

**better research,
better decisions,
better health.**



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

Making Good on the Triple Aim:

How to Improve our Success within the Canadian Context



Conference Program

2013 Annual CAHSPR Conference

May 28-30, 2013 • Pre-Conference Day: May 27, 2013

Sheraton Wall Centre • Vancouver, BC

cahspr.ca

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

Platinum



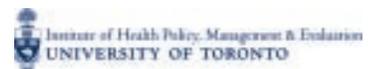
Gold



Health
Canada

Santé
Canada

Silver



Bronze



Supporting Members



Supporters



Media

Longwoods.com

Table of Contents

WELCOME		FEATURED SUPPLEMENTS	
Sponsors	2	Concurrent Sessions Abstract Guide	G38 – G87
Welcome Letter	4	Stream A	G39
Acknowledgements	5	Stream B	G45
		Stream C	G53
PROGRAM		Stream D	G60
Conference At-A-Glance	6	Stream E	G67
Program Agenda	12	Stream F	G74
Keynote Speakers	22	Stream G	G81
Concurrent Sessions At-A-Glance	26		
Poster Presentations At-A-Glance	31	Poster Presentations Abstract Guide	G88 – G123
		Day 1	G89
GENERAL INFORMATION		Day 2	G107
Publicity	124 – 125		

Accreditation

Attendance at this program entitles certified Canadian College of Health Leaders members (CHE / Fellow) to 1.75 Category II credits for May 27, 2013 2013 Pre-Conference and 9 MOC II credits for 2013 CAHSPR Conference toward their maintenance of certification requirement.



Canadian College of
Health Service Executives
Collège canadien des
directeurs de services de santé

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada, and approved by the Division of Continuing Professional Development, University of Manitoba for a maximum of 25 credits. Participants should only claim credit for the actual number of hours attended.

Making the Most of CAHSPR

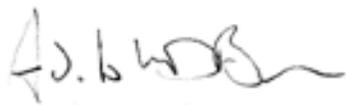


Welcome to the CAHSPR conference, our annual showcase event for health services and policy research and evidence-informed practice in Canada. This conference is also our place to connect, to network and learn about what others are doing and how each of our efforts can complement, enrich, or amplify the work of others.

CAHSPR is the “big tent” under which many individuals and organizations come to advance the cause of evidence-informed health system decision-making. It’s also place where researchers and practitioners – whether system decision-makers, clinicians or policy- makers – can engage in more in-depth discussions and connections within specific areas of focus as conference sub-themes, and now, more than ever, with theme groups within CAHSPR. Using our Website as a meeting place for ideas and information exchange will increase the profile and reach of those with common special interests. You can expect to see major revisions in the content, format and functionality of the Website in the Fall of 2013 but you can still plan to get involved with one of the active theme groups - the Mental Health Theme Group; Primary Healthcare Theme Group; Collaborative Healthcare Improvement Partnerships, Applied Research in Cancer Care; Health Human Resources; and the Student Working many of which will be holding business meetings here, during the conference.

CAHSPR can be a powerful vehicle for collective action toward evidence-informed health system decision-making. Realizing its potential requires engagement and commitment of individuals and organizations who share that goal. Please do plan to be “part of the action” by attending and contributing to the conference content each year; visiting and commenting on our Website; Tweeting about CAHSPR; joining a theme group; and, of course, joining us right here at the conference for our Annual General Meeting to be held on Wednesday, May 29, 2013 from in 7:30am – 9:00am in the Grand Ballroom where you’ll learn more about CAHSPR and how you can get involved.

Hope to see you there!



Adalsteinn Brown
President, Canadian Association for Health Services and Policy Research

Please visit our website at: www.cahspr.ca

Thank you to the Conference and Local Planning Committees for their continued commitment and support

Adalsteinn Brown

President, Canadian Association
for Health Services and Policy Research

Lillian Bayne

Executive Director, Canadian Association
for Health Services and Policy Research

Stirling Bryan (Conference Co-Chair)

Director, Centre for Clinical Epidemiology and
Evaluation, Vancouver Coastal Health Research
Institute, Professor, School of Population and
Public Health, University of British Columbia

Heather Davidson (Conference Co-Chair)

Assistant Deputy Minister, Ministry of Health

Craig Mitton (Scientific Co-Chair)

University of British Columbia

Sabrina Wong (Scientific Co-Chair)

Associate Professor, University of British
Columbia

Erik Landriault

Assistant Director, CIHR Institute of Health
Services and Policy Research

Ruth Lavergne

Doctoral Candidate, Centre for Health Services
and Policy Research

Anne McFarlane

Vice President, Western Canada and
Developmental Initiatives, Canadian Institute for
Health Information

Meghan McMahon

Assistant Director, CIHR Institute of Health
Services and Policy Research

Steve Morgan

Associate Professor, Centre for Health Services
and Policy Research

Victoria Schuckel

Director, Research and Library Services, Ministry
of Health, Province of British Columbia

Saskia Sivananthan

BSc. MSc. PhD Candidate, Centre for Health
Services and Policy Research

Jeremy Veillard

Vice President, Research and Analysis,
Canadian Institute for Health Information

Sally Cleford

President, Face 2 Face Events Management

Thank you to the Abstract Reviewers

Julia Abelson

Carol Adair

Shabnam Asghari

Morris Barer

Stirling Bryan

Tania Conte

Graham Dickson

Francois Dionne

Malcolm Doupe

Lidia Engel

Joseph Gerbran

Laurie Goldsmith

Michael Green

Stefan Grzybowski

Lindsay Hedden

Brian Hutchison

Jean Kozak

Hans Krueger

Eric Latimer

Ruth Lavergne

Michael Law

Christine Loignon

Patricia Martens

Ruth Martin-Misener

Lisa Masucci

Maria Mathews

Kim McGrail

Barbara Mintzes

Amanda Newton

Jeremy Petch

Julie Polisena

Anne Sales

Michael Scheltgen

Cindy Shearer

Sam Sheps

Patricia Sullivan-Taylor

Jason Sutherland

Chantal Sylvain

Olga Szafran

Gail Tomblin Murphy

Ghislaine Tre

Deborah Tregunno

Dominique Tremblay

Logan Trenaman

Elizabeth Wilcox

Don Wildfong

Walter Wodchis

Sabrina Wong

Natalia Yavich

Wei Zhang

Naisu Zhu

CAHSPR Welcomes our Exhibitors

Accreditation Canada

Canadian Foundation for Healthcare
Improvement

Canadian Health Human Resources Network

Canadian Institute for Health Information

Canadian Institutes of Health Research –

Institute of Health Services and Policy Research

Canadian Nurses Association

Canadian Partnership Against Cancer

Centre for Health Services and Policy Research

Health Council of Canada

Health System Performance Research Network

Pharmaceutical Policy Research Collaboration

POP Data BC

Vancouver Coastal Health Research Institute

Supporting Students

Title Sponsor of the Student Subsidy Program

Canadian Institutes of Health Research – Institute of Health Services and Policy Research

Supporters of the Student Subsidy Program

Canadian Medical Association, Fonds de recherche santé Québec, Health Canada

The individuals and organizations that make up CAHSPR are committed to providing students with opportunities to engage in professional activities at the annual CAHSPR conference and throughout the year. With the support of the conference sponsors identified below, CAHSPR is able to offer the student fee waiver and travel subsidy program. This offered critical financial support for student presenters at CAHSPR who would not otherwise have funding to attend the conference. Thank you sponsors!

Conference At-A-Glance



Monday, May 27, 2013 Pre-Conference Day

1:00pm – 3:00pm	Meeting of the CAHSPR HHR Theme Group	GALLIANO
1:00pm – 5:00pm	Grant Writing Workshop	PORT MCNEIL
1:30pm – 4:30pm	Getting Your Message Out: A Media Skills Workshop	GRAND BALLROOM D
3:00pm – 4:30pm	PHC Theme Group Business Meeting	ORCA
3:00pm – 4:30pm	Mental Health Theme Group Business Meeting	PORT ALBERNI
3:00pm – 5:00pm	CHIPS Theme Group Business Meeting	GRANVILLE
3:00pm – 5:00pm	Maternal Child Theme Group Business Meeting & Reception	AZURE
5:00pm – 6:00pm	Primer on Triple Aim Conference Theme	PARKSVILLE
6:00pm – 8:00pm	Mix n' Mingle Reception <i>*This session sponsored by Accreditation Canada</i>	LOBBY TERRACE

Tuesday, May 28, 2013 Conference Day 1

6:30am – 7:30am	CAHSPR on the Move	HOTEL LOBBY (6:15am)
7:30am – 9:00am	Networking Breakfast	GRAND BALLROOM
9:00am – 9:15am	Welcome Remarks	GRAND BALLROOM
9:15am – 10:15am	Keynote Presentation – Controlling cost through increasing value: A view from the South	GRAND BALLROOM
10:15am – 10:30am	Health Break	
10:30am – 12:00pm	Sub-Plenary Sessions	
	SPI Pursuing the Triple Aim: Measuring Progress, Performance and Outcomes <i>*This session sponsored by Canadian Institute for Health Information</i>	GRAND BALLROOM
	SP2 Engaging physicians on the Triple Aim: Opportunities and Challenges	PAVILION AB
	SP3 Achieving the Triple Aim: Lessons from the South, Lessons to the South	PAVILION C
12:00pm – 1:00pm	Networking Lunch	GRAND BALLROOM

1:00pm – 2:15pm	Concurrent Sessions – STREAM A (At-A-Glance: pg. 27; Abstract Guide: pgs. G39 – G44)	
A1	Achieving the Triple Aim through Evidence-Informed Disinvestment in Healthcare (Panel Presentation)	PAVILION D
A2	Cancer and Equity (Oral Presentations)	PARKSVILLE
A3	Mental Health (Oral Presentations)	PAVILION A
A4	Priority setting and Health Technology Assessment (Oral Presentations)	PAVILION B
A5	Pharmaceutical Policy (Oral Presentations)	FINBACK
A6	Healthcare Leadership (Oral Presentations)	PAVILION C
2:15pm – 2:30pm	Transition	
2:30pm – 3:45pm	Concurrent Sessions – STREAM B (At-A-Glance: pg. 27; Abstract Guide: pgs. G45 – G52)	
B1	Health Care Quality (Oral Presentations)	PAVILION A
B2	Health Care Quality and Research (Oral Presentations)	PAVILION D
B3	Primary Care (Oral Presentations)	PAVILION B
B4	Health Policy and Politics (Oral Presentations)	PAVILION C
B5	Pharmaceutical Policy (Oral Presentations)	FINBACK
B6	Health Human Resources (Oral Presentations)	PARKSVILLE
3:45pm – 4:00pm	Health Break	
4:00pm – 5:30pm	Keynote Plenary Panel – The Pan-Canadian Health Reform Analysis Network (PHRAN) <i>*This session sponsored by Canadian Institutes of Health Research - Institute of Health Services and Policy Research</i>	GRAND BALLROOM
5:30pm	Closing	GRAND BALLROOM
5:30pm – 7:15pm	Poster Viewing Reception (At-A-Glance: pgs. 31 – 37; Abstract Guide: pgs. G89 – G106) <i>*This session sponsored by Michael Smith Foundation for Health Research</i>	JUNIOR BALLROOM
6:00pm – 7:00pm	Speed Networking Event	PAVILION AB

Wednesday, May 29, 2013

Conference Day 2

6:30am – 7:30am	CAHSPR on the Move	HOTEL LOBBY (6:15am)
7:30am – 9:00am	Networking Breakfast & Annual General Meetings <ul style="list-style-type: none"> ▪ CAHSPR Annual General Meeting ▪ Hall Foundation Annual General Meeting 	GRAND BALLROOM
9:00am – 9:15am	Welcome Remarks	GRAND BALLROOM
9:15am – 10:15am	Emmett Hall Lecture	GRAND BALLROOM
10:15am – 10:30am	Health Break and Transition	
10:30am – 12:00pm	Sub-Plenary Sessions	
	SPI Foundations for Integration: Engaging PHC Providers in Local/Regional Governance	PAVILION C
	SP2 A whole systems approach to implement Triple-Aim: Solutions for a “wicked problem”	GRAND BALLROOM
	SP3 Listening to patients and families: Can we improve the patient experience while improving population health and value for money? <i>*This session sponsored by Accreditation Canada</i>	PAVILION D
12:00pm – 1:15pm	Networking Lunch and Awards Presentations	GRAND BALLROOM
1:15pm – 2:30pm	Concurrent Sessions – STREAM C (At-A-Glance: pg. 28; Abstract Guide: pgs. G53 – G60)	
	C1 Tweets, Blogs, OpEds and YouTube: Advocating for Evidence in the Online Dialogue about Health Policy (Panel Presentation)	PAVILION A
	C2 Health Economics (Oral Presentations)	PAVILION D
	C3 Equity (Oral Presentations)	PARKSVILLE
	C4 Healthy Policy, e-Health and Capacity Building (Oral Presentations)	FINBACK
	C5 Performance management (Oral Presentations)	PAVILION C
	C6 Knowledge Translation and Exchange (Oral Presentations)	PAVILION B
2:30pm – 2:45pm	Transition	

2:45pm – 4:00pm	Concurrent Sessions – STREAM D (At-A-Glance: pg. 28; Abstract Guide: pgs. G60 – G66)	
D1	Everything you always wanted to know about health economics, but were afraid to ask (Panel Presentation)	PAVILION D
D2	Research Methods and Operations Research (Oral Presentations)	PAVILION A
D3	Health Policy and Health Economics (Oral Presentations)	PAVILION C
D4	Quality and Safety (Oral Presentations)	PARKSVILLE
D5	Cancer Care (Oral Presentations)	FINBACK
D6	Qualitative Research Methods and Models of Care (Oral Presentations)	PAVILION B
4:00pm – 4:15pm	Health Break and Transition	
4:15pm – 5:30pm	Concurrent Sessions – STREAM E (At-A-Glance: pg. 29; Abstract Guide: pgs. G67 – G74)	
E1	Measuring the Impact of Knowledge Organizations in Achieving the Triple Aim: Innovative Research, Challenges and Practice Solutions (Panel Presentation)	PAVILION D
E2	Primary Care (Oral Presentations)	PAVILION C
E3	Equity (Oral Presentations)	PAVILION A
E4	Knowledge Translation and Exchange (Oral Presentations)	PAVILION B
E5	Health Human Resources and Capacity Building (Oral Presentations)	PARKSVILLE
E6	Primary Care (2) (Oral Presentations)	FINBACK
5:30pm – 7:15pm	Poster Viewing Reception (At-A-Glance: pgs. 31 – 37; Abstract Guide: pgs. G107 – G124)	JUNIOR BALLROOM
5:30pm – 8:00pm	Mental Health Theme Group Social Activity	PORT MCNEIL
7:30pm – 10:00pm	Student Social (led by the Student Working Group)	HOTEL LOBBY (7:15pm)

Thursday, May 30, 2013

Conference Day 3

7:30am – 9:00am	Networking Breakfast	GRAND BALLROOM
9:00am – 10:30am	Sub-Plenary Sessions	
	SPI Tackling Canada's Leading Cause of Disease Burden: Policy Approaches for Better Addressing Depression	PAVILION C
	SP2 Triple Aim and Economic Analysis: Opportunity or Opportunity cost?	GRAND BALLROOM
	SP3 Improving Population Health: Adding Health to Health Care	PAVILION D
10:30am – 10:45am	Health Break	
10:45am – 12:00pm	Concurrent Sessions – STREAM F (At-A-Glance: pg. 29; Abstract Guide: pgs. G74 – G80)	
	F1 Clash of the Titans; Integrating Primary and Community Care (Panel Presentation)	PAVILION D
	F2 Equity (Oral Presentations)	PAVILION A
	F3 Primary Care (Oral Presentations)	PAVILION B
	F4 Knowledge Translation and Exchange (Oral Presentations)	PAVILION C
	F5 Mental Health (Oral Presentations)	PARKSVILLE
	F6 Primary Care (2) (Oral Presentations)	FINBACK
12:00pm – 1:15pm	Lunch & Poster Awards <i>*This session sponsored by Canadian Institutes of Health Research - Institute of Health Services and Policy Research</i>	GRAND BALLROOM
1:15pm – 2:30pm	Concurrent Sessions – STREAM G (At-A-Glance: pg. 30; Abstract Guide: pgs. G81 – G87)	
	G1 Healthcare Leadership and Patient Centred Care (Oral Presentations)	PAVILION D
	G2 Equity (Oral Presentations)	PARKSVILLE
	G3 Primary Care (Oral Presentations)	PAVILION B
	G4 Performance Management (Oral Presentations)	PAVILION C
	G5 Quality and Safety (Oral Presentations)	FINBACK
	G6 Primary Care, Mental Health and Cancer (Oral Presentations)	PAVILION A
2:30pm – 2:45pm	Health Break	
2:45pm – 3:45pm	Keynote Plenary Panel – Pursuing the Triple Aim: Reflections from the UK	GRAND BALLROOM
3:45pm – 4:00pm	Closing Remarks	GRAND BALLROOM

Program Agenda



Monday, May 27, 2013

Pre-Conference Day

1:00pm – 3:00pm	Meeting of the CAHSPR HHR Theme Group <i>Coordinated by the CAHSPR Health Human Resources Theme Group</i>	GALLIANO
1:00pm – 5:00pm	Grant Writing Workshop <i>This workshop is sponsored by CIHR's Institute of Health Services and Policy Research and will be offered in English only.</i> The CIHR Institute of Health Services and Policy Research (IHSPR) will host its annual grant writing workshop, "Grant Writing 101". This session will feature experts: Dr. Patricia Martens, Director of the Manitoba Centre for Health Policy at the University of Manitoba and Dr. Robyn Tamblyn, Scientific Director of CIHR's IHSPR. Drs. Martens and Tamblyn will present the key elements of a strong grant application, tips and techniques for successful grant writing, and identify characteristics of high-quality peer reviews. Participants will assess and critique a CIHR grant application and assess the quality of the peer reviews the applications received. This workshop is an excellent opportunity for trainees and new investigators to build skills necessary for a successful career in research. Registration and completion of pre-work (reading a grant, preparing a review, submitting the review and score prior to the workshop) are required in order to participate. Attendance is limited to 75 participants and priority will be given to individuals who have not attended in the past.	PORT MCNEIL
1:30pm – 4:30pm	Getting Your Message Out: A Media Skills Workshop <i>This workshop has been coordinated by the Health System Performance Research Network (HSPRN) in collaboration with the CAHSPR Student Working Group.</i> <i>Presented by Andre Picard, Globe and Mail; Karen Born, healthydebate.ca and the Li Ka Shing Knowledge Institute; Mike Law, Centre for Health Services and Policy Research, UBC</i> This pre-conference workshop is intended for students and early career researchers who are interested in learning how to leverage media to help achieve their research and career goals. Panelists Karen Born, Michael Law, and André Picard will describe how traditional and emerging social media outlets have been used successfully by health service and policy researchers, and suggest dos and don'ts for interacting with the media and developing an online presence. An interactive component will use case studies to help participants develop skills to disseminate their work and engage the public. Enrollment is on a first-come, first-served basis and will be capped at 60 participants.	GRAND BALLROOM D
3:00pm – 4:30pm	PHC Theme Group Business Meeting <i>Coordinated by the CAHSPR Primary Healthcare Theme Group</i>	ORCA
3:00pm – 4:30pm	Mental Health Theme Group Business Meeting <i>Coordinated by the CAHSPR Mental Health Theme Group</i>	PORT ALBERNI
3:00pm – 5:00pm	CHIPS Theme Group Business Meeting <i>Coordinated by the CAHSPR Collaborative Healthcare Improvement Partnerships Theme Group</i>	GRANVILLE
3:00pm – 5:00pm	Maternal Child Theme Group Business Meeting & Reception <i>Coordinated by the CAHSPR Maternal Child Theme Group</i>	AZURE
5:00pm – 6:00pm	Primer on Triple Aim Conference Theme <i>Coordinated by the CAHSPR Student Working Group</i> Students are invited to join Steini Brown (CAHSPR President) and Stirling Bryan (Conference Co-Chair) for an informal conversation about the conferences theme, and rationale for its choice.	PARKSVILLE
6:00pm – 8:00pm	Mix n' Mingle Reception <i>*This session sponsored by Accreditation Canada</i>	LOBBY TERRACE

Tuesday, May 28, 2013

Conference Day 1

6:30am – 7:30am	CAHSPR on the Move <i>Led by the CAHSPR Student Working Group</i> Enjoy a quick morning run or walk around beautiful Vancouver. Maps will be available for those wishing to go at their own pace.	HOTEL LOBBY (6:15am)
7:30am – 9:00am	Networking Breakfast	GRAND BALLROOM
9:00am – 9:15am	Welcome Remarks <i>Presented by Adalsteinn Brown, President, CAHSPR; Heather Davidson & Stirling Bryan, CAHSPR Conference Co-Chairs</i>	GRAND BALLROOM
9:15am – 10:15am	Keynote Presentation – Controlling cost through increasing value: A view from the South <i>Presented by David Blumenthal, President, The Commonwealth Fund</i>	GRAND BALLROOM
10:15am – 10:30am	Health Break	
10:30am – 12:00pm	Sub-Plenary Sessions	
SP1	Pursuing the Triple Aim: Measuring Progress, Performance and Outcomes <i>Moderated by Anne McFarlane, Vice President, Western Canada and Development Initiatives, CIHI; Kimberlyn McGrail, Assistant Professor, Centre for Health Services and Policy Research</i> <i>Presented by Cory Neudorf, Chief Medical Health Officer, Saskatoon Health Region; Nick Black, Professor of Health Services Research, London School of Hygiene and Tropical Medicine; Jeremiah Hurley, Professor and Chair, Department of Economics; and Centre for Health Economics and Policy Analysis McMaster University</i> This sub-plenary will feature a three part panel focusing on the challenges of measurement in three important areas of health and healthcare: a) Population Health - data and measurement b) Patient-reported Outcomes - learning from the English experience c) Measuring value for money in healthcare. <i>*This session sponsored by Canadian Institute for Health Information</i>	GRAND BALLROOM
SP2	Engaging physicians on the Triple Aim: Opportunities and Challenges <i>Moderated by Dennis Kendel, Board Member, Health Quality Council of Saskatchewan</i> <i>Presented by Susan Shaw, Chair, Saskatchewan Health Quality Council; Jack Kitts, President and CEO, The Ottawa Hospital; Andrew Webb, Vice President, Medicine Fraser Health</i> The objective of this session is to present lessons learned in engaging physicians in transformational change initiatives to promote the goals of the Triple Aim, including what has been working well? and what are the barriers and challenges?	PAVILION AB

Presented by David Blumenthal, President, The Commonwealth Fund; G. Ross Baker, Professor, Institute of Health Policy, Management & Evaluation at the University of Toronto; Jeremy Veillard, Vice President of Research and Analysis, Canadian Institute for Health Information; Respondent, Robyn Tamblyn, Scientific Director, CIHR Institute of Health Services and Policy Research

The United States and Canada have been consistently ranking poorly in various health system performance rankings, notably in the work of the Commonwealth Fund on international comparisons. There is a common belief in Canada and the US that the two systems underachieve for the amount of resources invested in the health sector, but also that the two systems have pockets of excellence and that much can be learned from high performing providers or sub-systems. In the recent years, two initiatives have studied the characteristics required to achieve high performance, drawing lessons from around the world that could be applied to the US (through the work of the Commonwealth Fund) and to Canada (through the Quality by Design publication led by Professor Ross Baker at the University of Toronto in 2008). Provincial governments in Canada, the Federal Government, States and HMOs in the US are under considerable pressure to reduce the spending in health care and achieve better population health outcomes, improving the care experience of patients while curbing health care costs. Achieving the Triple Aim is obviously a common objective for the two countries and much can be learned from the pockets of excellence described above. This session will focus on lessons learned from the US and from Canada high performing providers and sub-systems and how these lessons can help the two countries achieve the Triple Aim in their own context.

12:00pm – 1:00pm**Networking Lunch**

GRAND BALLROOM

Presented by Honourable Fred Horne, Minister of Health, Province of Alberta

Moderated by Jeremy Veillard, President-Elect, CAHSPP

1:00pm – 2:15pm Concurrent Sessions – STREAM A (At-A-Glance: pg. 27; Abstract Guide: pgs. G39 – G44)					
PAVILION D	PARKSVILLE	PAVILION A	PAVILION B	FINBACK	PAVILION C
A1 PANEL	A2 CANCER & EQUITY	A3 MENTAL HEALTH	A4 PRIORITY-SETTING & HEALTH TECHNOLOGY ASSESSMENT	A5 PHARMACEUTICAL POLICY	A6 HEALTHCARE LEADERSHIP

2:15pm – 2:30pm**Transition**

2:30pm – 3:45pm Concurrent Sessions – STREAM B (At-A-Glance: pg. 27; Abstract Guide: pgs. G45 – G52)					
PAVILION A	PAVILION D	PAVILION B	PAVILION C	FINBACK	PARKSVILLE
B1 HEALTH CARE QUALITY	B2 HEALTH CARE QUALITY & RESEARCH	B3 PRIMARY CARE	B4 HEALTH POLICY & POLITICS	B5 PHARMACEUTICAL POLICY	B6 HEALTH HUMAN RESOURCES

3:45pm – 4:00pm**Health Break**

4:00pm – 5:30pm	<p>Keynote Plenary Panel – The Pan-Canadian Health Reform Analysis Network (PHRAN)</p> <p><i>Michel Grignon, Director, Centre for Health Economics and Policy Analysis, McMaster University, Associate Professor, Departments of Economics and Health, Aging and Society; Yukiko Asada, Associate Professor, Department of Community Health and Epidemiology, Dalhousie University; David Rudoler, PhD Candidate, University of Toronto, Institute of Health Policy, Management and Evaluation; Greg Marchildon, Professor, Graduate School of Public Policy, University of Regina and University of Saskatchewan Canada Research Chair in Public Policy and Economic History; Amélie Quesnel-Vallée, Associate Professor, Epidemiology, Biostatistics and Occupational Health, Faculty of Medicine, McGill University and Director, International Research Infrastructure on Social Inequalities in Health; Robyn Tamblyn, Scientific Director, Canadian Institutes of Health Research - Institute of Health Services and Policy Research</i></p> <p>Comparing health system reforms across jurisdictions allows policy-makers, analysts and researchers to better understand the determinants of successful reforms. With its decentralized federal system, Canada possesses a unique microcosm of health systems. To support inter-jurisdictional learning with rigorous evidence on health reform analysis, The Pan-Canadian Health Reform Analysis Network (PHRAN) was established in 2012. Chaired by Dr. Michel Grignon (Director, Centre for Health Economics and Policy Analysis, McMaster University), the panel will introduce PHRAN to participants and discuss the need for such a network in Canada, its organizational structure, and its vision. The panel will also showcase its flagship product, PHRAN: Health Reform Observer (Observatoire du Réformes de Santé), a new open access, peer-reviewed, online journal presenting the best evidence available on health reforms in the Canadian provinces and territories, by presenting inaugural health reform analysis pieces in four provinces. Dr. Robyn Tamblyn, Scientific Director of CIHR's Institute of Health Services and Policy Research, will provide concluding remarks.</p> <p><i>*This session sponsored by Canadian Institutes of Health Research - Institute of Health Services and Policy Research</i></p>	GRAND BALLROOM
5:30pm	<p>Closing</p>	GRAND BALLROOM
5:30pm – 7:15pm	<p>Poster Viewing Reception (At-A-Glance: pgs. 31 – 37; Abstract Guide: pgs. G89 – G106)</p> <p>Participants can visit the Day 1 poster presentations while networking with other participants.</p> <p><i>*This session sponsored by Michael Smith Foundation for Health Research</i></p>	JUNIOR BALLROOM
6:00pm – 7:00pm	<p>Speed Networking Event</p> <p><i>Coordinated by the CAHSPR Student Working Group</i></p> <p>Designed to bring together students and established researchers in an informal event, the CAHSPR Student Working Group presents Speed Networking. This event will provide a quick and casual forum to connect for one-on-one chats about research ideas, career advice, or whatever comes up!</p>	PAVILION AB

Wednesday, May 29, 2013

Conference Day 2

6:30am – 7:30am	CAHSPR on the Move <i>Led by the CAHSPR Student Working Group</i> Enjoy a quick morning run or walk around beautiful Vancouver. Maps will be available for those wishing to go at their own pace.	HOTEL LOBBY (6:15am)
7:30am – 9:00am	Networking Breakfast & Annual General Meetings <ul style="list-style-type: none">▪ <i>CAHSPR Annual General Meeting</i>▪ <i>Hall Foundation Annual General Meeting</i>	GRAND BALLROOM
9:00am – 9:15am	Welcome Remarks	GRAND BALLROOM
9:15am – 10:15am	Emmett Hall Lecture – From Hall to Now: Reflections on Canadian Medicare from a Primary Care Perspective <i>Presented by Brian Hutchison, Professor Emeritus, Departments of Family Medicine and Clinical Epidemiology and Biostatistics, Centre for Health Economics and Policy Analysis, McMaster University</i>	GRAND BALLROOM
10:15am – 10:30am	Health Break and Transition	
10:30am – 12:00pm	Sub-Plenary Sessions	
SP1	Foundations for Integration: Engaging PHC Providers in Local/Regional Governance <i>Moderated by Simone Dahrouge, Director of Research, Scientist, C.T. Lamont Primary Health Care Research Centre, Bruyere Research Institute</i> <i>Presented by Brian Hutchison, Professor Emeritus, Departments of Family Medicine and Clinical Epidemiology and Biostatistics, Centre for Health Economics and Policy Analysis, McMaster University; Brian Evoy, Executive Lead, Divisions of Family Practice; Rick Glazier, Senior Scientist and Lead, Primary Care and Population Health Program, Institute for Clinical Evaluative Sciences; Jacques Ricard, directeur des affaires médicales, universitaires et des partenariats professionnels à l'Agence de la Santé et des Services sociaux de la Montérégie</i> What is PHC governance? What are national and international models of PHC governance? What are the existing and potential roles of PHC providers in governance? What are the barriers to PHC governance?	PAVILION C
SP2	A whole systems approach to implement Triple-Aim: Solutions for a “wicked problem” <i>Moderated by Anna Gagliardi, Scientist, Toronto General Research Institute, University Health Network; Whitney Berta, Associate Professor, Institute of Health Policy, Management and Evaluation University of Toronto</i> <i>Presented by Diane Finewood, President & CEO of the Michael Smith Foundation for Health Research; Nancy Edwards; Professor at the University of Ottawa and Scientific Director of the CIHR Institute of Population and Public Health; Cathy Ulrich, President & CEO, Northern Health</i> This session will provide a basic introduction to the concepts, definitions, theories and ideas underlying the whole systems approach; analysis of why/how the whole systems approach can be used to implement multiple, complex innovations as part of the triple aim, possible strategies/interventions and how they can be tailored or scaled up, and the link between research and practice; and practical examples and advice for achieving triple aim objectives from the perspective of a health care delivery or planning organizational leader. Each speaker would deliver a 10 minute presentation, conclude with a key message, and then engage in discussion with participants based on moderated questions from the audience.	GRAND BALLROOM

Listening to patients and families: Can we improve the patient experience while improving population health and value for money?

Moderated by Julia Abelson, Professor, Clinical Epidemiology & Biostatistics, Centre for Health Economics and Policy Analysis (CHEPA), McMaster University; Jenn Verma, Director, Collaboration for Innovation and Improvement, Canadian Foundation for Healthcare Improvement

Presented by G. Ross Baker, Professor, Institute of Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto; Caryl Harper, Director, Patients as Partners, Primary Health Care and Specialist Services, Ministry of Health Services, Government of British Columbia; Cheryl-Anne Simoneau, Patient Representative, McGill University Health Centre; Tracy Wasylak, Vice-President, Strategic Clinical Networks & Clinical Care Pathways, Alberta Health Services

This session will introduce three cases across Canada where patients, families and communities are partnering with healthcare providers, decision-makers and/or policy-makers to improve healthcare design, delivery and policy. The session brings together multiple perspectives: patient, healthcare provider & decision-maker, policy-maker and researcher along with expertise in the design and evaluation of public engagement processes in healthcare and healthcare improvement.

**This session sponsored by Accreditation Canada*

12:00pm – 1:15pm

Networking Lunch and Awards Presentations

GRAND BALLROOM

Hall Foundation Student Essay Award

Presented by Susan Law, Vice-President for Academic Affairs, St. Mary's Hospital Center

In 2008, the Justice Emmett Hall Memorial Foundation launched its annual student essay competition. The intent is to foster Canadian health economics and health policy research among undergraduate and graduate students. Students registered at a Canadian University in undergraduate or graduate studies related to any of the following fields: health services research, health policy, health administration, health economics, health informatics, public health or epidemiology and biostatistics, are eligible. The Hall Foundation awards three prizes annually for the best submissions: Best doctoral submission \$1,500, Best masters submission \$1,250, Best undergraduate submission \$1,000.

IHSPR Rising Star Award and Article of the Year

Presented by Ivy Bourgeault, CIHR-Institute of Health Services and Policy Research - Member, Institute Advisory Board (IAB)

The CIHR Institute of Health Services and Policy Research is pleased to present the 5th annual Article of the Year and Rising Star Awards. The Article of the Year Award recognizes published research that has significantly contributed to the advancement of the field of health services and policy research in Canada. The Rising Star Award recognizes health services and policy research excellence and knowledge translation innovation among leading graduate students and post-doctoral fellows in Canada.

Harkness Fellow

Presented by Stephen Samis, Vice President, Programs, Canadian Foundation for Healthcare Improvement; Robin Osbourn, The Commonwealth Fund

The Canadian Foundation for Healthcare Improvement (CFHI) and the Commonwealth Fund are pleased to announce the 2014-2015 Harkness fellow at this session. The Commonwealth Fund's Harkness Fellowships in Health Care Policy and Practice provide a unique opportunity for mid-career health services researchers and practitioners from Australia, Canada, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United Kingdom to spend up to 12 months in the United States, conducting original research and working with leading U.S. health policy experts. Since 2001, a collaboration with the CFHI has brought a Canadian perspective to the program. Beginning with the class of 2012, with cofunding from CFHI, the Canadian Harkness/CFHI fellowship is offered as a full-time fellowship, based in the U.S.

1:15pm – 2:30pm					
Concurrent Sessions – STREAM C (At-A-Glance: pg. 28; Abstract Guide: pgs. G53 – G60)					
PAVILION A	PAVILION D	PARKSVILLE	FINBACK	PAVILION C	PAVILION B
C1 PANEL	C2 HEALTH ECONOMICS	C3 EQUITY	C4 HEALTHY POLICY, E-HEALTH & CAPACITY BUILDING	C5 PERFORMANCE MANAGEMENT	C6 KNOWLEDGE TRANSLATION & EXCHANGE

2:30pm – 2:45pm **Transition**

2:45pm – 4:00pm					
Concurrent Sessions – STREAM D (At-A-Glance: pg. 28; Abstract Guide: pgs. G60 – G66)					
PAVILION D	PAVILION A	PAVILION C	PARKSVILLE	FINBACK	PAVILION B
D1 PANEL	D2 RESEARCH METHODS & OPERATIONS RESEARCH	D3 HEALTH POLICY & HEALTH ECONOMICS	D4 QUALITY & SAFETY	D5 CANCER CARE	D6 QUALITATIVE RESEARCH METHODS & MODELS OF CARE

4:00pm – 4:15pm **Health Break and Transition**

4:15pm – 5:30pm					
Concurrent Sessions – STREAM E (At-A-Glance: pg. 29; Abstract Guide: pgs. G67 – G74)					
PAVILION D	PAVILION C	PAVILION A	PAVILION B	PARKSVILLE	FINBACK
E1 PANEL	E2 PRIMARY CARE	E3 EQUITY	E4 KNOWLEDGE TRANSLATION & EXCHANGE	E5 HEALTH HUMAN RESOURCES & CAPACITY BUILDING	E6 PRIMARY CARE (2)

5:30pm – 7:15pm **Poster Viewing Reception** JUNIOR BALLROOM
(At-A-Glance: pgs. 31 – 37; Abstract Guide: pgs. 107 – 124)
 Participants can visit the Day 2 poster presentations while networking with other participants.

5:30pm – 8:00pm **Mental Health Theme Group Social Activity** PORT MCNEIL
“Stand Up for Mental Health Performance”

7:30pm – 10:00pm **Student Social (Led by the Student Working Group)** HOTEL LOBBY
 (7:15pm)
 This annual event brings students together from across Canada for a night of fun and informal networking. This year it will be hosted at the Railway Club (579 Dunsmuir St), one of Vancouver’s oldest bars. Join us there, or meet up with SWG members in the hotel lobby at 7:15pm to walk over.

Thursday, May 30, 2013

Conference Day 3

7:30am – 9:00am	Networking Breakfast	GRAND BALLROOM
9:00am – 10:30am	Sub-Plenary Sessions	
SP1	Tackling Canada's Leading Cause of Disease Burden: Policy Approaches for Better Addressing Depression <i>Moderated by Elliott Goldner, Professor, Faculty of Health Sciences, Simon Fraser University</i> <i>Presented by Charlotte Waddell, Associate Professor, Faculty of Health Sciences, Simon Fraser University; Dan Bilsker, Registered Psychologist and Adjunct Professor, Centre for Applied Research in Mental Health and Addiction, Simon Fraser University; Karen Cohen, Chief Executive Officer, Canadian Psychological Association</i> <p>This sub-plenary session will focus on policy-relevant developments in approaching the problem of depression, which has been identified in the Global Burden of Disease studies to be the leading cause of disability worldwide for both males and females and the leading cause of disease burden for women in both high-income countries such as Canada as well as in low- and middle-income countries. Contextual information will be provided about the epidemiology of depression and the personal impact it has on people's lives and new approaches to health promotion, and illness prevention and early intervention will be discussed. Potential approaches to improving access to psychological treatment for adults with depression will be discussed. There will also be discussion of prevention and other policy options to lessen the impact of depression in childhood and throughout the life course.</p>	PAVILION C
SP2	Triple Aim and Economic Analysis: Opportunity or Opportunity cost? <i>Coordinated and Moderated by Jeffrey Hoch, Co-Director, Canadian Centre for Applied Research in Cancer Control; Stirling Bryan, Director, Centre for Clinical Epidemiology & Evaluation, Vancouver Coastal Health Research Institute</i> <i>Presented by Cam Donaldson, Glasgow Caledonian University; Steven Lewis, President, Access Consulting Ltd.</i> <p>Framing Triple Aim from an economics perspective: Has the work of economists in health care supported Triple Aim goals? The case for; the case against; the role of economists in moving the health care improvement agenda forward.</p>	GRAND BALLROOM
SP3	Improving Population Health: Adding Health to Health Care <i>Moderated by Richard Massé, Directeur de santé publique, ASSS de Montréal; Trevor Hancock, Professor and Senior Scholar, School of Public Health and Social Policy, University of Victoria</i> <i>Presented by Richard Massé, Directeur de santé publique, ASSS de Montréal; Trevor Hancock, Professor and Senior Scholar, School of Public Health and Social Policy, University of Victoria; Mylène Drouin, Director, Clinical Preventive Services, DSP, Montreal; Patrick McGowan, Director, BC Chronic Disease Self-Management Program and Associate Professor, Director of Self-Management, University of Victoria</i> <p>This session will examine how the health care system can contribute to improving population health, with specific reference to experience in Québec and BC. Specific questions to be addressed are: 1. How can the health care system play a role in addressing the wider determinants of health? 2. What has been the experience in strengthening and renewing public health in Québec and BC? (Richard Massé and Trevor Hancock) 3. How can clinical prevention services be enhanced? - The Québec experience (Mylène Drouin) 4. What is the role of the health care system in strengthening and supporting people's capacity for self-care? (The BC experience, Patrick McGowan)</p>	PAVILION D

10:30am – 10:45am Health Break

10:45am – 12:00pm Concurrent Sessions – STREAM F (At-A-Glance: pg. 29; Abstract Guide: pgs. G74 – G80)					
PAVILION D	PAVILION A	PAVILION B	PAVILION C	PARKSVILLE	FINBACK
F1 PANEL	F2 EQUITY	F3 PRIMARY CARE	F4 KNOWLEDGE TRANSLATION & EXCHANGE	F5 MENTAL HEALTH	F6 PRIMARY CARE (2)

12:00pm – 1:15pm **Lunch & Poster Awards** GRAND BALLROOM

Posters presented by Robyn Tamblyn, Scientific Director, CIHR Institute of Health Services and Policy Research

Each year at the Canadian Association for Health Services and Policy Research (CAHSPR) conference IHSPR sponsors the Student Poster Competition. This competition is designed to encourage graduate students to attend and showcase their work at CAHSPR, Canada's pre-eminent health services and policy research conference, and to recognize the outstanding research efforts of up-and-coming health services and policy researchers.

Prizes are awarded to the three top-ranked posters in the amounts of \$1,200, \$800 and \$600 for first, second and third prize, respectively. Posters are reviewed by a team of expert reviewers who each devote the better portion of the day to conducting their reviews. All students who display a poster featuring their student work at the CAHSPR conference are automatically entered into the competition and the winners are announced at the end of the conference.

**This session sponsored by Canadian Institutes of Health Research - Institute of Health Services and Policy Research*

1:15pm – 2:30pm Concurrent Sessions – STREAM G (At-A-Glance: pg. 30; Abstract Guide: pgs. G81 – G87)					
PAVILION D	PARKSVILLE	PAVILION B	PAVILION C	FINBACK	PAVILION A
G1 HEALTHCARE LEADERSHIP & PATIENT CENTRED CARE	G2 EQUITY	G3 PRIMARY CARE	G4 PERFORMANCE MANAGEMENT	G5 QUALITY & SAFETY	G6 PRIMARY CARE, MENTAL HEALTH & CANCER

2:30pm – 2:45pm Health Break

2:45pm – 3:45pm **Keynote Plenary Panel – Pursuing the Triple Aim: Reflections from the UK** GRAND BALLROOM

Presented by Professor Chris Ham, Chief Executive, The King's Fund

Discussant: Shelley Ross, President, British Columbia Medical Association

3:45pm – 4:00pm **Closing Remarks** GRAND BALLROOM



Keynote Speakers





Yukiko Asada

Associate Professor, Department of Community Health and Epidemiology, Dalhousie University

Yukiko Asada holds a PhD in population health from the University of Wisconsin-Madison, USA, and is a recipient of a Canadian Institutes of Health Research New Investigator Award. Her research focuses on the intersection of population health, health services research, and ethics and investigates ethical assumptions underlying quantitative methods used in applied health research. She has worked in areas of health inequality and inequity, access to health care, and need-based resource allocation. Her book, *Health Inequality: Morality and Measurement* (University of Toronto Press, 2007), signifies her multidisciplinary approach integrating ethics, methods, and policy. With Ingrid Sketris, she is a co-lead of Nova Scotian branch of the Pan-Canadian Health Reform Analysis Network.



David Blumenthal

President, The Commonwealth Fund

David Blumenthal, MD, MPP became President and CEO of the Commonwealth Fund (www.commonwealthfund.org), a national health care philanthropy based in New York City, in January, 2013. Previously, he served as Chief Health Information and Innovation Officer at Partners Health System in Boston, MA, and was Samuel O. Thier Professor of Medicine and Professor of Health Care Policy at Massachusetts General Hospital/Harvard Medical School. From 2009 to 2011, Dr. Blumenthal was the National Coordinator for Health Information Technology under President Barack Obama. In this role he was charged with building an interoperable, private and secure nationwide health information system and supporting the widespread, meaningful use of health IT. Prior to that, Dr. Blumenthal was a practicing primary care physician, director of the Institute for Health Policy, and professor of medicine and health policy at Massachusetts General Hospital/Partners Healthcare System and Harvard Medical School. As a renowned health services researcher and national authority on health IT adoption, Dr. Blumenthal has authored over 250 scholarly publications, including the seminal studies on the adoption and use of health information technology in the United States. Dr. Blumenthal received his undergraduate, medical, and public policy degrees from Harvard University and completed his residency in internal medicine at Massachusetts General Hospital.



Michel Grignon

Director, Centre for Health Economics and Policy Analysis, McMaster University, Associate Professor, Departments of Economics and Health, Aging and Society

Michel Grignon, who was named director of CHEPA on Sept. 1, 2011, is an associate professor in the Department of Economics and the Department of Health, Aging and Society at McMaster University. He is also an adjunct scientist at the Institute for Health Economics in Paris, France. Before joining McMaster in July 2004, he worked at the Institut de Recherche, d'Etudes et de Documentation en Economie de la Santé (IRDES) in Paris. He was born in France, and obtained his Master's Equivalent at the National School for Statistics and Economics in Paris, and his PhD at Ecole de Hautes Etudes en Sciences Sociales, also in Paris. Grignon has extensive experience at an international level in research projects and activities in the areas of health economics, health-related policies, health insurance and aging. His current research projects cover a broad range of topics, including how an aging society impacts health care expenditures in Canada and in France. He is also involved in research examining inequities in health care utilization and health policy in Canada, as well as exploring equity and efficiency by using experimental economic methods for financing health care.



Chris Ham

Professor, Chief Executive, The King's Fund

Professor Chris Ham, CBE, PhD, MPhil, FRCP (Hon), took up his post as Chief Executive of The King's Fund in April 2010. He has been professor of health policy and management at the University of Birmingham, England, since 1992. From 2000 to 2004 he was seconded to the Department of Health where he was director of the strategy unit, working with Ministers on NHS reform. Chris is the author of 20 books and numerous articles about health policy and management. Chris was awarded an honorary doctorate by the University of Kent in 2012. Chris has advised the WHO and the World Bank and has served as a consultant to governments in a number of countries. He is an honorary fellow of the Royal College of Physicians of London and of the Royal College of General Practitioners, an honorary professor at the London School of Hygiene and Tropical Medicine, a companion of the Institute of Healthcare Management and a visiting professor at the University of Surrey. Chris was a governor and then a non-executive director of the Heart of England NHS Foundation Trust between 2007 and 2010. He has also served as a governor of the Canadian Health Services Research Foundation and the Health Foundation. In 2004 he was awarded a CBE for his services to the National Health Service.



Fred Horne

Honourable Fred Horne, Minister of Health, Province of Alberta

Fred Horne was elected to his second term as a Member of the Legislative Assembly for Edmonton-Rutherford on April 23, 2012 and on May 8, 2012 he was appointed as Minister of Health. He had served as Minister of Health and Wellness since October 2011. Previous appointments include serving as member of the Cabinet Policy Committee on Public Health & Safety, Treasury Board, Parliamentary Assistant to the Minister Health and Wellness, Parliamentary Assistant to the Minister of Seniors and Community Supports, Chair of the Standing Committee on Health, and Deputy Chair of the Premier's Council on the Status of Persons with Disabilities. Prior to his election to the Legislative Assembly, Mr. Horne worked as a health policy consultant for over 25 years. He has led many initiatives to improve access and quality in Canadian public health care and has worked extensively with organizations such as the Conference Board of Canada, the Alberta government, and Mayo Clinic. Mr. Horne holds a Master of Business Administration degree from Royal Roads University and post-graduate certification in Dispute Resolution from York University. An avid volunteer, he has served on numerous boards including the Alberta Mental Health Board, Athabasca University, the Mediation and Restorative Justice Centre of Edmonton and the Canadian Student Debating Federation. Mr. Horne is a former debater and coached Team Canada at the World Schools Debating Championships. For his continued contributions to the development of debate and speech programs, Mr. Horne received the Queen Elizabeth II Golden Jubilee Medal in 2002. Mr. Horne and his wife, Jennifer, moved to Edmonton in 1992.



Brian Hutchison

Professor Emeritus, Departments of Family Medicine and Clinical Epidemiology and Biostatistics, Centre for Health Economics and Policy Analysis, McMaster University

Brian Hutchison is a Professor Emeritus in the Departments of Family Medicine and Clinical Epidemiology and Biostatistics at McMaster University, Co-Chair of the Canadian Working Group for Primary Healthcare Improvement and Senior Advisor for Primary Care to Health Quality Ontario. He is a past Director (2002-2005) of the McMaster University Centre for Health Economics and Policy Analysis (CHEPA) and served as founding Editor-in-Chief of *Healthcare Policy* (2004-2009) and President of the Canadian Association for Health Services and Policy Research (2010-2011). He practiced comprehensive family medicine for five years in a fee-for-service group practice, followed by 25 years in a McMaster University academic family practice. Brian held a National Health Research Scholar award from Health Canada from 1994 to 1999. He was the 2004 recipient of the Health Services Research Advancement Award presented by the Canadian Health Services Research Foundation. Brian received a Lifetime Achievement Award in Family Medicine Research from the College of Family Physicians of Canada in 2008. His areas of research and policy interest include organization, funding and delivery of primary and community care, needs-based health care resource allocation and funding methods, provider payment methods, quality improvement and preventive care.



Greg Marchildon

Canada Research Chair, Public Policy and Economic History (Tier I), Johnson-Shoyama Graduate School of Public Policy, University of Regina Campus

Gregory P. Marchildon is Canada Research Chair in Public Policy and Economic History (Tier I) at the Johnson-Shoyama Graduate School of Public Policy, University of Regina Campus. He is a Fellow of the Canadian Academy of Health Sciences and a member of the editorial board of the European Observatory on Health Systems and Policies. 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. After serving as Deputy Minister to the Premier and Cabinet Secretary in the government of Saskatchewan in the 1990s, he was the Executive Director of the Commission on the Future of Health Care in Canada (the Romanow Commission). Dr. Marchildon is the author of numerous journal articles and books on comparative health policy and the history of medicare in Canada.



