD needs additional exploration to guide future interventions and services.

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G6.4 Hospital Care for Children and Youth with Mental Disorders in Canada

Presented by **MICHELLE PARKER**, Program Lead, Health Reports, Canadian Institute for Health Information

Mental health is a significant concern for Canada's children and youth. An estimated 10-20% may develop a mental disorder. Using data from the Canadian Institute for Health Information (CIHI), this analysis examines the use of emergency and inpatient services in hospital-based settings among children and youth with mental disorders. Data from CIHI's National Ambulatory Care Reporting System (NACRS) was used to identify children and youth who visited the emergency department (ED) for mental disorders from 2006–2007 to 2013–2014. Inpatient stays were analyzed using data from the Hospital Mental Health Database (HMHDB), Discharge Abstract Database (DAD) and the Ontario Mental Health Reporting System (OMHRS). Age groups included in the analyses were: 5- to 9-year-olds, 10- to 14-year-olds, 15- to 17-year-olds and 18- to 24-year-olds. In 2013–2014, 5% of ED visits and 18% of inpatient hospitalizations for children and youth age 5 to 24 were for a mental disorder. Inpatient hospitalizations totalled more than 600,000 patient days in hospital in 2013–2014, although variation in rates exists between jurisdictions. Rates of ED visits and inpatient hospitalizations have increased 45% and 37%, respectively, between 2006–2007 and 2013–2014. The greatest increases in rates of utilization were among youth age 10 to 17 and those living in urban areas. Anxiety, mood and substance-related disorders were the leading causes of ED visits for mental disorders among children and youth in 2013–2014. For inpatient hospitalizations, mood disorders and other conduct and behavioural disorders were among the most common diagnoses. Canadian jurisdictions continue to work towards a coordinated system of mental health care that includes promotion, prevention and intervention services. Continued monitoring and improved data on community-based services will help inform decision-makers working to meet care needs and improve service integration across the care continuum.

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G7.1 Policy court: Where participation, policy and research meet at the Rehabilitation research living lab (Mall as a living lab)

Presented by **KEIKO SHIKAKO-THOMAS**, Assistant Professor, McGill University

1.To identify actionable policy points from a large research project using a mall as a living lab; 2.To identify policies that can impact participation of individuals with disabilities in public spaces such as the mall;3. To develop a framework for knowledge translation between rehabilitation research and policy. Participatory Action Research was used to create a policy analysis framework based on international and local guidelines promoting the rights of persons with disabilities (social determinants of disabilities, United Nations conventions, and disability policy in Quebec). The WHO ICF provided a framework to map research projects from the Montreal Rehab Living Lab mall to potential actionable policy points regarding participation and inclusivity. In-depth open-ended interviews with key informants helped developed questions for a focus group of stakeholders. Interpretative thematic analysis created a framework for knowledge translation between rehabilitation research and policymakers to promote the social participation of individuals with disabilities. Eleven out of 62 research projects were selected as having policy implications. Six key informant interviews were completed and 19 stakeholders participated in the focus group. Themes generated in the research to policy potential of research projects included: clarifying the problem, framing policy options, having stakeholder engagement, and implementing research findings into practice. Issues identified by stakeholders in communicating policy and rehabilitation research were: acknowledging internal (mall) versus external (government) policies, moving versus constant targets, timeliness, and the level of involvement of policymakers and researchers needed to integrate both worlds. For individuals' participation, important factors were accessibility, going beyond policy charts, small modifications/wins, stakeholder engagement, ethics and disability needs including other vulnerable populations, and individualized needs versus collective action. Integration of research information with policy guidelines and research-policy partnerships can facilitate the participation of individuals with disabilities in society. Engaging various stakeholders in disability to inform research and policy, their continued collaboration, and the use of rights-based approaches could support the development of rehabilitation research with policy impact.

G7.2 Using a Surgical Quality Improvement Plan to Bridge the Gap between Data and Improvement

Presented by **TIMOTHY JACKSON**, Provincial Surgical Lead, General Surgeon Health Quality Ontario, University Health Network

Health Quality Ontario instituted the Surgical Quality Improvement Plan (SQIP) to support the Ontario Surgical Quality Improvement Network (ON-SQIN) to systematically plan, test, measure and spread surgical quality improvements in response to data from ACS-NSQIP. SQIPs synthesize the data from ACS-NSQIP and provide a platform to integrate it with the hospitals' provincially-mandated and publicly-posted Quality Improvement Plans. Each participating team was provided with a SQIP Guidance document, a template to track progress and evidence-based change ideas and process measures to improve outcomes. In the spirit of collaborative learning, teams were encouraged to provide ON-SQIN with: A preliminary SQIP outlining 1-3 quality improvement priorities, baseline data, targets, change ideas, measures and expected outcomes to improve surgical outcomes; A 6 month progress report; Regular updates to the SQIP, sharing progress and successes Teams were offered support via: webinars and site visits by a an HQO QI Specialist; a summary report that outlines common strategies and facilitates networking; a community of practice to enhance collaboration. All 18 hospitals have submitted a preliminary SQIP. On average, hospitals identified 2-3 indicators for focus during the coming year. Reduction of Surgical Site Infections and Urinary Tract Infections were the most common areas identified for improvement, and over 25 different change ideas were proposed. A SQIP Summary report was created to: Provide information on all the surgical quality improvement work happening in ON-SQIN; Provide specific information on the quality improvement work to connect teams working on similar quality improvement goals; Provide opportunities for members to learn, share and innovate The clear mechanism for change provided by the SQIP provides a standardized and proven approach for improvement. As the results become apparent, we anticipate increased interest from across the province to join ON-SQIN.

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G7.3 Evaluating a training program designed to support evidence-informed policymaking: Lessons from Health Systems Learning

Presented by **KAELAN ANDREW MOAT**, Scientific Lead, Health Systems Evidence and Learning, McMaster Health Forum

'Self-serve' knowledge translation mechanisms (e.g., online 'one-stop shops'), have been developed to ensure health-system decision-makers have timely access to pre-appraised, policy-relevant research, but many policymakers and stakeholders are not equipped to take advantage of these resources. We aimed to develop and evaluate a training program that addresses this challenge. With input from policymakers and stakeholders who took part in more than 100 workshops in over 30 countries, the McMaster Health Forum iteratively developed Health Systems Learning (HSL), a training program for building health-system decision-makers' capacity in: 1) finding and using research evidence to inform the stages of policy development (clarifying problems, framing options and identifying implementation considerations); and 2) understanding the influence of political factors within these stages. Multiple formats were developed (e.g., online, in-person, combined), and formative evaluations were distributed to participants in order to assess the usefulness of course features and learning outcomes. Since HSL was launched in early 2014, a total of 609 participants have completed evaluations (465 in-person, 75 combined, 69 online). Overall assessments of the usefulness of the course were more positive among in-person only and combined in-person/online cohorts (mean ratings of 6.1 and 6.0, respectively on a 7-pt Likert scale), compared to the online-only format (mean of 5.2). Important learning outcomes (e.g., relevance to professional development), received the highest ratings in all formats, while course features (e.g., course length) were rated lower. Qualitative data suggest that that time required to complete the courses is a major barrier. Training programs can help policymakers and stakeholders make use of resources designed to support their use of evidence. While it appears as though health-system decision-makers value opportunities to develop their skills, training program developers need to be attentive to formatting preferences, and consider the trade-offs inherent in using different approaches.

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G7.4 A Systematic Assessment of Barriers, Facilitators, Context, and Knowledge Translation Tactics within a Provincial Knowledge Translation Consult Service

Presented by **KELLY MRKLAS**, KT Implementation Scientist, Alberta Health Services

Demand for knowledge translation (KT) expertise in healthcare systems exceeds capacity, yet access to relevant, embedded, high-quality expertise is rare. Evidence to guide professionals new to KT science and practice consultation is lacking. This study systematically assessed key characteristics of KT consults conducted by a provincial KT consult service. Case files for KT consults conducted from unit inception to present were reviewed to inform program planning, quality improvement, and strategy development. A data extraction tool based on the Theoretical Domains Framework (TDF, Michie) and the Consolidated Framework for Implementation Research (CFIR, Damschroder) was used to extract, code and thematically describe barriers, facilitators, context and KT tactics encountered while delivering KT consult supports. Data analysis comprised aggregate-level frequency counts and coding, thematic analysis, and summarization of barriers, facilitators, context factors, and KT tactics. Interim findings (n=100 consults) comprised primarily service and research activity. Barriers and facilitators mapped onto all 14 TDF Domains. Barrier domains included knowledge, social influences, social/professional role and identity, beliefs about capabilities, intentions, optimism, and environmental context and resources. Facilitator domains comprised knowledge, skills, memory, attention and decision processes, behavioural regulation, beliefs about capabilities, optimism, goals, beliefs about consequences, and environmental context and resources. Contextual features were diverse, including process factors (planning, engaging, executing); inner/outer setting (implementation climate (tension for change, compatibility, relative priority, learning climate); implementation readiness (leadership engagement, resources); intervention characteristics (trialability, complexity, cost); and individual characteristics (overlapping with TDF Domains). Key KT tactics focused on engagement, relationship development, balancing just-in-time support, with time, project/grant-focused assessment, and client-focused draft work, among others. Findings describe and advance knowledge of barriers, facilitators, context and KT tactics that accompany diverse client KT consult needs within a complex, province-wide healthcare service. These results form a robust basis for service planning, education and intervention strategy development to improve KT consult service delivery.

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G8.1 Unpacking regional variations in hysterectomy rates across Ontario: where is the quality gap?

Presented by **ERIK HELLSTEN**, Manager, Quality Standards Strategy, Health Quality Ontario

International comparisons have shown that Canada's hysterectomy rates are both higher than our OECD peers' and characterized by wide, potentially unwarranted regional variations. In order to inform the scope of a provincial quality standard, we examined Ontario hysterectomy rates and disaggregated the health conditions and regional characteristics driving this variation. We examined age-adjusted rates of hysterectomy per 100,000 female residents across Ontario's 14 Local Health Integration Networks (LHINs) and 49 census divisions, assessing variation through the extremal quotient and coefficient of variation (CoV). We compared total hysterectomy rates and rates for the treatment of four major clinical subgroups: abnormal uterine bleeding (AUB), leiomyoma (fibroids), malignancies and pelvic organ prolapse. We constructed funnel plots to identify outlier areas and examined longitudinal trends in provincial and regional rates between 2004/05 and 2013/14. We also examined variations between hospitals in the proportions of patients treated in each subgroup and surgical approach employed. The four diagnostic subgroups accounted for 80.5% of total hysterectomies in 2013/14, with AUB accounting for 25% and the other 3 subgroups each making up between 18% and 19%. A threefold difference in total hysterectomy rates was observed between the highest and lowest rate LHINs. This variation was not equally distributed across diagnoses: cancer-related hysterectomies demonstrated a modest 1.5-fold variation between LHINs, fibroids- and prolapse-related hysterectomies demonstrated twofold variation and strikingly, for AUB there was a more than tenfold variation observed between LHINs (CoV results were similar). Between 2004/05 and 2013/14, hysterectomies for fibroids decreased significantly whereas for AUB, both the Ontario rate and relative variations between LHINs remained largely stable. Funnel plots revealed many high outlier areas to be in northern and rural regions. Much of the regional variation in Ontario's hysterectomy rates is driven by variation in hysterectomies for AUB. Spurred by this research, we are now developing a provincial quality standard for AUB emphasizing informed shared decision-making. However, the persistence of regional variations over 10 years highlights the challenges of changing practice.

G8.2 Effects of British Columbia Hospital Closures on Delivery of Health Care Services and the Population's Health

Presented by **DIMITRA PANAGIOTOGLOU**, PhD Candidate, University of British Columbia

In 2001, British Columbia began redistributing its hospital services. Existing facilities closed, were downsized or became specialized. The objective of this study was to assess the impact of hospital service redistribution on BC residents' outcomes following medical emergencies. I used a controlled quasi-experimental study and interrupted time series analysis. The cohort was all acute myocardial infarction, trauma and ischemic stroke events in BC residents between 1999 and 2013. I used BC's Discharge Abstract Database and Consolidation file, the Medical Services Plan Payment Information File, and Vital Statistics' Mortality data. The primary outcome of interest was differences in 30-day mortality rates per quarter before and after local hospital closures. Sixteen, 14, and 14 facilities treating AMI, stroke and trauma patients respectively closed during the study period. Thirty-day mortality rates did not increase in communities that lost services relative to controls after the closure of the local facility. However, 30-day mortality rates were significantly higher in cases compared with controls throughout the study: AMI 7.29% (95% CI: 5.85-8.75%), stroke 6.21% (95% CI: 4.36-8.10%), trauma 1.65% (95% CI: 1.01-2.16%). Subsequent analysis revealed that patients in communities that lost access to care bypassed the closest facility more often prior to the closure compared with controls. After the closure there was a dramatic decline in local facility bypass across all three conditions: AMI 84.71% (95% CI: 78.61-91.23%), stroke 78.58% (95% CI: 73.19-84.37%) and trauma 79.93% (95% CI: 76.92-83.08%). Hospital service redistribution did not contribute to increases in 30-day mortality rates. Hospitals that closed were more frequently bypassed than facilities that remained open.

G8.3 A Review of the Ranked Performance of Canada's Health System on the International Stage

Presented by **SAID AHMAD MAISAM NAJAFIZADA**, PhD Candidate, University of Ottawa/Population Health / **DEBORAH COHEN**, Senior Researcher, Adjunct Professor, Canadian Institute for Health Information, University of Ottawa

Since the release of the World Health Report in 2000, health system ranking studies have garnered significant health policy attention. However this literature has produced variable results. The objective of this study was to synthesize the research and analyze the ranked performance of Canada's health system on the international stage. The Canadian Institute for Health Information conducted a scoping review of the literature in the English language between 2000 and 2015 exploring Canada's place in ranked health system performance among its peer OECD countries. Arksey and O'Malley's 5-stage scoping review framework was adopted, yielding 75 academic and grey literature articles. A literature extraction tool was developed to gather information on themes that emerged from the literature. Thematic and constant comparison methods were used to analyze the findings. A separate analysis of OECD's PYLL data and Canada's performance over 50 years was also conducted and consistency across results was confirmed. Although various methodologies were employed to assess ranked health system performance internationally, results generally suggested that Canada has been a middle-of-the-pack performer in overall health system performance over the last 15 years. Canada's overall rankings were 7th/191, 11th/24, 10th/11, 10th/17, "Promising", and "B" grade across different studies. According to past literature, Canada has performed well in areas of efficiency, productivity, attaining health system goals, years of life lived with disability, and stroke mortality. In contrast, Canada has performed poorly in areas related to equity and health distribution, wait times, patient safety, obesity and diabetes, and infant mortality. Separate analysis of Canada's PYLL performance based on OECD data confirmed similar findings. As countries introduce health reforms aimed at improving the health of populations, international comparisons are useful to inform cross-country learning in health and social policy. While ranking systems do have shortcomings, they can shine a spotlight on Canada's health system strengths and weakness to better inform the health policy agenda.

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G8.4 Post-discharge mortality, readmissions and emergency department visits in the context of Canadian innovations in primary care delivery

Presented by **BRUNO RIVERIN DESCHÉNES**, Doctoral student, McGill University

The evidence on the association between population-wide policies supporting emergent primary care (PC) delivery models and post-discharge outcomes is sparse. We compared rates of post-discharge mortality, readmission and ED visits following discharge between elderly or chronically ill patients enrolled in multidisciplinary team-based PC practices and those enrolled in non-team-based practices. We extracted insurance billing data on 312 377 patients representing 620 656 admissions for any cause from 2002-2009 in Quebec. We considered the time since hospital discharge to death, readmission for any cause, or to an ED visit, all within 90 days, as our primary outcomes. We used inverse-probability-weighting to balance exposure groups on measured covariates and to account for competing risks. Weights included patient covariates (demographics, health status and health utilization), primary care physician covariates (demographics and practice type), year and hospital fixed-effects and interactions. We used marginal structural models to estimate risk differences (RD) and hazard ratios (HR). The 30- and 90-day risks of readmission were 13.9% and 25.7%, respectively. Readmission rates at any point in the 90-day post-discharge period were similar across PC delivery models (90-day HR: 1.00, 95% CI 0.98-1.02). The 90-day risk of ED visit was 24.4%. Patients enrolled in team-based PC practices had lower rates of ED visits (90 day HR: 0.94, 95% CI 0.92-0.96). This association was more pronounced early post-discharge, representing 5.4 fewer ED visits per 10 000 patient-days within the first two weeks, and 1.8 fewer per 10 000 patient-days for the remaining weeks. On average, 2.2% of hospitalized patients died within 90 days and the risk of death was lower among patients enrolled in team-based PC (90-day RD: 4.3 fewer deaths per 1 000 patients). Our findings suggest that enrollment in newer team-based PC models in Quebec is associated with lower rates of 90-day post-discharge ED visits and slightly lower post-discharge mortality rates. The lack of an association with readmission suggests that more targeted or intensive efforts may be needed to affect this outcome.

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Poster Presentations at a Glance

Présentations d'affiches en un coup d'œil

Poster Presentations

Tuesday, May 10th | 4:15pm – 5:30pm

Présentations d'affiches

Le mardi 10 mai | 16 h 15 – 17 h 30

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

The poster presentations will be displayed in Toronto III & Johnston (Convention Level)

BOARD	PRESENTATION
1	The Effects of Primary Care Reform on Inequalities in Cancer Screening: A Population-Based Longitudinal Study in Ontario, Canada Presented by AISHA LOFTERS , Clinician Scientist, St. Michael's Hospital
2	Access to healthcare for Canadian military families in Ontario: a retrospective cohort study using administrative healthcare data Presented by ALYSON MAHAR , PhD Candidate, Queen's University
3	Le professionnalisme organisé : vecteur de nouveaux régimes de collaboration en oncologie Presented by ANNICK LEPAGE , PhD Student, École nationale d'administration publique (ENAP)
4	Application of a Priority-Setting Framework for Clinical Topic Selection in Primary Care Presented by APURVA SHIRODKAR , Project Coordinator, Centre for Effective Practice
5	Development and Dissemination of a Preconception Health Care Tool in Primary Care Presented by APURVA SHIRODKAR , Project Coordinator, Centre for Effective Practice
6	Improving quality of care for adults with developmental disability in primary care: Outcomes of a study to implement the annual health check Presented by AVRA SELICK , Research Coordinator, Centre for Addiction and Mental Health
7	Institutional Knots: A Comparative Analysis of Cord Blood Policy in Canada and the United States Presented by AVRAM DENBURG , Oncologist, Hospital for Sick Children
8	The normative foundations of child health and social policy: A critical interpretive synthesis Presented by AVRAM DENBURG , Oncologist, Hospital for Sick Children
9	Creating healthy transitions in Maritime families / Créer des transitions saines chez les familles des Maritimes: The CARE/SAINES Project Presented by BAUKJE (BO) MIEDEMA , Director of Research, Dalhousie University Family Medicine Teaching Unit Fredericton
10	A Primary-Care Based Wraparound Model for Child and Youth Mental Health in Ontario: Impacts on Youth and Families, Physicians and Services Presented by BRIEANNE OLIBRIS , PhD Student, McMaster University
11	The effect of timely outpatient follow-up after hospital discharge on 30-day readmission: an analysis using time-specific propensity scores Presented by BRUNO RIVERIN DESCHÊNES , Doctoral student, McGill University
12	How to create a patient-oriented research culture Presented by CATHY PEYTON , Program Manager, Memorial University of NL
13	Increased Rates Of 25-Hydroxy Vitamin D Testing: Dissecting A Modern Epidemic Presented by CELIA RODD , Associate Professor, University of Manitoba
14	Examining the generalizability of a statistical natural language processing model for pneumonia surveillance in acute care hospitals Presented by CHRISTIAN ROCHEFORT , Assistant Professor, University of Sherbrooke
15	Chronic Non-Cancer Pain (CNCP) Management in Ontario: A Health Systems Analysis Presented by DARIA O'REILLY , Associate Professor, McMaster University
16	An experimental test of inequality aversion attitudes towards health inequality, income inequality, and income-related health inequalities Presented by DAVE CAMERON , Manager, Experimental Economics, McMaster University
17	A scoping review of complexity theory in peer-reviewed health services research Presented by DAVID THOMPSON , PhD Student, University of Windsor
18	Pregnancy and Parenting with Arthritis: Bridging the Information Gap Presented by DAWN RICHARDS , Vice President, Canadian Arthritis Patient Alliance
19	Neonatal and Childhood Neurodevelopmental, Health and Education Outcomes of Children Exposed to Antidepressants and Maternal Depression During Pregnancy: Study Protocol Presented by DEEPA SINGAL , PhD Candidate, University of Manitoba, Department of Community Health Sciences
20	Canadian Suburban Communities, HIV, and Healthcare Access: Unanswered Questions Presented by DEREK MANIS , Graduate Student/Teaching Assistant, University of Ontario Institute of Technology
21	Assessing hospital quality of care in British Columbia Presented by DIMITRA PANAGIOTOGLU , PhD Candidate, University of British Columbia
22	Is time to care a critical determinant of patient 30-day mortality outcomes for medical emergencies in British Columbia? Presented by DIMITRA PANAGIOTOGLU , PhD Candidate, University of British Columbia
23	Cost Pressures in the Hospital Drug Market, 2015 Presented by ELENA LUNGU , Manager, National Prescription Drug Utilization Information System, Patented Medicine Prices Review Board / Government of Canada

24	Healthcare costs attributable to Lyme disease: A population-based matched cohort study in Ontario, Canada Presented by BEATE SANDER , Scientist, Public Health Ontario
25	Health-related quality of life, comorbidities and mortality in nontuberculous mycobacterial infections: A systematic review Presented by MAN WAH YEUNG , Epidemiologist, Public Health Ontario
26	The main predictors of the evolution of the costs of health care expenditures for active population aged 18 to 64: Longitudinal analysis from 1998 to 2012 Presented by ERIC TCHOUAKET , Professeur, Université du Québec en Outaouais
27	Financial and geographic barriers to accessing fertility services in Newfoundland and Labrador: A qualitative study from the perspective of patients Presented by ERIKA MAXWELL , Graduate Student, Memorial University of Newfoundland
28	Buying health? The role of procurement in health care systems Presented by FIONA MILLER , Associate Professor, University of Toronto
29	Modelling the affordability of Home Care and Nursing Home Long-term Care Presented by FREDERIC SAMVURA , Senior Economist, Health Canada
30	Variability in the Rates of Normal Diagnostic Coronary Catheterizations and Non-Invasive Pre-Catheterization Functional Testing at Advanced Cardiac Centres in Ontario Presented by GARTH OAKES , Senior Lead, Knowledge Translation and Privacy, Cardiac Care Network of Ontario
31	Private Drug Plans in Canada: High-cost Drugs and Claimants, 2005 to 2015 Presented by GARY WARWICK , Senior Economic Analyst, Patented Medicine Prices Review Board
32	Novel Approaches to Engage Users in Health Services Re-Design and Data Collection: Using Mobile and Web Apps to Capture Experiences of Youth Mental Health Services in Real Time in an Ontario Experience-Based Co-Design Study Presented by ASHLEIGH MIATELLO , Doctoral Candidate, McMaster University
33	Changing proportion of adults with and without intellectual and developmental disabilities (IDD) receiving an annual health exam from 2003 to 2015 in Ontario, Canada Presented by GLENYS SMITH , Student, Queen's University
34	Evaluating Investment in Quality Improvement Capacity Building: A Synthesis of the Literature Presented by GUSTAVO MERY , Adjunct Professor, University of Toronto
36	Effectiveness of Public Participation in the College of Physicians and Surgeons of Ontario (CPSO) Public Policy Consultation Process Presented by IMAN SAPRU , Master of Public Health Candidate, Queen's University
37	Perceived Barriers to Accessing Specialized Medical Care in Rural Communities of Ontario Presented by IMAN SAPRU , Master of Public Health Candidate, Queen's University
38	The Study-Migration Pathway: Understanding the Factors that Influence the Employment and Retention of International Students as Regulated Health Professionals in Canada Presented by IVY BOURGEAULT , CIHR Chair in Gender, Work and HHR, University of Ottawa
39	Pathways to Health System Efficiency: Perspectives of Health System Decision Makers Presented by SARA GUILCHER , Principal Investigator, University of Toronto, HSPRN
40	Contextualizing the World Health Organization (WHO)'s Mental Health Gap Action Programme (mhGAP) Training to General Practitioners (GPs) Working in Primary Care in the Greater Tunis Area of Tunisia Presented by JESSICA SPAGNOLO , Doctoral Candidate, School of Public Health (Université de Montréal)
41	Use Of Antipsychotics Among Seniors Living In Long-Term Care Facilities, 2014 Presented by JOCELYN RIOUX , Program Lead, Canadian Institute for Health Information
42	Driving distance to Ontario Telemedicine Network sites in Northern Ontario as a measure of potential access to healthcare Presented by JOHN HOGENBIRK , Senior Research Associate, Centre for Rural and Northern Health Research
43	Preventing violence and promoting workplace safety in Canadian health organizations Presented by JONATHAN MITCHELL , Manager, Policy and Research, Accreditation Canada
44	Quality and Safety in Canadian health organizations: strengths and opportunities identified from national data Presented by JONATHAN MITCHELL , Manager, Policy and Research, Accreditation Canada
45	Decreased Quality of Life in Parents of Children with MS Prior to Clinical Manifestations Presented by JULIA O'MAHONY , Doctoral Candidate, University of Toronto, The Hospital for Sick Children
46	Stroke rehabilitation and patients with multimorbidity: a systematic scoping review Presented by KAILEAH MCKELLAR , PhD Candidate, University of Toronto
47	Nurse-led Care for Patients with Rheumatoid Arthritis: a Systematic Review Presented by KAREN MACDONALD , Research Associate/ MSc student, University of Calgary
48	What are people willing to pay for Whole Genome Sequencing information? Presented by KAREN MACDONALD , Research Associate, University of Calgary
49	Economic impact of a neuromuscular training prevention strategy to reduce injuries in youth soccer Presented by KAREN MACDONALD , Research Associate/ MSc student, University of Calgary

50	Canadian data sources on ethnic classifications Presented by KELSEY LUCYK , PhD Candidate and Research Associate, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary
51	'Just Treat Us Right': Equitable Primary Care for Disabled People Presented by LAURA WILKINSON-MEYERS , Senior Lecturer in Health Services Research, University of Auckland, School of Population Health
52	Lessons from the Field - Implementing Integrated Risk Management in Healthcare Presented by LOIS HALES , Senior Risk Management Specialist, HIROC
53	Enabling health technology innovation for older adults: Barriers and facilitators in policy and regulatory processes Presented by MAGGIE MACNEIL , Ph.D Candidate, University of Waterloo
54	Understanding interaction of gender dynamics with a health system - a case study of Afghanistan Presented by MAISAM NAJAFIZADA , PhD Candidate, University of Ottawa
55	A Province-Wide Approach to Quality Improvement Plans Presented by MARGARET MILLWARD , Quality Improvement Specialist, Health Quality Ontario
56	Incidence of Myocardial Infarction in Pregnancy: A Systematic Review and Meta-analysis Presented by MARIAM NAROUS , MSc Student, University of Calgary
57	Exploring Early Professional Socialization Across Five Health Professions Presented by HOSSEIN KHALILI , Fanshawe College
58	Risk factors for involuntary admissions and characteristics of involuntarily admitted patients in Ontario, Canada Presented by MICHAEL LEBENBAUM , Epidemiologist, Institute for Clinical Evaluative Sciences (ICES)
59	Spatial Accessibility of Family Health Teams: Investigating the Relationship between Travel Time and Primary Care Home Service Visits using GIS Mapping Presented by MICHELLE PRENTICE , Medical Student, University of Ottawa
60	A Portrait Of The Early Stage Clinical Research Studies (CRS) In Quebec And Canada: An Analysis Of Recent Trends And Key Success Factors To Be Competitive In CRS Presented by MICHELLE SAVOIE , Professeure adjoint de formation pratique, Université de Montréal
61	Comprehensive Services across the Continuum of Care: Domains and Measures Presented by MICHELLE STIPHOUT , Workforce Research and Evaluation Consultant, Alberta Health Services
62	Measuring Health System Integration Presented by MICHELLE STIPHOUT , Workforce Research and Evaluation Consultant, Alberta Health Services
63	Instruments to Measure Health System Integration: Where are the Gaps? Presented by MICHELLE STIPHOUT , Workforce Research and Evaluation Consultant, Alberta Health Services
64	Developing Automated Tool for Data Quality Evaluation for inpatient database Presented by MINGKAI PENG , Statistical Associate, University of Calgary
65	Looking Forward: Co-designing a cancer survivorship program with patients Presented by SUSAN LAW , Principal Scientist and Associate Professor, St. Mary's Research Centre and McGill University
66	Peer Navigation for Prostate Cancer: Finding Common Ground for System Innovation Presented by AARON MILLER , Research analyst, University Health Network
67	Assessment of a multimedia-based prospective method to support public deliberations on health technology design: Participant survey findings and qualitative insights Presented by PASCALE LEHOUX , Professeur titulaire, Département d'administration de la santé, Université de Montréal
68	Peer support during transitions from youth to adult mental health services: A systematic review of the evidence Presented by PATRICIA WAKEFIELD , Associate Professor, Health Policy and Management, McMaster University
69	Health Care Service Experiences of Polish Immigrants Residing in the United Kingdom Presented by ROBERT NARTOWSKI , PhD Student, University of Kent
70	Mise en œuvre d'un programme de prévention et d'intervention interdisciplinaire intégré sur le risque cardiométabolique en 1re ligne : le point de vue des médecins participants Presented by ROXANE BORGES DA SILVA , Institut de recherche en santé publique de l'Université de Montréal, Faculté des sciences infirmières de l'Université de Montréal
71	Implementation of System Navigation in Primary Care: Lessons from a Scoping Literature Review Presented by RUTA VALAITIS , Associate Professor, McMaster University
72	Examining regional variation in health care spending in British Columbia Presented by RUTH LAVERGNE , Postdoctoral Fellow, McGill University
73	Patient and Caregiver Perceptions on Quality Palliative and End-of-Life Home Care Presented by RYAN PARDY , MSc Student, McGill University
74	Measuring retirement: a workforce planning challenge Presented by SARAH SIMKIN , Student, University of Ottawa SIMONE DAHROUGE , CT Lamont Primary Health Care Research Centre, Bruyere Research Institute
75	Addressing the Policy Practice-Gap: The Experience of Primary Health Care Research Networks in Alberta Presented by STEPHANIE MONTESANTI , Assistant Professor, University of Alberta

76	Frequency and cost of potentially inappropriate prescriptions for older Canadian women and men: an analysis of provincial drug plan claims Presented by STEVE MORGAN , Professor, University of British Columbia
77	The Canadian Physician Database (CPDB): Partnering to develop physician workforce research, planning and decision-making data Presented by SHANNA DIMILLO , Data and Research Analyst, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada CAROLE JACOB , Manager, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada
78	Handling and disposal of controlled substances in hospices in Ontario: a cross-sectional survey Presented by SUMAIRA HASAN , Doctor of Pharmacy Candidate, University of Waterloo School of Pharmacy
79	Developing a learning health system through patients' experiences: women helping women with breast cancer Presented by SUSAN LAW , Principal Scientist and Associate Professor, St. Mary's Research Centre and McGill University
80	Identifying barriers to cervical cancer screening among South Asian Muslim immigrant women Presented by SYEDA KINZA RIZVI , Master's Candidate, University of Calgary
81	Identifying profiles of biopsychosocial care needs of 'high-cost users' referred to an outpatient case management service Presented by TARA STEWART , Researcher/Assistant Professor, Centre for Healthcare Innovation
82	The Importance of Therapeutic Self-Care in Promoting the Safety of Older Adults in Home Care Presented by WINNIE SUN , Post-Doctorate Fellow, University of Toronto
83	Mechanical thrombectomy in patients with acute ischemic stroke: a health technology assessment Presented by XUANQIAN XIE , Health Economist, Health Quality Ontario
84	Composite tissue transplantation for hand or arm: a health technology assessment Presented by XUANQIAN XIE , Health Economist, Health Quality Ontario
85	Cost-effectiveness of mass tuberculosis screening for new immigrants to Canada Presented by YASMIN SAEED , Master's student, Leslie Dan Faculty of Pharmacy, University of Toronto
86	Nurse workload and satisfaction with providing Telehomecare to COPD and HF patients in Ontario, Canada Presented by VALERIA RAC , Associate Program Director & Director, Clinical Research Division, THETA Collaborative; Assistant Professor, University of Toronto
87	A network perspective on patient experience and reported outcomes: Medical Expenditure Panel Survey 2004 to 2011 Presented by YI-SHENG CHAO , Postdoctoral fellow, Université de Montréal
88	Comparing Risk Adjustment Methods for Patients with Liver Disease Using Electronic Medical Record Presented by HUDE QUAN , Professor, University of Calgary

Poster Presentations

Wednesday, May 11th | 4:30pm – 5:45pm

Présentations d'affiches

Le mercredi 11 mai | 16 h 30 – 17 h 45

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

The poster presentations will be displayed in Toronto III & Johnston (Convention Level)

BOARD	PRESENTATION
1	An Analysis of the Factors that Led to the Establishment of the Ontario Agency for Health Protection and Promotion Act, 2007 Presented by AHMAD FIRAS KHALID , PhD Student, McMaster University
2	Ontario's French Speaking Family Physicians; Exploring trends of where they practice and what they do Presented by ALAIN GAUTHIER , Associate Professor, Laurentian University
3	Is Social Complexity Related to Participation in Prevention Services? Presented by ALAN KATZ , Director, Manitoba Centre for Health Policy, University of Manitoba
4	Health care transitions among people with dementia at the end of life Presented by AMY HSU , Postdoctoral Fellow, Ottawa Hospital Research Institute
5	Examining Prince Edward Island's Vision Care Funding Policy: What Do Geographic Discrepancies in Eye Care Utilization and Eye Disease Prevalence Tell Us? Presented by ANAM KHAN , Master's of Public Health (MPH) student, Dalla Lana School of Public Health, University of Toronto
6	Valuing Patient and Provider Perspectives in Evidence-based Solutions: Obstetric Care of Marginalized Women in Canada Presented by ANNA DION , Doctoral Student, McGill University
7	An evaluation of the Triple P parenting program using population-based administrative health data Presented by RUBAB G. ARIM , Social Science Researcher, Statistics Canada
8	It is time to discontinue population-based mammography screening Presented by ANNE KEARNEY , Associate Professor, Memorial University
9	Cardiovascular risk factor profiles of people with and without schizophrenia from 2001 to 2010: A population-based study in Ontario, Canada Presented by ATIF KUKASWADIA , Senior Epidemiologist, Institute for Clinical Evaluative Sciences (ICES)
10	Medication Costs and Adherence in the Era of Biologics Presented by AVRILYNN DING , Project Student, McMaster University
11	Advancing Patient Experience Measurement for Ontario Presented by BERNADEE KOH-BILODEAU , Project Lead, Health System Performance, Health Quality Ontario
12	Rural male farmers' health information seeking processes: Examining how an understudied population engages with healthcare resources Presented by BRADLEY HIEBERT , PhD Candidate, Department of Health Information Sciences, The University of Western Ontario
13	Variation among structures of care in colorectal cancer surgery in Ontario Presented by CAITLIN CHRYSOJA , MD/PhD Student, University of Toronto
14	Obstacles and Enablers to the Professional Development of Skilled Birth Attendants: a Case Study of the Shoklo Malaria Research Unit on the Thailand-Myanmar Border Presented by CAROLINE CHAMBERLAND , MSc Health Systems Candidate, Telfer School of Management, University of Ottawa
15	How do health and social interventions decrease inequity in child health outcomes? A case study of Manitoba's in-school Teen Clinics Presented by CATHERINE CHARETTE , Researcher, Evaluation Platform, George & Fay Yee Centre for Healthcare Innovation
16	How do health and social interventions decrease inequity in child health outcomes? A case study of Manitoba's Healthy Baby Prenatal Benefit Presented by CATHERINE CHARETTE , Researcher, Evaluation Platform, George & Fay Yee Centre for Healthcare Innovation
17	Older community-dwelling home care clients receiving rehabilitation: Wait times and the impact on hospital utilization Presented by CHRISTINE KNOTT , Postdoctoral Fellow, Queen's University, Health Services & Policy Research Centre; and Institute for Clinical Evaluative Sciences
18	Does quality of depression care differ based on the primary language of nursing home residents? Presented by CHRISTOPHER PERLMAN , Assistant Professor, University of Waterloo
19	"Hotspots" of Inpatient Psychiatry Hospitalizations among Older Adults with Dementia in Ontario, 2011 to 2014 Presented by CHRISTOPHER PERLMAN , Assistant Professor, University of Waterloo
20	Better health care experience related to better overall health in older adults in Canada with joint pain or arthritis: 2014 Commonwealth Fund Survey Presented by CLAYON HAMILTON , Postdoctoral Fellow, University of British Columbia
21	Creating knowledge about and capacity for practice transformation in primary health care: A PHC knowledge network's innovative approach to funding small projects Presented by DANIELLE SCHIRMER , Project Coordinator Réseau-1 Québec, St. Mary's Hospital / SHANDI MILLER , Director of Operations, St. Mary's Hospital

22	Finding resiliency in the face of financial barriers: Development of a conceptual framework for people with chronic disease Presented by DAVID CAMPBELL , PhD Candidate, University of Calgary
23	Les déterminants de l'acceptation d'un dossier de santé personnel électronique (DSPé) pour le suivi et la gestion des maladies chroniques en première ligne de soins au Québec : enquête en préimplantation Presented by EL KEBIR GHANDOUR , Étudiant-chercheur, Centre de recherche sur les soins et les services de première ligne de l'Université Laval
24	New Drug Launch Monitor Presented by ELENA LUNGU , Manager, NPDUIS, Patented Medicine Prices Review Board
25	Context in health systems policy research Presented by ELIZABETH ALVAREZ , Assistant Professor, McMaster University
26	Trends in health system use by persons with dementia in Ontario from 2007 and 2013: a population-based study Presented by ERIKA YATES , Senior Research Project Manager, Applied Health Research Question, Institute for Clinical Evaluative Sciences
27	Analysis of Usage of Private Insurance Benefits by Employees Presented by ERIN CRAGG , Master's Student, Memorial University of Newfoundland
28	Sepsis mortality throughout different hospitalization patterns in Canada Presented by FARHAT FARROKHI , Senior Health Analyst, Canadian Institute for Health Information
29	A Novel Way of Studying Retention of Health Care Professionals: What Can We Learn from the Life Course Approach? Presented by FARIMAH HAKEMZADEH , Assistant Professor, Wilfrid Laurier University
30	Grassroot networks in caring for older cancer patients Presented by FATOU BAGAYOGO , Post doctoral fellow, Ecole Nationale d'Administration Publique
31	Understanding Cancer Care Trajectories Presented by FATOU BAGAYOGO , Post doctoral fellow, Ecole Nationale d'Administration Publique
32	"Looking Back, Moving Forward": An Indigenous Wellness Framework Presented by GRACE KYOON-ACHAN , Research Fellow, University of Manitoba
34	The Often Invisible Challenges Posed by Employment-Related Geographic Mobility: A Comparative Qualitative Study of Nova Scotian Health Workers Presented by IVY BOURGEAULT , Professor, University of Ottawa
35	Developing a process of risk-stratified care coordination for older adults in primary care Presented by JACOBI ELLIOTT , PhD Candidate, University of Waterloo
36	A proposal for the implementation of a peer-support strategy with Nations, Inuit and Métis women making health decisions: An integrated knowledge translation study to facilitate health literacy Presented by JANET JULL , Postdoctoral Research Fellow, Bruyère Research Institute, Ottawa Hospital Research Institute & University of Ottawa
37	When is a trial equity-relevant? Building consensus on when a randomized control trial provides equity-relevant evidence Presented by JANET JULL , Postdoctoral Research Fellow, Bruyère Research Institute, Ottawa Hospital Research Institute & University of Ottawa
38	Benefits of Optimistic Social Comparisons for Older Adults Receiving Threatening Health Messages Presented by JANIQUE FORTIER , M.Sc. student, Western Regional Training Centre - University of Manitoba
39	Does Socio-Economic Status Predict Hospital Length of Stay in Coronary Artery Disease Patients? Presented by JASON JIANG , Statistical Research Analyst, University of Calgary
40	Effect of an Intensive Multi-Modal Intervention for Attention-Deficit Hyperactivity Disorder (ADHD) on Equity in Children's Health and Educational Outcomes Presented by JENNIFER ENNS , Post-doctoral fellow, Manitoba Centre for Health Policy
41	Quality improvement in acute care: A multi-level conceptual framework of successful large-scale QI implementation Presented by JENNIFER GUTBERG , Student, University of Toronto
42	Development and administration of an organizational survey tool to measure the use of health literate discharge practices in Ontario Hospitals Presented by JENNIFER INNIS , PhD student, University of Toronto
43	Characteristics of new users of osteoporosis drugs changed over time, yet high compliance with therapy remained stable Presented by JOANN BAN , Master's of Science Student, University of Toronto
44	An association between social capital and unmet healthcare need among the city of Toronto residents Presented by JONGNAM HWANG , Post-doctoral fellow, Centre for Research on Inner City Health, St. Michael's Hospital
45	Developing population segments for primary care performance measurement and reporting using health administrative data Presented by JULIA LANGTON , Research Associate, University of British Columbia
46	Delivering on the Promise of Health Apps for Patient Engagement: A New Reference Architecture Presented by KARIM KESHAVJEE , CEO, InfoClin
47	Concerns with Current Definitions of Multimorbidity - Results from an Expert Panel Presented by KATHRYN FISHER , Assistant Professor, McMaster University
48	Integration of Health Behaviour Change Interventions into Primary Care: Implications for Sustained Chronic Disease Management and Organizational Efficiency Presented by KOTHAI KUMANAN , Student/Research Associate, Saint Mary's University/Nova Scotia Health Authority

50	Patients Know When Their Care is Going Awry: The Association of Patient-Reported Hospital Experience and Patient Safety Indicators Presented by KYLE KEMP , PhD Student, University of Calgary
51	Patient Engagement as a Component of a Learning Healthcare System: A case study using small area rate variation research in Nova Scotia Presented by LAURA DOWLING , Research Project Manager, Maritime SPOR SUPPORT Unit
53	The effect of the Roots of Empathy program on the use of psychotropic medications among youth in Manitoba. Research in Progress. Presented by LINDSEY DAHL , Student, University of Manitoba
55	Service user and health care provider perceptions of perinatal mental health service needs in Ottawa: A qualitative investigation Presented by LIZ DARLING , Assistant Professor, Laurentian University
56	Selection of quality indicators for more impactful public reporting in long-term care Presented by MAAIKE DE VRIES , Senior Methodologist, Health Quality Ontario
57	Enhancing Point-of-Care Clinicians' Use of Data in Daily Practice to Improve Care: The PERFORM KT Initiative Presented by MADELYN LAW , Associate Professor, Brock University
58	Effectiveness Re-Examined: Comparing the Impact of a Peer-Led Healthy Living Intervention using an Equity Lens Presented by MALCOLM DOUPE , Assistant Professor, University of Manitoba
59	La multimorbidité influence-t-elle le respect des lignes directrices pour les soins aux patients diabétiques après l'inscription auprès d'un médecin de famille au Québec ? Presented by MAMADOU DIOP , Agent de recherche, Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal et Université McGill, Département d'épidémiologie, de biostatistiques et de santé au travail
60	Patients as Partners in Co-designing Improvement Presented by MARIA JUDD , Senior Director, Canadian Foundation for Healthcare Improvement
61	Estimating Medical Device Expenditures in Canadian Hospitals Presented by MARIE-CHANTAL BENDA , Senior Economist, Health Canada
63	Investing in a professional health workforce: Providing safe and effective patient care Presented by MARY CREA-ARSENIO , Research Associate, McMaster University
64	Evaluation of a Major Health Workforce Transformation Initiative Presented by MICHELLE STIPHOUT , Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services
65	Evaluation Framework: Workforce Initiatives Presented by MICHELLE STIPHOUT , Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services
66	Interprofessional Competency Tools for Internationally Educated Health Professionals: Canadian Environmental Scan and Pilot of Existing Resource Presented by MUBASHIR ASLAM ARAIN , Senior Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services
67	Association of Staffing with Patient Outcomes in Alberta Acute Care Units Presented by MUBASHIR ASLAM ARAIN , Senior Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services
68	Patients with certain types of medical conditions wait longer to be attached to a family physician through Quebec's centralized waiting lists Presented by MYLAINE BRETON , Professeure, Université de Sherbrooke
69	Operationalizing the Disablement Process Model for Empirical Research Presented by NATASHA LANE , MD/PhD Candidate, University of Toronto
70	The Influence of Information Technology on Continuity of Mental Health Care from Child to Adult Settings: A Systematic Review Presented by NEIL BARR , PhD Candidate, McMaster University
71	Orphan Drug Launch Monitor (ODLM) Presented by NEVZETA BOSNIC , Senior Economic Analyst, PMPRB
72	First Emergency Department Mental Health Contact: A Measure of Ambulatory Access to Care Presented by PAUL KURDYAK , Director, Health Outcomes and Performance Evaluation, Centre for Addiction and Mental Health
73	Measuring patient-centred care: an environmental scan in the province of Alberta Presented by RACHEL JOLLEY , Research Associate, University of Calgary
74	Measuring the effect of Family Medicine Group enrollment on avoidable visits to emergency departments among diabetic patients in Quebec Presented by RENEE CARTER , Student, McGill University
75	Towards a Shared Taxonomy for Health Technology Reassessment (HTR) and Knowledge Translation (KT) Presented by ROSMIN ESMAIL , Director, Alberta Health Services
76	Feasibility and Implementation of EU-GENIE in the Health TAPESTRY Program: An online tool to enhance the use of personal networks and community-based health and social services for high health service users Presented by RUTA VALAITIS , Associate Professor; Dorothy C. Hall Chair in Primary Health Care Nursing, Associate Professor; Dorothy C. Hall Chair in Primary Health Care Nursing
77	Maternity ward environments: room for improvement Presented by SAFINA ADATIA , Graduate Student, McGill University
78	Learning from failures: Findings from the knowledge transfer of claims into a self-assessment program Presented by SARA CHOW , Senior Healthcare Risk Management Specialist, Healthcare Insurance Reciprocal of Canada

79	The involvement of professional associations in health policy-making: A qualitative study of Ontario health professional association leaders Presented by SARAH BOESVELD , Doctoral student, McMaster University
80	A pilot feasibility study of a primary care and addiction medicine collaborative care model, SUN: SHARE Presented by SHERYL SPITHOFF , Womens College Hospital
81	Multinational Population-Based Health Surveys Linked to Outcome Data: An Untapped Resource Presented by STACEY FISHER , PhD Student, University of Ottawa
82	A Scoping Review of Human Resource Management (HRM) Strategies that Support Research Capacity Development (RCD) in Healthcare Delivery Organizations Presented by SUSAN CHUNICK , Director, Department of Evaluation and Research Services, Fraser Health Authority
83	Visible Minority Immigrant's Access Barriers to Health Care in a Multicultural Metropolitan Area: A Case of the Greater Toronto Area (GTA). Presented by TARIQUL ISLAM , Sessional Instructor, Dept. of Sociology, Laurentian University
84	Patient-reported outcomes and surgical triage: A gap in patient-centered care? Presented by TRAFFORD CRUMP , Adjunct Lecturer, University of Calgary
85	Is palliative care coding in Canada effecting mortality indicator results? Presented by VIACHASLAU HERASIMOVICH , Senior Analyst, Canadian Institute for Health Information
86	Leveraging Competition for Quality Improvement in the Canadian Context Presented by VICTORIA HAGENS , Group Manager, Regional Programs and Performance Management, Cancer Care Ontario
87	Efficiency of Ontario Primary Care Physicians: A Stochastic Frontier Analysis Presented by WALTER WODCHIS , Associate Professor, Health System Performance Research Network
88	Information for improved primary care practices and better patient care Presented by WISSAM HAJ-ALI , Senior Methodologist, Health Quality Ontario
89	New model of healthcare delivery - Telehomecare Program for chronic obstructive pulmonary disease (COPD) and heart failure (HF) Presented by YEVA SAHAKYAN , Research Associate, THETA Collaborative
90	Life stages and trajectories in biobank data: the Canadian Health Measures Survey (CHMS) cycle 1 to 3 Presented by YI-SHENG CHAO , Postdoctoral fellow, Université de Montréal

Poster Presentations Guide

Guide des présentations d'affiches

Poster Presentations

Tuesday, May 10th | 4:15pm – 5:30pm

Présentations d'affiches

Le mardi 10 mai | 16 h 15 – 17 h 30

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur présentation

The poster presentations will be displayed in Toronto III & Johnston (Convention Level)

BOARD	PRESENTATION
1	<p>The Effects of Primary Care Reform on Inequalities in Cancer Screening: A Population-Based Longitudinal Study in Ontario, Canada</p> <p>Presented by AISHA LOFTERS, Clinician Scientist, St. Michael's Hospital</p> <p>Disparities in cancer screening across many social strata are well documented in Ontario, Canada. Ontario introduced primary care reform in 2002 to enhance disease prevention and quality of care. We investigated the effects of primary care reform on disparities in cancer screening in a population-based longitudinal analysis. We analyze provincial health administrative data from 2002-2013 to evaluate how screening disparities have changed with primary care reform. A cohort of 2,811 physicians is followed over time as they transition from traditional fee-for-service to reformed fee-for-service payment models, and a cross-sectional cohort of patients is created for each physician on an annual basis. The proportion of patients up-to-date on breast, cervical and colorectal cancer screening is determined for each year. A multivariable, mixed-effects logistic regression analysis, accounting for clustering of patients within practices, is created to estimate time-varying odds ratios representing the effect of transition at each calendar year. In the year prior to the transition, immigrants (vs non-immigrants) were 8%, 23% and 15% less likely to have received the recommended screening for cervical, breast and colorectal cancer screening, respectively. Those in the lowest income quintile (vs highest) were 17%, 19% and 20% less likely, respectively. After seven years, the relative likelihood was lower by 8%, 10% and 10% for immigrants, and 16%, 16% and 18%, for the lowest income. Multivariate analyses are in progress and will be presented. This study will provide valuable insights on how primary care reform has affected screening disparities for immigrant and low-income patients.</p> <p>Co-Author(s): Aisha Lofters, St. Michael's Hospital / Amy Mark, Institute for Clinical Evaluative Sciences / Monica Taljaard, Ottawa Hospital Research Institute / Michael Green, Queens University / Richard Glazier, Institute for Clinical Evaluative / Simone Dahrouge, CT Lamont Primary Health Care Research Centre</p>
2	<p>Access to healthcare for Canadian military families in Ontario: a retrospective cohort study using administrative healthcare data</p> <p>Presented by ALYSON MAHAR, PhD Candidate, Queen's University</p> <p>Canadian military spouses identified problems accessing and maintaining high quality family and specialist healthcare resulting from regular relocations, deployments, and unique healthcare needs. However, little quantitative evidence exists. We have identified, for the first time, a method of studying healthcare utilization in a cohort of military families living in Ontario. This is a retrospective, matched-cohort study comparing the healthcare utilization of military families relocated to Ontario between 01/08/2008-03/31/2013 and the general Ontario population. This study accessed provincial administrative healthcare databases at the Institute for Clinical Evaluative Sciences. The military family cohort was identified using Ministry of Health and Long Term Care data. The civilian reference group was matched 4:1 on age, sex, and geography. Outcome data were collected for three years and included hospitalizations, emergency department and physician visits, stratified by mental health versus non-mental health. Descriptive statistics were reported and bivariate comparisons of healthcare utilization measures were made. The cohort included 7,508 military family members and 30,032 matched civilians. 50% of the cohort were under the age of 15 and 67% of the cohort was female. The first contact with the healthcare system was a family physician for 68% of military family members, and the emergency department for 17%. Military family members had a longer duration to their first contact with the system from the cohort entry date than the reference group (median 118 days vs 84 days, p<0.001). Military family members were less likely to see a pediatrician than the reference group (17.7% vs 26.0%, p<0.001) and more likely to see a family physician for mental health services (20.2% vs 18.6%) p=0.002. Differences in mental health service use were greatest in children. Civilian members of military families have different healthcare utilization patterns than the general Ontario population. Barriers accessing specialist care may exist. It is important to understand how these patterns impact health outcomes and continuity of care to have a positive impact on the policy and programming supporting military family members.</p> <p>Co-Author(s): Alyson Mahar, Queen's University / Alice Aiken, Canadian Institute for Military & Veteran Health Research / Heidi Cramm, Queen's University / Marlo Whitehead, Institute for Clinical Evaluative Sciences- Queen's University / Patti Groome, Queen's University / Paul Kurdyak, Mental Health Program, Institute for Clinical Evaluative Sciences</p>
3	<p>Le professionnalisme organisé : vecteur de nouveaux régimes de collaboration en oncologie</p> <p>Presented by ANNICK LEPAGE, PhD Student, École nationale d'administration publique (ENAP)</p> <p>L'objectif de cette recherche est de comprendre le rôle des changements dans l'environnement professionnel et organisationnel de soins et des services de santé oncologiques. De manière plus particulière, nous souhaitons appréhender les implications liées à de tels changements sur l'évolution du professionnalisme et des projets professionnels. Pour mener à terme notre réflexion, nous avons procédé à une étude de cas à niveaux d'analyses imbriqués (Yin, 1994). Les principales sources de données utilisées furent les documents internes et externes, les observations et les entrevues. Les données primaires furent recueillies au moyen d'entrevues semi-structurées (quatre-vingts 80) et de discussions informelles auprès de médecins (généralistes, gériatres et oncologues), infirmiers et gestionnaires. Ceux-ci ont été sélectionnés en fonction de leur implication dans le traitement de patients atteints de cancer. Au surplus, des données secondaires et des données provenant de la documentation furent utilisées pour compléter l'analyse. La transformation des projets professionnels est tributaire de l'évolution du professionnalisme. Nous croyons que le professionnalisme organisé engage les professionnels à acquérir de nouvelles ressources afin de répondre aux rôles et responsabilités organisationnelles qui leur incombent désormais. Cette quête ébranle le système des professions et oblige les différents groupes professionnels engagés dans ce jeu de négociation à redéfinir leurs projets professionnels respectifs. Cela dit, les niveaux de soins et la maturité des groupes dans l'organisation sont des facteurs déterminants de ce phénomène complexe. En accord avec la théorie des économies politiques de Benson, nous croyons qu'un ensemble de facteurs, dont la disponibilité des ressources, et l'adéquation entre l'offre et la demande de services influencent le processus stratégique des acteurs dans un environnement en mutation. Grâce à nos résultats, nous sommes en mesure de mieux comprendre pourquoi l'évolution du professionnalisme et des projets professionnels dans le domaine des soins et des services oncologiques favorise l'émergence de nouveaux régimes de collaboration au détriment de la fermeture des projets professionnels comme présentés précédemment dans la littérature.</p>

4 Application of a Priority-Setting Framework for Clinical Topic Selection in Primary Care

Presented by **APURVA SHIRODKAR**, Project Coordinator, Centre for Effective Practice

Ontario's primary healthcare sector is a complex environment, involving multiple organizations and stakeholders. Determining high-priority clinical topics that need to be addressed within the system is difficult. As such, a priority-setting framework was developed and executed to identify priority topics for the Knowledge Translation in Primary Care Initiative. We adapted an established, structured priority-setting approach by others to engage both primary care providers (PCPs) and key stakeholders in identifying topic areas for the Initiative. This approach comprised of: a) Nomination Of Potential Topics. Potential topics were nominated by the Ministry of Health and Long-Term Care (funder), key stakeholders and/or PCPs. b) Needs Assessment With PCPs. An online survey was developed and distributed to PCPs to determine the preferred clinical topic areas for clinical tools. c) Priority-Setting Exercise. An expert Panel was established to rate and rank each potential topic across four criteria, using key elements of Delphi technique. Our priority-setting approach has been established, confirmed and applied twice over the past two years, demonstrating the ability to identify high-priority topic areas while balancing the perspectives of multiple primary healthcare stakeholders. The engagement of many PCPs and stakeholders has been emphasized throughout the priority-setting approach, including a needs assessment among PCPs (n=640) to rate ten clinical topics of most interest to them; PCPs participating as advisory Panel members or clinical reviewers (n=17), and stakeholder organizations participating as Panel members (n=7). An evaluation of the priority-setting exercise revealed that the process and the engagement of PCPs and stakeholders throughout the process was very positively rated. Panel members agreed they were appropriately involved throughout the process, and expressed continued interest and engagement in the Initiative. Application of this framework resulted in an effective and evidence-informed priority-setting approach that identified high-priority clinical topics within primary healthcare, over two consecutive years. This framework has broad applicability within healthcare when balancing the perspectives of multiple stakeholders, while considering existing work and competing priorities to identify topics of importance.

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5 Development and Dissemination of a Preconception Health Care Tool in Primary Care

Presented by **APURVA SHIRODKAR**, Project Coordinator, Centre for Effective Practice

One of the priorities of Ontario's Healthy Kids Strategy is to emphasize that good health begins even before conception. As such, the Preconception Health Care Tool (PHCT) was developed and disseminated to guide primary care providers' discussions of health promotion and illness prevention strategies with all patients of reproductive age. An integrated knowledge translation approach was utilized to develop the clinical tool. A working group comprised of a primary care nurse practitioner, a family physician, and CEP staff conducted a comprehensive literature search, review, and appraisal of existing clinical evidence. Through this process, the working group integrated all available evidence and resources into one comprehensive tool. Iterations of the tool were tested and refined based on feedback obtained from stakeholders and organizations with expertise in maternal and infant care, as well as providers who practice comprehensive family medicine. The tool presents information for providers to use opportunistically with their patients of reproductive age to: encourage patients to develop a reproductive life plan; assess and optimize patients' preconception physical and mental health; choose safe medications for women who may become pregnant; and counsel on lifestyle habits (nutrition, physical activity, alcohol, tobacco and other substances). Current patient and provider resources are included throughout the tool. Preliminary data on dissemination has been collected and analyzed. Since the launch of the Preconception Health Care Tool webpage in March 2015, it has received over 2,100 views. Preliminary evaluation data on providers' awareness and attitudes of the PHCT tool will also be presented and discussed. The Preconception Health Care Tool integrates current evidence-based recommendations and provides an approach to preconception health care within primary care. Further evaluation of this tool and its impact on practice is ongoing.

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6 Improving quality of care for adults with developmental disability in primary care: Outcomes of a study to implement the annual health check

Presented by **AVRA SELICK**, Research Coordinator, Centre for Addiction and Mental Health

Adults with developmental disabilities (DD) have more health issues and receive less preventative care than other adults. An annual health check (HC) is a recommended best practice to proactively identify and manage health concerns. The present study evaluated implementation of the HC in two Ontario family health teams. Each team participated in a staged change process supported by a study facilitator. The core components of the HC implementation included patient identification (through EMR system and staff review), invitation phone call by practice clerk, and modified health exam supported by clinical tools and staff training. Chart audit (n=276), resident and staff surveys (n=265) and staff interviews (n=10) were conducted to evaluate implementation based on the RE-AIM framework domains: reach (number of HCs performed), effectiveness (increased receipt of HCs, improved staff skills), implementation (preventive actions performed, staff experience) and sustainability. 139 patients received a HC. Those who received a phone invitation were more likely to attend a HC (63% vs 25%) and those who received the HC were more likely to receive preventative tests/screening (BMI, BP, cancer screening, vaccination). Most staff felt that the HC benefited patients and fit with their practice mandate. However, there were some perceived gaps in knowledge that did not improve over time (e.g., common comorbidities) and at the end of the study only one third of staff felt they had sufficient skills and training to care for patients with DD. The implementation benefited from access to some practice resources (clerical, technical support). Still, obtaining sufficient support was a challenge since the intervention was not a formal QI priority. Implementing an annual HC within primary care for a low frequency but vulnerable patient group was feasible. Sustainability can be challenging and requires developing routine processes to support intervention delivery (e.g., maintaining a practice registry of DD patients). Exploring feasibility for other primary care settings is an important next step.

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7 Institutional Knots: A Comparative Analysis of Cord Blood Policy in Canada and the United States

Presented by **AVRAM DENBURG**, Oncologist, Hospital for Sick Children

Until recently, Canada was the only G8 country without a national cord blood bank. This differs markedly from the United States, which years ago established national cord blood banking (CBB) policy. This study investigates this discrepancy through a comparative analysis of policies on national CBB in Canada and the US. This research comprises a comparative study of the determinants of CBB policy in Canada and the United States. Data derive from searches of the published and grey literature on CBB in Canada and the United States. Sources of data include academic articles, governmental and nongovernmental documents, media sources, organizational and industry websites, and online media. To interrogate the effect of institutions on CBB policy development, I draw on and test insights from the historical institutional literature, and employ the concept of institutional entrepreneurs to explore interactions between actors and institutions in the CBB policy process. Cross-national discrepancies in policy on public cord blood banking were determined primarily by institutional factors, principal among them formal governmental structure and the legacy of past policies. Institutional entrepreneurialism in the health sector played a constitutive role in the earlier evolution of national cord blood policy in the United States as compared to Canada. These findings imply the need for enhanced federal involvement in areas of blood system policy—and, more broadly, public health policy—with national scope. In Canada, governments should consider institutional reform that reallocates governance roles. Locating greater responsibility for agenda setting and funding at the federal level might facilitate coordinated national responses to the policy challenges that emerge as stem cell science evolves. This research contributes novel insights into public health system governance and the role of institutional entrepreneurs therein. It suggests that attention to the influence of institutional arrangements on blood system policies will increase clarity on policy trajectories and cultivate sensitivity to the optimal alignment of governance roles with policy horizons.

8 The normative foundations of child health and social policy: A critical interpretive synthesis

Presented by **AVRAM DENBURG**, Oncologist, Hospital for Sick Children

Current health technology assessment (HTA) paradigms do not account for the unique evidentiary and ethical dimensions of child health, compromising their application to child health technologies. This research maps the normative dimensions of child health and social policy to provide a foundation for critical empirical study of HTA in children. This research anticipates a larger mixed methods study on social values in the assessment of novel child health technologies. It undertakes a critical interpretive synthesis of the normative dimensions of health and social policy-making for children. The work surveys diverse literatures to map the ethical, socio-cultural and epistemic foundations of child health and social policy, in search of novel concepts, theories, and methods relevant to the understanding and adjudication of HTA for children. Analysis of extant literature exposed a relative paucity of explicit analyses of the normative foundations of child health and social policy. Four central themes, each encompassing a few key values, emerged: potential, rights, risk and distinctness. A number of these values cut across diverse policy domains. Few attempts to formally weight or prioritize select values – either generally or in specific policy domains – were evident. Reification of select synthetic constructs in an exploratory, mixed methods study will examine the relevance and relative priority of values attached to these themes among diverse stakeholders involved in or impacted by HTA for childhood cancer technologies. Inquiry into the social values that inform child health and social policy-making exposes unique normative and evidentiary considerations that justify the consideration of distinct HTA processes and metrics for children. Further empirical research on the nature and role of social values in the assessment of child health technologies is warranted.

9 Creating healthy transitions in Maritime families / Créer des transitions saines chez les familles des Maritimes: The CARE/SAINES Project

Presented by **BAUKJE (BO) MIEDEMA**, Director of Research, Dalhousie University Family Medicine Teaching Unit Fredericton

The Maritime experience higher rates of chronic disease (CD) compared to the national average. It is predicted that by 2019, more adults in the Maritimes will be overweight or obese. This intervention aims to use an upstream approach to reduce the lifestyle risk factors (LRF) associated with CD. This 5-year community-based partnered/integrated knowledge translation study incorporates community partners, health professionals and an innovative web-based interface for prenatal and young families. The intervention will be for a maximum of 36 months. A prospective multiple cohort, quasi experimental design with longitudinal data collection will be used; non-exposed comparison groups will be drawn from existing data sets. Participants will be recruited in four nodes in NS, NB and PEI, - four sites per node - for a total of 16 sites with between 25 and 35 families per site. Enrollment will be staggered. The main components of the intervention will be: a) periodic face-to-face workshops at each of the sites, alternating in focus across risk factors; b) a Virtual Health Interface as a medium for delivering the web-based component of the intervention and for selected research data collection. Objective measures and data related to child growth, parent/child health, eating habits, physical activity and socio-demographic variables will be collected. The Public Health Agency of Canada has approved this study and it has been submitted for funding in the CIHR Project Scheme March 2016 competition. The intervention is expected to improve the management of risk factors and health outcomes of children and parents, and to foster trans-disciplinary collaborations that support such outcomes. This study was developed with many stakeholders such as community members, potential participants, Family Resource Centres, public health officers, academics and clinicians in the Maritimes. This study will advance knowledge about delivering effective lifestyle interventions to prevent CD early in life and about determinants that support the management of LRF.

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10 A Primary-Care Based Wraparound Model for Child and Youth Mental Health in Ontario: Impacts on Youth and Families, Physicians and Services

Presented by **BRIANNE OLIBRIS**, PhD Student, McMaster University

The research seeks to obtain a comprehensive understanding of how the Caroline Families First Wraparound program works for children/youth with mental health problems and disorders and their families; of the program's influence on youth/family members, physicians and formal and natural supports; and, the barriers and facilitators to its success. Using a qualitative case study, an in-depth analysis is conducted of three purposely sampled cases (each crafted around one program family), one each wherein the program has been highly successful, has had moderate success, and has been less successful. The case study draws upon 7-12 key informant one-on-one and focus group interviews with Wraparound team members per case; participant program data and post-Wraparound meeting data. Data was analyzed using an inductive approach in conjugation with a coding scheme derived from the program logic model and the Mulvale Bourgeault conceptual framework of macro-meso-micro and individual factors that influence interprofessional collaboration. The project 'tells the story' of how Wraparound works and influences participants in practice, and helps identify barriers and facilitators to success. Families and providers alike benefit from the coordination and provision of appropriate, interdisciplinary supports that build capacity within and empower families. Providing families with support by an individual with lived experience, and the collaborative funding structure of the program between provincial ministries, both unique aspects of this program, facilitate active participation in the Wrap process. The understanding of program performance gained will inform decisions about program continuation, potential modifications to better meet participant needs, and factors affecting effectiveness to be considered for widespread implementation. The findings provide a comprehensive assessment of the program's influence and features - including the family support person, care coordinator, and location in primary care - on participants; contextual factors shaping prospects for widespread implementation across Ontario to achieve comparable objectives, and lessons learned for other health service integration efforts.

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11 The effect of timely outpatient follow-up after hospital discharge on 30-day readmission: an analysis using time-specific propensity scores

Presented by **BRUNO RIVERIN DESCHÊNES**, Doctoral student, McGill University

Post-discharge outpatient follow-up is promoted as a strategy to reduce readmission. The evidence on the optimal timing of post-discharge follow-up is less clear. We used propensity scores to mimic randomization on the precise timing of follow-up to examine its effect on 30-day readmission among hospitalized elderly or chronically ill patients. We extracted insurance billing data on 620 656 admissions for any cause from 2002-2009 in Quebec, Canada. We considered 30-day readmission as our primary outcome. We estimated time-specific propensity scores for the receipt of physician follow-up on any post-discharge day. We then derived inverse-probability-treatment-weights to balance covariates across exposure groups. We estimated adjusted risk differences (RD). We examined effect heterogeneity 1) among patients hospitalized due to acute myocardial infarction, heart failure or chronic obstructive pulmonary disease; 2) by subgroups of patient morbidity level; and 3) separately for follow-up by a primary care physician only or by a medical specialist only. The risk of 30-day readmission was reduced by 10.6%-point in patients who received post-discharge outpatient physician follow-up (95% CI: 10.3%-10.8%). We observed the largest reduction among patients who received follow-up within 21 days post-discharge (21-day RD: 11.1%-point, 95% CI: 10.9% - 11.3%), after which time there was no additional risk reduction. There was a similar time trend and even larger risk reductions for patients hospitalized due to AMI, HF or COPD (21-day RD: 14.9%-point, 95% CI: 14.4%-15.4%) and for patients with the highest morbidity level (21-day RD: 15.0%-point, 95% CI: 14.2%-15.8%). The risk difference was larger for outpatient follow-up visits with a primary care physician only (30-day RD: 11.7%-point, 95% CI: 11.5%-12.0%) rather than with a medical specialist only (30-day RD: 8.1%, 95% CI: 7.8%-8.3%). Our study provides robust evidence that post-discharge outpatient follow-up yields large reductions in the risk of 30-day readmission. Future policies to reduce 30-day readmission should target timely post-discharge follow-up and emphasize follow-up in the primary care setting within the first 3 weeks of discharge, particularly for high-risk patients.

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12 How to create a patient-oriented research culture

Presented by **CATHY PEYTON**, Program Manager, Memorial University of NL

Patient-Oriented Research has been highlighted as the way to improve health outcomes and enhance patients' health care experiences. This presentation will give health care policymakers, managers, researchers and professional's a range of possible models for creating a patient-oriented research culture. Strategies to adopt and first experiences will be discussed. Canada's Strategy for Patient-Oriented Research (SPOR) is about ensuring that the right patient receives the right intervention at the right time. SUPPORT Units are provincial or regional centres designed to support those engaged in patient-oriented research. The Newfoundland and Labrador SUPPORT Unit has developed a strategy to facilitate a patient-oriented research culture within the province. A patient-engagement course has been developed to equip policymakers, health care professionals, researchers and students with the skills and knowledge necessary to engage patients' perspectives. Furthermore, a needs assessment will be conducted to identify extant gaps and develop capacity and learning opportunities. First experiences indicate that the concept of patient engagement in research is relatively new to researchers, professionals and policymakers and when included is often tokenistic. In the short term, it is expected that awareness of the importance of patient-oriented research (POR) will increase. The capacity and the number of individuals with patient-oriented research skills will grow. This will result in a higher level of patient engagement in research. In the long term, it is expected that patient-oriented research will produce evidence for decision makers and health care providers that will improve health care practices, therapies and policies. The development of true culture of patient oriented research will ensure that new and innovative diagnostic and therapeutic approaches are applied when and where needed. POR is a new approach that focuses on engaging patients' experiences to improve health outcomes. There is a shortage of researchers, professionals and policymakers that have the awareness and skills to engage patients in research. This initiative is the first step to be taken to create a POR culture.

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13 Increased Rates Of 25-Hydroxy Vitamin D Testing: Dissecting A Modern Epidemic

Presented by **CELIA RODD**, Associate Professor, University of Manitoba

Many laboratories have noted increases in the analysis of 25-hydroxy-vitamin D (25(OH)D) recently. Our objectives were to describe the annual number of 25(OH)D tests performed, examine the characteristics of those tested and those ordering the tests, and to determine the proportion of tests that may have been unnecessary. The population of interest is all residents in Manitoba. Laboratory results from April 2006 to March 2013 were linked to Manitoba Centre for Health Policy comprehensive administrative datasets. Patient characteristics included age, sex, chronic disease status, medication use and location of residence and physician characteristics included age, sex, years of practice and specialty. Additionally, 25(OH)D concentrations and season of analysis or season of reporting for the analyses were available. From April to September, vitamin D may be made via the skin; higher concentrations of 25(OH)D are noted during this time. Descriptive statistics and multivariable regression models were utilized. The results demonstrate a 9-fold increase in annual testing from 2006 to 2013, with more than 25,000 tests performed in 2013. In 2013 this translated into at least 1 in 75 resident being tested. The median number of tests per patient was 1 per year, 30% had more than 1 test per year with the maximum exceeding 10 per year. After the age of 19y, females had twice the number of tests of males (p240 nM) increased disproportionately from 2007 to 2013 (0% vs. 0.15%, p<0.001). 1% of physicians in the province ordered 37% of all 25(OH)D tests; 70% of these were primary care physicians. Ongoing analyses will examine whether this increase appears to have been warranted. We confirm a rapid increase in 25(OH)D testing. The sex differential may reflect targeted verification of vitamin D status of young fecund women and older women at risk of osteoporosis. Factors associated with high rates of testing amongst a small number of primary care physicians require further exploration.

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14 Examining the generalizability of a statistical natural language processing model for pneumonia surveillance in acute care hospitals

Presented by **CHRISTIAN ROCHEFORT**, Assistant Professor, University of Sherbrooke

Natural language processing (NLP) models are increasingly used for adverse event (AE) surveillance in acute care hospitals, but limited information is available on their generalizability, which is important for valid benchmarking of AE data across institutions. We examined the generalizability of a statistical NLP model for identifying pneumonia from electronic health record (EHR) data; a common AE that is associated with significant morbidity, mortality and cost. We randomly sampled 4,000 narrative reports of chest radiological examinations performed at a university health network (UHN) in Quebec (Canada) between 2008 and 2012. We manually identified pneumonia within each report, which served as our reference standard. We used a nested cross-validation approach to train and validate a support vector machine (SVM) model predicting pneumonia. This model was then applied to a random sample of 2,281 narrative radiology reports from another UHN in Ontario (Canada), and accuracy was measured. The accuracy of the Quebec model, as applied to Ontario data, was compared to that of two alternative models: 1) a model recalibrated on Ontario data and; 2) a model trained and validated using all available data (pooled Quebec-Ontario model). On manual review 640 (16.0%) and 303 (13.3%) reports were pneumonia-positive in Quebec and Ontario data, respectively. The SVM model predicting pneumonia on Quebec data achieved 83% sensitivity (95%CI: 78%-88%), 98% specificity (95%CI: 97%-99%) and 88% PPV (95%CI: 83%-94%). When applied to Ontario data, this model achieved 57% sensitivity (95%CI: 51%-63%), 99% specificity (95%CI: 98%-99%) and 86% PPV (95%CI: 80%-90%). In comparison, the model retrained on Ontario data achieved 76% sensitivity (95%CI: 70%-82%), 98% specificity (95%CI: 97%-99%) and 86% PPV (95%CI: 82%-91%), while the pooled Quebec-Ontario model performed worse than the Quebec model, but better than the Ontario one. A statistical NLP model predicting pneumonia has limited generalizability when it is directly applied to EHR data from another institution. However, good prediction performances can be achieved after model recalibration on local data.

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15 Chronic Non-Cancer Pain (CNCP) Management in Ontario: A Health Systems Analysis

Presented by **DARIA O'REILLY**, Associate Professor, McMaster University

CNCP is a complex health problem that imparts a large burden on the healthcare system and quality of life. There is limited information regarding how CNCP is managed in Ontario. Thus, the objective of this study was to conduct a systems analysis to determine how CNCP is managed in Ontario. Pain treatment facilities (PTFs), physiotherapists (PTs) and chiropractors were identified through internet searches, Pain Society of Ontario, Insurance Bureau of Canada, Workplace Safety and Insurance Board, and professional associations. Questionnaires were sent to all PTFs (n=501), a sample of PTs (434/7,815) and a sample of chiropractors (659/3,990). Survey results were analysed using descriptive statistics. The response rate was 7.6%. The 101 included PTFs operate 5 days/week with 39 new consultations per month with over 524 patient visits per month. There is an average of 59 patients on waitlists with a mean wait time of 8 weeks. The top three pain syndromes treated are low back pain (30%), neck (18%), and osteoarthritis (11%). The most common treatments are individual exercise programs, individual physical therapy and massage therapy. PTs, chiropractors and acupuncturists are usually the professionals providing the care in the PTFs. There was a low rate of return of completed questionnaires. Back pain is the most common pain syndrome being treated. The average PTF has more than 1 new consult/day and more than 6,480 visits/year. CNCP is being provided by a wide range of healthcare professionals using numerous treatment modalities.

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16 An experimental test of inequality aversion attitudes towards health inequality, income inequality, and income-related health inequalities

Presented by **DAVE CAMERON**, Manager, Experimental Economics, McMaster University

We estimate inequality aversion towards income inequality, health inequality, and income-related health inequality. We are particularly interested in testing whether inequality aversion differs across income and health, and the extent to which aversion to income-related health inequality deviates from the assumed value for the standard concentration index. We use a stated-preference experiment to empirically estimate the inequality aversion parameters for residents Ontario, Canada. Respondents are presented with choice scenarios containing two distributions of the relevant outcome, constructed such that if the respondent has an inequality-aversion parameter equal to a pre-specified value they will be indifferent between the distributions. Depending on which distribution they choose, we can infer that their inequality aversion is greater or less than the value assumed. We also evaluate descriptive statistics on the distribution of inequality aversion in the population and run logistic regressions to examine the association between inequality aversion and individual characteristics. 1,964 participants took part in the survey. We presented participants with pre-specified inequality aversion (IA) parameters that range from little aversion of inequality (IA parameter = 1.0) to considerable aversion to inequality (IA > 3.0). For income, we find substantial inequality aversion, with a median IA greater than 3; median IA is between 1.5 to 2.0 for income-related health inequality – in line with the assumed value for the standard concentration index. For health, however, preferences appear to be more heterogeneous and complex. There appears to be a strongly bi-modal distribution of inequality in the population, with approximately 51% displaying little inequality aversion (IA < 1.0) and 47.5% displaying substantial inequality aversion (IA > 3.0). Age and sex do not have statistically significant effect; university graduates are more inequality averse for health (OR: 1.56 p<0.05). Little is known about the public's attitudes towards inequalities in health, income, and income-related health inequalities. Moreover, these attitudes play key role in estimates of inequality. By incorporating social preferences that reflect Canadians' attitudes, conclusions regarding health, income and income-related health inequalities can help inform development of relevant health policies.

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17 A scoping review of complexity theory in peer-reviewed health services research

Presented by **DAVID THOMPSON**, PhD Student, University of Windsor

We will present findings from a scoping review aimed at answering the following research questions: How is complexity theory used and described within health services research? What are the characteristics of studies informed by complexity theory? What settings and professions are studied using complexity theory? A scoping review of published research in English was conducted using CINAHL, EMBASE, Medline, Cochrane, and Web of Science databases. We used the following approach to scoping reviews recommended by Arksey & O'Malley (2005): (1) identify the initial research question; (2) identify the relevant studies; (3) select the studies; (4) chart the results; and (5) collate, summarize, and report the findings. We used Levac, Colquhoun, and O'Brien's (2010) recommendations to operationalize each step. We included 44 studies in this review: 27 were qualitative, 14 were quantitative, and 3 were mixed methods. Case studies were the most common method. Long-term care was the most studied setting. The majority of research informed by complexity theory was exploratory. Researchers used a total of 18 attributes when referring to complexity theory. The most common attributes of complexity theory used within health services research were relationships (n=21), self organization (n=19), diversity (n=19), emergence (n=16), communication (n=14), feedback (n=8), agents within a system (n=8), and non-linearity (n=7). Heterogeneous descriptions of complexity theory were present across studies and prevented determining precisely how authors describe complexity theory in health services research. Complexity theory is used across a variety of research designs in health services research. Authors describe complexity theory in many ways, which may lead to confusion and variable application. Complexity theory shows promise for informing health services research and health services delivery, particularly related to relationships among health care workers.

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18 Pregnancy and Parenting with Arthritis: Bridging the Information Gap

Presented by **DAWN RICHARDS**, Vice President, Canadian Arthritis Patient Alliance

Living with arthritis is difficult. Pregnancy and parenting with arthritis even more challenging. This project highlights the results of a survey to identify the information needs of people living with arthritis and their network of support (e.g. spouse/partner, health care team) as it relates to conception, pregnancy and parenting. The survey was designed based on input from people living with arthritis who represented a range of perspectives (e.g. considering pregnancy, parenting school age children, etc.). Methods to achieve this feedback included phone calls, in person meetings and email. A survey was created using Survey Monkey (in both English and French) and published on the CAPA website (<http://www.arthritispatient.ca/projects/pregnancy-parenting/>). The survey was communicated through various methods, including the quarterly CAPA newsletter and other forms of social media. Subsequent distribution and promotion of the survey were achieved through CAPA's efforts and partnership with various stakeholders throughout September and October 2015. A total of 150 responses were received, representing perspectives from across Canada, in both rural and urban environments. While most respondents were female, some men also responded. Respondents were primarily individuals living with arthritis, responses were also received from spouses, rheumatologists and other members of the extended healthcare team. Respondents live with various forms of arthritis, and have lived with arthritis from 0-20+ years. While some differences were noted depending on whether the individual was pregnant/considering pregnancy and the different ages of the children, overall areas of concern were similar. CAPA aims to raise the profile of this issue and help people living with arthritis engage in more dialogue with their healthcare providers during these critical life events. The results of survey will be used to create an educational resource to provide information, identify common issues and provide tips and resources for people living with arthritis (and their support networks) for pregnancy and in carrying out their role as a parent.

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19 Neonatal and Childhood Neurodevelopmental, Health and Education Outcomes of Children Exposed to Antidepressants and Maternal Depression During Pregnancy: Study Protocol

Presented by **DEEPA SINGAL**, PhD Candidate, University of Manitoba, Department of Community Health Sciences

Antidepressants are commonly prescribed during pregnancy; however, their use during the prenatal period remains controversial. This study will investigate short- and long-term neurodevelopmental, physical and mental health, and educational outcomes of children who have been exposed to antidepressants and/or maternal depression during pregnancy. Administrative data will be used to generate three exposure groups from all children born in Manitoba between 1996 and 2014 whose mother had a prescription for antidepressants: (1) throughout the prenatal period; (2) in early pregnancy (not during the 90 days before delivery); (3) in late pregnancy only (prescription refill 90 days, or shorter, before delivery), and one unexposed group consisting of children whose mothers had a diagnosis of depression during pregnancy but did not use antidepressants. Propensity scores and inverse probability treatment weights will be used to adjust for confounding. Multivariate regression modelling will determine whether prenatal exposure to antidepressant medications or untreated mood/anxiety disorder is associated with: (1) adverse birth and neonatal outcomes, including: preterm birth, low birth weight, low Apgar scores, respiratory distress, congenital malformations, and persistent pulmonary hypertension compared to untreated prenatal mood/anxiety disorders; (2) adverse early childhood outcomes, including: early childhood educational challenges, diagnosis of neurodevelopmental disorders, and diagnosis of mental disorders compared to untreated prenatal mood/anxiety disorders. We will determine if exposure effect differs between types of antidepressants prescribed, specifically between SSRIs and SRNIs, and determine if exposure effect differs between gestation timing of exposure to antidepressants. This is the first Canadian study that will conduct a comprehensive longitudinal investigation on the effects of in-utero antidepressants on the long-term outcomes of children exposed to these medications. Results will provide high quality evidence that can assist in making informed decisions regarding the use of antidepressants during pregnancy.

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20 Canadian Suburban Communities, HIV, and Healthcare Access: Unanswered Questions

Presented by **DEREK MANIS**, Graduate Student/Teaching Assistant, University of Ontario Institute of Technology

Many Canadians live in suburban communities (SCs). Yet little is known about how living in SCs impacts access to healthcare services. We examine the experience of accessing services for HIV+ individuals living in SCs. We conducted a scoping review to be followed by patient interviews. Review results are presented. PubMed, CINAHL, and Google Scholar were searched to collect literature. Included sources aimed to accomplish at least one of: Explain or provide further information on SC design or Canadian SCs; report on perceptions and experiences of living in a SC in Canada, the United States, or Australia; discuss the role that transportation plays in accessing healthcare; explore HIV stigma broadly, or in low prevalence or healthcare settings; investigate substance abuse in SCs; and examine healthcare access, health service utilization for people living with HIV, or patient engagement within HIV care. The literature shows that suburban sprawl facilitates dependence upon an automobile for transportation. Additionally, the limited public transportation system in SCs makes it more challenging to attend medical appointments, especially if one relies upon this system as their primary mode of transportation. HIV stigma in low prevalence settings, which include SCs, is common, and as a result, many travel outside of their community to seek healthcare. Furthermore, there is an increasing body of literature that shows the presence of substance abuse growing in SCs. All of these findings affirm the need for investigating the current landscape of healthcare access in SCs from the perspective of HIV+ individuals. Moving forward with existential phenomenology methodology, the experiences and realities of accessing care in SCs will be captured through engaging with HIV+ individuals, and this would identify priorities to eliminate inequities and create new opportunities for innovative care. The findings would be of interest to policy-makers and community service organizations.

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21 Assessing hospital quality of care in British Columbia

Presented by **DIMITRA PANAGIOTOGLU**, PhD Candidate, University of British Columbia

In 2001, British Columbia began redistributing its hospital services. It is unclear how redistribution of services impacted the quality of care delivered. The objective of this analysis was to evaluate any change in performance of British Columbian hospitals for three time-sensitive medical events: acute myocardial infarction (AMI), trauma, and stroke. I used risk-standardized mortality ratios (RSMRs) to compare hospitals' performance on 30-day mortality rates. The cohort was all AMI, trauma and stroke events admitted to hospital between 2001 and 2012. Patients treated at more than one facility for the episode of hospitalization were assigned to the first facility admitted. Performance was evaluated in three year intervals: 2001-2003, 2004-2006, 2007-2009, and 2010-2012. I conducted generalized linear mixed models, adjusted for patient characteristics and clustered by hospital. I restricted results to facilities that accepted at least five patients per year and had one expected mortality per interval. Of the patient level characteristics tested in the model (age, sex, socio-economic status, distance from care, and frailty as defined by the Charlson comorbidity index), only age and frailty were retained as fixed effects. Of the hospital level characteristics tested (hospital peer group, and volume), neither was added as a random effect. Hospitals with a RSMR greater than expected (exceeded 95% CI) were flagged as poor performers. In 2001-2003 one of the 83 (1.2%), five of the 99 (5.1%), and six of the 110 (5.5%) facilities accepting AMI, stroke and trauma patients respectively were flagged as poor performers. By 2010-2012 this had declined to one of 72 (1.4%), two of 75 (2.7%), and zero of 79 (0.0%) respectively. During the redistribution of hospital services spanning 2001-2013, several facilities closed. However, the quality of care provided at facilities in operation improved.

22 Is time to care a critical determinant of patient 30-day mortality outcomes for medical emergencies in British Columbia?