Amélie Quesnel-Vallée

Associate Professor, Epidemiology, Biostatistics and Occupational Health, Faculty of Medicine, McGill University Director, International Research Infrastructure on Social Inequalities in Health

Amélie Quesnel-Vallée is Associate Professor at McGill University with a joint Appointment in the Departments of Sociology and Epidemiology. She holds a career award from the *Fonds de recherche du Québec - Santé* and is also the Director of the International Research Infrastructure on Social inequalities in health (IRIS) at McGill. With funding from the Canada Foundation for Innovation and the Canadian Institutes for Health Research, she currently studies the impact of public coverage and private health insurance regulation on health inequalities in select OECD countries. Her work received numerous awards, including the 2005 American Sociological Association Dissertation Award, and appeared in a book she co-edited, *Le privé dans la santé : Les discours et les faits* (Presses de l'Université de Montréal, 2008), as well as in journals such as the *Canadian Medical Association Journal*, the *Journal of Epidemiology and Community Health*, the *American Journal of Epidemiology* and *Social Science and Medicine*.



David Rudoler

PhD Candidate, University of Toronto, Institute of Health Policy, Management and Evaluation

David Rudoler has held several senior positions in the Ontario Public Service in three different ministries, including the Ministry of Transportation, the Ministry of Finance and the Ministry of Health. David has a Masters in Public Policy and Administration and is currently a PhD candidate at the University of Toronto. David's research focus is in health services research and health economics, looking specifically at funding reform. David brings a well-rounded approach to policy analysis and is able to draw on his professional experience and his knowledge of policy sciences, economics, and research methodologies.



Robyn Tamblyn

Professor, Department of Medicine and Department of Epidemiology and Biostatistics, McGill University, Faculty of Medicine

Dr. Tamblyn, BSCN, MSc PhD, is a James McGill Chair, a Medical Scientist at the McGill University Health Center Research Institute, and the Scientific Director of the Clinical and Health Informatics Research Group at McGill University. Dr. Tamblyn's ground-breaking research on educational outcomes has elucidated important relationships between health professional training, licensure and practice that have subsequently guided credentialing policies. Her work on prescription drug use, its determinants, and computerized interventions to improve drug safety (MOXXI) have been recognized internationally. She leads a CIHR-funded team to investigate the use of e-health technologies to support integrated care for chronic disease, and co-leads a Canadian Foundation for Innovation Informatics Innovation Laboratory to create advanced technologies to monitor adverse events in populations and create new tools to improve the safety and effectiveness of health care. Her work is published in the *Journal of the American Medical Association*, the *Annals of Internal Medicine*, the *British Medical Journal*, *Medical Care*, *Health Services Research*, among others. She has been awarded the CHSRF KT award for her research in improving the use of medication as well as the ACFAS Bombardier award for innovation in the development of a computerized drug management system. As of January, 2011, she became the Scientific Director of the Institute of Health Services and Policy Research at the Canadian Institutes of Health Research.

Concurrent Sessions and Poster Presentations At-A-Glance



Concurrent Sessions At-a-Glance

Tuesday, May 28, 2013 STREAM A 1:00pm – 2:15pm (Abstract Guide: pgs. G39 – G44)					
PAVILION D	PARKSVILLE	PAVILION A	PAVILION B	FINBACK	PAVILION C
A1 PANEL	A2 CANCER AND EQUITY	A3 MENTAL HEALTH	A4 PRIORITY-SETTING & HEALTH TECHNOLOGY ASSESSMENT	A5 PHARMACEUTICAL POLICY	A6 HEALTHCARE LEADERSHIP
A1 Achieving the Triple Aim through Evidence- Informed Disinvestment in Healthcare	A2.1 Hospitalizations 2006-2008 In A British Columbia Population- Based Cohort Of Three-Year Breast Cancer Survivors	A3.1 Spatial patterns of drug use and mental health outcomes among high school students in Ontario, Canada	A4.1 Assessing the Organizational Impacts of Patient Engagement: A First STEPP	A5.1 Use Of Product Listing Agreements By Provincial Drug Benefit Plans	A6.1 Role Boundaries On Interprofessional Primary Health Care Teams
	A2.2 Timely Access and Quality of Care in Colorectal Cancer: A Population- Based Cohort Study Using Administrative Data	A 3.2 Results Of A Randomised Controlled Trial Of Evidence Based Supported Employment For People Who Have Recently Been Homeless And Have A Mental Illness	A4.2 Standardized Levels Of Nursing Home Staff: What Is The Relation To Resident Need?	A5.2 Pharmacare: An Assessment Of Options In Canada And Abroad	A6.2 Electronic Medical Records in Primary Care: Effects seen by Clinical Practices and the Health System
	A2.3 A Fine Balance: Trends In Characteristics And Unpaid Care Among Long-Stay Home Care Clients	A3.3 Use of Health and Social Services by Children and Youths with Fetal Alcohol Spectrum Disorder	A4.3 High Performance in Priority setting - A Diagnostic Tool Implementation	A5.3 The Outcomes of Generic Drug Patent Litigation in Canada	A6.3 Planning for the Regulated Nursing Workforce in Rural and Small Town Canada
	A2.4 From Bench to Bedside to Policy: Parental Perceptions on the Return of Genetic Research Results in the Context of Pediatric Cancer	A3.4 The Impact of Remuneration Reform on Primary Mental Health Care: A Comparative Analysis of Three Provinces	A4.4 A Cost-Effectiveness Analysis Of Maternal Genotyping To Guide Treatment For Postpartum Pain And Avert Infant Adverse Events	A5.4 The Use of Blood Glucose Test Strips in Selected Public Drug Plans, 2008	A6.4 Assessing And Sustaining Organizational Cultural Change In Health Systems: A Realist Review Of The Literature

Tuesday, May 28, 2013 STREAM B 2:30pm – 3:45pm (Abstract Guide: pgs. G45 – G52)					
PAVILION A	PAVILION D	PAVILION B	PAVILION C	FINBACK	PARKSVILLE
B1 HEALTH CARE QUALITY	B2 HEALTH CARE QUALITY & RESEARCH	B3 PRIMARY CARE	B4 HEALTH POLICY & POLITICS	B5 PHARMACEUTICAL POLICY	B6 HEALTH HUMAN RESOURCES
B1.1 Product Listing Agreements For Pharmaceuticals: Lessons From Abroad	B2.1 Models Of Maternity Care In Rural Environments: Barriers And Attributes Of Interprofessional Collaboration With Midwives	B3.1 The Self-Management Support Policy and Practice Directions in BC: What about the needs of disadvantaged populations?	B4.1 Body Checking Policies In Youth Ice Hockey: What Is The Impact On Injuries And Costs?	B5.1 Evidence of effective delivery the HPV vaccine through a publicly funded, school-based program: The Ontario Grade 8 HPV vaccine cohort study	B6.1 Multispecialty Physician Networks in Ontario
B1.2 Inequality In Primary And Secondary Preventive Care For AMI: Utilization By Socioeconomic Status Across Middle-Age And Older Patients	B2.2 In-hospital Deliveries: Estimating Geographic Access and its Association with Outcomes (FY2007/08 - 2011/12)	B3.2 Improving Population Health: Systemic Factors Influencing Primary Care and Public Health Collaboration	B4.2 A Systematic Review Of Cost-Of-Illness Studies For Chronic Pain	B5.2 The Impact of Allowing Pharmacists to Independently Renew Prescription Drugs	B6.2 New Physicians - Mobility Patterns in the First Ten Years of Work
B1.3 Benzodiazepine Prescribing Patterns Across Ontario Long- Term Care Homes: An Examination Of Residents, Prescribers And Facilities	B2.3 Accountability in the Home and Community Care Sector in Ontario	B3.3 Paying for Primary Care: A Cross-Sectional Comparison of Primary Care Patient Cost Distributions in Ontario, Canada	B4.3 The Triple Aim Framework: Does Its Growing Influence And Adaptation Reflect The Original Intent?	B5.3 Transparency in Canadian Public Drug Advisory Committees	B6.3 Implementation of Nurse Practitioners and Physician Assistants in BC
B1.4 Quality Of Care In Quebec's Oncology Outpatient Clinics: A Comparison Of Patients' And Professionals' Evaluations	B2.4 Systematic Screening For Treatable Disorders In Intellectual Disability	B3.4 More Inside On The Proprieties Of The Team Climate Inventory As A Measure Of Primary Care Teams' Processes	B4.4 Latent Gender Inequalities In The Well-Being Of Physicians According To Payment Methods	B5.4 Physicians' views on a publicly funded prescription drug program for Ontario Seniors	

Wednesday, May 29, 2013 STREAM C 1:15pm – 2:30pm (Abstract Guide: pgs. G53 – G60)

PAVILION A	PAVILION D	PARKSVILLE	FINBACK	PAVILION C	PAVILION B
C1 PANEL	C2 HEALTH ECONOMICS	C3 EQUITY	C4 HEALTHY POLICY, E-HEALTH & CAPACITY BUILDING	C5 PERFORMANCE MANAGEMENT	C6 KNOWLEDGE TRANSLATION & EXCHANGE
C1 Tweets, Blogs, OpEds and YouTube: Advocating for Evidence in the Online Dialogue about Health Policy	C2.1 Actuarially Adjusted OHIP Contributions Based On Body Mass Index And Socio-Economic Status: Evaluating The Financial Feasibility Of A 'Fat Tax'	C3.1 Are Improvements In Breastfeeding Leaving Some Behind? Monitoring Trends In Health Inequalities-A PATHS Equity For Children Project	C4.1 The Effect of Telephone Support on Coronary Artery Disease Patient Outcomes during Cardiac Rehabilitation: A systematic review & Meta-analysis	C5.1 Development of A New Indicator measuring In-Hospital Mortality of Patients with Emergency- Sensitive Conditions	C6.1 Communities of Practice as a tool for Integrating Knowledge and Practice: The Seniors Health Knowledge Network (SHKN) Case
	C2.2 Cost Analysis Of Dialysis Services In Nova Scotia	C3.2 Unmet Needs, Innovations And Best Practices Of Community-Based And Health Services For Individuals With Neurological Conditions: A Scoping Review	C4.2 Experiences Of Family Caregiving For Adults With Chronic Physical Illness	C5.2 Developing Consensus On Policy-Relevant Metrics To Gauge The Value Of Injury Prevention Efforts Within A BC Regional Health Authority	C6.2 Knowledge Translation In Infection And Immunity
	C2.3 Economic Evaluation Of Meningococcal Serogroup B (Menb) Childhood Vaccination In Ontario, Canada	C3.3 Using Geographic Methods To Inform Cancer Screening Interventions for South Asians in Ontario, Canada	C4.3 Rethinking Capacity Building for Knowledge Mobilisation: A Practice- based Approach	C5.3 Public Reporting Of Performance Measures To Improve The Performance Of Healthcare Organizations: A Typology Of Causal Pathways	C6.3 Enhancing The Uptake Of Clinical Practice Guidelines: The Development Of A Guideline Implementability Tool (GUIDE-IT)
	C2.4 A Cost-Effectiveness Study of Toronto Public Health's Preventing Overdose in Toronto (POINT) Intervention	C3.4 Lifetime Distributional Effects of Publicly Financed Health in Canada	C4.4 Economic Evaluation of Community-based HIV Prevention Programs in Ontario: Evidence of Effectiveness to Reduce HIV Infection Cases and Save Costs to Medical System	C5.4 Performance Measurement: Accelerating Health System Transformation in Saskatchewan	

Wednesday, May 29, 2013 STREAM D 2:45pm – 4:00pm (Abstract Guide: pgs. G60 – G66)

PAVILION D	PAVILION A	PAVILION C	PARKSVILLE	FINBACK	PAVILION B
D1 PANEL	D2 RESEARCH METHODS & OPERATIONS RESEARCH	D3 HEALTH POLICY & HEALTH ECONOMICS	D4 QUALITY & SAFETY	D5 CANCER CARE	D6 QUALITATIVE RESEARCH METHODS & MODELS OF CARE
D1 Everything you always wanted to know about health economics, but were afraid to ask	D2.1 Identifying Diabetes and Comorbid Conditions in Residents of Long-Term Care Facilities from Two Population-Based Data Sources	D3.1 Challenges And Opportunities Of The Implementation Of Bans On Smoking In Open Public Areas	D4.1 Quality Improvement: The Perspectives & Experiences Of Senior Health Care Leaders In Canada	D5.1 Phase-specific and Long- term Costs of Cancer Care in Ontario	D6.1 Ethical, Legal and Social Issues in Drug Development & Pharmacogenomics: A Qualitative Study of the Perspectives of Canadian Stakeholders
	D2.2 Embedding Evidence In Context: Approaches Used By An Embedded Research & Evaluation Unit	D3.2 The Cost-Effectiveness of Prophylactic Distal Fimbriectomies versus Conventional Laparoscopic Tubal Sterilizations in the Prevention of Ovarian Cancer	D4.2 The Incidence, Risk Factors and Consequences Associated with Harmful Safety Incidents in Ontario Home Care Clients: A Descriptive Study of Secondary	D5.2 Self-Reported Unmet Needs Of Elderly Cancer Patients: A Cross- Sectional Survey In The Province Of Quebec	D6.2 One Problem, Variable Approaches by Three Provinces to Reducing Wait Times for Hip and Knee Replacement
	D2.3 Association between the Fast-Food Environment and Obesity in Canada: A Cross-sectional Analysis	D3.3 Eliciting Public Values To Support Health Care Priority Setting: A Novel Approach	D4.3 MSH-CARES: An Evidence Based Strategy To Reduce Caesarean Sections In Ontario	D5.3 Access To Personalized Medicine: The Case Of Gene Expression Profiling In Breast Cancer	D6.3 Determinant and Consequences of a Pedometer-Based Physical Activity Challenge with Hospital Employees: Quantitative & Qualitative Longitudinal Study
	D2.4 Collecting Patient- Reported Outcomes In A Large Canadian Health Region: An Integrated Knowledge Translation Exercise	D3.4 A Cost-Effectiveness Analysis Of Immunosuppressive Regimens (Mycophenolate Acid Vs. Azathioprine) Post-Kidney Transplant	D4.4 Engaging patients for quality improvement at St. Mary's Hospital, Montreal.	D5.4 Misaligned Responsibilities: Health Services for Long-Term Childhood Cancer Survivors	D6.4 The Jack Spratt Problem: The Potential Downside Of Lean Application In Healthcare

Wednesday, May 29, 2013 STREAM E 4:15pm – 5:30pm (Abstract Guide: pgs. G67 – G74)

PAVILION D	PAVILION C	PAVILION A	PAVILION B	PARKSVILLE	FINBACK
E1 PANEL	E2 PRIMARY CARE	E3 EQUITY	E4 KNOWLEDGE TRANSLATION & EXCHANGE	E5 HEALTH HUMAN RESOURCES & CAPACITY BUILDING	E6 PRIMARY CARE (2)
E1 Measuring the Impact of Knowledge Organizations in Achieving the Triple Aim: Innovative Research, Challenges and Practice Solutions	E2.1 'Where do we go from here?' Frustrating Care Experiences from the Perspectives of Complex Patients, their Caregivers, and Family Physicians	E3.1 The Safety Of Small Maternity Services In Rural Canada: A Secondary Analysis Of Perinatal Services Data From 3 Provinces	E4.1 Dynamic Case Studies - Interactive and Evolving Cancer Control Case Studies	E5.1 The Influence Of Work Patterns On Indicators Of Cardiometabolic Risk In Female Hospital Employees	E6.1 Provision Of Care To Patients With Serious Mental Illness And Primary Care Reform In Ontario
	E2.2 Continuity Of Care: A Perspective From Administrative Data	E3.2 Mental Illness In The Family: Investigating The Sibling Experience	E4.2 Evaluating A New Method For Identifying And Sharing Innovative Practices In Canada	E5.2 Fall-Related Emergency Department Presentation in Older Adults	E6.2 Do Specialists Provide Better Quality Of Care For Patients With Chronic Disease?
	E2.3 Practice Patterns Of BC Primary Care Physicians: Trends Over Time And Place	E3.3 Assessing The Association Of Economic Barriers On Care And Outcomes For Patients With Chronic Disease	E4.3 The Effect of Print or Online Educational Materials for Primary Care Physicians: A Systematic Review	E5.3 New Screening Methods to Predict Adverse Post-Discharge Outcomes among of Older Emergency Department Patients: Results from the MOPED Study	E6.3 The BETTER (Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Family Practice) Project: Qualitative Study
	E2.4 A Pragmatic Randomized Controlled Trial Of Integrated Chronic Disease Prevention And Management Services In Primary Healthcare: The PR1MaC Study	E3.4 Impacts of Waiting to See a Specialist in Ontario: Are they equitable?	E4.4 Design of Physician Printed Educational Materials: Making Good Ideas Stick	E5.4 Identifying Small-For-Gestational Age Newborns With Ethnicity-Specific Growth Distributions Improves Prediction Of Newborn Morbidity	E6.4 The Prescribing Trends By Nurse Practitioners To Older Adults In Ontario: 2000 - 2010

Thursday, May 30, 2013 STREAM F 10:45am – 12:00pm (Abstract Guide: pgs. G74 – G80)

PAVILION D	PAVILION A	PAVILION B	PAVILION C	PARKSVILLE	FINBACK
F1 PANEL	F2 EQUITY	F3 PRIMARY CARE	F4 KNOWLEDGE TRANSLATION & EXCHANGE	F5 MENTAL HEALTH	F6 PRIMARY CARE (2)
F1 Clash of the Titans; Integrating Primary and Community Care	F2.1 Challenges Faced by Heart Disease and Diabetes Patients as They Modify Their Diets: The Influence of Social Vulnerability	F3.1 Defining Quality Outcomes for Complex Care Patients Transitioning Across the Continuum Using a Structured Panel Process	F4.1 The sustainability and long-term outcomes of knowledge translation projects: A 3-year follow-up of the GAIN Collaborative Network (GAIN-CN) Project	F5.1 Emergency Department Utilization Among Formerly Homeless Adults with Mental Disorders after 1-year of Housing First: A Randomized Controlled Trial	F6.1 Determinants of Time to an Episode of Care for a Recurrent Chronic Obstructive Pulmonary Disease Exacerbation
	F2.2 Population-Level Discrepancies In Uptake Of Prenatal Screening In Ontario	F3.2 HCARDD: Health Care Access Research and Developmental Disabilities, A Partnerships for Health System Improvement project	F4.2 Exploring the Barriers and Facilitators to Knowledge Translation and Implementation of Frontline Services for Substance Abuse	F5.2 How Much Do Homeless Mentally Ill People Cost In Canada?	F6.2 Development of an Ideal Cardiovascular Health Index for the Canadian Population
	F2.3 A New Approach To Assess Health Inequities: Integrating Ethics, Methods, And Policy	F3.3 The Self-Management-Focused Chronic Care Model: A Conceptual Framework	F4.3 Implementation of HIV Point of Care Testing for Youth	F5.3 An Examination Of Child And Youth Mental Health Policy In Ontario	F6.3 Does Team-Based Primary Care Impact Outpatient Health Care Service Use and Associated Costs? The Case of Quebec's Family Medicine Groups
	F2.4 Availability And Access To Health And Community-Based Services Across Canada: National Population Health Study Of Neurological Conditions (Nphsnc)	F3.4 Collaborative Primary Care Model for Diabetes and Depression: Results of a Controlled Implementation Trial	F4.4 Cost effectiveness of cervical cancer screening strategies after availability of HPV vaccine		F6.4 Integrating a mental health promotion strategy for families in the postpartum period within an existing public health program

Thursday, May 30, 2013 STREAM G 1:15pm – 2:30pm (Abstract Guide: pgs. G81 – G87)

PAVILION D	PARKSVILLE	PAVILION B	PAVILION C	FINBACK	PAVILION A
G1 HEALTHCARE LEADERSHIP & PATIENT CENTRED CARE	G2 EQUITY	G3 PRIMARY CARE	G4 PERFORMANCE MANAGEMENT	G5 QUALITY & SAFETY	G6 PRIMARY CARE, MENTAL HEALTH & CANCER
G1.1 Mental Health In-Patients' Experiences In An Interprofessional Collaborative Care Setting	G2.1 Private Provision And Insurance Of Diagnostic Services Across Canada	G3.1 Identifying Chronic Diseases in the Emergency Department: A Pilot Screening Intervention for Asymptomatic, Incidental Findings of Hypertension	G4.1 Scoping Review: Patients using telehealth for spinal cord injury (SCI)	G5.1 Patient Outcomes Of Hip Resurfacing Compared To Total Hip Arthroplasty: A Systematic Review	G6.1 Using Case Study Methodology to Examine the Impact of Nurse Practitioner Led Group Medical Visits for Patients with Chronic Conditions in Primary Care
G1.2 Wait Time for Scheduled Surgery: A Complex Patient Experience	G2.2 Access To Occupational Therapy In Home Care: Will Low Priority Referrals Ever Get Their Turn?	G3.2 Primary Health Care And Patient Safety: Does Primary Care Current Evolution Facilitate Patient Safety Improvement?	G4.2 Measuring And Explaining Health System Efficiency Across Canada's Health Regions	G5.2 Automated Adverse Events Detection Methods: A Critical Review Of The Literature	G6.2 Is Having A Single Point Of Access For Patients Without A Family Physician Working As Planned? The Example Of The Province Of Quebec
G1.3 The Cost-Effectiveness of a Nurse Practitioner-Led Care Transition Intervention in Ontario, Canada	G2.3 Disparities In Treatment For Heart Attack And End-Stage Renal Disease Among Aboriginal Peoples In Canada	G3.3 Understanding Informational Continuity Practices within Interprofessional Primary Care Teams	G4.3 A Scoping Review Of Preferred Burden Of Injury Measures To Inform Policy-Relevant Decision Making For Trauma Systems	G5.3 Optimizing Care For Seniors With Colon Cancer: Utilizing Patterns Of Healthcare Use To Reduce Postoperative Emergency Room Readmissions	G6.3 Cost offsets from a Housing First intervention for Homeless People with Mental Illness : One-year results of the At Home/ Chez Soi study
G1.4 Ontario's Emergency Department Process Improvement Program (ED-PIP): A Qualitative Evaluation	G2.4 Medications for Overactive Bladder: Reviewing Evidence to Quantify Harms and Benefits	G3.4 Activity Based Funding in British Columbia: Changes in Activity?	G4.4 How Well Is Chronic Kidney Disease Managed In Primary Care?	G5.4 Do Interdisciplinary, Palliative Care Teams In The Community Lower Utilization And Costs?: A Pooled Analysis In Ontario	G6.4 Locating Invisible Policies: Health Canada's Evacuation Policy as a Case Study



Poster Presentations At-a-Glance

Sponsored by Michael Smith Foundation for Health Research

Tuesday, May 28, 2013 5:30pm – 7:15pm

(Abstract Guide: pgs. G89 – G106)

JUNIOR BALLROOM

BOARD #	PRESENTATION
38	A Monitoring, Evaluation and Learning System to Support the Implementation of Triple Aim in BC Muneerah Kassam, Product Manager, Monitoring Evaluation & Learning System, Michael Smith Foundation for Health Research
1	A New Explanatory Model of Emergency Department Use among Frail Community-dwelling Older Adults Andrew Costa, Fellow / Assistant Professor (Part-time), ICES, Mount Sinai Hospital / McMaster University
33	A Process For Crafting Evidence-Based Health Policy And Advocacy Communications Monika Kastner, Banting Post-Doctoral Fellow, Li Ka Shing Knowledge Institute, St. Michael's Hospital
4	A Readily Available Tool to Measure Socio-Economic Status Hiba Farhat, BSc, McGill University
57	Accuracy Of Automated Detection Of Deep Vein Thrombosis (DVTs) In Acute Care Hospitalized Patients Christian Rochefort, McGill University
49	All-Cause Unplanned Readmission to Acute Care in Canada Xi-Kuan Chen, Program Lead, Canadian Institute for Health Information
11	Alternate Level of Care (ALC) Patients in Hospitals: Still an Issue? Randy Fransoo, Researcher, Manitoba Centre for Health Policy
40	An Exploratory Study of Interprofessional Teams in Primary Care Networks: A Case Study of the Chinook Primary Care Network Renee Misfeldt, Senior Research and Evaluation Consultant, Alberta Health Services
48	Antipsychotic Dispensing To Seniors After Admission To Long Term Care: Facility-Level Determinants Riley Glew, MSc candidate, University of Saskatchewan
53	Assessing The Impacts Of Public Engagement On The Health Technology Advisory (HTA) Process Sarah Boesveld, PhD Student, Centre for Health Economics and Policy Analysis, McMaster University
10	Bridging Silos: Increasing Patient Related Collaboration Between Solo/Small Group Family Practitioners and Home Health Staff Shannon Berg, Executive Director, Home and Community Care, and PhD Candidate, Vancouver Coastal Health, and UBC
18	Case Management And Self-Management Support In Primary Care For Individuals With Chronic Diseases Who Are Frequent Users Of Health Services: Pre-Implementation Evaluation Maud-Christine Chouinard, Professor, Université du Québec à Chicoutimi
6	Changements organisationnels en contextes professionnels : Lorsque l'efficience menace l'empowerment Frédéric Gilbert, Professor, Université du Québec à Montréal
13	Children, Social Housing and Neighbourhoods: A PATHS Equity for Children Project Mark Smith, Associate Director, Manitoba Centre for Health Policy
32	Choice, Autonomy, and Consumer Demand: A Critical Analysis of 'Cesarean Delivery on Maternal Request' in Medical Journal Editorials Sarah Munro, PhD Student, University of British Columbia
28	Creating A Model To Engage Marginalized Women In Healthcare Program Planning: The AWESOME Project Mary Elizabeth Snow, Evaluation Specialist, Public Health, Fraser Health
47	Decreasing Inequity In Child Outcomes (PATHS): The Effect Of In-School Clinics On Teen Pregnancy & STI Rates Colleen Metge, Director, Research & Evaluation, Winnipeg Regional Health Authority

21	Developing a Framework for Integrating Primary Care and the Cancer System Jacqueline Liberty, Research Associate, Cancer Care Ontario
23	Does Predictive Genetic Information Motivate Behaviour Change? A Theoretical And Empirical Evaluation Of Personalized Medicine In Cancer Prevention Joanne Kim, Ph.D. Candidate, Institute of Health Policy, Management and Evaluation, University of Toronto
50	Does Starting An Electronic Medical Record (EMR) Affect Family Physicians' Billings Or Payments? Liisa Jaakkimainen, Family Physician and Scientist, Institute for Clinical Evaluative Sciences
44	Does Your Neighborhood Affect Your Health And Well-Being? Sneha Abraham, Graduate Student, Department of Community Health Sciences, University of Manitoba
59	Economic Burden of multimorbidity in the Ontario's Health Care System Kednapa Thavorn, Post-doctoral Fellow, Li Ka Shing Knowledge Institute, St. Michael's Hospital, Health System Performance Research Network (HSPRN), Institute of Health Policy, Management and Evaluation University of Toronto
62	Effects of Primary Care Reform in Quebec on Access to Health Care Services Catherine Dunkley-Hickin, Ms., McGill University
16	Establishing A Performance Measurement System For A Regional Geriatric Assessment And Intervention Network - Challenges And Enablers To Implementation Natalie Ceccato, Geriatric Assessment and Intervention Network
43	Evolution of a Community-Based Participatory Approach in a Rural and Remote Dementia Care Research Program Allison Cammer, Doctoral Student, University of Saskatchewan
17	Exploring The Relationship Between Governance Models In Healthcare And Health Workforce Transformation: A Systematic Review Karen Jackson, Senior Research & Evaluation Consultant, Alberta Health Services
29	Health Benchmarking: A Tool for Measurement and Management Jeannette Lye, Research Associate, Conference Board of Canada
7	Innovative Practices in Cultural Competency and Safety for First Nations, Inuit & Metis People in Urban Health Systems Elaine Kachala, Policy Lead, Health Council of Canada
52	Length Of Wait (For Cataract Extraction) Changes - As A Result Of Changes In Enrolments And Changes In Admissions Paul Armstrong, Dr, University of East London
63	« J'ai eu l'impression d'être abandonné par le système de santé » : qui sont ces personnes et quels sont les facteurs en cause ? Christine Beaulieu
34	Laying The Foundation For Primary Care Performance Measurement In Ontario Wissam Haj-Ali, Project Lead, Primary Care Performance Measurement & Reporting, Health Quality Ontario
61	Mandatory Influenza Vaccination Programs for Healthcare Workers: Ethically Justifiable? Maryana Hnatyshyn, Dalhousie University, Schulich School of Law
5	Mental Health Service Use Patterns For Immigrant Groups And Long Term Residents In Ontario Anna Durbin, Ms, University of Toronto
58	Multimorbidity and Hospitalization Outcomes Over One Year Andrea Gruneir, Scientist, Women's College Research Institute
46	Multimorbidity As A Driver Of Health Care Utilization: Results Of The 2012 Health Quality Council Of Alberta's Patient Satisfaction And Experience Survey Calypse Agborsangaya, Mr, University of Alberta
24	Overview of the PATHS Equity for Children Program of Research Marni Brownell, Associate Professor/Senior Research Scientist, University of Manitoba/Manitoba Centre for Health Policy
55	Patient Assessment Of Chronic Illness Care Within The Teamcare-PCN Study: A Controlled Trial Of A Collaborative Care Model For Patients With Diabetes Fatima Al Sayah, PhD Candidate, University of Alberta

20	Patient Preferences: Understanding Risk-Benefit Trade-Offs Of Genomic Testing In Chemotherapy Decisions For Breast Cancer Patients Karen Pykerman, Research Associate, University of Calgary
45	Potential Effects of Policy Enhancements to the Primary-to-Specialist Hip and Knee Referral System in Alberta Ken Fyie, Research Associate, University of Calgary
58	Prevalence and Characteristics of Multimorbidity in Ontario Anna Koné, Epidemiologist, Institute of Health Policy, Management and Evaluation, University of Toronto; Cancer Care Ontario
22	Projections Of Preventable Risk Factors For Cardiovascular Disease In Canada From 2001 To 2020: A Microsimulation Modelling Approach Deirdre Hennessy, Post-doctoral Fellow, OHRI
2	Readiness For Interprofessional Education: Views From The Clinical Setting Brenda Gamble, Assistant Professor, University of Ontario Institute of Technology
66	Reporting on Primary Healthcare Performance in Canada Matthew Hogel, Research Assistant, Bruyere Research Institute
26	Resource Utilization And Expected Costs Of Screening Current And Former Smokers For Lung Cancer In Canada Sonya Cressman, Health Economist, British Columbia Cancer Agency, The Canadian Centre for Applied Research in Cancer Control
64	Rural Pharmacist Practice, Interest And Engagement In Academic Activities Feng Chang, Assistant Professor, University of Waterloo School of Pharmacy
9	Selecting A Generic Health Status Instrument For The Systematic Collection Of Patient-Reported Outcomes Angie Chan, Project Manager, University of British Columbia
12	Social Housing And Health In Manitoba: A First Look Mark Smith, Manitoba Centre for Health Policy
8	Strengthening Evidence-Based Practice With Youth-Focused Service Providers Through An Active Knowledge Translation And Exchange Approach Joanna Henderson, Clinician Scientist, Centre for Addiction and Mental Health
39	Successful Interdisciplinary Collaboration In Health Services And Policy Research: A Case Study Of A Multi-Year, Multi-Method Research Project Laurie Goldsmith, Assistant Professor, Simon Fraser University
37	Surgeon Caseload And Its Association With Rate Of Breast Conserving Surgery In Breast Cancer Patients In Alberta, Canada Stacey Fisher, M.Sc. Candidate, School of Public Health, University of Alberta
31	The 'ACT-Pharm' Study: Is Contraception Task-sharing Acceptable and Feasible among Rural Pharmacists in British Columbia (BC) Wendy V. Norman, Assistant Professor, University of British Columbia
19	The Canadian Foundation for Healthcare Improvement (CFHI): Our Triple Aim Impact in Canada Kaye Phillips, Director, Performance Improvement, Canadian Foundation for Healthcare Improvement
65	The Current State of e-Referral and e-Consultation in Canada: An Environmental Scan Matthew Hogel, Research Assistant, Bruyere Research Institute
54	The Evaluation and Use of Economic Evidence to Inform Cancer Drug Reimbursement Decisions in Canada Jaclyn Beca, Research Manager, St. Michael's Hospital
56	The Father Friendly Initiative : An Innovative Program to Support Father Involvement in Health Services Pascale de Montigny Gauthier, Research Coordinator, University of Quebec in Outaouais
51	The Francophone/Acadian Experience: Primary Healthcare in Halifax, Nova Scotia Caila Aubé, Dalhousie University
59	The Impact of Comorbid Conditions on the Quality of Diabetes Care in Ontario Yelena Petrosyan, PhD student, University of Toronto, Health System Performance Research Network (HSPRN)
67	The Impact of the Feminization of British Columbia's Primary Care Physician Workforce on Service Supply Lindsay Hedden, PhD Candidate, School of Population and Public Health, UBC

14	The Influence Of Unemployment Status On Health Outcome Of Canada's Immigrant Population: Result From Canadian Community Health Survey, 2010 Jing Han, Western Regional Training Centre for Health Services Research (WRTC) , University of Manitoba
27	The Role Of The Health Care Sector In Canadian Obesity Strategies Lee Johnston, PhD Student, Simon Fraser University
42	Understanding Continuance Intentions of Physicians with Electronic Medical Records (EMR): An Expectation -Confirmation Perspective Nicole O'Brien, MSc Candidate, Brock University
41	Using Network Analysis to Understand and Advance Falls Prevention Services and Programs Phuc Dang, MA Candidate, Brock University
60	Using the '5x5' Framework to Evaluate Community Health Worker Program Design for Mental Health Care in India Andra Ragusila, University of Toronto, Centre for Addiction and Mental Health
30	Validating the CPCSSN Algorithms for Eight Chronic Diseases Michael Green, Associate Professor, Department of Family Medicine, Queen's University
35	Valuing Productivity Loss Due To Absenteeism: Firm-Level Evidence From A Canadian Linked Employer-Employee Data Wei Zhang, PhD Candidate, University of British Columbia
25	What If Implementation Is Not The Problem? Exploring The Missing Links Between Knowledge And Action Sara Kreindler, Researcher, Winnipeg Regional Health Authority
15	What Network Works for What? A Scoping Review on Knowledge-based Networks Olivier Demers-Payette, Ph.D. Candidate, Département d'administration de la santé, Université de Montréal
3	What Will It Take To Lead In Healthcare?: The Role Of Emotional Intelligence To Facilitate Change In The Delivery Of Care Brenda Gamble, Assistant Professor, UOIT
36	Why Has The Canadian Government Placed An Orphan Drug Strategy On Their Decision Agenda Now? Examining The Agenda Setting Process Using Causal Stories Mark Embrett, McMaster University

Wednesday, May 29, 2013 5:30pm – 7:15pm

(Abstract Guide: pgs. G107 – G124)

JUNIOR BALLROOM

BOARD #	PRESENTATION
32	A Compromise Too Far: Canadian Case Studies In Direct-To-Consumer Advertising Regulation Barbara Mintzes, Assistant Professor, School of Population and Public Health, University of British Columbia
53	A New Conceptual Framework and Methodology for Systematically Synthesizing Qualitative Research to Address Social Values in Health Technology Policy Assessment Meredith Vanstone, Postdoctoral Fellow, McMaster University
65	A Qualitative Study of Public and Patient Involvement in Resource Allocation Zahava Rosenberg-Yunger, Postdoctoral fellow, Centre for Research on Inner City Health Li Ka Shing Knowledge Institute St Michael's Hospital
58	A Realist Evaluation of a Nurse Practitioner-Led Care Transition Intervention in Ontario, Canada Kristen B. Pitzul, PhD Student, University of Toronto
30	Adolescent Health and Educational Achievement: A Life Course Exploration Elizabeth Wall-Wieler, University of Manitoba
24	Applying Lean Principles to Complex Care Coordination Michael Schull, Director, Division of Emergency Medicine, Department of Medicine, University of Toronto

14	Assessing the Effectiveness of a Stakeholder Consultation Exercise in Supporting Saskatchewan's Primary Healthcare Change Initiative (PHCI) Adam Mills, PhD Candidate, University of Regina
48	Barriers to Integrated Health Care: Patients and Providers Exploring the Journey Karen Jackson, Senior Research and Evaluation Consultant, Alberta Health Services
43	Clinical-Decision-Maker Collaboration To Liberate Data For Performance Measurement In Alberta Carolyn De Coster, Executive Director, Alberta Health Services
39	Cross Cultural Research In Supportive Cancer Care: Challenges In Conceptualization And Measurement Joyce Lee, PhD Candidate, University of British Columbia
47	Delay in Cancer Diagnosis and Primary Healthcare Dominique Tremblay, Professor, Université de Sherbrooke
6	Determinants of Socioeconomic Disparities in Eye Screening Services among Diabetic Patients in Alberta, 1995-2009 Jongnam Hwang, School of Public Health, University of Alberta
42	Do Overweight Or Obese Individuals In Manitoba Use More Health Services Than Others? Taru Manyanga, Graduate Student, University of Manitoba
33	Do Physicians View Obesity as a Chronic Disease? Cristina Longo, MSc, PhD(c), McGill University
66	Efficacy And Consumer Preferences For Calorie Labelling On Menus Jocelyn Pang, BSc, School of Public Health and Health Systems, University of Waterloo, Waterloo, Ontario; MSc, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario
49	Evaluating Care by Design (CBD): A New Model of Dedicated Physicians-per-floor and Team Approach in Long Term Care Emily Gard Marshall, Assistant Professor, Dalhousie Family Medicine
31	Evaluating Pay-for-Performance in the Emergency Department Andrew Boozary, Research Student, Institute for Clinical Evaluative Sciences (ICES)
34	Evidence Informed Health Policy Decision Making: Comparing Media Discourse to Population Data in Fluoridation Decisions in Canada Robert Rivers, MA., University of British Columbia
28	Examination Of Preventative Health Services For Persons With Multimorbidity And Disability In Ontario: Do Geography And Complexity Matter? Sara Guilcher, Post-Doctoral Fellow, Physical Therapist, Centre for Research on Inner City Health and Health System Performance Research Network
57	Examining Use Of Evidence In Health Technology Assessments Through Three Perspectives Of Decision-Making Theory Juliana Yi, PhD Student, University of Toronto
35	Experiencing Evidence-Based Supported Employment Services: Qualitative Findings Of A Mixed-Methods Study Eric Latimer, Associate Professor, McGill University
46	Factors Associated With Patient Perception Of Cancer Services Responsiveness Dominique Tremblay, Professor, Université de Sherbrooke
45	Financial and Non Financial Incentives for Health Care Providers in Canada: An Overview of Reviews Renee Misfeldt, Senior Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services
50	Health Information on the Internet: What do Caregivers Want? Tabitha Tonsaker, Miss, McGill University
29	Health Related Quality Of Life And Healthcare Utilization By Burden Of Disease: Analysis Of 2011 Commonwealth Survey Data For Canada Emmanuel Ngwakongnwi, Health Systems Data Analyst, Health Quality Council of Alberta
5	Improving Chronic Kidney Disease Care In Ontario Through Patient-Based Funding Ophelia Michaelides, Policy Research Analyst, Ontario Renal Network - Cancer Care Ontario
51	Income Support And The Use Of Emergency And Inpatient Medical Services Among Adults With Intellectual And Developmental Disabilities (IDD) In Ontario Elizabeth Lin, Independent Scientist, Centre for Addiction and Mental Health

63	Interactive Health Technology Assessment (HTA) Education Workshops for Health Care Practitioners and Managers in Surgical Services Elizabeth Oddone Paolucci, Assistant Professor of Departments of Surgery and Community Health Sciences, University of Calgary
62	Is There A Relationship Between Quality Indicators And Patient Satisfaction In Seizure Monitoring Units? Khara Sauro, Doctoral Student, University of Calgary
18	Learning From the Leading Provinces: Benchmarking Provincial Health System Performance Jeannette Lye, Research Associate, The Conference Board of Canada
16	Lessons Learned from the Development of an Interprofessional Emergency Early Pain Management Policy and Protocol to Enhance Patient Care Julie Spence, Emergency Physician, St. Michael's Hospital
54	Linking Administrative Data Sources to Analyze Cost of Care over the Continuum Sally Chu, Student, UBC Centre for Health Services and Policy Research
7	Maternity Nurses' Experience With Providing Newborn Screening Education To Mothers In The Immediate Post-Birth Setting In Ontario Diana An, Masters Student, University of Toronto
25	Meeting the Needs of an Aging Population: The Importance of More Responsive Models of Alternate Transportation for Rural and Urban Seniors Tara Pidborochynski, University of Alberta
20	Mining Canadians Rich Physician Claims Health Data: Features and Face Validity Ceara Cunningham, University of Calgary
52	Multi-Level Factors Influence The Implementation And Use Of Complex Innovations - Synoptic Reporting Tools - In Cancer Care Robin Urquhart, Knowledge Broker, Cancer Outcomes Research Program, Capital Health/Dalhousie University
2	Not All High Users Are Created Equal: Correlates Of Higher-Than-Expected Health Care Services Use In British Columbia Kimberlyn McGrail, Assistant Professor, Centre for Health Services and Policy Research, SPPH, UBC
13	Off-Label Policy Use Serena Purdy, Magister, University of Toronto
22	Partnering for Change: Examining Primary Healthcare System Transformation Martha MacLeod, Professor School of Nursing/School of Health Science, University of Northern British Columbia; Dr. Suzanne Johnston, Vice President Clinical Programs, Northern Health
19	Quality and productivity in Family Medicine Group : Who are the best? Male or female physicians? Roxane Borges Da Silva, Dr., Institut de recherche en santé publique de l'Université de Montréal
8	Regionalization and Health System Performance in Nova Scotia, New Brunswick, Manitoba, and Saskatchewan Jonathan Harris, MPP Student, Johnson-Shoyama Graduate School of Public Policy
67	Returning Research Results And Incidental Findings: Challenges For The Healthcare System Karine Sénécal, Academic Associate, Centre of Genomics and Policy
44	Shifts In Strategic Priorities By Ontario's Acute Care Hospitals In An Environment Of Accountability Sejja Kromm, PhD Candidate, University of Toronto
9	Speech-Language Pathology Diet Texture Medical Directive: Impact on Accuracy and Timeliness of Diet Order Entry Carolyn Chalmers, Speech Language Pathologist, University Health Network
23	The Accreditation Canada Worklife Pulse Survey: Validation Of The English & French Versions And The Healthy Work Environment Model Genevieve Lavigne, Postdoctoral fellow, McGill University
41	The Canadian Inherited Metabolic Diseases Research Network: Achieving The Triple Aim For Inborn Errors Of Metabolism Sylvia Stockler, MD, PhD, University of British Columbia
3	The Drivers of Prescription Drug Expenditures: A Methodological Study Elena Lungu, A/Manager NPDUIS, Patented Medicine Prices Review Board

55	The Effect Of Alternative Payment Programs On Daily Distress Experienced By Physicians Juan-Nicolás Peña-Sánchez, PhD Student, University of Saskatchewan
10	The Impact Of EMR Implementations On Canadian Primary Care: Establishing A Return-On-Investment (ROI) Based Value Proposition For EMRs For Physicians Steven Sanche, MSc Statistics, St. Mary's Research Centre
1	The Impact Of Publicly Funded Human Papillomavirus (HPV) Vaccination On Cervical Dysplasia: The Ontario Grade 8 HPV Vaccine Cohort Study Leah Smith, Student, McGill University
59/60	The Importance of Theory in Health Services Research Suman Budhwani, University of Toronto, IHPME; Juliana Yi, IHPME, University of Toronto; Kristen Pitzul, IHPME, University of Toronto; Kaileah McKellar, IHPME, University of Toronto
12	Themes And Variations In Canadian Health Services Research Ruth Lavergne, Doctoral Candidate, Centre for Health Services and Policy Research
21	TIDE-BC Complex Diagnostic Clinic: A Multidisciplinary Approach to Causal Diagnosis of Complex Intellectual Disability Tyler Murphy, BC Children's Hospital / UBC
64	Trends In Cancer Chemotherapy Costs In The Last Year Of Life In British Columbia Reka Patak, Data Linkage Coordinator, Canadian Centre for Applied Research in Cancer Control, BC Cancer Agency
17	Triple Aim Policy Options For Canada: Reducing Maternal Mortality Worldwide Farah Shroff, Adjunct Professor, University of British Columbia, Department of Family Practice & School of Population & Public Health
56	Understanding the Role of Influentials in Evidence-Based Nursing Emily Pearsall, Student, University of Toronto
27	Use Of Publicly Funded Home Visits In The Last 60 Days Prior To Death At Home Or Hospital In Palliative Care Recipients - A Propensity Score Based Analysis Mo Yu, Masters Student, University of Toronto
38	Utiliser l'expérience des usagers et des intervenants pour soutenir une réorganisation de services : l'exemple du continuum québécois de services de réadaptation pour les personnes ayant un AVC Marie-Eve Lamontagne, O.T., Ph.D., Université Laval
37	Utilization of Primary Care Services in Two Community Health Centre in Ontario Maude Laberge, PhD Student, University of Toronto
26	Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) Case Detection Algorithm for Hypertension using Nova Scotia EMR Data Nandini Natarajan, Associate Professor/Family Physician, Dalhousie University
40	Variation in Emergency Department Visit Rates from Long-Term Care Homes in Ontario Andrea Gruneir, Scientist, Women's College Research Institute
15	Variation in Treatment and Survival Patterns of Breast Cancer Patients in Alberta, Canada 2002-2010: Opportunities for Quality Improvement Stacey Fisher, Student, University of Alberta
11	Variations In Practice Among Physicians Providing Clinical Care To Individuals With Dementia: A Systematic Review Saskia Sivananthan, Doctoral Candidate, UBC Centre for Health Services & Policy Research
61	What's It Going To Take To Implement Caregiver Education And Support Programs In Ontario: A Key Informant Study Victrine Tseung, Miss, University of Toronto
36	When A Nursing Home Is 'Home': How Do Canadian Nursing Homes Measure Up On Quality? Lacey Langlois, Team Lead, Analysis & Reporting, Canadian Institute for Health Information

Concurrent Sessions Guide / Guide des séances simultanées



Tuesday, May 28, 2013

Mardi 28 mai 2013

STREAM A: 1:00pm – 2:15pm

VOLET A : 13h00 – 14h15

A1 PANEL PRESENTATION

PRÉSENTATION EN PANEL

A1 Achieving the Triple Aim through Evidence-Informed Disinvestment in Healthcare

Robyn Tamblyn, Scientific Director, CIHR Institute for Health Services and Policy Research; Craig Mitton, Associate Professor, University of British Columbia; Adam Elshaug, National Health and Medical Research Council Sidney Sax Public Health Fellow, Harvard Medical School; Arden Krystal, Adjunct Professor, Fraser Health Authority; Allison Paprica, Ontario Ministry of Health

Increasing cost pressures on provincial healthcare budgets means that achieving the Triple Aim requires healthcare decision makers to reduce healthcare expenditures while maintaining, if not improving, the quality of patient care. This translates into a demand for disinvestment in healthcare interventions or programs that are deemed to be ineffective or of lower relative value than other investments. While healthcare disinvestment is taking place across the country, decision makers faced with this task currently lack a systematic methodology for making and evaluating these critical decisions. Evidence-based models for healthcare disinvestment would help ensure that these decisions ultimately achieve the Triple aim of increasing population health and improving the patient and provider experience while constraining cost growth in the Canadian healthcare system. The objective of this session is to bring together decision makers and researchers with expertise in healthcare disinvestment to examine the challenges and opportunities for this field. Chaired by Dr. Robyn Tamblyn, Scientific Director of CIHR-Institute of Health Services and Policy Research, this session aims to: - Shed light on the experiences of decision makers faced with growing budget constraints to determine how they make important disinvestment decisions; - Examine theoretical approaches to healthcare disinvestment, considering questions of program value, safety, effectiveness and sustainability; - Explore international perspectives on healthcare disinvestment; - Examine priority setting methodologies; and - Discuss approaches to the evaluation of disinvestment strategies.

A2 CANCER AND EQUITY

CANCER ET ÉQUITÉ

A2.1 Hospitalizations 2006-2008 In A British Columbia Population-Based Cohort Of Three-Year Breast Cancer Survivors

Dongdong Li, Statistician, British Columbia Cancer Agency

Due to late effects of cancer and relapse among breast cancer survivors, increased health services utilization is expected. This study explores long-term hospitalizations among three-year breast cancer survivors in British Columbia (BC), compares utilization to that of the general population, and examines socio-demographic, clinical and system factors that affect hospitalization. A population-based cohort of 15,042 BC female three-year survivors of breast cancer diagnosed at 18 years or older from 1989 to 2002 was identified from the BC Cancer Registry, with 30,082 randomly-selected birthyear-matched women from BC's health insurance plan client registry as controls. Subject records were linked to provincial administrative hospitalization records from 2006 to 2008. Descriptive and multivariate regression analyses were conducted to determine frequency, type and reason for hospitalizations and compare utilization to that of the general population; the impact of socio-demographic, temporal, treatment, and other clinical factors that could affect hospitalizations were also assessed among survivors. From 2006 to 2008, 7531 (50.7%) of survivors and 12275 (40.8%) of the population sample were hospitalized at least once (adjusted OR(ORadj) 1.47, 95%CI 1.41-1.53). Hospitalized survivors had similar mean number of admissions versus controls (2.1 vs. 2.0); 13% of survivors versus 9% of controls had 3 or more admissions (ORadj = 1.37, 95%CI 1.3-1.46). The main reasons for survivor hospitalizations were cancer, conditions of the nervous system, digestive system, or circulatory system, and injury. Older survivors and those who lived in Fraser and Northern Health Authorities showed increased risk of hospitalization, more admissions and longer length of stay compared to those in Coastal Health; those in smaller communities had higher risk of hospitalization and more admissions. Socioeconomic disadvantage increased length of stay among hospitalized survivors. Breast cancer survivors had higher odds of hospitalization and more admissions among those hospitalized than the population group, likely due to late effects of the disease and treatment. The increased risk of hospitalization among some patient subgroups highlights the importance of equal access to risk-based follow-up care for these survivors.