Presented by **DIMITRA PANAGIOTOGLU**, PhD Candidate, University of British Columbia

International research has found that time to care plays a significant role on the outcomes of medical emergencies. The objective of this study was to determine the effect of time to care on British Columbia patients' outcomes and whether appropriateness and quality of care can compensate for travel burden. I looked at three time sensitive medical events: acute myocardial infarction, stroke, and major trauma. My cohort was all British Columbia residents that experienced one of these medical emergencies between April 1999 and March 2013. I used BC's Discharge Abstract Database and Consolidation file, the Medical Services Plan Payment Information File, and Vital Statistics' Mortality data and developed a series of survival models clustered by hospital. My primary outcome of interest was hazard of 30-day mortality and my travel burden reference was patients who traveled less than 30 minutes to access care. Time to care was a significant determinant of 30-day mortality for AMI and trauma patients. For AMI, the adjusted hazard ratio (AHR) was first significant for patients that traveled over an hour to access care. AHR(60-119mins)=1.170 (95% CI: 1.067, 1.283). Meanwhile, quality and appropriate care were protective: AHR(Quality)=0.782 (95% CI: 0.671, 0.913), AHR(Appropriate)=0.792 (95% CI: 0.727, 0.864). For trauma, the hazard of mortality started at a shorter travel burden. AHR(30-59mins)=1.335 (95% CI: 1.163, 1.533), AHR(60-119mins)=1.581 (95% CI: 1.335, 1.871). Appropriate care was protective but quality was not significant: AHR(Appropriate)=0.723 (95% CI: 0.569, 0.928), AHR(Quality)=1.098 (95% CI: 0.909, 1.326). For stroke patients, time to care and quality were not significant determinants of 30-day mortality. However, appropriate care was: AHR(Appropriate)=0.436 (95% CI: 0.298, 0.637). There is some truth to the golden hour adage for time sensitive events, but it is condition specific. More importantly, appropriate care is a critical determinant of patient health outcomes

23 Cost Pressures in the Hospital Drug Market, 2015

Presented by **ELENA LUNGU**, Manager, National Prescription Drug Utilization Information System, Patented Medicine Prices Review Board / Government of Canada

Important new drugs were launched in recent years, many used for cancer treatment in a hospital setting. This study analyzes and compares the rates of growth in drug expenditures for in-patient and out-patient settings in Canada and foreign markets. The research focuses on the impact of high-cost drugs on recent trends. The analysis uses the IMS AG MIDAS™ Database for the period from 2010 to 2015. The main international markets considered are France, Germany, Italy, Sweden, Switzerland, the United Kingdom and the United States. While the sale of drugs dispensed in hospitals represents a relatively small component of the national pharmaceutical market (about 12%), it is nonetheless an emerging market segment. The rates of growth in hospital sales have been on the rise in recent years and exceed those in retail markets in Canada. Similar trends are observed in many foreign markets. A therapeutic-level analysis suggests that most of the drugs driving the growth in hospital sales are oncology products, whereas drug sales in the retail sector are driven by biologic agents, and the new hepatitis C drugs, among others. Nevertheless, new and more expensive drugs have fueled sales growth in both hospital and retail markets. Emerging oncology treatments generate increased sales in the hospital market. This analysis will provide policy makers with insight into the cost pressures in the Canadian hospital market and illustrate how it compares to foreign countries.

24 Healthcare costs attributable to Lyme disease: A population-based matched cohort study in Ontario, Canada

Presented by **BEATE SANDER**, Scientist, Public Health Ontario

To determine incidence-based healthcare costs attributable to Lyme disease (LD) from the healthcare payer perspective. A cost-of-illness study was conducted using individually linked laboratory, reportable disease, and health administrative data from Ontario, Canada. The cohort of incident confirmed LD cases (infected subjects) between 01-Jan-2006 and 31-Dec-2013 was matched to uninfected subjects (1:3) using a combination of hard and propensity-score matching. The phase-of-care approach was used to estimate attributable acute and long-term costs using 2 phases: acute infection (first 30 days following index date) and continuing care (remaining observation time). Costs were stratified by age, sex, and resource type (e.g., hospitalization, physician visits, ED visits). Costs are reported in 2012 Canadian dollars, standardized to 10-days. N=648 confirmed LD cases in the laboratory and reportable disease datasets were linked. 98.9% were linked to health administrative data; n=477 had follow-up data available (mean follow-up, 3 years). Mean age was 44.9 years (SD±20.1), 51.0% female; 4.6% hospitalized (any diagnosis, 2.0% had Lyme disease as most responsible diagnosis). Overall mortality was 1.7%. Mean 10-day phase 1 and 2 costs (95% CI) per infected subject were \$291.53 (\$209.57, \$373.49) and \$54.12 (\$39.99, \$68.24), respectively. Mean 10-day phase 1 and 2 costs (95%CI) per uninfected subject were \$92.49 (\$75.61, \$109.37) and \$51.94 (\$43.85, \$60.03), respectively. Mean 10-day phase 1 and 2 attributable costs were \$199.10 (\$115.70, \$282.50) and \$2.60 (-\$13.30, \$18.50), respectively. Expected mean attributable 1- and 3-year costs per patient were \$684.40 and \$874.40, respectively. LD is associated with increased acute healthcare costs in confirmed cases. Further investigation of probable cases and patients with LD-related sequelae is warranted to quantify implications of long-term antibiotic use in sub-populations. High-quality healthcare costs attributable to LD are important for healthcare planning and the evaluation of novel interventions.

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25 Health-related quality of life, comorbidities and mortality in nontuberculous mycobacterial infections: A systematic review

Presented by **MAN WAH YEUNG**, Epidemiologist, Public Health Ontario

The prevalence of NTM infections and mortality have increased worldwide over the last decades given the increased susceptibility of an aging population. We systematically review the health-related quality of life (HRQOL), comorbidities and mortality associated with nontuberculous mycobacterial (NTM) disease, an emerging clinical and public health concern. We searched MEDLINE, EMBASE, CINAHL, Scopus Life Sciences, conference proceedings and Google from the earliest date available to February 2015 for primary studies in high-income jurisdictions. Search terms related to NTM, patient preferences, sequelae, prognosis and survival were developed in consultation with a librarian. We snowball searched reference lists. Eligible studies compared populations with and without NTM disease, excluding studies that examined HIV populations exclusively. Two reviewers independently screened articles, extracted data and appraised study quality using the STROBE checklist. We followed MOOSE and PRISMA reporting guidelines. All languages were accepted. Findings were summarized qualitatively. Of 3193 citations, 19 studies were included, the majority being from Taiwan (n=8) and the United States (n=4). One assessed HRQOL, one assessed comorbidities, 14 assessed mortality and three assessed multiple outcomes. NTM populations reported significantly worse HRQOL than non-NTM populations with the visual analogue scale, but not with time trade-off. Among four comorbidity studies, some suggested NTM populations experienced greater risk of Aspergillus-related diseases (n=2), bronchiectasis (n=2) and pulmonary tuberculosis (n=1). Most (n=9) suggested no difference in mortality between comparators. Four studies—two of high quality, suggested NTM populations fared worse. One low quality study suggested NTM populations fared better. High clinical heterogeneity in study design may explain discordant results. Overall, bias assessment was done poorly: only one study measured potential misclassification of NTM. No strong consensus emerged on how populations with NTM compared to those without NTM. The studies suggest an increased burden from a range of respiratory diseases and a potentially increased mortality associated with NTM disease. Higher quality studies are needed to address biases and inform patient care and healthcare planning.

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26 The main predictors of the evolution of the costs of health care expenditures for active population aged 18 to 64: Longitudinal analysis from 1998 to 2012

Presented by **ERIC TCHOUAKET**, Professeur, Université du Québec en Outaouais

To provide an in-depth understanding of the evolution of the costs of health care goods and services respectively provided to males and females members for active population aged 18 to 64 between 1998 and 2012. Two type of data sources will be used for this study: Canadian Institute of Health Information (CIHI) and Statistics Canada's dataset series. Time series descriptive analysis (growth rates and graphs) and multivariate analysis (pooled analysis, panel data analysis and cointegrated analysis) will help to determine the short-term and long-term predictors of the real per capita growth health care expenditure. Specifically, the extent to which each of the following factors determine the evolution of healthcare costs for each of these two populations: the costs of living, the standards of living, technological progress, health-related factors, demographics patterns, and healthcare labour supply patterns. The main predictors of the following items will be clearly defined: the real total healthcare expenditures per capita, the hospital expenditures per capita, other institution expenditures per capita, physicians expenditures per capita, other professional per capita, and drugs expenditures per capita. All the results will be presented by gender and Canadian provinces and territories. The results would help decision makers and provincial governments to make a good forecast budget for the provincial and territories Ministry of health.

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27 Financial and geographic barriers to accessing fertility services in Newfoundland and Labrador: A qualitative study from the perspective of patients

Presented by **ERIKA MAXWELL**, Graduate Student, Memorial University of Newfoundland

To explore the perspectives of service providers related to challenges that patients face when accessing fertility services, including service provider perceptions of the challenges faced by patients and how these challenges affect the provision of care. The study will use semi-structured, in-depth interviews with service providers who are employed at Newfoundland and Labrador Fertility Services to explore their perspectives on the challenges faced by patients accessing fertility services and how the challenges affect the provision of these services. The service providers include physicians and nurses as they are most familiar with patient treatment. The interview questions will address what the service providers know or perceive to be barriers for patients accessing fertility services in the province, including out-of-pocket costs and travel within and between provinces, as well as how these challenges affect service provider treatment plans. From preliminary discussions with two service providers at Newfoundland and Labrador Fertility Services we know that out-of-pocket costs and geography impact patient access to fertility services. Patients who live outside of a certain geographic range find it difficult to make it to St. John's for their fertility treatment for a variety of reasons, including taking time off of work to drive or fly to the city, the cost of driving or flying to St. John's for their treatment, and leaving their families to do so. Patients looking to access IVF treatments must travel outside of the province, which again contributes to the cost of their treatment. Analyses will include quotes that illustrate service provider perceptions of patient challenges and how provision of care is affected. Out-of-pocket costs and geographic barriers are prominent challenges that patients face when accessing fertility services in Newfoundland and Labrador.

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28 Buying health? The role of procurement in health care systems

Presented by **FIONA MILLER**, Associate Professor, University of Toronto

Procurement is often seen as a transactional, back office function - to generate savings for front line care. But this role is increasingly criticized, with federal and provincial calls for a shift to strategic, value-based procurement. To inform policy, we analyzed how procurement is currently organized and encouraged to operate. We analyzed the evolution and coordination of procurement arrangements in the health sector across 4 provinces (Alberta, British Columbia, Ontario, Quebec), with a focus on medical technology procurement. Using a comparative case study design, we reviewed documents (legislation, annual/policy/strategy reports, provincial budget statements, reports of Auditors General, organizational policy and procedures, etc.) conducted key informant interviews (n=58) and engaged in non-participant observation at relevant conferences, workshops and educational events. Data were managed electronically using qualitative research software (MaxQDA12) and analyzed using a qualitative, interpretive and comparative approach, to identify patterns within and across jurisdictions, organizations and policy arrangements. Many challenges facing procurement are consistent across jurisdictions, involving pressures to reduce costs, difficulties in ensuring clinical relevance or engagement, and the complications of managing in a highly regulated and risky environment. But procurement organizations vary in their capacity to respond strategically. Key factors in this variability include: (i) the extent to which procurement organizations are aligned with system arrangements (e.g., regions) and the full scope of system needs, including technologies (e.g., drugs, medical technologies, nutritional services, etc.) and sectors of care (acute, chronic/rehabilitative, home and community, long term residential), (ii) the organizational arrangements that link procurement to clinical practitioners and clinical needs, and (iii) the organizational arrangements and incentive structures that link procurement to health system leadership and the associated performance expectations. Procurement organizations face regulatory, structural and governance challenges in developing a strategic and value-added role. But procurement arrangements, alongside system structures, affect the capacity to manage challenges strategically. As policy makers begin to consider reforms, the full range of influential factors – within and without procurement – should be examined.

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29 **Modelling the affordability of Home Care and Nursing Home Long-term Care**

Presented by **FREDERIC SAMVURA**, Senior Economist, Health Canada

The objectives of this study are to estimate: 1) the affordability of out-of-pocket costs borne by the individuals needing home care or long-term care; and 2) the costs borne by provincial governments as well as their increase over time in light of population aging. Statistics Canada LifePaths model, a stochastic microsimulation model of the Canadian population, was applied to forecast home care and long-term care utilisation and out-of-pocket costs. We used age, gender, marital status, education and various parameters (e.g., provincial client income-testing, personal support service maximums) to determine the probability of using home care or long-term care. Eight policy scenarios (e.g., re-assign 10% of new institutional inflow to home care; limit institutionalization to people 80+, amongst others) were tested in comparison to the base case scenario which assumed that current home care and long-term care policies would be maintained between 2015 and 2050. Out-of-pocket costs for individuals and costs to governments were investigated for three years (2015, 2030 and 2050). The need for subsidization to cover the cost of resident's accommodation in long-term care institutions vary by province. In the baseline scenario, Quebec and Alberta incurred the lowest costs per resident while provinces in the Atlantic region bore the highest subsidization cost per resident. Subsidization to cover the delivery of home care service had a lower variance across provinces. New Brunswick and Newfoundland and Labrador bore the lowest subsidization cost per home care client per year. For home care, out-of-pocket costs only apply to personal support services in certain provinces and 90% of clients can afford their full costs today and in the future. This study suggests that affordability of home care and long-term care is an important consideration for federal and provincial governments; more so than for individuals who use these services. Possible next steps include incorporating newly available data both at the national and provincial level, as well as refining policy scenarios.

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30 Variability in the Rates of Normal Diagnostic Coronary Catheterizations and Non-Invasive Pre-Catheterization Functional Testing at Advanced Cardiac Centres in Ontario

Presented by **GARTH OAKES**, Senior Lead, Knowledge Translation and Privacy, Cardiac Care Network of Ontario

The objective of this analysis was to analyze temporal trends in the rates of CATH procedures across Ontario and examine the CATH results and rate and of pre-CATH non-invasive cardiac diagnostic testing in stable, elective patients who were found to have normal or non-significant coronary artery disease (CAD). Data in the Cardiac Care Network of Ontario (CCN) Cardiac Registry on elective CATHs procedures performed in Ontario from April 1, 2011 to March 31, 2015 were analyzed. Recognizing that non-elective patients may present with acute symptoms that warrant immediate intervention and non-invasive cardiac diagnostic testing may not be appropriate, we excluded these unstable patients from our analysis. Elective CATHs were defined as patients assigned an urgency ranking of “Elective” or “Semi-Urgent” at the time of their procedure. Urgency rankings are calculated by CCN's coronary angiogram algorithm which is based on the severity of clinical symptom status and diagnostic tests. The rate of CATHs performed in Ontario where the result was either normal coronary anatomy or non-significant CAD remained relatively stable in Ontario over the past four years, between 32.1 and 33.4%. However, our analysis revealed variation in the rate of normal/non-significant CAD results between cardiac centres in Ontario and between individual CATHing physicians, with several programs/physicians having rates considerably higher than the provincial average. In elective CATH patients, it is reasonable to expect that the majority of stable patients should have a non-invasive cardiac diagnostic test prior to their CATH procedure. In our sample we identified that approximately 75% of patients had undergone some type of non-invasive cardiac diagnostic testing prior to their CATH procedure (ranging from 31.6 - 86.8% between cardiac centres). While a proportion of CATH results are expected to be in the range of normal or non-significant CAD, the target expected rate is unknown, however, the large variation in these observed rates between centres and between individual providers represents an opportunity for quality improvement.

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31 Private Drug Plans in Canada: High-cost Drugs and Claimants, 2005 to 2015

Presented by **GARY WARWICK**, Senior Economic Analyst, Patented Medicine Prices Review Board

The increased availability and use of high-cost drugs is fueling the recent growth in drug expenditures in Canada. This PMPRB study provides insight into the impact of high-cost drugs on private plan expenditures, as well as into the beneficiary population that uses these drugs. The analysis uses the IMS Brogan® Private Drug Plan Database for the period from 2005 to 2015. High-cost drugs were identified based on their annual treatment cost per beneficiary, and cohorts of high-cost beneficiaries were analyzed based on their annual level of drug costs, as well as on a percentile analysis. The report includes a therapeutic analysis of the high-cost drugs, as well as an analysis of the disease profile of the beneficiary population using these drugs. A small proportion of the beneficiary population accounts for a large share of the drug costs. These beneficiaries, which have relatively high annual treatment costs, represent a growing segment of the population, as there is an increased number of high-cost drugs coming onto the market and they are increasingly utilized. These trends are putting an upward pressure on prescription drug expenditures in private plans, with high-cost drugs becoming an important cost driver in recent years. A greater understanding of the impact of high-cost drugs and claimants on expenditures in the private drug plan industry will inform policy discussions and contribute to the ability to anticipate and respond to evolving cost pressures and, thus, to the sustainability of private plans in Canada.

32 Novel Approaches to Engage Users in Health Services Re-Design and Data Collection: Using Mobile and Web Apps to Capture Experiences of Youth Mental Health Services in Real Time in an Ontario Experience-Based Co-Design Study

Presented by **ASHLEIGH MIATELLO**, Doctoral Candidate, McMaster University

Young Canadians with mental disorders often experience service gaps resulting from poor coordination across services. The objective is to utilize new mobile and web apps to capture mental health experiences of youth, family members and service providers in real time, as a basis for co-design to improve care coordination. The myEXP smart phone and web apps were developed to understand youth, family member and service provider experiences during a young person's journey through mental health services. Data from 36 participants is being collected using the apps and through key informant interviews over a one-year period as part of an Experience-based Co-design participatory action research study. This approach first identifies the 'touch points' -- the crucial moments in a patient journey that make a difference to a service user's, family member's or service provider's experience of a care process. It then brings the three groups together to co-design improved experiences. Preliminary findings from data collection using these apps reveal important advantages including opportunities to map the youth's journey following each appointment and based on spontaneous entry over a one-year period; and to simultaneously gather perspectives of family members and service providers. Challenges compared with traditional qualitative approaches include the need to balance open and closed-ended questions given limited screen space, and the limited ability to probe through follow-up questions. While youth are comfortable sharing experiences through the apps on an ongoing basis, they may require considerable support from the research team during periods of intense symptoms. Youth demonstrate considerable optimism in their experiences of mental health services, and providers describe the essential role of informal networks as key to information sharing to meet multiple needs. This research provides an opportunity to explore the usefulness of mobile technology in data collection to involve patients, family and service providers in health service re-design. Early findings suggest the potential for more widespread application to improve care coordination across other health services and in evaluation research.

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33 Changing proportion of adults with and without intellectual and developmental disabilities (IDD) receiving an annual health exam from 2003 to 2015 in Ontario, Canada

Presented by **GLENYS SMITH**, Student, Queen's University

Over the past decade, annual health exams (HE) have been de-emphasized for the general population but emphasized for adults with IDD. Our objective was to compare the proportion of adults with and without IDD who have received a HE annually from 2003/04 to 2014/15. Using administrative health data, the proportion of adults (18-64 years old) with IDD who received a HE each year was compared to the proportion in a propensity score matched sample of the general population. Hard matching was done on sex and propensity score matching was done on age, morbidity, neighbourhood income, and rurality. Poisson segmented regression with an offset term equal to age group size, controlling for age was used to compare groups.

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34 Evaluating Investment in Quality Improvement Capacity Building: A Synthesis of the Literature

Presented by **GUSTAVO MERY**, Adjunct Professor, University of Toronto

Leading health systems have invested in substantial quality improvement (QI) capacity building, but little is known about the effectiveness of these investments. To start addressing this gap, our purpose was to identify key steps and elements that should be considered for system-level evaluations of investment in QI capacity building. We conducted a systematic review of the health care services and policy literature to identify, first, system-level evaluations of QI capacity building/training; second, evaluations of the investment in QI capacity building/training (ROI or other types of economic evaluation), even if these were at a program/initiative level, rather than the system level; and third, any other evaluations or analyses of QI capacity building that would address our purpose. The search included the most relevant indexed databases in the field and a strategic search of grey literature. The latter included direct electronic scanning of 85 relevant government and institutional websites internationally. Forty-eight articles met inclusion criteria. No system-level QI capacity building/training evaluations were identified. Two studies included economic evaluations of QI capacity building/training. Forty-six articles described other evaluations of QI initiatives/training. Data were extracted regarding evaluation design and common assessment themes and components. We identified 17 evaluation components that fit within five overarching dimensions (characteristics of QI training; characteristics of QI activity; individual capacity; organizational capacity; impact) that should be considered in evaluations of QI capacity building. Eight key steps in return-on-investment (ROI) assessments in QI capacity building were identified: 1) planning–stakeholder perspective; 2) planning–temporal perspective; 3) identifying costs; 4) identifying benefits; 5) identifying intangible benefits that will not be included in the ROI estimation; 6) discerning attribution; 7) ROI calculations; 8) sensitivity analysis. The literature on QI capacity building evaluation is limited in the number and scope of studies. Our findings, summarized in a Framework to Guide Evaluations of System Level Investment in QI Capacity Building, can be used to start closing this knowledge gap.

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36 Effectiveness of Public Participation in the College of Physicians and Surgeons of Ontario (CPSO) Public Policy Consultation Process

Presented by **IMAN SAPRU**, Master of Public Health Candidate, Queen's University

The College of Physicians and Surgeons of Ontario (CPSO) completed a review of the CPSO policy on Physicians and the Ontario Human Rights Code. The objective is to analyze CPSO public consultation to understand the effectiveness of public participation in policy decision making through a public lens. The comprehensiveness of the CPSO methods for public consultation was compared to the Health Canada Policy Toolkit for Public Involvement in Decision Making. A mixed methods of qualitative and quantitative methods were used to analyze all publicly available information (surveys, online quick polls, open-ended forum, and online public forum) to provide a public perspective of the consultation process, and were contrasted with the new policy changes. Overall public feedback was reflected in the changes made to the policy draft. There were multiple modes of communication, however the survey was believed to be too long and complicated to use and this is reflected in the response rate (31%). The open-ended forum responses seemed to be the best method of receiving meaningful feedback, however this form of communication can be hard to regulate. From a public perspective, the CPSO did incorporate the public opinion into their draft policy changes. These changes appear to be clear and concise. However, the major area of improvement is to embed process and outcome evaluations available publicly in the public consultation process for sufficient information regarding engagement.

37 Perceived Barriers to Accessing Specialized Medical Care in Rural Communities of Ontario

Presented by **IMAN SAPRU**, Master of Public Health Candidate, Queen's University

To explore rural residents' perceived ability to access specialized care, in order to determine whether health care resources focused on travel distance is an appropriate policy priority when addressing the inequity between rural and urban residents' health outcomes in Ontario. A mail-out survey was distributed in two rural communities, Tweed and Hensall, Ontario; which were chosen due to their similar demographic, healthcare infrastructure and availability of specialists. The survey consisted of 22 Likert style questions addressing many common barriers associated with access to health care in rural settings. Responses were analyzed using SPSS v.18. The majority of respondents (75.8% n= 72 in Tweed and 77.8% n=77 in Hensall) had received a referral to see a medical specialist in the last five years (total of 352 referrals), which necessitated travelling beyond their communities. Only 5.4% (n=8) of respondents from both communities felt that the travel distance was "too far". More important issues identified by respondents included the need for more health services (such as more after-hours access to primary care) and the need for better access to medical specialists. As physical travel distance was not perceived as a significant barrier to accessing specialized care among respondents. This provides evidence for further analysis into exploring other perceived barriers which may provide more appropriate evidence for priority setting in health policy when addressing disparities between rural and urban health outcomes.

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38 The Study-Migration Pathway: Understanding the Factors that Influence the Employment and Retention of International Students as Regulated Health Professionals in Canada

Presented by **IVY BOURGEAULT**, CIHR Chair in Gender, Work and HHR, University of Ottawa

1. To explore the study-migration pathway for international students studying to become regulated health professions in Canada. 2. To identify the attributes that predict their suitability for the Canadian labour market. 3. To evaluate programs and policies that can assist international students in obtaining residency and pursuing employment in Canada. We used a mixed method design with existing data sources and stakeholder interviews. Data were collected in two phases. During Phase I, we extracted data from the National Graduate Survey (2013) to identify the personal (country of origin, language abilities, sex/gender, residency status) and human capital (program of study, level of education) factors associated with international students' employment outcomes and settlement area one to three years post-graduation in Canada. During Phase II, we conduct 10 semi-structured interviews with stakeholders from educational, immigration, and health policy community in Canada. The data were analyzed separately yet concurrently and integrated at the close. The majority of international students in four of the five regulated health professions under our analysis formally immigrated to Canada. All of them were also employed full-time but not necessarily in their field of study. With respect to the findings from the stakeholder interviews, we found that while international students are seen as highly desirable group of immigrants, there is a disconnect between educational, immigration, and health policy community that results in lack of programs aiming to support those students who wish to remain in Canada permanently or decide to pursue professional licensure in Canada. International students in the health professions are highly employable upon graduation as they have the human capital needed to practice their profession in Canada. A key recommendation from the stakeholder interviews is to improve the alignment of immigration, education and health workforce policies regarding the opportunities for international students.

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39 Pathways to Health System Efficiency: Perspectives of Health System Decision Makers

Presented by **SARA GUILCHER**, Principal Investigator, University of Toronto, HSPRN

Health systems vary in the efficiency with which they use their available budgets to improve health outcomes. Using qualitative case study methods, we aimed to understand the perspectives of health system decision makers on the barriers and facilitators to improving efficiency in Canada. This project builds on previous work that calculated efficiency scores for Canada's health regions by conducting a descriptive multiple case study to understand the mechanisms and contextual factors affecting variations in efficiency. Semi-structured interviews were conducted with 42 senior health system decision makers at the provincial and regional levels between October 2014 and May 2015 in British Columbia and Nova Scotia. Key informants were asked to reflect on the factors that enable or hinder health system efficiency in their jurisdiction. Data were organized using NVivo software and analysed for emerging themes. Three validation focus groups were conducted after preliminary analysis. Key informants identified leadership as a key cross-cutting factor necessary for action. Actions and challenges to improving efficiency were grouped into five main areas and each includes specific examples of successes and challenges as identified by the key informants: 1. Performance monitoring for accountability and decision making 2. System-level integration in governance and care delivery, including movement toward integrated primary and community care 3. Physician engagement and remuneration 4. Strategic funding, including the flexibility and political will to shift resources upstream 5. Intersectoral partnerships to improve population health and address the needs of vulnerable groups Cross-cutting challenges for efficiency include population health characteristics, cultural resistance to change, rural geography, and the political nature of decision-making in healthcare. Qualitative case study methods allowed for an in-depth analysis of the experiences in relatively higher and lower performing regions in Canada. Thus, the results provide insights into the policies and practices that help explain variations in health system efficiency across regions in Canada.

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40 Contextualizing the World Health Organization (WHO)'s Mental Health Gap Action Programme (mhGAP) Training to General Practitioners (GPs) Working in Primary Care in the Greater Tunis Area of Tunisia

Presented by **JESSICA SPAGNOLO**, Doctoral Candidate, School of Public Health (Université de Montréal)

GPs in Tunisia often lack knowledge in mental health. The mhGAP training, developed by the WHO, trains non-specialists in effective mental health care, and will be offered to GPs in the Greater Tunis area. This presentation will describe how the mhGAP training was adapted to this area. Using the mhGAP Adaptation Guide developed by the WHO, a group interview was conducted with 3 psychiatrists working in the Greater Tunis Area. Five training modules were contextualized: depression, psychosis, suicide/ self-harm, alcohol use, and drug use. Questions in the Adaptation Guide focused on: 1) the availability of medication from the WHO essential drug list at the level of primary care; 2) training in psychotherapies; and 3) the availability of community-based mental health services. Findings will inform changes to the mhGAP training material, to be used to train participating GPs from the Greater Tunis Area. Five modules were adapted to better reflect the primary care context in the Greater Tunis Area. Findings showed that not all drugs listed in the mhGAP training are available in primary healthcare centers in the Greater Tunis Area due to high costs and security issues. Second, medication is one of the main treatments for mental illness due to the limited number of primary care professionals trained in psychotherapy. This shortage forces many patients to use the private sector for these types of treatments. Third, community-based services that target rehabilitation such as self-help groups, lodging, and employment are under-developed. Families often compensate in these areas. Contextualizing modules of the mhGAP training was an important step before implementation. First, it ensures that implementation is a collaborative process. Second, it allows for local parties to take ownership of the training. Last, by taking into account the local realities of primary care, implementation barriers were uncovered.

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41 Use Of Antipsychotics Among Seniors Living In Long-Term Care Facilities, 2014

Presented by **JOCELYN RIOUX**, Program Lead, Canadian Institute for Health Information

This analysis examines the use of antipsychotics among seniors living in long-term care (LTC) facilities, and the concurrent use of antipsychotics with other psychotropic drugs, which further increases risk of side effects. It also looks at the characteristics of residents treated with antipsychotics, including diagnoses, behaviours and other functional measures. Drug claims data from the National Prescription Drug Utilization Information System (NPDUIS) Database, housed at the Canadian Institute for Health Information (CIHI), provide detailed information about antipsychotic use. LTC resident assessment data from CIHI's Continuing Care Reporting System (CCRS) provide detailed resident information. This analysis looks at all antipsychotic use, regardless of reason for use, and does not focus on potentially inappropriate use. Results will be published on February 25, 2016. Results will include antipsychotic use by chemical and by province between 2006 and 2014; antipsychotic use by level of aggression and by level of cognitive impairment for 2014; concurrent chronic use of antipsychotics with antidepressants and benzodiazepines. Conclusions will be drawn on the impact of initiatives to reduce antipsychotic use. Results will also provide insight on the use of drug and non-drug treatment options in LTC residents.

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42 Driving distance to Ontario Telemedicine Network sites in Northern Ontario as a measure of potential access to healthcare

Presented by **JOHN HOGENBIRK**, Senior Research Associate, Centre for Rural and Northern Health Research

The Ontario Telemedicine Network (OTN) uses technology to help make medical services more accessible to people in medically underserved rural and remote parts of Ontario. We examined access to OTN-enabled medical services in Northern Ontario, which has 775,000 people in communities scattered across an area of 803,000 square kilometres. We used ArcGIS Network Analyst to conduct a service area analysis to measure potential access to an OTN unit. We obtained unit locations from OTN and community data from the Ministry of Natural Resources. We used travel time from the centre of each community to the nearest community with an OTN unit as a measure of potential access to care. We focused on the geographic dimension of access and included unit location, road networks, and population size. Other dimensions of access (temporal, cultural, financial, and digital connectivity) were not examined, but would be expected to modulate potential access. There was a total of 2,331 OTN units in 2014, of which 24% (n=552) were located in Northern Ontario. All Northern Ontario communities with a population of 10,000 or greater contained an OTN unit or units or were within a 30 minute drive of an OTN unit (n=7). Almost 97% of the 59 communities with 1000 to 10,000 people and 85% of the 736 communities with less than 1000 people were within 30 minutes of an OTN unit. In total, 86% (n=690 of 802) of Northern Ontario communities were within one hour's drive of an OTN unit. This study examined potential access and found that there were OTN units in most rural and remote communities in Northern Ontario. Thus, the current distribution of OTN has the potential to increase access to medical services and reduce the need for medically related travel for residents of these communities.

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43 Preventing violence and promoting workplace safety in Canadian health organizations

Presented by **JONATHAN MITCHELL**, Manager, Policy and Research, Accreditation Canada

Workplace violence is a widespread problem across health organizations in Canada and internationally. This presentation showcases national workplace safety and violence prevention findings from Canadian organizations participating in the Accreditation Canada Qmentum program and identifies system strengths and opportunities for improvement. Accreditation Canada analyzed national results in order to highlight system trends. Workplace safety in the Leadership standards was assessed in participating organizations from 2012 to 2014. The Workplace Violence Prevention Required Organizational Practice (ROP) included in the Leadership Standards was also evaluated in 970 unique organizations between 2011 and 2014. The ROPs are evidence-informed practices that address high-priority areas central to quality and safety. National results of 64,070 respondents were also analyzed from the Worklife Pulse Tool, a survey tool focused on worklife. While leaders of health care organizations promote a safe and health work environment and support a positive quality of worklife, there are opportunities for identifying and monitoring processes and outcome measures related to worklife and the work environment, monitoring staff and service providers' fatigue and stress levels, and monitoring the quality of worklife. The Workplace Violence Prevention ROP showed a decrease in compliance from 87% to 81% indicating that a focus on violence prevention must remain a leadership focus. Worklife results show that 84% of staff agreed that the people they work with treat them with respect. However, opportunities exist for senior managers' commitment to a safe workplace (73% positive response), and actions to prevent abuse in the workplace (78% positive response). Safety is the right of every patient receiving care and every health care worker providing care. Accreditation Canada continues to contribute to the performance of the Canadian health care system by sharing information on quality and safety based on national data collected through the accreditation process.

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44 **Quality and Safety in Canadian health organizations: strengths and opportunities identified from national data**

Presented by **JONATHAN MITCHELL**, Manager, Policy and Research, Accreditation Canada

Safe healthcare is critical for the quality of the Canadian healthcare system. In order to support safe and quality care, Accreditation Canada data was analyzed to showcase system trends, strengths and opportunities for improvement. By examining key patient safety areas, the performance of Canadian health care organizations can be improved. 258 healthcare organizations participating in Accreditation Canada's Qmentum program underwent an on-site survey in 2014 and had Required Organizational Practices (ROPs) evaluated. ROPs are evidence-based practices that mitigate risk and contribute to improving the quality and safety of health services. ROPs focus on six main patient safety goal areas: Safety Culture, Communication, Medication Use, Worklife/Workforce, Infection Control, Risk Assessment. Organizations are expected to comply with the ROPs that apply to the services they provide. Compliance with the ROPs affects an organization's accreditation decision. ROPs for information transfer at transition points, administering the pneumococcal vaccine, and using a safe surgery checklist were identified as strengths and showed high compliance among the 32 ROPs in the program. Results from 71 organizations showed that opportunities exist for the antimicrobial stewardship ROP, which had the lowest national compliance at 57%. Medication reconciliation at transition points also remains an area of low compliance at 67%, despite the importance of medication reconciliation. The compliance with the hand-hygiene practices ROP showed a decreasing trend in the past two years (from 82% to 72% in 2014) despite the established importance and benefits of hand-hygiene practices. Accreditation Canada continues to revise the accreditation program based on safety risks in the Canadian health system and to support organizations across Canada in mitigating these risks through client support, webinars, learning sessions, and reporting. These national trends assist health care organizations in planning their own quality improvement initiatives.

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45 **Decreased Quality of Life in Parents of Children with MS Prior to Clinical Manifestations**

Presented by **JULIA O'MAHONY**, Doctoral Candidate, University of Toronto, The Hospital for Sick Children Acquired demyelinating syndromes (ADS) of the central nervous system (CNS) affect 1 in 100,000 Canadian children. ADS occurs as a one-time illness (monoADS) in 80% of affected children and the sentinel attack of chronic multiple sclerosis (MS) in the remaining 20% of children. The objective of this analysis is to evaluate the impact of information about a health condition, in this case MS diagnosis, on the health-related quality of life (HRQoL) among children and their families prior to manifestation of clinical signs of disease. We assessed children who presented with incident ADS at any of the 16 paediatric health-care facilities or seven regional health-care facilities in Canada between September 1, 2004 and June 30, 2014. Children were evaluated quarterly in the first year and annually thereafter for: 1) MS diagnosis; 2) neurological recovery from their incident events; 3) accrual of new neurological deficits among children with MS; and 4) HRQoL using the Peds Quality of Life Inventory (PedsQLTM). HRQoL of the participants' parents was ascertained using the PedsQL Family Impact Module. We enrolled 312 eligible children with ADS [age at first attack 10.55 (6.25-13.79); follow up 5 (4-7) years; F:M=1:1], of whom 225 children and their parents completed HRQoL questionnaires. Analyses revealed no statistically significant difference in HRQoL scores among children with MS when compared to children with monoADS. However, parents of children with MS reported lower HRQoL than parents of children who experienced monoADS ($p < 0.001$). Furthermore, parents of children with MS reported reduced HRQoL prior to onset of clinical signs of disease. Our analyses suggest that parents of children with MS report reduced HRQoL, even before physical signs of disease.

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46 **Stroke rehabilitation and patients with multimorbidity: a systematic scoping review**

Presented by **KAILEAH MCKELLAR**, PhD Candidate, University of Toronto

Most strokes occur in the context of other medical diagnoses. Currently, the evidence supporting stroke rehabilitation guidelines have not accounted for multimorbidities and may not align with patient population. The purpose of this review is to determine the extent and nature of stroke rehabilitation evidence that includes patients with multimorbidity. This study is a systematic scoping review. Electronic databases (Medline, Embase, AMED, PsycInfo, CINAHL, Scopus, Sport Discus and Cochrane) were searched using a combination of terms related to 'stroke' and 'rehabilitation'. Selection criteria were designed to capture studies with stroke patients in inpatient rehabilitation. Screening and assessment for eligibility were conducted by a single reviewer, with pilot tests for inter-rater reliability ($\kappa = 0.75$) and quality checks throughout. Although study design was not an exclusion criterion, articles were classified by design and only RCTs were abstracted—with other studies designs marked for possible follow-up studies. The database search yielded 10771 articles. Screening and assessment of eligibility resulted in 500 RCTs included in the study. The median number of participants per study was 45. Participants' time since stroke ranged from 9 days to 2 years. Only 2% of studies explicitly included patients with stroke and another condition, and approximately 15% did not exclude patient with multimorbidities. Approximately 25% of studies excluded patients with a Charlson condition in addition to other comorbidities (e.g. neurological disorder, orthopedic condition) and a third of the studies excluded patients with previous stroke. Results show limited evidence for patient with multimorbidity. This review represents the first attempt to map literature on stroke rehabilitation related to multimorbidity, and identify gaps in existing research. The results are relevant for researchers, clinicians, and policy-makers concerned by current evidence for stroke patients with multimorbidity. Future work should focus on incorporating results into best practice recommendations.

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47 **Nurse-led Care for Patients with Rheumatoid Arthritis: a Systematic Review**

Presented by **KAREN MACDONALD**, Research Associate/ MSc student, University of Calgary

Nurse-led care (NLC) is an alternate model of care where nurses take on primary responsibilities for part of patients follow-up and/or management. We assessed the impact of NLC for RA patients on quality of care compared to traditional models of care according to multiple quality dimensions. We searched Ovid MEDLINE, EMBASE, and CINAHL from 1950 to January 2015. Studies were included if they met the following criteria: English language; original data from an original study; adult patients with RA, nurses took on primary responsibility for follow-up and/or management; reported data on one or more dimensions of quality as defined by the Alberta Health Quality Matrix (effectiveness, acceptability, efficiency, accessibility, appropriateness and safety). Quality of the studies was assessed using the National Institute for Health and Care Excellence checklists and Economic evaluation study quality checklist by Drummond. Data were synthesized using the narrative analysis approach. 10 studies (17 publications of moderate to high quality) met inclusion criteria. Disease activity was the most common measure of effectiveness with NLC being superior ($n=3$) or equal ($n=3$) to comparator. Acceptability was assessed in 6 studies; patients were more ($n=4$) or equally ($n=1$) satisfied with NLC compared to single-provider care and less satisfied compared to team care ($n=1$). NLC was found to be safe ($n=2$), with no difference in blood tests and disease activity. With regard to efficiency, mixed data on cost was reported with NLC being equivalent or less costly than traditional models ($n=3$). Quantitative measures of accessibility and appropriateness were not found. Although in qualitative studies patients found NLC provided improved continuity of care ($n=3$), education and support ($n=4$). NLC for RA patients is effective, acceptable, and safe. More information regarding accessibility, appropriateness and efficiency of this model, including its cost-effectiveness and the impact on patient flow, is needed.

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48 What are people willing to pay for Whole Genome Sequencing information?

Presented by **KAREN MACDONALD**, Research Associate, University of Calgary

Whole genome sequencing (WGS) can be used to predict disease risk or inform treatment. Guidelines suggest only reporting clinically actionable variants. Reporting incidental or non-actionable findings could generate anxiety and unnecessary testing. We explored public preferences for who decides what should be reported and estimate the utility of WGS information. An online survey was used to rank preferences for who decides (expert panel, your doctor, you) which WGS results are reported. We estimated the value of actionable and additional non-actionable variants using willingness-to-pay double-bounded contingent valuation questions (DBCV). For the DBCV questions, respondents were initially asked whether they would purchase a basic WGS report for a specified cost. A follow-up question increased or decreased cost based on the initial response. Responses were used to identify ranges of willingness-to-pay for a basic report for each respondent. The same steps were followed to identify ranges for respondents' willingness-to-pay for additional non-actionable variants. A nationally representative sample of 410 adults from the United States completed the survey. Almost half of respondents (43%) preferred to decide themselves what information is included in the WGS report. Thirty eight percent of respondents (95% CI: 33-43%) would not pay anything for actionable variants, and 3% (95% CI: 1-5%) would pay more than \$1000 (USD). More than half of respondents (55%, 95% CI: 50-60%) would not pay anything for non-actionable variants, and 7% (95% CI: 5-9%) would pay more than \$400 (USD). Most people prefer to decide themselves what information is included in a WGS report and respondents were willing to pay more for actionable than non-actionable information. Preference heterogeneity for WGS information should be considered when developing policies and integrating patient preferences with personalized medicine and shared decision making.

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49 Economic impact of a neuromuscular training prevention strategy to reduce injuries in youth soccer

Presented by **KAREN MACDONALD**, Research Associate/ MSc student, University of Calgary

There is randomized controlled trial (RCT) evidence that neuromuscular training (NMT) programs can reduce the risk of injury in youth soccer. The objective of this study was to evaluate the cost-effectiveness of such a NMT prevention strategy compared to a 'standard of practice' warm-up. A cost-effectiveness analysis performed from the healthcare perspective was conducted alongside a cluster RCT. Healthcare resource use (e.g. visits to health care professionals, specific treatments, services, supplies, and equipment) was measured on an item-by-item basis. 2015 unit costs from the Alberta Health Service Calgary Zone were applied to value the healthcare system resources used by injured players. Injury incidence rates were adjusted for cluster using Poisson regression analyses. Direct healthcare costs and injury proportions were adjusted for cluster using bootstrapping. The joint uncertainty surrounding the cost and injury rate and proportion differences was estimated using bootstrapping with 10,000 replicates. Along with a 38% reduction in injury risk [rate difference = -1.27/1000 player hours (95% CI: -0.33 to -2.2)], healthcare costs were reduced by 43% in the NMT group [-\$689/1000 player-hours (95% CI: -\$1741 to \$234)] compared to the control group. 90% of the bootstrapped ratios were in the south-west quadrant of the cost-effectiveness plane, showing that the NMT program was dominant (both more effective and less costly) over standard warm up. Projecting results onto Alberta youth soccer players, an estimated 4,965 injuries and over \$2.7 million in healthcare costs would be conservatively avoided in one season with implementation of a NMT prevention program. Implementation of a NMT prevention program in youth soccer is effective in reducing the burden of injury and leads to considerable reduction in costs. These findings inform practice and policy supporting the implementation of NMT prevention strategies in youth soccer nationally and internationally.

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50 Canadian data sources on ethnic classifications

Presented by **KELSEY LUCYK**, PhD Candidate and Research Associate, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary

A thorough understanding of the health status of Canadians must take into account their ethnicity, given the genetic and social effects of race and ethnicity on health. Our objective was to describe Canadian data sources that collect ethnicity data and the degree of granularity that exists for ethnic classifications. Our methods were informed by those of an environmental scan. We searched publicly available government documents, peer-reviewed literature, and contacted key informants to gain a comprehensive understanding of the sources available in Canada for collecting nationally representative ethnicity data. Two investigators, using qualitative content analysis, analyzed these sources independently. The study team then met to discuss the findings, interpretations, and themes that emerged from these sources. There are four main sources of ethnicity data in Canada, used for health research: 1) Provincial health insurance registries, 2) Canadian Health Measures Survey, 3) Canadian Community Health Survey, and 4) Census. Of these, ethnicity data are most limited in the provincial health insurance registries, flagging only Aboriginal status. The other three data sources are nationally administered, with all three asking individuals to select, out of 11 categories, self-identified racial or ethnic groups. The latter two data sources also have a separate question about ethnic ancestry. The categories for self-identified racial and ethnic groups are broad and lacking in granularity. There is much greater granularity collected for ethnic ancestry, with the ability to use free-text to describe ethnic ancestry in the Census. There is a need for greater granularity in ethnic classifications to reflect the diversity of the Canadian population. Because ethnicity is a socio-cultural concept, consideration should be made to incorporate sense of belonging with the identified ethnic ancestry, rather than relying solely on reported ethnic origin and race.

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51 'Just Treat Us Right': Equitable Primary Care for Disabled People

Presented by **LAURA WILKINSON-MEYERS**, Senior Lecturer in Health Services Research, University of Auckland, School of Population Health

This study investigated best practice or "what works" for ensuring high quality, accessible and equitable primary health care for New Zealanders with lived experience of disability. Using a participatory approach this study engaged community members, disability organisations and primary care providers in all phases of the research. Forty-five people ages 16-64 with different types of impairment were recruited through disability organisations to participate in one of 7 focus groups held between July-October 2014 in Auckland, New Zealand. Discussions lasted 3 hours, were co-facilitated by disabled researchers and explored the entire patient journey from choosing a General Practitioner and arriving at reception to attending an appointment and accessing follow on care. All groups were recorded and transcribed verbatim. Data were analysed thematically following the general inductive approach. Our analysis identified three key characteristics of high quality, accessible and equitable primary health care practice from the perspective of people with lived experience of disability to include: awareness of and respect for the lived experience of disability - believing the disabled person, talking directly to him or her rather than support people and making an effort to reduce physical and social barriers to care; good communication - allowing sufficient time for a consultation, listening and explaining treatment and side-effects clearly; as well as a person-centred approach that values the disabled person's experience and expertise and takes a holistic, partnership approach throughout the consultation and subsequent treatment. Participants wanted the same standard of care non-disabled people expect from their GP but many reported that they are not receiving it. Prioritizing disability-related equity in health policy, practice and education and ensuring ongoing support of frontline professionals is critical to ensuring those with greatest need are not left behind.

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52 Lessons from the Field - Implementing Integrated Risk Management in Healthcare

Presented by **LOIS HALES**, Senior Risk Management Specialist, HIROC

Many leaders of healthcare organizations have indicated that industry-based integrated/enterprise risk management (IRM/ERM) programs are complex and not well-suited for healthcare. The aim of this initiative was to standardize and simplify the implementation of IRM and to provide a shared platform to efficiently track and manage key organizational risks. A coalition of risk management experts from various healthcare organizations, with coordination from the Healthcare Insurance Reciprocal of Canada (HIROC), formed a committee to develop a standardized and simplified web-based approach to IRM in 2014. Five guiding principles influenced the development of this program: go with the evidence, focus risks to key organizational objectives, gear to board and senior leadership needs, recognize that it is an evolving area, and "keep it simple". The program was successfully launched in January 2015 and the early results are promising. The results of this initiative were comprised of 1) a comprehensive knowledge synthesis of IRM best practices; 2) the development of a taxonomy of key risks in healthcare organizations; and 3) the implementation of a shared Risk Register application. Since the launch of the Risk Register in January 2015, 75 healthcare organizations ranging from teaching hospitals to community health centres are actively participating in the program. There are 640 self-identified risks in the Risk Register. The top active risk themes are: patient care (34%); human resources (16%); financial (11%); leadership (9%); and information systems/technology (8%). The top five active risks (by frequency) are: regulatory/legislation; medication; care communication; human resources shortage; and revenue/funding. A collaborative approach to solving common issues in the healthcare environment can produce leading practices/products such as the Risk Register. Aggregated information about risks identified in the Risk Register can be accessed by healthcare organizations to facilitate risk management efforts, share common challenges, and further strengthen the IRM program.

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53 Enabling health technology innovation for older adults: Barriers and facilitators in policy and regulatory processes

Presented by **MAGGIE MACNEIL**, Ph.D Candidate, University of Waterloo

Technological innovation offers many potential benefits for the health of older persons, but innovators often find it challenging to navigate policy and regulatory systems in multiple Canadian jurisdictions. We aimed to identify policy and regulatory barriers to, and facilitators of, successful innovation and safe adoption of aging-related technologies in Canada. This study is part of Aging Gracefully Across Environments Using Technology for Wellness, Engagement and Long Life, a Canadian Network of Centres of Excellence. We conducted a scoping review of peer-reviewed and grey literature using health and technology-related databases. Four reviewers independently screened abstracts using inclusion/exclusion criteria. Full-text articles were read and data were extracted using a standardized extraction form. Barriers and facilitators were recorded and analyzed for major themes. Literature review findings were complemented by semi-structured interviews with policy-makers, innovators and other stakeholders. Interviews were transcribed and analyzed using including line-by-line coding done by two independent researchers using NVivo11. A total of 2509 articles and reports were reviewed. Opportunities and challenges reflecting different stages of the innovation process were identified: research and development, regulation, health technology assessment, and commercialization/reimbursement. A complex approval process and multiple entry points for innovators are barriers during the regulation stage. Factors that facilitate this process are coordinated pathways, and support for small and medium-sized businesses. A lack of harmonization between regulation, reimbursement and health technology assessment processes are additional barriers that complicate the adoption of aging-related technologies for innovators. This study identified important facilitators and barriers related to the successful adoption of new health technologies. Additional work is needed to ensure technological innovation policies can accommodate the unique health characteristics of older people, and to translate our findings into practical resources for policy-makers and innovators.

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54 Understanding interaction of gender dynamics with a health system - a case study of Afghanistan

Presented by **MAISAM NAJAFIZADA**, PhD Candidate, University of Ottawa

Health systems try to address gender inequity through various approaches, yet there is a lack of contextual knowledge on how contextual gender dynamics affects health systems. The purpose of this study was to explore the interaction between gender dynamics in the Afghan society and the Afghan health system. A qualitative process evaluation of the Afghan Community Health Worker (CHW) Program was undertaken between 2013 and 2014. In-depth interviews were conducted with policy makers in Kabul, health managers of NGOs in various provinces, CHWs, and community members in selected villages. The interviews were supported with extensive field notes documenting observations of the researchers and documentary analysis of policies and reports. A literature extraction tool was developed to gather information on themes that emerged from the data. Thematic and constant comparison methods were used to analyze the findings. Societal gender segregation affected all aspects of the CHW program in Afghanistan. Gender roles segregated professions, for example, midwifery and nursing were socially feminine professions and medicine masculine; A majority of active CHWs were women, but very few women were supervisors, and even fewer were in managerial or policy-making positions; and The Afghan Ministry of Public Health were committed to gender equity, but policies on gender were restricted to reproductive health, constructing gender-equity as an approach that focused on maternal and child health. The short-term advantage was that a large portion of resources for health was directed towards women's health. The long-term disadvantage was that women were considered as 'foetal containers'. Societal gender dynamics affect health system interventions in a way that could change the original design of the interventions. Policymakers must take the gender context into account when designing the interventions in the first place to have an effective implementation.

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55 A Province-Wide Approach to Quality Improvement Plans

Presented by **MARGARET MILLWARD**, Quality Improvement Specialist, Health Quality Ontario

In Ontario, the Excellent For All Act includes the development of Quality Improvement Plans (QIPs), a formal commitment by organizations to quality improvement, aligning system and provincial priorities. This session will focus on the development of the QIP over the past six years, progress made by sectors, and future opportunities. Priorities have been set at a provincial level to drive system level change. Each sector has their own priority indicators, though these are designed to complement those in other sectors to support a cross-sector approach. Sectors include primary care, homecare, primary care and long term care. To support learning and accountability, documents are posted publicly and embedded within funding and accountability agreements. Organizations must demonstrate their commitment to engaging patients in QIPs. HQO uses quantitative and qualitative methods to analyze 1000+ QIPs. Results are shared through reports, webinars, presentations and materials with the sector organizations, LHINs, and patients. QIPs trigger collaboration, integration and tracking of organizational progress in standardized ways to support learning. Sector-specific and cross-sector (patient engagement) reports and webinars (30+) have been developed to illustrate progress and spotlight exemplary organizations and ideas. In 2015/16: 131 hospitals improved on at least one indicator, 53 hospitals improved on 3 or more; Primary care organizations improved their efforts to measure progress in a standardized way, particularly for patient experience where they measured more than 70,000 patients; 7 CCACs improved on 3 or more indicators; In their first submission year, 81% of long-term care homes plan to improve on 3 or more indicators; 45% of hospitals described engaging their patient and family advisory councils in the development of their QIP. QIPs provide a tool to align their improvement activities with provincial and system priorities. These tools, along with defined priority indicators, help organizations to work collaboratively. This initiative supports the acceleration of knowledge transfer and exchange of quality improvement activities across health care organizations in Ontario.

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56 Incidence of Myocardial Infarction in Pregnancy: A Systematic Review and Meta-analysis

Presented by **MARIAM NAROUS**, MSc Student, University of Calgary

Cardiac disease is the leading cause of maternal death, and myocardial infarction (MI) is one of its main mechanisms. High-quality systematic reviews summarizing population-based data on this topic have not been published. Our objective was to determine the incidence, as well as mortality and case-fatality rates of pregnancy-associated MI. Articles were obtained by searching electronic databases (MEDLINE: 1946-2015; EMBASE: 1980-2015; PubMed: 1960-2015; CENTRAL; and Web of Science Core Collection: 1899-2015), bibliographies and conference proceedings with no language or date restrictions. Two reviewers independently selected population-based, observational studies reporting on incidence, mortality and case-fatality rates for maternal MI. These studies were assessed for inclusion and quality, and data was extracted for analysis. Interrater agreement was calculated at the abstract and full-text screening stages. A meta-analysis was performed to pool maternal MI incidence, mortality and case-fatality rates using fixed and random effects models. Stratification and meta-regression were performed to explore heterogeneity. Based on 15 included studies, the pooled incidence of maternal MI and its associated mortality rate were 3.02 (95% CI: 1.69-3.45) and 0.21 (95% CI: 0.10-0.33) per 100,000 pregnancies, respectively, from over 42 million pregnancies. The case-fatality rate was 4.74% (95% CI: 3.47-6.01). Heterogeneity was observed in the pooled estimates of maternal MI incidence. Stratification and meta-regression analyses suggested country and year of study were potential explanations for the observed heterogeneity, although results did not reach statistical significance. Studies from the United States, as well as recent studies examining cohorts between 2000 and 2009, reported the highest incidences of maternal MI (4.77 and 4.08 per 100,000 pregnancies, respectively). None of the components of the quality assessment tool were identified as significant sources of heterogeneity. This study provides a comprehensive and global estimate of the incidence and mortality/case fatality of pregnancy-associated MI. Given the ongoing trends of rising maternal age, and the increasing prevalence of obesity and diabetes, further attention to this population is recommended to promote early screening and care of such patients.

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57 Exploring Early Professional Socialization Across Five Health Professions

Presented by **HOSSEIN KHALILI**, Fanshawe College

We currently lack understanding about how early professional socialization experiences may inform interprofessional respect and collaboration – a cornerstone towards ensuring effective and collaborative healthcare practice. We will present early findings of a multi-year study examining early professional socialization among students from five health professions (dentistry, medicine, nursing, pharmacy, physiotherapy). This research, grounded in narrative methodology, seeks to understand how interprofessional collaboration can be enhanced at an earlier stage in the professional socialization process. We recruited health professional students (n=49) entering professional training programs at Dalhousie University in fall 2015 to participate in repeat 1:1 interviews starting before formal orientation. The pre-entry interviews focused on factors influencing participants' career choice, expectations of their own profession, and perceptions of early interprofessional learning and practice. Subsequent interviews (to be completed in 2016) focus on early interprofessional collaboration experiences and professional identity formation throughout the first year of health professional training. Early findings suggest that participants chose the health professions out of a desire for career fulfillment and satisfaction. Multiple roles and experiences influenced career choice, including prior professional careers. Participants all emphasized caring, working with people and making a difference in the lives of others at the core of their decision to enter the health professions. Findings reveal that there exists a lack of understanding of other health professions and a perpetuation of historical stereotypes. The nature of their professional practice and work-life integration were important considerations. Early exposure to health professions – through family, personal or professional experiences helped support career trajectory decisions, but also framed their understanding of the social positioning of health professional careers (e.g., leadership, social prestige, autonomy). Insight into how the various health professional roles are conceptualized among health professional students provides valuable direction for pre-entry career choice messaging and refining or enhancing early interprofessional education programming. Findings will be used to strengthen initiatives that promote interprofessional collaboration and respect at an earlier stage in professional training.

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58 Risk factors for involuntary admissions and characteristics of involuntarily admitted patients in Ontario, Canada

Presented by **MICHAEL LEBENBAUM**, Epidemiologist, Institute for Clinical Evaluative Sciences (ICES)

Across Canada, mental health systems permit involuntary hospitalization when patients are at risk of harm due to a mental illness. Involuntary admissions to psychiatric hospitals are common; however, research examining risk factors for involuntary admission is limited. We conducted a population-level cross-sectional analysis of all patients admitted to a mental health bed from 2009-2013 from the Ontario Mental Health Reporting System. We developed a conceptual framework and included variables related to 5 domains, including sociodemographic characteristics, health system-related characteristics, past mental health care utilization, variables describing the pathway to the psychiatric hospitalization and illness severity factors. Our analyses included logistic regression with generalized estimating equations. Except for arriving in the emergency department during the morning (1 AM-9AM) or night (5PM-1AM) (OR = 1.10 (both p<0.0001)), system-related characteristics including LHIN level psychiatric resources, teaching hospital status, and psychiatric hospital status were not significant predictors in the multivariable model. However, several individual level socio-demographic, pathway and severity variables were key predictors of involuntary admissions. Having contact with police in the week prior to hospitalization (OR = 3.59) or being brought to the emergency department by ambulance (OR = 1.38) was associated with a greater odds of involuntary admissions, while, having mental health care visits to a family physicians (OR = 0.91) or psychiatrists (OR = 0.81) in the past year was associated with a lower odds of involuntary admissions (all p<0.0001). In this study, we found that individual-level factors and disease severity, rather than health system related factors, were important independent predictors of involuntary admissions in Ontario.

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59 Spatial Accessibility of Family Health Teams: Investigating the Relationship between Travel Time and Primary Care Home Service Visits using GIS Mapping

Presented by **MICHELLE PRENTICE**, Medical Student, University of Ottawa

This study uses geographic information systems (GIS) mapping to explore accessibility trends in primary care home visits from academic family health teams (FHTs). With the resurgence of home visits as desirable and cost-effective solutions for end-of-life care in particular, uncovering their spatial accessibility barriers may drive further service delivery improvement. Ethics approval was received by Bruyère Research Ethics Board and University of Ottawa's Council of Research Ethics Board. To date, written consent was received from 14 physicians at the Civic FHT for data extraction from their patient panels. Using the Nightingale EMR system, and "A900" billing codes, de-identified variables (age, gender, postal code forward sorting areas (FSAs)) were extracted from charts of 10707 patients who received home visits between January 1st, 2013 and September 8, 2015. Using ArcGIS 10.3 software, home care visit counts were analyzed, and mapped aggregately within concentric zones of 5-minute "driving travel time" from the facility. To date, 162 of 10707 patients analyzed received home visits under "A900" billing codes in the time frame of extraction (approximately 20 months). Preliminary analyses suggest that distance indeed plays a role in the number home care visits, with the majority (>70%) of visits falling within 15 minutes of travel time from the FHT, only reaching over 85% by the 3 hour mark. Initial maps of visits according to these 5-minute concentric buffer zones were constructed with graded colour scales provide a more compelling picture and patterning of these trends. Preliminary analysis suggests few home care visits were provided beyond 15 minute travel distance. Final analyses will include FSA demographics, full geographic distribution of patient panels, sub-analysis of patient characteristics (including palliative status), and analogous data from a second FHT. Trends will be discussed relative to service delivery planning.

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60 A Portrait Of The Early Stage Clinical Research Studies (CRS) In Quebec And Canada: An Analysis Of Recent Trends And Key Success Factors To Be Competitive In CRS

Presented by **MICHELLE SAVOIE**, Professeure adjoint de formation pratique, Université de Montréal

A major initiative has been undertaken in the greater Montreal Area to develop a strategy to attract more clinical research studies (CRS). The objective of this analysis was to describe the CRS in Quebec and Canada, look at its recent evolution and identify key elements of competitiveness to attract CRS. Information, gathered from Health Canada, Clinical trials.gov and the Patented Medicine Price Review Board of Canada, was used to develop an analysis of CRS in Quebec and Canada concerning the recent trends for different type of clinical studies both in dollars and number of studies in Canada and Quebec. Furthermore, consultations in the form of small focus groups with over 75 participants were conducted to gather information on key elements to attract CRS. The following information was gathered for the analysis: clinical research studies (phases I, II and III): number of studies and expense from 2008 to 2013. The analysis show that over that period of five years, the number of new approved studies in Canada has never exceeded the level reached in 2008-09. We rather note a 35% decrease in annual CR expenses between 2009 and 2013, phase III studies accounting for 65% of it. Overall, 78% of the decrease in \$ is due to the decrease in average expenses per company and 22% from the lower number of companies conducting CRS. A comparative analysis shows that 74% of the early CRS is financed by companies in Quebec while it accounts only for 58% in Canada and 45% in USA. A survey with industrials and researchers found that operational efficacy, speed and quality are important factors in selecting sites for CRS. This analysis suggests that the decrease in CRS in Quebec and Canada is associated with a decline both in the number of companies and average expense per company. The presence of large health research centers is not the only factors to attract CRS: operational efficiency, speed and quality are required.

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61 Comprehensive Services across the Continuum of Care: Domains and Measures

Presented by **MICHELLE STIPHOUT**, Workforce Research and Evaluation Consultant, Alberta Health Services

Comprehensive services across the continuum of care is a key principle of health systems integration. This presentation's objective is to introduce the two domains found to represent this principle and to highlight instruments and measurement approaches currently available to measure these domains. Building on previous work, we identified 16 domains to represent principles for health systems integration. The two distinct but interrelated domains of coordinated care transitions and intersectoral collaboration were found to best represent the principle of comprehensive services across the continuum of care. We conducted a systematic review of the peer-reviewed and grey literature to identify instruments to measure the 16 domains. The review process included an abstract review, relevancy ratings, quality ratings, extraction, and audits. We identified 16 coordinated care transition and 14 intersectoral collaboration instruments in peer-reviewed articles and grey literature. Instruments were rated as mid to high quality and psychometric properties were reported about half the time. Coordinated care transition instruments examined care transitions in specific contexts such as in-patient to primary care. Instruments were primarily developed in the community/primary care although the tools were generally appropriate for many care settings. Intersectoral coordination instruments examined collaborations between health care organizations and providers in other sectors including social services, community supports, and education. Some instruments do not specifically identify which sectors but provide a framework to adapt the instrument to different settings. The instruments were mostly created or tested in a health care setting or have health care outcomes. Although distinct domains, together coordinated care transitions and intersectoral collaboration provide the opportunity to identify and measure transitions and coordination across an integrated health system. Future research should include testing the tools for quality and appropriateness and further research into the practical implications of these findings.

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62 Measuring Health System Integration

Presented by **MICHELLE STIPHOUT**, Workforce Research and Evaluation Consultant, Alberta Health Services

A multidimensional construct, health systems integration is a key priority in health care reform. However, a lack of instruments to measure progress towards integration has been reported. We will present instruments identified through a systematic review that measure overall integration or that capture two or more domains of integration. We identified 16 domains to represent different aspects of health systems integration. We conducted a systematic review in peer-reviewed and grey literature to identify instruments that measure specific domains of integration. If an instrument was identified as measuring two or more of the 16 domains or considered to measure "overall integration", the instrument was also included in the review. We identified 15 instruments that can be used to measure multiple aspects of integration: eleven questionnaires; three articles and websites that offer sets of measures or indicators; and one scorecard. The instruments included: 1) structural measures such as infrastructure and information technology; 2) process measures such as care coordination and planning and financial management; and 3) outcome measures such as quality and safety of patient care (e.g., satisfactions with care and patient experience). Many of the instruments did not report psychometric properties but seemed nevertheless appropriate for measuring important and diverse aspects of health system integration. We found a number of instruments that can be used to monitor progress towards health system integration, although few of them were rigorously validated. Future research should focus on developing, testing, and validating tools to ensure that we have reliable measures for health system integration.

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63 Instruments to Measure Health System Integration: Where are the Gaps?

Presented by **MICHELLE STIPHOUT**, Workforce Research and Evaluation Consultant, Alberta Health Services

Integrated health systems are key to health system sustainability. In order to measure our progress towards health system integration, we require reliable measurement tools. The objective of this presentation is to identify the gaps in instruments available based on a systematic literature review. Previous research identified 10 principles for successful health systems integration: 1) comprehensive services, 2) patient focus, 3) geographic coverage and rostering, 4) standardized care delivery through interprofessional teams, 5) performance management, 6) information technology, 7) organizational culture and leadership, 8) physician integration, 9) governance structure, and 10) financial management. We conducted a systematic review to identify potential tools to measure each principle. Search terms were identified and inclusion/exclusion criteria applied to peer-reviewed and targeted grey literature sources. Articles went through a rigorous review process, including relevancy ratings, quality ratings, extraction, and audits. For many of the principles, there were limited or low-quality instruments, or no ways of measuring that principle at all. Challenges in identifying appropriate search terms for several of the principles were also noted. Principles such comprehensive service, patient focus, and care delivered by interprofessional teams yielded more relevant articles and many more tools than principles relating to performance management, organizational culture and leadership, and information systems. For example, although we reviewed 466 abstracts for tools to measure alignment of organizational goals, we only found one tool. In contrast, 524 abstracts resulted in 32 tools related to patient focus. It appears that tools for some integration principles are well developed while others still require further research and development. Further research is required to explore these domains as in many cases there were limited instruments but also few articles addressing the topic. Gaps in the literature suggest further research should include developing and testing tools to ensure high quality tools are available for all domains of health systems integration.

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64 Developing Automated Tool for Data Quality Evaluation for inpatient database

Presented by **MINGKAI PENG**, Statistical Associate, University of Calgary

Hospital discharge abstract administrative databases (DAD) are used locally and internationally for research and healthcare system performance evaluation. Data quality assessment is fundamental before using DAD. Tools for data quality assessment are urgently needed to avoid the phenomena of “garbage in, garbage out” in health research. We developed a new framework to assess data quality at three levels: 1) data infrastructure and regulations during data collection; 2) hard rules: sex and age specific coding rules; 3) soft rules: association rules of related diagnosis and procedure codes identified by data mining method. Results include a list of data quality indicators related to data infrastructure, such as number of coding fields, coding system, and training of coder. For assessment of coding accuracy, 614 sex and age specific rules were developed to assess data quality based on clinical knowledge. Complex yet practical association rules were identified for checking completeness and consistency of DAD. Development of these association rules will remedy the limitation knowledge based quality check and allow for assessment of data quality at high levels and large scale. The developed data quality framework allows us to compare data quality across different hospitals, provinces, and countries. Application of the data quality framework will enable us to assess the precision of DAD and identify optimal data for health services research, management, and policy development.

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65 Looking Forward: Co-designing a cancer survivorship program with patients

Presented by **SUSAN LAW**, Principal Scientist and Associate Professor, St. Mary's Research Centre and McGill University

There are few interventions designed to prepare cancer patients for their transition from acute treatment to a new ‘normal’, known as the re-entry phase. Looking Forward, a patient-centered, participatory action research project, is developing and evaluating an evidence-informed supportive re-entry program for patients using the principles and practice of co-design. An experience-based co-design (EBCD) approach was adopted with patients and professionals involved in 2 Montreal oncology programs. Focus groups were held with patients and professionals separately and then together to share experiences and agree priorities for the program. Patients were asked for their perspectives on the experiences of care, about key moments during this period, as well as what support was useful or needed. A ‘trigger film’ highlighting emergent themes was developed from the video recording of the patient sessions and presented at the co-design session. Common priorities were agreed for the content and format of the supportive re-entry program. We will report the qualitative results from the patient and professional focus groups, and the resultant co-design information support priorities, which included: side effects after treatment, ongoing health concerns, psycho-social needs, nutrition and physical activity, and legal, financial and work considerations. The format for this program was decided jointly to include print and web-based materials (in stand-alone but related modules to support ‘as need’ information seeking), an orientation session for patients completing treatment, and a short introductory video to incite patients to engage in the materials offered. A health education writer and videographer have been engaged to develop evidence and experience-based materials, building on high quality existing material. An evaluation of the acceptability and impact of the new program will be completed. A simplified co-design approach led to agreed patient-professional priorities for improving information support for cancer patients at re-entry. The result will be a sustainable, experience-based intervention delivered at treatment completion in 2 oncology clinics. It is likely that there is applicability for this approach and results beyond these institutions.

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66 Peer Navigation for Prostate Cancer: Finding Common Ground for System Innovation

Presented by **AARON MILLER**, Research analyst, University Health Network

The purpose of the study was to explore the perceptions and expectations of stakeholders regarding a peer navigator to personally support men living with and beyond prostate cancer. We conducted in depth, semi-structured interviews with 33 stakeholders in two Canadian cities. Thematic analysis was used to identify themes and patterns across the set of interview data. Findings presented are from patients. Almost all participants agreed that peer support is needed early on as part of the diagnosis and treatment stage. Among their most pressing needs was informational, emotional, and social support. Characteristics of a peer navigator included being capable of directing patients to appropriate resources as well as having prior knowledge and experience with prostate cancer. Participants envisioned a peer navigator as someone trained to empower patients to conduct health-related conversations, ask questions, and make their own treatment decisions. Some participants expressed a preference for being matched with a peer based on similar characteristics such as age and stage of cancer, while others emphasized personal qualities such as being a good listener. Participants described peer support as one-on-one support, delivered in-person, on the phone, or online. The results suggest that peer support by well-trained peer navigators can help improve psychosocial outcomes of other patients. Sharing their experiences with an empathic peer who has completed treatment can help reassure patients that they are not alone, complementing usual medical care, expanding patients' support network, and improving healthcare policy.

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67 Assessment of a multimedia-based prospective method to support public deliberations on health technology design: Participant survey findings and qualitative insights

Presented by **PASCALE LEHOUX**, Professeur titulaire, Département d'administration de la santé, Université de Montréal

To support public deliberations about the implications of prospective technologies, we relied on a combination of videos and scenarios to conduct face-to-face workshops and an online forum. We present the participants' appraisal of our intervention and provide qualitative insights into the use of videos and online tools in public deliberations. We applied a mixed-method study design. A self-administered survey contained open- and close-ended items using a 5-level Likert-like scale. Absolute frequencies and proportions for the close-ended items were compiled. Qualitative data included field notes, the transcripts of the workshops and the participants' contributions to the online forum. The qualitative data are used to flesh out the survey data describing the participants' appraisal of: 1) the multimedia components of our intervention; 2) its deliberative face-to-face and online processes; and 3) its perceived effects. Thirty-eight participants contributed to the workshops and 57 to the online forum. A total of 46 participants filled-in the survey, for a response rate of 73% (46/63). The videos helped 96% of the participants to understand the fictional technologies and the online scenarios helped 98% to reflect about the issues they raise. Up to 81% considered the arguments of the other participants were well thought-out. Nearly all participants felt comfortable sharing their ideas in both the face-to-face (89%) and online environments (93%), but 88% preferred the face-to-face workshop. As a result of the intervention, 85% reflected more about the pros and cons of technology and 94% learned more about the way technologies may transform society. This study confirms the feasibility and relevance of a deliberative intervention that combines videos and online scenarios. To increase deliberative depth, online tools should be designed by considering 1) the participants' self-perceived ability to share written comments and 2) the ease with which other participants can respond to such contributions.

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68 Peer support during transitions from youth to adult mental health services: A systematic review of the evidence

Presented by **PATRICIA WAKEFIELD**, Associate Professor, Health Policy and Management, McMaster University

This study summarizes findings from a systematic review designed to consolidate knowledge about the use of peer support during transition from youth to adult mental health services, a period of time with potential for youth to “fall through the cracks” of the health care system and experience stress and anxiety. A systematic review of the academic literature was conducted. Key words related to “peer support” were used during the article search process. Articles were included in this review if they were: available in English; peer reviewed; published between 1993 and 2013; focused on children/adolescents with mental health disorders; and, discussed peer support for youth with mental health disorders. Reference chaining of articles meeting eligibility criteria was conducted to identify additional articles meeting inclusion criteria. Key information (including methods, study population, definitions of peer support, key findings, and conclusions) from each qualifying study was extracted and summarized in a table. The database searches identified 476 potential articles. At the completion of the review process 19 articles met all of the inclusion criteria. Across the studies, there was no standard definition of “peer support” or “youth” which made it difficult to compare findings. Most studies relied on qualitative interviews with relatively small numbers of youth participants. There was general agreement that the use of peer support was helpful but there was also a lack of data available to quantify the effectiveness of specific supports in transition programs. There was a lack of detail describing communication between the providers of youth and adult mental health services, making it difficult to determine the role of peer support and how transitions were actually facilitated. There is an urgent need to further investigate and better understand what constitutes effective peer support and the circumstances under which peer support activities may be beneficial to mitigate some of the negative aspects associated with youth transitioning to adult mental health services.

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69 Health Care Service Experiences of Polish Immigrants Residing in the United Kingdom

Presented by **ROBERT NARTOWSKI**, PhD Student, University of Kent

Polish immigrants represent one of the largest foreign-born groups in the United Kingdom (UK). The objectives of this study were to assess self-reported access to health care services (family and specialist physicians, emergency care, drug coverage) among Polish first generation immigrants residing in London, England and Edinburgh, Scotland. This was a cross-sectional study of Polish adult immigrants residing in London, England or Edinburgh, Scotland in 2014. Respondents were selected through snowball sampling with the initial sampling areas chosen based on ethnographic maps. Individuals were approached at Polish organizations, community centres, or commercial areas. Respondents completed a paper-and-pencil survey with multiple choice and open-ended questions. Background questions asked about demographics, education, employment, income, family composition, and settlement perspectives. Self-perceived access to health care (family/specialist physicians, emergency care, drug coverage) was assessed. Participants were asked to compare their health care in the UK to that received in Poland. Overall, 119 respondents were recruited (76 from London, 43 from Edinburgh). The study sample was mostly female (70%), young (63% <35 years old), in a relationship (54%), had no children (54%) or close family in the UK (51%), had post-secondary degrees (55%), spoke Polish at home (82%), spoke English or both English/Polish at work (75%), and moved to the UK following Poland's 2004 accession to the European Union (60%). Respondents had generally good access to health care (rated as 6.7/10). 79% had a family physician, 76% were able to access emergency care, 70% were referred to a specialist if required, and 70% had adequate drug coverage. 61% of the sample rated their access to health care as being about the same as in Poland. Polish immigrants generally reported positive health care experiences with over 70% having good access to family and specialist physicians, emergency care, and drug coverage. Nonetheless, a quarter of the respondents did not report good access with differences between cities. These groups may need to be targeted in future programs.

70 Mise en œuvre d'un programme de prévention et d'intervention interdisciplinaire intégré sur le risque cardiométabolique en 1re ligne : le point de vue des médecins participants

Presented by **ROXANE BORGES DA SILVA**, Institut de recherche en santé publique de l'Université de Montréal, Faculté des sciences infirmières de l'Université de Montréal

L'objectif de l'étude est d'apprécier la participation des médecins à un programme de prévention et de gestion du risque cardiométabolique en première ligne inspiré du Chronic Care Model et de documenter leur appréciation des effets du programme sur leurs patients, leur pratique et la collaboration au sein du réseau. Un programme de prévention et d'intervention interdisciplinaire intégré sur le risque cardiométabolique a été implanté à Montréal (printemps 2011) pour les patients diabétiques ou hypertendus. Un questionnaire postal a été administré aux médecins de première ligne un an après l'inscription d'un premier patient au programme. Des scores d'appréciation des effets du programme sur les patients, la pratique médicale, les liens avec la 2e ligne et la collaboration dans le réseau local de services ont été construits. Des analyses de régression logistique ont été réalisées pour identifier les facteurs associés à la participation des médecins et à leur appréciation du programme. 381 omnipraticiens ont participé à l'évaluation (taux de réponse 51%). Ils ont indiqué avoir référé en moyenne 13 patients au programme durant l'année précédente. Les médecins considèrent que le programme est bénéfique pour leurs patients (score moyen 8,4/10) et que le programme apporte un soutien utile au suivi des patients (score 8,7/10). L'appréciation est moindre pour les activités de formation continue et outils cliniques (score 6,2/10), la collaboration avec les services de 2e ligne (score 5,8/10) et au sein du réseau (score 6,3/10). Un plus grand nombre de patients vus en clinique de première ligne, ainsi qu'une pratique orientée vers la prise en charge des maladies chroniques, sont associés au fait de référer plus de patients au programme et à une meilleure appréciation du programme. Le programme semble apprécié des médecins de première ligne, pour son soutien au suivi des patients et ses effets sur les patients. Toutefois, le taux de référence demeure faible et l'appréciation de l'impact du programme sur la collaboration et coordination des soins indique que l'intégration des services demeure à consolider.

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71 Implementation of System Navigation in Primary Care: Lessons from a Scoping Literature Review

Presented by **RUTA VALAITIS**, Associate Professor, McMaster University

System navigation programs were introduced in the US in the 90s to address cancer care. They have expanded internationally to support patients with complex health and social conditions in primary care. This presentation will share factors that influence the implementation and maintenance of system navigation programs in primary care. A scoping literature review was conducted of papers published between January 1990 and June 2013 including various sources: These included electronic database searches, web site searches, and a search of reference lists from literature reviews. A key author was also contacted. Papers that addressed navigators or navigation programs in primary care settings in Canada, the United States, the United Kingdom, Australia, New Zealand, and/or Western Europe were included. Furthermore, only papers that described navigation programs that linked patients to community-based health and community services were included. NVivo 10 was used to analyse extracted data. Of the 34 papers that were included, eleven factors were found to influence program implementation and maintenance. They included: patient characteristics; effective recruitment and training of navigators; role clarity; effective and clear operational processes; adequate human, financial, and tangible resources (including technological resources); strong inter and intra-organizational relationships and partnerships; lack of available community services; effective interprofessional communication; program uptake and buy in; valuing of navigators; and navigation program evaluation. Positive outcomes of navigation programs were reported for patients, providers and navigators, as well as the health and social care system. Most papers were from the US (n = 29) and the remaining papers were from Canada, the UK and Australia Primary care managers and providers who are involved in setting up or maintaining system navigation programs need to consider multiple factors that can influence success in program implementation. The identified factors align closely with the Diffusion of Innovation in Service Organisation framework by Greenhalgh and colleagues (2004).

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72 Examining regional variation in health care spending in British Columbia

Presented by **RUTH LAVERGNE**, Postdoctoral Fellow, McGill University

A growing body of research observes that health care spending and service use vary substantially from place to place, and this is not explained by better outcomes in higher-spending regions. We examine patterns of variation in spending in British Columbia (BC), and consider implications of results for policy. We used administrative health data, covering the entire BC population, to examine how and why health care spending varies among health regions. Pricing and insurance coverage are constant across the population, and we adjusted for patient-level age, sex, and expected need for health care based on diagnoses recorded in administrative data. We also explored the issue of treatment intensity bSaProias, where populations who receive more services appear sicker based on diagnoses coded in administrative data, by adjusting for region-level visit rates at end-of-life (a proposed proxy for treatment intensity), and measures of population health independent of health care use. Without adjusting for differences in population characteristics, per-capita spending is 50% higher than highest-spending region than in the lowest (coefficient of variation=10.8). Adjusting for individual age, sex, and expected need for health care, as well as the very different environments for health services that exist among metropolitan, non-metropolitan, and remote regions of the province, this falls to 20% (coefficient of variation=4.9). Metropolitan, non-metropolitan, or remote health service environment was not a strong predictor of variation in individual level spending, but explained a substantial amount of remaining variation among regions. Observed variation is modest compared to results of research in other populations, a finding that is robust to adjustment for treatment intensity bias. Variation in spending across regions of BC appears driven by population characteristics, and to some extent geographic context, not differences in treatment intensity. Policy reforms aimed at system-wide quality and efficiency improvement, rather than targeted at high-spending regions, will likely prove most promising.

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73 Patient and Caregiver Perceptions on Quality Palliative and End-of-Life Home Care

Presented by **RYAN PARDY**, MSc Student, McGill University

To describe the scope of knowledge and evidence regarding the quality of palliative and end-of-life home care experienced by patients and informal caregivers (e.g., family). Specifically, what measures and outcomes are applied to determine quality of home care; and what methods are used to collect care recipients' perceptions? A scoping review of peer-reviewed journals published from 1980-2014 was completed. Data sources included Medline, CINAHL, EMBASE, and Health and Psychosocial Instruments. Key-word electronic search identified 3107 citations. Inclusion criteria and screening process narrowed the final set to 47 studies that were: published in English; included only patients and/or caregivers aged ≥ 18 years; and conducted in North America, Britain, Australia or Scandinavian countries. Articles were catalogued and a numeric analysis of the methods used to measure quality and the timing of data collection was conducted. Thematic questions and measures were identified as well as common themes derived from study outcomes. Of the 47 studies, 40 were published since 2000 and 6 were Canadian. Patients' perceptions were reported on in 8 studies, informal caregivers' in 27, and both groups in 12. Mode of data collection was primarily face-to-face interviews (66%) followed by mail-in surveys (34%). Non-standard data collection tools were used in 87% of studies and data analysis was primarily qualitative (47%) and mixed methods (36%). Data collection took place before death in over two-thirds of studies, and only three included follow up with caregivers post-death. Common themes identified from studies across all three respondent groups included: access to services, mental health, symptom control, overall quality, trade-offs with home death, information needs, empowerment, continuity of care, and security. Studies reviewed primarily report quality measures and outcomes from customized interview and survey questions and that seek caregivers' perceptions. The lack of evidence on standardized measurement tools reflects the diversity in palliative/end-of-life home care delivery and needs of different client populations. Despite this, common themes were identified from respondents.

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74 Measuring retirement: a workforce planning challenge

Presented by **SARAH SIMKIN**, Student, University of Ottawa | **SIMONE DAHROUGE**, CT Lamont Primary Health Care Research Centre, Bruyere Research Institute

Accurate estimates of physician attrition from the workforce are necessary for effective physician workforce planning. However, our understanding of physician retirement is incomplete and predictions of physician attrition are not particularly reliable. This study examines how different measures of retirement influence population-based estimates of physician attrition from the workforce. (1) Approaches to measuring retirement are reviewed and the strengths and limitations of each are discussed. In the physician population, definitions of retirement based on non-participation in the workforce or reduction in workload or income (by a given percentage or to below a defined threshold) are the most salient. (2) Billing data from primary care physicians practising in Ontario between 1992 and 2012 (from the Institute for Clinical and Evaluative Sciences (ICES)) are used to generate population-based estimates of physician attrition. Different definitions of retirement are applied to the data and the results compared. Although the analysis of the ICES data for part (2) is still in progress, the review of different approaches to the measurement of retirement suggests that three definitions be considered: physicians are considered retired when their current and future billings are equal to zero, or when their billings drop and stay below a defined income threshold (\$20,000 per year or \$10,000 per year), or below a defined workload threshold (to less than 33% or 25% or 15% or 10% of their peak workload). Estimates of the proportion of primary care physicians considered retired using each of these measures are compared, yielding a more robust understanding of the relative merits of each measure in the context of a population of primary care physicians. By furthering our understanding of how retirement may be measured, this research will be useful in informing health human resource policy decisions. This, in turn, will facilitate more effective physician workforce planning and help to align physician supply with the needs of the population.

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75 Addressing the Policy Practice-Gap: The Experience of Primary Health Care Research Networks in Alberta

Presented by **STEPHANIE MONTESANTI**, Assistant Professor, University of Alberta

Primary health care (PHC) research in Alberta, Canada is carried out through multiple networks. Our team wanted to describe the emerging role of the Alberta Primary Health Care Research Network (APHCN) in quality improvement (QI), translation of research into practice, and identifying research priorities in primary health care. We gathered information from the published academic literature, a formative evaluation of the PHC Strategic Clinical Network, and a stakeholder planning meeting to identify PHC research priorities in the province of Alberta. Participants at the stakeholder meeting included clinician researchers and health policy decision makers. At the dialogue participants deliberated on primary health care research priorities that were presented to them. We adopted Wenger's notion of Communities of Practice (CoP) where knowledge is regarded as a social enterprise at the center of member interactions. Research Networks are learning communities, proving grounds for evidence-based solutions to pressing system issues and challenges. A comparative analysis of primary health care research priorities were identified from the following data sources: 1) a formative evaluation of the APHCN; 2) literature review of PC and PHC research priorities in Canada; and 3) documentation of research projects across Alberta. Similar research priorities were identified across the three sources, which include: data extraction and sharing from EMRs, managing patient transitions across the care continuum, patient navigation, interprofessional integration in primary care, equity-oriented models of primary health care delivery, and patient-centred health home. A number of research projects are underway in Alberta that address these research priorities. The stakeholder meeting provided a participatory space for stakeholders (e.g., clinicians, academics and decision-makers) to agree on their goals, and apply their collective knowledge, skills, and resources. The APHCN is a network of primary care and primary health care research networks and associated support entities in Alberta. The network aims to support primary care research, knowledge translation and exchange, and scale-up of evidence-based solutions to pressing issues and challenges facing the PHC system and providers in Alberta.

76 Frequency and cost of potentially inappropriate prescriptions for older Canadian women and men: an analysis of provincial drug plan claims

Presented by **STEVE MORGAN**, Professor, University of British Columbia

We sought to quantify the frequency and cost of potentially inappropriate prescribing for older women and men in Canada. This is a retrospective analysis of 2013 calendar year prescription drug claims from publicly financed drug plans in all provinces except for Quebec. We identified the frequency and cost of potentially inappropriate prescription dispensed to provincial drug plan enrollees aged 65 years using the 2012 Beers criteria for drug type, dose, and duration. Averaged across six provinces with relatively complete data coverage (BC, AB, SK, MB, ON, and PEI), we found that approximately 37% of older persons filled one or more prescription meeting the Beers criteria in 2013. A greater proportion of women (42%) than men (31%) filled potentially inappropriate prescriptions. Highest rates of potentially inappropriate prescription drug use were among women aged 85 and older (46%). Benzodiazepines and other hypnotics were the leading contributors to overall frequency and sex differences in potentially inappropriate prescription use among older Canadians. We estimated that \$75 per Canadian aged 65 and older, or \$419-million in total, was spent on potentially inappropriate prescriptions outside of hospital settings in 2013. Potentially inappropriate prescribing for older adults remains common and costly in Canada, especially for women. A national strategy to reduce the use and cost of potentially inappropriate prescriptions among the elderly would likely generate significant health system savings while simultaneously generating major benefits to patient health.

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77 The Canadian Physician Database (CPDB): Partnering to develop physician workforce research, planning and decision-making data

Presented by **SHANNA DIMILLO**, Data and Research Analyst, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada / **CAROLE JACOB**, Manager, Health Systems and Policy, Office of Health Systems Innovation and External Relations, Royal College of Physicians and Surgeons of Canada

Canada's National Physician Survey (NPS) was retired in 2015 due to low response rates. The CPDB feasibility study explores secondary data collection from medical regulatory authorities (MRA). Initial CPDB data mapping evaluates the suitability of MRA data for physician workforce research and comparability of data across regulatory jurisdictions. The CPDB feasibility study used a convenience sample of MRAs. Candidate MRAs were identified to reflect small and large regulated physician populations as well as jurisdictions with variable breadth of data. Initial registration and annual license renewal forms were reviewed for all jurisdictions. Data elements were mapped across jurisdictions and evaluated with respect to: 1) comparability to past NPS data and relevance to workforce research and decision-making; 2) frequency with which items are collected across jurisdictions; 3) cross-jurisdiction similarity of wording used to elicit information from physicians; and, 4) cross-jurisdiction similarity of response categories. Four MRAs participated in the CPDB feasibility study, including British Columbia, Alberta, Manitoba and Ontario. Combined, these jurisdictions regulate approximately 65% of Canada's total physician workforce and range in size from an estimated 2,600 in Manitoba to 30,000 licensed physicians in Ontario. The review of past NPS data and regulatory forms identified 41 data elements grouped within four main physician information areas: 1) demographics; 2) education; 3) practice location; and 4) practice characteristics (e.g., clinical activity, workload, office technology). MRA data elements map closely to 9 of 16 NPS data elements, including physician demographics, education, specialty and practice location. MRA data is less comparable to NPS data related to physician work hours, scope of practice and use of electronic health records. Secondary data collection from MRAs can produce a relevant physician workforce research database. Virtually all physicians comply with MRA data collection, thus addressing data quality issues related to self-report surveys. Future CPDB data development might focus on gaps that meet the information needs of MRAs, researchers, planners and decision-makers alike.