Co-Authors: Scott Tyldesley, Radiation Oncologist, Cancer Control Research Program, British Columbia Cancer Agency, Vancouver, Canada; Elaine Wai, Radiation Oncologist, Division Of Radiation Oncology, British Columbia Cancer Agency, Vancouver, Canada; Mary L. McBride, Research Scientist, Cancer Control Research Program, British Columbia Cancer Agency, Vancouver, Canada

A2.2 Timely Access and Quality of Care in Colorectal Cancer: A Population-Based Cohort Study Using Administrative Data

Cynthia Kendell, Research Associate, Capital Health

The objective of this study is to explore, at a population level, the relationship between quality of care (as measured by select quality indicators) and timely access to care (as measured by select timeliness benchmarks) for colorectal cancer (CRC) patients in the province of Nova Scotia. Through the provincial cancer registry, all residents diagnosed with invasive CRC between 2001 and 2005, and who underwent a non-emergent resection, were identified. Using anonymized administrative databases that are individually linked at the patient level, clinicodemographic, diagnostic, and treatment event data were obtained. Selected charts were reviewed to ensure completeness of chemotherapy data. Performance on six quality indicators and the percentage of patients meeting timeliness benchmarks for diagnosis, surgery, and adjuvant therapy were calculated. The relationship between quality indicators and timeliness benchmarks was examined using logistic regression. For most of the quality indicators examined, there was no association with a timeliness benchmark; however, where such an association was found, patients with better quality indicator performance were less likely to meet timeliness benchmarks. Specifically, patients who received a complete preoperative colonoscopy were less likely to meet benchmarks for time from presentation to diagnosis, and from diagnosis to surgery. In addition, patients who received an appropriate radiation oncology consultation were less likely to meet benchmarks for time from diagnosis to surgery, and from surgery to adjuvant therapy. When strategizing to reduce wait times, the relationship between quality and timeliness of care must be considered. Attempting to deliver care quickly by implementing timeliness benchmarks may impact other dimensions of care delivery (i.e., quality) if the resources/capacity to meet those benchmarks does not exist.

Co-Authors: Geoffrey Porter, Department of Surgery, QEII Health Sciences Centre, Halifax, NS; Robin Urquhart, Cancer Outcomes Research Program, Cancer Care Nova Scotia, Halifax, NS; Jingyu Bu, New Brunswick Cancer Network, Government of New Brunswick, Fredericton, NB; Yarrow McConnell, Tom Baker Cancer Centre, University of Calgary, Calgary, AB

A2.3 A Fine Balance: Trends In Characteristics And Unpaid Care Among Long-Stay Home Care Clients

Jeff Poss, Associate Adjunct Professor, University of Waterloo

In Ontario home care, home support for individuals with long term health conditions is delivered with at least 80% of the care hours provided by unpaid relatives, neighbours, and friends. With this sector taking on more high-needs clients in recent years, is this proportion also changing? Six years (2006 to 2012) of cross-sectional home care information (the RAI-HC, a standardized, comprehensive clinical assessment used in home care) that describe home care recipients and their unpaid caregivers linked with home care service data, were used. N=685,000. Multivariate regression modeling using recognized drivers of care (client's physical, cognitive impairment along with behaviour, and caregiver relationship and cohabitation), as well as case mix measures, were used to inform expected hours of care from paid and unpaid sources. These were compared with actual care over the six year period. In a weekly period, paid care averaged 3.2 hours and unpaid care 18.4 hours. Each year, the average home care recipient presented with higher care needs, while the average unpaid caregiver arrangement showed little change. Paid care time increased on average 4.5% per year, while unpaid time was relatively flat. Notably in the years 2009 to 2012, paid formal care showed a tendency to exceed expected levels, while unpaid care lagged behind expected levels. Findings were consistent across regression and case-mix informed approaches. The proportion of paid time as a proportion of total care time went from 13.5% to 16.1%. Care needs of the average long-stay home care client have increased over time in Ontario, and the formal system appears to be exceeding its expected share. This may serve to better support unpaid caregivers, whose care time shows no increase, to provide care better or longer.

Co-Authors: John Hirdes, Professor, University of Waterloo

A2.4 From Bench to Bedside to Policy: Parental Perceptions on the Return of Genetic Research Results in the Context of Pediatric Cancer

Cristina Longo, MSc, PhD(c), Centre of Genomics and Policy, McGill University

Explore the perceptions of health professionals and researchers on the return of genetic research results and incidental findings in the whole genome sequencing of children affected by paediatric cancer. Fifteen telephone interviews have been conducted with various Canadian health professionals and researchers who provided insight on the return of genetic research results and incidental findings to paediatric participants with cancer. Participants were asked to comment on the when, why, and how research genetic research results should or should not be offered to participants. The common ethical, clinical and social challenges regarding the communication of individual and incidental research findings to either the participants themselves or their treating physician were also explored. Discussions were recorded and transcribed. An inductive-deductive thematic analysis approach was used to identify emerging themes. Preliminary analyses revealed that both clinicians and researchers felt their decision to return research results to participants would ultimately depend on the clinical significance of findings, severity, time of onset, and whether an effective treatment or prevention exists for the identified condition. They also felt that the issues pertaining to the return of results should be explicitly discussed with participants during the consent process. A number of factors influenced their decision to inform and treat the participant. These were related to research results shown to be clinically significant and actionable. Access to genetic counselling was seen as necessary to support these parents. Participants also highlighted that the responsibility of communicating such results to participants long after the completion of the study would be untenable. Understanding the perspectives of clinicians and researchers regarding the return of research and incidental results will lay the groundwork for best practices regarding the responsibilities and important socio-ethical issues that need to be considered when returning research results.

Co-Authors: Denise Avard, PhD, Centre of Genomics and Policy, McGill University; Karine Sénécal, LLB, LLM, Centre of Genomics and Policy, McGill University; Daniel Sinnett, PhD, Faculty of Medicine, University of Montreal and CHU Sainte-Justine

A3 MENTAL HEALTH

SANTÉ MENTALE

A3.1 Spatial Patterns Of Drug Use And Mental Health Outcomes Among High School Students In Ontario, Canada

Wanrudee Isaranuwatthai, Health Economist, St. Michael's Hospital

Mental illness and addiction have been linked to the places where people live or work. The objective of this study was to explore and document the spatial patterns of drug use and mental health outcomes among high school students in the Province of Ontario, Canada. Mapping in spatial pattern analysis can be used to examine a variable of interest from a geographic perspective. Using data from the 2009 Ontario Student Drug Use and Health Survey, we aggregated drug use and mental health outcomes among high school students in Ontario to Local Health Integration Networks (LHINs). The information on each outcome was mapped by LHIN boundaries with reference to the province-wide average, in order to examine the spatial patterns of these outcomes. The analysis may enhance the understanding and identification of negative health outcomes in particular geographical areas. Mapping helped identify high school students' drug use and mental health issues to monitor in each LHIN. Visual analysis further revealed regional clusters of LHINs with elevated levels of drug use and mental health problems in the north and southwest of Ontario. The analysis revealed similarities in drug use and mental health issues between neighbouring LHINs. Visual analysis of thematic maps also revealed an issue previously hidden by the aggregation of LHINs. A spatial analysis of drug use and mental health outcomes among high school students could provide useful information for LHINs on negative health behaviours among this important population. Mapping may help with knowledge translation to health care providers and policy-makers.

Co-Authors: Claus Rinner, Dr., Ryerson University; Heather Hart, Ms., Ryerson University; Angela Paglia-Boak, Ms., Centre for Addiction and Mental Health; Kwame McKenzie, Dr., Centre for Addiction and Mental Health

A3.2 Results Of A Randomised Controlled Trial Of Evidence Based Supported Employment For People Who Have Recently Been Homeless And Have A Mental Illness

Eric Latimer, Associate Professor, McGill University

The Individual Placement and Support (IPS) model of supported employment is the most effective at helping people with mental illness in general attain their goal of employment. This randomized controlled trial is the first to investigate the efficacy of IPS services in a population with mental illness and recent experiences of homelessness. Ninety participants were recruited from a larger housing first randomized controlled trial in which they received housing and clinical supports. Participants expressing a desire to work were randomized to receive IPS services (n=45) or treatment as usual (n=45). Both groups were followed for a minimum of 12 months. Days in competitive employment, earnings, and hours worked were measured every three months using structured interviews and self-report questionnaire. Baseline data across groups were compared using parametric or non-parametric methods according to the distributions of the variables. Employment outcomes were compared on an intent-to-treat basis; mixed effects models will be used to compare outcomes across groups. No baseline differences were observed between groups. The average length of follow-up was 495 days. Once randomized, participants receiving IPS services worked more days in regular jobs, with regular paychecks, in the competitive labour market (26.4 days vs 9.6 days, p=0.03), and relied less on pan handling as a source of income (\$134.13 vs. \$1070.77 per month, p<0.00001). Hours worked in casual work, usually paid under the table, were identical between groups (7 hours per week). Receiving IPS services did not diminish the income received from welfare and social assistance which was identical for both groups (\$715.39 per month). The evaluation of IPS intervention fidelity improved with time and, in the final year of the study, reached a high level. IPS appears effective among people with mental illness who were recently homeless, though less so than typically reported among the general population of people with mental illness. Initial implementation difficulties may have contributed to this. Further research with a longer follow-up period is needed.

Co-Authors: Rob Whitley, Associate Professor, McGill University; Daniel Poremski, Doctoral Student, McGill University

A3.3 Use of Health and Social Services by Children and Youths with Fetal Alcohol Spectrum Disorder

Marni Brownell, Associate Professor/Senior Research Scientist, University of Manitoba/Manitoba Centre for Health Policy

Fetal Alcohol Spectrum Disorder (FASD) is the leading cause of intellectual disability in western society; prevalence is conservatively estimated at 1 in 100. Understanding the burden of FASD is important for service planning and policy development. This study describes the health, education and social service use of individuals with FASD. We linked health and social service data from the Manitoba Centre for Health Policy Population Health Research Data Repository with records from the Manitoba FASD clinic of all individuals 6+ years diagnosed with FASD between 1999-2009 (N=717). FASD subjects were matched (2:1) with a general population (gPop) and a chronic condition (asthma) group by age, sex and income quintile. Measures of health service utilization included hospitalizations, physician visits, prescription medications, and mental health. Social service utilization included family receipt of income assistance, involvement with child welfare services and education measures. Crude and adjusted rates were calculated using Generalized Linear Models. Hospitalizations were higher in the FASD compared to gPop (aRR (95%CI)=3.44 (2.29, 5.17)) and asthma (aRR=2.87 (1.94, 4.25)) groups, whereas for physician visits and overall prescriptions, the FASD group differed from only the gPop group (aRR=1.58 (1.34, 1.84)); aRR=1.44 (1.22, 1.72) respectively). Antibiotics, pain killers and anti-psychotics were similar across groups whereas antidepressants and psychostimulants were higher in the FASD group (antidepressants: FASD vs. gPop aRR=8.76 (12.82, 27.21); FASD vs. asthma aRR=2.10 (1.15, 3.83); psychostimulants: FASD vs. gPop aRR=5.78 (2.89, 11.57); FASD vs. asthma aRR=2.47 (1.37, 4.47)). ADHD was higher in the FASD than the gPop and asthma groups (aRR=6.41 (CI=3.29, 12.49), aRR=3.12 (1.97, 4.93), respectively). Social service use was higher for the FASD than either of the other groups for all measures. This study provides specific evidence of the significant burden of FASD in terms of service utilization, above and beyond that seen even in individuals with chronic illness. The findings highlight the need for both multisystem supports for those with FASD, as well as a comprehensive prevention program.

Co-Authors: Ana Hanlon-Dearman, Dr., University of Manitoba; Ab Chudley, Dr., University of Manitoba; Leonard MacWilliam, Mr., Manitoba Centre for Health Policy; Lauren Yallop, Ms., University of Manitoba

A3.4 The Impact of Remuneration Reform on Primary Mental Health Care: A Comparative Analysis of Three Provinces

Miranda Brown, Master of Public Policy Student, University of Regina, Johnson-Shoyama Graduate School of Public Policy

In Canada, the policy legacies of the mode and governance of physician remuneration continue to serve as structural barriers to quality improvement in primary mental health care. The research evaluates the types of reform to governance and mode of remuneration best suited to facilitate high-quality primary mental health care. Case studies of three Canadian provinces, British Columbia, Saskatchewan, and Manitoba are used to document the evolution of primary mental health care policies, with particular attention on the mode and governance of physician remuneration. In addition, a comparative case analysis defined the key similarities and differences in policy mechanisms used to address the constraints imposed by the mode and governance of physician remuneration. Finally, the performance of jurisdictional policy choices to improve primary mental health care is assessed through comparative benchmarking of selected indicators of reform. Reforms to Canadian primary mental health care have been incremental compared to international comparators, in particular New Zealand and Australia. Comparative analyses between the Canadian jurisdictions revealed the British Columbian primary mental health care policy model achieved more reform than Saskatchewan and Manitoba. Indicators measured the impact of the mode of remuneration reform on primary mental health care. The analysis concluded the British Columbian Full-Service Family Practice Program to be most supportive of primary mental health care reform. Further, the Canadian cases demonstrated absence of reform to the governance of remuneration. Here, policies fragmented the remuneration of physician services from regionally financed and coordinated mental health services. To address this challenge, innovative policy lessons were drawn from the cases of New Zealand and Australia. Improving the quality of primary mental health care requires governments to seriously address the structural barriers imposed by the modes and governance of physician remuneration. The legacies of these barriers influence the capacity of health systems to support high quality, innovative, and more collaborative primary mental health care.

A4

PRIORITY SETTING AND HEALTH TECHNOLOGY ASSESSMENT

ÉTABLISSEMENT DE PRIORITÉS ET ÉVALUATION DES TECHNOLOGIES DE LA SANTÉ

A4.1 Assessing the Organizational Impacts of Patient Engagement: A First STEPP

Sara Kreindler, Researcher, Winnipeg Regional Health Authority

Patient involvement in service design and improvement is increasingly recognized as essential to patient-centred care. Yet little research, and no measurement tool, has addressed the impacts of such involvement. We developed and piloted the Scoresheet for Tangible Outcomes of Patient Participation (STEPP) to measure the instrumental use of patient input. STEPP items assess the magnitude of each recommendation made (or issue raised) by patients, the extent of the organization's response, and patients' apparent degree of influence on this response. The three items are multiplied to arrive at a score for each recommendation (generating zero scores for recommendations that stimulated no action); these are combined in various ways to create overall metrics. In collaboration with teams (staff) from four patient- and one public-involvement initiative, we collected interview and documentary data and scored the STEPP, first independently then jointly. Feedback meetings and a 'challenges log' supported ongoing improvement of the tool and process. Although researchers' and teams' initial scores often diverged, we quickly reached consensus as new information was shared. Overall metrics for each initiative - especially 'greatest impact' (sum of top three recommendation scores) - appeared to credibly reflect patients' degree of influence. Teams found the STEPP easy to use and affirmed its usefulness for monitoring and accountability purposes; one team invited us back to score a second initiative. The tool seemed most suitable for targeted patient-involvement initiatives that generated novel, concrete recommendations, and less so for public consultations on broad issues. As the STEPP does not measure non-instrumental forms of use, nor the appropriateness of the process by which patient input was generated, it should be seen as one component of multi-method evaluation of patient involvement. The STEPP is a promising, first-in-class tool that could help researchers and practitioners address one of the most important, yet least frequently tackled questions about patient involvement: What are its impacts? Further research should be undertaken to better establish its reliability, validity, and appropriate scope of application.

Co-Authors: Ashley Struthers, Research Associate, Winnipeg Regional Health Authority

A4.2 Standardized Levels Of Nursing Home Staff: What Is The Relation To Resident Need?

Shauna Zinnick, Graduate Student, University of Manitoba; Malcolm Doupe, Assistant Professor/Senior Research Scientist, University of Manitoba/Manitoba Centre for Health Policy

Nursing home (NH) staff levels are funded using case mix or standard payment systems, without evidence showing the merits and challenges of each. Using data from a standard payment system, we compare facility-level differences in staff makeup to resident need. Results show the potential downfall of standard-payment systems. Conducted at MCHP, this research links staff and InterRAI (clinical) data for 27 NHs housed in Winnipeg, Manitoba (2010/11 fiscal year). NH-level staff data are reported as annualized hours worked/resident-day, overall and for each of RNs, LPNs, and HCAs. Within each NH, we measured the proportion of residents needing weight-bearing help (3+ on the hierarchy scale), and with major cognitive challenges (3+ on CPS), difficult behavioral challenges, daily bladder and/or bowel incontinence, and major needs in three or more of these areas. These data were collected from each resident's latest MDS assessment, provided they lived 1+ day in the NH. Staff consistently worked 3.34 hours per resident-day across NHs (SE=.03). HCAs provided most of the hours worked ($x=2.38$; SE=0.04) followed by LPNs ($x=0.51$; SE=0.02) and RNs ($x=0.45$; SE=0.02). Conversely, resident profiles varied considerably across NHs; 60% to 89% required weight-bearing help with ADLs, 47% to 83% scored 3+ on CPS, and 8% to 29% had major needs in three plus areas. These staffing and clinical data were unrelated; e.g., the percent of residents with 3+ major needs in a given NH was not related to the hours worked by all staff ($r=-0.21$; $p=0.3$), HCAs ($r=-0.19$; $p=0.35$), LPNs ($r=-0.15$; $p=0.47$) and RNs ($r=-0.14$; $p=0.48$). Staff levels however, were unrelated to the prevalence of select crude and risk adjusted quality care markers (e.g., stage 2+ pressure ulcers). In standard payment systems the volume of staff in a given NH is not related to residents' needs. These differences however, do not strongly correlate with select markers of quality care. Ongoing analyses will investigate this matter further, using various markers of process and outcome quality care.

Co-Authors: Malcolm Doupe, Associate Professor; Senior Research Scientist, University of Manitoba; Manitoba Centre for Health Policy; Natalia Dik, Data Analyst, Manitoba Centre for Health Policy

A4.3 High Performance in Priority setting - A Diagnostic Tool Implementation

William Hall, Master's of Science Candidate, Center for Clinical Epidemiology and Evaluation; Neale Smith, Study Coordinator, Centre for Clinical Epidemiology & Evaluation Vancouver Coastal Health Research Institute University of British Columbia

Develop and implement a self-assessment tool to assist senior healthcare leaders in evaluating their organization's performance on priority setting and resource allocation. In this paper we describe the evaluation tool and its implementation in an integrated health service delivery organization in BC, as a precursor to a planned broader roll-out. The tool was developed drawing on findings from a national survey of health care executives, case studies with six organizations from across Canada, and the expertise of the research team and a decision maker advisory panel. The tool was designed to be diagnostic and prescriptive, identifying strengths and weaknesses of the organization's priority setting process and providing recommendations for improvement. The tool takes the form of a series of questions posed to clinical leaders, directors and executive team members in our test organization ($n=27$). Participants responded to questions on each dimension of the tool - namely, structures, processes, behaviors and outcomes. Participants in the process identified several key areas of strength and weakness in their organization. Strengths included stability and leadership of senior management, the creation and implementation of a strategic plan, and resource re-allocation across departments in the organization. Weaknesses included a lack of formal communication with managers and frontline staff, inadequate training for managers, and the lack of a project coordinator. Recommendations were delivered to address these weaknesses, which were accepted and adopted by the senior management of the organization. This study reflects an attempt to operationalize priority setting and resource allocation concepts to current healthcare practice. The evaluation tool that was implemented appeared to capture the strengths and weakness of the organization's priority setting process, and presented this information in an easily understood format with recommendations for improvement.

Co-Authors: Neale Smith, Research Coordinator, Centre for Clinical Epidemiology and Evaluation; Craig Mitton, Principle Investigator, Centre for Clinical Epidemiology and Evaluation; Bryan Stirling, Advisory Panel Member, Centre for Clinical Epidemiology and Evaluation; Jennifer Gibson, Advisory Panel Member, University of Toronto

A4.4 A Cost-Effectiveness Analysis Of Maternal Genotyping To Guide Treatment For Postpartum Pain And Avert Infant Adverse Events

Myla Moretti, PhD(c), University of Toronto

Codeine, used to treat postnatal pain, is converted to its active metabolite morphine by a polymorphic enzyme. Ultrarapid metabolizers (UM) produce more morphine and report more adverse events in their breastfed infants. The objective of the study was to determine the incremental costs of genotyping, in averting neonatal adverse events during maternal pharmacotherapy. We performed a cost effectiveness analysis to determine the expected values of costs and effectiveness of genotyping to guide pharmacotherapy as compared to standard care in averting infant adverse events by avoiding codeine treatment in patients who are UM. The base case was a prenatal patient whose metabolizer status was unknown but who may need to be prescribed codeine-containing analgesics for pain relief after delivery and planned to breast feed her child. Parameter estimates and costs were ascertained from a concurrent clinical study, as well as from the literature. Genetic testing to guide pharmacotherapy for maternal analgesia resulted in a cost of \$4700 per adverse event averted, when compared to standard care. The results were not sensitive to a number of key variables in one way analysis, namely, cost of genetic testing and the probability of UM in the population. The results were sensitive to the probability of codeine use and the probability of adverse events in either UM or nonUM codeine users and also among non-codeine users. This study was limited by a small number of trials from which parameter estimates could be extracted and the very small number of adverse events reported in infants. Although genotyping to guide pharmacotherapy was not cost saving, the cost to avert an infant adverse event may represent good value for money. It is not yet known whether implementation would be feasible, however these findings will have implications for new mothers and their health care providers world-wide.

Co-Authors: Wendy Ungar, PhD, Senior Scientist, Child Health and Evaluative Sciences, The Hospital for Sick Children; Howard Berger, MD, Head, Maternal Fetal Medicine, St. Michael's Hospital; Gideon Koren, MD, Director, Motherisk Program, The Hospital for Sick Children; Shinya Ito, MD, Head, Division of Clinical Pharmacology & Toxicology, The Hospital for Sick Children

A5.1 Use Of Product Listing Agreements By Provincial Drug Benefit Plans

Melissa K. Friesen, Research Facilitator, UBC Centre for Health Services and Policy Research

Product Listing Agreements (PLAs) negotiated between drug manufacturers and health care insurers are increasingly common worldwide and not without drawbacks. Our objective was to document the level and variation in PLA use by Canadian provinces. From all ten provincial drug plans, we sought drug-specific data on funding status and PLA use for 25 drugs reviewed by the Common Drug Review (CDR) in 2010 or 2011 that were funded by at least one province as of May 2012. We tested for correlations between coverage and PLA use, and CDR recommendations and PLA use. Due to the confidential nature of PLAs, we did not seek or receive details about the specific terms of PLAs. The number of drug from our sample funded by provinces ranged from three in Prince Edward Island (PEI) to 21 in Ontario. PLA use ranged from zero Quebec, PEI, and Newfoundland and Labrador to 20 in Ontario. Looking across provinces, the correlation between the number of drugs funded and the number of PLAs in use was statistically significant ($r = 0.57, p = 0.04$); however, the correlation was not significant ($r = 0.10, p = 0.40$) when Ontario was excluded. At the product level, there was a stronger correlation between the number of provinces funding a drug and the number using PLAs among the subset of drugs with negative CDR recommendations ($r=0.87, p<0.01$) versus those with positive recommendations ($r=0.52, p=0.03$). There is wide interprovincial variation in PLA use and evidence that PLAs are used to fund drugs that are not otherwise cost-effective at list prices. If a global trend toward price secrecy is making PLAs necessary, Canadian governments should collaborate to improve the effectiveness and equity of PLA use and outcomes.

Co-Authors: Steve G. Morgan, Associate Director, UBC Centre for Health Services and Policy Research; Paige A. Thomson, Policy Advisor, Vancouver Coastal Health; Jamie R. Daw, Policy Analyst, UBC Centre for Health Services and Policy Research

A5.2 Pharmacare: An Assessment Of Options In Canada And Abroad

Steve Morgan, Associate Professor, UBC Centre for Health Services and Policy Research

Reform of Canada's prescription drug financing system has long been recognized as a necessary step for advancing the nation's health system goals. To inform policy development, we assess the extent to which the approaches to prescription drug financing found in Canadian provinces achieve key system-level objectives. We use British Columbia, Ontario, and Quebec to illustrate three approaches to pharmacare used to varying extents in all provinces: catastrophic drug coverage, age-based pharmacare, and premium-based insurance. We compare these financing systems to each other and to systems found in six comparator countries: the US, the UK, the Netherlands, Germany, Australia, and New Zealand. Taking a system-level view that includes experiences of the privately insured, publicly insured, and uninsured, we assess systems against four key policy objectives: (1) access to necessary medicines; (2) financial protection and equity; (3) responsiveness to preferences; and (4) system efficiency. We find that Canadian pharmacare models fragment the financing system in ways that produce access barriers, distributional inequities, and financial waste without enhancing individual or collective choices. Comparable countries abroad perform better on access and equity yet costing far less than pharmacare models in Canada - between \$4 billion and \$14 billion less at a national level for Canada. In comparable countries, prescription drugs are generally integrated into the broader health financing system in ways that provide greater incentives for health care managers to make the pharmaceutical component of health care function as an efficient input into the broader system than those found in Canada. No provincial pharmacare model performs well on all key policy objectives and none performs as well as lower-cost systems found in most comparator countries. A universal system for financing prescription drugs designed with sector-level and health-system-level efficiency in mind would improve outcomes while saving Canadian taxpayers and businesses billions of dollars annually. Co-Authors: Alexandra Peckham, Paul Williams and Frances Morton, University of Toronto; Kerry Kuluski, Bridgepoint Hospital

Co-Authors: Jamie Daw, Policy Analyst, UBC Centre for Health Services and Policy Research; Michael Law, Assistant Professor, UBC Centre for Health Services and Policy Research

A5.3 The Outcomes of Generic Drug Patent Litigation in Canada

Jillian Kratzer, Research Coordinator, UBC Centre for Health Services and Policy Research

Drug patent challenges can result in earlier market entry of lower-priced generic drugs, providing a benefit to pharmaceutical payors. We studied the outcomes of pharmaceutical patent litigation in Canada, and estimated the prevalence and extent to which the timing of entry for generic drugs was associated with out-of-court settlements. In other countries, generic firms are often paid by brand firms to delay market entry in controversial settlements. However, we do not know if such delay strategies are common in Canada. We identified all Patented Medicines (Notice of Compliance) Regulations filings between 2007 and 2010 filed by brand name manufacturers to prohibit generic production. We created a database that included: the medicine in question, parties to the case, patent number(s), date concluded, and the outcome of the case (decided, or settled out of court). We linked this data via patent number and conclusion dates to the brand patent expiration date, and the date the generic came to market in the Health Canada patent database. In order to estimate the prevalence of different patent litigation outcomes, we will calculate the proportion of cases that resulted in discontinuance (out-of-court settlement), withdrawal, or a court decision annually between 2007 and 2010. Additionally, we will estimate the delay agreed to by parties following a discontinuance, by calculating the time elapsed between a discontinuance of proceedings and generic market entry by the respondent manufacturer. Preliminary results suggest that in the majority of cases, generic entry occurs before the brand patent expires, but long after an out-of-court settlement has been reached. This suggests that out-of-court settlements are being reached that delay generic entry beyond what might have been possible in a court decision. Results from this study will identify strategies used in Canadian patent litigation, and will inform changes to current practices. Furthermore, it will highlight opportunities for generic drugs to come to market more quickly. If patent holders and generic firms are negotiating delays in generic entry, this could be adding to drug expenditures in Canada.

Co-Authors: Michael Law, Dr, UBC Centre for Health Services and Policy Research

A5.4 The Use of Blood Glucose Test Strips in Selected Public Drug Plans, 2008

Elena Lungu, A/Manager NPDUIS, Patented Medicine Prices Review Board

This study focuses on the use of diabetes test strips in selected public drug plans for the purpose of providing an overview of the cost and utilization, an international price comparison and a treatment group analysis that assesses the extent to which the actual utilization compares to recognized Canadian guidelines/recommendations. The CIHI NPDUIS database was analyzed for the public drug programs in Saskatchewan, Manitoba and Nova Scotia for 2008. A cohort of patients with continuous use of diabetes drugs or test strips was selected for analysis accounting for two-thirds of the patient population. This cohort was divided into three treatment groups: (i) insulin only users (ii) both insulin and oral antihyperglycemic agents users, and (iii) non-users of insulin. The frequency of test strip use was analyzed for each group in comparison to the guidelines or recommendations issued by Canadian Diabetes Association (CDA) in 2008 and 2011 and COMPUS in 2009. The diabetes share of cost of is higher in Nova Scotia, which also has higher prevalence rate for the disease compared to the other two jurisdictions. The international price comparison suggests that prices for test strips reimbursed in other foreign markets are markedly lower than those in the jurisdictions analyzed. According to the treatment group analysis, just over one-half of the insulin only users use test strips in line with COMPUS 2009 maximum suggested use - these are the lower-end users. Conversely, only about one-third of them use test strips in line with CDA 2008 minimum suggested use - these are the higher-end users. CDA 2011 is generally in agreement with COMPUS 2009 for these patients. Similar results are discussed for the other two treatment groups analyzed. The study flags important differences between the CDA 2008 recommendations and COMPUS 2009 guidelines with respect to the actual frequency of blood glucose testing observed in the users of insulin. Also, higher prices for test strips are reported for the Canadian jurisdictions analyzed versus other international markets.

A6.1 Role Boundaries On Interprofessional Primary Health Care Teams

Kate MacNaughton, University of Ottawa

The management of professional boundaries and relationships among health care providers plays a significant role in interprofessional collaboration. This study explores the dynamics of role construction by examining the types of role boundaries on teams; the influences on role boundaries and; the implications of role boundaries for professionals and patients. This research uses a qualitative approach to look at the elements of role construction. A comparative case study was conducted with two interprofessional primary health care teams. Data collection involved twenty-six interviews (thirteen with each team) and non-participant observations of team meetings (two at each site). Data was coded thematically and intra-case analyses were carried out before comparing the findings between the two cases. A model was created to illustrate the findings that emerged from the data. The results of this study identify two types of role boundaries on interprofessional health care teams: those around interprofessional interactions (autonomous-collaborative role boundaries) and those around the distribution of responsibilities between professions (interchangeable-differentiated role boundaries). It also describes salient influences on role boundaries for the two teams. These influences include structural team and workplace characteristics such as physical space and workload; interpersonal dynamics between team members including leadership and trust; and individual attributes such as personal approaches to care. The data analysis elucidates implications of different role boundaries for professionals and patients. For example, interviewees suggested that interchangeable roles can help decrease wait times for patients whereas differentiated roles can help to reduce the likelihood of power struggles between team members. These findings may be transferable to other interprofessional health care teams. It may benefit teams and managers by promoting a more profound understanding of the dynamics of role construction and by raising awareness of the potential impact of various within-team influences on interprofessional interactions and the distribution of responsibilities.

Co-Authors: Samia Chreim, Professor, University of Ottawa; Ivy Bourgeault, Professor, University of Ottawa

A6.2 Electronic Medical Records in Primary Care: Effects seen by Clinical Practices and the Health System

Jennifer Zelmer, Senior Vice President, Clinical Adoption and Innovation, Canada Health Infoway

Clinicians and governments have made significant investments in Electronic Medical Records (EMRs) in recent years, with adoption in primary care growing from 23% (2006) to 56% (2012). This study assesses the current impact of EMR use, outlines critical success factors to achieve value, and identifies priority areas for research. A consensus process with clinical, policy, and academic experts, informed by the results of a comprehensive literature review, identified hypotheses regarding the effects of EMRs on productivity, access, and quality of care. An economic model was used to estimate the value of benefits achieved at a national level. It drew on academic/grey literature evaluations; EMR adoption and maturity of use data from the Commonwealth Fund Survey of Primary Care Physicians and the National Physician Survey; and Canadian cost and other data. Where insufficient evaluation/economic data were available for modeling, effects were summarized from a qualitative perspective or using survey results. Benefits valued at more than \$1 billion were identified for the period 2006-2012. Some benefits (e.g. reduction in time required for chart pulls) are seen by most EMR users, while others (e.g. fewer duplicate diagnostic tests) are only seen for practices with more advanced EMR use. Likewise, switching from handwritten to printed prescriptions delivers quality gains, but effective decision support can achieve more. Survey data support a number of other hypotheses related to quality improvement, for example: prevention and management of chronic disease, facilitating collaboration in care teams, and improving provider-patient interaction. However, there is currently insufficient research to quantify the effect on long-term health outcomes across all health conditions and care settings and therefore on net value at a pan-Canadian level. While significant benefits at the practice and health system level are currently being realized through EMR use, increased adoption and more advanced use are pivotal to achieving full potential value, including quality of care improvements. Coordinated efforts by a range of stakeholders would be needed, including shifts in practice patterns.

Co-Authors: Simon Hagens, Director, Benefits Realization, Canada Health Infoway; Chad Leaver, Benefits Realization Leader, Canada Health Infoway; Lauren Ettin, Manager, PricewaterhouseCoopers LLP; Maureen Hazel, Manager, PricewaterhouseCoopers LLP

A6.3 Planning for the Regulated Nursing Workforce in Rural and Small Town Canada

Martha MacLeod, Professor, School of Nursing/School of Health Sciences, University of Northern British Columbia

In order to improve healthcare in rural and remote Canada, we need to better understand the nursing workforce. The purpose of this paper is to identify key characteristics and geographical distribution of the regulated nursing workforce in rural and small town Canada, and changes in the workforce over the last decade. This paper reports findings of an analysis of the Canadian Institute for Health Information (CIHI) Nursing Database (NDB) administrative data on Registered Nurses (RNs) and Nurse Practitioners (NPs), licensed practical nurses (LPNs - known as registered practical nurses in Ontario) and registered psychiatric nurses (RPNs). Data on nurses working in rural/remote areas for 2003 and 2010 were examined, and the Statistics Canada definition of Rural and Small Town Canada was employed - communities with a core population of less than 10,000 people. Included were remote communities with little or no metropolitan influence, and northern regions. The characteristics and geographical distribution of Canada's regulated nurses were analyzed based on workforce numbers, demographics, employment, education, and migration. The implications of workforce mix for rural/remote nursing health human resources, especially in primary health care settings, were highlighted. In 2010, 28,799 RNs (including NPs) worked in rural and small town Canada. This number represents approximately 11% of all RNs. The supply of LPNs in rural and small town Canada was 14,190 in 2010, approximately 17% of all LPNs, and 848 RPNs in western Canadian provinces comprised 16% of all RPNs. Proportions (%) of RNs and NPs, LPNs and RPNs working in rural Canada between 2003 and 2010 show that the shortage of nurses providing care to rural and remote Canadians has become more severe. Rural/remote populations in Canada experience a chronic dearth of most health occupations. As nurses are the most numerous health care providers in rural/remote settings, up-to-date information about the nursing workforce is critical to HHR planning. In particular, this analysis will assist planning for optimal staff mix primary health care settings.

Co-Authors: Roger Pitblado, Professor Emeritus, Laurentian University; Norma Stewart, Professor, University of Saskatchewan; Judith Kulig, Professor, University of Lethbridge

A6.4 Assessing And Sustaining Organizational Cultural Change In Health Systems: A Realist Review Of The Literature

Cameron Willis, NHMRC Sidney Sax Research Fellow, Centre for Clinical Epidemiology and Evaluation; The University of British Columbia; The University of Adelaide; David Howland, Mr, Saskatchewan Ministry of Health

Using Lean methodology, the Saskatchewan Government is transforming the culture of the provincial health system to one focused on continuous quality improvement. To inform this transformation, this review aimed to address two questions: (1) how can this type of cultural change be assessed, and (2) how can it be sustained? We conducted a realist review, focusing on the interactions between 'mechanisms' (e.g. leadership factors) and 'context' (e.g. health system characteristics) to influence 'outcomes' (e.g. sustained cultural change). This lens is well suited for understanding complex systems. An expert panel and local reference group assisted in refining research questions and study scope. Six databases were searched for concepts on large systems, sustaining change, organizational culture and leadership. Data were extracted on key variables related to definitions (e.g., culture, sustainability), cultural assessment strategies, and mechanisms and contexts leading to sustainable cultural change. Using an iterative process, a narrative synthesis was produced. The initial search identified 5841 articles, of which 98 met inclusion criteria. The literature describes culture as a dynamic concept, broadly considered as an attribute (something an organization 'has') or a global perspective (something an organization 'is'). How culture is defined and the level at which it is considered influences the selection of assessment approaches, which may involve a multimodal strategy combining quantitative and qualitative tools. For sustaining cultural change, the literature highlights the importance of a shared and stable cultural vision that fosters dynamic improvement processes. Evidence indicates that sustaining this type of change might require assessment of (and investment in) similar elements as system transformation (e.g., top down and distributed leadership, internal and external impetus for change, attendance to history). This review suggests that a multimodal strategy, focused on continuous improvement processes, and grounded in an overall cultural vision, may be most useful for assessing cultural change. Moreover, sustainability may be improved if the cultural transformation approach is holistic, and permits iterative procedural changes in response to dynamic cultural contexts.

Co-Authors: Evelyn Cornelissen, Dr, The University of British Columbia; Jessie Saul, Dr, North American Research & Analysis, Inc.; David Howland, Mr, Saskatchewan Ministry of Health; Emily Jenkins, Ms, The University of British Columbia

Tuesday, May 28, 2013

STREAM B: 2:30pm – 3:45pm

Mardi 28 mai 2013

VOLET B : 14h30 – 15h45

B1 HEALTH CARE QUALITY

QUALITÉ DE SOIN DE SANTÉ

B1.1 Product Listing Agreements For Pharmaceuticals: Lessons From Abroad

Jamie Daw, Policy Analyst, UBC Centre for Health Services and Policy Research

Product listing agreements (PLAs) involving rebates paid by pharmaceutical manufacturers to health care insurers are increasingly common internationally. We sought to document international perspectives on the benefits and challenges of PLA use, and to examine variation in PLA use among systems with differing pharmaceutical financing arrangements. We conducted telephone interviews with senior policy makers involved in drug coverage decision-making in nine developed countries from North America, Europe, and Australasia. Interviews involved open-ended questions and were recorded and transcribed for analysis. To supplement the interviews, we searched academic and grey literature for additional information on the reimbursement process and financing system of each jurisdiction. We discussed our findings at a meeting with nineteen policy makers from all participating countries. Use of PLAs by ranges from little or no use in the social insurance systems of Austria and Germany to use in virtually all coverage decisions by public payers in the US and New Zealand. Commonly-perceived benefits of PLAs include lowering prices, securing supply, and mitigating uncertainty. Perceived challenges include administrative costs, the potential to be 'gamed', and potential inequities across payers. The feasibility and net benefits of PLA use appear greatest in single-payer financing systems. Centralized decision-making and maximization of the insured patient pool minimizes inefficiencies due to duplicate negotiation, consolidates bargaining power, and prevents price inequities across insured and uninsured patient groups that result from PLA use within multiple-payer systems. If confidential pharmaceutical pricing is emerging as a new global paradigm, the way that medicines are financed may affect drug prices, security of supply, and equity in access within and across countries. Under such a pricing paradigm, multi-payer systems, including Canada and the United States, may be at a bargaining disadvantage.

Co-Authors: Steve Morgan, Associate Professor, UBC Centre for Health Services and Policy Research; Paige Thomson, Policy Advisor, Vancouver Coastal Health; Melissa Friesen, Research Facilitator, UBC Centre for Health Services and Policy Research

B1.2 Inequality In Primary And Secondary Preventive Care For AMI: Utilization By Socioeconomic Status Across Middle-Age And Older Patients

Deborah Cohen, PhD Student (Population Health), Senior Consultatant (CPHI), University of Ottawa, Population Health, Canadian Institute for Health Information, Canadian Population Health Initiative

In spite of the established patterns of inequality in therapeutic health care for AMI, there exists a paucity of research that has explored patterns of inequality in preventive primary health care for AMI. This is somewhat surprising given the preventable nature of heart disease and the fact that many of the established risk factors for AMI have been shown to be amenable to primary care intervention. The objective of this study was to examine socioeconomic differences in the use of primary and secondary preventive services relevant to the identification and management of heart disease in Ontario, Canada. Preventive care services utilized prior to AMI were examined in a cohort of 44,622 first-time AMI patients in Ontario, Canada, from 2003 to 2006. Using logistic regression, socioeconomic differences in lipid-testing, glucose-testing, stress-testing, electrocardiograms, and echocardiograms in middle-age and older patients were examined. For many services, there were no differences in the use of primary and secondary preventive care between patients by socioeconomic status. A number of exceptions were found. For the middle-aged cohort, low income patients had 14.9% (95% CI=1.032 - 1.281) and 35.2% (95% CI=1.152-1.589) higher odds of receiving electrocardiogram and echocardiogram respectively than high income middle-age patients, when other factors were controlled for. Among older patients, those with low income had 18.8% (95% CI=0.745-0.885) and 18.4% (95% CI=0.736-0.905) lower odds of receiving lipid and glucose testing than their high income counterparts, controlling for other factors. Results from this study demonstrate that Canada's universal health care system is delivering preventive care for AMI equitably in many instances. However, results from this study point to a socioeconomic gap in senior's primary preventive care which may have implications for 'healthy aging' in Canada. These results inform on the Triple Aim approach in Canada, and point to areas in primary care where inequities in access to care may be resulting in challenges to patient and population health amongst the elderly.

Co-Authors: Douglas Manuel, Dr., Ottawa Heart Research Institute, ICES; Peter Tugwell, Dr., Centre for Global Health, Institute of Population Health, University of Ottawa; Tim Ramsay, Dr., Ottawa Heart Research Institute, University of Ottawa; Claudia Sanmartin, Dr., Statistics Canada

B1.3 Benzodiazepine Prescribing Patterns Across Ontario Long-Term Care Homes: An Examination Of Residents, Prescribers And Facilities

Susan Bronskill, Scientist, Institute for Clinical Evaluative Sciences

Inappropriate use of benzodiazepines in the elderly is well-documented in the literature and data on regional variations, in conjunction with local context, can allow for the examination of appropriateness of use. This study examined benzodiazepine prescribing patterns among long-term care (LTC) residents and correlations with resident, prescriber and facility characteristics. Population-based, administrative databases identified 57,504 adults aged ≥ 66 years who were newly placed in 622 LTC homes in Ontario between April 1, 2005 and September 30, 2009. To correlate prescribing patterns with specific LTC homes, residents were followed until the first of: death, inpatient admission, emergency department visit, placement in another facility, or 180 days. Drug therapies were prescribed by 2,190 physicians. Variation in the use of benzodiazepines was examined in the context of characteristics of residents (age, sex, income, comorbidity), prescribing physicians (age, sex, specialty, rurality of practice) and LTC homes (size, profit status, rural) using logistic regression models. 21,823 (38.0%) of newly admitted residents had been prescribed a benzodiazepine in the 180 days following admission to LTC. Among those receiving a benzodiazepine 40.2% were newly started, 13.4% received a high dose according to guidelines, 4.1% received the drug for a long duration (greater than 30 days), and 49.0% had prescriptions that fulfilled the definition of chronic use. Among those who had been dispensed a benzodiazepine prior to admission, 28.4% did not have their prescription continued after admission. The rate of benzodiazepine prescribing varied widely across LTC homes - from 5% to over 40% among newly admitted residents with no history of benzodiazepine use. In larger facilities, fewer residents appeared to be dispensed benzodiazepines following placement (regardless of history of benzodiazepine prescription). This study presents a complex picture of benzodiazepine prescribing in LTC. While many residents who had received benzodiazepines prior to entry did not have their prescriptions continued, rates of benzodiazepine use remained high in many facilities and was often associated with chronic use.

Co-Authors: Minnie Ho, Epidemiologist, Institute for Clinical Evaluative Sciences; Sudeep Gill, Geriatrician, Kingston General Hospital; Nathan Herrmann, Geriatric Psychiatrist, Sunnybrook Health Sciences Centre; Chaim Bell, Scientist, Mount Sinai Hospital

B1.4 Quality of Care in Quebec's Oncology Outpatient Clinics: A Comparison of Patients' and Professionals' Evaluations

Danièle Roberge, Professor, Université de Sherbrooke; Dominique Tremblay, Professor, Université de Sherbrooke

The purpose of this study is to compare patients' and professionals' evaluations of the quality of care in oncology outpatient clinics. The data were drawn from a 2011 survey of 1,379 patients and 155 professionals conducted in 15% ($n=3D9$) of Quebec's oncology outpatient clinics. Sites were purposely selected to represent the diversity of the clinics' organizational characteristics. Quality of care was evaluated using two parallel, self administered questionnaires which comprised the same questions ($n=3D28$) but were worded differently. Questionnaires addressed non-technical dimensions of the quality of care: timeliness, patient-centered care, communication, quality of the physical environment and continuity. Patients' and professionals' mean scores (maximum=3D4) for each item and subscale were compared using mixed model analysis. Patients' and professionals' perceptions of quality of care were largely positive, with mean scores for all items of 3.66 (range 3.04-3.92) and 3.37 (range 2.60-3.88), respectively. However, for the majority of aspects of quality (22/28 items), the professionals' scores were significantly ($p<0.05$) lower than those of patients. The aspects rated most positively by both groups were patient-centered care, communication and continuity of care. Timeliness was the least positively evaluated, with mean scores of 3.34 ($se=3D0.02$) for patients and 3.16 ($se=3D0.05$) for professionals. More specifically, the two groups were most critical of waiting time before consultations, and of patients' inability to reach a professional by telephone outside the clinics' opening hours and to consult the clinic on the same day when an emergency or complication arise. In many respects, cancer patients and professionals share relatively common views about the most and least positive aspects of the quality of care, although professionals tend to be more critical. Aspects evaluated less favourably by both groups and those on which opinions differ are good candidates for improvements. Ideas for solutions will be proposed.

Co-Authors: Dominique Tremblay, Professor, Université de Sherbrooke; Marie-Ève Turgeon, PhD candidate, Université du Québec à Montréal; Djamal Berbiche, Senior Statistician, Université de Sherbrooke

B2 HEALTH CARE QUALITY AND RESEARCH RECHERCHE ET QUALITÉ

B2.1 Models Of Maternity Care In Rural Environments: Barriers And Attributes Of Interprofessional Collaboration With Midwives

Sarah Munro, PhD Student, University of British Columbia

Interprofessional collaboration has emerged as an innovative strategy to meet the growing care provider shortage in primary maternity care. This study investigated the financial, legal, and regulatory barriers to and facilitators of interprofessional maternity care models in rural British Columbia, and the changes needed to facilitate such models. A qualitative, exploratory approach guided data collection and analysis. 55 participants were interviewed and 18 focus groups were conducted with midwives, physicians, labour and delivery nurses, public health nurses, community-based providers, birthing women, administrators, and decision makers in four rural communities in British Columbia (two communities with highly functional and collaborative interprofessional relationships and two lacking interprofessional activities). Open coding methodology informed the four stages of our analysis: (1) immersion in the transcripts; (2) the development of thematic codes; (3) coding the transcripts; and (4) re-integrating the codes into an explanatory narrative. Each of the four study communities exemplified a different model of interprofessional collaboration with midwives, ranging from independent midwifery and physician community-based practices to integrated care involving a shared on-call schedule and patient caseload. Analysis revealed that the most significant barriers to collaboration were inequitable funding and differences in scopes of practice. These barriers were underscored by participants' shared recognition of some broad challenges to sustainable rural maternity care, including low volume of deliveries and care provider stress and subsequent attrition from practice due to intense workloads. Most participants were unsure how to facilitate collaboration in the face of legal, financial, and regulatory restraints. Successful collaborative teams attributed their success to years of developing mutual trust and understanding of roles and responsibilities. Interprofessional collaboration as currently conceptualized at the policy level does not reflect the reality of relationships between midwives and other primary care providers in rural and remote British Columbia. Drawing from feedback from key stakeholders and study participants from integrated knowledge translation activities, we propose alternative models of rural maternity care involving midwifery.

Co-Authors: Dr. Jude Kornelsen, Assistant Professor, University of British Columbia; Dr. Stefan Grzybowski, Professor, University of British Columbia

B2.2 In-hospital Deliveries: Estimating Geographic Access and its Association with Outcomes (FY2007/08 - 2011/12)

Jin Huang, Senior Analyst, Canadian Institute for Health Information

Planning maternity services is done at the local level within the context of a larger network of services. This poster presents a method for estimating geographic access for women delivering in hospital across Canada, and examines the association between geographic access and select maternal and newborn outcomes. In-hospital deliveries were identified using CIHI's Discharge Abstract Database. Drive time from women's residence to delivery hospital was calculated using MapQuest. Four categories (0-30, 31-60, 61-120, and >120 minutes) were created to operationalize geographic access based on a literature review and consultations with an expert panel. Though relatively few deliveries (<1%) were excluded from the MapQuest analysis, exclusions were disproportionately distributed across Health Regions, ranging from 0% to 84% of records by Health Region. To maximize regional representation, a method incorporating Vincenty distance was used to assign records excluded from the MapQuest analysis to geographic access categories where possible. Nearly all deliveries (99.99%) were included in the study, with high representation across all Health Regions (98.7% to 100%). While 40% of women living in rural areas travelled more than an hour to the hospital, less than two percent of women living in urban areas travelled this far. Travelling more than 2 hours was almost exclusively a rural experience (17% of deliveries among rural women, versus <1% of deliveries among urban women). Rates of severe maternal morbidity (SMM), unplanned readmission, SGA and LGA did not increase markedly with travel time to delivery. However, SMM, unplanned readmission, and LGA rates were higher for rural women in the most remote category. Rates of preterm births did rise as the estimated time to reach hospital of delivery increased. The intrapartum experience of rural women is quite distinct from their urban counterparts. Rural women are more likely to travel further and longer when delivering in hospital, and in the most remote category geographic access is associated with higher rates for 4 out of 5 outcomes studied.