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78 Handling and disposal of controlled substances in hospices in Ontario: a cross-sectional survey

Presented by **SUMAIRA HASAN**, Doctor of Pharmacy Candidate, University of Waterloo School of Pharmacy

Current practices related to the handling of controlled substances (CS) in hospices have not been previously published and therefore, are unknown. The objective of this study was to determine current practices, and policies, standard operating procedures and guidelines related to handling and disposal of CS at hospices across Ontario. This study was a cross-sectional survey of hospices in Ontario. A list of all hospices in Ontario was obtained from Hospice and Palliative Care Ontario (HPCO). The Director at each hospice was contacted to request contact information on the person most likely to be knowledgeable about handling procedures related to CS. All participants who provided consent were asked to complete a telephone survey composed of 32 questions, 20 of which were multiple-choice (MCQs) and 12 were open-ended. Of the 20 MCQs, 9 requested information about the demographics of the hospice, 10 were related to CS disposal and documentation practices. Twelve (12/29; 31%) hospices participated in the survey, 25 did not, and 2 were ineligible. Two (2/12, 17%) hospices served both pediatric and adults while 10 (83%) served adults only; 100% indicated that 76 - 100% of their patients were on CS at time of death. Eight (67%) had a policy for CS handling, 2 had policy and standard operating procedures (SOPs) and 2 had no policies, guidelines or SOPs. Thematic analysis indicates variability in procedures for obtaining CS (patients own supply, other patient's supply, hospice associated pharmacy), storage and dispensation of CS (location, secure lock, dispensing by staff or family), documentation (dispensing records, double signature, tracking returns and disposal), and disposal of CS (return to pharmacy, dispose at hospice, return to families). Although most of the hospices have a policy, guideline or SOP on the handling of CS, there is considerable variation in practice in obtaining a supply, dispensing CS to patients, documentation and disposal of CS, which may provide an avenue for inappropriate use, abuse or diversion of CS.

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79 Developing a learning health system through patients' experiences: women helping women with breast cancer

Presented by **SUSAN LAW**, Principal Scientist and Associate Professor, St. Mary's Research Centre and McGill University

We present the development of a computerized interface that allows newly diagnosed patients to retrieve personalized information from our existing database of women's experiences of breast cancer that we have collected through individual interviews using video and/or audio recording. Narrative interviews were conducted with 36 women across Canada about their lived experience with breast cancer using standardized methods developed at the University of Oxford, including efforts to ensure a variation sample, and the use of video/audio recording. The emergent themes with video/audio extracts will be disseminated on www.healthexperience.ca to provide information and support for other women with breast cancer, and for training healthcare professionals. This 'database' will now provide the basis for further work with a health systems engineer, computing scientists, and patients to develop an e-interface permitting women to search for information relevant to their situation and illness. Women highlighted the lack of information and support at the moment just after receiving their diagnosis and surgical options, but before a specific treatment plan was decided. They wanted to learn from other women's experiences of surgery, describing this period as an especially bewildering and difficult moment in their treatment pathway. We will present key emergent themes regarding their experiences in this period before surgery, decision making, preferences and expectations, and sources of support. We will then present the plan for the second phase of this work to develop a personalized information application where women can retrieve information based on other women's experiences while waiting in the breast clinic. The design of the interface will include quality improvement mechanisms for a self-learning computerized system. Dave deBronkart stated "Patients know what patients need to know" and are therefore, the most underused resource in healthcare. Co-designing reliable decision-support tools for patients and families that are experience and evidence-based are an essential means to health system improvement and patient-centered support in healthcare decision-making.

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80 Identifying barriers to cervical cancer screening among South Asian Muslim immigrant women

Presented by **SYEDA KINZA RIZVI**, Master's Candidate, University of Calgary

We sought to identify the barriers to cervical cancer screening among South Asian Muslim immigrant women in Calgary. Understanding their ideas and needs will enable development of educational programs and services so they can benefit from screening and reduce the effect of this disease. Qualitative, semi-structured in-depth interviews, by purposive sampling, were conducted with South Asian Muslim immigrant women of Calgary who were unscreened or infrequently screened for cervical cancer. Thematic analysis was conducted for data analysis using Microsoft Word. 18 women were interviewed and the majority (66%) never had a Pap test. Findings were categorized into five major themes: Attitude, knowledge & beliefs, healthcare seeking practices, experience with healthcare system & services, barriers and strategies to Pap testing. Major findings include: misunderstanding about Pap test reminders, strong preference for a female physician who also speaks their language, seeking symptomatic treatment not prevention, negative experiences with healthcare providers including painful Pap test experience. Major barriers involved: lack of knowledge about cervical cancer and the term cervix, fatalistic beliefs, dependence on husband, transportation, language and unavailability of female physicians. Separate centers for Pap testing, awareness and encouragement by social workers and family physicians to get tested were strategies participants suggested. Different healthcare strategies are needed at the system and provider level to improve healthcare experience and to promote cervical cancer screening. Providing female physicians, knowledge and resources such as transportation and a separate center, and screening reminders that explain the procedure and the disease in detail could potentially increase screening practices.

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81 Identifying profiles of biopsychosocial care needs of 'high-cost users' referred to an outpatient case management service

Presented by **TARA STEWART**, Researcher/Assistant Professor, Centre for Healthcare Innovation

Outpatient case-management is a promising model of care for 'high-cost users'; yet knowledge-gaps exist regarding the specific care needs of targeted clients. This project identified profiles of biological, psychological, and social (biopsychosocial) care needs among individuals referred to outpatient case-management; and examined profile differences in demographics variables and health outcomes. N=211 clients (62% female, average age=73) referred to an outpatient case management service were scored on a North American adaptation of the INTERMED scale (De Jonge et al., 2001); a validated 20-item measure designed to assess underlying biological, psychological, and social care needs of acute-care clients. Guided by past research, a k-means cluster analysis was used to categorize clients into groups based upon the empirical similarity of their biopsychosocial care needs. Information on client demographics (age, gender, existing health conditions) and health outcome variables (self-rated physical and mental health, emergency department use) were obtained from patient records. A three cluster solution was selected that maximized differences in biopsychosocial care needs, yet maintained adequate sample size in each group. Cluster 1 (n=90) was characterized by extreme complexity of biopsychosocial care needs with a pressing need for mental health services; Cluster 2 (n=47) was characterized by intermediate complexity with an emphasis on medical (biological) needs and improving access to/co-ordination of care; and Cluster 3 (n=74) was characterized by moderate complexity – despite seemingly adequate access to care. Differences emerged across the clusters in terms of demographic variables and subsequent health outcomes: In particular, the clients in Cluster 1 were younger; were more likely to rate their health as "poor," and had significantly more visits to the emergency department in the subsequent six months. This project identified and described three distinct profiles of biopsychosocial care needs among 'high-cost users' referred for outpatient case-management services. Findings may be informative for stakeholders looking to understand general trends in complex care needs; and those looking to refine service models and multi-disciplinary staff complements of outpatient case-management teams.

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82 The Importance of Therapeutic Self-Care in Promoting the Safety of Older Adults in Home Care

Presented by **WINNIE SUN**, Post-Doctorate Fellow, University of Toronto

The purpose of this mixed methods study was to examine the concept of therapeutic self-care in the context of home care, as well as its influence on the safety of home care clients and their informal caregivers. The quantitative approach used a retrospective cohort design and utilized secondary databases available for Ontario home care clients. Logistic regression analysis was used to examine the association between therapeutic self-care and adverse events. The qualitative approach utilized one-on-one interviews with the clients and their informal caregivers recruited from one home care agency in Ontario. Qualitative description was used to analyze data that generated themes about clients and their caregivers' perspectives of home care safety in relation to therapeutic self-care and informal caregiving. The quantitative results indicated that low therapeutic self-care ability was associated with an increase in the odds of clients experiencing: (1) unplanned hospital visits; (2) decline in activities of daily living; (3) falls; (4) unintended weight loss, and (5) non-compliance with medication. Analyses of the qualitative interview data revealed four over-arching themes: (1) Struggling through multiple aspects of safety challenges; (2) Managing therapeutic self-care by developing knowledge, competency and self-confidence; (3) Coping with informal caregiving through problem-solving, stress management and caregiver relief; (4) Seeking education, support and collaboration from home care. This mixed methods study advanced understanding of therapeutic self-care in the context of home care. This knowledge is vital to policy formulation related to the role of home care services in improving client's therapeutic self-care ability to reduce safety related risks and burden for home care recipients.

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83 Mechanical thrombectomy in patients with acute ischemic stroke: a health technology assessment

Presented by **XUANQIAN XIE**, Health Economist, Health Quality Ontario

The beneficial effects of mechanical thrombectomy (MT) for acute large-artery ischemic stroke has been demonstrated. We evaluated the effectiveness and cost-effectiveness of MT plus intravenous thrombolysis (IVT) compared with IVT alone to inform policy decision making concerning the public funding of this technology in Ontario. We conducted a health technology assessment consisting of a systematic review clinical effectiveness and an economic evaluation. A meta-analysis of randomized controlled trials (RCTs) examined the effectiveness of the new-generation MT devices (with or without IVT) using stent retrievers and thromboaspiration devices for patients with acute ischemic stroke. A Markov decision analytic model was developed to determine the cost-effectiveness of MT. Comprehensive literature searches were conducted to populate model inputs. Incremental cost-effectiveness ratios (ICER) were calculated using a 5-year time horizon. Sensitivity analyses were conducted to evaluate uncertainty. We identified five RCTs. Meta-analysis demonstrated that patients with MT+IVT were more likely to be functionally independent, compared with IVT alone. We did not observe a difference in mortality or symptomatic intracerebral hemorrhage. The base case economic analysis showed the MT+IVT strategy was associated with an ICER of \$11,990 per QALY gained. The main factors influencing the ICER were the time horizon, the cost of MT treatment and age group. Probabilistic sensitivity analysis showed that the probability of the MT+IVT being cost-effective was 57.5%, 89.7% and 99.6%, at thresholds of \$20,000, \$50,000, and \$100,000 per QALY gained, respectively. MT as an adjunct therapy to IVT significantly improved functional independence and is probably cost-effective compared with IVT alone for patients with acute large-artery ischemic stroke.

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84 Composite tissue transplantation for hand or arm: a health technology assessment

Presented by **XUANQIAN XIE**, Health Economist, Health Quality Ontario

Since 1998, approximately 100 procedures of composite tissue transplantation (CTT) for hand and arm have been done worldwide under modern immunosuppression. We evaluated the effectiveness and cost-effectiveness of this treatment to inform a recommendation about whether this intervention should be publicly funded in Ontario. We conducted a health technology assessment consisting of a systematic literature of clinical effectiveness and an economic evaluation. Studies that examined the effectiveness and safety of hand and arm transplantation were identified. A Markov decision analytic model was developed to determine the cost-effectiveness of unilateral and bilateral hand transplantation compared with standard care for healthy adults with amputation. Post-transplant health states were categorized into four groups: major complications, minor complications, amputation of transplant, and death. The costs of screening recipients, transplant, rehabilitation, and long-term immunosuppression treatment were included. Incremental cost-effectiveness ratios (ICERs) were calculated using a 30-year time horizon. We captured 88 hand and upper extremity transplantation procedures reported from around the world. Compared with pre-transplant function, patients' post-transplant function was significantly improved, but the risk of complications (e.g., amputation of transplant, mortality) was substantial. Our economic evaluation showed that unilateral hand transplantation strategy was dominated by standard care strategy, with increased costs (\$735,647 CAD versus \$61,429) and reduced quality-adjusted life-years (QALYs) (10.96 versus 11.82). Sensitivity analyses did not change the finding that standard care was the dominant strategy. Bilateral hand transplantation was associated with an increased cost of \$633,780 and an increased effectiveness of 0.17 QALYs, translating to an ICER of \$3,765,037 per QALY gained. The ICERs were greater than \$1 million per QALY gained in most sensitivity analyses. CTT for hand or arm improves hand function, but with a considerable risk of complications. Neither unilateral nor bilateral hand transplantation are cost effective.

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85 Cost-effectiveness of mass tuberculosis screening for new immigrants to Canada

Presented by **YASMIN SAEED**, Master's student, Leslie Dan Faculty of Pharmacy, University of Toronto

All immigrants to Canada are screened for active pulmonary tuberculosis before immigration due to its high prevalence in developing countries, communicability, and high burden of morbidity and mortality. Recent data indicate that Canada's current mass screening and surveillance program may be inefficient, warranting an evaluation of its cost-effectiveness. We performed a cost-utility analysis using a Markov model to compare the current mass screening strategy to no screening from a governmental perspective. We predicted quality-adjusted life years (QALYs), costs in Canadian dollars, and the incremental cost-effectiveness ratio (ICER) over a lifetime time horizon. Costs and QALYs were discounted at a rate of 5%. Data on probabilities, costs, and utilities were primarily obtained from the literature. We conducted deterministic sensitivity analysis. Based on the 2014 cohort size of 260,404 immigration applicants, our model predicts that mass screening costs the Canadian government \$81,180,529/year while no screening would cost \$76,809,384/year. Mass screening results in 4,645,743 QALYs while no screening would result in 4,642,302 QALYs. Therefore, mass screening yields 3,442 more QALYs annually at an additional cost of \$4,371,144; resulting in an ICER of \$1,270/QALY. At a willingness-to-pay threshold of \$50,000/QALY, mass screening is cost-effective compared to no screening. Sensitivity analysis demonstrated that our results are sensitive to three variables: the prevalence of latent TB among immigrants; the utility associated with undiagnosed latent TB; and the probability of new immigrants completing therapy for latent TB. Despite its inefficiencies, Canada's mass tuberculosis screening program for new immigrants is highly cost-effective compared to no screening. However, a targeted screening program could minimize these inefficiencies and could potentially be even more cost-effective. Further economic analysis is warranted.

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86 Nurse workload and satisfaction with providing Telehomecare to COPD and HF patients in Ontario, Canada

Presented by **VALERIA RAC**, Associate Program Director & Director, Clinical Research Division, THETA Collaborative; Assistant Professor, University of Toronto

Telehomecare Program provides support to chronic obstructive pulmonary disease (COPD) and heart failure (HF) patients. Telehomecare Nurses remotely monitor patient health and provide health coaching sessions. The objective of this abstract is to report on nurse workload and satisfaction with the Program. This descriptive study evaluates the overall nurse workload using nurse-to-patient ratio and related monthly activities. Study population includes all Telehomecare Nurses. Data from July 2012 – 2015 was extracted from the Ontario Telemedicine Network database. A telephone survey was administered to evaluate three main domains of satisfaction specifically related to program database software, perceived quality of care and productivity. Items were assessed on a scale from 1-10 with higher values indicating greater satisfaction and perceived quality. Descriptive statistics were applied to summarize the data. Nurse-to-patient ratio increased dramatically from median 11 patients/nurse/month (Q1-Q3: 4-26) in 2012 - 2013 to 43 (Q1-Q3: 27-51) in 2014 - 2015. During 2014 - 2015, the median number of finalized alerts was 1088 (Q1-Q3: 703-1362); alert calls was 102 (Q1-Q3: 54-165); and coaching sessions was 23 (Q1-Q3: 7-53) /nurse/ month. Majority of the alert calls (53 %) lasted 0-7 minutes and half of the coaching sessions (51%) lasted 7-15 minutes. Nurses reported moderate levels of satisfaction (score: 6.6±1.2) and perceived quality of care (score: 6.3±0.5). Challenges were related to delay in system responsiveness and repeated data entry. Nurses reported on average spending 13±4 min/ patient call with the workload being evenly distributed between communicating with patients and carrying program related administration duties. Given that less than 10% of alerts resulted in a call, adjusting the alert thresholds may lead to a reduced workload and/or greater satisfaction with workload. Results of this study revealed areas for improvement in the program software permitting nurses increased time for patient care management.

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87 A network perspective on patient experience and reported outcomes: Medical Expenditure Panel Survey 2004 to 2011

Presented by **YI-SHENG CHAO**, Postdoctoral fellow, Université de Montréal

There is a growing emphasis on patient experience and engagement to improve health care quality and patient health. This study aims to take a network perspective to study the associations between patient experience and health outcomes and identify factors that could be prioritized to improve health outcomes and patient experience. This study used data from the Medical Expenditure Panel Survey (MEPS) between 2004 and 2011 in the United States. The 88 variables regarding patient health and experience with health care were identified through the MEPS documentation. Sex, age, race/ethnicity, and years of education were also included for analysis. The bnlearn package within R (v3.20) was used to 1) identify the structure of the network of variables, 2) assess the model fit of each candidate networks, 3) evaluate the strengths of arcs in the network, and 4) fit conditional probabilities with the given structure. There were 51,023 MEPS interviewees age 18 to 85 years (mean=44.07, 95% CI = 44.22 to 43.93) with years of education ranging from 1 to 19 years (mean=7.43, 95% CI=7.40 to 7.46). Among all, 55.1% and 74.9% were female and white respectively. The more frequently the health providers explained things in a way that was easy to understand, the more likely the health care rated highly, closer to ten ($p<0.001$). The probability of rating health care highly was greater among those in need of a specialist in the second year ($p<0.001$). The less time individuals were limited in activities as result of physical health or felt downhearted and depressed during the past 4 weeks, the better general health was rated ($p<0.001$ for both). Significant predictors of health care quality ratings can be identified. Although causal relationships cannot be established, the structure of the variables can be meaningful for health policy researchers, who search for one or a few key priorities to initiate interventions or health care quality improvement programs.

88 Comparing Risk Adjustment Methods for Patients with Liver Disease Using Electronic Medical Record

Presented by **HUDE QUAN**, Professor, University of Calgary

Risk adjustment methods are widely used to compare quality of care or predict health outcome, but the optimal approach is unclear for liver disease. This study is to compare the performance of common risk adjustment methods for predicting in-hospital mortality in patients with liver disease using Electronic Medical Records (EMR). The EMR data was derived from Beijing YouAn Hospital between 2010 and 2015. 85,526 EMRs were included. Previously developed and validated automated EMR case definitions were applied to define the conditions including primary liver cancer, cirrhosis and other conditions included in Charlson, Elixhauser comorbidity algorithms, Child-Pugh score and Model for End-Stage Liver Disease (MELD). Logistic regression was conducted and C-statistic was obtained to compare the performance of the different methods for predicting in-hospital mortality. To eliminate the effect of the model complexity on model performance, we compared Akaike Information Criterion (AIC) of different methods (smaller AIC is better). In total, we included 7,178 Primary Liver Cancer (PLC) patients, 11,121 cirrhosis patients and 7,298 cirrhosis without PLC patient. For PLC patients, C-statistics of these compared indexes ranged from 0.72 to 0.84; AIC were between 4312.3 and 5048.4. For cirrhosis patients, C-statistics of these compared indexes ranged from 0.73 to 0.83; AIC were between 4952.1 and 5788.2. For cirrhosis without PLC patients, C-statistics ranged from 0.73 to 0.84; AIC were between 2608.3 and 3240.5. It was consistent across the three samples that MELD and sodium (MELD_Na) score (a common variant of MELD score) had the highest C-statistic and lowest AIC; Child-Pugh had the lowest C-statistic and highest AIC. Integrating Charlson Comorbidity to MELD_Na, C-statistic improved to 0.86 and AIC reduced. Among the compared risk adjustment methods, MELD_Na performed best for predicting in-hospital mortality among patients with PLC or cirrhosis using Chinese EMRs. Adding clinical information to comorbidity algorithm improved the performance of model.

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Poster Presentations

Wednesday, May 11th | 4:30pm – 5:45pm

Présentations d'affiches

Le mercredi 11 mai | 16 h 30 – 17 h 45

Presentations are listed in the language in which they will be presented / Les exposés seront inscrits au programme dans la langue de leur presentation

The poster presentations will be displayed in Toronto III & Johnston (Convention Level)

BOARD	PRESENTATION
1	<p>An Analysis of the Factors that Led to the Establishment of the Ontario Agency for Health Protection and Promotion Act, 2007</p> <p>Presented by AHMAD FIRAS KHALID, PhD Student, McMaster University</p> <p>The main objectives are understanding the factors behind the agenda-setting and policy development process leading to the establishment of the Ontario Agency for Health Protection and Promotion Act (OAHPPA) in 2007. The main question is: What are the factors that led to the establishment of the OAHPPA in 2007? Agenda-setting and the policy development process are the two key stages analyzed. Kingdon's (2011) agenda-setting Multiple Streams Framework (MSF) is applied for analysis. The main data sources used are the Learning from SARS: renewal of public health in Canada: a report of the National Advisory Committee on SARS and Public Health 2003 and a key informant interview with Dr. David Naylor, chair of the National Advisory Committee. Other secondary evidentiary sources included: Expert Panel on SARS and Infectious Disease Control (Walker) report (2003), OAHPPA (2007), Canadian English media sources, and Hansard of the Parliamentary House of Commons debate hearings. The SARS 2003 outbreak acted as an early warning sign to a lack of governmental agency to address infectious disease outbreaks in Ontario. A more solid indication that the problem is widespread was provided in the Learning from SARS report (2003). The recommendations put forward by the report (2003) that led to the creation of the OAHPPA (2007) was the result of a tight knit community of experts and a strong champion, Dr. David Naylor, that were all united in the need for a public health agency in Ontario. In summary, the creation of OAHPPA (2007) is the clear result of perfect alignment of context, catalytic events, collective efforts, political commitment, and serendipitous connections among individuals. The presented analysis deepens understanding of how a pressing public health policy issue moved from the governmental agenda and identifies the factors that helped push it onto the decision agenda. It also highlights a series of key messages and implications for future policy-making processes.</p>
2	<p>Ontario's French Speaking Family Physicians; Exploring trends of where they practice and what they do</p> <p>Presented by ALAIN GAUTHIER, Associate Professor, Laurentian University</p> <p>Previous studies found that French speaking family physicians were more heavily concentrated in areas where few Francophones reside. The current study further examines trends in the distribution of physicians in Ontario, and more specifically, assess if family physician practice patterns differ by language of competence and location of practice. The current study will consist of a secondary analysis of the 2013 College of Physicians and Surgeons of Ontario Annual Membership Renewal Survey. The primary practice location of the 12,482 family physicians and general practitioners is compared against the distribution of the population (using the 2011 Canadian Census). Physician to population ratios and practice characteristics are compared by geographic location (north vs. south), size of community (rural vs. urban) and degree of Francophonie of the community (weak/no French communities = Francophone population >10%; moderate French communities = Francophone population between 10%-24%; and strong French communities = Francophone population ≤25%). Although the number of French speaking family physicians (FSFPs) increased by 6% between 2007 and 2013, FSFPs to Francophone population ratios continue to be less favourable as the degree of Francophonie of the community increases. Weak/No French communities continue to have the best ratios with 5.6 FSFPs per /1000 Francophones (unchanged since 2007), followed by moderate French communities, where ratios have improved from 3.4 in 2007 to 3.7 in 2013. However, ratios in strong French communities have declined from 1.3 to 1.2. Further analyses will be presented regarding the practice characteristics (e.g., number of hours worked; number of patients seen per week) between French-speaking and non-French-speaking family physicians and how these differ based on the Francophone population density of the communities in which they practice. Overall, the availability of FSFPs has improved since 2007; however the distribution of such services has not led to greater equity. Further understanding the practice characteristics of family physicians working in areas densely populated by Francophones will better prepare family physicians for future practice.</p> <p>Co-Author(s): Alain P. Gauthier, Laurentian University / Patrick E. Timony, Centre for Rural and Northern Health Research / Elizabeth F. Wenghofer, Laurentian University</p>

3 Is Social Complexity Related to Participation in Prevention Services?

Presented by **ALAN KATZ**, Director, Manitoba Centre for Health Policy, University of Manitoba

To describe the relationship between specific social determinants of health and prevention activities in primary care. We called these measureable social determinants of health social complexities. We linked multiple administrative datasets in the Population Health Research Repository housed at the Manitoba Centre for Health Policy. We included all patients visiting a Winnipeg clinic at least three times between 2010 and 2013. The final cohort included 626,264 unique individuals of whom 53.1% were female. We developed eleven new indicators to describe social complexity: children in care, teen mom, child of a teen mom, social housing resident, low income quintile, income assistance, major mental health diagnosis, newcomer, child of a newcomer, high residential mobility, and involvement with the justice system. The analyses used general linear mixed models. There was a negative association ($p < 0.05$) between cancer screening and vaccination rates and the social complexities after controlling for other factors (e.g., age, sex). However, children in care had increased rates of influenza vaccinations and children of newcomers had increased rates of all vaccinations. Cervical screening rates were increased for women involved with the justice system, those with high residential mobility and those in social housing. Residents of social housing also had higher rates of pneumococcal vaccination for those 65 and older. Population health studies have demonstrated the impact of income using ecological measures on a variety of health outcomes for many years. This study adds several new indicators of social complexity and demonstrates their association with negative impacts on participation in prevention activities provided in primary care.

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4 Health care transitions among people with dementia at the end of life

Presented by **AMY HSU**, Postdoctoral Fellow, Ottawa Hospital Research Institute

Currently, we have a limited understanding of the care trajectories for people with dementia, especially towards the end of life. The frequency of care transitions prior to death is often considered a measure of care quality and has implications for health care spending. Using population-level health administrative data from Ontario, Canada, we examined the health care use among decedents who have dementia ($n = 64,628$) in the 12 months prior to death. Our decedent cohort was stratified based on whether the individual had received care in a nursing home or in the community (with and without extended home care). Outcomes examined include the use of hospital services and total health care cost in the 3, 30, 90 and 360 days prior to death. Nearly 70-percent of people who died with dementia received care in a nursing home in the last year of life, while only 7-percent of those without dementia were admitted into nursing homes. 21-percent of decedents with dementia in the community received extended home care in their last year of life; the remaining 11-percent did not receive any extended health care from nursing homes or the home care setting. Furthermore, we find that time of nursing home admission may have an impact on the likelihood of hospitalization in the last year of life, resulting in fewer burdensome transitions and similar overall health care spending as decedents who resided in the community prior to death. Decedents with dementia who were cared for in nursing homes prior to death were less likely to use hospital services, and had comparable overall health care spending as those residing in the community. These findings provide important points for consideration in care planning for older individuals with dementia.

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5 Examining Prince Edward Island's Vision Care Funding Policy: What Do Geographic Discrepancies in Eye Care Utilization and Eye Disease Prevalence Tell Us?

Presented by **ANAM KHAN**, Master's of Public Health (MPH) student, Dalla Lana School of Public Health, University of Toronto

Eye care provided by optometrists is not covered by the Prince Edward Island (PEI) government, while care by Ophthalmologists is. Optometrists practice across the province; ophthalmologists are concentrated in Charlottetown. We assessed the impact of PEI's vision care policy on geographic variations in eye care utilization and eye disease detection. PEI physician billing data from 2010-2012 was analyzed. ICD-9 codes were used to identify diseases of interest. Specialty codes in the dataset were used to classify the type of healthcare providers. The practice site of the healthcare provider was located using the postal code of the clinic. Forward sortation area (FSA), which is the first three characters of the postal code, was used to ascertain the patient's residential location. Five areas (Charlottetown, Summerside, Prince, King & Queens and Stratford) were examined, owing to their distinctive FSA boundaries. Age-standardized prevalence rates and 95% confidence intervals were computed for comparison. Of the study areas examined, Stratford is closest and Prince farthest from Charlottetown. In 2012, the highest utilization of ophthalmologists per 100 people was in Charlottetown (10.44) and Stratford (10.90) and the lowest in Prince (7.74; $p < 0.05$). The prevalence of glaucoma per 100 persons aged 40+ was also highest in Charlottetown (6.10) and Stratford (6.38) and lowest in Prince (3.85; $p < 0.05$). Similar trends were observed for the prevalence of cataracts. The highest prevalence of diabetes per 100 individuals was registered in Prince (6.93) and the lowest in Charlottetown (5.97) and Stratford (5.44). However, utilization of Ophthalmologists amongst diabetics was highest in Charlottetown (6.58 per 1000 persons) and Stratford (6.69) and lowest in Prince (3.05; $p < 0.05$). These findings held true for the years 2010 and 2011. Significantly lower utilization of ophthalmologists and lower prevalence of eye diseases were observed in areas further from Charlottetown, likely due to the barriers of longer travel times and higher travel costs to access publicly funded eye care services in Charlottetown. Disparities might be minimized through a policy change funding optometrists.

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6 Valuing Patient and Provider Perspectives in Evidence-based Solutions: Obstetric Care of Marginalized Women in Canada

Presented by **ANNA DION**, Doctoral Student, McGill University

Literature suggests that marginalized women in Canada receive inappropriate, excessive or inadequate perinatal care, resulting in poor maternal health outcomes. Preliminary results of a 'realist appreciation' of published literature will demonstrate how stakeholder perspectives can be integrated with existing literature to improve care for marginalized populations. This innovative approach to knowledge synthesis includes a respectful engagement of traditionally hard-to-reach populations, their care providers and stakeholders at the policy level. Participatory cognitive mapping with each stakeholder group will produce a mental map of critical causes of the maternal health care gap. By quantifying casual relationships within each map and using a mathematical algorithm, one can identify priority strategies at the clinical, organizational and policy level. Bayesian analysis techniques can be used to integrate both published and stakeholder perspectives to reflect a diversity of perspectives on what is needed to improve outcomes. Results from a preliminary analysis will include a cognitive map of priority maternal health indicators and known risk factors informed by the published literature. Using reported effect sizes to specify the causal strength between map nodes (eg. between a variable and an outcome measure), and applying a mathematical algorithm, the map will display the cumulative causal relationships between variables. Results of a pilot 'realist appreciation' by one stakeholder group will adapt this map according to their perspective, identifying priority causative factors and relationships that contribute to gaps in maternal health outcomes. Comparison of stakeholder-informed and evidence-informed maps will be presented visually and using a mathematical algorithm to identify convergences and divergences around which different stakeholders consider determinants strong, weak or controversial. This project views published literature as only one of several knowledge sets that, taken together, are critical to improving maternal health outcomes among marginalized women. Pilot results of a 'realist appreciation' demonstrate the power and possibility created by meaningfully integrating stakeholder perspectives with existing evidence.

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7 An evaluation of the Triple P parenting program using population-based administrative health data

Presented by **RUBAB G. ARIM**, Social Science Researcher, Statistics Canada

Triple P is a community-based parenting intervention program being implemented internationally as well as in various Canadian provinces. The purpose of this study was to examine Triple P effects using archived, population-based, administrative data sources. A non-randomized quasi-experimental design was used drawing on secondary population-based data sources including anonymized administrative linked data from the Ministry of Health in British Columbia through Population Data BC, publicly available Census data from Statistics Canada, and Triple P administrative program data. Eleven communities that participated in Triple P (intervention sites) were compared to 11 comparison communities that did not (control sites), matched on a variety of community characteristics (e.g., population size, unemployment rate). Hierarchical linear modeling was used to examine differences for intervention communities compared with the control communities on children's and mothers' mental health and service use outcomes. The results showed differences in the Triple P intervention communities compared to control communities even after accounting for community level socio-demographic differences, as well as in baseline mental health diagnoses for mothers and children. For communities that participated in Triple P, mothers had less frequent diagnosed mental health problems and less use of counseling services compared to mothers in control communities. Children in treatment communities had less frequent diagnosed mental health problems but increased diagnosed conduct disorder compared to children in control communities. No differences were found between treatment and comparison communities in children's use of counseling services. This project provides a unique opportunity to demonstrate the opportunities of using population-based data to examine program effects related to children's mental health with no additional burden on participants or service providers. It also provides valuable public health information about the benefits of a community-based intervention program.

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8 It is time to discontinue population-based mammography screening

Presented by **ANNE KEARNEY**, Associate Professor, Memorial University

All provinces and two territories in Canada have established organized mammography screening programs for women 40-70+. This presentation will increase policymakers' awareness there is good evidence the harms of population-based mammography screening outweigh the benefits and will argue for a coherent national approach to discontinue population-based mammography screening. This presentation is based on critical appraisal of research evidence including the 2013 Cochrane Collaboration systematic review of mammography screening and the 2014 Canadian National Breast Screening Study (CNBSS) 25-year follow up. Results from large observational studies in countries with widespread mammography screening will also be presented. There is no reliable evidence population-based mammography screening reduces mortality but good evidence of harm by false positive findings (up to 60% after 10 screens), overdiagnosis (up to 54%) with associated unnecessary treatment, and significant psychological distress. The authors of the Cochrane Collaboration review and the CNBSS conclude it is time to reconsider current population-based mammography screening. The Cochrane Collaboration considers their review to be stable and have no plans to update it. It is time to shift to an individualized approach for the early detection of breast cancer, especially for women at higher risk or presenting with suspicious findings. While this policy shift is occurring, women should receive balanced information about potential benefits and harms of mammography screening to make an informed decision. A pan-Canadian coordinated strategy to end population-based mammography screening is needed, including coherent communication to health professionals and the public, especially targeted women. This is not an easy policy and practice shift as much has been invested in the development and promotion of organized breast screening programs in Canada.

9 Cardiovascular risk factor profiles of people with and without schizophrenia from 2001 to 2010: A population-based study in Ontario, Canada

Presented by **ATIF KUKASWADIA**, Senior Epidemiologist, Institute for Clinical Evaluative Sciences (ICES)

Cardiovascular disease (CVD) is a leading cause of death in Canada; however, few population-based studies have examined the cardiovascular health of individuals with serious mental illnesses. Among Ontarians with and without schizophrenia, we compared the prevalence of individual and multiple co-occurring CVD risk factors and examined trends over time. Ontario respondents of the Canadian Community Health Survey (2001-2010) were linked to administrative health databases. Schizophrenia status was determined using a validated algorithm. Eight CVD risk factors were examined: current smoking, obesity (body-mass index ≥ 30 kg/m²), diabetes, hypertension, monthly binge drinking, eating fruit/vegetables ≥ 3 times a day, physical inactivity and psychosocial stress. The prevalence of each CVD risk factor and the proportion of individuals with ≥ 3 CVD risk factors were compared between those with and without schizophrenia. To examine changes in prevalence over time, estimates from the 2001-2005 pooled survey cycles were compared to the 2007-2010 pooled survey cycles. Our study population included a total of 1103 individuals with schizophrenia and 156374 individuals without schizophrenia. The prevalence of diabetes, obesity, physical inactivity, stress, eating fruit/vegetables ≥ 3 times a day, and smoking was higher among those with schizophrenia than the non-schizophrenia population, e.g. smoking: 35.9% vs. 21.2%. We also observed 39% and 72% increases in the prevalence of obesity and diabetes over time in the schizophrenia group; versus 11% and 26% increases in the non-schizophrenia group. The prevalence of smoking has also increased among those with schizophrenia in contrast to declining trends in the general population. Approximately 93% of individuals with schizophrenia had at least one of the 8 CVD risk factors and 46% had ≥ 3 risk factors (compared to 26% in the non-schizophrenia group). We found a higher prevalence of individual and multiple co-occurring CVD risk factors among the schizophrenia population, with worsening trends over time. This highlights the need for targeted interventions and risk factor prevention strategies to reduce the burden of CVD in this vulnerable population.

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10 Medication Costs and Adherence in the Era of Biologics

Presented by **AVRILYNN DING**, Project Student, McMaster University

A significant number of patients do not adhere to prescription drugs due to their costs, increasing their risk for poor health outcomes. Patients with rheumatoid or psoriatic arthritis, or ankylosing spondylitis are typically treated with conventional disease modifying drugs (cDMARDs) first, then much more costly biologics (bDMARDs) if cDMARDs fail. We investigated medication costs and adherence of patients from academic rheumatology clinics. We conducted a cross-sectional telephone survey of consenting adults recruited from two academic rheumatology practices in Hamilton, Ontario. The questionnaire included demographic and socioeconomic characteristics, drug plan coverage, out-of-pocket expenditure on prescriptions, cost-related medical and nonmedical cutbacks, opinions on the value of bDMARDs, and assistance with costs from health professionals. Cost-related nonadherence (CRN) was defined by patient self-report of prescribed medication non-use or underuse. Of our sample of 104 patients, 55% were taking bDMARDs. Thirty-eight (81%, 95% confidence interval [CI] 73%–88%) participants taking cDMARDs versus 52 (91%, 95% CI 86%–97%) participants taking bDMARDs paid less than \$100 per month out-of-pocket for medications. CRN was reported by 19% (95% CI 12%–26%) of participants, with no difference between those taking cDMARDs versus bDMARDs. Thirty-seven (65%, 95% CI 55%–74%) participants taking bDMARDs reported that they would not take bDMARDs if they had to pay the full cost. While a majority of participants believed costs were considered at the time of prescribing (59%, 95% CI 50%–68%), very few said they would ask their doctor (17%, 95% CI 10%–25%) or pharmacist (15%, 95% CI 8%–22%) for help with reducing prescription costs. CRN prevalence is relatively high among rheumatology patients despite physician awareness and access to public and private funding mechanisms, and was not significantly different between those taking conventional disease modifying drugs versus biologics. Notably, patients expressed a reluctance to ask their doctor or pharmacist for help in reducing their medication costs.

11 Advancing Patient Experience Measurement for Ontario

Presented by **BERNADEE KOH-BILODEAU**, Project Lead, Health System Performance, Health Quality Ontario

Advancing patient experience measurement has emerged as a top priority for Ontario. The poster discusses the provincial measurement strategy including the approaches used, environmental scans conducted, and measurement principles developed. Finally we discuss key recommendations and enablers for data advancement to better inform and improve patient experience in Ontario. A committee was convened with system, regional and facility-level representatives, subject matter experts and patient and caregiver representatives. The committee developed principles that should guide all experience measurement efforts in the province. Two environmental scans were conducted, one focusing on standardized patient experience instruments used in Ontario, and the other on patient experience measurement frameworks used outside Ontario. To improve standardization and address the fractured landscape of Patient Report Outcome Measures (PREMs), the committee developed key recommendations and enablers. These were refined using individual and public engagements as well as a survey to Ontario experience measurement stakeholders. The strategy first promotes standardized measurement for the acute, long-term, home and primary care sectors, and cross-sector transitions in care. Use of validated instruments, standardized data collection plans, streamlined reporting and in the long run benchmarking are also important levers to support comparability and better inform improvement efforts. Where standardized data is already collected, further enhancements with real-time and qualitative measurement can improve actionability. Supports are also recommended for other developmental measurement areas like palliative and geriatric care. The strategy also outlines enablers which are crucial in advancing measurement. These include continued close collaboration between the lead organizations, developing best practices for measurement, creation of patient experience measurement resources and developing a process of data sharing between organizations. The collaborative process is key to successfully implement the measurement and reporting recommendations for this critical domain of health system performance. A comprehensive strategy represents the first step for Ontario to move towards a landscape of comparable, reliable and actionable PREMs which can ultimately improve patient-centered care for Ontario.

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12 Rural male farmers' health information seeking processes: Examining how an understudied population engages with healthcare resources

Presented by **BRADLEY HIEBERT**, PhD Candidate, Department of Health Information Sciences, The University of Western Ontario

Rural male farmers are an understudied population with high mortality, morbidity, and co-morbidities due to preventable injury, the majority of which occur on-farm. This doctoral study examines the processes by which rural male farmers seek and access health information and how this is influenced by rural contexts. This photovoice-grounded theory study was informed by established theories of health information seeking (HIS) that argue an individual's HIS behaviours are shaped by physical and social environments and intrapersonal factors such as health literacy. Data collection included a critical literature review conducted of databases including LISTA, LLIS, PubMed, CINAHL, Scopus, PsycINFO, and Web of Science using key search terms including rural men's health, health information-seeking, farmer, and access. Papers were assessed to determine relevance to rural male farmers' HIS. Rural male farmers from Ontario will be interviewed using photovoice methods to develop a grounded theory that explains their HIS behaviours. Ten relevant articles were found during literature review, with two focused specifically on male farmer's health information seeking, which indicates a significant gap in the research literature. Findings reveal that: 1) an investigation of rural male farmers' health information seeking processes has not been conducted in Canada, and 2) a theoretical framework derived from existing literature indicates rural male farmers' health information seeking is influenced by: rural health service cutbacks, rural cultural norms that value men's stoicism and stigmatize their ill-health, the strength of a rural region's social support networks, and the presence of a spouse or other close family members. Preliminary results of the interviews with rural male participants will provide insight regarding the contexts that shape their health information seeking behaviours. Understanding the contexts that influence rural male farmers' HIS behaviours can help inform future healthcare initiatives directed at increasing this underserved population's engagement with healthcare services. Increased patient engagement from rural male farmers could improve patient-centred policy development and implementation, and may lead to better health outcomes for rural men.

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13 Variation among structures of care in colorectal cancer surgery in Ontario

Presented by **CAITLIN CHRYSOJA**, MD/PhD Student, University of Toronto

Many patients who develop colorectal cancer require surgery, and the quality of surgical care they receive varies substantially. Variability in the structures of care have not been previously explored. Our objective was to describe the structures of care for colorectal cancer surgery in Ontario across academic, community and small hospitals. We developed a 92-question survey of the structures of care constructs: organization (dimensions: physician/nurse/allied health staffing, clinical unit structure), technology (diagnostic imaging, surgical devices, interventional therapeutics, intraoperative/postoperative monitoring) and coordination of care (programming, supervision-based and peer interaction-based feedback). A surgeon and nurse from each of the 120 hospitals that perform colorectal cancer surgery were invited to complete the electronic survey. Question responses were dichotomized, and those with at least 20% variation were included. The association of the normalized weighted average of the aggregate construct and dimension scores with hospital type (academic, community, small) were assessed in ANOVA models. 55 of the 73 institutions with responses from both hospital representatives were included, consisting of 15 academic, 24 community and 16 small hospitals. A total of 46 questions were included: 19 in the organization construct, 17 in technology and 10 in coordination of care. All constructs differed by hospital type (organization, $p < 0.001$; technology, $p < 0.001$; coordination of care, $p = 0.03$). The normalized organization construct had differences in the dimensions of physician ($p < 0.001$) and allied health staffing ($p = 0.04$), and clinical unit structure ($p < 0.001$). All dimensions ($p < 0.001$) of the technology construct, outside of postoperative monitoring, differed by hospital type. The supervision-based feedback dimension ($p = 0.01$), but not the programming or peer interaction-based feedback dimensions differed in the coordination of care construct. This is the first study to use primary data to describe the structures of care in colorectal cancer surgery in Ontario, and how they vary across hospital type. Further research should explore the association of specific structures of care with surgical outcomes to provide explicit direction for quality improvement initiatives.

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14 Obstacles and Enablers to the Professional Development of Skilled Birth Attendants: a Case Study of the Shoklo Malaria Research Unit on the Thailand-Myanmar Border

Presented by **CAROLINE CHAMBERLAND**, MSc Health Systems Candidate, Telfer School of Management, University of Ottawa

This research project aims to conduct a multi-level analysis of obstacles and enablers to professional development amongst Skilled Birth Attendants (SBA) providing maternity care to migrants and refugees within a self-contained NGO-based health system at the Thailand-Myanmar Border: the Shoklo Malaria Research Unit (SMRU). In addition to a system-level analysis of the SMRU, this single descriptive case study integrates two of SMRU's Birthing Units as embedded units of analysis. A template-based personnel file review and non-participant observation enabled the development of a descriptive framework of maternal Human Resources for Health at both sites, and informed the interview and focus group protocols. Separate focus groups were conducted with each level of SBA accreditation at each site, and individual interviews adopted a stratified purposeful sampling in order to identify information-rich cases at each level of accreditation. This case study is of intrinsic value as it presents an opportunity to observe and analyze a self-contained health system in its entirety. As SMRU is a non-governmental entity, providing care which is parallel to, and independent of, the official health care system, it constitutes a microsystem which plans and implements all of its functions at the local level. However, SMRU's current maternity workforce is characterized by an acute shortage of SBAs who have attained supervisory roles, and an accumulation of SBAs who are stalled at lower levels of accreditation. In light of this challenge, this research project generates a more holistic, dynamic and nuanced model of the interacting factors affecting the professional development of SBAs and within the system at study. Health workforce analysis is multifaceted and must take into account contributing factors at all levels of the system. By highlighting the obstacles and enablers present within the system, this study identifies the means to empower lower level SBAs, support their professional development, and create a more sustainable maternity workforce.

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15 How do health and social interventions decrease inequity in child health outcomes? A case study of Manitoba's in-school Teen Clinics

Presented by **CATHERINE CHARETTE**, Researcher, Evaluation Platform, George & Fay Yee Centre for Healthcare Innovation

Adolescents in Manitoba have access to health services through Teen Clinics based in a variety of community, hospital and school settings. Early findings from our ongoing quantitative study suggest in-school Teen Clinics address socioeconomic gaps and improve health outcomes. This case study seeks to determine how. We employ a qualitative case study design to understand policy decisions leading to in-school Teen Clinics, barriers and facilitators to implementation, intervention successes and limitations, assumptions underlying the program model, and intended and real mechanisms through which the intervention addresses inequities. Methods include a review of documents (program literature, evaluations and press releases) and interviews with key informants involved in the design, implementation, and day-to-day operation of the clinics. Additionally, we relate the case study findings to the early results of our quantitative study examining rates of pregnancy and STIs among students enrolled in schools with and without Teen Clinics. Data collection is ongoing. Early findings suggest that the intervention overall was implemented as planned. However the individual clinics vary widely in terms of their hours of operation, clients seen (for example, some in-school clinics remain available to youth who are no longer enrolled at the school), clinic outreach to the school (such as classroom visits and health fairs), and the clinics' relationship with the school (ranging from autonomous to strongly integrated). Early results from our quantitative study examining rates of pregnancy and STIs among students enrolled in schools with and without teen clinics show the change in rates between pre- and post in-school clinic varies widely across schools; the case study helps inform why. In-school Teen Clinics provide a low barrier, safe and autonomous option for adolescents to access health services. Early findings suggest they improve health outcomes. A fuller understanding of the mechanisms by which the clinics improve outcomes requires exploring the perspectives and experience of the clients who access the clinics.

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16 How do health and social interventions decrease inequity in child health outcomes? A case study of Manitoba's Healthy Baby Prenatal Benefit

Presented by **CATHERINE CHARETTE**, Researcher, Evaluation Platform, George & Fay Yee Centre for Healthcare Innovation

In 2001, Manitoba introduced the Healthy Baby Prenatal Benefit to help expectant mothers eat healthy foods during pregnancy. Evaluations have shown this unconditional cash transfer improves infant outcomes. The objective of this study is to understand how the benefit achieves these positive results. This study used a case study design informed by realist evaluation and built on previous studies of the Healthy Baby Program to understand how the intervention was created and implemented, barriers and facilitators to implementation, and the mechanism through which the benefit improves outcomes. Qualitative methods were used including a literature review, document review (including government documents, program literature, evaluations, press releases) and interviews with key informants involved in the design, implementation and day to day running of the program, as well as benefit recipients. Data were entered into a case study database and analyzed using the constant comparative method. Data collection is ongoing, but early preliminary data calls into question the theory that the program works simply by improving maternal nutrition. Although many women describe using the benefit for food, most describe other ways in which they use the benefit including saving for baby supplies, paying bills, transportation, and self-care. In addition, during the application process, the program links recipients to other community resources including public health nurses, physicians and community support groups. It appears that a more complex mechanism may be responsible for outcomes. Findings related to the barriers and facilitators to the implementation of the benefit will also be discussed as well as strengths and limitations of the benefit. An unconditional financial benefit for women during the prenatal period has been shown to improve infant outcomes, but not necessarily exclusively through the expected mechanism. This study has implications for those designing interventions to improve maternal and infant health and well-being.

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17 Older community-dwelling home care clients receiving rehabilitation: Wait times and the impact on hospital utilization

Presented by **CHRISTINE KNOTT**, Postdoctoral Fellow, Queen's University, Health Services & Policy Research Centre; and Institute for Clinical Evaluative Sciences

The study examines wait times for home-based occupational therapy (OT) and physiotherapy (PT) and the impact on hospital utilization. Research shows early intervention is important for the success of rehabilitation. In Ontario, ~2% of home care clinical services are rehab visits and waits are longest for elderly with multiple comorbidities. A retrospective cohort study design identified 622,887 admissions to Ontario's 14 Community Care Access Centres' home care programs from 2009-2013. Eligibility included: age ≥65; non-managed care residence; and referred by primary care, community services, self-family, post-hospital inpatient or emergency care. Health administrative databases held at the Institute of Clinical Evaluative Sciences (ICES) were linked. ICES' Home Care Database identified the study cohort, demographic and clinical characteristics. Databases for hospital encounters and deaths were linked to examine emergency visits, admissions and time-to-hospital encounter. Quantitative analyses report descriptive statistics and multiple logistic regression models and survival analysis to estimate the intervention effect. The Ontario-wide study, in collaboration with ICES analysts, is currently finalizing the analyses. Our provincial study builds upon a regional pilot study of elderly patients admitted to one Ontario home care from hospital. The pilot (N=1029) found that average wait times from admission to first rehab visit was 28 days for patients that rehospitalized compared to 13 days for those that did not. Survival analysis showed that PT was effective in delaying rehospitalization, despite a mean wait of 18 days. Average wait times for OT's first visit was over 4 weeks, and was associated with a high proportion rehospitalized (37.4%). The majority of patients returning to hospital (emergency or admitted) presented with sub-acute symptoms. We will report similar results from the current provincial analyses. Our provincial study provides an extensive description of older community-dwelling home care clients' wait times for occupational and physical rehabilitation. These descriptors are useful in determining if and how the element of waiting might influence (re)hospitalization and for informing innovative triage processes, pathways of care and efficient use of resources.

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18 Does quality of depression care differ based on the primary language of nursing home residents?

Presented by **CHRISTOPHER PERLMAN**, Assistant Professor, University of Waterloo

Limited English proficiency has been found to complicate medical practice and may be a barrier to depression treatment, particularly among older adults. This study examined quality of depression care among residents of long term care nursing homes in Ontario who have different language preferences. We examined Resident Assessment Instrument (RAI) data for 116,965 Ontario nursing home residents between 2010 and 2013. Using the Depression Rating Scale embedded in the RAI, patterns of depression and depression care were examined over the first 90-days of admission among English, French, and Other language groups. Using logistic regression with generalized estimating equations, predictors at admission of depression at 90-days were identified by language group. Finally, adjusted depression quality indicators were compared between language groups residing in facilities with low and high concentrations of non-English or French speaking residents. Significant differences were found in both the baseline and 90-day follow-up prevalence of depressive symptoms among English (32%, 36%), French (29%, 31%) and Other (25%, 27%) language groups. In terms of treatment, residents with depression who did not speak English had the lowest rates of antidepressant use, compared to English and French language groups. The GEE models found similar factors predictive of depression at 90-days among all language groups. For Other speaking residents, aggressive behaviour, pain, cognitive impairment, depression diagnosis and older age were predictive of depression. Higher rates of improvement and lower rates of incidence of depressive symptoms were found among all language groups residing in homes with 'high' concentrations of non-English or French speaking residents. Different patterns of depressive symptoms and depression care were observed in nursing home residents, depending on their primary language. Interestingly, the highest quality of care for all language groups was observed in homes that tend to cater to non-English/French speaking residents.

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19 “Hotspots” of Inpatient Psychiatry Hospitalizations among Older Adults with Dementia in Ontario, 2011 to 2014

Presented by **CHRISTOPHER PERLMAN**, Assistant Professor, University of Waterloo

Access to appropriate health services is paramount to quality of life for older adults with mental health conditions. To begin understanding patterns of need and barriers to service this study explores the use of spatio-temporal epidemiology to examine “hotspots” of inpatient psychiatry use among older adults with dementia across Ontario. Using Resident Assessment Instrument data from CIHI's Ontario Mental Health Reporting System between 2011 and 2014 we identified all psychiatric hospitalizations for adults aged 65+ in Ontario. These data were merged with population-level descriptive statistics for each Forward Sortation Area (FSA) in Canda from publicly available data. We then calculated the proportion of individuals with dementia with a psychiatric hospitalization among the general population of older adults for each FSA. Using Global and Local Moran's I analyses we explored clusters of hospitalization across FSA's in Ontario between 2011 and 2014. The value Global Moran's I is 0.355 ($p < 0.001$), indicating significant and positive spatial autocorrelation of inpatient psychiatry use among older adults with dementia across FSA's. Local Moran's I test identified several hotspots of geriatric psychiatry admissions among the general older adult populations in Grey Bruce country, St. Thomas (Southwestern Ontario), Ottawa, and Petawawa. Additionally, a number of hotspots were also identified whereby there was a high proportion of older adults with dementia admitted to inpatient psychiatry among all admissions. The existence of “Hotspots” of psychiatric hospitalizations among adults with dementia raises more questions than answers. While shorter distances to inpatient psychiatric care may related to this clustering, more research is needed for understanding the context, including available mental health supports, of areas where hotspots do and do not exist.

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20 Better health care experience related to better overall health in older adults in Canada with joint pain or arthritis: 2014 Commonwealth Fund Survey

Presented by **CLAYON HAMILTON**, Postdoctoral Fellow, University of British Columbia

The 2014 Commonwealth Fund Survey captured healthcare experience and perspectives of people aged 55 years or more in 11 developed countries. This study was to investigate whether self-reported health care experience of older adults living in Canada with joint pain or arthritis was related to their self-reported overall health status. One item captured overall health: “In general, how would you describe your own health?”, and was dichotomized as excellent-very good and good-poor. Four items captured health care experience, each dichotomized to ‘Yes’ for “always” and other categories as ‘No’, and asked whether the medical staff: I. Know important information about your medical history; II. Spend enough time with you; III. Encourage you to ask questions; IV. Explain things in a way that is easy to understand. A composite variable (V) was coded as ‘Yes’, when any of I through IV was coded as ‘Yes’. Statistical analysis was done using chi-square test ($P < 0.05$). The Canadian data contained 562 participants ($n = 517$ without missing data) who received care for joint pain or arthritis within the past year. The demographic characteristics included people aged 55-64 years (47.6%), 65-74 years (34.0%), and 75+ years (18.4%); female (72.0%); and education at the level of college graduate or higher (45.0%), some college (13.4%), and high school or less (41.6%). In total 330 (63.8%) participants reported excellent-very good overall health. A significantly higher proportion of participants who reported ‘Yes’ to I (67.7%, $P = 0.007$), II (67.6%, $P = 0.025$), III (69.7%, $P = 0.003$), IV (67.3%, $P = 0.007$), and V (65.7%, $P = 0.014$) reported excellent-very good compared to fair-poor overall health. A higher proportion of older adults living in Canada who received care for joint pain or arthritis within the past year and indicated that they always had a positive health care experience of being engaged rated their overall health as excellent-very good compared to fair-poor overall health.

21 Creating knowledge about and capacity for practice transformation in primary health care: A PHC knowledge network's innovative approach to funding small projects

Presented by **DANIELLE SCHIRMER**, Project Coordinator Réseau-1 Québec, St. Mary's Hospital / **SHANDI MILLER**, Director of Operations, St. Mary's Hospital

We will present our PHC knowledge network's innovative approach to funding small projects that connect researchers, patient-partners and clinicians to produce and apply patient-oriented, clinically-relevant research to transform PHC practice. We will discuss the unique aspects of our approach and how it has evolved to meet our strategic objectives. Our network's call for projects is inspired by an IHI white paper on organizational strategies to achieve system level changes. Projects must apply research to address priority needs, have clinician-researcher co-leadership, be based in more than one university network, achieve practice-change that benefits patients within 12 months and demonstrate capacity for spread. Selected by peer review, projects receive \$5,000 for preparation and \$20,000 for execution; they benefit from structured coaching throughout and training in project management, organizational change and participatory methods or other needs. An additional research team conducts cross-project data collection and analysis of the implementation process. The approach has been refined after three funding rounds of four projects per year. The first round of researcher-led projects served as pilots to full-scale proposals but achieved very modest practice changes and clinician or patient involvement. The second round engaged clinicians and researchers, impacted directly on practice and achieved timely execution, but did not always engage patients, generated little cross-project learning on implementation and exposed capacity building needs. The third and current round (described above) has more structured coaching and capacity-building built in and the network provides direct support to teams for engaging patient-partners. We have also partnered with the management school to undertake the cross-project study, which will generate new knowledge in implementation science and continue to inform our call for funding. Our approach meets our strategic goals of generating a culture of participatory, applied and translational research through collaborative partnerships that transform PHC. The process builds capacity for practice change and quality improvement and generates new knowledge in PHC transformation.

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22 Finding resiliency in the face of financial barriers: Development of a conceptual framework for people with chronic disease

Presented by **DAVID CAMPBELL**, PhD Candidate, University of Calgary

Patients with chronic diseases often face financial barriers to optimizing their health; even in Canada. The objective of this study was to develop a comprehensive framework to understand how financial barriers impact patients' lives and the mechanisms they use to cope with financial barriers. We undertook an inductive qualitative grounded theory study to develop a framework to understand the role of financial barriers on patients with chronic disease. We used semi-structured interviews with a purposive sample of participants with chronic disease (at least one of hypertension, diabetes, heart disease or stroke) from Alberta, Canada. Interview transcripts were analyzed in triplicate using grounded theory coding techniques. Interviews and analysis was done iteratively to ensure data saturation was achieved. Member checking was used to enhance rigor. We interviewed 34 participants with cardiovascular-related chronic diseases. We found that the confluence of two events contributed to the perception of having a financial barrier: diagnosis/onset of chronic disease and loss/lack of income or health benefits. The impact of having a perceived financial barrier varied considerably across patients. A number of factors determined how impactful a financial barrier would be. These various factors can be protective, predisposing, or modifying (have the potential to be either protective or predisposing). An individual's particular set of factors is then viewed through the lens of their worldview. This combination of filters and lens determines one's degree of resiliency which ultimately impacts how well they cope with their disease, and may impact clinical outcomes. How an individual copes with financial barriers is intimately tied to their resiliency, which is determined by the composite of personal experiences, life circumstances and worldview. Our framework for understanding financial barriers can be used by researchers and clinicians to better understand patient behavior in the face of financial barriers.

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23 Les déterminants de l'acceptation d'un dossier de santé personnel électronique (DSPé) pour le suivi et la gestion des maladies chroniques en première ligne de soins au Québec : enquête en préimplantation

Presented by **EL KEBIR GHANDOUR**, Étudiant-chercheur, Centre de recherche sur les soins et les services de première ligne de l'Université Laval

Notre objectif est de réaliser une mesure initiale des déterminants de l'acceptation et de l'intention d'utilisation de certaines fonctionnalités offertes par le dossier de santé personnel électronique (DSPé) pour le suivi et la gestion des maladies chroniques (MC) dans le contexte de la première ligne de soins au Québec. Nous menons, en phase de préimplantation du projet, une enquête quantitative transversale de nature exploratoire auprès de la population du territoire desservi par un groupe de médecine de famille (GMF). Le questionnaire développé par l'équipe de recherche présente les dimensions, concepts et facteurs (individuels et de l'environnement organisationnel et technologique) identifiés dans la littérature comme étant des déterminants essentiels de l'acceptation du DSPé par les patients pour le suivi et la gestion de leur état de santé. Cette enquête est réalisée auprès de l'ensemble des sujets de 18 ans et plus inscrits ou suivis dans différents sites du GMF. L'étude étant en cours, les résultats présentés ici sont préliminaires. Dans le cadre de la vérification des caractéristiques psychométriques de l'instrument de mesure, nous avons réalisé l'évaluation de la validité de l'instrument de mesure. Jusqu'à lors, 53 des 105 questionnaires distribués ont été complétés et retournés (taux de réponse provisoire : 51%). La majorité des participants sont des hommes (67%) âgés de 54-64 ans (33%), utilisant internet (64%). Les participants s'attendent à ce que le DSPé leur permette d'accéder aux résultats de tests, mettre à jour la liste des médicaments, communiquer et partager des données avec l'équipe clinique et renouveler prescriptions en ligne. La collecte de nos données est en cours, ainsi nous nous assurons de présenter les résultats disponibles au moment de la présentation. Le DSPé permettrait d'être mieux préparés. 92 % des participants ont l'intention d'utiliser un DSPé principalement pour accéder aux résultats de tests et communiquer avec les cliniciens. mais, à conditions d'être offert par la clinique et utilisé par l'équipe de soins, avoir un soutien technique et sans coût associé.

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24 New Drug Launch Monitor

Presented by **ELENA LUNGU**, Manager, NPDUI, Patented Medicine Prices Review Board

Important new drugs have been launched in recent years, fueling the growth in pharmaceutical sales. The New Drug Launch Monitor identifies recent international drug launches and provides valuable intelligence on their market uptake and pricing, as well as advanced notice on drugs that may be soon coming to Canada. The analysis identifies all new active substances (NAS) launched between 2009 and Q4-2014 in Canada and/or seven comparator countries (France, Germany, Italy, Sweden, Switzerland, the UK and the US) using sales data from the IMS AG MIDAS™ Database. This database was also used to determine the market penetration, pricing, sales and launch dates. The Health Canada Drug Product Database was used to determine the drug product availability and the timing of launch in Canada. The new drug market is highly concentrated, with a small number of drugs (17%) accounting for a large proportion of the new drug sales (82%). Similar to other countries, Canada launched most top-selling NAS, which account for the large majority of international new drug sales (92%). Canada attracts its fair share of the new pharmaceutical market space, and for top-selling molecules Canada is usually the second country of launch after the US, with a median lag of 4 months. New drugs are generally priced below the median foreign prices, putting Canada in the middle of the pack with respect to NAS prices. The report also flags important new international launches that may be coming to Canada. Most new top-selling drugs are expected to make their way into the Canadian market, generally within a year of the first international launch and at prices similar to comparator countries. This report provides policy makers, industry and patients with advance notice of the availability, uptake and pricing of new drugs.

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25 Context in health systems policy research

Presented by **ELIZABETH ALVAREZ**, Assistant Professor, McMaster University

To define what contextualization means in regards to policy development from, or implementation of, health systems guidance. And, to determine what context-related factors are proposed for the contextualization, or adaptation, of health system guidance recommendations at the national or subnational level. A critical interpretive synthesis of the literature was conducted. A number of strategies were used in finding literature for this study, including an initial systematic search of electronic databases, reference chaining, and identification of other documents to fill knowledge gaps. Databases included: general bibliographic databases - CINAHL, Embase, HealthStar/Ovid Healthstar, Medline, PsychINFO, Pubmed, Social Sciences Abstracts, Teacher Reference Center, and Web of Science; databases mainly containing systematic reviews - Health systems Evidence and Joanna Briggs Institute EBP database; and databases also containing grey literature - AgeLine, Global Health, Health and Psychosocial Instruments, and OECD iLibrary - Papers. In total, 3,124 unique documents were retrieved through the electronic database searches. Of these, 2,934 were excluded using an explicit set of criteria after reviewing titles, abstracts or full texts, leaving 190 potentially relevant documents. Thirty-eight documents were purposively sampled for inclusion, and another 23 documents were found to help fill conceptual gaps during data analysis. 61 documents from various fields were reviewed for the study. A model of processes for shaping guidance recommendations for implementation was created based on the data. In addition, the role of context was highlighted within these processes. A second model was created showing which contextual factors affect the process of developing an evidence brief in the development of health systems policy. In order to maximize the implementability of health systems guidance, contextual factors need to be taken into consideration. A broader look at context, including health system and political system factors and local evidence, is needed in order to support the implementation of interventions.

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26 Trends in health system use by persons with dementia in Ontario from 2007 and 2013: a population-based study

Presented by **ERIKA YATES**, Senior Research Project Manager, Applied Health Research Question, Institute for Clinical Evaluative Sciences

Dementia contributes to nursing home admission and, for quality of life and cost saving reasons, health systems are interested in expanding services to support living at home longer. The study objectives were to describe the level and trend in health care service use by community-dwelling adults with dementia in Ontario. Population-based, repeated cross-sectional cohorts of community-dwelling adults aged 40 years and older with pre-existing dementia were identified on April 1st of each year from 2007 to 2013 using a validated algorithm in linked administrative data. Persons with dementia were compared to a 1:1 matched control group based on age, sex, geographic region and comorbidity level. Trends in yearly rates of health service use were assessed using regression models for serially correlated data. Rates accounted for transitions from the community (long-term care placement (LTC) and death). Community-dwelling persons with dementia were more likely than matched controls to be placed in LTC (11.8% vs. 1.5% in 2013; $p < 0.001$) and use home care (45.8% vs 23.2%; $p < 0.001$) but equally likely to visit family physicians (93.9% vs. 94.8% in 2013) and specialists (87.1% vs. 89.4%). Overall, LTC placement decreased slightly among community-dwelling persons with dementia, from 13.3% to 11.8% between 2007 and 2013 ($p < 0.001$), while the proportion who died in the community remained stable (7.3% in 2013). Rates of personal/homemaking home care increased over time (41.6 to 67.9 visits per person-year; $p < 0.001$), rates of family physician visits decreased (14.1 to 12.3 visits per person-year; $p < 0.001$) and rates of acute care (0.39 to 0.40 hospitalizations per person-year) remained stable. Trends were similar for matched controls. These data suggest rates of LTC placement may be declining while access to home care appears to be growing. Health care service utilization in other sectors is similar to matched controls. Further research is required to understand transitions to LTC and optimizing care in the community for persons with dementia.

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27 Analysis of Usage of Private Insurance Benefits by Employees

Presented by **ERIN CRAGG**, Master's Student, Memorial University of Newfoundland

The objectives of the study are to examine the trends in the usage of employee benefits from a private insurance provider. We collected benefit (covered under the insurance provided by the university) data from fiscal years of 2005-06 to 2013-14 and looked for trends in usage by the employees and retirees. The variables examined include: gender, age, and job classification, etc. Usage in each benefit section (drugs, vision, etc.) was adjusted for price index of the respective year using 2005-06 as a base year. Preliminary statistical analysis shows that demographics and overall usage trends to be fairly consistent over the study period. Average of 12,000 persons covered, 41% active employees, 42% retirees, and 17% dependents, 52% female, 48% male, mean age is 47 years. Largest area of benefit dollar usage is the drug (all combined) category, followed by the dental category, and then all other benefits combined (e.g. Vision, Physiotherapy, and Hospital). Further analysis of each benefit category is in progress and will be compared with adjustments for inflation rate to find further trend insights. We hope that the results can be used to inform future decisions in employee benefits.

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28 Sepsis mortality throughout different hospitalization patterns in Canada

Presented by **FARHAT FARROKHI**, Senior Health Analyst, Canadian Institute for Health Information

Sepsis is a leading cause of death in hospitals and is linked to increased hospital resource utilization. We investigated hospitalization patterns for patients with sepsis and the in-hospital mortality rates associated with those in Canada. Hospitalizations with a diagnosis of sepsis in fiscal year 2013-2014 were identified from administrative data, using the adapted definition from CIHI's in-hospital sepsis indicator. Patients were grouped into 3 care trajectories: patient with single hospitalizations; those with sepsis identified across multiple hospitalizations; and those who had sepsis identified during their first hospitalization but were subsequently transferred to other acute institution(s) for other conditions. Mortality was defined as all-cause in-hospital death. Length of stay (LOS), clinical characteristics and mortality rates were compared across the trajectories. In 2013-2014, about 51,000 hospitalizations with a diagnosis of sepsis in Canada. Unique hospitalizations accounted for the majority (91%), while 9% required further acute care in another institution. Median LOS varied across trajectories from 9 days for single hospitalizations to 28 days for patients transferred for other conditions, the most common of which was convalescence. In Canada, the overall in-hospital mortality rate among patients with sepsis was 27%; the same rate was observed among patients with unique hospitalizations. A lower mortality was observed for patients transferred for other conditions (15%). The highest mortality rate was observed among patients who had sepsis documented across all hospitalizations (38%). This review of in-hospital mortality for sepsis patients could help evaluate the extent to which acute care services are effective in preventing mortality of patients with sepsis. A closer examination of the organization of services across trajectories of care may help prevent mortality among these patients.

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29 A Novel Way of Studying Retention of Health Care Professionals: What Can We Learn from the Life Course Approach?

Presented by **FARIMAH HAKEMZADEH**, Assistant Professor, Wilfrid Laurier University

To demonstrate the benefits of applying the life course perspective to the analysis of factors influencing retention of health care professionals. To show how the life course perspective can assist researchers and policy makers in developing policies and practices that can facilitate retention of health professionals. We use the midwifery professional workforce in Canada as a case study for our analysis. We utilize a concurrent mixed methods approach and use longitudinal and cross-sectional surveying as well as qualitative semi-structured interviewing to collect data on the experiences of health professionals in the workforce at different stages of their professional careers "while still in training, upon graduation, during first five years in practice and more senior practitioners. To address structural and institutional factors, we plan to also collect data on the type of practice, remuneration, and rural/urban work environment. While the study is still ongoing, preliminary results suggest that the factors influencing retention can be divided into two groups: (1) common factors, experienced by midwives regardless of their career stages; and (2) unique factors, experienced by midwives in specific stages of their career. The common factors encompass issues such as work-life balance or stress and burnout. Career-stage factors refer to institutional support during training or workplace relations and collegial support. Overall, factors influencing the decision to stay in practice can change during the professional life course using somewhat anticipated trajectories. Policies and programs designed to improve retention of health care personnel should take into account the career stage of professionals. The needs of health care professionals change throughout their professional life course and it is important to tailor support to the specific needs experienced at each stage of professional development.

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30 Grassroot networks in caring for older cancer patients

Presented by **FATOU BAGAYOGO**, Post doctoral fellow, Ecole Nationale d'Administration Publique

The literature on inter-professional healthcare networks focuses on mandated networks. It lacks research on networks that emerged from the bottom up at the initiative of healthcare professionals in response to clinical imperatives. This study looks at some forms of collaboration that these "grass-root" initiatives engender and how they are consolidated. We did a case study involving semi-structured interviews with physicians and nurses, and, a document analysis. The study focuses on the evolution of care for older cancer patients in a hospital. It analyzes the evolving relationship between three professional groups: cancer specialists, geriatricians and nurses. The interviews inquired about 1) the challenges of caring for older cancer patients, 2) the evolution of care delivery at the cancer treatment center, 3) the nature of the relationship between professionals and the ways/factors by which it evolved over time. The interview guide was tailored for each of the three groups of professionals interviewed. This study documents how two inter-professional networks were developed through professional agency. Our findings show that the means by which networks are developed influence the form of collaboration between network members. One of the inter-professional networks, which involved cancer specialists and nurses resulted from day-to-day and immediately useful exchange for patient care. The other one, which involved cancer specialists and geriatricians resulted from more formal and infrequent research and training exchanges that were seen as less decisive in facilitating patient care. The latter developed into a loosely-knit network based on a small number of ad-hoc referrals while the other grew into a tightly knit network based on frequent referrals and advice seeking. Developing inter-professional networks requires that the priorities/interests of the network is aligned with those of the professional groups expected to participate (especially powerful groups). This alignment may a sustained phase of persuasion, knowledge sharing, skill demonstration and trust building from the less powerful groups.

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31 Understanding Cancer Care Trajectories

Presented by **FATOU BAGAYOGO**, Post doctoral fellow, Ecole Nationale d'Administration Publique

This study will try to identify the reasons for ER visits and unscheduled hospitalizations of cancer patients with a focus on the influence of patient care trajectory. The analysis will focus on the organizational and professional processes/assets that contribute to these visits and hospitalizations. Our analysis will be based on an extensive literature review, followed by a mixed method study. Data will be collected for 50 head and neck cancer patients. For this exploratory study, we will combine health records and qualitative data. We will also collect quantitative data to complement and help cross validate our qualitative data. Specifically, we will collect data about 1) the clinical events faced by the patient in a fixed period from health records; 2) patient characteristics from a quantitative survey based on validated instruments; and 3) patient experience from semi-structured interviews with patients. A previous study led by professor Béland at the Jewish General Hospital revealed two groups of patients who received similar types of cancer treatment but had largely different frequency of ER visits and hospitalizations. This difference was not significantly explained by age, stage of cancer and number of co-morbidities. The study highlighted the need for a qualitative study with a focus on care trajectories to help explain this difference. We expect that the results of this study will help explain such difference. Understanding patients' experience in light of their care trajectory can shed light on what is actually happening in cancer care. It can help facilitate patient-centered care, quality of life of patients and service utilization. Using patients' narratives for this will provide valuable information that would be missed in quantitative study.

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32 “Looking Back, Moving Forward”: An Indigenous Wellness Framework

Presented by **GRACE KYOON-ACHAN**, Research Fellow, University of Manitoba

To understand the performance of Primary health care from the perspective of 8 geographically disperse and linguistically diverse First Nations (FN) communities in Manitoba. Community based Local Research Assistants (LRAs) interviewed community members to determine indigenous approaches to mental health and wellbeing. Participants were selected based on their knowledge of the local culture and language, a clear perception of traditional wellness practices and in some cases, knowledge of conventional mental health practice. Over 55 interviews were completed as well as researcher-community focus group where participants representing the 8 FNs analyzed the initial findings from the context of their community. Semi-structured, open-ended interviews were analyzed using thematic content analysis from where common themes were induced. Emerging themes were compiled into a mental wellness framework based on an indigenous wellness paradigm. The model is informed by FN culture, ways of being and “doing health”; it incorporates a worldview that has been shaped by historical and ongoing experiences of the communities. Taking a strength-based approach, attention is drawn to the need for a holistic health practice that takes the complete human experience into account in dealing with the mental wellbeing. This outlines a FN blueprint for maintaining and promoting wellness. The outcome is a plan for sustainable community-based mental health. FN participants described a broad discourse on ‘holistic practice’ in mental healthcare programming in general and clinical and integrated mental health services in First Nations communities in particular. The life and wellness model that results from the synthesis informs practice and enhances mental health promotion.

34 The Often Invisible Challenges Posed by Employment-Related Geographic Mobility: A Comparative Qualitative Study of Nova Scotian Health Workers

Presented by **IVY BOURGEOULT**, Professor, University of Ottawa

Relatively little attention has been given to the impact of employment-related geographic mobility (ERGM) on health worker well-being, many of whom are mobile providing home care, home visits, and working at regional clinics. This qualitative research explored the ERGM of Nova Scotian health workers. Individual interviews (telephone or face-to-face) were conducted with 23 professional (i.e., nurses, MDs and social workers) and paraprofessional (i.e., continuing care assistants/personal care) health workers who travel as part of their work. Interviews were audiotaped and transcribed verbatim, transcripts were coded using the AtlasTI software programme, and analyzed for key concepts using the constant comparison method of analysis. This presentation outlines some key challenges of ERGM (e.g., stressors), comparing and contrasting professional versus paraprofessional workers, and those involved with ERGM with varying degrees of frequency. The frequency of mobility amongst health workers varied, and included daily mobility, and less frequent mobility (e.g., weekly, occasional). The positive experiences as well as the challenges for the health workers related to ERGM also varied. For some healthcare providers, mobility provides a sense of enjoyment and control over conditions of work (e.g., feeling relatively independent of institutional control when providing homecare). Key factors that appear to influence the challenges mobile health workers experience depends on the control they have over their schedule and decisions when and where to travel. Being on the road on a daily basis can also be challenging, particularly in poor weather, yet employment policies often do not address these and other concerns healthcare providers face when mobile for work. The ERGM of health workers is often ‘invisible’ yet there are various challenges that need to be explicitly considered in health human resources, labour relations and workplace health and safety policies. Suggestions for potential changes in the work policy environment to support and enhance worker well-being will be discussed.

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35 Developing a process of risk-stratified care coordination for older adults in primary care

Presented by **JACOBI ELLIOTT**, PhD Candidate, University of Waterloo

Primary health care could play a central, coordinating role in assessing and managing older adults, but at present lacks specific strategies to fulfil this role. This study aims to understand how a process of risk-stratified care coordination for older adults can be implemented and evaluated in primary care. A multi-level (environmental, organizational, patient, provider, and program) framework on implementation of health innovations (Chaudoir et al., 2013) was used as a guide to understand factors affecting implementation. Data collection and analysis followed a mixed methods design, within a developmental evaluation approach (Patton, 2011). Data were collected using ethnographic observations, individual (n=15) and focus group (n=6) interviews, and survey and tracking forms. Data were analyzed using appropriate qualitative and quantitative techniques. Patients, family caregivers, and health care providers were purposefully sampled from two Family Health Teams in Ontario (rural and urban). Older Adults (n=550) were screened using the interRAI Assessment Urgency Algorithm (AUA) and care was coordinated for individuals based on level of need. Among those screened, 70% of individuals screened as low risk, 25% were screened as moderate risk, and 5% were screened as high risk. As a result, service referrals were made to self-management, community programs, and specialized geriatric services using an online referral mechanism. Although the screening and referral process is time consuming, health care providers, patients and caregivers identified many benefits including early identification of service need, greater awareness of services available in the community, and improved relationships between patients and providers. A process of risk-stratified care coordination was developed and implemented in primary care through an ongoing, iterative process with older adults, caregivers, and health care providers. Future research activities should focus on testing these findings in other models of care (e.g. solo-physician practice) and in other regions.

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36 A proposal for the implementation of a peer-support strategy with Nations, Inuit and Métis women making health decisions: An integrated knowledge translation study to facilitate health literacy

Presented by **JANET JULL**, Postdoctoral Research Fellow, Bruyère Research Institute, Ottawa Hospital Research Institute & University of Ottawa

The objective of this study to use an integrated knowledge translation (IKT) approach to test the implementability, feasibility and acceptability of a previously developed and culturally appropriate peer administered theory-informed shared decision making (SDM) strategy for increasing First Nations, Inuit and Métis (“Aboriginal”) women’s participation in making health decisions. Aboriginal people in Canada have lower life expectancies and higher incidents of disease than non-Aboriginal Canadians. Health literacy consists of functional, social, and critical analysis skills and is the result of the interaction between health systems users and providers. Health literacy barriers lessen the benefits of health services, and are an issue for vulnerable populations, such as Aboriginal women. SDM, a process that engages health systems users with their provider(s) in making health decisions, may enhance health literacy and thus increase user participation within health systems. As well, peer-support strategies improve chronic disease self-management and are feasible in healthcare settings. Every aspect of this study will be co-developed with Aboriginal community partners. A mixed methods design guided by a mutually agreed upon and theoretically informed framework such as the Knowledge to Action Framework, will structure this study. This proposed two-phase study will use: community based participatory research principles, postcolonial theoretical lens, and a culturally-relevant and mutually agreed upon ethical framework. We will lead the implementation of the SDM strategy in a clinic setting using a pre/post study design to determine changes over time. Study results will inform a grant application for a larger (randomized trial) multi-site intervention study with Aboriginal community partners, and further develop and effectively support participation of Aboriginal women in their healthcare decisions with providers. Findings will inform and build capacity for health systems change in collaboration with user populations.

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37 When is a trial equity-relevant? Building consensus on when a randomized control trial provides equity-relevant evidence

Presented by **JANET JULL**, Postdoctoral Research Fellow, Bruyère Research Institute, Ottawa Hospital Research Institute & University of Ottawa

In society, disparities in opportunities for health exist and are described as a "health inequities" when they are systemic and socially produced. Our study objective was to identify when randomized controlled trial (RCT) designs contribute equity-relevant evidence, defined by knowledge users as useful and relevant to health systems decision-making. RCTs can provide evidence about the impact of an intervention as well as the intervention effects on health equity ("equity-relevant evidence"). The evidence can be used by policy makers to inform decisions in health systems. Despite the potential usefulness of RCTs for addressing health inequity, there remains a gap in the literature about how to identify when data generated by a RCT may be of use to address equity issues. Our study is the result of collaboration with international knowledge users and proposes a conceptual framework from which to structure consideration of when a RCT contributes equity-relevant evidence. A conceptual framework was iteratively developed through public forums and peer review by an international collaboration of health systems users and leaders: researchers, journal editors, policy makers, clinicians, members of populations for whom the evidence is meant to benefit. A RCT is considered to build evidence about equity if the study includes a population that experiences socially structured disadvantage in opportunities for health and measures effects of the intervention when a) the trial exclusively includes a population experiencing socially structured disadvantage or b) the population is mixed, meaning that it includes those who are experiencing socially structured disadvantage with those who are not, and the differential impacts of the intervention are assessed. RCTs that meet the criteria are available as part of an open-access database. The conceptual framework builds on and operationalizes understandings about health equity for RCT conduct and reporting. While different users will hold varied priorities in regards to health equity, we argue that explicit consideration of population characteristics is of paramount importance for health policy decisions that require systematic and transparent evidence.

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38 Benefits of Optimistic Social Comparisons for Older Adults Receiving Threatening Health Messages

Presented by **JANIQUE FORTIER**, M.Sc. student, Western Regional Training Centre - University of Manitoba

The aging population will require health care workers to effectively communicate with older adults to improve their health and quality of life. This study examines whether older adults engaging in optimistic social comparisons when exposed to an experimental health threat manipulation is associated with better physical health five years later. Older adults ($n = 160$) were interviewed as part of the longitudinal Successful Aging Study: satellite study of the Aging in Manitoba Project. Participants were presented with a hypothetical heart attack scenario and randomly assigned to one of three threat conditions regarding their future risk of recurrence (low, unknown, or high). Participants provided risk estimates for others and themselves. Participants' risk estimates were considered high optimistic social comparison when they estimated their own risk to be lower than others and, inversely, considered low optimistic social comparison. Participants' physical health was measured examining their severity of chronic conditions five years later. Regression analyses were conducted using Hayes' PROCESS macro. We hypothesized that high optimistic social comparisons would predict better physical health for older adults exposed to threat and, therefore, conducted a one-tailed test. High optimistic social comparisons negatively predicted severity of chronic conditions (i.e., better health) when threat was high ($b = -2.50$, $p = .036$). Thus, older adults who made optimistic social comparisons when faced with high threat tended to experience better physical health relative to their more pessimistic peers. No effects of optimistic social comparisons on health were expected under other threat levels, therefore we conducted two-tailed tests to examine the effect at unknown and low threat levels. Analyses of optimistic social comparisons on physical health at unknown and low threat levels were non-significant. The results suggest that engaging in optimistic social comparison is an adaptive strategy for older adults to employ when faced with health threats that leads to better long-term health outcomes. Our findings point to the need to promote optimistic social comparison when communicating health threats to older populations.

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39 Does Socio-Economic Status Predict Hospital Length of Stay in Coronary Artery Disease Patients?

Presented by **JASON JIANG**, Statistical Research Analyst, University of Calgary

Socio-economic status (SES) is an important determinant of hospital length of stay (LOS). Due to data limitations, limited research is available on the performance of SES in predicting patients' risk of prolonged LOS. This study investigates the association between SES and prolonged LOS among hospitalized coronary heart disease (CHD) patients. LOS risk adjustment model based on hierarchical linear regression was used to assess the effect of SES, measured by median household income, on LOS. Our model also adjusted for various socio-demographic and clinical predictors of LOS. Data on about 8000 cardiac patients, obtained from linking the Alberta Discharge Abstract Database (DAD) to the Alberta Provincial Project on Outcomes Assessment in Coronary Heart Disease (APPROACH) registry, were for this analysis. Logistic regression analysis was used to assess the discriminatory power of SES in predicting prolonged LOS. The mean inpatient LOS was 6.1 days. Our results showed that age, number of comorbidities, resource intensity weight, and the type of treatment received were significant predictors of LOS. Although median household income was a significant determinant of LOS, cross-validation results suggested that SES had a minimal contribution in discriminating between cardiac patients with normal and prolonged length of stay. Using large population-based Canadian data, our study suggests that SES, as measured by median household income, is not a significant predictor of patients' likelihood for PLOS. Further research is needed to validate this finding in cardiac patient populations, including on how to construct more accurate and comprehensive SES indicators.

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40 Effect of an Intensive Multi-Modal Intervention for Attention-Deficit Hyperactivity Disorder (ADHD) on Equity in Children's Health and Educational Outcomes

Presented by **JENNIFER ENNS**, Post-doctoral fellow, Manitoba Centre for Health Policy

The objective of this study was to determine whether an intensive multi-modal ADHD intervention for children and teens resulted in improved long-term health and educational outcomes and in reduced inequity in these outcomes across the socioeconomic gradient. We used administrative data from the healthcare and education sectors in the Population Health Data Repository at the Manitoba Centre for Health Policy. We identified children and teens aged 5-17 who had 3+ visits to the ADHD intervention program between 2007 and 2012. A matched control group was constructed, and confounders were controlled using inverse probability of treatment weights. We examined rates of hospital episodes, emergency department visits, psychostimulant use and adherence, contact with child and family services, and whether the children were in the school grade appropriate to their age. We calculated concentration indices to measure changes in inequity. There were 485 children in the ADHD intervention group and 1,884 controls. Children who received the intervention were more likely to be prescribed medication (patients with 1+ prescription(s), rate ratio [RR] 1.21, 95% CI 1.08-1.36) and be adherent to their medication (RR 1.42, 95% CI 1.03-1.96). They were also more likely to be in their age-appropriate grade (RR 1.33, 95% CI 1.09-1.63) compared to controls. Moreover, the intervention was associated with reduced inequity in these outcomes across income deciles. No difference in the rates of hospital episodes or emergency department visits was found, nor in rates of contact with child and family services. A multi-modal ADHD intervention program was associated with increased use and adherence to medication, and may boost academic achievement for vulnerable children and teens. It contributed to closing the equity gap between children from low- and high-income families. ADHD interventions that combine approaches may be more effective than medication alone.