Co-Authors: Brandon Wagar, Methodologist, Canadian Institute For Health Information; Sam Herold, Senior Analyst, Canadian Institute For Health Information; Adam Sherk, Senior Analyst, Canadian Institute For Health Information; Tony Mottershead, Special Projects Lead, Canadian Institute For Health Information

B2.3 Accountability in the Home and Community Care Sector in Ontario

Carolyn Steele Gray, PhD Candidate, University of Toronto

Increasingly, accountability has been attached to government funding in Canada. There are concerns regarding how these tools may affect health care organizations, particularly small community-based service agencies. This research seeks to identify how home and community care agencies in Ontario respond to accountability demands attached to government funding for services. This study uses a multi-phase mixed methods approach to examine organizational responsiveness to Community Care Access Centre (CCAC) contract and Local Health Integration Network (LHIN) Multi-Service Accountability Agreement (MSAA) accountability requirements. Survey responses from 114 home and community care agencies in Ontario were gathered and key informant interviews were conducted with 20 individuals from 13 home and community care agencies, two CCACs and two LHINs. Document analysis on CCAC contract and LHIN MSAA documents and an environmental scan of home and community care agencies in Ontario were conducted. Data from these different methods are combined in the analysis phase. Organizational size and financial dependence were found to be significantly related to organizational compliance to accountability demands attached to CCAC contracts and MSAs. In addition to the theorized potential organizational responses to external demands (compliance, compromise, avoidance and defiance) this study found an additional response termed internal modification in which organizations changed organizational practices in order to meet accountability requirements. Smaller, more poorly resourced organizations that were highly dependent on LHINs or CCACs were found to be more likely to internally modify organizational practice in order to meet accountability demands. Some organizational changes such as redirecting time towards reporting requirements and away from care, and cutting innovating practices and programs, were perceived to have had a potential negative impact on the quality of service delivery. Government reliance on contract-based accountability for funded home and community care services brings benefits, but can also negatively affect the quality of home and community services delivered in Ontario. Policy makers need to carefully consider the potential impact on quality when developing and implementing accountability policy.

Co-Authors: Raisa Deber, Professor, University of Toronto; Whitney Berta, Professor, University of Toronto; Janet Lum, Professor and Associate Dean of Arts, Ryerson University

B2.4 Systematic Screening For Treatable Disorders In Intellectual Disability

Clara van Karnebeek, Clinical Assistant Professor, University of British Columbia / BC's Children's Hospital

Intellectual disability (ID) is a debilitating disorder affecting 2-3% of patients worldwide. Inborn errors of metabolism (IEM) currently constitute the only group of genetic defects amenable to causal therapy. Our goal was to identify these treatable IEMs early in a child's development in order to prevent or minimize intellectual deficits. We performed a literature review that identified 80 treatable causes of ID; although evidence is limited, therapies are often effective, safe, accessible. We translated this knowledge into the TIDE diagnostic protocol. The 1st tier comprises metabolic screening tests in blood/urine with potential to identify 62% of treatable IDs. The second tier focuses on remaining disorders, requiring 'single test per disease' approach. A freely available App (www.treatable-id.org) supports the protocol, and a website (tidebc.org) was developed for knowledge translation. The TIDE protocol was implemented at a tertiary care institution. After one year of implementation, the protocol identified treatable IEMs in > 5% of 210 ID patients. We compared these patients to those diagnosed in our hospital between 2000-2009. This analysis revealed that the TIDE protocol reduced 'time to diagnosis' by 6 months (range 1-50 months) as well as costs of unnecessary testing (>\$1500- per patient). Our protocol for treatable forms of ID has proven effective in terms of increasing the diagnostic yield and reducing costs and diagnostic delay. Improved cognitive functioning allows the patient to reach full potential and avoids unnecessary costs.

Co-Authors: Hilary Vallance, Clinical Professor, BC Children's Hospital/ University of British Columbia; Graham Sinclair, Clinical Assistant Professor, BC Children's Hospital/ University of British Columbia; Tyler Murphy, Clinical Research Coordinator, BC Children's Hospital/ University of British Columbia; Sylvia Stockler, Head of the Division of Biochemical Diseases, BC Children's Hospital/ University of British Columbia

B3.1 The Self-Management Support Policy And Practice Directions In BC: What About The Needs Of Disadvantaged Populations?

Sue Mills, Clinical Associate Professor, UBC

Self-management support (SMS) is an important consideration in primary care services for chronic conditions (CCs) particularly disadvantaged groups who have greater difficulties managing CCs and worse health outcomes. This study explored the SMS perspectives and priorities of decision-makers in BC and how their agendas addressed the needs of disadvantaged populations. We conducted 22 interviews with purposefully selected decision makers in governments, health authorities, and non-profit organizations and collected SMS-related policy and program documents using grey literature strategies and an environmental scan approach. We conducted thematic analysis of the interview transcripts and SMS-related policies and programs using multiple analysts and data extraction tools. The findings of the document analysis were compared with interview results to create organizational and conceptual maps of the SMS policy and practice context and of SMS initiatives related to disadvantaged populations in BC. SMS programs have been designed for mainstream populations with single CCs or been generic and directed towards communities. SMS-related policies are often embedded within CC management approaches. There has been limited focus on disadvantaged populations in the policy context but more emphasis at the program level. SMS directions have been strongly influenced by the Ministry of Health's agenda (e.g., cost savings) as well as ideas (Stepped Care), models (Chronic Care Model) and programs (Chronic Disease Self-management Program) developed in the US. Outside of consideration of health literacy and culture in the Stepped Care Model, the needs of disadvantaged populations are not reflected in the majority of these influencing factors even though health equity is an important issue for many players. Decision-makers have exerted considerable energy to advance SMS in BC. However, there are enormous complexities in developing SMS-related policies and programs that support disadvantaged populations and this study clearly demonstrates the need for more advanced and integrated understandings in the health care sector on the complex issues facing these populations.

Co-Authors: Laurie Goldsmith, Assistant Professor, SFU

B3.2 Improving Population Health: Systemic Factors Influencing Primary Care and Public Health Collaboration

Leena Wu, Research Associate, University of British Columbia

There is increasing interest across Canada in examining what structures and processes are necessary for building and sustaining effective collaborations between primary care and public health, particularly at the systemic level. The objective of this work was to examine what systemic factors influence collaboration between primary care and public health. This work is part of a four year, multi-province (BC, ON, NS) program of research examining structures and processes required to build successful collaborations between public health and primary care at the systemic, organizational and interactional levels. In-depth interviews (n=74) were conducted across each province (n per province; 10 primary care, 10 public health) and at the national level. Stratified purposive sampling was used. Participants included policy-makers, managers, and healthcare providers: nurse practitioners, public health nurses, primary care physicians, and nutritionists and others. Recorded interviews were transcribed. NVIVO was used to support analysis. An interpretive descriptive analytic approach was used. Seven major systemic factors were to be integral to successful collaborations: 1) Governmental and regulatory policies and mandates for collaboration (e.g., partnerships are essential), 2) Harmonized information and communication infrastructure (e.g., clear and effective communication infrastructures), 3) Formal systems leaders as collaborative champions (e.g., identification and formalization of systems leader), 4) Effective decision-making framework (e.g., inclusive, transparent decision-making), 5) Funding models and financial incentives supporting collaboration, 6) Targeted professional education (e.g., educating new professionals for collaboration between PC and PH), and 7) Health service structures that promote collaboration (e.g., infrastructure to support collaboration). A specific systemic barrier to collaboration is that primary care is concerned with providing care for individuals whereas public health is concerned with the health of populations within a geographic area. Successful collaborations between primary care and public health are dependent on interacting factors at multiple levels. There are key factors important at the systemic level. Results from this work can provide policy makers with a valuable resource to develop and enhance future collaborations, ultimately improving the provision of healthcare to target populations.

Co-Authors: Sabrina Wong, Associate Professor, University of British Columbia; Marjorie MacDonald, Professor, University of Victoria; Ruth Martin-Misener, Associate Professor, Dalhousie University; Ruta Valaitis, Associate Professor, McMaster University

B3.3 Paying for Primary Care: A Cross-Sectional Comparison of Primary Care Patient Distributions in Ontario, Canada

David Rudoler, PhD Candidate, Institute of Health Policy, Management and Evaluation, University of Toronto

Ontario supplemented fee-for-service with age-sex adjusted capitation payment for primary care physicians (PCPs). We compared cost distributions for different payment models to determine how patient costs differ; and whether these differences demonstrate increases in costs across all patients, or differences in the make-up of patient populations enrolled to different models. This study included a cross-section of patients rostered with individual fee-for-service or capitation PCPs between 2010/11-2011/12. Data was obtained from the Institute for Clinical Evaluation Sciences, which stores administrative health data for the province. Since physician services are fully covered by the public payer, this dataset represented the population of PCPs within the included practice types. We analyzed relative distributions of patient costs across payment schemes controlling for patient case-mix, geography and practice characteristics. We considered differences in the location and shape of the distributions, computed measures of polarization and entropy, and conducted hypothesis testing for differences in the distributions. Analysis is underway, but preliminary results suggest distributions of patients under capitation and fee-for-service (FFS) based payment schemes differ in terms of both shape and location. Location differences indicate uniform increases in primary care costs for patients assigned to capitation-remunerated PCPs, while shape differences suggest capitation-remunerated PCPs also have fewer high-cost patients on their rosters than FFS-remunerated PCPs. These results suggest that physicians receiving capitation-based payments are receiving higher payments for all patients, while caring for fewer high-cost patients than their counterparts receiving FFS-based payment. However, given the cross-sectional nature of this study, it is impossible to know whether differences in the characteristics of PCP rosters existed prior to PCPs switching into capitation-based payment. Age and sex adjusted capitation payments may not adequately predict patient complexity and cost, incentivizing PCPs with healthier (and less costly) patient rosters to self-select into the capitation-based payment schemes. Further studies are underway using panel methods to determine the causal relationship between payment change and physician roster characteristics.

Co-Authors: Raisa Deber, Professor, University of Toronto; Audrey Laporte, Professor, University of Toronto; Jan Barnsley, Professor, University of Toronto; Rick Glazier, Senior Scientist, Institute for Clinical Evaluative Sciences

B3.4 More Inside On The Proprieties Of The Team Climate Inventory As A Measure Of Primary Care Teams' Processes

Jeannie Haggerty, Professor, Department of Family Medicine, McGill University

To report on the psychometric proprieties of the French version of the original short 19-item Team Climate Inventory (TCI), an indicator prioritized by the Canadian Institute for Health Information, and explore the contributions of individual and organizational characteristics on perceived team effectiveness. The TCI was completed by 471 of the 618 (response rate 76.2%) family physicians, healthcare professionals and administrative staff working in a random sample of 37 primary care practices in the province of Quebec. Individuals' characteristics studied were sex, age and professional role. A questionnaire (N=3D 37) provided information on organizational characteristics related to vision, organizational structure, resources, and organizational practices. Exploratory factor analysis (EFA) was performed to test the validity of the French version. Cronbach's alphas were calculated for each of the four TCI sub-scales. Latent Class Analysis (LCA) was performed to explore the influence of organizational and individual characteristics on the TCI scores. EFA confirmed the four-factor model. Cronbach's alphas were excellent (from 0.88 to 0.93). LCA on the overall TCI yielded three classes: Class 1 (Suboptimal TCI; 26.8% of respondents); Class 2 (Good TCI; 44.6% of respondents); and Class 3 (Best TCI; 28.6% of respondents). Respondents in practices of professional governance had a higher probability (41.8%) of belonging in the 'Best TCI' class compared to practices with community governance (19.1%), as were respondents in practices where physicians shared more clinical activities compared to respondents where such sharing was limited (32.1% vs. 13.5%). Administrative staff fell more frequently in the 'Suboptimal TCI' class compared to physicians (36.5% vs. 19.0%). The probability of belonging to the 'Best TCI' class was identical in all three professional groups (30%). Our results confirm the validity of our French version of the short TCI. The association professional governance and better team climate merits more exploration. One hypothesis may be that the larger PC organizations under community governance raise obstacles to less formal mechanisms enabling team members to develop a common vision.

Co-Authors: Diane Doran, Professor Emerita, University of Toronto; Natalya Dragieva, PhD, Département de psychologie, UQAM; Claudio Del Grande, MSc, Centre de recherche du CHUM; Jeremy Dawson, PhD, Senior Lecturer, Management School, University of Sheffield; Jan Barnsley, PhD, Professor, Institute of Health Policy, Management and Evaluation, University of Toronto

B4 HEALTH POLICY AND POLITICS

LES POLITIQUES ET LA POLITIQUE DE LA SANTÉ

B4.1 Body Checking Policies In Youth Ice Hockey: What Is The Impact On Injuries And Costs?

Sarah Lacny, MSc Candidate, University of Calgary

To examine the injuries and health care cost impact associated with health policy allowing body checking in Pee Wee (ages 11-12 years) ice hockey by comparing players from Alberta, where body checking is allowed, to players in Quebec, where body checking is not allowed. A cost analysis was conducted alongside a prospective cohort study examining the risk of injury, including players registered in the top 60 percent divisions of play in Alberta (n=1108) and Quebec (n=1046) during the 2007-2008 Pee Wee ice hockey season. Game- and practice-related injuries were measured using injury incidence rates adjusted for cluster using Poisson regression. Direct health care costs associated with injuries were adjusted for cluster using bootstrapping. Health care resources used by injured players from both provinces were valued using Alberta fee schedules and unit costs in order to obtain a direct comparison of costs. Injury incidence rates and direct health care costs (per 1,000 player-hours and per 100 players) were over 2.5 times greater in Alberta compared to Quebec. The number of injuries avoided if policy disallowed body checking in Alberta was 1.72 (95% CI, 1.27-2.18) injuries per 1,000 player-hours and 13.05 (95% CI, 8.50-17.60) per 100 players. Costs avoided if policy disallowed body checking in Alberta were estimated as \$289 (95% CI, \$154-\$431) per 1,000 player-hours and \$2,186 (95% CI, \$1,128-\$3,274) per 100 players. In projecting study results onto the population of Alberta Pee Wee hockey players registered in the 2011-2012 season (n=56), an estimated 1,273 injuries and \$213,280 in direct health care costs in 11- and 12-year-olds would have been avoided if policy disallowed body checking. The benefits of disallowing body checking include both a reduction of injuries and direct health care costs. The combination of effectiveness and cost implications provides a strong argument for ice hockey governing bodies to reconsider policies that allow body checking in youth hockey.

Co-Authors: Deborah Marshall, PhD, Associate Professor, Department of Community Health Sciences, Faculty of Medicine, University of Calgary, Calgary, AB, Canada; Gillian Currie, PhD, Associate Professor, Department of Community Health Sciences, Faculty of Medicine, University of Calgary, Calgary, AB, Canada, Department of Pediatrics, Faculty of Medicine, University of Calgary, Calgary, AB, Canada; Nathalie A. Kulin, MSc, Research Associate, Department of Community Health Sciences, Faculty of Medicine, University of Calgary, Calgary, AB, Canada; Willem H. Meeuwisse, MD, PhD, Professor, Department of Community Health Sciences, Faculty of Medicine, University of Calgary, Calgary, AB, Canada, Sport Injury Prevention Research Centre, Roger Jackson Centre for Health and Wellness Research, Faculty of Kinesiology, University of Calgary, Calgary, AB, Canada; Jian Kang, PhD, Assistant Professor, Sport Injury Prevention Research Centre, Roger Jackson Centre for Health and Wellness Research, Faculty of Kinesiology, University of Calgary, Calgary, AB, Canada; Carolyn A. Emery, PhD, BScPT, Associate Professor, Department of Community Health Sciences, Faculty of Medicine, University of Calgary, Calgary, AB, Canada, Department of Pediatrics, Faculty of Medicine, University of Calgary, Calgary, AB, Canada, Sport Injury Prevention Research Centre, Roger Jackson Centre

B4.2 A Systematic Review Of Cost-Of-Illness Studies For Chronic Pain

Mary-Ellen Hogan, Doctoral student, Leslie Dan Faculty of Pharmacy, University of Toronto

Chronic pain is experienced by 19% of Canadians. People with chronic pain are frequent users of healthcare and experience costs and lost productivity due to their condition. This systematic review aimed to determine the extent of cost-of-illness studies for chronic pain, describe methods and perspective taken, and summarize cost estimates. MEDLINE, OVID HealthStar and EMBASE were searched from inception to January 2013 for cost-of-illness studies for chronic pain, using the National Health Service Economic Evaluation Database filter and key words for chronic pain. Review articles were also examined. Only studies published in English were considered. Data from eligible studies were extracted and summarized. Items reported include the country of study, perspective taken (e.g. payer, patient, societal), methodological approach for data gathering (e.g. administrative data), analysis (e.g. matched cohorts) and reporting (e.g. direct costs), number of records or subjects studied, and costs reported (and year). Preliminary: The search identified 7063 papers from the three databases and the papers are being reviewed to determine eligibility for inclusion. To date, 29 studies have been identified that determined the cost of chronic pain. The studies identified thus far have been conducted in Canada (n=3), USA, (n=7), UK and Ireland (n=6), Europe (n=12) and Nepal (n=1). One of the Canadian studies surveyed 370 patients at specialty pain clinics and determined total annual costs for chronic pain from a societal perspective were \$17,500. The other two used provincial administrative data and the payer's perspective; the annual incremental cost of chronic pain was \$3500 and neuropathic pain was \$2317. There is a paucity of Canadian data on the cost of chronic pain, with only three studies identified. Cost estimates from other countries may be helpful to policy developers and decision makers to supplement Canadian data until additional studies can be done.

Co-Authors: Vibhuti Shah, Associate professor, Institute of Health Policy, Management and Evaluation, University of Toronto; Department of Paediatrics, Mount Sinai Hospital, Toronto, Canada; Joel Katz, Professor, Department of Psychology, York University; Toronto General Research Institute and Department of Anesthesia and Pain Management, University Health Network, Toronto, Canada; Murray Krahn, Director, Toronto Health Economics and Technology Assessment Collaborative (THETA); Leslie Dan Faculty of Pharmacy, University of Toronto; Toronto General Research Institute, Toronto, Canada; Anna Taddio, Associate professor, Leslie Dan Faculty of Pharmacy, University of Toronto; Department of Child Health Evaluative Sciences, Pharmacy, Hospital for Sick Children, Toronto, Canada

B4.3 The Triple Aim Framework: Does Its Growing Influence And Adaptation Reflect The Original Intent?

Gustavo Mery, MD, MBA, PhD, University of Toronto

The objectives of this study were to (1) systematically identify the different uses of the Triple Aim framework since initial publication in 2008, (2) describe how these applications may differ from the original intent, and (3) critically assess its appropriateness in defining healthcare system goals and evaluating healthcare system performance. A systematic review of the international literature was conducted to identify all relevant documents describing the use of the Triple Aim to guide interventions for healthcare improvement or to guide the definition of healthcare system goals. Identified materials were analyzed regarding how organizations are using the Triple Aim framework to guide policy at the system level, including consistency with the original intent of the framework. Comparisons with other frameworks specifically defining healthcare system goals were made. Finally, the appropriateness of using the Triple Aim to guide health system reform in the Canadian context was assessed. Our findings revealed that when the framework was used to guide interventions or evaluations at the organizational or health region levels, the intent of the framework was preserved. However, when the Triple Aim framework was used to guide or define healthcare goals at the system level, we identified extensive variation in the definition and reinterpretation of it. Other frameworks explicitly developed to guide healthcare system goals have included important elements that are not part of the Triple Aim. Specifically, we consider essential the inclusion of the provider perspective when aiming for better care, and the inclusion of a fourth aim on equity, particularly relevant in the Canadian context. Despite the original intention to guide the development of interventions, the Triple Aim has been subject to wide reinterpretation and adaptation. More informed understanding of the intent and development of the Triple Aim is required, in particular when addressing broad healthcare system goals in different contexts.

Co-Authors: Shilpi Majumder, Policy Lead, Health Council of Canada; Mark Dobrow, Director, Analysis and Reporting / Associate Professor, Health Council of Canada / University of Toronto

B4.4 Latent Gender Inequalities In The Well-Being Of Physicians According To Payment Methods

Juan-Nicolás Peña-Sánchez, PhD Student, School of Public Health, University of Saskatchewan; Silvia Bermedo-Carrasco, PhD Student, School of Public Health, University of Saskatchewan

To identify differences in the levels of career satisfaction, fulfilment-recognition rewards, and daily distress of physicians by gender and payment method for practicing medicine (fee-for-service [FFS], alternative payment plans [APP], and blended forms). To assess interactions between gender and payment method on the three measures of physicians' well-being. A cross-sectional study was conducted in 2011 with all physicians practicing in the Saskatoon Health Region, Saskatchewan, Canada. Medical residents were excluded from the study. Eligible physicians completed a survey, either on-line or by mail, assessing their levels of daily distress, fulfilment-recognition equity, and career satisfaction. The three measures were previously validated among Canadian physicians. Multivariate analysis of variance (MANOVA) was conducted to study differences among dependent variables by remuneration method and gender. Scheffe Tests for payment methods and multiple comparisons for gender were performed as post-hoc tests, exploring differences among the dependent variables by the two factors. A total of 382 physicians completed the questionnaire (48.1%), where 37.2% were female physicians. Half of the physicians were remunerated by FFS, a quarter by APP, and the rest by blended forms. The levels of career satisfaction and fulfilment-recognition rewards were positively correlated ($r=0.64$, $p<0.01$), and daily distress was negatively correlated with career satisfaction and fulfilment-recognition rewards ($r<-0.4$, $p<0.01$). MANOVA (using the Wilks' lambda criterion) demonstrated that the combined dependent variables were affected by gender but not by payment method, and there was no evidence of an interaction effect between payment method and gender ($F(2,376)=1.24$, $p=0.28$). Among women, the post-hoc tests identified lower levels of career satisfaction ($F(1,375)=1.61$, $p=0.01$) and fulfilment-recognition rewards ($F(1,375)=6.28$, $p=0.01$), and higher levels of daily distress ($F(1,375)=5.07$, $p<0.03$). Female physicians reported significantly poorer indicators of well-being in comparison to male physicians; however, APP and blended payment methods did not show differences in well-being indicators from traditional FFS. More national studies are recommended to study gender inequalities and potential ameliorating effects of Alternative Payment Plans.

Co-Authors: Rein Lepnum, Professor, School of Public Health, University of Saskatchewan; Silvia Bermedo-Carrasco, PhD Student, School of Public Health, University of Saskatchewan

B5 PHARMACEUTICAL POLICY

POLITIQUE SUR LES PRODUITS PHARMACEUTIQUES

B5.1 Evidence Of Effective Delivery The HPV Vaccine Through A Publicly Funded, School-Based Program: The Ontario Grade 8 HPV Vaccine Cohort Study

Leah Smith, Student, McGill University

Proper administration of the human papillomavirus (HPV) vaccine (three doses at 0, 2, and 6 months) will likely influence the vaccine's effectiveness and the impact of provincial vaccination programs on adolescent health. Therefore, we assessed HPV vaccine series completion and on-time dosing in Canada's largest publicly funded, school-based vaccination program. Using Ontario's administrative health and immunization databases, we identified a population-based cohort of all girls eligible for Ontario's Grade 8 HPV vaccination program in the 2007/08-2009/10 program years who initiated the three-dose series. Vaccine exposure was ascertained for two relevant time windows: Grade 8 and Grades 8-9. We determined the number of doses received per girl and calculated the percentage that completed the series. To assess on-time dosing, the number of days between doses (1-2, 2-3, 1-3) was calculated and categorized (e.g., too short, on schedule, too long) based on the manufacturer's recommendations. Analyses were also stratified by program year. Based on data available at the time of analysis (i.e., from 21 of Ontario's 36 health regions), we identified a cohort of 55,798 girls who initiated the vaccination series. Series completion in the Grade 8 window was high (81.8%) and increased approximately 6% in Grade 9. Series completion was similar across the three program years. 70.8%, 98.5%, and 86.1% of girls were classified as 'on schedule' for dosing intervals 1-2, 2-3, and 1-3, respectively; 70.0% of girls received all three doses in perfect accordance with dosing recommendations. Stratification by program year revealed that on-time dosing was high in the first two years of the program (85.6% and 80.6%), but dropped to 42.1% in the 2009/10 program year when H1N1 vaccination programs were prioritized. Publicly funded, school-based HPV immunization programs overcome financial and accessibility barriers to healthcare, creating an ideal setting in which vaccine use be optimized. Indeed, these results indicate this approach to program delivery is enabling the vast majority of girls who initiate the series to successfully complete it as recommended.

Co-Authors: Ting Lim, Ms., Queen's University; Kim Sears, Dr., Queen's University; Guoyuan Liu, Queen's University; Linda Levesque, Dr., Queen's University

B5.2 The Impact of Allowing Pharmacists to Independently Renew Prescription Drugs

Michael Law, Assistant Professor, UBC Centre for Health Services and Policy Research

While many provinces have granted pharmacists the authority to renew prescriptions, we do not know the impact of these policies on drug use and costs. We studied the impact of a 2009 policy change in British Columbia (BC) that allowed pharmacists to independently renew certain prescriptions without a physician prescription. We employed a quasi-experimental design using population-based pharmaceutical and physician use datasets for virtually all (3.9 million+) BC residents for two years following the policy change. We assessed three outcomes: (1) the number and types of drugs renewed by pharmacists, and (2) whether these complied with the policy. Finally, we matched pharmacist-renewed prescriptions to equivalent non-renewed prescriptions to assess the impact on (3) ambulatory physician visits. While more than 45 million prescriptions during our study period that could have been renewed by a pharmacist, the number actually renewed was just 140,899 (0.3%). The most frequently renewed medication classes were treatments for high cholesterol, blood pressure, diabetes and ulcers. Pharmacist-renewed prescriptions were preceded by 15% fewer ambulatory physician visits in the week preceding the dispensing than physician-initiated renewals, resulting in approximately 21,155 fewer physician contacts. Overall, allowing pharmacists to renew prescriptions appeared to reduce ambulatory physician visits. However, the population-level impact of this policy change was muted by the low uptake by pharmacists. Future studies should examine the appropriateness of pharmacist-initiated renewals and the impact on patient adherence and health status.

Co-Authors: Lucy Cheng, Research Analyst, UBC Centre for Health Services and Policy Research; Jillian Kratzer, Research Associate, UBC Centre for Health Services and Policy Research; Sumit Majumdar, Professor, The University of Alberta; Steven Morgan, Associate Professor, UBC Centre for Health Services and Policy Research

B5.3 Transparency in Canadian Public Drug Advisory Committees

Zahava Rsoenberg-Yunger, Postdoctoral fellow, Centre for Research on Inner City Health Li Ka Shing Knowledge Institute St Michael's Hospital; Ahmed Bayoumi, Dr., Centre for Research on Inner City Health Li Ka Shing Knowledge Institute St Michael's Hospital

Little is known about the transparency of drug advisory committee recommendations in Canada. Transparency in healthcare resource allocation decisions is a criterion of a fair process and may lead to great efficiencies and increased public trust. We used qualitative methods to explore transparency across 11 Canadian committees. We recruited and interviewed a purposeful sample of key informants. Inclusion criteria included being conversant in English and being either a current or former member of a provincial or federal drug advisory committee, a government employee, a patient advocacy group representative, or a pharmaceutical industry employee. We also collected documents related to issues such as reimbursement decisions, submission guidelines, and membership guidelines from committee websites. We analyzed data using a thematic approach consisting of line-by-line coding to develop categories and constant comparison to examine relationships within and across codes and categories. Interviewing continued until saturation was reached. We interviewed participants from 10 committees: 5 expert members, 6 non-expert members, 6 patient group representatives, 4 industry representatives, and 6 government employees. We developed six transparency criteria (appeals mechanism, multi-directional communication, membership names public, membership selection criteria public, 'no' decisions public and posting of rationales) and two sub-criteria (for when rationales were posted - direct website link and readability). The median value of criteria met by committees was 3 (range 1 to 6). The 5 committees that posted rationales met the sub-criteria. The major interview themes included addressing: 1) system level issues, including an appeals mechanism accessible by the public; 2) communication issues, including improving internal and external communication and public access to information; and 3) confidentiality issues, including the use of proprietary evidence. Although most committees have some mechanisms to address transparency, most fall far short of having a fully transparent process. The most important ways to improve transparency are to create formal appeal mechanisms, improve communication, and establish consistent rules about the use of, and public access, to proprietary evidence.

Co-Authors: Ahmed Bayoumi, Research Scientist and Associate Professor, Centre for Research on Inner City Health Li Ka Shing Knowledge Institute

B5.4 Physicians' Views on a Publicly Funded Prescription Drug Program for Ontario Seniors

Rima Karam, The University of Ontario Institute of Technology; Brenda Gamble, The University of Ontario Institute of Technology

Ontario Drug Benefit (ODB) program provides Ontario residents aged 65 and older with access to publicly funded prescription drugs with little or no co-pay. However, not all prescriptions drugs are covered and others are limited. Views of physicians on ODB and the potential impact for Ontario Seniors will be presented. The data collection for this case study is based on document review (peer review and grey literature) and semi-structured interviews. Relevant documents were identified from the Ontario government's websites, professional associations, and searches with Medline, PubMed, Econlit and Ovid. Ten physicians working in a Durham region primary care clinic in Ontario were interviewed to determine their views on the ODB program. An iterative approach was used to analyze the data and resulted in the identification of several different themes related to both the benefits and challenges of the ODB for physicians and their patients. Physician views support transparency on the ODB's decision making process for inclusion/exclusion on the ODB formulary; the need for timely information when brand name drugs are replaced with generic drugs (i.e., communication about and information on the generic); and challenges of completing ODB forms to request coverage for non-formulary drugs. Concerns were raised about the potential negative side effects of the replacement drugs for their patients. While it was recognized that generic drugs are less costly, this saving needs to be balanced with the costs associated with the impact the replacement drug may have on patient outcomes. The implementation of a national pharmacare program in Canada has the potential to reduce costs and increase access. Results from this study suggest that certain challenges exist in obtaining the most appropriate drugs for individual patients. Challenges that impact the quality of care and costs associated with procedural requirements.

Co-Authors: Brenda Gamble, Assistant Professor, The University of Ontario Institute of Technology

B6.1 Multispecialty Physician Networks in Ontario

Therese Stukel, Senior Scientist, ICES; Rick Glazier, Dr, ICES

Large multispecialty physician group practices, with a central role for primary care, have achieved high quality, low cost care for chronic disease patients. We assessed whether informal multispecialty physician networks could be identified by exploiting natural linkages among patients, physicians, and hospitals based on existing patient flow using health administrative data. We linked Ontario residents to their usual provider of primary care (UPC) over 2008-2010. We linked specialists to the hospital where they performed the most inpatient services. We linked primary care (PC) physicians to the hospital where most of their UPC patient panel was admitted for non-maternal medical care. Residents were linked to the same hospital as their UPC physician. We computed loyalty as the proportion of care to network residents provided by physicians and hospitals within their network. Smaller clusters were aggregated to create networks based on a minimum population size, distance and loyalty. Networks were not constrained geographically. We identified 78 multispecialty physician networks, comprising 12,581 PC physicians, 14,516 specialists and 175 acute care hospitals serving 12,917,178 people. Median network size was 134,000 residents, 125 PC physicians and 141 specialists. Virtually all eligible residents were linked to a UPC and to a network. Most specialists (94%) and PC physicians (98%) were linked to a hospital. Median network physician loyalty was 68% for physician visits and 81% for PC visits. Median admission loyalty was 67%. Urban networks had lower loyalties and were less self-contained but had more healthcare resources. We demonstrated the feasibility of identifying informal multispecialty physician networks in Ontario based on patterns of healthcare seeking behaviour. Networks were reasonably self-contained. Formal constitution of networks could foster accountability for efficient, integrated care through care management tools and quality improvement, the idea behind 'accountable care organizations'.

Co-Authors: Rick Glazier, Dr, ICES

B6.2 New Physicians - Mobility Patterns in the First Ten Years of Work

Lili Liu, Senior Analyst, Canadian Institute for Health Information

To understand the mobility of new physicians across Canada. To identify how long new physicians stay in their jurisdiction of first registration, and the possible factors that impact the retention of new physicians. Data from Scott's Medical Database (SMDB) data at Canadian Institute for Health Information (CIHI) was used to identify new physicians and track their mobility across time. New physicians were tracked over a ten year time period, and retention rates between Canadian-Educated Medical Graduates (CEMGs) and International Medical Graduates (IMGs) were compared. Additionally, among CEMGs, retention rates were compared between those who started working in the same jurisdiction they received their MD and those who started working in a jurisdiction different from where they received their MD. Variations in trends by jurisdiction and physician characteristics were also analysed. Overall, 58% of physicians are still working in the same jurisdiction they started in ten years later. At ten years, Quebec and Ontario had the highest retention rates, while Newfoundland and Labrador and Nova Scotia had lower retention rates. Retention rates vary considerably by place of graduation with CEMGs who obtained their MD from the jurisdiction they first registered being most likely to stay in that jurisdiction (72%). In comparison, CEMGs who received their MD from another jurisdiction showed modestly higher rates of staying in their first jurisdiction of registration after ten years than IMGs (45% vs. 35%). Among IMGs, retention rates varied considerably across jurisdictions, ranging from 8% in Newfoundland and Labrador to more than 45% in Ontario and Alberta. Physicians are the most mobile in the first five years of their career, and where they are trained is a key factor in understanding retention rates. Physicians who obtained their MD from the same jurisdiction they start working in are much less mobile than other CEMGs and IMGs.

Co-Authors: Yvonne Rosehart, Program Lead, CIHI; Erik Bourdon, Senior Analyst, CIHI

B6.3 Implementation of Nurse Practitioners and Physician Assistants in BC

Sabrina Wong, Associate Professor, UBC

Almost one-third of BC nurse practitioner (NP) graduates report difficulty finding employment based on their training in primary care, gerontology, or mental health. We examined factors associated with implementing NPs in BC and those likely to be faced should a decision be made in BC to implement Physician Assistants (PAs). The mixed-methods design consisted of three components: 1) scoping literature review (n=5 articles) to examine NP and PA roles and implementation factors; 2) review of publicly available documents relevant to changing primary health care (PHC) policy directions in Canada and BC and the implementation of NPs; and 3) in-depth interviews (n) with BC senior executives and policy leaders, including representatives from government, health authorities, nursing and medical associations and colleges. Data were extracted and synthesized from English language articles obtained through a search of electronic databases, websites, and reference lists. Content analysis of audio-recorded interviews and documents was also conducted. Since 1974, NPs are reported as having the skills and competencies to practice as autonomous PHC providers. Fourteen systematic reviews have each concluded that NP-provided PHC is of commensurate quality and safety to that of physicians. PAs can safely substitute for physicians on a wide variety of clinical activities, though limited to working under physician supervision. PAs technically oriented training may be best suited to managing high volumes of routine tasks to carrying out established guidelines/protocols and not for autonomous roles where a wider scope of clinical judgment is required. Our content analysis suggests factors related to implementing NPs and PAs include: government policies, attitudes of physicians and organized medicine, and economic competition associated with Fee-For-Service remuneration. These factors are consistent with what is reported internationally. NPs can increase access to quality PHC. Utilizing NPs in BC continues to be challenging, largely due to barriers already identified in the literature. PAs can increase physician efficiency in acute and specialty areas. Understanding the financial implications of introducing PAs into a publicly funded health system is needed.

Co-Authors: Vicki Farrally, Ms., Praxis Management/CHSPR; Tracey Ma, Ms., CHSPR

Wednesday, May 29, 2013
STREAM C: 1:15pm – 2:30pm

Mercredi 29 mai 2013
VOLET C : 13h15 – 14h30

C1 PANEL PRESENTATION

PRÉSENTATION EN PANEL

C1 Tweets, Blogs, OpEds and YouTube: Advocating for Evidence in the Online Dialogue about Health Policy

Jeremy Petch, Research Coordinator, Healthy Debate; Steve Morgan, Professor, CAHSPR; André Picard, Globe and Mail; Karen Born, Research Writer, Healthy Debate

OBJECTIVES: To bring together experts who are employing innovative approaches to advocating for evidence in online discourse about health policy issues. The public is increasingly using online information to inform and understand health care issues. The online environment, however, is rife with incorrect information and can be hostile to evidence and expert knowledge. This panel will feature individuals who are leading online initiatives to introduce evidence, and spread expert knowledge on health care. In particular, the panel will focus on untapped opportunities for further penetration of evidence into public discourse. This panel shares a strong thematic connection, but no content overlap, with the CAHSPR Student Work Group workshop 'Getting Your Message Out: A Media Skills Workshop' which will provide students with tools for using traditional and social media outlets to engage the public in their research. **BACKGROUND:** Shrinking revenue in traditional print media has led to extensive cutbacks, contributing to a decline in the quality and quantity of evidence in health reporting and journalist training. There is a need for health services researchers to communicate and advocate for the importance of evidence, and online tools provide a platform for researchers to engage in public dialogue. To promote dialogue between panel members, we will forgo individual presentations in favour of a moderated discussion (45 minutes) on the below questions by all panelists. To encourage participation, the final 20 minutes will be reserved for audience questions. **QUESTIONS:** 1) Strategy: What have been the most successful online strategies and tactics your organization has employed? 2) Evaluation: Public discourse is sprawling and messy; how can we measure whether we're making a difference? 3) Sustainability: What is the return on investment, and how can these initiatives be sustained? 4) Opportunities: What untapped platforms exist to bring evidence into public dialogue on health care? **OUTCOMES:** The panel will be live tweeted and the transcript will be captured and posted on the web using Storify. Audience members will learn about the opportunities and challenges of using online tools to spread evidence about health policy.

C2 HEALTH ECONOMICS

ÉCONOMIE DE LA SANTÉ

C2.1 Actuarially Adjusted OHIP Contributions Based On Body Mass Index And Socio-Economic Status: Evaluating The Financial Feasibility Of A 'Fat Tax'

Matthew Machina, PhD Student, University of Toronto

Healthcare costs, as a percent of GDP, are increasing in Canada. The increasing prevalence of obesity may contribute to this trend. In Ontario, OHIP is funded by taxes whose rates are not risk adjusted. This study assesses the financial feasibility of actuarially adjusting Ontario taxes to include a 'fat tax'. Data from the Census, Ministry of Finance, Statistics Canada, and the CCHS survey were used to obtain historical and forecast values for socio-economic, population size, and obesity rates in Ontario. Myocardial infarcts (MIs) were used as an example disease to assess the costs associated with overweight or obesity (by body mass index - BMI). Population growth, including age and BMI were forecast. Treatment costs of MIs were obtained, along with basal, and increased, risk of MIs associated with overweight or obese BMI. Surplus MI costs were distributed as a tax across the overweight/obese population of Ontario, stratified by BMI and SES. The one-year treatment cost for an MI was just under \$46,000 (2011 CAD). Basal risk of MIs was found to be 3/1000 population, while it was 4.1/1000 and 5.1/1000 for overweight and obese, respectively. Forecast surplus MI costs associated with overweight/obesity were \$526 million (CAD) in 2012, escalating to \$1793 million (CAD) by 2051. These costs were distributed across the overweight/obese tax-paying population of Ontario, stratified by socio-economic status (tax-brackets - based on the extra OHIP contribution). The 'fat tax' was assumed feasible if no SES group incurred an additional tax greater than their current extra OHIP contribution. The model was tested in 8 different scenarios, all of which were deemed feasible, with the highest 'fat tax' observed being \$247. Based on the preliminary model results, adding a 'fat tax' to the OHIP contributions appears to be a financially feasible strategy. Further scenario and sensitivity analyses will be performed to strengthen the conclusions. This study does not examine the logistical or policy implications associated with such a 'fat tax'.

C2.2 Cost Analysis Of Dialysis Services In Nova Scotia

Amelie Lombard, Health Economist, Nova Scotia Department of Health and Wellness

The objective of our study is to describe program specific costs required to treat patients with dialysis, and compare these costs between home-based therapies and center-based therapies. The study compared the economics of in-center hemodialysis (n=353), satellite hemodialysis (new model of care, n=75), satellite hemodialysis (old model of care, n=74), peritoneal dialysis (n=90) and home hemodialysis (n=14) for patients enrolled in dialysis therapy in outpatient clinics in 2010/2011. An activity-based cost analysis was used to identify and assign costs to each activity used by patients on different modalities. Costs considered included those related to staffing, overhead, drugs, supplies, laboratory tests/medical imaging, staff travel / training, capital, and physician claims. This study also conducted separately a sensitivity analysis to help determine the efficiencies associated with shifting patients from centre-based therapies to home-based therapies. Overall cost of care per patient for in-center hemodialysis, new model of care satellite hemodialysis, old model of care satellite hemodialysis and home hemodialysis/peritoneal dialysis were \$61,945.74, \$56,309.84, \$54,576.22 and \$45,026.89 respectively. The annual cost of health care delivery for patients treated with home therapies was 27% lower than in-center hemodialysis, 20% lower than satellite hemodialysis (new model) and 18% lower than satellite hemodialysis (old model). After adjustment for the effect of shifting patients from center to home-based therapies, home therapies remain the least costly option in all scenarios. Another important result, changing patient volume targets in home-based therapies does not significantly reduce the total annual cost, but will slow the rise in expenditures. The cost study found that home-based therapies were the least costly renal replacement therapy. Dialysis programs in Nova Scotia should encourage the use of home therapies not only as an addition to in-center and satellite hemodialysis, but also as a method of mitigating costs and managing program growth.

Co-Authors: Mike Joyce, Director Health Economics, Department of Health and Wellness; Susan MacNeil, Manager, Nova Scotia Renal Program

C2.3 Economic Evaluation Of Meningococcal Serogroup B (MenB) Childhood Vaccination In Ontario, Canada

Hong Anh Tu, Post-doctoral Fellow, University of Toronto, Institute of Health Policy, Management and Evaluation

To assess the cost-effectiveness of MenB childhood vaccination from the Ontario healthcare payer perspective. MenB invasive meningococcal disease (IMD) is endemic in Ontario. While the incidence is low (0.19/100,000/year), mortality is ~10% and ~10% of survivors have major long-term sequelae. A novel MenB vaccine has been submitted for regulatory approval. A Markov cohort model of MenB disease was developed based on Ontario surveillance (MenBIMD incidence and mortality) and cost data, and data from the literature (utilities, sequelae). A 4-dose vaccination schedule, 98% coverage, 66% effectiveness, 10 years duration of protection and C\$90/dose were assumed. A hypothetical Ontario birth cohort (150,000) was simulated to estimate expected lifetime health outcomes (MenBIMD cases, sequelae, mortality, quality-adjusted life years (QALYs)) and cost (vaccination program, treatment of MenBIMD). Primary outcomes were expected QALYs, cost and incremental cost per QALY gained. Extensive sensitivity analyses were conducted. QALYs and costs were discounted at 5%. A MenB infant vaccination program is expected to prevent 4 MenBIMD cases over the lifetime of an Ontario birth cohort, equivalent to 12.39 QALYs gained. The vaccination program costs (C\$55,566,000 per cohort) are not offset by cost savings due to preventing 4 cases of MenB IMD (C\$161,840), resulting in an incremental cost of C\$55,404,160 for the vaccination program. The incremental cost effectiveness ratio is C\$4,468,854 per QALY gained. The number of infants needed to vaccinate to prevent 1 case of MenB IMD is 36,750. The model was most sensitive to vaccine price, incidence of meningitis, discount rate, and vaccine effectiveness. However, changing parameter values for these variables within plausible ranges did not result in the vaccination program being cost-effective under commonly used cost-effectiveness thresholds. This analysis suggests that a MenB vaccination program substantially exceeds commonly used cost-effectiveness thresholds and thus is unlikely to be considered economically attractive. These findings provide timely economic evidence for public health policy-decision makers in Ontario and other jurisdictions considering a publicly funded MenB vaccination program.

Co-Authors: Shaun Morris, PhD, Division of Infectious Diseases, Hospital for Sick Children; Lisa Striffler, MSc., Public Health Ontario; Shelley Deeks, PhD, Public Health Ontario; Jeff Kwong, PhD, Institute for Clinical Evaluation Sciences and Public Health Ontario; Natasha Crowcoft, PhD, Public Health Ontario; Beate Sander, PhD, Public Health Ontario

C2.4 A Cost-Effectiveness Study of Toronto Public Health's Preventing Overdose in Toronto (POINT) Program

Dima Saab, MSc Candidate, University of Toronto; Lady Bolongaita, MSc Candidate, University of Toronto

The objective of this evaluation was to ascertain whether Toronto Public Health's Preventing Overdose in Toronto (POINT) intervention is a cost-effective strategy for reducing avoidable mortality from overdose in opioid users. The program trains opioid users to recognize overdoses, administer naloxone and contact Emergency Medical Services. The study was conducted from the perspective of the public payers, Ontario's Ministry of Health and Long-Term Care and Toronto Public Health. Program and cost data for the POINT intervention were obtained through interviews with staff from Toronto Public Health. Informants from an urban teaching hospital in Toronto were interviewed to determine hospital and treatment costs. In determining the cost of the intervention, the study examined the cost of the naloxone kit and the training session for an individual user. A decision analytic model was used to assess cost-effectiveness. From August 31, 2011 to November 2, 2012 a total of 466 naloxone kits were distributed to opioid users who had participated in a training session. Of these kits, 45 were administered to users experiencing an overdose, resulting in 45 lives saved. Preliminary results evaluating the cost-effectiveness of the POINT intervention demonstrate that the intervention is cost-effective. The incremental cost effectiveness ratio was found to be \$1193.00/life saved. The cost effectiveness of this program was confirmed by sensitivity analyses. The prevention of opioid overdoses through a naloxone distribution intervention appears to be cost effective. Though numerous studies have demonstrated the effectiveness of naloxone distribution programs in saving lives, there is a lack of cost-effectiveness data, particularly from the Canadian context. The presentation will discuss implications for future research to fill this gap.

Co-Authors: Lady Bolongaita, Student, University of Toronto; Jennifer Innis, Student, University of Toronto

C3 EQUITY

ÉQUITÉ

C3.1 Are Improvements In Breastfeeding Leaving Some Behind? Monitoring Trends In Health Inequalities-A PATHS Equity For Children Project

Nathan Nickel, Postdoctoral Fellow, Manitoba Centre for Health Policy

Two priorities identified by the 62nd World Health Assembly are to develop indicators and monitor trends in health inequalities. The objective of this presentation is to use breastfeeding initiation data to illustrate a policy-relevant, epidemiological approach to monitor trends in health inequalities, over time. This population-based study was conducted under the PATHS Equity for Children Program of Research. Analyses used hospital discharge data and included Manitoba mother-infant dyads with live births, 1988-2011 (n=316,027). Income quintiles were created using average census dissemination area income; each quintile included ~20% of dyads. Three-year, overall and by-quintile, breastfeeding initiation rates were estimated for the province and two hospitals. Rate ratios (RRs), rate differences (RDs), and Concentration Indices measured inequality across income quintiles. Trend analyses, and two-sided Z-tests tested for changes, over time. A time by income-quintile interaction tested whether initiation trends were statistically significant, across income quintiles. Manitoba and Hospital A overall initiation rates increased, 1988-2011 (p<0.001); Hospital B overall rates failed to show a significant change (p=0.58). Significant inequalities in initiation rates were present in nearly every time period, in Manitoba and both hospitals, using all three measures RR, RD, and Concentration Indices. Time trend analyses of the RRs and Concentration Indices suggested minimal change in inequality; the RR and Concentration Index were not significantly different at the first time period compared with the last time period. Trend analyses of the RD and comparing the RD in the first period to the last period both showed significant changes in inequality, across time-differences in initiation in Hospital A and Manitoba decreased while differences in Hospital B increased. Overall health can improve while inequality persists or worsens. Rate ratios may suggest no change in inequality while the gap between the most- and least- advantaged widens. Rate differences more accurately reflected changes in the gap, across time, and may more readily inform policy to improve health equity.

Co-Authors: Patricia Martens, Director; Professor, Manitoba Centre for Health Policy; Department of Community Health Sciences; Faculty of Medicine; University of Manitoba; Daniel Chateau, Biostatistician; Assistant Professor, Manitoba Centre for Health Policy; Department of Community Health Sciences; Faculty of Medicine; University of Manitoba; Joykrishna Sarkar, Data Analyst, Manitoba Centre for Health Policy; Department of Community Health Sciences; Faculty of Medicine; University of Manitoba; Carole Taylore, Data Analyst, Manitoba Centre for Health Policy; Department of Community Health Sciences; Faculty of Medicine; University of Manitoba

C3.2 Unmet Needs, Innovations and Best Practices of Community-Based and Health Services for Individuals With Neurological Conditions: A Scoping Review

Sarah Munce, PhD Candidate, University of Toronto; Tarik Bereket, University of Toronto

The purpose of this scoping review was to identify the unmet needs, innovations and best practices of community-based and health services for individuals with 16 priority neurological conditions, including spinal cord injury, multiple sclerosis, and acquired brain injury. Peer-reviewed journals were identified using Medline, EMBASE, Social Sciences Abstracts, and CINAHL. The grey literature was also searched. Development of the search strategy was an iterative and collaborative process that involved consultation with a research librarian and input from members of the research team and the Stakeholder Advisory Group. The Expanded Chronic Care Model and the Andersen behavioural model for health care use served as a guide for selecting keywords. A total of 4692 abstracts were identified from the initial search strategy. Studies from outside Canada, the US, the UK and Europe, and Australia and New Zealand were removed. A total of 723 studies were included for review. Studies on Alzheimer's and related dementias dominated the results. The most common themes in terms of unmet needs, that were observed across the conditions, included education and knowledge for consumers and families, the provision of appropriate health, community, and social services, structural and health system issues (i.e., the need for more funding and research), and skills training for service providers. Other themes related to life skills training for the patient, caregiver/family support, and coordination of care. Technology was often used as a solution to address the (knowledge/information) needs of individuals with a neurological condition, including dissemination through websites, and counseling and support through telemedicine. There are significant unmet needs that are common to individuals across neurological conditions. The current review may inform policy makers' and program planners' efforts to develop a comprehensive service plan that could be used to address the needs of individuals with neurological conditions.