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41 Quality improvement in acute care: A multi-level conceptual framework of successful large-scale QI implementation

Presented by **JENNIFER GUTBERG**, Student, University of Toronto

The aim of this presentation is to put forth a conceptual framework of the quality improvement (QI) cycle in acute care settings. Given the variable effectiveness of large-scale QI implementation, a framework addressing the breadth of organizational antecedents and progressive outcomes may facilitate more successful and sustainable QI efforts. A scoping review was conducted to determine the factors that contribute to successful quality improvement initiatives, which ultimately informed the development of the conceptual framework. The review was limited to evidence-based QI efforts at the organization level. The research questions that guided this review focused on a) determining the individual, group, and organizational antecedents and/or moderators to successful QI implementation, and b) understanding how continuous evaluation of QI implementation affects the intervention's sustainability. The Quality Improvement Cycle framework encompasses constructs identified in the scoping review at all three levels. Specifically, organizational antecedents presented in the model at the group level included group dynamics (norms, task design), perceived social support, and group impetus to change; while at the organization level included leadership, governance, culture, structure and strategy. Both levels are seen as directly impacting the initial success of QI implementation, while factors at the individual level (motivation, self-efficacy, turnover intention) are seen as mediators between the group/organizational antecedents and initial QI implementation success. The continual evaluation of QI success is measured via two levels of outcomes: first at the implementation level (acceptability, feasibility, cost) and then at the service level (efficiency, effectiveness, equity, patient centeredness). Overall, this paper presents a conceptual framework addressing the various antecedents to successfully implementing large-scale quality improvement interventions. By considering evidence-based factors at all levels of an organization, the framework can serve as a meaningful tool for both planning and evaluation, while also highlighting the ongoing nature of QI efforts.

42 Development and administration of an organizational survey tool to measure the use of health literate discharge practices in Ontario Hospitals

Presented by **JENNIFER INNIS**, PhD student, University of Toronto

To develop and pilot an organizational survey that measures the use of health literate discharge practices in Ontario hospitals. These are practices that meet the health literacy needs of patients and families at the time of hospital discharge. At present, there is no means of measuring use of these practices. An expert panel (n=42) participated in a Delphi process to develop indicators for the survey. An initial set of indicators was based on those developed for Project RED (Re-Engineered Discharge). There were two rounds with 88 and 93% participation rates. The final organizational survey has 36 indicators with which to measure the use of health literate discharge practices, using a 5-point Likert scale. The survey was administered to managers in hospitals (N=143) in Ontario in spring 2015. Exploratory factor analysis was performed on the results to gain an understanding of the organizational use of health literate discharge practices. A total of 99 nursing managers or their designates responded to the survey, representing 79 hospitals (participation rate 55%). Exploratory factor analysis demonstrated that there were five factors in this organizational survey: 1) follow-up appointments and tests with coordination of post-discharge services, 2) use of a written discharge plan with the patient and family, 3) patient/family education and reinforcement of the education, 4) medication review and 5) use of a discharge summary. These factors had moderate to high levels of reliability. Measuring the use of health literate discharge practices (HLDP) with the HLDP survey will help hospitals to understand their level of performance as it relates to discharge, and will help direct quality improvement efforts to improve patient care at the time of hospital discharge.

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43 Characteristics of new users of osteoporosis drugs changed over time, yet high compliance with therapy remained stable

Presented by **JOANN BAN**, Master's of Science Student, University of Toronto

To examine the characteristics of new initiators of oral bisphosphonate therapy, and estimate one-year compliance with therapy by sex, and over time. We identified community-dwelling seniors initiating (new users) oral bisphosphonate therapy in Ontario from April 2002 to March 2011. Compliance with therapy was estimated using the proportion of days covered (PDC=total days supplied in 365 days/365; capped at 100%) in the year following treatment initiation. Patient characteristics (1-year lookback period) and compliance with therapy were summarized by fiscal year of treatment initiation, and stratified by sex. We identified 62,990 men and 257,767 women initiating oral bisphosphonate therapy (mean age=75.2 years, SD=6.8). Patient characteristics changed over time. A larger proportion of men initiated therapy (13% in 2002/03 to 25% in 2011/12), use of some medications decreased (e.g., etidronate: 88% to 5%, benzodiazepines: 25% to 18%, NSAIDs: 35% to 22%), while use of other medications increased (e.g., ARBs: 4% to 17%, statins: 24% to 44%) over time. Compliance with therapy was similar in men and women. The proportion with compliance $\leq 20\%$ declined over time reflecting measurement error induced by a change in the typical days supply at index (from 90 days in 2002/03 to 30 days in 2011/12). The proportion with compliance $\geq 80\%$ remained relatively stable over time at around 55%. The characteristics of patients starting oral bisphosphonate therapy changed over time reflecting changes in osteoporosis management and healthcare delivery. However, estimates of high compliance have remained relatively stable. Understanding practice changes and measurement error in calculation of measures of adherence are important to inform and interpret results of pharmacoepidemiologic analyses.

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44 An association between social capital and unmet healthcare need among the city of Toronto residents

Presented by **JONGNAM HWANG**, Post-doctoral fellow, Centre for Research on Inner City Health, St. Michael's Hospital

Despite the increasing interest in the role of social capital in healthcare, minimal research has investigated the relationship between social capital and use of healthcare in urban city settings. This study aimed to examine the relationship between social capital and experience of unmet healthcare among the city of Toronto residents. We used cross-sectional data from Neighbourhood Effects on Health and Well-being (NEHW), conducted by Centre for Research on Inner City Health (CRICH) survey research unit at St. Michael's hospital. This data include information on individual and neighbourhood stressors and resources that potentially impact health and well-being. The data were collected by interviewing over 2,400 participants from 48 neighbourhoods across the city of Toronto. In this survey, individuals were asked about their experience unmet healthcare need as well as various dimensions of social capital (bonding, bridging, linking). A total 2,197 individuals were included in the analysis and logistic regression was conducted. Among 2,197 respondents, 338 individuals (15.4%) reported an experience of unmet healthcare need in the past year. In relation to overall unmet healthcare need, high social cohesion was associated with less likelihood of experiencing unmet healthcare need (OR: 0.96; 95%CI: 0.93-0.99). Also, individuals who have higher satisfaction of neighborhood were less likely to experience unmet healthcare need (OR: 0.80; 95%CI: 0.63- 0.99). However, more participation in community groups was associated with more likelihood of having unmet healthcare need (OR: 1.14; 95%CI: 1.04-1.24). In addition, lower income, poor self-rated health, and having no regular doctor were associated with experiencing unmet healthcare need. These findings suggest that neighbourhood targeted interventions are possible solutions to address unmet healthcare need in urban city settings. For instance, improving physical and social neighbourhood environment can decrease experiencing of unmet healthcare need. Further study is needed to understand the relationship between participation in community groups and unmet need.

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45 Developing population segments for primary care performance measurement and reporting using health administrative data

Presented by **JULIA LANGTON**, Research Associate, University of British Columbia

Population subgroups have been used to understand the quality of health care. Most commonly, populations are segmented by specific diseases, patient age, or life-stage. We use population segmentation to present information on the functioning of primary care; our aim is to develop segments based on patients' primary health care needs. Our development process occurred in three stages. First, we examined examples of population segmentation in the peer reviewed and grey literature to develop principles for our population segments. Second, we held a workshop with primary care patients, decision-makers, clinicians and researchers to seek their input on important considerations for the population segments. Third, we used health administrative data (physician claims, hospitalisations) to develop population segments for the British Columbia (BC) population. Segments were based on diagnosis codes over a four year period; for each segment we examined health care use and costs, overall and by service type, in 2014-15. We designed our segments to be mutually exclusive, capture the vast majority of people who use primary care services, and range from healthy patients (fewer primary care needs) to more complex patients (more extensive needs). Stakeholders were supportive of population segmentation approach and suggested incorporating patient vulnerability and primary care involvement such that segments would range from patients whose needs could be fully met in primary care to those who require additional services such as specialists/acute care. Our first iteration includes three segments: stable (healthy or ≤ 1 chronic condition, needs met by primary care); complex (≥ 2 chronic conditions, needs mostly met by primary care); and complex with additional needs (combination of physical/mental chronic conditions or complex multi-morbidity, needs not fully met by primary care). We developed population segments designed to report information on the performance of primary care in BC. We plan to include additional variables beyond those available in health administrative data (e.g. socio-economic factors/vulnerability from patient surveys) so that segments more accurately represent factors impacting on health services use and patient outcomes.

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46 Delivering on the Promise of Health Apps for Patient Engagement: A New Reference Architecture

Presented by **KARIM KESHAVJEE**, CEO, InfoClin

Mobile health apps show great promise for increasing patient engagement and empowerment in healthcare. Yet, most mhealth apps languish unused in app stores. We designed an architecture for mhealth apps that is patient-centred, rooted within the patient-provider relationship, is congruent with evidence-based practice and is more likely to be used. We searched PubMed and Google Scholar for articles on mobile app evaluation, mhealth architecture and patient engagement. We identified common hurdles that restrict wider usage of mhealth apps. Using a gap analysis that drew on philosophy, data science, education, life science and business analyses methods, we designed an architecture that can overcome the constraints and meet the goals identified in the introduction. We propose an architecture that is evidence-informed, uses validated tools effectively, while putting patient-physician relationship at a high value. We identified 9 common usability barriers that are poorly addressed in most mhealth apps. Mhealth apps also do not take into consideration the patient-provider relationship. The app should model the patient-provider interaction by capturing validated clinical information about the patient that providers can use for their clinical decision-making and treatment recommendations, including patient reported outcomes and experience measures. The app should be able to communicate clinical data, advice, education, and treatment recommendations from providers to patients. This simple architecture, if applied correctly, can be a powerful driver of change through on-going feedback, accountability and congruence between patient and provider, something that is sorely missing in current mhealth apps. We will present our reference architecture as an open-source solution for policy makers and app publishers. Mhealth apps have not gained traction in recent years. We propose a new model and a reference architecture for mhealth apps that can overcome the barriers-to-use identified in the literature. The architecture is also more aligned with evidence-based medicine, health cultural norms and the realities of patient-provider information asymmetries.

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47 Concerns with Current Definitions of Multimorbidity - Results from an Expert Panel

Presented by **KATHRYN FISHER**, Assistant Professor, McMaster University

We are studying how estimates of health service utilization change with different definitions of multimorbidity. Because there is no gold standard definition, we asked an Expert Panel to advise us on the most commonly used definitions for policy and clinical research and to identify the potential deficiencies in these definitions. A literature search identified common multimorbidity definitions which could be grouped into three broad categories: simple counts, indices, and specific combinations/clusters. These definitions were presented in an in-person meeting that included expert clinicians, policy-makers, and researchers to discuss the context in which they are useful, and potential issues or deficiencies. This feedback was used to design a SurveyMonkey survey that was sent to a broader group of experts. Expert respondents were asked if they supported the inclusion of each definition in our study, to suggest additional relevant operational definitions, and to provide feedback on issues relating to the definitions. The survey was completed by almost half of the invitees (14/30). Ten (71.4 %) respondents were academic researchers, 7 (50.0%) were clinicians, 1 (7.1%) was a policy-maker, and 2 (14.3%) were academic trainees. While at least 70% of respondents endorsed most definitions, the Charlson Comorbidity Index was the most-highly recommended (93%). The Health System Performance Research Network list was considered the most restrictive definition and was not endorsed for our work. There were consistent comments on how some definitions mix chronic conditions with risk factors (e.g., hyperlipidemia, diabetes), include vague conditions (e.g., stomach problems), or include symptoms that overlap with conditions causing double counting. Respondents emphasized the need for future definitions to consider symptoms (e.g., pain, incontinence), functional limitations, social support and other key determinants. There is unlikely to be a single "best" definition of multimorbidity as the utility and validity of the definitions vary with the outcome of interest, study population and data sources. Experts, however, did agree that current definitions need to be revised to capture patient-relevant physical and psychosocial factors.

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48 Integration of Health Behaviour Change Interventions into Primary Care: Implications for Sustained Chronic Disease Management and Organizational Efficiency

Presented by **KOTHAI KUMANAN**, Student/Research Associate, Saint Mary's University/Nova Scotia Health Authority

The traditional model of prescriptive intervention in primary health care (PHC) has limited efficacy in the face of chronic disease and the concomitant need for behaviour change (BC) strategies. This study aims to build behaviour change competency amongst healthcare providers (HCP) and increase organizational knowledge translation capacity in BC counselling. A mixed method design evaluates implementation and provider and organizational uptake of behaviour change strategies in one zone of a provincial health authority. Using validated scales, pre and post data is followed by a competency training intervention for HCPs. Quantitative data will assess attitudes, competency, and behavioural practices of HCPs; empowerment, self-efficacy, health behaviours, outcomes and perceptions of patient-provider relationship amongst patients; and attitudes and valuing of behaviour changes counselling amongst decision-makers. Qualitative data will be collected through focus groups and interviews. The control group consists of a service area not receiving the training and undergoing the same pre/post evaluations. Data collection is ongoing. Pre-intervention data is currently being collected and analyzed to evaluate the dissemination of behaviour change skills and evaluate achievement of competency standards. Comparisons over time and between trained/non-trained services is being analyzed to establish a practical procedure for assessing the effective implementation of BC skills. Qualitative data will be analyzed to inform us of the relevance, usefulness, feasibility, facilitators and barriers for successful implementation and organizational spread of the initiative. A champion from each intervention group will soon disseminate training to colleagues in partnership with behaviour change program staff with expertise in supporting competency-based training. As the intervention is introduced, an experience-based co-design (EBCD) approach is being undertaken to adapt the implementation of HCP training to specific population needs. Care has traditionally been based on an asymmetrical relationship between HCP and patient, where the clinician holds expert knowledge and imparts directive interventions to the patient. This has proven to be ineffective in chronic disease management. Behaviour change competency has implications for the sustainability of BC outcomes and organizational efficiency.

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50 Patients Know When Their Care is Going Awry: The Association of Patient-Reported Hospital Experience and Patient Safety Indicators

Presented by **KYLE KEMP**, PhD Student, University of Calgary

In healthcare, there is concern about the value of collecting patient experiences using standardized surveys. Our study explores the role of patient experience data in healthcare system performance. It documents patient experience scores in relation to patient safety indicators (PSIs) and reports risk-adjusted patient experience scores associated with PSI presence. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) telephone survey was completed by patients following hospital discharge in Alberta. Survey data were linked to corresponding inpatient records from the Discharge Abstract Database. Outcomes were the overall ratings of hospital, physician, and nurse care; scored on an 11-point Likert scale from 0 (worst possible) to 10 (best possible). Ratings were classified as high (9 or 10), versus low (0-8). PSIs were documented using a validated algorithm. Demographic and clinical differences were assessed according to PSI presence. Logistic regression examined the relationship between demographic/clinical factors, including PSI, and experience ratings. From April 2011 to March 2014, 25,098 patients completed the survey following discharge from one of 93 hospitals. Overall, physician, and nurse care was rated as high by 61.9%, 73.7%, and 66.2% of respondents. 1,085 Patients (4.3%) had at least one documented PSI, with 1,914 PSIs documented in all. Most frequent PSIs were hemorrhagic events (n=502; 2.0% of sample), events relating to obstetrics (n=373; 1.5%), surgical-related events (n=248; 1.0%), and infection (n=211; 0.8%). Patients experiencing PSIs tended to be younger (18-39 years), female, highly educated, and admitted electively. Risk-adjusted models which controlled for sex, age group, and other demographic/clinical factors showed that patients with PSIs had decreased odds of having high overall (OR=0.86; 95%CI: 0.75-0.97), physician (OR=0.76; 95%CI: 0.66-0.87), and nurse (OR=0.83; 95%CI: 0.73-0.94) ratings. Inpatient experience is associated with healthcare quality, via documentation of PSIs. From a policy perspective, the present study supports the integration of patient-reported hospital experience as a measure of health system performance in Canada. Future research examining individual PSIs and other aspects of patient experience is warranted.

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51 Patient Engagement as a Component of a Learning Healthcare System: A case study using small area rate variation research in Nova Scotia

Presented by **LAURA DOWLING**, Research Project Manager, Maritime SPOR SUPPORT Unit

The objective was to develop a framework for incorporating patient engagement into administrative health database research. In an examination of variation in high-cost health service use using administrative data, patient experience was incorporated as an additional source of knowledge to inform evidence-informed policy making in a learning healthcare system framework. The study described variation in the rate of high-cost use by area within Nova Scotia, and isolated the local factors contributing to the rate of high-cost use to inform targeted intervention development. Regression analysis was used to determine where the rate of high-cost use was driven by known contributors, such as demographics or disease patterns. Peer-leaders and facilitators from provincial chronic disease management programs (Patient Navigators) were recruited as study team members. They were invited to help describe their collective experience of patient-based factors that may contribute to high-cost use, including access to care and multi-morbidity in their regions. The outcome of this 'proxy' patient engagement was measured by the extent to which the input from the Patient Navigators influenced study protocol, results interpretation and communication of findings. The patient voice helped describe the extent of variation, contextualize the findings, and suggested additional contributory factors not revealed by the analysis of administrative health data. For example, the Patient Navigators described regional discrepancies in available services for managing chronic disease and variation in the approach to discharge planning. In this way, the patient experience was incorporated to attempt to explain rates of high-cost use in areas that could not be explained by known contributors. Further, patient experience with travel distance to receive care and alternate levels of care helped to generate questions for future research. Patient experience is a valuable input into health research that contributes to health system planning. This research incorporated 'proxy' patient experience to produce evidence to inform targeted interventions aimed at reducing rates of high cost-use. It identified places where focused interventions or reforms can yield significant benefits over short timeframes.

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53 The effect of the Roots of Empathy program on the use of psychotropic medications among youth in Manitoba. Research in Progress.

Presented by **LINDSEY DAHL**, Student, University of Manitoba

The use of psychotropic medications among youth has increased in recent decades. The objective of this study is to determine if the Roots of Empathy (ROE) program reduced the risk of being dispensed a psychotropic medication among youth who have previously participated in the program in Manitoba. This study will use administrative health, education, and social service records for youth in Manitoba to estimate the effect of the ROE program on future psychotropic medication use. Children who participated in the program during the 2002/03 to 2013/14 school years will be identified and compared to a control group who will be selected using hard matching and propensity score methods. Children will be followed and observed for the occurrence of being dispensed a psychotropic medication. Kaplan-Meier survivor curves and Cox proportional regression models will be used to compare the survival experience of the two groups. Given the aim of the ROE program is to develop children's social skills, it is hypothesized that through their improved ability to recognize and cope with emotions and feelings, children who participate in the ROE program are less likely to require psychotropic medications. Therefore, it is expected that the survivor functions and hazard ratios will be significantly more favourable for the ROE group compared to the control group. Separate analyses of specific classes of psychotropic medications will also be conducted, which may reveal whether the program impacts any particular class more than others. These specific classes are classified as antidepressants, anxiolytics, antipsychotics, psychostimulants, and hypnotics and sedatives. (Note: the intent of this poster is to present the research plan as results will not be available). This study may provide novel insights regarding an unanticipated outcome of the ROE program that extends beyond the proximal outcomes that have established the program's success. Measuring the future use of psychotropic medications may demonstrate a lasting effect of the program and its' effectiveness to promote mental health among youth.

55 Service user and health care provider perceptions of perinatal mental health service needs in Ottawa: A qualitative investigation

Presented by **LIZ DARLING**, Assistant Professor, Laurentian University

Our objective was to identify the perceptions of both health care providers and service users regarding perinatal mental health service needs in Ottawa in order to inform the development of new perinatal mental health programming which addresses gaps and compliments existing services. We conducted semi-structured group and individual interviews with 20 women (service users) and 25 health care providers to explore strengths and weaknesses of existing services, accessibility of existing services, and perceived gaps in services. Interviews were recorded and transcribed. Transcripts were analyzed using thematic analysis. Two researchers coded the transcripts and then reviewed codes to identify over-arching themes. Feedback on the preliminary analysis done by the research team was gathered through participatory meetings (one meeting each with service users and with health care providers). Findings were also mapped using Levesque et al.'s conceptual framework of access to health care. There was substantial overlap in the perceptions of health care providers and those of service users. Themes arising from the data were: 'Sensitive Support', 'Navigating the System', 'Building Community', and 'Right Care, Right Time, Right Place'. Key findings within these themes included the need to improve timely detection of perinatal mental health concerns, and the existence of substantial barriers for both service users and health care providers in navigating the system to find the most appropriate resources. Specialized individual services, including psychiatric care, are highly valued but difficult to access. Facilitated peer support was strongly appreciated. Expansion of community- and home-based services was seen as desirable, and service users are open to innovative models of service delivery including web-based & telephone service. The perceptions of service users and health care providers confirm the need to expand existing perinatal mental health services in Ottawa and provide insight into how best to do so. Our findings highlight opportunities to improve access to services across all five of Levesque et al.'s dimensions of access.

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56	<p>Selection of quality indicators for more impactful public reporting in long-term care</p> <p>Presented by MAAIKE DE VRIES, Senior Methodologist, Health Quality Ontario</p> <p>In order to increase the relevance and impact of public reporting and support quality improvement in Ontario's long-term care (LTC) sector, the objective of this work was to review and recommend a set of indicators to comprehensively measure quality at the facility, regional and provincial level. The indicator selection process took place between March and July 2015, and included four phases: environmental scan of indicators, modified Delphi process to rate indicators, sector and public engagement to inform the Delphi panel, and determination of reporting tools. The Delphi panel, consisting of providers, caregivers, policymakers, researchers and data providers identified a set of public reporting indicators based on importance, actionability, and interpretability. The indicators were intended to comprehensively measure quality against the six dimensions of quality described in the Quality Matters framework. An environmental scan identified 208 LTC indicators, which was narrowed to 75 measurable indicators for the Delphi panel to review. Following a survey and consensus meeting to rate indicators on importance, actionability and interpretability, the panel short-listed 20 indicators. A survey to 20 LTC facility representatives showed that respondents found the list to be completely or mostly comprehensive and actionable. Informed by feedback from facilities, the Quality Matters framework, technical information and data, the panel refined the short-list to a set of 12 indicators. In response to changes in system priorities, including a greater focus on patient-centredness, this set introduced indicators not previously publicly reported. Furthermore, some indicators were retired on the basis of being less reflective of quality or not actionable. A broad panel of LTC stakeholders identified indicators for monitoring performance and quality in LTC at the provincial, regional and facility level. Engagement of the panel and the LTC sector ensured the measures are important, actionable and interpretable. The indicators will support quality initiatives and reporting in the province.</p> <p>Co-Author(s): Maaïke deVries, Health Quality Ontario / Anita Singh, Health Quality Ontario / Tommy Tam, Health Quality Ontario / Naushaba Degani, Health Quality Ontario / Gail Dobell, Health Quality Ontario / Anna Greenberg, Health Quality Ontario</p>
57	<p>Enhancing Point-of-Care Clinicians' Use of Data in Daily Practice to Improve Care: The PERFORM KT Initiative</p> <p>Presented by MADELYN LAW, Associate Professor, Brock University</p> <p>Using local data to drive quality improvement efforts at clinical microsystem levels is paramount, yet gaps exist. A study was undertaken to explore perceptions of point-of-care participants, managers, mentors, and staff who participated in a learning strategy aimed at optimizing use of data in daily practice to drive quality care. Key components of the PERFORM KT initiative included participants being involved in interactive, monthly learning modules within an interorganizational, communities-of-practice (CoP) model. A mentor was assigned to work with the teams on a quality improvement (QI) action learning project of their own choice (e.g. falls, pain, aggressive behavior, skin tears and mobility). Teams participated in a symposium to showcase their QI projects and share insights. We employed a qualitative methodology using semi-structured focus groups and interviews to evaluate this pilot phase of PERFORM KT. A directed, iterative content analysis approach was used to analyze the dataset. Forty-five interviews from thirteen teams from participating acute, mental health and long-term care settings were conducted. The following themes emerged around the benefits of the PERFORM KT initiative: 1) using data to understand local context, see the bigger picture, and move forward; 2) improving care and engaging in collaborative, accountable, professional practice; 3) being successful and taking it to other levels; 4) taking it outside the comfort zone; 5) hearing feedback, exchanging stories, and getting new ideas; and 6) having a pragmatic and accommodating approach to apply new learnings in local contexts. The key role of the manager also was delineated including: 1) balancing being present while letting point-of-care clinicians take the reins and 2) leveraging flexibility in scheduling with protected time. Our study highlights the value of engaging point-of-care clinicians in an interactive learning strategy and QI project at the unit level; the need to contextualize quality improvement learning by using deliberate, flexible learning activities; and the key role of the manager in supporting the QI work at the local level.</p> <p>Co-Author(s): Lianne Jeffs, Director of Nursing Research, St. Michael's Hospital</p>
58	<p>Effectiveness Re-Examined: Comparing the Impact of a Peer-Led Healthy Living Intervention using an Equity Lens</p> <p>Presented by MALCOLM DOUPE, Assistant Professor, University of Manitoba</p> <p>Programs are often evaluated without consideration for whether they are effective across socioeconomically and geographically diverse individuals. This study measures the impact of the Healthy Buddies (HB) program, a peer-led healthy living intervention, on health outcomes in Manitoban elementary school-age children using an equity lens. Nineteen schools were randomized to receive HB lesson plans or regular curriculum (RC). Weekly (N=21) lessons were delivered by older (grade 4-6) to younger (grade K-3) students. Outcomes in younger peers included changes in waist circumference, self-efficacy, healthy living knowledge, and dietary intake. Equity in program effectiveness was measured by sex, area-level income, and urban/rural status. Program effects were tested using a mixed effect model including interaction terms. We compared the adjusted effect of the Healthy Buddies program on outcomes for each study group and for each equity stratum. Analyses were conducted on HB (N=158) and RC (N=156) students. Among participants, 48% were female, and 55% were in the lowest two income quintiles. Despite randomization, a greater proportion of HB (39.2%) vs RC (11.5%) students were >8 years old ($p<.0001$) and resided in rural communities (HB=55.7%; RC=43.6%; $p<.0001$). At baseline, outcome measures were similar between study groups. Overall, the Healthy Buddies program significantly improved scores for dietary intake and healthy living knowledge. Further analyses revealed that this program effect held true only among higher income children (for healthy living knowledge), urban children (for dietary intake and healthy living knowledge), and for males (for healthy living knowledge, self-efficacy, and waist circumference). Evaluating the Healthy Buddies program using an equity lens helps to establish for whom it is most effective. Equity analyses provide direction for developing effective interventions that impact populations more uniformly.</p> <p>Co-Author(s): Malcolm Doupe / Nathan Nickel / Marni Brownell / Dan Chateau / Jennifer Enns / Mariette Chartier / Joykrishna Sarkar / Jon McGavock / Rob Santos / Meghan Azad</p>
59	<p>La multimorbidité influence-t-elle le respect des lignes directrices pour les soins aux patients diabétiques après l'inscription auprès d'un médecin de famille au Québec ?</p> <p>Presented by MAMADOU DIOP, Agent de recherche, Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal et Université McGill, Département d'épidémiologie, de biostatistiques et de santé au travail</p> <p>Nous avons évalué les changements sur le respect des lignes directrices (LD) pour les soins aux diabétiques après l'inscription vulnérable auprès d'un médecin de famille. Nous avons estimé les taux d'adhérence aux LD et investigué si ces taux changent après l'inscription et en fonction du type de multimorbidité. Notre étude de cohortes basée sur des données médico-administratives inclut les diabétiques âgés d'au moins de 65 ans au moment de l'inscription et suivis sur une période de 7 ans. Notre échantillon compte 33 228 diabétiques, dont 22 200 avec multimorbidité. Nous avons identifié 8 conditions chroniques et les avons regroupées en 4 catégories selon leur nature concordante ou discordante avec le diabète. Nous avons construit des indicateurs de respect des LD destinées aux diabétiques (médicaments et consultations). Nous avons évalué les changements sur le respect des LD avec des régressions multivariées, des strates et des doubles différences (DD). Les résultats montrent que le respect des LD en rapport avec la prescription des médicaments a augmenté après l'inscription (e.g. OR=1,13 ; IC95%=[1,08;1,18]). La proportion des diabétiques sans multimorbidité ou avec une seule comorbidité qui reçoivent des prescriptions de médicaments respectant les LD est moins grande que celle des diabétiques ayant au moins deux comorbidités. Toutefois, l'augmentation du taux de respect des LD après l'inscription est plus importante chez les diabétiques sans multimorbidité (DD=4,1 % ; IC95%=[3,5 %;4,8 %]) ou avec une seule comorbidité (DD=3,8 % ; IC95%=[2,9%;4,6%]). Nos résultats n'indiquent pas de changements concernant les LD en lien avec les consultations. L'association entre le taux de respect des LD et l'inscription ne diffère pas selon la nature concordante ou discordante des comorbidités. L'inscription vulnérable des diabétiques est associée à un meilleur respect des LD en lien avec les médicaments, particulièrement chez les diabétiques avec moins de comorbidités. Ces résultats pourraient être expliqués par une meilleure prise en charge après l'inscription et la complexité de la prise en charge des diabétiques avec multimorbidité.</p> <p>Co-Author(s): Mamadou Diop, Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal et Université McGill, Département d'épidémiologie, de biostatistiques et de santé au travail / Julie Fiset-Laniel, Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal et Université McGill, Département d'épidémiologie, de biostatistiques et de santé au travail / Sylvie Provost, Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal, Centre de recherche du Centre hospitalier de l'Université de Montréal et Institut de recherche en santé publique de l'Université de Montréal / Pierre Tousignant, Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal et Université McGill, Département d'épidémiologie, de biostatistiques et de santé au travail / Erin Strumpf, Université McGill, Département d'épidémiologie, de biostatistiques et de santé au travail, Université McGill, Département d'économie; et Institut de recherche en santé publique de l'Université de Montréal; et Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal</p>

60 Patients as Partners in Co-designing Improvement

Presented by **MARIA JUDD**, Senior Director, Canadian Foundation for Healthcare Improvement

To examine the value of co-design in healthcare through an in-depth look at two engagement efforts in co-design in the US and Canada: Transforming Care at the Bedside (TCAB) at the McGill University Health Center (MUHC) and the Collaborative Chronic Care Network (C3N) housed out of the Cincinnati Children's Hospital. MUHC: four implementation cycles over four years of jointly training patient advisors and staff on rapid cycle improvement, LEAN 5S*, patient experience of care, and process mapping. 38 patient advisors partnered with 19 units across 6 hospitals. C3N: establishing a collaborative innovation network and a learning health system for chronic care management that brings together patients, families, physicians and researchers to coordinate and implement improvements, provide access to data, and improve communication. *LEAN 5S: Sort, Set, Shine, Standardize, Sustain Engaging patients and families in the redesign of care brings different insights and better outcomes than when providers work alone. Evidence suggests that the level of engagement (e.g. co-design) of patients in shaping system improvements influences the outcome. MUHC: increase in team led improvements across care: increase in RN time spent with patients, communication with patients and families and within care teams and team effectiveness. Decrease in admission time, C-difficile and VRE, and medication errors. C3N: Reaches 82 centers, 730 pediatric gastroenterologists, and 23,400 patients. Remission rates across first 71 centers involved increased from an average of 59% to 79%. Sites that were more connected to the network demonstrated statistically significant higher remission rates compared to those sites that interacted less with network members. Patient engagement is an innovation that impacts experience, outcomes and costs of care. Engagement capable environments are required for patient experience to catalyse innovation and improvement. Creating effective patient involvement and engagement requires redesign and rethinking of current structures and decision making.

61 Estimating Medical Device Expenditures in Canadian Hospitals

Presented by **MARIE-CHANTAL BENDA**, Senior Economist, Health Canada

Given that medical technology is considered to be one of the key drivers of rising health costs in recent decades, this analysis sets out to measure medical device expenditures in Canada to help identify areas where rapid technological change creates financial challenges to hospitals in the delivery of quality care. This analysis uses Canadian hospital data provided by the Canadian Institute for Health Information (CIHI). Medical technology expenses, measured by the expenses related to medical or surgical supplies used by all activity areas within the hospitals, were estimated for the period between 2005 and 2012. National and provincial expenditures by hospital size, teaching status, and geographic location were calculated. Canadian hospitals spent more than three and a half billion dollars on medical devices or six percent of total hospital expenditures in 2012. While medical devices were used all over the hospitals, the operating rooms and the diagnostic areas were the departments with the highest spending. In addition, spending in these activity areas increased the most between 2005 and 2012. High expenditures were observed not only in areas using the most advanced and expensive new technologies, but also in those areas using less expensive per unit devices with high volume of activity. As expected, medical device expenditures were higher in large, urban and teaching hospitals. However, spending increased faster in non-teaching hospitals, as well as medium hospitals between 2005 and 2012. This study provides further insight on the increasing cost of medical devices in Canadian hospitals, with additional evidence-based information to support policies and strategies on innovation and technology that could help manage costs and improve quality care delivery.

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63 Investing in a professional health workforce: Providing safe and effective patient care

Presented by **MARY CREA-ARSENIO**, Research Associate, McMaster University

To investigate the impact of a targeted work transition program on a cadre of professional healthcare workers in Ontario. To conduct a comparison analysis of two groups of early career nurses: those who participated in a government subsidized transition to practice program and those who did not participate. A cross-sectional survey design was used. The sample included nurses who graduated between 2007 and 2012 and registered on an employment portal to apply for a government subsidized position. The Policy Impact on Nurse Employment and Practice (PINEP) survey, created by the researchers, was administered to participant (hired through portal) and non-participant (not hired through portal) groups. Outcomes variables included work status, retention, attributes of care delivery (16 items) and nurse ratings of current clinical practice (10 items). Multiple logistic regression was conducted to test the association between the outcome variables and participation in the government subsidized program. Results indicated that nurses who participated in the work transition program were 1.5 times more likely to be employed full-time and 2.3 times more likely to be retained in their initial position compared to nurses who did not participate in the program. Five attributes of care delivery were categorized based on 16 items and included decision-making, communication, care management, system integration, and commitment. Nurses who participated in the government program had significantly higher mean scores on all five attributes (p<0.001). Nurses' perceptions of their current clinical practice were measured using a five point likert scale. Results demonstrated that nurses who participated in the government program had significantly higher mean scores on seven out of the ten items (p<0.05). Policy initiatives that focus on transition to work are rare. Ontario's government invested in the largest healthcare profession involved in direct patient care. This study demonstrated that the policy was effective and had an impact on full-time employment, retention and nurses' perceptions of their ability to provide safe, effective care.

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64 Evaluation of a Major Health Workforce Transformation Initiative

Presented by **MICHELLE STIPHOUT**, Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services

The goal of the Workforce Model Transformation (WMT) project at Alberta Health Services (AHS) was to drive transformational change to enhance patient care by moving to a collaborative care model that optimized care providers and introducing six evidence-based care processes. This presentation will describe results of the final WMT evaluation. One unit fully implemented WMT starting in September 2013, with final evaluations taking place in December 2014. A comprehensive evaluation framework was developed for ongoing monitoring and measurement of outcomes. The evaluation included interviews and surveys for both patients and providers at multiple time points. Administrative data were also used to assess both real-time safety and long-term outcomes; twenty indicators covering both patient and human resources outcomes were reported from AHS databases. Staff interviews found providers were working well together, better understood each other's roles, and felt care was more patient-centered. Provider survey results showed perceptions of care quality, role clarity, manager support, time and autonomy, working to full scope, and collaboration and communication improved significantly (p < .05). Intention to leave the unit decreased from 48% at baseline to 20% at the final evaluation. The administrative indicators showed head count to full-time equivalent (FTE) ratio, absent days per FTE, absent hours, and overtime all decreased post-implementation. The administrative data also found relatively stable patient outcomes, indicating there was no detrimental effect on patients. Patient interview and survey results were positive; there were significant increases in family and friend involvement in care and information about new medications. Our results suggest that WMT has measurable positive effects on providers and on human resources outcomes. Although there were only a few positive effects on patient care, the fact that there were no detrimental outcomes suggests that models such as this will improve AHS's ability to provide sustainable, high-quality care.

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65 Evaluation Framework: Workforce Initiatives

Presented by **MICHELLE STIPHOUT**, Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services

Alberta Health Services (AHS) uses a number of benchmarks and indicators (e.g., patient satisfaction, productivity) for measuring health system performance. However, there is no standardized approach for capturing outcomes of unit-level workforce initiatives. Given this, we developed and tested a framework to evaluate future workforce initiatives within AHS. We needed the framework to be able to answer questions of whether and how transformational changes were being achieved and determine the impacts on patient, provider, and system outcomes. The framework was developed in partnership between several AHS departments, unit leads, and AHS leaders, and consisted of three components: (1) Tools and process indicators to monitor ongoing quality and safety during implementation (e.g., process checklists, adverse events) (2) Indicators to capture outcomes at patient, provider and system levels (e.g., satisfaction surveys, readmissions) (3) An economic evaluation component to measure financial impact of the model (e.g., new salary costs, reduced overtime) The evaluation framework was piloted using the Workforce Model Transformation (WMT) legacy project implemented on one general medical unit and partially implemented on three others. WMT involved a move to team-based care and the introduction of new evidence based care processes. The pilot test showed that the ongoing monitoring was very useful for real-time feedback on safety and quality of patient care and the success of the new care processes. The surveys were able to capture changes in unit culture. The administrative data indicators have high potential for assessing outcomes. The economic evaluation framework was not tested in this phase but the expert group was able to develop a transferable framework with a simple quantification approach and clear guidelines to identify indicators. Overall, the framework has utility for evaluating outcomes of transformational workforce initiatives and should be considered for adoption as standard practice for projects of this type. This would allow comparing initiatives and spreading key learnings and successes.

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66 Interprofessional Competency Tools for Internationally Educated Health Professionals: Canadian Environmental Scan and Pilot of Existing Resource

Presented by **MUBASHIR ASLAM ARAIN**, Senior Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services

The overall goal of this project is to provide internationally educated health professionals (IEHPs) with a series of online interprofessional learning resources. This presentation describes two early stages of development including an environmental scan of existing interprofessional education (IPE) resources and a pilot study of an existing IPE resource. The environmental scan involved a search and data extraction from: key frameworks and policy documents on IPE, courses directed to IEHPs, courses on cultural competence and Aboriginal culture, IPE courses for Canadian Educated Health Professionals, and IPE assessment tools. A pilot of an existing on-line IPE resource involved IEHPs from Western Canadian provinces. Participants viewed two of six of the on-line modules and were invited to complete a survey seeking feedback on the format and content, cultural appropriateness and language of the resource and all were invited to participate in a follow-up interview. A number of IPE courses and resources have been developed focusing on two key IP competencies: patient centred care and IP communication. None of these resources target IEHPs. Although a variety of Canadian courses have been developed for IEHPs, few address IP competencies as defined by the Canadian Interprofessional Health Collaborative National Competency Framework. For the pilot study, twelve (63%) of 19 participants completed the survey and eight participated in the interview. IEHPs strongly agreed that the content and the language in the online modules were appropriate. However, most identified the need for greater emphasis on interprofessional collaboration in Canadian health care and cultural influences on interprofessional practice. The environmental scan and the pilot study confirm the need for IPE resources targeting IEHPs. The existing online IPE resource can serve as a key reference; however, additional content on interprofessional practice needs to be developed to meet the unique requirements of IEHPs.

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67 Association of Staffing with Patient Outcomes in Alberta Acute Care Units

Presented by **MUBASHIR ASLAM ARAIN**, Senior Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services

Staffing variability on acute care units has been linked to differences in patient outcomes. However, past studies have focused only on nursing staff. We studied the impact of a broader staff mix on patient outcomes in Alberta while accounting for various contextual factors. We surveyed all acute care units in Alberta (n=440) to collect staffing information of nursing and allied health providers. We collected information on contextual variables including care delivery model, level of collaboration, and scope of practice. We linked survey data with unit-level patient administrative data. We used regression analysis to link staffing variables with patient outcomes while controlling for contextual variables. Outcomes were patients' average total and unit length of stay, readmission and return to emergency department rates, and number of adverse events. We estimated average marginal impact of increasing a particular provider type on the outcomes of interest. Only medical and surgical units were included in the final analysis (n=149). We found significant variation in staffing across and within different unit types. Regression results indicated that registered nurses (RN) and licensed practical nurses (LPN) had negative associations with average length of stay, whereas health care aides (HCA) had a positive association. Increasing RNs on surgical units and LPNs on medical units was associated with increased readmission rates. Increasing LPN staffing had favorable associations with all outcomes except readmission on medical units. Associations between allied health staffing and outcomes were mixed. For example, social workers had favorable impacts on readmission and emergency department return rate on surgical units but the relationship was not consistent with other outcomes or unit types. These findings suggest that the relationship between staff mix and outcomes is not necessarily linear and the nature of the relationship differs across outcomes. The variation observed across units and within groupings of similar units is an important possible area of further research with implications for workforce optimization.

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68 Patients with certain types of medical conditions wait longer to be attached to a family physician through Quebec's centralized waiting lists

Presented by **MYLAINE BRETON**, Professeure, Université de Sherbrooke

In Canada, there is a large number of unattached patients. Several provinces have implemented centralized waiting lists to increase attachment, particularly amongst patients with medical conditions. Our aim is to assess whether wait times to be attached through Quebec's centralized waiting lists vary according to patients' medical conditions. Centralized waiting lists for unattached patients were implemented in local health networks across Quebec. When patients register on these lists, their medical needs are evaluated by a nurse using a list of 18 pre-defined medical conditions/risk factors such as mental health problems, diabetes or being over 70 years old. We analyzed data from administrative databases from five of these lists, between April 1st 2014 and March 31st, 2015. During this period, 17 769 patients were attached to a family physician, 48% of which were identified as having at least one of the 18 pre-defined medical conditions/risk factors. The distribution of wait times to be attached to a physician is asymmetric. The median wait time to be attached to a family physician for patients without a medical condition was 227 days (n=9254 patients) compared to 98 days for those with at least one medical condition (n=8515). Mental health problems (195 days, n=1475), AIDS/Hepatitis C (186 days, n=53) and intellectual disability (169 days, n=101) were the medical conditions for which patients waited the longest compared to other types of conditions/risk factors. The shortest wait times were for drug addiction (median 1 day, n=478), cancer (21 days, n=1377) and nervous system degeneration (28 days, n=419). Median wait times for patients with one or more medical conditions varied between the five lists under study. Wait times for patients with one or more medical conditions to be attached to a family physician through centralized waiting lists vary according to both patients' types of medical condition, and local health networks. Further research should seek to explain these variations (e.g. physicians' attitudes regarding specific conditions, patients' characteristics).

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69 Operationalizing the Disablement Process Model for Empirical Research

Presented by **NATASHA LANE**, MD/PhD Candidate, University of Toronto

Disability is the inability to conduct activities of daily living (e.g. bathing and dressing) without help. Disablement is worsening disability measured over two or more time points. This study presents an evidence-based analytic framework that operationalizes relationships between disability and disablement with variables in the widely used Disablement Process Model. We conducted a critical literature review to identify variables in the Disablement Process Model that are independently associated with disability (cross-sectional) or disablement (longitudinal). Eligible studies were peer-reviewed publications from inception to February 2015 that measured the independent association between Disablement Process Model variables and disability or disablement in older adults. We synthesized findings into an analytic framework that clarifies relationships between variables in the Disablement Process Model and identifies variables for inclusion in future studies. Common pitfalls of existing evidence were also identified. Of 95 included studies, 65 examined determinants of disability and disablement in community-dwelling older adults, while only 30 focused on residents of nursing homes. We present an analytic framework for the relationships between person-level demographic and morbidity characteristics, community and health system factors and disability or disablement in older adults. This framework identifies specific variables within each Disablement Process Model construct and summarizes evidence for their role in the Disablement Process based on our review. This evidence-based analytic framework can be used in future research on disability and disablement to identify relevant covariates and determine how to model them appropriately. Its use may yield more comparable and generalizable findings related to the epidemiology of this important health outcome in older adults.

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70 The Influence of Information Technology on Continuity of Mental Health Care from Child to Adult Settings: A Systematic Review

Presented by **NEIL BARR**, PhD Candidate, McMaster University

The objective of this study was to assess the role that information technology (IT) plays, and the extent to which it is used, in overcoming some of the barriers youth face when making the transition from child and adolescent mental health services (CAMHS) to adult mental health services (AMHS). A systematic review of academic literature was conducted using seven electronic platforms: CINAHL, Embase, HealthSTAR, MEDLINE, PsycINFO, ProQuest, and Web of Science. In addition, reference tracking was conducted to identify other relevant studies. Keywords related to mental health, transitions, and adolescence were used in conjunction with terms related to IT. To be eligible for inclusion, articles needed to be: 1) peer-reviewed; 2) accessible in English; 3) published between 2005 and 2015; and 4) focused on how IT used in CAMHS might support transitions from CAMHS to AMHS. Using a validated tool, included articles were also assessed for their methodological quality. Eight articles met all inclusion criteria. Participants across the studies consisted of children or adolescents with mental health disorders (e.g., depression, attention deficit hyperactivity disorder) between the ages of seven and 25; parents of adolescents with mental health disorders; and CAMHS care providers (e.g., psychiatrists, social workers). Various forms of IT were used in the care of youth with mental health disorders including electronic health records, e-mail, online therapies, smartphones, tele-/video-conferencing, and web portals. In general, these Internet-based modalities allowed for more frequent contact with care teams, provided lower cost access to care, and help facilitate goal-setting and learning. Primary challenges included a lack of system compatibility, privacy/confidentiality related to the security of health information, and the required technical support during and after IT implementation. Numerous forms of IT are being used in CAMHS, which hold tremendous potential for greater information-sharing and learning among stakeholders, and thus, continuity of care (while reducing costs and enhancing efficiency). However, decision-makers will need to establish holistic strategies that address a variety of barriers related to using IT.

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71 Orphan Drug Launch Monitor (ODLM)

Presented by **NEVZETA BOSNIC**, Senior Economic Analyst, PMPRB

Health Canada is soon expected to bring forward an orphan drug regulatory framework. The Orphan Drug Launch Monitor (ODLM) is an upcoming publication that analyzes the international approval of designated orphan drugs and assesses their availability in Canada. The analysis focuses on orphan drugs approved by the United States (US) and the European Union (EU), based on the US FDA Orphan Drug Product Designation Database and the European Community Register of Orphan Medicinal Products. The analysis uses the IMS Health MIDAS™ Database to report on market penetration, pricing, sales and launch dates for the orphan drugs in Canada and the seven comparator countries (France, Germany, Italy, Sweden, Switzerland, the UK and the US). The Health Canada Notice of Compliance Database was used to determine orphan drug availability and timing of launch in Canada. Orphan drugs are an emerging market segment with rates of growth in sales significantly exceeding those of other drugs and a record growth posted in most recent years. The US approved, by far, the most of orphan drugs, with many having non-orphan indications, while the EU approved mostly those with orphan-only indications. Most high-cost, high-prevalence orphan drugs have already found their way on to the Canadian market place. Most US approved orphan drugs are available in Canada through the regular approval process, and Canada ranks better than most of the European countries in terms of the availability of these drugs. The report also flags important orphan drugs that may be coming to Canada and reports on their market uptake and price level in foreign markets. This analysis provides policy makers, the industry and patients with advance notice of the market availability, uptake and pricing of orphan drugs.

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72 First Emergency Department Mental Health Contact: A Measure of Ambulatory Access to Care

Presented by **PAUL KURDYAK**, Director, Health Outcomes and Performance Evaluation, Centre for Addiction and Mental Health

Some mental health-related ED visits may be avoidable if individuals have access to effective ambulatory care. The study objective was to describe individuals whose mental health ED contact was their "first contact" with mental health services, and factors associated with this potential indicator of suboptimal access to care. From a population-based cohort of Ontarians 16 years of age and older with an incident mental health-related ED visit between 2012 and 2014 (n=181,265), we compared patients with and without outpatient mental health physician visits in the prior 2 years (first contact) on demographic, clinical and health service use variables. We used multivariable models to identify factors independently associated with first contact. All analyses were stratified based on ED disposition: whether the incident ED visit resulted in a hospitalization (n=35,382, 19.5%) or discharge home (n=145,883, 80.5%). The incident ED visit was the first contact for 46% of patients overall, including 37% (n=13,018) of patients who were hospitalized and 48% (n=70,277) of patients discharged home. The factors independently associated with first contact were similar regardless of ED disposition. There was an increased likelihood of first contact for those who were: in the youngest or oldest age category, male, immigrant, rural, and having a substance use disorder or self-harm/suicide attempt. Increasing number of comorbid conditions, having a usual care provider, and presenting to the ED with high acuity were associated with a decreased likelihood of first contact. First contact is common among mental health ED patients. The factors associated with first contact ED visits are known to be associated with poor access in general. Therefore, measuring first contact mental health ED visits may be a useful way to evaluate population-based access to mental health care.

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73 Measuring patient-centred care: an environmental scan in the province of Alberta

Presented by **RACHEL JOLLEY**, Research Associate, University of Calgary

Patient-centred care is at the forefront of discussion in research and practice, however little is known about the use of patient reported measures. We sought to identify the types of patient reported measures collected and how they are applied across the province of Alberta. We performed a structured environmental scan using a web-based survey between June 5th 2014 and March 31st 2015. Questions surveyed included types of measures, settings collected in, and socio-demographic questions of the respondent (ie: job position and organization). We used a snowball sampling technique to identify and survey PROMs and PREMs users. Key users were identified through the Alberta Health Services (AHS) Strategic Clinical Networks leads and through previous established networks in AHS, Alberta Health and the Campus Alberta partners. Data analysis included descriptive and simple reporting of means and proportions of the survey responses. Out of 70 potential participants contacted, 41 (59%) participated in the survey. Of these 64% belonged to an academic institution, 33% belonged to a healthcare delivery organization and 31% belonged to a regional health authority. There were up to 15 different types of Patient Reported Outcome Measures (PROMs) collected with the EQ-5D identified as the most common (51.5% of respondents). There were 8 different types of Patient Reported Experience Measures (PREMs) reported with the most common identified being the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey (22.2%). The types of patient populations collected from varied across emergency department patients and inpatients to acute care facilities, elderly patients, and children. Through this environmental scan, we identified a wide array of measures collected in diverse patient populations. This is the first step towards creating a standardized set of patient reported measures to implement and benchmark in clinical practice across healthcare institutions enabling the measurement and understanding of patient-centred care.

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74 Measuring the effect of Family Medicine Group enrollment on avoidable visits to emergency departments among diabetic patients in Quebec

Presented by **RENEE CARTER**, Student, McGill University

Our main objective was to measure the effect Family Medicine Group (FMG) enrollment on avoidable use of the emergency department (ED) by diabetic patients. We also sought to determine if effects differed among light or heavy users of the ED, and according to high versus low regional levels of enrollment. We used data from provincial health administrative databases to identify the diabetic patient population over the age of 20 for each fiscal year between 2003 and 2011. Our analytical approach aimed to deal with 2 potential sources of bias: (1) unobserved time fixed physician characteristics that influence the level of FMG take-up in the region and diabetic patients' avoidable use of the ED, and (2) time-varying diabetic patient characteristics that may be affected by previous levels of exposure and confound the effect of current or future exposure on avoidable ED use. Our results indicated that for every 10-percentage point increase in the population enrolled in an FMG, there was a 3% reduction in avoidable visits to the ED made by an individual (Rate ratio = 0.97; 95% CI = 0.95, 0.99). Among those with at most 1 visit per year, we observed a significant decrease in avoidable ED visits (Rate ratio = 0.97; 95% CI = 0.95, 0.99), and non-significant effects among more frequent users. In low enrollment regions, a 10-percentage point increase in enrollment led to an 18% decrease in the number of avoidable ED visits (Rate ratio = 0.82; 95% CI = 0.78, 0.87) and no effect in high enrollment regions (Rate ratio = 1.00; 95% CI = 0.92, 1.09). We found evidence of an early protective effect that was diluted over time in certain regions. Our findings support recent calls for contractual arrangements between territory defined health and social services bodies and physicians in FMGs that provide sufficient governance and support for re-organizing primary care practices.

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75 Towards a Shared Taxonomy for Health Technology Reassessment (HTR) and Knowledge Translation (KT)

Presented by **ROSMIN ESMAIL**, Director, Alberta Health Services

The emerging field of HTR supports optimal use of technologies throughout their lifecycle. KT is required to translate HTR findings. However, no common taxonomy exists between the two leading to a gap in understanding. This work describes the taxonomy of HTR and KT and provides a conceptual relational model. Recently completed scoping reviews will be thematically analysed to identify relevant themes, language and concepts between HTR and KT. The results will be organized into a taxonomy structure. The connections, themes and interplay between both fields will be visually depicted in a conceptual model that will illustrate the alignment and relationship between concepts. The model will be critically appraised and refined repeatedly through key expert and stakeholder consultation to establish validity. The model will be tested through the application of one HTR project. Current analysis of the literature has identified two reviews: one that refers to de-adoption and reassessment taxonomy with 43 words and the other which describes 100 different terms for KT research. Unique terms for reassessment include disinvestment, decrease use and discontinue. Unique terms that describe KT include use, implementation, and adoption. Change and use were common terms between the two fields. A preliminary model depicts HTR and KT as inter-related processes: HTR synthesizes the evidence on a technology and its re-evaluation; KT provides mechanisms to share, disseminate and implement this technology-related knowledge. The model will form the basis for the work required to develop a comprehensive understanding and use of KT and its application to HTR. The work will be completed in June 2016. This work aims to provide a common taxonomy between HTR and KT leading to a better understanding of how these fields align. A validated conceptual model will be presented that will provide a foundation for advancing and applying HTR knowledge in evidence-informed decision making through KT.

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76 Feasibility and Implementation of EU-GENIE in the Health TAPESTRY Program: An online tool to enhance the use of personal networks and community-based health and social services for high health service users

Presented by **RUTA VALAITIS**, Associate Professor; Dorothy C. Hall Chair in Primary Health Care Nursing, Associate Professor; Dorothy C. Hall Chair in Primary Health Care Nursing

EU-GENIE is a web-based tool to map personal social networks and identify local community-based health and social services (CBHSS) tailored to meet individual patient interests. This study assessed feasibility, implementation, and outcomes of EU-GENIE in the context of a community-based approach to primary healthcare (the Health TAPESTRY intervention) in Hamilton. Usability testing of EU-GENIE occurred within the context of a multi-faceted primary healthcare intervention (Health TAPESTRY). Trained volunteers collect health and social information on tablets at home visits, resulting in a report sent to the interdisciplinary healthcare team via EMR for triage and follow up. Volunteers used EU-GENIE with high users of health services, completed a personal social network map and questionnaire on topics of interest (e.g., getting fit, social clubs). Client interviews (n=8), provider and volunteer focus groups (n=3), and field observations during home visits and primary care follow up were conducted to evaluate feasibility, implementation, and perceived outcomes. Analysis of implementation was based on sensitizing concepts of Normalization Process Theory: coherence, cognitive participation, collective action and reflexive monitoring. Preliminary results show that EU-GENIE increases awareness of CBHSS. Clients highly value the tool's ability to map proximity to services, but access barriers (e.g. social anxiety, mobility) prevent further uptake. For volunteers, the tool facilitates discussions about CBHSS, but more training is required to optimize use. For providers, community information was deemed valuable, but there were concerns that EU-GENIE duplicates knowledge and skills of allied healthcare staff. Results demonstrate some potential for a social network approach to healthcare, but more evidence is needed to understand how EU-GENIE used by healthcare teams can help bolster social networks for people living with complex health and social conditions. EU-GENIE identifies tailored community-based supports for adults living with complex health and social conditions, with variable acceptability. For optimal implementation, it requires well-trained volunteers to facilitate its use, and involvement of primary care providers to address barriers and leverage personal networks to support uptake of programs and services.

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77 Maternity ward environments: room for improvement

Presented by **SAFINA ADATIA**, Graduate Student, McGill University

Postpartum hospital environments should provide new mothers opportunity to rest, however, patients often experience many disruptions. This study aimed to measure noise levels and interruptions on a maternity ward in Montreal and assessed perceived benefits and barriers for a proposed quiet time, where noise and interruptions are minimized. A mixed methods research design was adopted involving a participatory research approach: noise levels were measured via Decibel 10th iPhone app; the number of interruptions (entries to patient rooms) were observed; patient experience was evaluated using a modified Canadian Patient Experiences Survey (CPES); and perceived benefits and barriers of a quiet time were explored through qualitative interviews. We computed an average mean A-weighted equivalent sound level (Leq), as well as average minimum and maximum decibel levels. We also performed ANOVA and chi-square analyses of the patient experience survey results. Thematic content analysis was used to analyze the qualitative interviews. Fifty two 30-minute observation sessions were completed to measure noise levels and interruptions. Average mean decibel levels across all stations were between 55-66 dB, equivalent to a washing machine. 204 inpatients completed the CPES survey. Interruptions were highest from family members and nurses. Primipara women (N=115) were more likely than multipara women (N=84) to perceive difficulty breastfeeding due to interruptions or visitations ($p=0.028$). Qualitative interviews were conducted with 10 postpartum women. Common perceptions included that the hospital environment was noisy, and that they experienced multiple interruptions throughout the day. All mothers felt that a quiet time would be beneficial. Potential challenges related to implementing the quiet time were identified. Noise levels were higher than recommended WHO maximum of 30-40 dB (quiet rural area), consistent with other studies. Noise and interruptions may interfere with recovery. A possible solution is a quiet time period, where noise/interruptions are reduced. This idea was welcomed by postpartum mothers. Implementation is currently underway.

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78 Learning from failures: Findings from the knowledge transfer of claims into a self-assessment program

Presented by **SARA CHOW**, Senior Healthcare Risk Management Specialist, Healthcare Insurance Reciprocal of Canada

Medico-legal files are a rich source of information, containing robust analyses of adverse events, quantification of harm in dollars spent, and a unique perspective on patient safety. To improve learning, medico-legal claims were analyzed to develop a list of top risks and design an online self-assessment program. Confidentiality is required throughout the management of lawsuits and medico-legal claims, until matters come to resolution, which often takes many years. Additionally, claims are relatively low-frequency/high-severity events best analyzed in the aggregate. Canada's largest medical malpractice insurer's vast database of medico-legal claims, which include extensive risk management coding and data on legal expenses and reserves (a prediction of final payouts), was interrogated to develop a rank-ordered list of top risks based on the total claims costs. It was determined that 30 risks accounted for >85% of all medico-legal costs in Canadian acute care hospitals. The three highest-ranked risks were: failure to respond to abnormal fetal status in obstetrics; misinterpretation of laboratory tests; and inadequate triage assessment in the emergency department. Using knowledge translation best practices, concise resources for each risk were developed outlining: claims data and common themes seen in files; real-life claims examples; the "vital few" most impactful mitigation strategies; and key references. Each document underwent external legal and clinical expert review. To further develop translation efforts, an online program was launched, enabling organizations to systematically self-assess compliance with each of the mitigation strategies. An overall mitigation score was generated for each risk and a final rank-ordered risk register provided. Results from the self-assessment are being used by organizations to focus improvement efforts and track changes over time. A strong vision for patient safety can overcome barriers to learning even in the traditionally secretive world of medico-legal claims. Developing concise, prioritized and easy-to-use knowledge translation resources can facilitate adoption.

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79 The involvement of professional associations in health policy-making: A qualitative study of Ontario health professional association leaders

Presented by **SARAH BOESVELD**, Doctoral student, McMaster University

There is a need for interest group research concentrated on organized health professional groups. This qualitative descriptive study focuses on one type of health professional group – health professional associations. We explore how policy leaders in Ontario health professional associations view their organizations' roles, interests, and motivations around health policymaking. Our findings are drawn from in-depth interviews with formal policy leaders from six established provincial health professional associations in Ontario. Associations were sampled for maximum variation in size (staff, membership) and profession funding source (public, private, mixed). Participants were purposefully selected on the basis of holding a policy-relevant leadership position within their organization at the executive or staff level. We asked questions such as how decisions are made around policy action the association undertakes, what motivates an association's involvement in policy, and who benefits from an association's involvement in policy issues. Interview transcripts were analyzed using a thematic analysis method. We conducted semi-structured interviews with twelve participants between October 2014 and August 2015. Two participants were interviewed from each of the provincial chiropractic, medicine, midwifery, nursing, pharmacy, and physiotherapy professional associations in Ontario. Data analysis is underway; preliminary analysis has identified a number of themes. A key theme is how participants described their organizations' roles in health policymaking in relation to decision makers in government, with conceptualizations ranging from 'partner' to 'gatekeeper' to 'outsider'. A second major theme highlights the complexities around pursuing professional interests, while balancing this with advancing public health- or system-oriented interests, and how to leverage the intersection of these interests. This study provides novel insights about the views of the policy leaders of health professional associations around their organizations' involvement in health policymaking. This research contributes to literature that explores interest groups in the health policy domain, and offers a Canadian context-specific interpretation of one type of group.

Co-Author(s): Sarah Boesveld, McMaster University / Julia Abelson, Centre for Health Economics and Policy Analysis, McMaster University

80 A pilot feasibility study of a primary care and addiction medicine collaborative care model, SUN: SHARE

Presented by **SHERYL SPITHOFF**, Womens College Hospital

To determine if shared-care between primary care providers (PCPs) and addiction medicine physicians leads to changes in provider knowledge and behaviour, and to increased provider and patient satisfaction with addiction treatment. We are conducting a mixed methods evaluation of a shared-care addiction medicine pilot, SUN: SHARE. In the intervention, addiction physicians facilitate addiction education sessions, assess patients with substance use disorders (SUDs), and have case discussions with primary care providers (PCPs) at the community sites. The addiction physicians also provide urgent telephone and e-mail consultations with PCPs. The three participating sites are an inner city community health centre, an inner city family health team and a community family health team affiliated with an academic centre. We will survey PCPs at baseline and six months to look for self-reported changes in knowledge and behaviours. We will use electronic medical records (EMR) to track PCPs' prescribing at baseline, six months (intervention completion), and twelve months. Additionally, we will conduct 25 patient and provider interviews. We are also collecting process measures. To date addiction physicians have seen 18 patients and participated in 13 email conversations, had five phone calls and 10 hours of case discussion with PCPs. The PCPs rate the intervention very highly; 84% also state increased confidence and comfort and 89% report increased awareness of treatment options. Challenges include a high no-show rate and enabling secure emails for all sites. Our process measures indicate that the SUNSHARE model is feasible and has good uptake by PCPs and patients. As well, the monthly evaluations from PCPs are very positive. We are currently collecting EMR data, survey data and conducting PCP and patient interviews.

Co-Author(s): Sheryl Spithoff, Womens College Hospital / Elsie Amoako, Womens College Hospital / Meldon Kahan, Womens College Hospital

81 Multinational Population-Based Health Surveys Linked to Outcome Data: An Untapped Resource

Presented by **STACEY FISHER**, PhD Student, University of Ottawa

Increasingly, national health surveys are being linked to vital statistics and health care information. This provides a new and unique source of population data which, given health surveys are performed in hundreds of countries, is potentially larger than all existing cohort studies. To date, this resource has not been utilized. The study base and methods of the Canadian Community Health Survey (CCHS) cycles 2.1 (2003-04) and 3.1 (2005-06) and the United States 2000 and 2005 National Health Interview Survey (NHIS) were examined for comparability and consistency. Smoking, alcohol, physical activity and diet questions were identified, question construct and response categorization were compared, and variable constructions possible for both national health surveys were created. All respondents 20+ years of age were identified and stratified (country and sex) Cox proportional hazard models were used to estimate 5-year hazards of mortality associated with the common smoking, alcohol, physical activity and diet variables. Health behaviour questions from the CCHS and NHIS are similar and permit the creation of smoking, alcohol, physical activity and diet variables that are comparable across surveys. A total of 284 475 survey respondents from Canada and the United States (CCHS, N= 226 731; NHIS, N= 57 744) were included. The largest mortality hazards were associated with female heavy smokers in both Canada (HR: 2.91; 95% CI: 2.52, 3.37) and the United States (Female HR: 2.96; 95% CI: 2.59, 3.38), compared to non-smokers. Moderate variation in the age adjusted all-cause mortality hazard ratios was observed; both smoking and physical activity hazard ratios were consistently higher in the United States than in Canada. This study provides initial support for pooling linked population health surveys. Pooled population health data has the potential to be larger than existing cohort studies and to improve national and international health surveillance and public health.

Co-Author(s): Stacey Fisher, University of Ottawa and the Ottawa Hospital Research Institute / Carol Bennett, Ottawa Hospital Research Institute / Claudia Sanmartin, Statistics Canada / Doug Manuel, Ottawa Hospital Research Institute

82 A Scoping Review of Human Resource Management (HRM) Strategies that Support Research Capacity Development (RCD) in Healthcare Delivery Organizations

Presented by **SUSAN CHUNICK**, Director, Department of Evaluation and Research Services, Fraser Health Authority

The objectives for this scoping review are to quantify, describe and summarize the published evidence in the human resources, organizational development, and research capacity development domains applicable to health care in order to determine if HR policy can be used as a driver to facilitate research capacity development. Study protocol was designed according to Arksey and O'Malley (2005) and York guidelines for systematic reviews (Centre for Reviews and Dissemination, 2009): 1) Specify the research question; 2) Identify relevant articles - develop a search strategy; 3) Select Articles - Develop and pilot test inclusion and exclusion criteria to ensure agreement and consistency in applying screening procedures between reviewers; Implement document management and charting strategy; Conduct initial screening of titles and abstracts; Conduct second screening of selected full text articles; Chart key data; Collate data according to categorization of types of RCD and HRM strategies; 4) Results and Discussion 616 initial articles were screened for inclusion and exclusion criteria. 129 underwent full text review; 111 were excluded. Review of the remaining 18 articles resulted in three more being excluded; final charting involved 15 articles that met all criteria. Frequencies for types of health care discipline, health care setting and location, study design, RCD issue and HRM interventions were calculated. A cross-tabulation of RCD strategies and HRM strategies was produced according to a talent management framework. 34 RCD descriptions (56% focused on facilitation, training/skill development and networks/collaborations) involved integrating and deploying people with research skills into well-structured roles/teams; 19 involved 'assess and develop' approaches; 7 focused on the recruitment (i.e. source/select) and 2 focused on retention (i.e. progress) phases of the talent management continuum. Literature describing and evaluating HRM policy support to source/select (i.e. recruit) and sustain (i.e. assess/develop and progress) individuals into RCD positions in health delivery organizations is lacking; this is a gap in understanding how best to implement RCD via HRM policy using a talent management framework in the healthcare environment.

Co-Author(s): Susan Chunick, Fraser Health Authority / Morris Barer, University of British Columbia / Michael Wasdell, Ontario Shores Centre for Mental Health Sciences / Susann Camus, Fraser Health Authority / Lanre Medu, University of Saskatchewan / Niki Baumann, CPSBC / Geoffrey Crampton, Fraser Health Authority

83 Visible Minority Immigrant's Access Barriers to Health Care in a Multicultural Metropolitan Area: A Case of the Greater Toronto Area (GTA).

Presented by **TARIQUL ISLAM**, Sessional Instructor, Dept. of Sociology, Laurentian University

The objective of this study is to investigate the challenges/barriers visible minority immigrants face in accessing the appropriate health-care services and opportunities from a holistic perspective in a Canadian metropolitan multicultural city—the Greater Toronto Area (GTA); and to recommend an appropriate health services delivery model for immigrants' population. This research uses cross-sectional research design and mixed methods to answer the research question of the study. For this research, a wide range of primary and secondary data sources are used: a self-administered questionnaire, focus group interviews and secondary data from Statistics Canada, and the Canadian Institute for Health Information. A total of 307 survey questionnaire and five focus groups discussions were conducted by convenience sampling from South Asian immigrants living in the GTA. Using the SPSS, chi-square tests were conducted to test the hypotheses, and Cramer's V and correlational analyses were conducted to determine the strengths of the association. People from different countries are migrating to Canada for a better, secure, easier and a professional life in a multicultural society with hope of a healthy and a quality of life. However, the research findings did not confirm the visibility of multicultural policy effects on immigrants' access to culturally and linguistically appropriate health-care services. The participants reported that they are not getting culturally appropriate health-care services in the GTA. The results also show that South Asian immigrants' self-rated health declined after living some time in Canada because of the barriers/challenges to accessing health-care opportunities in the GTA. The study also reported that access barriers to health care also limiting the immigrants' human development and quality of life they are aspiring in Canada. As a result of access barriers to health care, immigrants' health is deteriorating and they are not being able to contribute in our society. Immigrants' access to health-care should be considered a priority for their well-being and integration into the Canadian society; therefore, they can fully participate and contribute.

84 Patient-reported outcomes and surgical triage: A gap in patient-centered care?

Presented by **TRAFFORD CRUMP**, Adjunct Lecturer, University of Calgary

The extent to which British Columbia's prioritization system for elective surgery concords with patients' self-assessed health status is not known. This study's objective is to measure the association between the priority assigned to patients and their patient-reported outcomes collected at the time they are enrolled on the surgical wait list. Patients waiting for elective surgery in the Vancouver Coastal Health authority were sampled. Participants completed a set of generic and condition-specific patient-reported outcomes instruments, including the: EQ-5D(3L) (general health), PEG (pain), and the PHQ-9 (depression). A multivariate ordered logistical model was used to regress patient-reported outcome values on the priority level assigned at the time of wait list registration. A total of 2,725 participants completed the survey package (response rate 49%). Using the EQ-5D(3L), 63%, reported having problems with pain or discomfort, 41% problems performing usual activities, 36% problems with depression or anxiety, 28% problems with mobility, and 8% reported a problem with self-care. The results from the ordered logistical model indicated very little association between the patient-reported outcomes and wait list priority levels, when adjusted for patient factors. This study observed no relationship between patients' self-reported health status and their assigned priority level for elective surgery. A more patient-centered approach to triaging patients for surgical treatment would incorporate patients' perspective in surgical wait list prioritization systems.

Co-Author(s): Trafford Crump, University of Calgary / Jason Sutherland, University of British Columbia / Guiping Liu, University of British Columbia

85 Is palliative care coding in Canada effecting mortality indicator results?

Presented by **VIACHASLAU HERASIMOVICH**, Senior Analyst, Canadian Institute for Health Information

The purpose of the project was to assess coding of palliative care in the Canadian clinical administrative data over the years as well to explore any potential impact of these changes on in-hospital mortality indicator such as Hospital Standardized Mortality Ratio (HSMR). A retrospective analysis of acute care inpatient hospitalizations from the Hospital Morbidity Database between fiscal years 2006-2007 to 2012-2013 was conducted. Descriptive statistics such as percentages and medians were used. Linear regression was constructed to evaluate the change of palliative care coding over time. The HSMR is the ratio of observed deaths to expected deaths, multiplied by 100. Palliative care cases are excluded from the regular HSMR calculation. To assess the impact of coding changes on this health system performance indicator, HSMR including palliative care cases were calculated for this study and compared with HSMR results excluding palliative care cases. The analysis showed an increase in the frequency of palliative care coding over the study period from 0.78% in 2006-2007 to 1.12% in 2012-2013. During this period nationally the HSMR declined by 22% with improvement in all provinces except Newfoundland and Labrador. Provincial and facility-level analyses indicated inconsistent correlations between increases in palliative care coding and improvement in HSMR results. However, there were other significant contributors to improving HSMR results aside from changes in palliative care coding such as reductions of in-hospital mortality, changes in patient characteristics and an increase in number of coded comorbidities. Moreover, provincial results for HSMR including palliative care cases were not significantly different from regular HSMR calculation. Our results show that nationally palliative care coding increased following the introduction of the coding standard, but remained stable after the initial uptake. Overall HSMR improvement may be explained by other independent drivers. We found that the effect of palliative care coding on HSMR indicator results remains modest.

Co-Author(s): Viachaslau Herasimovich, CIHI / Zeerak Chaudhary, CIHI / Joseph Emmanuel Amuah, CIHI / Yana Gurevich, CIHI

86 Leveraging Competition for Quality Improvement in the Canadian Context

Presented by **VICTORIA HAGENS**, Group Manager, Regional Programs and Performance Management, Cancer Care Ontario

As the provincial agency responsible for continually improving cancer services, Cancer Care Ontario (CCO) has a robust performance management system rooted in the Ontario Cancer Plan. One effective means of promoting quality improvement has been to foster healthy competition among the Regional Cancer Programs (RCPs) through the Regional Performance Scorecard. The Regional Performance Scorecard is comprised of about 15 performance indicators, selected annually through a priority and target setting process involving the clinical and administrative leadership of the cancer system, as well as patient and family advisors. Indicators and targets are selected based on their prioritization in the Ontario Cancer Plan and vetted against a set of criteria to ensure that they can be effectively used for performance management purposes. The scorecard is produced quarterly, measuring the performance of the RCPs against mutually agreed-upon provincial targets, and ranking the RCPs against one another in an overall summary of performance. The Scorecard results are reviewed each quarter by the leadership of the RCPs and CCO, as well as the CEOs and Boards of Directors of the cancer centre hospitals. Performance against the provincial targets is closely monitored, and thresholds for poor and declining performance are used to trigger escalation. Anecdotal evidence suggests that the RCPs are keenly aware of their rank in relation to their peers, and in some cases the Scorecard rank is tied to the compensation packages of the programs' executive leadership. Between 2006 and 2015, 12 out of 34 indicators used in the Scorecard were later retired because the targets were achieved provincially, and of the 13 indicators in use in 2014-15, 7 showed statistically significant improvement over the previous year. The apparent effectiveness of the Scorecard suggests that a collaborative approach, grounded in mutually agreed-upon priorities, can leverage healthy competition to meet quality goals.

Co-Author(s): Victoria Hagens, Cancer Care Ontario / Elaine Meertens, Cancer Care Ontario

87 Efficiency of Ontario Primary Care Physicians: A Stochastic Frontier Analysis

Presented by **WALTER WODCHIS**, Associate Professor, Health System Performance Research Network

The study examines the relationship between the primary care model that a physician belongs to and the efficiency of the primary care physician in Ontario, Canada. Survey data were collected from 183 self-selected physicians and linked to administrative databases to capture the provision of services to the patients served for the 12 month period ending June 30, 2013, and the characteristics of the patients at the beginning of the study period. Two stochastic frontier regression models were used to estimate efficiency scores and parameters for two separate outputs: the number of distinct patients seen and the number of visits. Because of missing data, only 165 physicians were included in the analyses. The average efficiency was 0.72 for both outputs. After controlling for explanatory variables including patient and physician practice characteristics, efficiency scores varied within and across models. FFS physicians had the lowest efficiency scores. After adjusting for the number of hours spent on direct patient care and the duration of the consultations, factors affecting efficiency for both outputs included capitation payment, interdisciplinary care, and socio-economic status of the physician's patients. Efficiency, measured as the number of visits, decreased with the percentage of female patients and efficiency, measured as the number of patients, decreased with the age of the patients. Results show that efficiency is sensitive to how the provider practices in terms of the duration of the visits and time spent on direct care. Both of these characteristics of care may be influenced by the payment schemes to physicians.

Co-Author(s): Maude Laberge, University of Florida / Walter Wodchis, University of Toronto / Jan Barnsley, University of Toronto / Audrey Laporte, University of Toronto

88 Information for improved primary care practices and better patient care

Presented by **WISSAM HAJ-ALI**, Senior Methodologist, Health Quality Ontario

Family physicians and administrators working in primary care practices are dedicated to quality care but often lack access to data to inform their quality improvement efforts. To address this issue, we have worked on developing audit and feedback reports that provide comparable regional and provincial data to guide practice improvement. A collaborative effort led by the Ontario's provincial advisor on quality, a research institution and professional organizations resulted in the development of primary care practice reports for physicians, as well as for administrators in multi-disciplinary primary care organizations. The development of these audit and feedback reports was informed by the efforts of a user reference group as well as an advisory committee that included researchers, data experts and clinicians. Additionally, the content and format of the reports were informed by the latest evidence on audit and feedback reporting. The collective efforts resulted in development of the primary care practice (PCP) Reports. PCP Reports provide cross-sectional and longitudinal aggregate data on cancer screening, diabetes management, patterns of service use, practice demographics and case mix. The reports are drawn from administrative databases and provide information at the physician, regional and provincial levels. Suggested change ideas are also provided to help practices get started on their quality improvement efforts. By reflecting on their current performance, they identify and select an improvement target and test one or more of the change ideas to move their practice toward the target. The PCP Reports are available for all primary care physicians in the province as well as Family Health Teams and Community Health Centres. The PCP Reports are an example of collaborative efforts that translate research data into meaningful information for physicians and administrators that fuel action for practice improvement to improve patient care.

89 New model of healthcare delivery - Telehomecare Program for chronic obstructive pulmonary disease (COPD) and heart failure (HF)

Presented by **YEVA SAHAKYAN**, Research Associate, THETA Collaborative

Piloted in 2007, the Telehomecare program supports patients with chronic obstructive pulmonary disease (COPD) and heart failure (HF) using coaching and remote monitoring. The objective of this abstract is to describe program volume, patient population, and services provided to patients accessing Telehomecare. This descriptive study evaluates the overall patterns of program use patient and service level characteristics. Study population includes COPD and HF patients enrolled in Telehomecare in the Central West (CW), North East (NE) and Toronto Central (TC) Local Health Integrated Network (LHINs). Data from July 2012-2015 was extracted from the Ontario Telemedicine Network database. Continuous variables were described using median and interquartile range, and compared across three LHINs using a one-way analysis of variance ANOVA or Kruskal Wallis test. Categorical variables were described using contingency tables and compared using Chi-square test. Since its launch in 2012, 6370 participants were referred, out of which 4036 enrolled in the program. Highest enrolment rate was reported in CW (78.3%), followed by NE (63.8%), and TC (55.7%) LHINs. As per program definition, 557 (57.7%), 535 (52.5%), and 590 (44.2%) patients were 'successfully discharged' in the CW, NE, and TC LHINs respectively. Average age of patients was 74.5 ± 11.2 , 52% were women and 56% were HF patients. Overall, 40% patients had diabetes and 57% lived with hypertension. Over 85% of patients were taking five or more medications. Upon enrolment, weekly coaching sessions were planned for 80-90% of patients. However only 9% of patients received weekly coaching, 26% received 2-3 sessions/month, and rest of the patients received 0-1 session per month. Telehomecare users are elderly with high prevalence of diabetes and hypertension, taking five or more medications. Considering half of patients successfully completed the program, our current focus is on studying factors that may impact unplanned discharge rates. Conclusions regarding low numbers of coaching sessions are speculative because of problematic documentation.

Co-Author(s): Valeria Rac / Nida Shahid / Yeva Sahakyan / Aleksandra Stanimirovic / Welson Ryan / Murray Krahn

90 Life stages and trajectories in biobank data: the Canadian Health Measures Survey (CHMS) cycle 1 to 3

Presented by **YI-SHENG CHAO**, Postdoctoral fellow, Université de Montréal

Life stages are not clearly defined despite the fact that it has been propagated to adopt a life-course perspective to study disease occurrence or use a life-cycle approach to assess biological development. This study aimed to test the feasibility of identifying life stages with biobank data. This study analyzed the data on the Canadian Health Measures Survey (CHMS) interviewees from 2007 to 2013. This study first removed redundant variables with the Spearman's correlation. Principal component analysis (PCA) was used to summarize data. Each of the 99 categorical variables left was replaced by 302 binominal variables. This led to 493 variables available for PCA. Life stages were assumed to be periods of ages with significantly different values of principal components (PCs). When appropriate, p values were adjusted for multiple comparisons with the Benjamin and Hochberg method. There were 16340 observations eligible for analysis. The age ranged from 0 to 90 years (mean=35.88 years, 95% CI=35.67 to 36.09). The estimated population size was 29.48 million. The proportion of females was 50.03% (95% CI= 48.54% to 51.53%). The mean age was 39.63 years (95% CI=39.17 to 40.10). By conducting pairwise comparisons of mean values of PCs, there seemed to be cut-off ages that separate certain life stages. The differences of PC1 were not significant between age 6 to 10, 12 to 14, 20 to 26, 27 to 29, 30 to 46, 53 to 59, 60 to 76, and 77 to 79 (adjusted p values>0.05 for all). The identification of stable life stages in biobank data will be important for research that relies on a research population with similar characteristics to draw samples for observation or intervention. These life stages also serve as an important reference for epidemiological investigation that sometimes stratify ages without empirical evidence.

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“

Harkness Fellows as well as U.S. and international health policy experts have opened my eyes to the opportunities for us to learn from each other and to apply our knowledge to improve our own healthcare systems. My fellowship, based in Washington D.C. at the Office of the Assistant Secretary for Planning and Evaluation, provided me with an extraordinary opportunity to work with senior Administration officials and study bundled payments, one of the many innovative reform strategies being piloted in the United States. The experience gave me crucial insights into how the U.S. government implements and evaluates health policies, enriching my own research and thinking about knowledge translation of health system funding reforms.

”

Jason Sutherland

(2012–13 Harkness/CFHI Fellow)

Associate Professor

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As this year's conference theme pertains to engagement, this version of the **CAHSPR On the Move!** engages you with the city of Toronto. Throughout the conference, please take some time to visit any of the places, monuments, or attractions selected by the **Student Working Group Networking Subcommittee**. You are encouraged to take your picture, a group picture, or a video and post it to your preferred social media site (e.g. Twitter, LinkedIn, etc.) using the hashtag **#CAHSPROTM2016**. Each day a prize worth \$50 will be awarded to the conference attendee who is the most active in getting outside and seeing Toronto!

- **CN Tower** (301 Front St. West) <http://www.cntower.ca/en-ca/plan-your-visit/location/how-to-get-here.html>
- **Hospital Row** https://localwiki.org/toronto/Hospital_Row
- **Queen's Park** (111 Wellesley St W) <http://www.ontla.on.ca/lao/en/coming-to-queens-park/location-and-parking/>
- **Art Gallery of Ontario** (317 Dundas Street West) <http://www.ago.net/visit>
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- **Royal York Hotel** (100 Front Street W) <http://www.fairmont.com/royal-york-toronto>
- **Kensington Market** www.kensington-market.ca/Default.asp
- **The Village** (Church & Wellesley) <http://www.churchwellesleyvillage.ca/>
- **Casa Loma** (1 Austin Terrace) <http://www.casaloma.org/>
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- **Allan Gardens** (160 Gerrard St E) <http://www1.toronto.ca/parks/prd/facilities/complex/41/>
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- **Toronto Islands/Gibraltar Point Lighthouse:** Rent a bike and tour the island (Lakeshore Avenue) <http://bit.ly/1NkRsZE>
- **Greek Restaurant: Messini** (445 Danforth Ave, Toronto) <http://www.messini.ca/>
- **Thai Restaurant: Pai** (18 Duncan St, Toronto) <http://www.paitoronto.com/#main>
- **Canadian Fine Dining: Canoe** (55th floor of Toronto Dominion Centre, 66 Wellington St W, Toronto) <http://oliverbonacini.com/Canoe.aspx>
- **New American Casual Dining/Bar: Weslodge** (Fashion District, 480 King Street West, Toronto) <http://weslodge.com/>

The CIHR Institute of Health Services and Policy Research (IHSPR) would like to congratulate the 2016 Article of the Year and Rising Star award winners. **We encourage you to meet and congratulate the winners at the conference!**

CIHR-IHSPR Article of the Year

"Estimated cost of universal public coverage of prescription drugs in Canada"



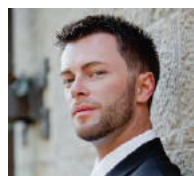
Dr. Steve Morgan is a Professor in the **School of Population and Public Health at the University of British Columbia**. He is Leader of Canada's Pharmaceutical Policy Research Collaboration and founder of Pharmacare 2020, a campaign to promote evidence-informed conversation about the future of prescription drug coverage in Canada. His work aims to help governments balance three goals: providing equitable access to necessary medicines, managing health care spending responsibly, and providing incentive for valued innovation.

Morgan, SG., Law M., Daw JR., Abraham L., & Martin M. (2015). *Estimated cost of universal public coverage of prescription drugs in Canada*. CMAJ, 187(7), pp. 491-497.

CIHR-IHSPR Rising Stars

Dr. Kate Smolina is a Banting Postdoctoral Fellow at the **University of British Columbia**, currently on secondment to the **BC Centre for Disease Control**. Her work combines health services research and pharmacoepidemiologic methods to study a full spectrum of factors that influence population medicine use and health outcomes.

Smolina K, Gladstone E., & Morgan S. (2015). **Prescription Opioid Monitoring and Surveillance in BC: Current state and future directions**. Vancouver, BC: Centre for Health Services and Policy Research, University of British Columbia

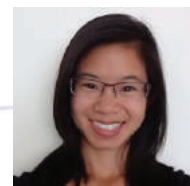


Dr. Dan Niven is an intensive care physician in the Department of Critical Care Medicine at the **University of Calgary**. He recently completed his PhD in health services research at the University of Calgary, focusing on the implementation science field of de-adopting ineffective or harmful clinical practices.

Niven DJ., Rubenfeld GD., Kramer AA., Stelfox HT. **The effect of published scientific evidence on glycemic control in adult intensive care units**. JAMA Internal Medicine 2015, 175(5), 801-809.

Chi-Ling Joanna Sinn is a Ph.D. student in Aging, Health, and Well-being at the **School of Public Health and Health Systems**, University of Waterloo. Her areas of research include care transitions, resource allocation, and quality improvement.

Sinn JCL, Jones A, McMullan J, Ackerman N, & Hirdes J – **The Personal Support Algorithm: An evidence-informed framework for allocating personal support services in Ontario's home and community care services**



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<http://www.cihr.ca/e/36098.html>

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Follow @CAHSPR
Hashtag #CAHSPR

Twitter: How To




To create an account

- Go to <http://twitter.com> and find the sign up box, or go directly to <https://twitter.com/signup>
- Enter your **full name**, **email address**, and a **password**.
- Click **Sign up for Twitter**.
- On the next page, you can select a **username** (usernames are unique identifiers on Twitter) — type your own or choose one Twitter has suggested. They will tell you if the username you want is available.
- **Double-check** your name, email address, password, and username.
- Click **Create my account**.
- Twitter will send a **confirmation email** to the address you sign up with, click the link in the email to confirm your email address and account.

Find and follow others

The next step is to find and follow other interesting Twitter accounts. Look for businesses you love, public service accounts, people you know, celebrities, or new sources that interest you. **TIP:** One great way to find accounts to follow is to see who those you admire are following. You find accounts by using the search tool.

Check Your Timeline: See what's happening

Tweets from those you follow will show up on your Twitter homepage – called your **Timeline**. New Tweets will show up every time you log on. Click links in others' Tweets to view articles, images or videos they've linked to. Click hashtagged  keywords to view all Tweets about that topic.

Start Tweeting!

It can be fun and exciting to contribute to your own Twitter content! When people get interested in what you are Tweeting, they may follow YOU to see what you have to say! Here are some tips to get started:



Build a Voice: Retweet, Reply, React

Use existing **Tweets** on Twitter to find your own voice and show others what you care about. **Retweet** messages that you love, or **@reply** with your reaction to a Tweet you find interesting.



Mention: Include Others in Your Content


When you're ready to make your own **Tweets**, consider mentioning others by using their Twitter username (preceded by the @ sign) in your **Tweets**. This will draw more eyes to your message and might even start a conversation!







Tweet Regularly

The best way to gain followers is to engage and contribute by **Tweeting** regularly in a meaningful way.

#Hashtag

Definition: The  symbol, called a hashtag, is used to mark keywords or topics in a Tweet. It was created organically by Twitter users as a way to categorize messages.

- Tweet users use the  symbol before a relevant keyword or phrase (no spaces) in their **Tweet**.
- Clicking on a  work in any message shows you all other **Tweets** marked with that keyword.
- The  can be used anywhere in the **Tweet** – beginning, middle, or end.
- Words that have a  become very popular and are often Trending Topics.

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