Co-Authors: Atiya Hemraj, Ms., University of Toronto; Susan Jaglal, Dr., University of Toronto; Tarik Bereket, Mr., University of Toronto; Sara Guilcher, Dr., University of Toronto

C3.3 Using Geographic Methods to Inform Cancer Screening Interventions for South Asians in Ontario, Canada

Aisha Lofters, Assistant Professor, University of Toronto

We aimed to use visual displays of spatial analyses to identify the most appropriate small geographic areas in which to pilot targeted cancer screening interventions for Ontario's South Asian community. We used Geographic Information Systems (GIS), including Local Indicators of Spatial Association (LISA) using GeoDa software, and population-level administrative data to create multi-layered maps of: i) rates of appropriate cancer screening, ii) the percentage of residents of South Asian ethnicity, and iii) the locations of primary care practices and community health centres by census tract in the Peel Region of Ontario (population: 1.2 million). The maps were shared with partner health service and community service organizations at an intervention development workgroup meeting to examine face validity. The lowest rates of appropriate cancer screening for census tracts across the region were 51.1% for cervical cancer, 48.5% for breast cancer, and 42.5% for colorectal cancer. We found marked variation both in screening rates and in the proportion of South Asians residents by census tract but lower screening rates in the region were consistently associated with larger South Asian populations. The LISA analysis identified a high-risk area consisting of multiple neighbouring census tracts with relatively low screening rates for all three cancer types and with a relatively large South Asian population. Partner organizations recognized and validated the geographic location highlighted by the LISA analysis. Many primary care practices are located in this high-risk area, with one community health centre located very nearby. In this populous region of Ontario, South Asians are more likely to reside in areas with lower rates of appropriate breast, cervical and colorectal cancer screening. We have identified a high-risk area appropriate for both patient- and provider-focused interventions. Geographic Information Systems, in particular LISA analyses, can be invaluable when working with health service and community organizations to define areas with the greatest need for interventions to reduce health inequities.

C3.4 Lifetime Distributional Effects of Publicly Financed Health in Canada

Lisa Corscadden, Program Consultant, Canadian Institute for Health Information

Health services funded through general tax sources have the secondary effect of redistributing resources across income groups. However, the net impacts are challenging to estimate particularly across a life cycle. Using a variety of administrative and survey data from the Canadian Institute for Health Information and Statistics Canada, health care costs (hospitalizations, drugs, and physicians) and federal and provincial income and commodity taxes distributions were estimated for 2011 - by age group, sex and income quintile. Lifetime amounts were estimated using a micro simulation model to simulate a cohort of 50,000 Canadians. Data on differential mortality by income was used to augment conventional mortality rates by age and sex. At the end of the simulation, cumulative, average lifetime and annualized health spending and taxes were calculated, and redistributive effects were estimated. Annual per capita health care spending was nearly six times higher than taxes paid toward health in the lowest income group using conventional cross sectional analysis, whereas annualized lifetime costs averaged out over a simulated life course were roughly four and a half times higher than taxes paid. A portion, but not all, of the narrowing in the distribution across income groups over the life course is due to the smoothing out of differences in lifetime health costs through differential mortality. Publically financed health care is substantially redistributive, but not as dramatically so when a full life course perspective is used compared to usual cross-sectional analyses.

Co-Authors: Sara Allin, Senior Researcher, CIHI; Michael Wolfson, Dr., Ottawa University; Michel Grignon, Dr., McMaster University

C4.1 The Effect of Telephone Support on Coronary Artery Disease Patient Outcomes during Cardiac Rehabilitation: A Systematic Review & Meta-Analysis

Ahmed Kotb, Graduate Student, University of Ottawa

Cardiac rehabilitation is offered to individuals after cardiac events to aid recovery and reduce the likelihood of further cardiac illness. However, patient participation remains suboptimal and the provision of high quality care to an expanding population of patients with chronic heart conditions is becoming increasingly difficult. As a result, the feasibility and effectiveness of using telehealth interventions to deliver care have recently been considered. This systematic review and meta-analysis aims to determine the effect of telephone support interventions compared with standard post-discharge care on coronary artery disease patient outcomes. We searched The Cochrane Library, MEDLINE, EMBASE, and CINAHL. Reference lists of included studies were also checked. No language restrictions were applied. We included randomized controlled trials that directly compared telephone interventions with standard post-discharge care in adults following a myocardial infarction, angina or a revascularization procedure. Studies were selected independently by two reviewers. Data were extracted by a single reviewer and checked by a second one. Where appropriate, outcome data were pooled and analysed using a random effects model. For dichotomous variables, odds ratios (OR) and 95% confidence intervals (CI) were derived for each outcome. For continuous variables, standardized mean differences (SMD) and 95% CI were calculated for each outcome. Thirty-two studies met the inclusion criteria. No difference was observed in mortality between the telephone group and the group receiving standard care (OR 1.02 (0.69, 1.62)). The intervention was however significantly associated with fewer hospitalizations than the comparison group (OR 0.62 (0.40, 0.97)). Significantly more participants in the telephone group stopped smoking (OR 1.40 (1.08, 1.82)); had lower low-density lipoprotein levels (SMD -0.19 (-0.39, -0.00)); lower systolic blood pressure (SMD -0.22 (-0.36, -0.07)); and higher physical composite scores for quality of life (SMD 0.15 (0.01, 0.30)). However, no significant differences were observed for medication adherence (OR 0.78 (0.78, 1.28)); and the mental composite score for quality of life (SMD -0.00 (-0.19, 0.18)). Regular telephone support interventions may help increase the uptake of secondary prevention and reduce further hospitalization.

Co-Authors: George Wells, Dr., University of Ottawa; Shu-Ching Hsieh, Dr., University of Ottawa Heart Institute

C4.2 Experiences Of Family Caregiving For Adults With Chronic Physical Illness

Ilja Ormel, Mrs, St. Mary's Hospital; Susan Law, Dr, St. Mary's Hospital

To increase public and professional understanding of caregiving experiences of people who care for adults with chronic physical illness. Specifically: To provide evidence-based information and support for caregivers, family, friends, and health care professionals. To identify key messages for health care professionals about the caregivers' perspective. 40 qualitative semi-structured audio and/or video recorded interviews were conducted with adult caregivers; a maximum variation sample from across Canada. Data collection and analysis is via rigorous qualitative research. Qualitative analysis, via constant comparison, highlights 25 topics or themes reflective of the participants' own concerns, meanings and priorities. Results including video, audio or text fragments, and evidence-informed resources about caregiving are published on www.healthexperiences.ca. The methods for this initiative are adopted from the award-winning website (www.healthtalkonline.org) developed by the University of Oxford, UK. The St. Mary's-McGill team is a member of an international collaborative with 10 member countries developing this approach. The burden of caregiving and the enormous contribution of informal caregiving to our healthcare system is an important topic in the overall quality, cost, equity and effectiveness of healthcare delivery. Caregivers in our research study expressed the need for support in their role, e.g. by receiving timely information, receiving recognition and support from health care professionals. Organizing resources within the health and social care systems to support the caregiver is important to help them to continue care at home. On the www.healthexperiences.ca / www.experiencesante.ca internet sites, caregivers will be able to find support through hearing and watching shared experiences of the participants, finding resources and reliable information about caregiving experiences throughout Canada organized around topics such as advice to caregivers, informal support and navigating the system. The www.healthexperiences.ca site is believed to be unique in Canada in the field of patient and healthcare communication. It provides reliable information and support for caregivers and will be an effective educational resource for healthcare professionals, managers and policy makers. Modules on breast cancer and mental health are being developed.

Co-Authors: Susan Law, Dr, St. Mary's Hospital / McGill University

C4.3 Rethinking Capacity Building for Knowledge Mobilisation: A Practice-based Approach

Roman Kislov, Dr, Manchester Business School

The purpose of the paper is to develop conceptual understanding of capacity building for knowledge mobilisation that occurs at the interface between healthcare organisations and external large-scale knowledge mobilisation initiatives aiming to facilitate implementation of research evidence in day-to-day clinical practice. The paper combines: (1) theoretical evidence, represented by the insights from the theory of situated learning and literature on dynamic capabilities, (2) experiential evidence, accumulated by the authors through their involvement in the Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for Greater Manchester in 2008-2013, and (3) empirical evidence encompassing 45 interviews and 69 hours of direct observation which were conducted in 2009-2010 and involved general practitioners (GPs), GPs with special interest, specialist nurses, practice nurses, hospital consultants, project managers, healthcare commissioners, change agents, applied health researchers and management academics taking part in the CLAHRC activities. The paper clarifies the definition of capacity building for knowledge mobilisation, proposes a typology of capabilities and describes three configurations for practice-based capacity building: (1) a healthcare professional embedded in an external knowledge mobilisation team, (2) a multiprofessional healthcare team supported by external knowledge mobilisation experts, and (3) a whole organisation approach. It suggests the following four directions in the conceptualisation of capacity building for knowledge mobilisation: (1) from 'building' capacity from scratch towards 'developing' existing capacity; (2) from capacity building through formal education and training towards capacity development through direct engagement in the practice of knowledge mobilisation; (3) from developing project-specific zero-order capabilities towards cultivating more generic and dynamic first-order and second-order capabilities; and (4) from individual and team-level towards organisational capacity development. While the literature on research capacity building focuses on models aiming to increase involvement of healthcare professionals in undertaking research projects, this paper argues that the ability to competently act on research evidence in the process of knowledge mobilisation requires a wider range of skills at different levels of complexity.

Co-Authors: Heather Waterman, Professor, The University of Manchester; Gill Harvey, Dr, The University of Manchester; Ruth Boaden, Professor, The University of Manchester

C4.4 Economic Evaluation of Community-based HIV Prevention Programs in Ontario by LHIN: Evidence of Effectiveness to Reduce HIV Infection Cases and Save Costs to Medical System

Stephanie Choi, Ms, Ontario HIV Treatment Network, University of Toronto

An economic evaluation was conducted at the macro-level to examine whether providing funding for community-based HIV prevention programs (focus on education and outreach) in Ontario averted HIV cases and produced an overall cost savings in Ontario's medical care system from 2001-2009. Community-based HIV prevention programs over past two decades are known to have had an impact on HIV epidemic, although this has never been subjected to systematic evaluation. We conducted an economic evaluation modeled based on methodologies that guide decision-making in HIV prevention activities at the US CDC. Analyses were conducted from payer's perspective (federal/provincial governments). Bayesian analytical framework was also incorporated in analyses. There were three main aims: examine whether investments made were well-spent; determine cost and benefits for the community-based programs for HIV prevention; and examine potential impacts on funding reduction in these programs. Over past six years, approximately \$80 million was invested by AIDS Bureau and PHAC-ACAP in Ontario in community-based HIV prevention programs with over 280,000 encounters by people with HIV and those 'at-risk'. To justify that investments were well spent, minimum of 15-71 HIV infection cases need to be averted by these program per year. Our analyses showed that these programs have made a significant impact in HIV prevention: From 2001-2009, these programs helped avert approximately 8,796 cases of HIV (95% Credible Interval [CrI]: 8,607 - 8,985) and saved total of \$3.3 billion (CrI: \$3.2B - \$3.4B). Given these benefits generated, the rate of return of investments made was approximately \$50 (CrI: \$49 -\$52) per each dollar invested. Our analysis also showed that funding cuts in these programs would have negative impacts: there was ~75% chance that 10% cut in program funding would result in medical costs of \$91 million per year and increase in 34 new HIV cases per year. Investment made in community-based HIV prevention program in Ontario in past decade is an excellent cost-saving strategy and effective public health policy to combat the HIV epidemic.

Co-Authors: Rick Kennedy, Mr., The Ontario AIDS Network; Frank McGee, Mr., Ontario Ministry of Health and Long-term Care - AIDS Bureau; Joanne Lush, Ms., Ontario Ministry of Health and Long-term Care - AIDS Bureau; Jean Bacon, Ms., The Ontario HIV Treatment Network; Dr. Sean B. Rourke, The Ontario HIV Treatment Network; University of Toronto; St. Michael's Hospital

C5 PERFORMANCE MANAGEMENT

GESTION DU RENDEMENT

C5.1 Development of A New Indicator measuring In-Hospital Mortality of Patients with Emergency-Sensitive Conditions

Simon Berthelot, Research Fellow and Emergency Physician, University of Calgary

The Canadian Institute for Health Information (CIHI) provides estimates of four types of Hospital Standardized Mortality Ratio (HSMR) to each Canadian Hospital. However none of these specifically captures the outcomes of admitted patients whose emergency department (ED) management would be expected to have an impact (emergency-sensitive conditions). We propose the development of a HSMR specific to emergency-sensitive conditions. Adapted from CIHI's methodology, the ED-HSMR for 2010-11 is the ratio of the actual number of deaths among patients with emergency-sensitive conditions in one hospital during the year 2010-11 to the expected number of deaths for the same conditions in the same hospital during the reference year 2009-10. The ratio is then multiplied by 100. The expected deaths are estimated from mortality probabilities during the reference year for patients with emergency-sensitive conditions in the hospital-peer group and adjusted through logistic regression for patient variables known to impact in-hospital mortality. An ED-HSMR will be calculated for all Canadian Hospitals with at least 20 expected deaths estimated from the predictive model. Sensitivity analyses will be performed to evaluate the impact of individual emergency-sensitive conditions on ED-HSMR estimates. A list of 37 emergency-sensitive conditions has been selected for the calculation of the ED-HSMR. We have developed a predictive model to estimate the expected number of deaths, adjusted for the following covariates: age, gender, length of in-hospital stay, comorbidity group (Charlson index) and transfers from another institution. Ten provinces and 51 health regions throughout Canada are included. Four hospital-peer groups are assessed: one group for teaching hospitals and three groups for community hospitals classified on admission volume and patient complexity. ED-HSMR estimates and analyses will be subsequently presented. The calculation of an in-hospital standardized mortality ratio specific to emergency care may help guide assessment and improvement of ED performance.

Co-Authors: Henry T. Stelfox, Assistant professor, University of Calgary; Eddy Lang, Associate professor, University of Calgary; Hude Quan, Professor, University of Calgary

C5.2 Developing Consensus On Policy-Relevant Metrics To Gauge The Value Of Injury Prevention Efforts Within A BC Regional Health Authority

Darcie Goodman, Vancouver Coastal Health Authority

Decision makers aiming to minimize societal burden of injury require meaningful metrics to appropriately prioritize investment in prevention and acute care within regionalized systems of injury care and control. We aimed to identify and rank potential measures to gauge the relative value of injury prevention programs that might be useful to health system funders. We convened a consensus group of key informants relevant to the Vancouver Coastal Health Authority including administrators, policy-makers, researchers and external experts. A literature review of potential performance metrics was completed and circulated, and a preliminary survey of attitudes and opinions conducted. Participants then convened at a facilitated one-day meeting to propose, discuss and prioritize potentially appropriate metrics. Iteratively, small groups generated lists of eligible metrics and submitted top choices for group consideration. Selected metrics were then judged collectively according to importance, scientific acceptability, feasibility and usability. Finally, participants voted individually to prioritize those metrics they considered most practicable. Of 40 potential key informants, 28 agreed to participate. Most agreed that funders require a useful generic measure of value for injury prevention initiatives. Over 100 potential performance metrics were identified, and 14 were selected for prioritization. Mortality rate, resource implication, quality of life, cost, prevalence of key at-risk behaviours, potential years of life lost, and degree of alignment with public health priorities ranked highest as likely to be most impactful on resource allocation decision making. We have identified 6 top-level and 8 secondary level metrics that may be useful for health system decision makers needing to judge the relative value of injury prevention initiatives relative to other components of a regionalized system of injury management. We plan further refinement to evaluate utility as directed by decision-makers.

Co-Authors: David Evans, Medical Director, Vancouver Coastal Health Regional Trauma Council; Ian Pike, Director, British Columbia Injury Research and Prevention Unit; Kate Turcotte, Research Assistant, British Columbia Injury Research and Prevention Unit; Alison MacPherson, Associate Professor, Faculty of Health, School of Kinesiology and Health Science, York University

C5.3 Public Reporting Of Performance Measures To Improve The Performance Of Healthcare Organizations: A Typology Of Causal Pathways

Damien Contandriopoulos, Associate Professor, University of Montreal

In recent decades there has been a growing interest in using public reporting of performance measures as a tool to improve performance. However, evidence from large-scale efforts in that direction indicates that the causal mechanisms involved are much more complex than the market-based model would suggest. Available evidence shows that public reporting of performance measures has a different and more substantial effect than does selective disclosure of the same information. We analytically reviewed the published evidence and developed a typology of four causal pathways to trace the link between public reporting of performance measures and improvement of actual performance. These pathways are each anchored in distinct economic and organizational theories that are used to further discuss their plausibility and their conditions of efficacy. The causal pathway that is the most studied and upon which most public reporting interventions are founded is anchored in the principle of market-like selection of high-performing organizations. However, available evidence suggests this is not the most effective or promising avenue. There are three other distinct causal pathways whose effects arise from the improvement of the average performance of most organizations rather than on selection. Those pathways are anchored in various forms of stakeholder mobilization prompted by making performance measures public. The proposed typology distinguishes between change through managerial interventions, change through social structuring, and change through internal pressures. The evidence suggests that certain change pathways are promising as instrumental avenues to improve the performance of healthcare organizations. In conclusion, we use this proposed typology to discuss the core elements that need to be taken into account when designing interventions to use public reporting of performance measures as a performance improvement tool, as well as the role such interventions can play in performance improvement efforts.

Co-Authors: François Champagne, Professor, Université de Montréal; Jean-Louis Denis, Professor, ENAP

C5.4 Performance Measurement: Accelerating Health System Transformation in Saskatchewan

Sharon Bishop, PhD Candidate, Johnson Shoyama Graduate School of Public Policy

Saskatchewan's Ministry of Health (SkMoH) has adopted Hoshin Kanri, a lean management methodology, which demands increased organizational engagement, accountability and collaborative decision-making through an integrated performance measurement regime with agreed upon outcomes and targets. The objective is to assess the extent to which this regime is impacting transformation efforts. An independent researcher, embedded within the Saskatchewan Surgical Initiative (SKSI), will draw on data gathered through participant observation and semi-structured interviews conducted with key decision-makers across the system. SkMoH and the Canadian Foundation for Healthcare Improvement have embedded researchers within strategic provincial initiatives that are designed to accelerate health system transformation efforts. The role of the embedded researcher is to bring evidence to bear on ongoing policy processes. This research will illustrate how performance measurement is being used to guide internal organizational activity, resource allocation, as well as for ensuring external accountability between system partners. The Hoshin Kanri process requires that health system leaders, representatives from the Ministry of Health, Regional Health Authorities, Health Quality Council, as well as physicians, work collaboratively to develop a draft health system plan. An integral step in the process, known as 'catchball', seeks to obtain feedback from the system more broadly for plan refinement and finalization. Despite initial skepticism, stakeholder feedback to date has been overwhelmingly positive. Since Hoshin Kanri has been implemented, there has been an increase in employee engagement, enhanced organizational alignment and accountability among system partners. Interviews with decision-makers indicate agreement that 'shared ownership' and 'corrective action planning' is critical to ensuring system-wide consensus of strategic focus and appropriate levels of accountability necessary for the achievement of results. Adopting Hoshin Kanri within the Saskatchewan health system, for the most part, has resulted in improved organizational engagement, enhanced collaborative decision making and resulted in unprecedented levels of accountability. The process of systematic and collective monitoring of performance, toward mutually agreed upon outcomes and targets, is accelerating health system transformation.

C6

KNOWLEDGE TRANSLATION AND EXCHANGE

APPLICATION ET ÉCHANGE DES CONNAISSANCES

C6.1 Communities of Practice as a Tool for Integrating Knowledge and Practice: The Seniors Health Knowledge Network (SHKN) Case

Anita Kothari, Associate Professor, Western University

This project aims to increase our understanding of knowledge-to-action processes in communities of practice (CoPs) in Ontario's seniors' health sector. The case study approach allows us to observe the unique features of KTA processes and to aggregate research findings into transferable lessons learned. This multi-year CIHR funded project is investigating KTA activities in CoPs from the Seniors Health Knowledge Network Collaborative, utilizing a multiple case study design. Each year, three cases in three sites are analyzed. Data collection methods include semi-structured interviews, focus groups, ethnographic observation, and document review. Analysis involves inductive and deductive coding and cross-case analysis. An Advisory Group including front-line managers and practitioners ensures research is relevant to practice, and findings are informed by context. The Promoting Action on Research Implementation in Health Services (PARIHS) framework informs the design and interpretation. This presentation features year one results of one site. The PARIHS framework offers a lens to view knowledge-to-action processes, although findings suggest that the CoPs themselves are 'facilitators' who are facilitating at multiple levels in multiple contexts. We have found that CoP activities can be seen as "temporary contexts" that construct and contain dialogue needed to bring about transformation. Our case in particular emphasizes the CoP's facilitative role through beta-testing of ideas, and acute attention to the message, audience, messenger, and communication infrastructure. This CoP functions well due to clear vision, common identity and high level of trust. Nevertheless, the CoP is challenged by organizational culture across long term care facilities. This case study revealed complexities of KTA activities within the context of CoPs, where best-practice evidence is accessed, adapted and contextualized for use. This research explains how CoPs mobilize around specific KTA phenomena, how various KTA outcomes are seen as meaningful and feasible, and how structure and agency influence social construction of knowledge. The results offer insight into how CoPs improve health service delivery, and highlight where further external support could be used.

Co-Authors: Shannon Sibbald, Research Associate, Western University; James Conklin, Assistant Professor, Concordia University and Bruyère Research Institute; Paul Stolee, Associate Professor, University of Waterloo

C6.2 Knowledge Translation In Infection And Immunity

Bryn Lander, PhD Student, University of British Columbia

Collaboration between research and clinical practice can act as an important pathway for knowledge translation and exchange (KTE). Organisational policy and culture affects collaboration. This presentation explores the ways that individuals working in hospitals and universities collaborate and how their collaborations are affected by organisational structures. I sampled 30 participants who worked in hospitals, universities, and other government organisations related to infection and immunity research and care in Vancouver, BC. I conducted semi-structured interviews focused on the nature of the participant's research and work as well as their reasons for collaboration. Interviews were digitally recorded, transcribed and analysed with special attention given to the effect of organisational structures on action. Grey literature, including organisational policy documents, supplemented interview analysis. The majority of Vancouver hospitals are academic. These became prominent in my analysis. Organisationally, academic hospitals are closely integrated with the University of British Columbia (UBC), with structures such as shared departmental heads and cross appointments for clinical staff. In addition, research centres exist in many hospitals. While this integration should encourage collaboration, its main focus appears to be on medical training not research or knowledge translation collaborations. Excluding clinical trials, much hospital-based research appears curiosity driven and not based on clinical need. Collaborations with clinician-scientists give researchers access to patient samples and clinician-scientists access to experiments they could not conduct independently. A few service/research hybrid centres have emerged that explicitly link clinical experience to research questions. These do not appear to be the norm. Academic hospitals are involved in both research and clinical practice and are integrated with local universities. Academic hospitals can play a unique bridging role in KTE but this role is currently being under utilised. Existing service/research hybrid centres can be used to more effectively model successful KTE.

C6.3 Enhancing The Uptake Of Clinical Practice Guidelines: The Development Of A Guideline Implementability Tool (GUIDE-IT)

Leigh Hayden, Research Manager, St. Michael's Hospital

Guidelines have the potential to facilitate implementation of evidence into practice but this has not been consistently achieved. We developed a guideline implementability tool (GUIDE-IT) for guideline developers and end users to enable an objective assessment of guideline recommendations across two implementability dimensions shown to improve uptake. We used a mixed-methods approach to develop GUIDE-IT. First, we applied findings from a Realist Review (to investigate the concept of guideline implementability) to develop a conceptual framework of guideline implementability. Second, we conducted a qualitative study of interviews with 20 family physicians to determine factors affecting guideline uptake and input on how to design GUIDE-IT. Third, we developed a tool using: 1) findings from the interviews; 2) content/construct validity assessment of GUIDE-IT with experts in guideline development and human factors engineering; and 3) pilot-testing the conceptual design and function of GUIDE-IT with guideline developers: Canadian Diabetes/Paediatric Associations (CDA, CPS). GUIDE-IT is a tool that can be used by guideline developers to assess the implementability of guideline recommendations during the development process. To address gaps in existing tools, we focused on the domains Language and Format, incorporating a set of evidence-based factors that guideline developers should consider when creating guideline recommendations. These domains were selected based on a pilot evaluation of GUIDE-IT with CDA and CPS developers to determine which attributes are potentially modifiable and feasible to use during the guideline development process. In the GUIDE-IT tool, users are prompted to assess recommendations using a checklist of factors across 4 sub-domains of Language (clarity, simplicity, specificity, and actionability) and 3 sub-domains of Format (presentation, components, multiple versions). We developed a guideline implementability tool (GUIDE-IT) based on a robust evidentiary base with the potential to improve guideline uptake and clinical decision making. Our next steps are to test GUIDE-IT in a controlled trial to determine its impact on changing recommendations and clinical decision making of end-users.

Co-Authors: Monika Kastner, Post Doctoral Fellow, Li Ka Shing Knowledge Institute of St. Michael's Hospital; Ananda Chatterjee, Research Associate, St. Michael's Hospital; Judith Versloot, Post Doctoral Fellow, St. Michael's Hospital; Onil Bhattacharyya, Clinician Scientist, St. Michael's Hospital

Wednesday, May 29, 2013
STREAM D: 2:45pm – 4:00pm

Mercredi 29 mai 2013
VOLET D : 14h45 – 16h00

D1 PANEL PRESENTATION

PRÉSENTATION EN PANEL

D1 Everything You Always Wanted To Know About Health Economics* (*But Were Afraid To Ask)

Lindsay Hedden, PhD Candidate, School of Population and Public Health, UBC; Steven Lewis, President, Access Consulting; Craig Mitton, Senior Scientist, Centre for Clinical Epidemiology and Evaluation; David Whitehurst, Assistant Professor, Faculty of Health Sciences, Simon Fraser University; Erin Strumpf, Assistant Professor, Department of Economics, and Department of Epidemiology, Biostatistics and Occupational Health, McGill University

Rationale: Health economists play a key role in health services and policy research (HSPR), and health economics concepts and tools are among core competencies for HSPR trainees and researchers. However, many members of the HSPR community come from disciplinary backgrounds that do not provide this training and may be unfamiliar with the expertise and tools health economists bring to a research team, and vocabulary that would enable them to read and learn from health economic studies. The theme of this year's conference is 'Making Good on the Triple Aim'. Many health services researchers focus on two parts of the Triple Aim: improving the experience of care and/or the health of populations. However, fewer are equipped to tackle the 'cost' side of this triangle. The goals of this session are to: . provide an informal overview of the health economics field and demystify some key terms, principles, and tools; . explore examples of how health economics (or health economists) might, or might not, bring value to different areas of HSPR research; and . suggest resources that participants can access to learn more. While targeted at students, the session is open to all conference participants who are interested in a lighthearted discussion of basic language and concepts of this highly-relevant field. Session Overview: This panel session features three prominent health economists, representing the depth and breadth of the field. Each panelist has different areas of expertise, and applies a variety of health economics methods and approaches. The session will be moderated by Steven Lewis, who will guide the discussion between the panelists during the early parts of the session, and will weigh in on the value-added (or not!) of health economics research during the latter portion of the session. 1) Introduction The session will begin with a CAHSPR Student Working Group (SWG) member introducing the panelists and moderator, and providing our rationale for the session topic. 2) What is health economics? Invited panelists will be asked to present an unreasonably brief overview of the field of health economics, including the major branches of research, and required training. 3) Which economic terms, concepts, and tools should every HSPR researcher be familiar with? Panelists will be asked to explain key economic terms, concepts, and tools that are commonly used in the HSPR field. 4) What is the value added of health economics for HSPR research? This section of the panel will initiate a discussion on the contribution of health economics to HSPR and present examples of how health economics does or does not add value to current HSPR research. The audience will be invited to discuss how health economics approaches could be applicable to their own research. This portion of the session will end with the moderator posing the following question to the panel: 'What do you wish non-economists knew about you and your field?' 5) Question and answer period and additional learning The SWG will lead a moderated discussion. Panelists will take questions from the audience and will provide some suggestions for additional resources.

**D2 RESEARCH METHODS
AND OPERATIONS RESEARCH**

**MÉTHODES DE RECHERCH
ET RECHERCHE OPÉRATIONNELLE**

D2.1 Identifying Diabetes and Comorbid Conditions in Residents of Long-Term Care Facilities from Two Population-Based Data Sources

Lisa Lix, Professor, University of Manitoba

The prevalence of diabetes is high and increasing in older adults, many of whom live in long-term care facilities (LTCFs). This study describes diabetes and comorbid conditions in LTCF residents and estimates agreement between disease diagnoses recorded in population-based administrative data and the Resident Assessment Instrument Minimum Data Set (RAI-MDS). Hospital inpatient records, outpatient physician billing claims, and RAI-MDS Version 2.0 data from Saskatchewan for fiscal years 1996/97 to 2010/11 were used to establish a cohort of LTCF residents and then ascertain diagnoses of diabetes and 13 common comorbid conditions (e.g., hypertension, congestive heart failure, arthritis). Prevalence and Cohen's κ (with 95% confidence intervals) were estimated. For diabetes, mixed-effects logistic regression models with a random facility effect were used to test resident (e.g., age group, sex, Charlson comorbidity index score, income quintile) and facility characteristics (e.g., type of facility) associated with disagreement between the two data sources. The study cohort consisted of 23121 LTCF residents (median age = 86 years; 63.8% female). More than one-quarter of residents ($n = 6350$; 27.5%) had a diabetes diagnosis; 73.9% in both data sources, 19.9% in administrative data only, and 6.2% in RAI-MDS only. Cohen's κ for diabetes was 0.80 (95% CI: 0.79, 0.81). Resident characteristics of older age, male sex, and higher Charlson comorbidity score increased the odds of disagreement between data sources. In residents with diabetes, comorbid conditions with the highest prevalence in administrative data were arthritis (88.4%), hypertension (83.6%), and osteoporosis (64.3%); estimates in RAI-MDS data were almost always lower. Cohen's κ for comorbid conditions ranged from 0.83 (95% CI: 0.77, 0.89) for multiple sclerosis to 0.07 (95% CI: 0.06, 0.08) for osteoporosis. Good agreement between administrative health data and RAI-MDS data for diabetes diagnoses can contribute to accurate health outcome measures for this at-risk LTCF population. Comorbid conditions for residents with diabetes were not consistently captured in either data source, which can affect the accuracy of risk-adjusted quality-of-care measures.

Co-Authors: Lin Yan, Dr., University of Saskatchewan; David Blackburn, Dr., University of Saskatchewan; Gary Teare, Dr., Health Quality Council; Yvonne Shevchuk, Dr., University of Saskatchewan

D2.2 Embedding Evidence In Context: Approaches Used By An Embedded Research & Evaluation Unit

Colleen Metge, Director, Research & Evaluation, Winnipeg Regional Health Authority

(1) Outline how the Winnipeg Regional Health Authority's Research & Evaluation Unit is actively engaged in evidence production to inform regional decisions. (2) Demonstrate how a collaborative approach to using evidence works towards solutions; specifically, how a recent evaluation of WRHA implementation informs the region on linking knowledge with action. Determining effectiveness is dependent on collaborative, mutually respectful relationships with regional stakeholders. Informing a region about evidence entails using different approaches and mixed methods: (a) community health assessment reporting (population-based rates of health, morbidity & mortality) and public engagement; (b) publicly funded research like knowledge syntheses (e.g., social identity, e-mental health) and intervention trials (e.g., comprehensive diabetes care for patients awaiting elective cardiac surgery); (c) rapid reviews for timely evidence-informed decisions; and (d) predictive modeling to help in regional program planning. Key to our success is our utilization-focused approach in evaluating the region's projects and programs which is demonstrated here. The Winnipeg Regional Health Authority (WRHA) is comprised of six hospitals (2 tertiary), 35 personal care homes and 12 community areas. Its need for evidence to inform policy decisions and contribute to system sustainability and health outcomes is considerable and spans the healthcare spectrum. An embedded unit was formed in 2005 to meet this need. The unit has evolved and 10 researchers now provide critical appraisal & knowledge synthesis, community health assessment, research, evaluation, capacity-building and consultation for over 50 projects. We use realist evaluation and often organize our stakeholder-derived evaluation questions around Glasgow's RE-AIM planning and evaluation framework. 'Culture trumps strategy' applies to how the Unit has been able to effectively describe the impact of initiatives on the WRHA's ability to provide services. The WRHA's Research and Evaluation Unit has demonstrated how an embedded unit and a collaborative approach to using evidence works towards providing regionally-based solutions.

Co-Authors: Sara Kreindler, Researcher, Winnipeg Regional Health Authority Research & Evaluation Unit; Catherine Charette, Research Associate, Winnipeg Regional Health Authority Research & Evaluation Unit; Xibiao Ye, Researcher/Epidemiologist, Winnipeg Regional Health Authority Research & Evaluation Unit; Michael Moffatt, Executive Director, Winnipeg Regional Health Authority Division of Research & Applied Learning

D2.3 Association between the Fast-Food Environment and Obesity in Canada: A Cross-sectional Analysis

Simon Hollands, Mr, University of Western Ontario

Recently there has been considerable interest in examining the influence of the built environment, especially growth in fast-food outlets, as an important cause of obesity risks. This study examines the relationship between the density of neighborhood level fast-food, full-service and non-chain restaurants and adult BMI in Canada. Individual body mass index (BMI) and various socio-economic variables were obtained from the 2007-2008 Canadian Community Health Survey (CCHS). Neighborhood socio-demographics were acquired from the 2006 Canadian Census. Locations of the fast-food chain, full-service, and non-chain restaurants in Canada for the year 2008 were obtained from Infogroup Canada Business database. Restaurant density (number of outlets per 10,000 people) was calculated for each Forward Sortation Area (FSA) corresponding to the respondents in the CCHS. Individual level relationships between restaurant density and BMI were analyzed using multiple linear regression models. Subgroup analysis was performed on sex and rural/urban geography. In unadjusted models fast-food density was positively associated with BMI while full-service and non-chain restaurant density were found to be negatively associated with BMI ($p < 0.001$). After adjusting for individual and neighborhood level confounding factors an additional fast-food outlet per 10,000 persons was found to be associated with a 0.031 ($p < 0.001$) increase in BMI while non-chain restaurant density was negatively associated with BMI ($\beta = -0.013$, $p < 0.001$). Full-service restaurant density was not statistically significant in adjusted models. These associations were stronger in females and primarily seen in Census Metropolitan areas (CMA). For a female in a CMA, living in an area with 7 more fast-food restaurants per 10,000 people (one Standard deviation from the mean) would be associated with a weight difference of almost 1 LB. This research was the first to investigate the association between fast-food, and other types of restaurant density on weight status using population based data in Canada. It is found that fast-food restaurant density is positively associated with BMI while other non-chain restaurant density is negatively associated with BMI in Canada.

Co-Authors: Sisira Sarma, Dr, University of Western Ontario; Kare Campbell, Dr, University of Western Ontario; Jason Gilliland, Dr, University of Western Ontario

D2.4 Collecting Patient-Reported Outcomes In A Large Canadian Health Region: An Integrated Knowledge Translation Exercise

Angie Chan, Project Manager, Vancouver Coastal Health

Patient-reported outcome measures (PROMs) are increasingly popular for assessing the effectiveness of health care policies and the impact of care. The objective of this project is to report on the development of a process for systematically collecting PROMs for patients undergoing select elective surgery with Vancouver Coastal Health (VCH). We engaged the VCH early in the research process. Together, we translated the PROMs literature from other jurisdictions to the VCH context and developed appropriate data collection methods for the health region, including the selection of PROMs instruments. We then addressed the privacy and informed consent challenges that PROMS collection entails. Our VCH partners introduced us to key stakeholders, including hospital administrators, the regional surgical executive committee, and individual surgeons. Collectively, we developed the process for identifying potential participants. Ongoing modes of communications were established to provide all stakeholders with regular project updates on PROMS implementation, data collection and interpretation. The diverse stakeholders involved in this project required considerable relationship building. Meetings and communications were required with ethics review boards, VCH Decision Support, hospital and surgical working groups, and individual surgeons. This effort resulted in the largest systematic collection of PROMs currently underway in Canada. PROMs are now collected from participants undergoing one of 124 different elective surgeries. This involves 6 of 9 VCH surgical hospitals and 30 surgeons from a range of subspecialties. PROMs are collected at three different points during the participant's episode of care: 1) at the time of registration on the surgical wait list, 2) prior to surgery, and 3) post-recovery. Stakeholders are provided with regular updates and opportunities to collaborate, which seem to assist in surgeon recruitment and meaningful engagement. The systematic and rigorous collection of PROMs for patients undergoing elective surgeries is possible in a regional health authority. However, it is unlikely that this would have been successful were it not for closely integrating the health authority early in the process and building productive relationships with key stakeholders.

Co-Authors: Angie Chan, Project Manager, University of British Columbia, Vancouver Coastal Health; Trafford Crump, Post-Doctoral Fellow, University of British Columbia; Jason Sutherland, Assistant Professor, University of British Columbia; Joleen Wright, Director, Vancouver Coastal Health

D3.1 Challenges And Opportunities Of The Implementation Of Bans On Smoking In Open Public Areas

Audrey Kim, Master's Student, Institute of Health Policy, Management & Evaluation, University of Toronto

Policies such as bans on smoking in enclosed buildings have been implemented to reduce smoking-related illness in both smokers and non-smokers. There is consideration within Canada to extend this ban to open public areas. This study aims to assess the challenges and opportunities of this extension using a neo-institutional framework. A neo-institutional framework was used by analyzing 3 components. Ideologies on the government's role in behavior modification were considered using various political theories as well as studies on the public support for similar bans. Institutions, or legislative constraints, were assessed to determine the implications of newly proposed regulations on existing laws and enforcement. Finally, the interests of various groups to be affected by the policy (business owners, the public payer, smokers, non-smokers, farmers, etc) were discussed. Both peer-reviewed and grey literature was reviewed to determine the support for or against the proposed policy with respect to the 3 components. Due to strong evidence of the negative effects of second-hand smoke, the ban on smoking in enclosed areas is well-supported. The extension to open public areas has been based on similar evidence. However, this analysis found that the objective scientific evidence is not as robust for the effects of second-hand smoke within open public areas. This paper noted that factors such as the public's need for autonomy, the difficulties of enforcing such a law in larger areas, as well as the opposition from regular smokers may outweigh the lack of evidence supporting smoking bans in larger open areas such as parks and beaches. Further research is also needed to determine where Canadians stand in beliefs around the need for such bans in open public spaces. Considerations on different ideologies, institutions, and interest groups are made when considering the implementation of a new law. The suggestion to extend the smoking ban to open public areas has many considerations that need to be explored including a stronger scientific basis, the public opinion of Canadians, and cross-jurisdiction involvement.

D3.2 The Cost-Effectiveness of Prophylactic Distal Fimbriectomies versus Conventional Laparoscopic Tubal Sterilizations in the Prevention of Ovarian Cancer

Melissa Tai, MD FRCS MSc, HPME, University of Toronto; Stephanie Choi, BSc. MSc., HPME, University of Toronto

Ovarian Cancer is the most lethal gynecological cancer in Canada as there is no available screening test for early detection. Alternate strategy to reduce the incidence is disease prevention. In 2011, the Society of Gynecological Oncology of Canada recommended bilateral salpingectomies (BS) as an alternate family planning method amongst women requesting female sterilization as an ovarian cancer prevention strategy. The financial and social impacts of this recommendation need assessment before its adoption in our public health system. This is a study on economic evaluation of bilateral salpingectomies versus conventional sterilization techniques in the prevention of ovarian cancer among women undergoing family planning procedures. A cost-effectiveness analysis (CEA) on the comparison of laparoscopic sterilization procedures (tubal coagulation, tubal clips, and bilateral salpingectomies) in the prevention of ovarian cancer was conducted. A micro-cost analysis comparing direct and indirect of the three surgical procedures at Toronto East General Hospital (a community teaching hospital affiliated with the University of Toronto) was performed. In addition, a Markov model was constructed to perform CEA and cost-utility analyses on these surgical procedures in the prevention of ovarian cancer from a societal perspective in 2011. Number needed to treat to prevent an additional ovarian cancer case was also estimated from the model. The present values (PVs) of the mean total lifetime costs by surgical procedures in 2011 were estimated as \$78,130 (95%CI: \$67,172-\$90,752), \$76,210 (95% CI: \$65,504-\$88,834), and \$75,780 (95%CI: \$65,054-\$88,389) per patients as per societal perspective respectively for tubal coagulation, tubal clips, bilateral salpingectomies performed at the Toronto East General Hospital. In particular, compared to tubal clips, bilateral salpingectomies generated a saving of \$32,660 (95%CI: \$19,184-\$64,440) per life-year gain per patient (IC: \$2,067 IE: 0.07 life year gain). When compared to tubal coagulation, bilateral salpingectomies generated a saving of \$34,300 (95%CI: \$19,514-\$71,787) per life-year gain per patient (IC: \$2,030 IE: 0.07 life year gain). In addition, for every 250 bilateral salpingectomies surgical procedure performed, one incident ovarian cancer may be prevented. Bilateral salpingectomies is a dominant cost-effective surgical strategy when compared to tubal clips and tubal coagulation in prevention of ovarian cancer in Ontario. The findings can inform better decision making on female sterilization surgical procedure since they showed that bilateral salpingectomies can save both cost and lives.

Co-Authors: Stephanie Choi, B. Math MPH, University of Toronto; Peter Coyte, PhD, IHPME, University of Toronto

D3.3 Eliciting Public Values To Support Health Care Priority Setting: A Novel Approach

Nick Bansback, Assistant Professor, School of Population and Public Health

Members of the public are increasingly expecting that their views and values guide judgements made by health care policy makers considering resource allocation decisions. Previous approaches to inform policy makers of public values have largely focussed only on the health benefit treatments provide (e.g. the quality-adjusted life year). We have developed a new valuation survey that seeks public values for other aspects of health treatments beyond 'health benefit'. We developed a valuation survey to elicit the relative importance of six criteria that policy makers might consider when making treatment allocation decisions. In addition to the health benefits provided, the following criteria were included: underlying condition severity, non-health benefit, environmental impact, fairness and prevention. Lay definitions were provided. The questions were based on the Analytic Hierarchy Process (AHP) method which asks respondents to report the relative importance of each potential pairwise combination of the criteria on a likert scale. The survey was pilot tested with various key stakeholders. We then invited 250 adults representative of the British Columbia population to a computer-assisted interview. Our preliminary work suggests that, as expected, the public supports giving priority to treatments that deliver large health benefits. However, treatments that target patients with severe underlying medical conditions (reducing quality of life and limiting lifespan) were also highly valued. Through the use of matrix algebra it was possible to detect that for each respondent over 75% of responses were consistent and reliable. Recruitment is ongoing, and will be completed in March 2013. There is a strong argument, based on legitimacy and autonomy, that values from the public should be used to inform key policy decisions. The AHP approach we have applied in this project appears to be a feasible and inexpensive method, giving consistent and credible results. Preliminary results suggest that aspects of treatments beyond simply 'health benefit' are of value to general public. The results can easily be incorporated into formal, multi-criteria decision making frameworks.

Co-Authors: Samantha Pollard, PhD student, School of Population and Public Health, UBC; Stirling Bryan, Professor, School of Population and Public Health, UBC

D3.4 A Cost-Effectiveness Analysis Of Immunosuppressive Regimens (Mycophenolate Acid vs. Azathioprine) Post-Kidney Transplant

Dolly Han, MSc(c), University of Toronto; Jocelyn Pang, MSc(c), University of Toronto; Mo Yu, MSc(c), University of Toronto; Audrey Kim, MSc(c), University of Toronto

Patients with end-stage renal disease are ideally treated with kidney transplantation followed by immunosuppressive therapy to prevent organ rejection. Two anti-proliferative agents used in Canada include azathioprine (Imuran®) and, more commonly, mycophenolate acid (Cellcept®, Myfortic®). This study conducted a 5-year post-transplant cost-effectiveness analysis of azathioprine (AZA) versus mycophenolate acid (MMF). A Markov model was used to model treatment costs and effects of MMF and AZA. Patient level data from the Comprehensive Renal Transplant Research Information System (CoReTRIS) at Toronto General Hospital and information from the literature were used to estimate model parameters and costing information. Patient trajectories were modeled including patient risk in terms of mortality, graft survival, graft failure, acute rejection, and dialysis use. Incremental cost-effectiveness ratios (ICERs) were calculated using MMF as the reference group. Effects were measured as total life years gained. Probabilistic sensitivity analyses were conducted by altering dosage levels and transitional probabilities. Patient-level data from CoReTRIS at Toronto General Hospital resulted in 23 and 554 patients in the AZA and MMF observational groups, respectively. Preliminary findings suggested that the annual unit drug cost of AZA was about 10 times less expensive than MMF, \$357.86CAD and \$3749.10CAD, respectively. However, AZA may be associated with higher patient mortality and graft failure rates, resulting in higher treatment costs overall. Past studies from the literature have also found AZA to be associated with worse clinical outcomes, such as increased acute rejection and graft failure rates, in comparison to MMF. Since AZA is considerably less costly than MMF, we hypothesize that further analysis will illustrate that AZA is more cost-effective than MMF despite an increase in adverse events and complications post-transplant. This study may be limited by small sample sizes and utilization of life years rather than quality-adjusted life years.

Co-Authors: Mo Yu, MSc(C), University of Toronto; Audrey Kim, MSc(C), University of Toronto; Jocelyn Pang, MSc(C), University of Toronto; Olusegun Famure, MPH, MEd, CHE, University Health Network; S. Joseph Kim, MD, PhD, MHS, FRCPC, University Health Network

D4 QUALITY AND SAFETY

QUALITÉ ET SÉCURITÉ DES SOINS DE SANTÉ

D4.1 Quality Improvement: The Perspectives & Experiences Of Senior Health Care Leaders In Canada

Galina Gheihman, Research Assistant, Health Council of Canada

The performance of high-income countries' health care systems, including Canada's, has improved over time, yet Canada does not generally rank at the top of the pack. To improve understanding of system-level approaches to quality improvement, we asked senior health care leaders about their system's approach, what works and challenges faced. We had access to senior health care leaders and sought insights into their current thinking about system-level quality improvement. Qualitative data were gathered via 16 interviews with Deputy Ministers/Assistant Deputy Ministers in provincial governments and CEOs of health quality agencies. Interviews were transcribed and coded for response themes. To complement these data, we also surveyed federal/provincial/territorial ministries or departments of health and reviewed the scientific and grey literature. A 6 person advisory panel provided input into the interpretation of the preliminary findings. Government and other stakeholders reviewed the draft report. There is considerable variation in the system-level quality improvement approaches used in federal, provincial and territorial health care systems, and by provincial quality 'agencies' in Canada. However, analysis also reveals a set of key factors in system-level quality improvement efforts: strong leadership, policy alignment across different system levels, measurement and target setting for quality improvement, building capacity across the system, the importance of evidence-informed care and the need for patient and family engagement. Senior leaders also confirmed some important challenges that have been described in the literature, such as: insufficient data for the measurement of quality improvement efforts, limited physician leadership and difficulty in spreading and scaling up good practices. Our study also identified a considerable number of quality improvement initiatives across Canadian jurisdictions. There are common factors to system-level quality improvement efforts across Canada's health care systems but there is variation in jurisdictional approaches and no shared goals for Canada. While this variation gives rise to many initiatives from which to learn and innovate, we should identify unwanted variation to focus Canada's efforts.

Co-Author: Mary Byrnes, Policy Lead, Health Council of Canada

D4.2 The Incidence, Risk Factors and Consequences Associated with Harmful Safety Incidents in Ontario Home Care Clients: A Descriptive Study of Secondary Data

Jeff Poss, Associate Adjunct Professor, School of Public Health and Health Systems, University of Waterloo

To investigate the prevalence of harmful incidents (HIs) and adverse outcomes, experienced by home care (HC) clients in Ontario Canada, while addressing limitations noted in previous home care safety research. A retrospective cohort design was used, utilizing secondary databases for Ontario HC clients from the Canadian Home Care Reporting System, Discharge Abstract Database, National Ambulatory Care Reporting System, Ontario Mental Health Reporting System, and Continuing Care Reporting System from 2008 and 2009. Descriptive analysis identified the type and frequency of HIs and consequences. Prevalence rate determined by the number of clients who experienced an HI during the calendar year, divided by the number of clients who were in the HC program during the calendar year. Prevalence rate was calculated only for the subset of clients with RAI-HC assessment during the year because each client would have had at least one opportunity to contribute to the prevalence. Injurious falls, injury other than fall, catheter associated urinary tract infection, and mental health problem resulting in emergency department visit or hospitalization were the most prevalent harmful incidents. Hospital discharge in the past 30 days was associated with increased risk of HI. Strategies to improve the safety of HC need to focus on reducing the risk of falls and other injuries in the home, improving medication management, and promoting recognition of early signs and symptoms of sepsis/bacteraemia and delirium followed by prompt intervention. Enhanced surveillance and early detection has the potential to reduce HIs occurring within the first 30 days of hospital discharge. Tools that exist in Canada such as the Resident Assessment Instrument and its Clinical Assessment Protocols could be useful for assessing risk and guiding care.

Co-Authors: John Hirdes, Professor, University of Waterloo; G. Ross Baker, Professor, University of Toronto; Regis Blais, Professor, University de Montreal; Donna Dill, Director, Monitoring and Evaluation, Nova Scotia Department of Health

D4.3 MSH-CARES: An Evidence Based Strategy To Reduce Caesarean Sections In Ontario

Ivy Bourgeault, Professor, University of Ottawa; Esther Susanna Shoemaker, PhD(c), University of Ottawa

Our research objectives are to: (1) evaluate the cumulative effect of a multifaceted, evidenced-based intervention to minimise the use of Caesarean section (and other interventions during birth), while maximising health outcomes for women and newborns; and, (2) determine if the intervention is replicable at a different community hospital. Surveys and qualitative interviews are being conducted with nurses, midwives, obstetricians, family physicians, administrators, risk management professionals and patients of the obstetrical services of the hospitals that have implemented the intervention. Surveys assess patients' awareness of the interventions and satisfaction with services, including provision of information. Interviews with care providers, administrators and risk management professionals address the sustainability of the intervention and the feasibility of scale up to other community hospitals and health regions. Changes in rates of Caesarean section, induction and vaginal birth after Caesarean section attempts are being evaluated using the BORN data base. Since the implementation of the intervention in 2010, the community hospital has seen a substantial reduction in the hospital's annual rates of Caesarean section (from 29.6% to 25%), and a greater number of vaginal birth after caesarean section attempts (from 15% to 38%). Having shared their preliminary success during various public events involving maternity care providers, administrators and care providers at a second community hospital decided to adopt and implement the MSH-CARES Initiative in its childbirth unit starting in Fall 2012. Unnecessary interventions during childbirth are expensive and can cause unnecessary harm to mothers and infants. Our research reflects the emerging health needs of Canadian women and infants, and supports health policy decision-making. The results of this project are important for the organisation, management, and delivery of evidence-based maternity care services.

Co-Authors: Eileen Hutton, PhD, McMaster University; Danielle Rolfe, PhD, University of Ottawa

D4.4 Engaging Patients for Quality Improvement at St. Mary's Hospital, Montreal

Brent Hopkins, Project Coordinator, St. Mary's Research Centre

As part of a national set of intervention projects to engage patients in quality improvement, our community hospital aimed to: 1) build capacity and confidence amongst patient representatives; 2) respond to patients' expressed need for navigational support during healthcare journeys by engaging staff and patients in designing orientation/navigation tools. We focused on: 1) Identifying capacity building priorities and conducting training with the Users' Committee and patient representatives. The intervention was evaluated using a pre-post survey and group discussion with committees. 2) Three clinical areas (cancer care, mental health, emergency) undertook projects to improve patient navigation. In patient focus groups and staff meetings, we identified moments in the patient journey where navigational information was most needed. Working groups in each area designed and implemented orientation tools. Focus groups and a pre-post patient experience survey were used to observe the impact when navigational/orientation tools were implemented. 1) Users' Committee priorities for role effectiveness and visibility are: marketing, strategic planning, communication skills; and, systematically identifying patients' needs. Barriers: time; competing priorities; regulatory framework for the Users' Committee. Successes: learning from other hospitals' patient committees; participation in patient safety activities. Surveys indicate greater role clarity and satisfaction post-intervention. 2) Each clinical area's distinct patient journey required different navigational tools. Discussions with patients and professional groups in cancer care led to an orientation video for patients starting treatment. Emergency services installed information screens in the waiting room explaining care process for low-urgency cases. Mental health care consolidated its orientation and information pamphlets. Surveys indicate areas for improvement, and positive effects in the emergency department. Extent of patient and staff engagement in this process was variable. Patient engagement for quality improvement requires dedicated resources, leadership and commitment from staff for sustainable impact. There are clear indications of enhanced engagement and sustainability at St. Mary's; limitations include recruitment of patient volunteers, measuring navigational needs, and the broader context of regulations, competing clinical priorities, and change management.

Co-Authors: Bruce Brown, Dr., St. Mary's Hospital Center; Susan Law, Dr., St. Mary's Hospital Center; Jeannie Haggerty, Dr., St. Mary's Hospital Center; Marc Pineault, Mr., St. Mary's Hospital Center

D5 CANCER CARE

TRAITEMENT DU CANCER

D5.1 Phase-Specific and Long-term Costs of Cancer Care in Ontario

Claire Oliveira, Post-doctoral Research Associate, University Health Network

Cost estimates of cancer care are a useful tool to inform and help formulate national cancer programs and policies. Furthermore, they are an important input for economic evaluations. We estimated phase-specific and long-term (5-year) net costs of care for the 21 most prevalent cancers, and remaining tumour sites combined, in Ontario. We selected patients diagnosed with cancer between 1997 and 2007 at >19 years of age, with valid ICD-O and histology codes, who survived >30 days after diagnosis, and had no second cancer within 90 days of the initial cancer, from the Ontario Cancer Registry (N= 402,399). We linked these patients to administrative health care databases, and radiation therapy data from Cancer Care Ontario. Net costs (i.e., difference in cost for cancer patients and noncancer control subjects) were estimated by phase of care and applied to 5-year cancer survival curves to estimate 5-year costs of care and extrapolated to the adult Canadian population diagnosed with cancer in 2009. Mean net costs of care were highest in the initial and terminal phases of care and lowest in the continuing phase of care. In particular, phase-specific costs were, on average, lowest for melanoma, thyroid and prostate cancers and highest for esophageal, multiple myeloma and brain cancers. Mean 5-year net costs varied substantially: from less than \$20 000 for melanoma, thyroid, and prostate cancers to more than \$40 000 for esophageal, multiple myeloma and brain cancers. Aggregate 5-year net costs of care to the Ontario health care system are estimated to be over \$10 billion; these were highest for lung, colorectal, prostate and breast cancers, due to underlying incidence, survival, and phase-specific costs. The costs of cancer care in Ontario are substantial and vary by tumour site. Inpatient hospitalizations comprise the largest portion of the cost of care for all cancers. Our cost estimates will improve the quality of future cancer-related economic evaluations and are of value to researchers and policy makers.

D5.2 Self-Reported Unmet Needs Of Elderly Cancer Patients: A Cross-Sectional Survey In The Province Of Quebec

Dominique Tremblay, Professor, Université de Sherbrooke

To describe on self-reported unmet needs of elderly cancer patients in the province of Quebec. In this study, we have defined unmet needs for care as perceived needs for receiving health care services that were not obtained. A secondary analysis of data from a cross-sectional survey of 1379 adult patients' perceptions of their care experience (response rate: 80%) in nine outpatient cancer clinics in Québec (Canada) was conducted in 2011. The data subset for this study consisted of elderly patients, defined as respondents aged 70 years and over (N=3D312). Unmet needs were measured using an adapted cancer version of a questionnaire developed to assess unmet needs in the general population. Descriptive statistics were performed to report on patients' perceived unmet needs. Among elderly patients, 19% reported unmet needs in the last 12 month of which 44% were cancer related. Nearly half of the respondents considered their problem urgent and one-third perceived it as a threat to their health. Causes for cancer unmet needs were attributed to pain (55%), nausea/vomiting (45%) and limitations in routine daily activities (44%). The main reason for the unmet needs was the impossibility of accessing a healthcare professional. A majority of elderly patients reported that unmet needs had adverse health effects such as anxiety for themselves (60%) and their families (52%), and negative consequences on their lives (52%). Worsening health status and difficulty maintaining routine daily activities were attributed to unmet needs by 39% and 67% of the respondents, respectively. Our study highlights that elderly patients with cancer carry a great burden related to clinical and emotional cancer unmet needs. Our results call for improvements in cancer services since 44% of the self-reported unmet needs were cancer related.

Co-Authors: Danièle Roberge, Professor, Université de Sherbrooke; Bich-Lien Nguyen, Master Degree Student, Université de Sherbrooke; Djamel Berbiche, Senior Statistician, Centre de recherche de l'Hôpital Charles-Le Moyne; Ouahiba Djouder, Statistic Technician, Centre de recherche de l'Hôpital Charles-Le Moyne

D5.3 Access To Personalized Medicine: The Case Of Gene Expression Profiling In Breast Cancer

Yvonne Bombard, Postdoctoral Fellow, Yale University & Memorial Sloan-Kettering Cancer Center

Genomic information is increasingly used to personalize health care. Gene-expression profiling tests (GEP) that estimate recurrence risk in breast cancer were recently funded through the public health system in Ontario. We describe patients' and oncologists' experiences of accessing GEP tests to inform health service delivery for GEP in Canada. We used a qualitative design, comprising individual interviews with medical oncologists (n=10) plus focus groups and individual interviews with early stage breast cancer patients (n) from Ontario, Canada. Patients surgically treated for breast cancer, who underwent GEP testing of their tumours, were recruited through oncology clinics from two academic hospitals in the Greater Toronto Area. Medical oncologists were recruited through participating oncology clinics, professional advertisements and referrals from the research team. Qualitative data were analyzed using interpretative qualitative methods, including content analysis, qualitative description and constant comparison techniques. Structures governing access to GEP have given rise to a number of challenges for patients and oncologists. Oncologists are positioned as gatekeepers of GEP, providing access in medically appropriate cases. However, oncologists' perceptions of medical appropriateness can vary widely, leading some patients to perceive inequities in access, impacting negatively on the doctor-patient relationship. Media-driven awareness of GEP challenged gatekeeping as oncologists felt obliged to discuss the test with patients, further complicating ordering decisions and perceived access especially for patients ineligible due to funding criteria. Obtaining government consent for GEP, separate documentation for reimbursement and waiting weeks for results, was challenging for patients, leading to increased anxiety and delayed treatment. The collective impact of these factors heightened the GEP's perceived value in patients' treatment decisions. This study provides insights into the factors facilitating and restricting access to GEP, and highlights the roles of the media and organization of services in GEP's perceived value and utilization. Results identify a need for administrative changes and practice guidelines to support streamlined and standardized utilization of the test.

Co-Authors: Linda Rozmovits, Dr., Independent Qualitative Researcher; Maureen Trudeau, Dr., Sunnybrook Health Sciences Centre & University of Toronto; Natasha Leighl, Dr., Princess Margaret Cancer Centre & University of Toronto; Ken Deal, Dr., McMaster University; Deborah Marshall, McMaster University, Department of Clinical Epidemiology and Biostatistics and St. Joseph's Healthcare, and University of Calgary, Department of Community Health Sciences

D5.4 Misaligned Responsibilities: Health Services for Long-Term Childhood Cancer Survivors

Fuchsia Howard, Postdoctoral Fellow, University of British Columbia

Currently, 80% of children diagnosed with cancer survive, resulting in growing numbers of these survivors who require long-term follow-up throughout adulthood. The purpose of this study was to examine patient and provider experiences of health care for adult survivors of a childhood cancer in British Columbia, Canada. An environmental scan was conducted to identify health services for adult survivors of childhood cancer in British Columbia. The scan included information from grey literature and key informant interviews, and documented issues and challenges with existing health services. Open-ended interviews were conducted with 13 health care professionals and 30 childhood cancer survivors and analyzed using qualitative constant comparative methods. Despite recognition that long-term follow-up is essential, the current structure of health services does not support this care. Our results highlight inadequacies in the appropriateness of care provided by family practitioners, from the patient perspective, and lack of communication with the cancer team, from the provider perspective. The priority of cancer centres is the provision of acute therapies to adult patients. The priority of pediatric cancer centres is pediatric patients. Neither has dedicated resources nor a formal structure to provide long-term follow up for childhood cancer survivors. Family practitioners have few incentives and educational resources to support this care. There are limited formal linkages between Pediatric Oncology, Adult Oncology and community based Family Practice to improve long-term patient outcomes. Aligning the primary responsibilities of health system stakeholders would improve cancer trajectory experiences for patients and providers and lead to better patient outcomes.

Co-Authors: Karen Goddard, Radiation Oncologist, BC Cancer Agency; Jason Tan de Bibiana, MSc Candidate, University of British Columbia; Arminee Kazanjian, Professor, University of British Columbia

D6

QUALITATIVE RESEARCH METHODS AND MODELS OF CARE

MÉTHODES DE RECHERCHE QUALITATIVE ET MODÈLES DE PRESTATION DE SOINS

D6.1 Ethical, Legal and Social Issues in Drug Development and Pharmacogenomics: A Qualitative Study of the Perspectives of Canadian Stakeholders

Shannon Gibson, Research Associate, University of Toronto Faculty of Law

This presentation will provide an overview and preliminary analysis of the results of a qualitative study on the views of key informants on different aspects of pharmacogenomic drug development and personalized medicine, in particular its ethical, legal and social implications. Drug development increasingly involves designing pharmaceutical agents in combination with diagnostic tests that provide information about the possible effectiveness and toxicity of a drug based on the genetic profile of individuals. Connecting therapeutic agents to specific genetic markers raises interesting questions on how drug approval and funding decisions are made. We conducted more than 30 semi-structured interviews with key Canadian stakeholders including drug regulators, drug funders, health technology assessors, clinical researchers, patent experts, drug policy experts and pharmaceutical industry representatives. Concurrently, we performed a literature review to supplement stakeholder responses. Further interviews with patient advocacy groups is ongoing. The presentation will report stakeholder perspectives and critically discuss potential regulatory and policy initiatives needed to deal with the challenges of pharmacogenomics, including insight into: . the reported movement away from the 'blockbuster' model (with relatively inexpensive drugs for large patient populations) towards the 'niche-buster' model of drug development (with high cost drugs for much more limited patient populations). . commonly claimed justifications for the high cost of pharmacogenomic products; . the unique challenges of determining cost-effectiveness for pharmacogenomic products, particularly in light of often uncertain evidence profiles; . the evidence necessary to justify including or excluding patients with respect to clinical trials, approved indications, and ultimately, funding coverage; and . the complexity of coordinating approval and funding decisions for both drug and test components. To address the complexity, uncertainty and significant cost implications associated with pharmacogenomics, the successful integration of these technologies will require robust and transparent decision-making frameworks, appropriate bodies and networks to coordinate review and communication among stakeholders, and strengthened post-marketing surveillance to capture evolving information in the real-world setting.

Co-Authors: Trudo Lemmens, Associate Professor, University of Toronto Faculty of Law; Hamid-Reza Raziee, Research Associate, University of Toronto Faculty of Law

D6.2 One Problem, Variable Approaches by Three Provinces to Reducing Wait Times for Hip and Knee Replacement

Aileen Davis, Senior Scientist, Health Care and Outcomes Research, Toronto Western Research Institute

Wait time reduction for total hip and knee replacement (TJR) was a priority in the 2004 Health Accord. Although wait times have decreased, results have varied across provinces. This work describes the approach taken by three provinces to achieve a 26 week wait from patient/surgeon decision for surgery to surgery. Government policy documents, reports from relevant NGOs and published literature were reviewed for Federal and Provincial policy and descriptions of programs/models of care related to TJR implemented by British Columbia (BC), Alberta (AB) and Ontario (ON). Additional data were gathered through one-on-one interviews (n= 28) with policy makers, individuals in key leadership roles in health regions, program directors and managers to further understand provincial approaches. Interviews were recorded, transcribed verbatim and analyzed thematically for activities conducted within each province to develop and implement programs targeted at reducing TJR wait times. Arthritis prevalence and health human resources are similar across provinces with each challenged to provide service in low density regions. Programs focused on access to surgeons for surgical candidates with some differences in approach (e.g. referral central intake, triage and who conducted it based on availability, scope of practice and how programs/providers were funded). AB focused on a case manager and ON focused on rehabilitation professionals working in advanced practice roles. BC implemented a variety of approaches, driven by local champions and context. A provincial platform to drive change was critical to success, as were experts who were evidence informed, had the authority to make decisions and champion change, and financial resources to support change, program implementation and sustainability. Despite common elements, TJR wait times strategies were variable and wait time results have varied across the provinces. This raises questions of whether benchmarks are attainable and how such strategies will be sustained in times of fiscal constraint and the ending of the Accord.

Co-Authors: Cheryl Cott, Health Care and Outcomes Research, Toronto Western Research Institute; Departments of Physical Therapy and Rehabilitation Science, University of Toronto, Toronto, Canada; Elizabeth M Badley, Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto, Toronto, Canada; Rose Wong, Health Care and Outcomes Research, Toronto Western Research Institute, Toronto, Canada; On behalf of the Models of Care and Arthritis Team

D6.3 Determinant And Consequences Of A Pedometer-Based Physical Activity Challenge With Hospital Employees: Quantitative & Qualitative Longitudinal Study

Genevieve Lavigne, Postdoctoral Fellow, McGill University

Pedometer-based walking programs aiming at increasing physical activity levels and consequently improving physical and psychological health have been found to be effective at least in the short-term. However, very few studies directly targeted hospital employees and even fewer investigated the determinants of physical activity maintenance after the end of the intervention. The present research used a pre, post-intervention and follow-up longitudinal design with both a quantitative and a qualitative approach. Participants were hospital employees from a university-affiliated multi-site health care center in Canada. A total of 235 individuals completed a eight weeks pedometer-based physical activity challenge and 157 completed the 6-month follow-up questionnaire. Finally, three focus groups as well as 15 semi-structured individual interviews were conducted 6 months after the end of the challenge. Outcome measures included behavioral (physical activity, number of steps), biomedical (blood pressure, cholesterol), anthropometric (weight and BMI), psychological (fatigue, insomnia, stress) as well as motivational (motivators and barriers). Results revealed that the 8 weeks physical activity challenge led to significant reductions in participants' weight and body mass index, blood pressure as well as cholesterol levels. Furthermore, the challenge led to significant reductions in fatigue, insomnia and stress levels. Participants reported walking an average of 12,428 steps per day. Results' from the follow-up questionnaires revealed that most participants maintained or increased their levels of physical activity in the months following the intervention. Average weight and body mass index were found to be significantly lower at follow-up than they were both at baseline and post-challenge. Focus groups and interviews' results revealed that health improvements, weight loss and wearing a pedometer were important motivators while poor weather and lack of time were barriers to physical activity. In sum, the results of the present research showed that a 8 weeks pedometer-based physical activity challenge in a healthcare services setting lead to significant physical and psychological improvements that can be maintained at least 6 months following the intervention.

Co-Authors: Mélanie Lavoie-Tremblay, Associate Professor, McGill University; Charles Sounan, Senior researcher, McGill University; Guylaine Cyr, Research coordinator, Hôpital Louis-H. Lafontaine; Kara Martin, Research Coordinator, McGill University

D6.4 The Jack Spratt Problem: The Potential Downside Of Lean Application In Healthcare

Sam Sheps, Professor, School of population and Public Health, University of British Columbia

Resilience engineering (RE) argues that performance variation is a core feature of resilient complex adaptive systems (CAS) and stresses anticipation as a key organizational capability. We explore the potential threat of Lean as a, widely embraced strategy for standardizing work process, in the context of CAS. RE emphasizes that dynamic work settings require flexible approaches to work. Performance variation is both necessary and useful; indeed it creates successful performance. Based on this perspective we examine the current preoccupation with Lean strategies and the potential risk this poses with respect to the capacity of CAS to respond to dynamic and often unexpected daily events that occur, thus being able to maintain healthcare's goal of high quality and safe care despite normal perturbations. Our work is based on extensive interviews with RE experts, a literature review, and onsite observations of the roll-out of Lean strategies in Canadian settings. Health authorities are preoccupied with looking for waste (activities without value (to whom being another question)) to enhance efficiency. Although laudable in principle, the assumption behind the current roll-out of Lean is that the system can be re-designed (standardized) to respond to what happens 80% of the time. This assumption is flawed because it ignores what we know about CAS (i.e. dynamic interactive complexity marked by uncertainty and variability). We provide examples of Lean initiatives that can inadvertently and seriously hamper the capacity of the organization to anticipate problems, exercise resilient behaviors, and thus be able to better respond to the unexpected challenges that arise daily in routine work. The value of this capacity is rarely acknowledged. Current applications of Lean in healthcare need serious re-examination and need to be balanced with what is known from RE about how success is created and maintained in CAS. We suggest that Lean initiatives threaten the organizational capacity to exercise resilient behaviors in the face of the inevitable challenges of normal work.

Co-Authors: Karen Cardiff, School of Population and Public Health, University of BC

Wednesday, May 29, 2013
STREAM E: 4:15pm – 5:30pm

Mercredi 29 mai 2013
VOLET E : 16h15 – 17h30

E1 PANEL PRESENTATION

PRÉSENTATION EN PANEL

E1 Measuring the Impact of Knowledge Organizations in Achieving the Triple Aim: Innovative Research, Challenges and Practice Solutions

Ingrid Tyler, Public Health Physician, Public Health Ontario; Jeremy Veillard, Vice-President, Research and Analysis, Canadian Institute for Health Information; Adalsteinn Brown, Director, Institute of Health Policy, Management and Evaluation, University of Toronto; Dr. Robert Brunham, Provincial Executive & Scientific Director, British Columbia Centre for Disease Control; Stephen Samis; Vice President, Programs; Canadian Foundation for Healthcare Improvement

In the last two decades, a shift toward a stewardship role of government with a focus on policy development and decision making has resulted in the formation of numerous government agencies with a variety of core delivery mandates (e.g. provincial public health agencies delivering core public health services or provincial quality councils supporting quality improvement in health services) often complemented by a mandate to advise government on effective public policies based on best available knowledge. These knowledge organizations (KOs) have mandates that include the development, synthesis and exchange of knowledge to governments, practitioners and other stakeholders, and have come to play an important role in supporting policies and decisions with sound evidence. These are organizations such as Public Health Ontario (PHO), the BC Center for Disease Control (BCCDC), the Institut national de santé Publique du Quebec (INSPQ) and the Canadian Institute for Health Information (CIHI). The role and influence of these organizations has expanded in Canada over the last ten years and they have become key players in supporting government achieve the Triple Aim of better population health; patient satisfaction; and value for money. However, challenges exist to maximizing and measuring the impact of knowledge organizations on the achievement of the Triple Aim, including: the many factors that influence action and decision making; the attribution of effects, as policies and practice are seldom influenced by the work of one organization or product, the significant time lag that may exist between the development of a knowledge product and the resulting actions and decisions that lead to improvements in the health status of the population, the need for data and standardized frameworks within the health system and accounting for expected outcomes, unforeseen consequences and intangible effects and the difficulty in measuring intangibles such as creativity, experience, culture, knowledge centers, negotiating capacity and trust. This panel will bring together KO leaders, knowledge users and researchers to discuss the potential impacts of KOs, and challenges to measuring the use of information in practice and policy including: making the link between specific products and population health outcomes, lack of information on how knowledge products are used; impact measurement and CQI, and qualitative methods to measure impact. The areas of focus for this session is Knowledge Translation & Exchange and Performance Measurement. Presentations will be followed by a round table which will wrap up the main ideas and discuss the opportunities for improved measurement of KO impact in the health system. Moderated by Dr. Ingrid Tyler, each panelist will discuss the possible impact of knowledge organizations in achieving the Triple Aim and related measurement challenges with Dr. Jeremy Veillard providing insight about the potential of these organizations to bring together the Triple Aim approach. These presentations will be followed by an interactive discussion on how audience members can respond to the challenges of using evidence and information in decision making in order to achieve the Triple Aim.

E2 PRIMARY CARE

GESTION DES SOINS DE PREMIÈRE LIGNE

E2.1 'Where do we go from here?' Frustrating Care Experiences from the Perspectives of Complex Patients, their Caregivers, and Family Physicians

Ashlinder Gill, PhD Candidate, Health System Performance Research Network, Institute of Health Policy Management and Evaluation, University of Toronto

The aim of this study was to explore the frustrations that complex patients experience in achieving their goals of care, and compare them to the challenges encountered by their caregivers and family physicians. We aimed to uncover specific areas of focus to improve the experience for complex patients. Patients older than 65 years of age, diagnosed with 2 or more chronic health conditions, or prescribed 3 or more medications were eligible for participation. A family practice within a tertiary, academic health center in Toronto, Ontario was the setting for patient recruitment. Purposeful sampling was employed to ensure all physicians and patient demographics were represented within this sample. Semi-structured interviews were conducted with consented patients, caregivers, and family physicians. Transcripts were thematically coded using NVIVO9 and checked for accuracy by other team members. 27 patients, their primary caregivers, and family physicians participated. Patients were a mean age of 82 years, mostly male (56%), had a median of 5 chronic conditions, and over a third had severe depressive symptoms. Common frustrations among patients included lack of communication from, and between their healthcare providers, and an overall lack of treatment plan for managing complex conditions. Caregivers expressed similar frustrations, while emphasizing the added frustration of resolving medical crises that often do not have a 'quick fix.' Most family physicians were challenged by the management of complex conditions, and the patients themselves. More specifically, family physicians were frustrated with managing non-compliant patients, uninformed caregivers, and a lack of information regarding how to best manage comorbid disease. Managing complex chronic conditions is difficult for patients, their caregivers, and primary care providers. Clinical supports such as practice guidelines that address complex chronic disease and a model of primary care that facilitates collaborative goal setting may improve the quality of practice, and care experience for patients and their informal caregivers.

Co-Authors: Kerry Kuluski, Dr., Bridgepoint Health; Walter Wodchis, Dr., Institute of Health Policy Management and Evaluation, University of Toronto; Gayathri Naganathan, Ms., Institute of Health Policy Management and Evaluation, University of Toronto; Liisa Jaakkimainen, Dr., Department of Family and Community Medicine, University of Toronto

E2.2 Continuity Of Care: A Perspective From Administrative Data

Kim McGrail, Assistant Professor, Centre for Health Services and Policy Research, SPPH, UBC

Continuity of care is considered a cornerstone of primary care. Continuity is usually conceptualized as a physician - patient relationship that extends over time. Despite ongoing interest in continuity and policy interventions aimed at increasing 'attachment' to individual practitioners, there is no population-based information available about the experience of continuity. We use BC physician payment data for 2005/06 - 2009/10. To assess 'continuity' we assign individuals to a general practitioner (GP) for five-year pooled data and one-year cross-sections as follows: 1) to the GP with the most billed dollars (or only GP); 2) if tied, to the GP with highest pharmaceutical 'days supplied'; 3) if tied, to the GP with the most recent visit. Patients with no GP visits are unassigned in that time period. We compare patterns of assignment across the five years, and describe individual and practitioner characteristics associated with 5-year continuity. Some individuals had no physician encounters over a 5-year period (9%, reduced by half if we limit to individuals in BC for the full five years). A small group (~11%) had visits with a single provider over the 5 years. The bulk of the population was assigned to a GP based on the highest visit dollars (~78%). A small percentage of ties (<2%) required the use of the last two assignment rules. Less than half of individuals were assigned to the same GP across all 5 years. Limiting the population to people who were residents of BC for the whole time period increased this proportion only moderately. Individual characteristics positively associated with five-year continuity include older age, poorer health status, higher income and non-urban residence. Continuity with a single physician over five years is far from universal, including among patient groups theorized to benefit from it. Further research will explore whether lack of continuity is associated with higher health care service costs and poorer outcomes, and whether it is associated with physician practice characteristics.

Co-Authors: Sandra Peterson, Programmer / Analyst, CHSPR; Ruth Lavergne, PhD Candidate, CHSPR; Saskia Sivananthan, PhD Candidate, CHSPR; Rachael McKendry, Research Assistant, CHSPR

E2.3 Practice Patterns Of BC Primary Care Physicians: Trends Over Time And Place

Ruth Lavergne, Doctoral Candidate, Centre for Health Services and Policy Research; Kim McGrail, Centre for Health Services and Policy Research; Sandra Peterson, Centre for Health Services and Policy Research; Saskia Sivananthan, Centre for Health Services and Policy Research; Rachael McKendry, Centre for Health Services and Policy Research

Primary care reform in the province of British Columbia (BC) aims to promote 'full-service' family practice, and reverse a perceived decline in the comprehensiveness and quality of primary care. Despite this policy attention, there is little system-level analysis of the actual activities of family physicians, and changes over time. We used fee-for-service physician payment records from 1991/2 to 2009/10, linked to patient registry data, hospitalization records, College of Physicians and Surgeons of BC data, and non-fee-for-service (alternate payment plan) information. We examined changes in measures of continuity, coordination, and comprehensiveness of primary care in British Columbia, over a period encompassing primary care reform (2002-2008). The relationships between patterns of practice and physician demographics, training, and location of practice were also examined over time. Sensitivity analysis tested whether observed trends were due to selective movement to alternate payment plans. Measures of continuity and coordination of care declined by 8% and 10% respectively, over the study period. The proportion of physicians providing no care outside of office hours climbed from 6.5% to 33.0%, while the proportion providing care in homes, long-term care facilities, hospital emergency departments, and other hospital services fell by 24.3%, 9.3%, 31.1% and 12.9% respectively. Provision of pre- and post-natal care, with and without delivery has fallen, but other measures of comprehensiveness have risen or remained constant. Declines were constant across physician age groups, suggesting changes do not reflect a cohort effect. Declines were more marked in metropolitan areas than in smaller cities, towns, and rural areas. Findings held when accounting for shifts to alternate payment plans. Declines in continuity, coordination, and some aspects of comprehensiveness of primary care were observed since the early 1990s, and continued over a period of reform intended to improve patient care. Further research should determine whether the described changes in physician practice patterns affected patient outcomes and health system costs.

Co-Authors: Kimberlyn McGrail, Assistant Professor, Centre for Health Services and Policy Research; Sandra Peterson, Analyst, Centre for Health Services and Policy Research; Saskia Sivananthan, Doctoral Candidate, Centre for Health Services and Policy Research; Rachael McKendry, Research Coordinator, Centre for Health Services and Policy Research

E2.4 A Pragmatic Randomized Controlled Trial Of Integrated Chronic Disease Prevention And Management Services In Primary Healthcare: The PR1MaC Study

Martin Fortin, MD, MSc., Université de Sherbrooke

To evaluate the effect of an intervention involving the integration of chronic disease prevention and management (CDPM) services into primary healthcare (PHC) settings. The Chronic Care Model suggests a multi-component remodeling of chronic disease services to improve patient outcomes. To meet the complex needs of patients, CDPM services have been advocated as a key component of PHC. We implemented an intervention of multi-professional CDPM services into eight PHC practices. This patient-centered intervention was provided by a multidisciplinary team of professionals over a 3-month period. We report on a 3-month pragmatic randomized controlled trial with a delayed intervention control arm. This evaluation was based on self-report questionnaires. We report the results of the Health education questionnaire (Heiq) covering eight dimensions linked to empowerment. The study included 315 patients (male/female: 163/152, age: 52.79 (\pm 11.4) years, intervention/delayed intervention group: 160/155), referred by a family physician or nurse, who participated in the intervention. Among these, 96% presented more than two chronic conditions (multimorbidity). The intervention was adapted to patient needs and involved five disciplines (specialized nurse, nutritionist, physical activity and respiratory therapists and smoking cessation practitioner). Baseline characteristics of the groups showed no differences. Preliminary results showed improvement in each dimension of the Heiq (health directed behaviour, positive and active engagement in life, emotional well-being, self-monitoring and insight, constructive attitudes and approaches, skills and technique acquisition, social integration and support, health services navigation). Complete results will be presented at the conference. The integration of CDPM services at the point of care in primary healthcare practices is a promising innovation in care delivery.

Co-Authors: Maud-Christine Chouinard, PhD, Université du Québec à Chicoutimi; Tarek Bouhali, MSc., Université de Sherbrooke; Maxime Sasseville, RN, BSc., Université de Sherbrooke

E3.1 The Safety Of Small Maternity Services In Rural Canada: A Secondary Analysis Of Perinatal Services Data From 3 Provinces

Stefan Grzybowski, MD, Department of Family Practice, UBC

The objectives of this study are to compare selected population-based maternal and newborn outcomes by residence stratified across service levels in each of 3 provinces using a parallel research strategy; amalgamate the results from the three provinces into a structured composite analysis; and link results to hospital service levels. The comparison was developed using all rural maternity services in Nova Scotia, Alberta, and British Columbia. The level of maternity service was defined for each rural community and a population catchment was linked with each service based on surface travel time. The data sources are primary data collected through the Provincial Perinatal Database Registries in each province. Analysis was carried out in parallel in each jurisdiction and intermediate covariate matrices were amalgamated to create a composite analysis as there are proscriptions against release of data outside of the province. Final results are presented using forest plots. The total number of singleton births between April 1st 2003 and March 31st 2008 is 164,109 of which 82,063 occurred in Alberta, 63,277 in BC, and 18,769 in Nova Scotia. Perinatal mortality is highest in communities that are greater than 4 hours from maternity services overall. Prematurity at less than 34 weeks gestation and low birth weight at less than 1500g are not significantly different across the service levels. Caesarean section rates are highest in communities served by General Surgical models. Lack of local access to surgical care is associated with lower caesarean section rates both for communities from which women have to travel to access maternity services and for communities with local intrapartum services without caesarean section capabilities. These findings support previous work that suggests that neonatal outcomes are worse for women without local access to maternity services and that small maternity services have comparable outcomes to larger services with more specialized providers. General surgical back up for small maternity services is associated with higher rates of intervention.

Co-Authors: John Fahey, PhD, Nova Scotia Perinatal Services; Nancy Aelicks, Alberta Perinatal Services; Sharon Zhang, PhD, Alberta Perinatal Services; Kathrin Stoll, PhD, Centre for Rural Health Research

E3.2 Mental Illness In The Family: Investigating The Sibling Experience

Alexandra Dimmer, Student, McGill University

To determine the siblings' experience and consequences of mental health problems within families and implications for support. Specifically: 1) to review the international evidence on experiences of siblings of children with mental health problems; and 2) to identify key messages for healthcare professionals about the needs of the well sibling. A St. Mary's-McGill team has been established to create a Canadian version of the award winning web site (www.healthtalkonline.org) that presents lived experiences of health and illness. A module on mental health is in development; the aspect of siblings' experiences the focus for a graduate thesis in family medicine. This presentation includes the review of evidence: literature search using major databases [PubMed, MEDLINE, PsycINFO, with articles restricted to 1995-present]; web search for grey literature from major knowledge organizations; and analysis to identify key themes to inform the development of the module and improved care for well siblings by healthcare professionals. Family burden mental health research has traditionally centered on caregiver experiences, neglecting the sibling experience, as parents are traditionally the primary caregivers. From the searches of the literature thus far, it is clear that there is only limited information available from published sources. There is very little firsthand knowledge from well siblings, resulting in poor implementation of interventions such as support groups. Without proper educational resources, clinicians are unable to adequately address the needs of the well sibling. This presentation will examine the final analysis and results of the review by offering key points for consideration in the design of qualitative interviews for the health experiences project mental health module, and key messages for healthcare professionals based on the state of the evidence to date. The available evidence about the experiences of siblings in families with mental health problems is limited. This review of evidence will contribute important considerations to guide the qualitative research of Canadians' experiences of mental health, and key messages for healthcare professionals caring for mental health patients and their families.

Co-Authors: Alessandra Miklavcic, St. Mary's Hospital; Susan Law, PhD, St. Mary's Hospital

E3.3 Assessing The Association Of Economic Barriers On Care And Outcomes For Patients With Chronic Disease

David Campbell, Clinician Fellow, University of Calgary

People with chronic diseases who do not achieve treatment targets have a higher risk of complications. Failure may be due to barriers relating to the cost of care. We sought to determine the frequency of economic barriers to care, as well as their implications, in people with chronic diseases. We conducted a telephone survey with 1849 residents of the four western provinces who had at least one of: hypertension, diabetes, heart disease or stroke. Population weighting was used to represent all residents of these provinces. We considered three types of economic barriers: having a self-identified financial barrier, having a self-identified financial barrier to drugs specifically, or lacking drug insurance. The prevalence of economic barriers was calculated. To assess whether having an economic barrier was associated with the use of statins and chronic disease-related hospitalization or emergency department visit, we used binomial regression techniques to generate prevalence rate ratios (PRR). 14% of people with chronic disease lacked drug insurance, while the prevalence of having financial barriers was 8% and 21% in those with one chronic disease and more than one chronic disease, respectively. 3% of the population failed to access drugs because of cost; this was as high as 10% among those with more than one chronic condition. Those without insurance were nearly 30% less likely to be taking statins (PRR 0.73; 95% CI: 0.57-0.94). Those who stated that they had a financial barrier to drugs were more than 50% less likely to be taking a statin (PRR 0.46, 0.25-0.85). Chronic disease related hospitalization or ED visits were 70% more likely among those who experience financial barriers (PRR 1.71, 1.01-2.87). Economic barriers, defined as difficulty accessing care due to cost or lacking drug insurance, are common among those who have chronic disease. These barriers are associated with lower use of guideline recommended medications, increased likelihood of non-adherence, and with higher likelihood of chronic disease-related hospitalization or ED visit.

Co-Authors: Brenda Hemmelgarn, Associate Professor, University of Calgary; Kathryn King-Shier, Professor, University of Calgary; Claudia Sanmartin, Senior Research Analyst, Statistics Canada; Braden Manns, Associate Professor, University of Calgary

E3.4 Impacts Of Waiting To See A Specialist In Ontario: Are They Equitable?

Dan Harrington, Postdoctoral Fellow, University of Toronto Mississauga; Kathi Wilson, Professor, University of Toronto Mississauga; Scott Bell, Professor, University of Saskatchewan; Mark Rosenberg, Professor, Queen's University

Wait times are at the forefront of the Canadian policy agenda, and are recognized as leading barriers to specialist care. This research explores factors associated with patients' lives being affected by time spent waiting for specialist care and the various ways life is affected. We utilize data from the 2010 Canadian Community Health Survey specific to an optional module related to access to specialist care, collected for the province of Ontario. The sample includes all respondents who required a visit to a medical specialist for a new condition in the 12 months prior to the survey. Multivariate logistic regression was used to predict the likelihood that life was affected during the time spent waiting to visit a specialist. A subsequent analysis based on frequency of response was also used to determine the ways in which wait times affected respondents' lives. Of the respondents requiring specialist care for a new condition, the mean wait time between scheduling an appointment and visiting the specialist was 63.3 days (median 30.0). Approximately 21% reported that their life was affected by the wait time. Females, middle-aged respondents, new immigrants, and those with lower income were more likely to report that their life was affected, as were those with poorer health status. Other important predictors included waiting more than one month for access and perceived acceptability of the time spent waiting for care. Worry, stress, and anxiety were the most frequently reported impacts on life (69.1%), followed by pain (42.1%), stress of family and friends (25.2%), deterioration of health (24.3%), and loss of work (21.7%). This research contributes by suggesting that wait time lengths do not have equitable impacts. Indirect impacts of wait times have implications for physical and psychosocial health. These results have implications for policies aimed at (1) improving healthcare delivery and (2) attenuating these impacts for vulnerable groups.

Co-Authors: Kathi Wilson, Associate Professor, University of Toronto Mississauga; Scott Bell, Professor, University of Saskatchewan; Mark Rosenberg, Professor, Queen's University

E4 KNOWLEDGE TRANSLATION AND EXCHANGE

APPLICATION ET ÉCHANGE DES CONNAISSANCES

E4.1 Dynamic Case Studies - Interactive and Evolving Cancer Control Case Studies

Jacqueline Liberty, Research Associate, Cancer Care Ontario

Policy decision-making is a complex process which requires multiple forms of evidence. One consistent criticism of evidence-based decision-making in the policy arena is the lack of focus on context. The objective of this research is to address this gap by improving access to contextual evidence for decision-makers. We have developed an interactive web-based platform to compile a range of difficult-to-access and often unpublished content including program evaluations, feasibility studies, organizational reports, media coverage, and other forms of grey-literature. Evidence is organized into various 'case studies' addressing challenging cancer control topics. Recognizing the fluid nature of policy decision-making, evidence is continually updated through ongoing comprehensive online search strategies, key contacts, and actual site users. Although anyone can submit suggestions for case studies, to be accepted the issue must be timely and relevant to policy-makers, researchers, or program managers within multiple jurisdictions, and must be an issue for which guidance is currently unclear. The website currently contains evidence for four case studies focusing on: integrating flexible sigmoidoscopy into population-based colorectal cancer screening programs; using multidisciplinary teams for newly diagnosed cancer patients; wait time targets for diagnostic assessment programs; and, the use of social media outlets by government agencies to support youths with cancer. Individuals are able to perform targeted searches within each case study, comment on the evidence, and discuss each case study with other decision-makers. Although the focus of the platform is on contextual evidence, it also contains links to PubMed search results via a pre-defined search strategy. Through these dynamic case studies, cancer programs in different jurisdictions will benefit from access to this otherwise largely inaccessible body of work to inform their own implementation. Future work will focus on evaluation of the intervention from both a usability and utility perspective.

Co-Authors: Hannah Geddie, Research Associate, Cancer Care Ontario; Jeffrey Hoch, Director / Co-Director / Associate Professor, Cancer Services & Policy Research Unit, Cancer Care Ontario / Canadian Centre for Applied Research in Cancer Control (ARCC) / Institute of Health Policy, Management and Evaluation; Mark Dobrow, Associate Professor, Institute of Health Policy, Management and Evaluation, University of Toronto

E4.2 Evaluating A New Method For Identifying And Sharing Innovative Practices In Canada

Gillian Ritcey, Policy Analyst, Health Council of Canada

In order to achieve the Triple Aim in Canadian health care, a greater emphasis must be placed on sharing innovative practices across jurisdictions. One of the major challenges that restrict the adoption of innovative practices is the limited means to share the information and evidence about these practices among health care providers, planners, researchers and decision makers in an easily accessible way. The Health Innovative Portal's infrastructure, functionality and design were developed and field tested over an eighth month period before its launch in November 2012. A formal evaluation of the Health Innovation Portal is currently underway, and includes a longitudinal quantitative analysis of monthly web metrics (# of unique visitors, # of searches conducted, # of downloads, # of externally submitted practices, etc.) as well as feedback from user surveys and qualitative interviews to measure whether the Health Innovation Portal is adding value to our audience and providing high quality, contextual information on Canadian health innovative practices. Since becoming publically available, the Health Council has received a great deal of positive feedback and input from a variety of health care organizations, governments and other stakeholders. Web metrics thus far indicate that the Health Innovation Portal is being used frequently, which suggests that it is addressing a key gap in the Canadian health care system. However, evaluation efforts have also identified key issues that still need to be addressed. As an example, the Innovative Practices Evaluation Framework which categorizes innovative practices as emerging, promising or leading according to quality of evidence, impact, applicability and transferability criteria can be further refined to account for innovation diffusion. By the end of May, results from the evaluation will be used to refine the Health Innovation Portal to provide greater value add to health system stakeholders. Preliminary evaluation findings suggest that the Health Innovation Portal, an online searchable database, is an effective way to identify and share innovative practices in health care that are taking place across Canada. Triple Aim will only be achieved by continuing to place a greater emphasis on sharing information and evidence about innovative practices among health care providers, planners, researchers and decision makers in an easily accessible way.

E4.3 The Effect of Print or Online Educational Materials for Primary Care Physicians: A Systematic Review

Agnes Grudniewicz, PhD Candidate, University of Toronto

In this study, we sought to determine if providing primary care physicians with print and online educational materials has any effect on physician clinical behavior and knowledge or on patient outcomes. In addition, we wanted to determine how these materials are developed and designed and whether design attributes impact outcomes. We systematically identified randomized controlled trials, controlled clinical trials, controlled before and after studies, and interrupted time series studies that reported a print or online educational intervention for primary care physicians. Studies were identified by searching electronic databases (Medline, EMBASE, ERIC, and Cochrane), scanning reference lists, and contacting experts. Two independent reviewers conducted all levels of screening, data abstraction, and quality appraisal (Cochrane Effective Practice and Organisation of Care risk of bias tool) in duplicate; conflicts were resolved by discussion. A sub-analysis was conducted to collect data on how these materials were developed and on their use of design principles. We screened 8,368 titles and abstracts and identified 114 relevant studies. Thirty studies met eligibility criteria after full-text screening. Studies targeted physician advice-giving behavior, physician diagnostic procedures, physician prescribing behavior, change in physician knowledge, and clinical patient outcomes. The educational interventions were provided to physicians as full guidelines, checklists, summaries, and manuals. Meta-analysis was not conducted due to heterogeneity across studies. Our provisional results suggest that print and online educational materials targeted at primary care physicians have little to no effect on physician or patient outcomes. The sub-analysis found that most studies do not describe how interventional materials were developed or whether format and design principles were considered and applied during the design process. Print and online educational materials provided to primary care physicians have little effect on physician or patient outcomes. This is concerning as they are a common method of disseminating evidence. Future studies should describe development processes in order to determine if better designs influence uptake and use of evidence.

Co-Authors: Reitze Rodseth, Anaesthetist and Lecturer, Department of Anaesthetics, University of KwaZulu Natal; Ryan Kealy, PhD Student, University of Toronto; David Rudoler, PhD Candidate, Institute of Health Policy, Management & Evaluation, Sharon E. Straus, MD MSc FRCPC, Professor, Department of Medicine, University of Toronto Division Director, Geriatric Medicine, University of Toronto Director, Knowledge Translation Program Li Ka Shing Knowledge Institute, St. Michael's Hospital and University of Toronto Tier 1 Canada Research Chair, Knowledge Translation and Quality of Care

E4.4 Printed Educational Materials: Making Good Ideas Stick

Agnes Grudniewicz, PhD Candidate, Li Ka Shing Knowledge Institute, St. Michael's Hospital; University of Toronto

It is difficult to communicate new and complex clinical evidence to physicians already experiencing information overload. Proper use of design principles may increase printed educational material (PEM) uptake and improve practice. This study aimed to determine whether physician-oriented PEMs are created in accordance with design principles described in multi-disciplinary literature. We analyzed a subset of distinct PEMs from 45 studies identified in a 2012 Cochrane systematic review of the effect of PEMs on professional and patient outcomes. We analyzed these same PEMs for their use of design principles. We developed a checklist of design principles based on a literature review on the implementability of clinical guidelines, which identified three design domains: multiple versions, presentation, and components. Using the checklist, two analysts independently evaluated each PEM to determine whether and how design principles were applied. The checklist was used to rate PEMs on their structure, content, text, colour, tables, and figures. Results show that most PEMs had good structure and layout, and showed appropriate use of colour, tables, and graphs. Conversely, use of images was found to be poor, especially in terms of their usefulness, which may distract and confuse the reader. Though the sample consisted of PEMs designed and developed to influence care, no single PEM scored well across all categories. Some PEMs failed to differentiate and highlight major recommendations, and did not present them in a stepwise fashion. Though most PEMs used clear and easy to read text, use of highlighting was often inappropriate. Lastly, algorithms had mixed scores; some algorithms lacked logic and consistency. Design principles are not consistently applied in the development of PEMs and improvements are needed to images, presentation of recommendations, and usability of algorithms. Improvements to the design of PEMs may influence their uptake by combating information overload and increasing their perceived ease of use and perceived usefulness.

Co-Authors: Judith Versloot, Post Doctoral Fellow, St. Michael's Hospital; Ananda Chatterjee, Research Associate, St. Michael's Hospital; Leigh Hayden, Research Manager, St. Michael's Hospital; Onil Bhattacharyya, Clinician Scientist, St. Michael's Hospital

E5

HEALTH HUMAN RESOURCES AND CAPACITY BUILDING

RESSOURCES HUMAINES EN SANTÉ ET DÉVELOPPEMENT DES CAPACITÉS

E5.1 The Influence Of Work Patterns On Indicators Of Cardiometabolic Risk In Female Hospital Employees

Megan Kirk, RN, MSc, PhD student, University of Victoria, Joan Tranmer, Professor, Queen's University

To explore the associations between work pattern characteristics (full time status, overtime hours, extended work hours and rotational shift) and indicators of cardiometabolic risk, specifically metabolic syndrome, in female hospital employees. We conducted a cross-sectional study and enrolled 466 female employees from 2 hospitals in Kingston, Ontario, Canada. Data were collected through self-report, completion of validated questionnaires, physical examination and use of hospital administrative work data. Irregular work patterns were defined as: extended shift lengths (primarily 12-hour), shift work, and overtime hours. Cardiometabolic risk was classified in accordance with the unified Joint Interim Societies guidelines for metabolic syndrome: the presence of at least 3 cardiovascular risk indicators. Twenty-one percent of women participants (average age of 46 years (SD 9)) had metabolic syndrome; 58% had an elevated waist circumference > 80 cm and 38% had elevated blood pressure. Metabolic syndrome, in age adjusted analysis, was associated with full-time work status (OR: 1.8, 95% CI, 1.0, 3.2), extended shifts in comparison to 8 hours shifts (OR: 1.8, 95% CI, 1.1, 3.0) and working ≥ 35 paid overtime hours in the past year (OR: 1.9, 95% CI, 1.2, 3.1). When controlling for modifiable cardiovascular risk factors these significant associations did not persist. Our results suggest that working irregular work patterns characterized by extended shifts and overtime hours and/or full-time hours is associated with indicators of cardiometabolic risk in female hospital employees; however, engaging in healthy lifestyle behaviours such as leisure time physical activity is protective. Given the prevalence of cardiovascular risk indicators in this sample of female hospital employees there is a need to further explore the nature and effect of different work characteristics on health in order to: 1) identify women at risk and 2) design and evaluate healthy work place strategies.

Co-Authors: Joan Tranmer, Professor, Queen's University; Ian Janssen, Professor, Queen's University; Elizabeth VanDenKerkhof, Professor, Queen's University

E5.2 Fall-Related Emergency Department Presentation in Older Adults

Jenn Bucek, MSc Candidate, University of Waterloo

For older adults the Emergency Department (ED) is a common setting for treatment following a fall. The objective of the present study was to examine the characteristics, service utilization and outcomes of older adults who presented to the ED for a fall. A prospective cohort study was conducted with ED patients age 75 and older in 8 Canadian ED sites (N=2,079). Individuals were assigned to groups according to their reason for presentation to the ED and their history of falls in the past 90 days. Standardized assessment of patients with a geriatric assessment tool, the interRAI ED-CA allowed for comparisons of patient characteristics across key functional and clinical domains. Information on outcomes for all patients was collected at 90 days including: discharge location, hospital length of stay, alternate level of care (ALC) designation and repeat hospital and ED utilization. Compared to those with non-fall-related presentation to the ED and no recent history of falls, those with a fall-related presentation were more likely to live alone, be impaired in ADLs, IADLs, and daily decision-making, and have a caregiver who showed signs of distress. If admitted to acute care following ED presentation, those with a fall-related presentation were more likely to have a length of stay >7 days and have an alternate level of care (ALC) designation during their stay as compared to those with other reasons for presentation (and no history of falls). Older Adults with a fall-related presentation and those without who reported a fall in the past 90 days did not differ significantly on the majority of the areas examined. The present study provides a clearer picture of older adults who access the ED following a fall in Canada. Assessment of those who present to the ED after a fall can be used to streamline referrals to appropriate professionals and target interventions to prevent adverse outcomes in this population.

Co-Authors: Andrew Costa, Fellow / Assistant Professor (Part-time), ICES, Mount Sinai Hospital / McMaster University; John Hirdes, Professor, University of Waterloo

E5.3 New Screening Methods to Predict Adverse Post-Discharge Outcomes among of Older Emergency Department Patients: Results from the MOPED Study

Andrew Costa, Fellow / Assistant Professor (Part-time), ICES, Mount Sinai Hospital / McMaster University

Despite the fact that early identification and intervention has potential to prevent post-discharge adverse events, the screening and assessment of older ED patients remains limited. The objective of this study was to develop and validate two screening tools for older ED patients admitted to acute care and discharged home, respectively. A clinically representative sample of 2,101 ED patients age 75 years or older was collected across 8 ED sites and 5 provinces using an ED geriatric assessment. A 90-day disposition was collected for all patients. An ALC designation or discharge to higher level of care was the dependent measure used for patients admitted to acute care from the ED. Any repeat unplanned ED visit within 90-days was the dependent measure used for those discharged home. A decision-tree model was created for each dependent measure. The final models were validated on a separate data partition. Multi-level analyses were conducted to test site variation in model performance. Overall, 20.7% of older ED patients admitted to acute care were designated ALC or discharged to a higher level of care; whereas 39.5% of older ED patients discharged home had one or more repeat ED visits within 90 days. A mix of cognitive, functional, and informal care variables predicted ALC or discharged to a higher level of care; whereas functional status and symptoms predicted repeat ED use. The ALC/higher level of care and repeat ED use models provided good risk differentiation, achieving AUC's of 0.74 (95% CI: 0.69-0.79) and 0.69 (95% CI: 0.63-0.74), respectively. The repeat ED use model showed clear differentiation in Kaplan-Meier plots. Multi-level analyses showed no site-level variation. The validated screening methods can be used at the point of care to identify and interceded on behalf of patients at high risk for adverse post-discharge outcomes. The use of geriatric screening to improve decision-making is an essential strategy for improving patient outcomes.

Co-Authors: John Hirdes, Professor, University of Waterloo

E5.4 Identifying Small For Gestational Age Newborns With Ethnicity-Specific Growth Distributions Improves Prediction Of Newborn Morbidity

Gillian Hanley, Post Doctoral Fellow, University of British Columbia

Previous research examining differences in growth parameters at birth has suggested that birthweight growth distributions be modified according to parental ethnicity. We aimed to determine whether ethnicity-specific growth distributions more accurately identify newborns at risk for neonatal morbidity associated with small-for-gestational age birth than population-based distributions not stratified on ethnicity. We examined 100,463 singleton term infants born to parents, who both identified their ethnicity as white, Chinese or South Asian, in Washington State between January 1st 2006 and December 31st 2008. We excluded mothers with known exposure to alcohol or tobacco during pregnancy, diabetes (preexisting or gestational) or hypertensive disorders. Using multivariable logistic regression models, we compared the ability of an ethnicity-specific growth distribution and a population-based growth distribution to predict which infants were at increased risk for Apgar score < 7 at five minutes, admission to the NICU, ventilation, extended length of stay in hospital, hypothermia, hypoglycemia, and infection. Newborns considered SGA by ethnicity-specific weight distribution had the highest rates of each of the adverse outcomes assessed—more than double those of babies only considered SGA by the population-based standards. When controlling for mother's age, parity, BMI, education, gestational age, mode of delivery, and marital status, newborns considered SGA by ethnicity-specific growth distributions were between 2 and 7 times more likely to suffer from the adverse outcomes listed above than babies who were not SGA. In contrast, newborns considered SGA by population-based growth distributions alone were at no higher risk of any adverse outcome except hypothermia [2.55 (1.56, 4.16)] and NICU admission [1.40 (1.17, 1.66)]. Our findings suggest that population-based growth distributions misclassify a large percentage of healthy but constitutionally small newborns as growth restricted. Ethnicity-specific growth distributions were significantly better at identifying the infants at higher risk of neonatal morbidity, suggesting that their use could save resources and unnecessary parental anxiety.

Co-Authors: Patricia Janssen, Dr., University of British Columbia

E6.1 Provision Of Care To Patients With Serious Mental Illness And Primary Care Reform In Ontario

Anna Durbin, Ms, University of Toronto

Primary care reform in Ontario aimed to increase access and quality, and minimize use of hospital services. Models with new types of provider remuneration were introduced. We examined service use by patients with serious mental illness in new primary care models (enhanced fee-for-service (FFS); blended-capitation (CAP); and team-based capitation (TBC)). We included Ontarians who were: 1) 18 years or older 2) assigned a diagnostic code for psychotic or bipolar disorders between April 1, 2007 and March 31, 2009 and 3) rostered in one of the following primary care models: enhanced FFS, CAP or TBC with or without mental health workers (MHW). We examined patients' use of general and mental health service from April 2009-March 2011 using administrative health services databases. We used negative binomial models to adjust for patient and physician characteristics and generalized estimating equations to account for patients clustering within physician practices and physician clustering within practice groups. There were 125,233 adults with psychotic or bipolar disorders included. Relative to patients in enhanced FFS models, patients in CAP and TBC had fewer primary care visits for general (CAP: 0.75(0.74,0.77), TBC-MHW: 0.68(0.67,0.70), TBC-no MHW: 0.72(0.69,0.76) and mental health reasons (CAP: 0.77(0.74,0.81), TBC-MHW: 0.72(0.68,0.76), TBC-no MHW: 0.81(0.72,0.93), more general ED visits (CAP: 1.10(1.06,1.14), TBC-MHW: 1.29 (1.24,1.34), TBC-no MHW: 1.19(1.10,1.28), and more general hospital admissions (CAP: 1.13(1.05,1.09), TBC-MHW: 1.30(1.19,1.25), TBC-no MHW: 1.35(1.11,1.23). Patients in team-based capitation model also had fewer psychiatry visits (TBC-MHW: 0.90(0.86,0.95), TBC-no MHW: 0.88(0.80,0.96), more mental health hospital admissions (TBC-MHW: 1.20(1.05,1.12), TBC-no MHW: 1.41(1.05,1.22), and longer lengths of stay for general (TBC-MHW: 1.51(1.21,1.35), TBC-no MHW: 1.68 (1.04,1.32) and mental health admissions (TBC-MHW: 1.53(1.21,1.36), TBC-no MHW: 1.73(1.02,1.33) than patients in enhanced FFS. Rostered patients with serious mental illness in capitation-based models had fewer primary care visits, and more emergency room visits and hospitalizations than patients in enhanced FFS models. Adjusting remuneration for case mix in capitation-based models could help primary care physicians care for patients with serious mental illness while minimizing financial losses.

Co-Authors: Leah Steele, Dr, Department of Family and Community Medicine at University of Toronto; Richard Glazier, Dr., Institute of Clinical Evaluative Sciences; Elizabeth Lin, Dr, Centre for Addiction and Mental Health; Charles Victor, Mr, Institute of Clinical Evaluative Sciences

E6.2 Do Specialists Provide Better Quality of Care for Patients with Chronic Disease?

Alan Katz, Associate Director for Research, Manitoba Centre for Health Policy

1.To describe the quality of ambulatory care services provided to patients diagnosed with chronic disease 2.To explore the impact of specialist care on the quality of care 3.To describe the relationship between the most responsible primary care physician and specialist referrals in the absence of patient assignment We used administrative data from the Repository housed at the Manitoba Centre for Health Policy to identify all Manitobans diagnosed with any of 6 chronic diseases over a three year period. We included all ambulatory visits by these patients to any physician. All patients were assigned to a 'most responsible physician' based on their patterns of care. Specialist visits were categorized as consultations (referrals) or not. We used cluster analysis to explore the patterns of care. We used logistic regression models to measure the factors associated with ten quality of care indicators. Forty-six percent of all ambulatory visits during the study period were made by the chronic disease cohort of 347,606 patients. Nine visit types were identified which resulted in 15 clusters being defined. The clusters were grouped into primary care, specialist and mixed care groups. 31% of all visits to a primary care provider (PCP) were not to the assigned PCP. Patients in the lowest socio-economic quintiles were over-represented in clusters with a high rate of visits to different PCPs. Referrals to specialists were more often made by a non-assigned PCP. No single cluster or cluster group performed better across all quality indicators and no cluster or cluster group performed consistently worse. Continuity of care is compromised in the absence of patient assignment. High rates of specialist care leads to poor use of influenza vaccination. While no single pattern of care provides high quality care across all the indicators primary care based clusters did better than specialist or mixed care based clusters.

Co-Authors: Patricia Martens, Dr, Manitoba Centre For Health Policy; Dan Chateau, Dr, Manitoba Centre For Health Policy; Bogdan Bogdanovic, Mr, Manitoba Centre For Health Policy; Ina Koseva, Ms, Manitoba Centre For Health Policy

E6.3 The BETTER (Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Family Practice) Project: Qualitative Study

Donna Manca, Direct Research, Department Family Medicine, University of Alberba; Jess Rogers, Director, Special Programs, Centre for Effective Practice

The BETTER Project was a multi-centre randomized controlled trial which showed that Prevention Practitioners (PPs) based in family practices significantly improved chronic disease prevention and screening (CDPS). A qualitative study was conducted to better understand the patient level facilitation intervention. A modified grounded theory methodology was used to understand and explore the PP's role in participating practices (4 in Edmonton and 4 in Toronto). Purposeful sampling included participants involved in any capacity with the BETTER project. Study investigators conducted 8 individual semi-structured interviews and 7 focus groups, which were taped and transcribed. An interview guide ensured all areas were covered and helped to standardize the interview process. An audit trail documented the research activities. Journals, field notes and memos were also captured and shared by the researchers. Coding involved constant comparisons and theoretical coding followed open coding. The BETTER approach introduced a framework for CDPS through a proactive, personalized approach tailored to the individual patient that facilitated the development of relationships with patients and clinicians. Participants stated that this approach was well received by patients and provided time and opportunities to identify patients' CDPS priorities and to focus on areas patients wished to address. The PP role developed linkages with CDPS resources inside and outside of the practice, allowed for an expansion of scope of some allied health professionals, increased CDPS awareness and facilitated change at the patient and practice level. Participants felt that the intervention was adaptable and described ways of integrating the BETTER approach into different practice settings. The BETTER approach to CDPS provides a framework to transform practice from disease focused approaches to a personalized, comprehensive, integrated approach, which may be adapted to different practice settings to address CDPS.

Co-Authors: Eva Grunfeld, Giblon Professor and Director, Research Program, Department of Family and Community Medicine, University of Toronto; June Carroll, Associate Professor and Clinician Scientist, Department of Family and Community Medicine, University of Toronto; Andrew Cave, Professor, Department of Family Medicine, University of Alberta; Michelle Greiver, Assitant Professor and Clinician Investigator, Department of Family and Community Medicine, University of Toronto

E6.4 The Prescribing Trends Of Nurse Practitioners To Older Adults In Ontario: 2000 - 2010

Joan Tranmer, Professor, Queen's University

The goals of this study were to describe, from 2000 to 2010: (1) the trends in medication prescription to persons ≥ 65 years of age in Ontario by nurse practitioners (NPs), (2) the common classes of medication prescription and (3) the regional variation in prescription patterns by Local Health Integration Network (LHIN). We conducted a population-based descriptive retrospective cohort study. All NPs registered in the Corporate Provider Database (CPDB), certified between 1 January 2000 and 31 December 2010 were identified. We then determined all prescription medications, from the Ontario Drug Benefit (ODB), they dispensed to patients 65 years of age and older during this time period. As a comparator, we identified all prescription medications dispensed to patients aged 65 years and older by family physicians identified in the ICES Physician Database (IPDB) in the same time period. To address the study objectives we employed a number of descriptive analyses. The number and proportion of NPs who dispensed medication to patients ≥ 65 years increased from 2000 to 2010 [44/340 (12.9%) to 888/1424 (62.4%)]. The number and proportion of medications dispensed for chronic conditions by NPs increased: in 2010, 9 out of 10 medications dispensed were for chronic conditions. There was substantial variation in the proportion of NPs dispensing medication to the older population across LHINs. Central urban regions had the lowest proportion of NPs dispensing medications to older persons. NP prescribing to older adults, and in particular medications related to chronic conditions, has increased substantially across the 10 years. The geographical variation suggests that the integration of NPs into primary health care has not been consistent across the province. The findings from this study provide a platform for further investigation into the nature and effect of NP practice on patient care.

Co-Authors: Dana Edge, Associate Professor, Queen's University; Linda Levesque, Associate Professor, Queen's University; Kim Sears, Assistant Professor, Queen's University; Elizabeth VanDenKerkhof, Professor, Queen's University

Thursday, May 30, 2013

STREAM F: 10:45am – 12:00pm

Jeudi 30 mai 2013

VOLET F : 10h45 – 12h00

F1 PANEL PRESENTATION

PRÉSENTATION EN PANEL

F1 Clash of the Titans: Integrating Primary and Community Care

Shannon Berg, Vancouver Coastal Health; Carole Gillam, Vancouver Coastal Health; Dean Brown, North Shore Division of Family Practice

Internationally, governments and health jurisdictions are targeting strategies to maximize the impact of primary care to better manage chronic conditions. In British Columbia (BC) the Ministry of Health recognizes that 'There is great potential in primary health care to improve the health of the population and contribute to the sustainability of the health care system. To reach such potential, all partners involved in the provision of healthcare must work together'. The BC Ministry of Health has clearly communicated expectations to all sectors of the healthcare system, including the general practice community and health authorities, to integrate care across these continuums, in order to better meet the needs of frail seniors, individuals living with complex chronic conditions, and individuals living with mental health and/or substance use conditions. A key strategy to achieve these goals across the Province of BC is for Health Authorities to work in close partnership with the Divisions of Family Practice. The Divisions of Family Practice (DFP) have been created and fostered by the British Columbia Medical Association (BCMA) and the General Practice Services Committee (GPSC). The BCMA has adapted the example set by Australia and New Zealand by creating DFP, which provide formal organizations that bring together community family practitioners to work within their communities to improve primary care. Each DFP works in partnership with its Health Authority, the GPSC and the Ministry of Health. Together, they identify gaps that exist in patient care within a community and develop solutions to bridge the gaps. The DFPs do not duplicate roles and responsibilities of a health authority but instead offer an opportunity for engagement of family physicians, health authority staff, community providers and patient representatives to work together toward common goals and strategies for the transformation of health services, leading to improved patient outcomes and increased system efficiency. This panel will present the experience of one BC health authority in the context of available evidence from Australia and New Zealand. The Executive Director, Primary Care and the Executive Director, Home and Community Care will provide an overall perspective of Vancouver Coastal Health's approach to implementing BC Ministry of Health's expectations for integrated primary and community care. From the North Shore, the Director for Home Health and the Chair of the Division of Family Practice will provide examples of current work that is coordinated between the health authority community and the corresponding Division of Family Practice. The evaluation strategy for this groundbreaking work will be discussed by one of the MSHSR evaluators who are embedded within the health authority. The panel will provide an opportunity to compare and contrast BC's strategy with those of other Canadian jurisdictions that have not implemented Divisions. Issues such as building relationships, creating transformational change across primary and community sectors, achieving results in efficient use of health services such as acute care, emergency and residential care, and achieving gains in population and patient health status will be discussed.

F2 EQUITY

ÉQUITÉ

F2.1 Challenges Faced by Heart Disease and Diabetes Patients as They Modify Their Diets: The Influence of Social Vulnerability

Meredith Vanstone, Postdoctoral Fellow, McMaster University

This is an integrative synthesis of qualitative research concerning the challenges that patients with heart disease and diabetes face as they modify their diets according to clinical instructions. These findings may be of interest to health professionals and policy makers who design, fund, or implement dietary self-management interventions. Qualitative research was obtained through a systematic search for relevant qualitative literature published between 2002-2012 and undertaken in comparable health care contexts (North America, Europe, Oceania). Relevant literature was analyzed using the technique of qualitative meta-synthesis. Qualitative meta-synthesis produces a synthesis of evidence which both retains the original meaning of the authors and offers a new, integrative interpretation of the phenomenon through a process of comparing and contrasting findings across studies. The findings of 65 primary qualitative studies were synthesized. Many studies focused on patients who are socially vulnerable or marginalized for reasons of low SES, race, ethnicity or culture, and gender. Patient context was used as a sensitizing concept in the analysis, and findings were compared between vulnerable and non-vulnerable patients. Analysis identified five types of challenges which are common to all patients (vulnerable and non-vulnerable), including self-discipline, knowledge, negotiation with family members, coping with everyday stressors, and managing the social significance of food. Vulnerable patients may experience additional challenges above and beyond these common issues, many of which have the effect of magnifying or exacerbating common challenges. These findings may be useful for policy makers as they make decisions about what type of programs should be designed and funded to assist the dietary self-management of diabetes and heart patients. Health care providers who administer these programs or counsel patients may also be interested in these findings.

Co-Authors: Giacomini Mita, Professor, McMaster University; Smith Andrea, PhD Student, McMaster University; Francesca Brundisini, PhD Student, McMaster University; Deirdre DeJean, PhD Student, McMaster University

F2.2 Population-Level Discrepancies In Uptake Of Prenatal Screening In Ontario

Robin Hayeems, Postdoctoral Fellow, Institute for Clinical and Evaluative Sciences

We investigated patient and provider characteristics related to uptake of prenatal screening (PNS) for Down syndrome and open neural tube defects in Ontario, in response to the Ontario Ministry of Health and Long-Term Care's (MOHLTC) concern about regional variation in screening rates across Ontario's local health integration networks (LHINs). We conducted a population-based retrospective cohort study of all pregnant women in Ontario, who were ≥ 16 weeks' gestation (conceptions December 2007 -November 2009) and identified using health administrative datasets at the Institute for Clinical and Evaluative Sciences (ICES). Data on receipt and modality of PNS was obtained through linkage to the Ontario Maternal Multiple Marker Screening database, available through the Better Outcomes Registry and Network (BORN Ontario). Since the prevalence of PNS was high in our cohort, log-linear binomial regression models were used to estimate relative rates (RR) of screening; adjusted RR and 95% CIs are reported. Of 264,737 pregnant women in our cohort, 62% received PNS. Uptake across LHINs varied: 80% in Central/Toronto Central and $<40\%$ in Erie St. Clair, North East, and North West. Uptake was higher for women >36 years (aRR=1.27 (1.25-1.30) and for women 21-35 years (aRR=1.20 (1.18-1.30) compared with those <20 years at delivery/abortion. Uptake was lower among women with ≥ 3 previous pregnancies compared to women with no previous pregnancies (aRR=0.76 (0.74-0.77)). There was a slight gradient in rates from highest to lowest income quintile (aRR=1.03 (1.02-1.04)). Rates were lower among rural compared to urban women (aRR=0.64 (0.63-0.66)). First trimester care from obstetricians was associated with higher screening rates [aRR=1.12 (1.11-1.13)] and care from midwives with lower rates [aRR=0.44 (0.41-0.47)] compared with care from family physicians. There are significant regional, provider and maternal differences in the use of recommended PNS. These findings should help implementation efforts to reduce barriers to prenatal screening and inform policy solutions aimed towards optimizing the offer of this service.

Co-Authors: Michael Campitelli, Institute for Clinical and Evaluative Sciences; Xiaomu Ma, Institute for Clinical and Evaluative Sciences; Tianhua Huang, North York General Hospital; Mark Walker, Ottawa Hospital Research Institute; Astrid Guttman, Clinical and Evaluative Sciences

F2.3 A New Approach To Assess Health Inequities: Integrating Ethics, Methods, And Policy

Yukiko Asada, Associate Professor, Dalhousie University

To propose a new way to assess health inequities with consistency (offering three types of policy-relevant information: overall health inequality, overall health inequity, and bivariate health inequities), transparency (clearly separating descriptive inequality and normative inequity, and flexibility (enabling users to incorporate different definitions of health inequity). We use the Joint Canada-United States Survey of Health. The measurement of health is the Health Utilities Index (HUI). Overall health inequality is the distribution of the HUI across individuals. Overall health inequity is the distribution of the unfair HUI across individuals based on two popular definitions of health, 'equal opportunity for health' (the health outcome due to factors beyond individual control is unfair), and 'policy amenability' (the health outcome due to factors amenable to policy interventions is unfair). Using the Gini coefficient, we quantify overall health inequality and inequity. Information on bivariate health inequities comes from regression-based decomposition methods. Measuring overall health inequality and inequity side by side, our approach reveals that about half to almost all of what we observe as health inequality is inequitable. The exact answer depends on whether to consider unexplainable inequality as inequitable. Overall health inequality in Canada and the United States is statistically indistinguishable. Using the conservative estimates, overall health inequity is statistically significantly better in Canada than the United States, while using the liberal estimates, we observe no statistically significant difference. The two definitions of health inequity do not yield statistically and clinically significant difference in empirical health inequity estimates. The key attribute associated with health inequity is income in Canada and health care supply in the United States. Integration of recent key development in ethical, methodological, and policy-relevant inquiry in health inequity promises a new measurement approach and offers important insights in future development. Our approach can serve as a foundation for effective health inequity surveillance, fundamental to all health equity initiatives and improved policy development.

Co-Authors: Jeremiah Hurley, Professor, McMaster University; Ole Norheim, Professor, University of Bergen; Mira Johri, Professeure agrégée, Université de Montréal

F2.4 Availability And Access To Health And Community-Based Services Across Canada: National Population Health Study Of Neurological Conditions (NPHSNC)

Tarik Bereket, Research Coordinator, University of Toronto; Sarah Munce, University of Toronto

To describe the availability, access, and use of health and community services among service providers of persons with neurological conditions. These were examined across the continuum of care and across the lifespan by five geographic regions, urban and rural as well as community and institutional settings. This project is part of the National Population Health Study of Neurological Conditions study. It specifically addresses needs and gaps in health and community-based services. We administered an online survey to achieve a large and diverse geographic sample of administrators/service providers across Canada, using the Canadian Health Care Facilities Guide. Specifically, professionals from hospital programs (inpatient and outpatient including neurological clinics), long-term care homes, community-based health care provider facilities, were invited (n=2783). Descriptive statistics including frequencies and proportions were employed to summarize the responses. A total of 469 respondents were included in the final analysis. Respondents included long-term care facilities (28%), acute care hospitals (26%), community-based organizations (16%), and rehabilitation facilities (11%). Eligibility for services is determined by catchment area (45%), diagnosis (44%), age (36%), physical ability (36%), and cognitive ability (34%). 72% had exclusion criteria for qualifying for services: ventilator dependency (30%), medical instability (26%), psychiatric diagnosis (23%) and age (20%). These facilities provided information rather than services. The most common services provided were case management (56%), nursing (53%), personal care (52%), rehabilitation (50%), medical equipment (44%), healthy lifestyle support (40%), respite (38%), chronic conditions skills management (36%), and social support (35%). Data for selected survey items will be presented in tabular and/or graphic forms as appropriate. Information obtained will help governments and stakeholders plan programs and health services for Canadians living with neurological conditions. As part of the larger NPHSNC study, the collected information will be used in the formulation of a national picture of needs, use and gaps in services.

Co-Authors: Tarik Bereket, Research Coordinator, University of Toronto; Susan Jaglal, University of Toronto; Mae Kwan, University of Toronto; Sarah Munce, University of Toronto; Sara Guilcher, University of Toronto

F3.1 Defining Quality Outcomes for Complex Care Patients Transitioning Across the Continuum Using a Structured Panel Process

Lianne Jeffs, Scientist Li Ka Shing Knowledge Institute, St. Michael's Hospital

No standardized set of quality outcomes or measures on transitioning complex care patients across the various health care settings and discharged and/or readmitted from home exists. A structured panel process was used to define quality outcomes for care transitions involving complex care patients across the continuum of care. A modified Delphi consensus technique based on the RAND method was used to develop measures of quality care transitions across the continuum of care. Specific stages included a literature review, individual rating of each measure by each of the panelists (n=11) using a 6 point rating matrix (importance of the measure; scientific soundness of the measure; clinical logic and measure properties; feasibility of the measure; usefulness of the measure to drive quality improvement efforts; and usefulness for accountability purposes in public reporting), a face to face consensus meeting, and final ranking by the panelists. Round one analysis from the questionnaire (n=119 indicators) yielded a set of 30 measures that received an aggregate rating of > 75%. Analysis from the second round revealed a set of 11 measures. The final round of scoring yielded the following top five measures: readmission rates within 30 days, primary care visit within 7 days post-discharge for high-risk patients, medication reconciliation completed at admission and prior to discharge, readmission rates within 72 hours, and time from discharge to homecare nursing visit for high-risk patients. These measures can be used as indicators of overall care quality related to care transitions involving complex care patients across the sectors. There is broad applicability in many of the final quality measures are already collected by hospitals and other health care organizations and could feasibly be collected and reported.

Co-Authors: Madelyn Law, Assistant Professor, Brock University; Renee Lyons, Bridgepoint Chair in Complex Chronic Disease Research, Bridgepoint Collaboratory for Research and Innovation; Chaim Bell, Clinician Scientist, Mt Sinai Hospital

F3.2 HCARD: Health Care Access Research and Developmental Disabilities, A Partnerships for Health System Improvement Project

Elizabeth Lin, Independent Scientist, Centre for Addiction and Mental Health

HCARD is funded by CIHR to: partner with knowledge users in the health and social services sectors to improve health data on adults with developmental disabilities (DD) in Ontario, describe the healthcare provided to this population, and increase the impact of findings on policy and services through active stakeholder engagement. HCARD established a data sharing agreement making it possible, for the first time in Ontario, to link administrative datasets from health and social services. Analysis provides a snapshot of healthcare use of adults with DD. An integrated Knowledge Transfer and Exchange (iKTE) structure includes committed relationships between scientists, and knowledge-users (government and service providers). Knowledge users are named on the grant alongside scientists, and participate in meetings involving the core working group of principal investigators, a larger investigative team, and a Strategic Advisory Committee. Refined iKTE tools used include a newsletter, social media, presentations, publications, and plans for a website. The final merged cohort includes 66,000 adults with DD and is the largest known dataset of persons with DD in the world. For comparison, a control group randomly sampled from the population of Ontarians without DD was also drawn. Compared to the control group, Ontarians with DD: 1) are more likely to live in lower income neighbourhoods, 2) have higher rates of chronic disease, 3) and visit primary care physicians as frequently as the general population but not to a level consistent with DD specific primary care guidelines. The iKTE approach enabled a relatively quick dissemination of the research findings to a wide range of audiences, including those in government and service provision, and strengthened our network. Preliminary results have shown disparities in health and health service use for individuals with DD in Ontario. It is hoped that the improved accessibility and understanding of our work to knowledge users, will lead to its accelerated application in policy and practice. Formal evaluation of the iKTE approach is forthcoming.

Co-Authors: Dorina Simeonov, Project manager, Institute for Clinical Evaluative Sciences; Heidi Diepstra, Research Assistant, Surrey Place Centre; Barry Isaacs, Director of Research and Evaluation, Surrey Place Centre; Dale Butterill, President, Dale Butterill Healthcare Consulting; Yona Lunsky, Section Head, Dual Diagnosis Research / Associate Professor, Department of Psychiatry, Centre for Addiction and Mental Health / University of Toronto

F3.3 The Self-Management-Focused Chronic Care Model: A Conceptual Framework

Suman Budhwani, University of Toronto, Health System Performance Research Network

The objective of this study was to create a conceptual framework that explained the process of self-management in chronic disease clients from the perspective of the patient. By explaining the process, the framework would also help delineate how and when to assess when successful self-management has taken place. A scoping literature review was conducted, within which a variety of databases and the Internet were utilized to probe for literature related to self-management, its constructs, relevant health behaviour theories and conceptual frameworks, and factors affecting its adoption. Structure, process, and outcome measures of successful self-management were also collected. The final list of articles included journal articles and grey literature. Collected articles were summarized based on key findings, which were then applied to Ontario's Chronic Disease Prevention and Management Framework, (CDPMF) (2007) a derivative of Wagner's Chronic Care Model (1998) taking a more ecological approach to understanding chronic disease management. Using findings from the scoping literature review, the Self-Management-Focused Chronic Care Model (SMFCCM) was derived based on the CDPMF and patient-centred models such as Greenhalgh's Ecological Model (2009). It emphasizes the perspective of the patient in successful self-management, which has largely been ignored in the original CCM, and its derivatives. The SMFCCM incorporates self-management as a separate process, separating it from the process of self-management support, an original element of the CCM. It incorporates patient-level and contextual factors affecting both self-management and self-management support, and delineates the mechanism by which self-management support leads to self-management, that is factor affecting patient activation for self-management. Lastly, the SMFCCM defines successful self-management and pinpoints to where performance measures assessing successful self-management should occur. The Self-Management-Focused Chronic Care Model is a unique conceptual framework and the only one of its kind separating the process of self-management from the process of self-management support. It emphasizes the importance of the patient's perspective and highlights where and how performance measurement of self-management success can occur.

F3.4 Collaborative Primary Care Model for Diabetes and Depression: Results of a Controlled Implementation Trial

Jeffrey Johnson, Professor, School of Public Health, University of Alberta

Depression occurs in one-quarter of people living with diabetes. When the two co-exist it worsens outcomes and increases health care costs. We evaluated the implementation of a nurse case-manager based collaborative primary care team model, previously demonstrated to improve depressive symptoms and diabetes management in primary care networks in Alberta. We conducted a controlled implementation trial in 4 non-metro primary care networks. Eligible patients had type 2 diabetes and screened positive for depression, based on Patient Health Questionnaire (PHQ-9) scores >10. Patients were allocated using an 'Intervention-On or -Off' monthly time-series. Intervention consisted of case-managers working 1:1 with patients and their physicians, using motivational interviewing, evidence-based treatments, and specialist consultations as needed to deliver individualized care prioritizing depression, then cardio-metabolic treatment. The main outcome was improvement in PHQ-9 scores at 12-months; secondary endpoints included improvements in A1c, systolic pressure and LDL. We compared outcomes using random effects models, with intent-to-treat analyses. Of 1924 patients screened, 476 (25%) had PHQ >10. Of these, 95 were allocated to intervention and 62 to control. There were no baseline differences between groups: mean age 57.8 (SD 9.8) years, 55% women, 53% had BMI>35, mean PHQ-9 score 14.5 (SD 3.7), A1c 7.6% (SD 1.8), systolic pressure 125.2 mmHg (SD 16.0), and LDL was 2.2 mmol/L (SD 0.8). Preliminary analyses showed that intervention and control patients had similar 12-month improvements in PHQ-9 (6.4 [SD 5.7] vs 5.1 [SD 5.7] for controls; difference 1.1 [95%CI -2.8, 0.5]; p=0.18) and similar rates of depression remission (61% vs 58% of controls, p=0.71). No differences were observed in secondary cardio-metabolic outcomes. In patients with type 2 diabetes who screened positive for depression, we observed substantial improvements in depressive symptoms. The case-manager collaborative care model did not lead to improved outcomes, over and above the screening maneuver, compared to usual care in Alberta's primary care networks.

Co-Authors: Fatima Al Sayah, PhD Student, ACHORD, University of Alberta; Sandra Rees, Project Manager, ACHORD, University of Alberta; Lisa Wozniak, Evaluation Coordinator, ACHORD, University of Alberta; Sumit Majumdar, Professor, University of Alberta

F4 KNOWLEDGE TRANSLATION AND EXCHANGE

APPLICATION ET ÉCHANGE DES CONNAISSANCES

F4.1 The Sustainability And Long-Term Outcomes Of Knowledge Translation Projects: A 3-Year Follow-Up Of The GAIN Collaborative Network (GAIN-CN) Project

Andra Ragusila, Miss, University of Toronto, Centre for Addiction and Mental Health

The study aims to further sustainability and evaluation research methods by providing a case study of how sustainability can be defined beyond institutionalization. It exemplifies continued benefits for clients, maintained agency partnerships, project replication and sustained attention to the issues raised by the project. A mixed-methods 3-year follow-up was conducted for the GAIN-CN collaborative pilot project which introduced a concurrent mental health and substance use screener in 8 cross-sectoral agencies to determine the feasibility using a common screening tool and to inform planning processes by identifying gaps in services. Semi-structured interviews were conducted with agency leaders to identify the continuation of project activities and the innovation, organization and community facilitators and barriers to sustainability. A survey was conducted with front line staff who participated in the GAIN-CN project to assess the impact of participating in the project on concurrent disorder-related knowledge and practices. Four out of the seven agencies that participated in the follow-up project continued using the screening tool at follow-up. Reasons for discontinued use included switching to Ministry mandated screeners and the development of agency specific screeners. All agencies continued screening for concurrent disorders. Within agencies where the tool became institutionalised, its findings were used for research rounds, client treatment planning, strategic reviews of internal funding, training of new staff and replication in other programs. All agencies used project findings externally for advocacy purposes and for securing additional resources. Through academic presentations and advocacy efforts the findings helped secure funding for project replication in 8 communities across Canada. All agencies maintained partnerships and continued to engage in participatory research projects. The study traced the effects of the GAIN-CN project, effects which would have been missed by an evaluation focused solely on institutionalization. It highlights the importance of viewing sustainability on a continuum of knowledge translation, program development and program improvement in the community

Co-Authors: Joanna Henderson, Dr., Centre for Addiction and Mental Health; Paula Goering, Dr., Centre for Addiction and Mental Health; Gloria Chaim, Centre for Addiction and Mental Health

F4.2 Exploring the Barriers and Facilitators to Knowledge Translation and Implementation of Frontline Services for Substance Abuse

Kathryn Gill, Associate Professor, McGill University

The purpose of this study was to examine the process of knowledge translation and implementation of frontline services for substance abuse at three primary care clinics in Montreal, Quebec and to examine frontline health care workers knowledge uptake and the perceived barriers and facilitators to knowledge translation (KT). Recent provincial policies in Quebec provided a natural environment for studying KT and the implementation of evidence-based interventions for substance abuse and co-morbid mental illness within primary care. This pre-post design examines health care workers experiences, knowledge uptake and barriers to transfer using mixed-methods (interviews, focus groups, questionnaires, chart review) at multiple time points. Knowledge transfer was facilitated using a collaborative training approach through the insertion of an addictions specialist into the clinics. An integrated KT strategy was used throughout the project, building collaborative mechanisms for knowledge exchange and decision making between researchers, managers and health care workers. Qualitative findings highlighted multiple barriers to KT in clinical practice, training, administration and organizational context. Despite training provided by the project and the government mandate, staff report minimal changes in practice and continue to feel inadequately equipped to address substance problems at their clinics. Staff report that given their lack of time and the complex needs of clients, they do not systematically screen for substance abuse. Substance problems are not perceived to be a priority in their practice and they are not convinced of the advantage or importance of systematic screening. Staff do report a greater awareness of substance abuse problems; however, they report needing clearer guidelines from management and on-going clinical support following further training in order to support changes in practice. In order to facilitate knowledge translation, those health care workers who are required to implement the knowledge or practice changes should perceive a relative advantage or benefit. Further discussion of the rationale, guidelines and evidence supporting screening and health prevention approaches may help promote implementation frontline services for substance abuse.

Co-Authors: Dr. Gail Gauthier, Dr. Dara Charney, McGill University Health Centre, Addictions Unit; Spyridoula Xenocostas, Centre de Santé et de Services Sociaux de la Montagne; Dr. Ann Macaulay, Participatory Research at McGill (PRAM); and other CIHR TEAM Members

F4.3 Implementation of HIV Point of Care Testing for Youth

Suzanne Turner, Family Physician/Addiction Medicine Fellow, St. Michael's Hospital

Objective was to improve pick up rates of HIV test results at Covenant House, Canada's largest youth shelter. We investigated evidence for rapid point-of-care (POC) human immunodeficiency virus (HIV) testing in youth populations, and used this evidence to obtain MOHLTC funding to implement rapid POC HIV testing at Covenant House. Less than 50% of youth at Covenant House pick up HIV test results. Clinicians identified POC HIV testing as a possible strategy to improve these rates. POC testing is not routinely covered by OHIP. A systematic review was performed to assess evidence for POC HIV testing in youth. Two reviewers each searched Medline, EMBASE, and Cinahl using a set of keywords related to youth and POC testing. Initial search produced 603 possible studies. 48 articles were identified for full text review and 11 met inclusion criteria. Chart review will compare change in pick up rate one-year post-intervention to year prior. Systematic review demonstrated that youth are more likely to accept rapid HIV POC testing over traditional modes. Acceptance is highest in ER > community > clinic. Results for rapid test modalities were picked up more frequently than traditional modalities (91.3% vs. 46.7%, OR 12.00). Further, median time to results was significantly shorter for rapid tests (0 vs. 21 days). Results of systematic review were presented to AIDS Bureau of MOHLTC. After reviewing evidence, MOHLTC agreed to fund implementation of POC testing at Covenant House using the only licensed rapid test in Canada (provided by BioLytical Laboratories), the INSITI Rapid Test (Sensitivity 99.6%; PPV 97.8%; HIV type 1 & 2 HIV; results in 60 seconds; cost \$15/test). The chart review is in progress. OHIP funding for test kits and training was secured in August 2011. All Covenant House RNs and MDs trained in September 2011. POC testing protocols received quality assurance review in January 2012. Chart review with retrospective and prospective elements in progress. This project represents an advocacy-based model for clinical change.

Co-Authors: Kelly Anderson, Medical Resident, St. Michael's Hospital; Morgan Slater, Research Coordinator, St. Michael's Hospital; Laura Quigley, Medical Student, University of Toronto; Martin Dyck, Medical Student, University of Toronto

F4.4 Cost Effectiveness Of Cervical Cancer Screening Strategies After Availability Of HPV Vaccine

Bin Xie, Assistant Professor, University of Western Ontario

Cost effectiveness of cervical cancer screening strategies and HPV vaccination have been evaluated separately in various contexts. However, no published study had evaluated the cost effectiveness of strategies that integrate both population level screening and HPV vaccination. This paper aims to provide such an analysis using data from Ontario. Markov models were developed to evaluate various strategies that integrate cervical cancer screening and HPV vaccination. Data from the cervical cancer screening and HPV vaccination programs in Ontario, supplemented by data from the literature, were used to populate the models. Cost data were obtained from a large hospital in Ontario. Compared to the alternative strategy of pap-test every five years for women between 25 and 70 years combined with HPV vaccine for girls at grade 8, current practices in Ontario (Pap-test every three years for women between 21 and 70 years and HPV vaccination for girls in grade 8) was significantly more costly with slightly better effectiveness (ICER: \$1,256,000 per QALY gained). All other strategies were either dominated by, or had unacceptably high ICERs, compared to the alternative strategy. With a universal HPV vaccination program, cervical cancer screening can start at a later age with less frequency with significant cost savings and little negative impact on outcomes.

F5 MENTAL HEALTH

SANTÉ MENTALE

F5.1 Emergency Department Utilization Among Formerly Homeless Adults with Mental Disorders after 1-year of Housing First: A Randomized Controlled Trial

Angela Russolillo, Student, Simon Fraser University

To determine whether the provision of housing and supports associated with Housing First, reduces emergency department utilization among homeless adults with mental illness. This study is a secondary analysis utilizing participant data from the Vancouver At Home/Chez Soi Randomized controlled trial and Emergency Department (ED) data from six urban hospitals. ED data comprises number of visits and chief complaints, spanning April 2007 to October 2012; with analysis on year before and up to two years after randomization. Participants were absolutely homeless or precariously housed, community-referred adults (19 years +) with a mental disorder (with or without substance dependence). Participants were recruited from 2009-2011 with randomization to one of three intervention arms: Congregate (CONG), Scattered Site (SS) or treatment as usual (TAU), with follow-up interviews at 3-month intervals for 24 months. The analytic sample (n=223; CONG=89; ACT=73; TAU n=61) was 74% male, 15% aboriginal with an average lifetime duration of homelessness of 57.9 months. In the year prior to randomization, 1079 ED visits were observed with a mean (SD) of 4.8 (8.4) visits per person. Compared to TAU, significantly lower ED utilization was observed during the post-randomization period in the SS group (Adjusted IRR 0.55, [0.35,0.86]). ED visits in the pre randomization period (Adjusted IRR 1.07, [1.04,1.10]) were associated with ED utilization in the post randomization period. Results suggest that Housing First, particularly the SS model with ACT services, produces significant reductions in ED utilization among homeless adults with mental disorders.

Co-Authors: Julian Somers, Simon Fraser University; Akm Moniruzzaman, Simon Fraser University; Lawrence McCandless; Michelle Patterson

F5.2 How Much Do Homeless Mentally Ill People Cost In Canada?

Angela Ly, Student, Université de Montréal; Daniel Rabouin, Analyst, Douglas Institute

Policy discussions concerning homelessness in Canada often refer to costs per person per year around \$100,000, based on a few individuals. We estimate the costs to society that homeless people with mental illness incur in 5 cities (Vancouver, Winnipeg, Toronto, Montreal and Moncton), and identify factors associated with higher costs. In the context of a randomized trial of a Housing First intervention, 990 homeless people with mental illness were recruited to treatment as usual groups in the 5 cities, between October 2009 and June 2011. Comprehensive measures of service use (health, justice and social services), but excluding medications, were obtained through questionnaires administered every 3 or 6 months. Methodologically comparable unit costs were estimated for these services. Individual-level costs during the post-baseline year were then calculated (N=3D814, 82.2% of the sample). A generalized linear model using a gamma distribution function was estimated to identify factors associated with higher costs. Preliminary results indicate an average annual cost of \$39,227 (SD: \$41,451). Adjusting for age, sex, diagnosis, substance use, a measure of need level, level of functioning, and two measures of homelessness duration, costs were lowest in Moncton: \$27,445 (95% C.I.: \$22,644, \$32,245) and highest in Toronto: \$44,495 (\$39,279, \$49,710), with Montreal, Winnipeg and Vancouver showing progressively higher costs. Being male increases costs by \$5,387 on average (\$1,111, \$9,663). A one-point increase on the Multnomah Community Ability Scale of functioning (mean: 59.7, SD: 8.6) is associated with a reduction in costs of \$438 (-\$773, -\$103). No significant differences in costs were observed between people with psychotic disorder, PTSD, mania-hypomania, major depressive disorder or mood disorder with psychotic features, nor were other factors significantly associated with costs. Services as usual for homeless people are generally high and highly variable across individuals. Men with low levels of functioning are particularly costly, but variation across individuals is much greater than the adjustment factors here can account for. Significant opportunities exist for cost savings through targeted interventions.

Co-Authors: Eric Latimer, Associate Professor, McGill University; Daniel Rabouin, Research Associate, Douglas Institute; Zhirong Cao, Research statistician, Douglas Institute

F5.3 An Examination Of Child And Youth Mental Health Policy In Ontario

Roula Markoulakis, Miss, University of Toronto; Victrine Tseung, Miss, University of Toronto; Stephanie Choi, Miss, University of Toronto

Mental illnesses account for an annual societal cost of \$39 billion in Ontario, necessitating recent policy shifts. Approximately 500,000 children and youth are experiencing mental illness province-wide, and \$257 million has been committed towards addressing this issue. This presentation will inventory and critically examine Ontario's child and youth mental health strategies. A scoping review of the literature will be conducted, and will include a critical analysis of work that has contributed to Ontario's strategic directions for child and youth mental health over the last ten years as well as current policies shaping services in the province. Child and youth mental health services will be explored with regards to: access to mental health services, including availability of services, financial feasibility of accessing services, and barriers to access; delivery of services, including timeliness and methods of delivery; and outcomes of mental health services, particularly service outcomes and mechanisms for ensuring service standards and accountability. The most critical issues in each of the three stages to service use will be identified and discussed with regards to active child and youth mental health policies in Ontario, as well as documents that contributed to the development of these strategies. Policy and service coordination will also be explored, with specific focus on changes implemented as a result of the recent spotlight on child and youth mental health in 'Open Minds, Healthy Minds: Ontario's Comprehensive Mental Health and Addictions Strategy.' Anticipated findings will reveal future directions and opportunities that are of worthwhile consideration by making recommendations for directive policy and drawing on exemplars in policy and service access, delivery and outcomes from other provinces/territories and countries. Findings will be important for investigating how Ontario is achieving its goals of providing children and youth with early intervention and timely access to consistent, quality services. This will inform future implementation plans, allowing for continuous improvement to sustainable mental health services for children and youth in Ontario.

Co-Authors: Victrine Tseung, PhD Student, University of Toronto; Stephanie Choi, PhD Student, University of Toronto

F6 PRIMARY CARE (2)

GESTION DES SOINS DE PREMIÈRE LIGNE (2)

F6.1 Determinants of Time to an Episode of Care for a Recurrent Chronic Obstructive Pulmonary Disease Exacerbation

John Paul Kuwornu, Mr., University of Manitoba

Chronic obstructive pulmonary disease (COPD) exacerbations are characterized by high utilization of healthcare resources; their prevention is recognized as one of the primary goals of COPD therapy. This study examined patient and healthcare factors associated with the time between episodes of healthcare utilization for COPD exacerbations. This population-based study used hospital separations, physician billing claims, prescription drug records, and population registration files from Saskatchewan to identify a cohort (35+ years) with diagnosed COPD and define all episodes of healthcare utilization for COPD exacerbations over a nine-year period (fiscal years 2001/02 to 2009/10). Individuals were followed from their first episode of care for a COPD exacerbation (i.e., index episode) until the start of a second episode, with censoring for death and end of observation period. Cox proportional hazards regression was used to model demographic, comorbidity, and healthcare variables associated with time to a recurrent episode of care. A total of 14,848 individuals had an episode of care for a COPD exacerbation during the observation period; 51.7% of the cohort was male and the average age was 71.3 (SD = 12.1). One-quarter (25.9%) of the cohort did not experience second episode, while 57.4% experienced 2+ episodes, and 16.8% died. The median time to a recurrent episode was 322 days. Younger age (hazard ratio [HR] 0.83 for 35-44 years; 95% CI 0.71 to 0.97), previous hospitalization (HR 0.61, 95% CI 0.55 to 0.68) and index episode costs in the lowest decile (HR 0.57, 95% CI 0.50 to 0.66) were associated with a longer duration between episodes of care for COPD exacerbations. Gender, comorbidity, urban/rural residence location, and income quintile were not statistically significant. Individuals with diagnosed COPD are likely to seek healthcare for an exacerbation at least twice annually. The time between episodes of healthcare use is associated with age, total cost of previous episode, and prior hospitalization, suggesting a need to target older patients for COPD therapy.

Co-Authors: Lisa Lix, Professor, University of Manitoba; Jacqueline Quail, Saskatchewan Health Quality Council; Meric Osman, Saskatchewan Health Quality Council; Eric Wang, Saskatchewan Health Quality Council

F6.2 Development of an Ideal Cardiovascular Health Index for the Canadian Population

Laura Maclagan, Epidemiologist, Institute for Clinical Evaluative Sciences

Cardiovascular disease (CVD) is the leading cause of death and disability among Canadians. Our objective was to develop a cardiovascular health index for the Heart and Stroke Foundation of Canada to measure the cardiovascular health of the Canadian population, which will enable monitoring of population trends and targeting appropriate interventions. Data from the Canadian Community Health Survey (2003-2011), a national population-based survey, were used to calculate the prevalence of 6 CVD health factors and behaviours among Canadians age 20 and older; smoking status, physical activity, fruit and vegetable consumption, overweight/obesity, diabetes, and hypertension. All data were self-reported. Individuals were classified as being in poor, intermediate, and ideal cardiovascular health based on their number of ideal CVD health factors/behaviours (ranging from 0 to 6). Ideal cardiovascular health was defined as the presence of all 6 ideal factors/behaviours. The prevalence of heart disease was calculated for each cardiovascular health index group. In 2009, 9.7% of Canadians were in ideal cardiovascular health (95% CI 9.3-10.2%), 53.8% (95% CI 53.0-54.5%) were categorized as in intermediate cardiovascular health (4-5 healthy factors/behaviours), and 36.5% (95% CI 35.8-37.3%) were categorized as in poor cardiovascular health (0-3 ideal factors/behaviours). Almost twice as many women as men were in ideal cardiovascular health (12.7% vs. 6.7%). The mean cardiovascular health index was 3.89 (95% CI 3.87-3.91). A strong gradient was found with an increasing cardiovascular health index being associated with a lower prevalence of self-reported heart disease. The Heart and Stroke Foundation of Canada will use the mean cardiovascular health index to set their impact goals for cardiovascular health improvement and other concepts will be incorporated into foundation activities. The proportion of Canadians in ideal cardiovascular health is low and the proportion in poor cardiovascular health, high. Appropriate population health interventions are needed to improve the cardiovascular health of Canadians, particularly by targeting modifiable health behaviours, which may help to reduce the burden of CVD in the population.

Co-Authors: Jungwee Park, Senior Analyst, Health Analysis Division Statistics Canada; Claudia Sanmartin, Chief and Senior Researcher, Health Analysis Division Statistics Canada; Doug Roth, Chief Strategy Officer, The Heart and Stroke Foundation of Canada; Jack Tu, Senior Scientist, Institute for Clinical Evaluative Sciences

F6.3 Does Team-Based Primary Care Impact Outpatient Health Care Service Use and Associated Costs? The Case of Quebec's Family Medicine Groups

Erin Strumpf, Assistant Professor, McGill University, Department of Economics and Department of Epidemiology, Biostatistics and Occupational Health

To evaluate the impacts of team-based primary care delivery models on improving access to primary care and reducing avoidable specialist and hospital utilization. Specifically, we estimate the effects of Quebec's Family Medicine Groups (FMGs) on patterns of outpatient health service utilization and associated costs among elderly and chronically ill patients. We built an administrative, longitudinal dataset of the population of vulnerable patients (elderly or chronically ill) in Quebec, characterizing all individuals as FMG enrollees or not. Given the voluntary nature of FMG enrollment, we used propensity scores to match FMG and non-FMG enrollees based on demographic, socioeconomic, clinical, and health care utilization data in the two years preceding registration as vulnerable. Multivariate regressions were used to identify the average treatment effect of FMGs, incorporating negative binomial and generalized linear models to accommodate count data and the skewed distributions of the dependent variables of interest. We estimated the causal impacts of FMGs on the number of visits in three categories: primary care, specialist, and the emergency department (ED). We also measured the costs associated with these outpatient visits. Five years of post-enrollment longitudinal data allow an adequate follow-up period to observe changes in these outcomes. Preliminary results suggest that the number of primary care visits decreased by nearly 7% among FMG enrollees relative to patients not in FMGs. The number of visits to specialists declined by 3%, and declines in costs for both primary and specialist care were of roughly equal magnitudes. We found a significant decrease in the number of ED visits, though associated costs remained stable. The relative decline in FMG enrollees' use of primary care is surprising and warrants further investigation. Team-based primary care models have been advanced based on their potential to improve chronic disease management and reduce health care costs. Rigorous evaluations of these models will inform policymakers regarding their actual effects.

Co-Authors: Mehdi Ammi, Postdoctoral Fellow, McGill University, Department of Economics; Direction de la santé publique de Montréal; Mamadou Diop, Research Technician, Direction de santé publique de Montréal; Julie Fiset-Laniel, Research Assistant, Direction de santé publique de Montréal; Pierre Tousignant, Consultant, McGill University; Direction de santé publique de Montréal et Institut national de santé publique du Québec

F6.4 Integrating A Mental Health Promotion Strategy For Families In The Postpartum Period Within An Existing Public Health Program

Mariette Chartier, Research Scientist, Manitoba Centre for Health Policy, University of Manitoba

The study objective was to evaluate the usefulness of the Towards Flourishing Mental Health Promotion (TF-MHP) Strategy and to explore early impacts. This innovative strategy imbedded within a public health home visiting program aims to improve the mental well-being of parents with newborns through multiple levels of support. The TF MHP strategy includes training for public health staff, a new facilitator position to public health teams, screening, education and simple evidence based strategies for new parents and improved access to supports and services. The strategy was introduced to three public health teams and the families they serve. Semi-structured interviews were conducted with home visitors, public health nurses and parents between January to April 2012. Data from interview transcripts were grouped by measures and main categories. Topics from all interviews were then synthesized and regrouped using the codebook in an iterative process. Themes that emerged included considerations surrounding broaching the topic of mental well-being, utility of the TF-MPH tools, necessity of including fathers in discussions of mental health and some early positive impacts observed by service providers and families. Stigma, time pressures and economic hardship were identified as challenges to implementing the strategy. Themes noted regarding screening for mental health problems were considerations when introducing the screen, importance of existing strong relationships with the families and early impacts of screening. Parents reported that the everyday strategies fostered relaxation, positive thoughts and feelings and improved their awareness of available resources. Suggestions to improve the tools included aligning content with the literacy levels of families, ensuring personnel are trained, and encouraging flexibility in the language used to discuss mental health. The TF-MHP Strategy was viewed as acceptable and useful to parents, home visitors and public health nurses. The study confirmed the feasibility of integrating mental health promotion within public health practice. Further research is required to evaluate if the strategy is effective at improving the mental health outcomes of parents with newborns.

Co-Authors: Dhiwya Attawar, Ms, University of Manitoba; Jennifer Volk, Dr., Healthy Child Manitoba; Farzana Quddus, Ms, University of Manitoba; Julie-Anne McCarthy, Ms, Sacred Heart University

Thursday, May 30, 2013

STREAM G: 1:15pm – 2:30pm

Jeudi 30 mai 2013

VOLET G : 13h15 – 14h30

**G1 HEALTHCARE LEADERSHIP
AND PATIENT CENTRED CARE**

**LEADERSHIP DANS LES SERVICES DE
SANTÉ ET SOINS AXÉS SUR LE PATIENT**

G1.1 Mental Health Inpatients' Experience In An Interprofessional Collaborative Care Setting

Brenda Gamble, Dr., University of Ontario Institute of Technology

To document and analyze the experiences of mental health patients in an Ontario community-based hospital, which is using an interprofessional care (IPC) approach to deliver care at the mental health unit. To identify benefits and challenges of this patient centred approach from the perspective of patients and health/social care providers. Data collection for this case study includes observations, a paper-based questionnaire, and semi-structured interviews with health/social providers and patients. The questionnaire includes items to determine views on IPC and patient involvement. Observational data was collected weekly during IPC rounds in the hospital's mental health unit. The purpose of the observations is to gain a better understanding of the collaborative process and to inform the selection of health/social providers for the interviews. The sample for the interviews will include health/social providers (~10-15) and patients (~10). Interviews are ongoing. The interprofessional care practice framework, integrating patient experience will guide data analysis. The results presented are based on the data collected from IPC rounds. The collaborative process often excluded patients from the discussion of the treatment and discharge plans. It was not clear how patients were made aware of their discharge plans or what alternatives of care were available. Physicians were not always present during IPC rounds at the clinic. Group dynamics varied based on who led the discussion during rounds. For example, the discussions led by the Nurse Manager resulted in sessions that involved input from many of the team members. Discussions led by the physicians, when present, lacked equal participation by team members. A recurring issue presented during IPC rounds involved delays in patient discharge and shortage of beds in the unit. Involving patients in IPC has the potential to improve the patient's experience. Preliminary results indicate that including the patient in IPC requires providers to place the patient at the centre of care. One example would be to involve patients in discharge planning to expedite the discharge process.

Co-Authors: May Helfawi, Master of Health Sciences Candidat, University of Ontario Institute of Technology; University of Ontario Institute of Technology; Paul Yelder, PhD, Associate Dean, Assistant Professor at the Faculty of Health Sciences, University of Ontario Institute of Technology

G1.2 Wait Time for Scheduled Surgery: A Complex Patient Experience

Tracey Carr, University of Saskatchewan

The aim of this study was to understand experiences of wait time among patients awaiting scheduled surgery in a tertiary centre serving a general population of 500,000 in Saskatchewan, Canada. Forty patients awaiting orthopaedic or cardiac surgery were recruited by surgeons in the fall and winter of 2009-10. Those patients awaiting hip, knee, or shoulder surgery were interviewed when the decision to treat was made and again at the midpoint of their waiting period. Cardiac surgery patients were interviewed after their angiography and consent to surgery and again the day prior to surgery. Using a qualitative interview approach, participants were asked about their wait time experiences, including effects of waiting. Interpretative phenomenological analysis was used to analyze the data. Patient experiences of wait time were varied and included reports of restriction, uncertainty, resignation, coping, and opportunity. These dominant themes were evident with participants from each surgical group. The nature of restriction and uncertainty differed between participants awaiting orthopaedic and cardiac surgery where participants awaiting orthopaedic surgery experienced pain and disability and participants awaiting cardiac surgery reported greater fatigue and role restriction. Despite the limitations of wait time, many participants were resigned to wait as waiting was seen as part of the healthcare system and waiting 'your turn'. Comparing one's condition to a hypothetical 'someone worse' allowed coping with wait time. Some participants from all groups described wait time as opportunity to prepare for surgery or to explore new uses for their time. These participants' waiting experiences indicate a non-linear relationship between greater symptom severity and less tolerance for wait time. This research suggests healthcare resources be focused on alleviating the deleterious effects of waiting, such as restriction and uncertainty, for some patients rather than reducing absolute wait times for all patients.

Co-Authors: Ulrich Teucher, Dr., University of Saskatchewan; Alan Casson, Dr., University of Saskatchewan

G1.3 The Cost-Effectiveness of a Nurse Practitioner-Led Care Transition Intervention in Ontario, Canada

Natasha Lane, MD/PhD Student, University of Toronto

The cost-effectiveness of care transition interventions at reducing readmissions and Emergency Department (ED) visits has not been studied in the Canadian context. This study addresses this knowledge gap by examining the cost-effectiveness of a Nurse Practitioner (NP)-led care transition program at reducing readmissions and ED visits among high-risk Ontario seniors. A convenience sample of patients 65 years or older was recruited from two Ontario hospitals prior to discharge from an acute care episode. The LACE Index screening tool was used to select patients at high risk of readmission. Administrative data on the age, gender, LACE and Case Mix Group-matched cohort discharged from the same hospitals prior to the intervention were used as a comparator group. Post-discharge readmissions and ED visits at 7, 30, 60, and 90-days for both groups were identified from administrative data. The cost-effectiveness analysis was performed from the public payer perspective (Ontario Ministry of Health). A total of 69 patients received the NP-led care transition intervention. The median age of the sample was 83 years and 51% were females. Unplanned readmissions accounted for the largest component of health care costs in the intervention group. Differences in readmission rates between the intervention and comparator group were relatively small compared with the high additional cost of the intervention. Preliminary findings indicate that care transition programs may not be cost-effective at reducing readmissions and ER visits in the current study context. A sensitivity analysis further divided the intervention group by LACE score and illustrated that the intervention may be of higher value among sicker patients. Cost-effectiveness of this care transition intervention is heavily dependent upon the number of readmissions or ED visits, however significant differences in readmissions and associated costs may only be detectable in larger samples. The current NP-led care transition intervention showed the greatest marginal benefit for individuals at high risk of readmission.

Co-Authors: Kristen B. Pitzul, Ms., University of Toronto; Audrey Laporte, Dr., University of Toronto; Eric Nauenberg, Dr., University of Toronto; Walter P. Wodchis, Dr., University of Toronto

G1.4 Ontario's Emergency Department Process Improvement Program (ED-PIP): A Qualitative Evaluation

Chelsea Hellings, Research Coordinator Lead, Institute for Clinical Evaluative Sciences (ICES)

In 2008 Ontario launched the ER/ALC Wait Time Strategy to reduce Emergency Department length-of-stay (ED LOS) and reduce overcrowding. One intervention was the ED Process Improvement Program (ED-PIP), a structured 7-8 month program based on Lean management principles to improve patient flow in hospitals. ED-PIP was fully implemented in 54 hospitals in four 'waves' from 2009 to 2011, with 5-18 hospitals per wave. We sought to identify hospital organizational, cultural and contextual determinants of perceived success of ED-PIP, and to compare these between hospitals that did and did not improve their ED LOS. We conducted a qualitative evaluation based on semi-structured interviews with implementation team members at 10 purposively selected hospitals based on their improvement in median ED length-of-stay after ED-PIP. We selected from among sites that improved the most, but also included some sites which did not improve following ED-PIP. We used a thematic framework approach for interviews and a standard coding framework was developed. 24 interviews were coded among 9 physicians, 7 nurses, and 8 administrators and managers. Analysis of transcripts revealed 8 themes and within each we identified important sub-themes. The themes were the local context and organization's history with quality improvement initiatives, senior leader engagement and support, the role of on-site coaches, preparation and team selection, managing expectations, staff engagement, collaboration and communication, performance measurement and accountability. The most striking differentiating factor between hospitals that saw reductions in ED LOS vs. those that did not was the extent of executive (specifically CEO) support. Several key factors were identified as important to the success of ED-PIP. Explicit incorporation of them into the development and implementation of future similar interventions in health care settings could be useful. Qualitative research findings are not intended to be generalizable to an entire population but rather key insights and themes are transferable across similar groups/settings.

Co-Authors: Michael Schull, Senior Scientist, Institute for Clinical Evaluative Sciences (ICES); Robert Bell, President and CEO, University Health Network; Leahora Rotteau, Program Manager, University of Toronto Centre for Patient Safety; Fiona Webster, Professor, Department of Family Medicine, University of Toronto

G2 EQUITY

ÉQUITÉ

G2.1 Private Provision And Insurance Of Diagnostic Services Across Canada

Nathaniel De Bono, Project Manager, International Research Infrastructure on Social Inequalities in Health; Renee Carter, Ms., McGill University Department of Epidemiology, Biostatistics and Occupational Health

1. To summarize legislative changes in the public and private financing of diagnostic testing in Canada from 1990 to 2010. 2. To describe the implementation of private for-profit markets for diagnostic testing and their implications for patient pathways in accessing these services. Policy data on the financing and provision of diagnostic care services in each Canadian province were extracted from the Health Insurance Access Database (HIAD), a dataset of policy indicators characterizing the interplay between public health insurance coverage and private expenditure regulations since 1990. HIAD data are collected through focused literature reviews of legislative and academic sources. Data quality was verified using a multi-stage content review procedure. Key policy indicators of the legality of private for-profit diagnostic care, sources of insurance coverage, and out-of-pocket payment regulation between 1990 and 2010 were extracted and analyzed in a spreadsheet to facilitate interpretation. The purchase of duplicative private health insurance (DPHI) is explicitly illegal for services covered by the public plan in five provinces: Alberta, British Columbia, Manitoba, Ontario, and P.E.I. However, we note the expansion of for-profit diagnostic clinics in Alberta, British Columbia and Ontario since the mid-1990s. In provinces where the DPHI is not explicitly legislated, namely Saskatchewan, New Brunswick, Nova Scotia, and Newfoundland, we also observe a more recent emergence of for-profit diagnostic clinics from 2005 onwards. Quebec stands out from other provinces by allowing DPHI for diagnostic services since 2005, which was concurrent with the emergence of private clinics in this province. Of note, none of the provinces have made legal provisions regulating the out of pocket payments borne by patients. A private market for diagnostic testing exists in various Canadian provinces, with DPHI legal in only one province. This two-tiered system of care may threaten both horizontal and vertical equity, i.e. not only equal access to diagnostic services for equal need, but also faster access to care given greater need.

Co-Authors: Renee Carter, Ms., McGill; Amélie Quesnel-Vallée, Dr., McGill University

G2.2 Access To Occupational Therapy In Home Care: Will Low Priority Referrals Ever Get Their Turn?

Marie-Hélène Raymond, Occupational therapist and Ph.D. Candidate, Université de Montréal

Referral prioritization is often used in health services where demand largely surpasses supply, but little is known about the fate of low priority referrals. This study describes waiting list management practices for low priority referrals in home based occupational therapy in Quebec, and their association with maximal wait times. A telephone survey was conducted with the person who manages the occupational therapy wait list in 53 home care programs across the province of Quebec (90% response rate). Structured interviews included questions about referral prioritization tools and criteria, as well policies and practices for assigning low priority cases. Maximal wait times were determined by asking the date of the oldest referral. Results were analyzed using descriptive statistics as well as non parametric tests due to the non normal distribution of maximal wait times. The median for maximal wait times is 18.0 months (interquartile range 19.8 months). Management practices for low priority referrals were classified into three groups. In Group 1 (n=3D 29,) low priority referrals can only be seen if there is no higher priority referral on the waiting list. Group 2 programs (n=3D12) informally try to assign low priority referrals on occasion despite the fact that there are higher priority referrals on the waiting list. Group 3 programs (n=3D12) have wait time benchmarks after which cases are assigned even if there are higher priority referrals on the waiting list. A Kruskal-Wallis Test revealed a statistically significant difference (p =3D 0.001) in maximal wait times between group 1 (median 27.0 months) and group 3 (median 11.5 months). Formal wait time benchmarks can have a significant impact on reducing wait times for low priority referrals in home based occupational therapy. However, further research is needed to establish the clinical impacts of waiting for these services, both for high priority and low priority patients.

Co-Authors: Debbie Feldman, Professor, Université de Montréal; Louise Demers, Professor, Université de Montréal

G2.3 Disparities In Treatment For Heart Attack And End-Stage Renal Disease Among Aboriginal Peoples In Canada

Sushma Mathur, Manager, Canadian Population Health Initiative, Canadian Institute for Health Information

The purpose of the two studies was to examine whether disparities exist between Aboriginal peoples and others in Canada on rates of heart attack and end-stage renal disease (ESRD), treatment-related factors (socio-demographics, complexity of condition and distance to treatment) and outcomes. While both studies used a patient population aged 20 and over, they differed in data sources and methods: The study on heart attack used data from CIHI's Discharge Abstract Database (DAD) and it used an area-based approach to identify areas where a relatively high proportion of residents self-identified as First Nations because information about patients' ethnicity is not recorded consistently across the country. The study on ESRD used data from the Canadian Organ Replacement Register (CORR) at CIHI and it used an ethnic identifier to classify patients as Aboriginal and non-Aboriginal. Despite differences in methodology, the overall findings in the the studies were similar- there is a higher burden of the disease and lower rates of procedures for the Aboriginal population, but outcomes were similar to others in Canada. Compared to those living in areas with a lower proportion of Aboriginal peoples, residents of areas with a high proportion of First Nations were 76% more likely to be hospitalized for a heart attack. Similarly, Aboriginal peoples were three times as likely to seek treatment for ESRD compared with others in Canada. These patients were younger, more likely to have diabetes, travel further for treatment, and less likely to undergo kidney transplantation and specific non-surgical cardiac procedures. Both patient groups had similar outcomes following treatments. These studies suggest disparities exist in rates of heart attack, ESRD, and treatment-related factors for the Aboriginal population. Further research is required to explore the interrelationships between factors that contribute to underlying disparities in health and that influence treatment options; particularly, more timely and equitable treatment access for Aboriginal patients.

Co-Authors: Helen Wei, Project lead, Canadian Institute for Health Information

G2.4 Medications for Overactive Bladder: Reviewing Evidence to Quantify Harms and Benefits

Barbara Mintzes, Assistant Professor, School of Population and Public Health, University of British Columbia

Medications for overactive bladder (OAB) are commonly prescribed to older adults, including the frail elderly. Despite modest efficacy, the number of available OAB drugs has expanded, accompanied by marketing claims of improved adverse event profiles. Our objective was therefore to assess the harm-benefit ratios of available OAB drugs. A comparative systematic review was conducted on the antimuscarinic drug class, to determine which, if any, drug provided a therapeutic advantage in terms of outcomes relevant to patient health. The assessed drugs were oxybutynin, tolterodine, trospium, darifenacin, solifenacin and fesoterodine. For efficacy comparisons, trials that directly compared drugs or formulations were included. For harms, which may not be adequately identified in short-term trials, data were incorporated from a wider range of sources including observational studies, pharmacovigilance and published regulatory data. This approach was required to provide an overview of all the relevant evidence for drug benefit policy formulation. More than 2400 citations from multiple databases, including the Cochrane Incontinence Review Group Specialized Register, were screened for eligible studies. The majority of identified trials were short-term, with more direct comparisons available for older drugs such as oxybutynin and tolterodine. Few active comparator trials were available for newer drugs or formulations such as fesoterodine or oxybutynin gel, and adverse event reporting in trials was often incomplete. A summary of the comparative evidence on OAB drugs is presented, ordered according to importance to patient health, as is an assessment of the quality and limitations of the evidence. In particular, we discuss the policy implications of evidence synthesized for adverse events, including effects on cognition, in addition to the outcomes quality of life and incontinence. For OAB, a non-life-threatening condition, a review to differentiate treatment must incorporate adequate strategies for examining harms. The potential for harm, particularly in the elderly who are often subjected to polypharmacy and who may be increasingly vulnerable to central nervous system effects of drugs, must be considered in policy recommendations.

Co-Authors: Lorri Pui, Dr., Therapeutics Initiative, Department of Anesthesiology, Therapeutics and Pharmacology, University of British Columbia; Carolyn J. Green, Dr., Therapeutics Initiative, Department of Anesthesiology, Therapeutics and Pharmacology, University of British Columbia

G3 PRIMARY CARE

GESTION DES SOINS DE PREMIÈRE LIGNE

G3.1 Identifying Chronic Diseases in the Emergency Department: A Pilot Screening Intervention for Asymptomatic, Incidental Findings of Hypertension

Jennifer Riley, Emergency Physician, St. Michael's Hospital

Hypertension (HTN) is ubiquitous within the aging Canadian population and left untreated holds serious risk for cardiovascular, renal and cerebrovascular disease. The utility of an Emergency Department (ED)-based screening program that identified asymptomatic, incidental findings of elevated blood pressure (BP) in the context of an acute medical complaint was explored. In an academic, inner city, level-1 trauma centre patients ≥ 18 years of age with 2-asymptomatic BP readings ≥ 140 systolic or ≥ 90 diastolic during an ED visit were eligible. Those with a history of HTN, past or current use of HTN medication, unstable condition, incapacity to consent, or language barrier were excluded. At ED discharge all were given an intervention letter addressed to the family physician (FP) and advised to seek further evaluation with their FP. Utility was assessed at 6-weeks post ED discharge with primary outcome measure of completed follow-up and number of new HTN confirmed cases by FP. Across convenience sampling of weekdays/ends and ED shifts (2109 treated), 239 had 2-elevated BP readings, 122 ED-physician allowed approach and 73 (59.8%) consented [mean(SD) 47+16 years; 46(63%) male; 46(63%) housed, 14(19%) sheltered/homeless; 4(5%) substance abuse]. Of these, 49(67%) had BP readings ≥ 140 systolic, 49(67%) ≥ 90 diastolic and 25(34%) had both. Few had comorbidities: 32(40%) normal and 24(33%) overweight; 25(34%) smoked; 14(19%) high cholesterol; 4(5%) previous stroke or 2(3%) heart attack, and 29(40%) family history of HTN. While 59(81%) reported having a FP, utilization was low [mean(SD) 3 \pm 3 annual visits]. At 6-weeks, 51(86%) FPs were reached, confirming 31(61%) had been seen and 4 still had high BP, were diagnosed with HTN and treatment commenced. High utility of the intervention letter was reported by 14 FPs when received. A pilot, single site study has suggested that reporting asymptomatic, incidental HTN in the context of an unrelated ED visit may have the potential to identify at-risk patients who may otherwise be missed. Future implementation and evaluation must address consent to enable universal access to patients most likely to benefit.

Co-Authors: Melissa McGowan, Research Education Coordinator, St. Michael's Hospital; Krista Woolny, Research Assistant, St. Michael's Hospital; Laurie Morrison, Director, RESCU, St. Michael's Hospital

G3.2 Primary Health Care And Patient Safety: Does Primary Care Current Evolution Facilitate Patient Safety Improvement?

Ghislaine Tre, Ph.D., St Mary Hospital Center; Jeannie Haggerty, Ph.D, St Mary Hospital Center

The new approach to patient safety has made considerable inroads in the hospital environment but substantially less in primary care. This study reviewed the literature on patient safety in primary health care with the objective of assessing whether current primary health care reforms are likely to impact positively on patient safety. We searched relevant databases for articles on patient safety and primary health care --Medline, Cinhal, ProQuest (ABIInform), in scientific and management journals with an emphasis on health services research. First, with a combination of key words : primary care and change; primary care and patient safety from 2000 -2012 and using search terms such as incidence (frequency), nature (classification), interventions. In addition through the review process some articles were identified. From these selected papers we analysed 31 papers retained from this stage of the analysis such as reviews; experimental and case studies, and opinion papers. Adverse events in primary care occur in 10-to-25% of visits even though the severity of most is only low-to-moderate compared with hospital errors. The two most common events in primary health care are failures or delays in diagnosis and medication prescription errors. International comparisons show that better patient safety is associated with well-coordinated care. A comparison of characteristics of coordinated care and a patient safety culture shows various commonalities including a systemic and comprehensive organizational processes and a proactive culture. However, an analysis of the prevailing primary care reforms indicates a preoccupation with access. Although some coordination structures have been added, little attention has been given to process to ensure well coordinated care. Consequently, patient safety issues may persist. The nature of primary health care poses some barriers to a patient safety culture. It is at an early stages in terms of patient safety awareness, a pre-condition to a patient safety culture. However, emphasising processes for well-coordinated care is expected to also lead to better patient safety.

Co-Authors: Jeannie Haggerty, PhD, McGill University

G3.3 Understanding Informational Continuity Practices within Interprofessional Primary Care Teams

Erin Wilson, Family Nurse Practitioner and Doctoral Student, University of Northern British Columbia

While it is well known that effective interprofessional teams promote informational continuity that is relevant for all team members, little is understood how this occurs in everyday practice. This presentation explores how informational continuity can advance opportunities for team members to develop and sustain therapeutic relationships with shared patients. An intrinsic case study approach is utilized to examine practices of documentation as reflected within an electronic health record in an interprofessional family practice where family physicians and nurse practitioners share patients. Interviews with providers clarify the intentionality of the practices. Utilizing a progressive focusing technique, patterns of documentation practices are identified that foster informational continuity and contribute to refined understandings of this concept in practice. Particular documentation practices can facilitate appropriate transfer of information about the patient that is relevant to providers of different disciplines. In this case study, a shift was noted whereby information that is identified as tacit within solo practices, such as patient values, preferences and interests, became explicit through intentional practices of documentation within an interprofessional team. Providers perceived efficiencies through changes in documentation practices that improved not only informational continuity, but also relational and management continuity with patients. Examples of these practices will be provided in the presentation. Changes in documentation have the potential to reduce occurrences of patients receiving conflicting advice, decrease duplication of services, and increase the satisfaction of patients in feeling known by a team. Through refining current understandings of how informational continuity is provided at the practice level, current discourse on this topic can begin to elaborate how providers might engage in providing continuity within interprofessional teams. Future research includes assessing patient experiences and exploration of how students are trained in documentation practices.

Co-Authors: Gerrard Prigmore, Dr., University of Northern British Columbia; Martha MacLeod, Dr., University of Northern British Columbia

G3.4 Activity Based Funding in British Columbia: Changes in Activity?

Jason Sutherland, UBC Centre for Health Services and Policy Research; Guiping Liu, Dr., UBC Centre for Health Services and Policy Research; Nadya Repin, M.A., UBC Centre for Health Services and Policy Research; Trafford Crump, Dr., UBC Centre for Health Services and Policy Research

A fundamental change to the method of funding acute hospitals was implemented in British Columbia (BC) in April 2010, to partially fund hospitals based on the activities they perform (Activity Based Funding). This research examines the impact of ABF on changes in access to the health system in BC. We analyse hospital discharge data for the population of residents of BC. Inpatient and day surgery activity for monthly reporting periods are analysed over time from 2006-2007 to 2011-2012. We apply time series models with an intervention effect to test the statistical significance of ABF on change in surgical volumes. The number of inpatient and day surgeries has been increasing in health authorities (HAs) across BC over the study period, with the exception of Northern Health. Fraser and Vancouver Coastal Health have experienced the largest increases. For inpatient surgeries, over the last 5 years, there has been almost no change in surgical volumes for Northern, Interior and Vancouver Island Health. There has been a long-term, though small, increase in day surgeries in Interior and Vancouver Island Health. Day surgery volumes in Fraser and Vancouver Coastal Health show steady increases. The analytical results of the time-series models indicate that there is no intervention effect of the ABF program on the changes in surgical volumes over time in all five health authorities. Hospital discharge data provides one perspective regarding changes to the BC healthcare system. Our analyses indicate that increasing volumes of surgery are long-term and fail to correspond to ABF reforms. Newer data may indicate that hospitals displayed a delayed response to reforms, with effects yet to be observed.

Co-Authors: Nadya Repin, Research Coordinator, UBC Centre for Health Services and Policy Research; Trafford Crump, Post-Doctoral Fellow, UBC Centre for Health Services and Policy Research; Jason Sutherland, Assistant Professor, UBC Centre for Health Services and Policy Research

G4 PERFORMANCE MANAGEMENT

GESTION DU RENDEMENT

G4.1 Scoping Review: Patients Using Telehealth For Spinal Cord Injury (SCI)

Navindra Baldeo, Mr, University of Toronto

This study explores understandings of telehealth interventions for those with spinal cord injury (SCI), a population that experiences mobility challenges. As this mode of health services delivery increases in the Canadian context, it will be important to examine complexities of uptake, especially in the home where provider-patient interaction may occur. Past reviews show that telehealth applications for SCI are understudied when compared with telehealth applications for other conditions such as heart health and diabetes. We conducted a scoping review about telehealth and SCI which is useful for understanding the extent of current research, identifying gaps in the literature, clarifying concepts, and addressing questions beyond those related to technological effectiveness. Scoping reviews are ideal for topics with emerging evidence, and our approach involved an array of interdisciplinary search engines to try finding different perspectives germane to the topic. A charting process was used to sort data and discover emerging themes. We identified 43 studies in our original search and then abstracted data from 14 studies which met our inclusion criteria. Most studies focused on technical usability and economic aspects of telehealth interventions. There is little perspective from patients and how they actually interact with telehealth interventions, which is surprising since in order for telehealth to become more routine in practice, both technical and social adaptation is required. Various theoretical frameworks may help to introduce more patient perspectives and help facilitate new ways of thinking about telehealth interventions for SCI patients. Specifically, socio-technical and health geography lenses were applied to consider situated social relationships, the complex dynamics involved in changing sites of care, and to analyze the available literature more critically. It is important to understand more of the social implications of telehealth for SCI patients as telehealth has the capacity to reorganize health care practices and responsibilities. The technology can be both enabling and constraining for those receiving care through telehealth space and more critical work in this area is required.

Co-Authors: Farah Ahmad, York University; Fiona Webster, University of Toronto

G4.2 Measuring And Explaining Health System Efficiency Across Canada's Health Regions

Sara Allin, Senior Researcher, Canadian Institute for Health Information; Michel Grignon, Professor, McMaster University

There is widespread interest among health system leaders and stakeholders in improving value for money in the health system. The objective of this study is to measure health system efficiency and to identify factors that help explain variations in efficiency across Canada's health regions. Following consultations with health system decision makers, we considered the health region as the decision making unit (DMU) that makes use of inputs (measured as provincial ministry of health spending on hospitals, physicians, residential care facilities, and community nurses) to produce an outcome (measured as fewer potential years of life lost, PYLL, due to treatable causes). With data from Statistics Canada and CIHI, we calculated efficiency scores using the linear programming model, Data Envelopment Analysis (DEA). We then compared highly efficient 'frontier' regions to remaining regions to identify the environmental and health system factors that are associated with higher efficiency. Preliminary results from the DEA yielded an average efficiency score of 0.66: potential years of life lost could be reduced by 34% on average across the health regions, holding all inputs constant, if they used their resources more efficiently. Regions with a higher proportion of general practitioners (GPs) relative to specialist physicians were more likely to be efficient. Environmental measures associated with efficiency included the proportion physically active in the population. Measures of within-region inequalities in overall health and physician visits were not significantly associated with efficiency (based on t test comparison of means). A regression analysis of the efficiency score on environmental and health system factors revealed similar findings. The efficiency with which health regions use public resources to reduce treatable PYLL varies across the country, and appears to be affected by environmental characteristics as well as the ratio of GPs to specialist physicians. Further work will explore the sensitivity of these results to alternative measures of input costs, as well as complementing PYLL with a measure of quality of life.

Co-Authors: Diana Ridgeway, Dr, Canadian Institute for Health Information; Li Wang, Ms, McMaster University; Michel Grignon, Professor, McMaster University

G4.3 A Scoping Review of Preferred Burden of Injury Measures to Inform Policy-Relevant Decision Making for Trauma Systems

Samantha Pollard, MSc., University of British Columbia

Decision makers are challenged in selecting population-level burden of injury (BOI) performance metrics around which to design trauma systems. This scoping review aimed to determine the range and frequency of BOI measures currently reported in the published literature, and to assess the feasibility of these metrics for practical use. Medline, Embase and CINAHL were searched using keywords and MeSH headings. Papers were selected if they reported one or more population level BOI metric, or if they provided a detailed critique of existing metrics. Review of potentially eligible papers and data abstraction was conducted independently by two reviewers. Hand searching was carried out to obtain publicly available reports not indexed in the medical databases. Of 3460 references retrieved by electronic search, 528 were reviewed in full text. Following the inclusion of hand searched papers, 250 were selected for inclusion. Five broad categories of burden of injury metrics were identified. (1) Direct costs (e.g. hospitalizations and treatment cost) - 54% of included papers calculated direct costs. (2) Indirect costs (e.g. employment compensation and rehabilitation cost) - 40% of papers. (3) Productivity losses as a result of injury (e.g. potentially productive years of life lost and sick days used) - 12% of papers. (4) Morbidity metrics (e.g. disability adjusted life years [DALYs]) - 20% of papers. (5) Composite mortality metrics (e.g. years of life lost) - 16% of papers. Seven additional selected papers were critiques of existing metrics, and were also reviewed. The most frequently discussed BOI metrics were direct costs, DALYs and potential years of life lost (PYLL). The most frequently used data sources were hospital administrative data, and large-scale population-level surveys. Although direct and indirect cost were the most frequently reported metrics, reliable estimates may be problematic to derive given limited population level data. Alternatively, the DALY and PYLL, also commonly reported, are more easily calculated and may more practicably serve as comparable population-level measures reflecting societal, rather than purely financial burden.

Co-Authors: David Evans, Dr., Vancouver Coastal Health

G4.4 How Well Is Chronic Kidney Disease Managed In Primary Care?

Karen Tu, Scientist, Associate Professor, Family Physician, ICES, University of Toronto, UHN

Chronic kidney disease (CKD) is common with the prevalence estimated to be up to 36% of the elderly population. Previous studies have suggested that there are care and knowledge gaps about CKD amongst primary care physicians. We set out to assess the quality of CKD care amongst primary care physicians. Using the Electronic Medical Record Administrative data Linked Database (EMRALD) containing data from 162 primary care physicians contributing data on over 125000 adult patients in Ontario, Canada, we identified the patients with at least two at least two eGFRs <60 ml/min/1.73m² >3 months apart indicating stage 3 CKD and applied a variety of quality of care indicators. There were 11673 (9.3%) patients that met criteria for stage 3 kidney disease. Amongst these patients only 46% had their urinary albumin/creatinine ratio measured in the last 24 months, although 85% had their blood pressure recorded in the last 12 months, only 42% had a blood pressure of < 130/90 mmHg. Similarly, 65% had their LDL tested in the last 15 months but only 39% had their LDL <2.0mmol/L and only 43% who had their LDL >2.0 mmol/L were on a statin. Of the patients with diabetes or proteinuria 73% were on an ACE or ARB and 90%. Of the patients with diabetes had their Hgb A1c tested in the last 12 months and 63% had their Hgb A1c < 7.0%. Although physicians were performing relatively well on some of the process measures for CKD care, there is a definite need for improvement in getting patients with CKD to reach quality targets.

Co-Authors: Jacqueline Young, Health Informatician, ICES

G5 QUALITY AND SAFETY

QUALITÉ ET SÉCURITÉ DES SOINS DE SANTÉ

G5.1 Patient Outcomes Of Hip Resurfacing Compared To Total Hip Arthroplasty: A Systematic Review

Karen Pykerman, Research Associate, University of Calgary

Hip resurfacing (HR) was developed for younger, more active patients, as a surgical alternative to total hip arthroplasty (THA). The safety of metal-on-metal HR is controversial with concerns over adverse events and early device failure. We conducted a systematic review comparing HR to conventional THA for patients with osteoarthritis (OA). Studies were identified through electronic databases, grey literature and reference lists of included studies. Inclusion criteria were: English language studies published after 1996 reporting adverse events, complications, safety issues or revision rates with respect to adults with primary hip OA, who underwent either primary HR or THA. Outcomes of interest included: revision, reoperation, dislocation, infection/sepsis, femoral neck fractures, time to revision, rates of early failure, mortality, and post-operative component alignment. Results were reported per 1000 person years for comparability and stratified by age, publication date and market status (in-use and discontinued). A total of 7421 abstracts were identified and screened. Of these 384 full text articles were reviewed, 236 of which were included in this analysis. For all devices (those in-use and discontinued): dislocations were more frequent in THA than in HR (range 4.7-9.8 vs. 0.5-2.9 per 1000 person years, respectively); revisions and reoperations were more frequent in HR than THA (range 10.1-18.5 vs. 6.6-9.8 per 1000 person years and 6.7-7.8 vs. 1.5-5.4 per 1000 person years, respectively). An analysis of only devices currently in-use determined that early revisions/reoperations were more frequent in HR than in THA (range 3.1-13.1 vs. 1.9-7.5 per 1000 person years, respectively). This review provides clinicians and health policy-makers information on adverse event rates. Adverse event rates vary by device type, making it challenging to conclude which device is more effective. Findings highlight the importance of differentiating market status and standardizing exposure time by 1000 person years to facilitate comparisons between studies.

Co-Authors: Cy Frank, Executive Director, Alberta Bone & Joint Health Institute; Tom Noseworthy, Professor, Associate Chief Medical Health Officer, Strategic Clinical Networks and Clinical Care Pathways, University of Calgary, Alberta Health Services; Diane Lorenzetti, Research Librarian, University of Calgary; Jason Werle, Clinical Associate Professor and Head, Division of Joint Reconstruction, Department of Surgery, University of Calgary; Tracy Wasylak, Vice President - Strategic Clinical Networks & Clinical Care Pathways, Alberta Health Services; Don A. Dick, Senior Medical Director - Bone & Joint Strategic Clinical Network, Alberta Health Services; Greg O'Connor, Associate Clinical Professor, University of Alberta; Deborah A. Marshall, Associate Professor; Canada Research Chair, Health Systems and Services Research; Arthur J.E. Child Chair, Rheumatology Research, University of Calgary, Alberta Bone & Joint Health Institute

G5.2 Automated Adverse Events Detection Methods: A Critical Review Of The Literature

Christian Rochefort, Assistant Professor, McGill University

The increased use of electronic medical records, along with the development of automated methods for encoding and classifying electronic data, offers an exciting opportunity to develop novel methods of adverse event (AE) detection. The purpose of this literature review was to critically assess studies examining the accuracy of these methods. Relevant studies, published in any languages, were identified through an extensive search of the PubMed database (January 1990 - December 2012) using combinations of selected keywords. Additional studies were identified using bibliographic review of the key articles retrieved, and the 'related articles' feature of PubMed. Studies were included in the review if they: a) were conducted in an inpatient setting, b) described an automated AE detection method, and c) assessed the accuracy of the automated method of AE detection in comparison with a gold standard assessment of the medical chart. The methodological quality of each study was assessed using published criteria. We identified 37 studies assessing the accuracy of automated method of AE detection. Methods based on discharge diagnostic codes generally result in low sensitivity and positive predictive value, mainly because AEs are poorly represented within the International Classification of Diseases (ICD) coding systems, and because ICD codes are not dated; making it difficult to determine whether a condition was present on admission or occurred during a hospital stay. Similarly, methods based on electronic triggers (e.g., abnormal laboratory results) have low sensitivity and positive predictive value. Novel methods of AE detection, such as natural language processing and machine learning, promise improved accuracy by allowing for the capture and classification of the rich information contained in free-text clinical narratives. The methodological quality of the studies varied widely. Automated methods of AE detection offer a potentially more accurate and cost-effective alternative to traditional methods. However, their accuracy varies widely, thus limiting their widespread utilization in the inpatient settings. Natural language processing and machine learning techniques applied on clinical narratives may greatly improve the accuracy of automated AE detection.

Co-Authors: David Buckridge, MD, Ph.D., McGill University; Forster Allan, MD, M.Sc., The Ottawa Hospital

G5.3 Optimizing Care For Seniors With Colon Cancer: Utilizing Patterns Of Healthcare Use To Reduce Postoperative Emergency Room Readmissions

Aliya Ramjaun, MSc (Epidemiology) Graduate Student, McGill Clinical and Health Informatics Research Group

Emergency room readmissions (ERRs) are important markers for surgical quality of care and cost-efficient care delivery. Using administrative healthcare data, we aimed to identify ERR predictors in seniors undergoing colon cancer surgery. Risk-profiling using electronically-available data will allow clinicians to provide, at real-time, optimized preoperative care for high-risk surgical candidates. Administrative claims provided by Quebec's healthcare insurance provider (RAMQ) and hospitalization data were used to identify patients 65 years and older receiving colon cancer surgery between January 1, 2000 and December 31, 2006. Using a one-year look-back period, ICD-9 and generic drug codes were used to assess patients' history of clinically relevant comorbidities known to adversely affect independent functioning. Service claims, hospitalization and prescription data were used to characterize patterns of healthcare use (i.e. ED visits, hospitalization for falls). Following bivariate analyses, a backwards-stepwise logistic regression was used to quantify risk factors for ERR occurring within 30 days of discharge. 3789 patients (median age: 76) were eligible for inclusion in the cohort, of which 54.32% were women. The number of emergency department visits made in the year prior to surgery, unrelated to colon cancer, independently predicted postoperative ERR (an 11% increase with each additional visit (1.11 (1.05, 1.19)). Visiting the emergency department for symptoms related to an impending colon cancer diagnosis within 30 days preceding surgery also predicted ERR (a 24% increase for individuals who made a visit (OR: 1.24 (1.04, 1.48)). Finally, patients with increased medication use, as measured by the number of unique medications prescribed to a patient in the six months prior to surgery, were found to have higher odds of experiencing ERR (a 4% increase with each additional medication, OR: 1.04 (1.02, 1.06)). This study shows that patterns of healthcare use, as reflected by administrative data, may be used in predicting unplanned ERRs. This has important implications in developing health informatics applications that can be used in orchestrating appropriate clinical interventions to reduce the burden of ERRs, and therefore improve quality of care.

Co-Authors: Stanimira Krotneva, Research Coordinator, McGill Clinical and Health Informatics Research Group; Robyn Tamblin, Scientific Director, McGill Clinical and Health Informatics Research Group; Ari Meguerditchian, Assistant Professor, McGill Clinical and Health Informatics Research Group

G5.4 Do Interdisciplinary, Palliative Care Teams In The Community Lower Utilization And Costs?: A Pooled Analysis In Ontario

Hsien Seow, Cancer Care Ontario Research Chair in Health Services Research, McMaster University

Policymakers want to shift palliative care from hospitals to home but lack evidence as to effective team models. This study examined the evidence for lowered health services utilization and costs among 11 teams in Ontario. Each team provided access to a nurse educator-coordinator and palliative care physician expertise 24/7. The pooled-analysis examined health services utilization and cost outcomes for patients seen by 11 palliative care teams (exposed) in 11 regions in Ontario between 2009-2011. The exposed patients were matched, using propensity score, to an unexposed control group of patients receiving 'usual' end-of life homecare in the same regions. The outcomes were: i) ED visits and ii) hospitalizations in the last 2 weeks of life, iii) place of death, and iv) costs of health care in the last 2 months of life. We used statistical methods that account for the pooled and matched nature of the sample. Among the 11 teams, 3,109 exposed patients were propensity score matched to 3,109 unexposed patients. Average age at death was 73, half were female, and 80% had a diagnosis of cancer. Exposed patients were admitted into team care an average of 3 months before death. Overall, the pooled-analysis showed that exposed patients had a lower relative risk of having any hospital visits (0.68, 95% CI=0.61-0.76) or any ED visit (0.76, 95% CI=0.68-0.85) compared to unexposed patients in the last two weeks of life. The odds of dying in the hospital vs non-hospital death was greatly reduced for those exposed to the intervention. As well, exposure to the teams also was associated with reduced overall health system costs. The pooled-analysis of 11 distinct teams showed that exposure to the teams reduced the use of hospital and ED near death, odds of a hospital death, and lowered costs mainly through reduced hospitalizations. Policymakers should support the sustaining and spread of these team models.

Co-Authors: Kevin Brazil, Dr., Queens University Belfast; Lisa Barbera, Dr., Odette Cancer Centre; Jose Pereira, Dr., University of Ottawa; Peter Austin, Dr., Institute of Clinical Evaluative Science

G6.1 Using Case Study Methodology to Examine the Impact of Nurse Practitioner Led Group Medical Visits for Patients with Chronic Conditions in Primary Care

Laura Housden, MN-NP(F), Doctoral Candidate, University of British Columbia

The move to redesign primary care has led to a variety of innovations, including Group Medical Visits (GMVs) and Nurse Practitioners (NPs). This study provides a greater understanding of GMVs and the care provided by NPs, exploring the impact that GMVs with NPs have for patients with chronic conditions. A multi-site, instrumental case study design was used. The sites included 2 established GMVs with NPs and one emerging GMV with an NP. Both the structural domain and performance domain were examined. Methods included: Direct observation (in person and via video) of GMVs and individual interviews of patients, healthcare providers and other individuals who were involved in the GMVs. Impacts of GMVs were explored through use of the WHO's Impact Assessment Guidelines- examining impacts in the context of individuals social determinants of health. Within and across case comparisons were completed. Interviews were transcribed verbatim and analyzed using Nvivo. As more clinics are implementing GMVs with NPs, it is increasingly important to evaluate the impacts of these processes on both patients and healthcare providers. Using case-study methodology, this work will provide an in-depth perspective on the impacts GMVs have for patients with chronic health conditions and their healthcare providers. It will also explore the role of the NP, helping to provide a broader understanding of the unique or complimentary role that NPs bring to the primary care environment. Previous work examining GMVs has demonstrated that this method of healthcare delivery allows for increased time with healthcare providers, increased time spent on preventative care and increased patient satisfaction with care delivery. Both GMVs and NPs are being implemented more frequently in primary care. This study will provide a better understanding of GMVs and the unique or complimentary role of NPs through an exploration of the intersection of these 2 innovations in the context of primary care in BC.

Co-Authors: Sabrina Wong, Dr., UBC School of Nursing

G6.2 Is Having A Single Point Of Access For Patients Without A Family Physician Working As Planned? The Example Of The Province Of Quebec

Mylaine Breton, professeure adjointe, Université de Sherbrooke; Danièle Roberge, Professeure - Chercheure, Université de Sherbrooke

Access to family physicians is an important issue in Canada. Close to 21% of Canadians have no family physician; in Quebec that proportion is 28%. In response, some provinces have implemented a 'single point of access' to connect patients with family physicians. For example, Quebec has implemented 92 guichets d'accès aux clientèles orphelines (GACO) across the province. The objective of this study was to analyze these GACOs' performance over three years. Using clinical administrative databases from 2009 to 2012 for all 92 GACOs in Quebec, we analyzed their performance based on indicators developed with an advisory board of stakeholders and clinicians. Over those three years, the volume of patients referred to family physicians through GACOs increased significantly and changes were observed in the characteristics of referred patients. Following the introduction of a new incentive formula in November 2011, the volume of non-vulnerable patients referred to family physicians increased while the volume of vulnerable patients remained unchanged. We also observed an increase in physician-initiated patient referrals, that is, family physicians registering patients on their own initiative, as opposed to only taking on patients referred by the GACO. This practice is contrary to the main objective of the GACO, which is to refer orphan patients in a centralized registry to family physicians on the basis of clinical priority defined by nurses' assessments of patients' health status. The results showed that more than 70% of patient referrals over a six-month period were physician-initiated. One objective of GACOs was to increase the number of patients with a family physician. The results showed that more than 300,000 patients were referred to family physicians in the three years after the implementation of GACOs in 2008, a significant volume. However, the other goal of prioritizing vulnerable patients was not achieved. In fact, we observed an increase in referrals of non-vulnerable, or healthy, patients to family physicians over time.

Co-Authors: Mylaine Breton, PhD, Université de Sherbrooke; Astrid Brousselle, PhD, Université de Sherbrooke; Danièle Roberge, PhD, Université de Sherbrooke

G6.3 Cost Offsets From A Housing First Intervention For Homeless People With Mental Illness : One-Year Results Of The At Home/Chez Soi

Eric Latimer, Professor, McGill University; Angela Ly, Student, Université de Montréal

We report on the efficacy of a Housing First intervention to improve housing outcomes for homeless people with mental illness, and evaluate its overall costs, from a societal perspective, in comparison with usual services in five cities: Vancouver, Winnipeg, Toronto, Montreal and Moncton. Results at one year will be presented. 2027 homeless people with mental illness entered a randomized trial of Housing First (HF) compared to treatment as usual (TAU). HF integrates treatment and rehabilitation services with rent subsidies. Participants with high needs (HN) received a more intensive clinical intervention than participants with moderate needs (MN). Service use and residential data were obtained through questionnaires administered at 6- and 3- month intervals. Actual costs of the intervention were used to replace self-reports, rendering our estimates of cost offsets more conservative. Total costs from a (partial) societal perspective were estimated for three consecutive six-month periods starting six months prior to baseline. No differences were significant at baseline. Follow-up rates exceeded 80% overall and were comparable between experimental and TAU groups. By the 6-12 month period, both HN and MN experimental participants were spending significantly more time stably housed (76.9% and 78% of nights respectively) compared to TAU (22.6% and 28.5%), and less in shelters (4.3% and 1.9%), compared to TAU (13.5% and 17.8%). HN participants receiving the intervention also spent less time in hospitals: 2.4% of nights, vs 4.7% for TAU. On average, by the 6-12 month period, HN participants receiving the intervention cost \$47,682, compared to \$42,992 for TAU participants (\$4,690 more, or 11%). For MN participants the corresponding figures were \$36,273 compared to \$31,998, or \$4,275 (13%) more. Housing First significantly increased time housed, while reductions in use of shelters and other resources largely offset intervention costs. It would be highly cost-effective to generalize Housing First programs to a much greater number of homeless people with mental illness in Canada.

Co-Authors: Angela Ly, Ms, Douglas Institute; Daniel Rabouin, Mr, Douglas Institute; Yuxi Shi, Ms, Douglas Institute

G6.4 Locating Invisible Policies: Health Canada's Evacuation Policy as a Case Study

Karen Lawford, Doctoral Student, University of Ottawa

Provide analytical tools to identify invisible policies, using Health Canada's evacuation policy as a case study. In so doing, it provides a useful approach for understanding 'invisible policies', while also addressing a gap in the policy analysis literature. The paper examines the characteristics of 'invisible policies'; unarticulated policies applied by governments that can result in jurisdictional gaps between federal and provincial governments. Based on the allocation of resources, material impacts of, and reactions to the 'invisible policy', analytical tools are proposed for identifying and analyzing 'invisible policies'. Health Canada's policy of evacuating pregnant First Nations women from their communities to hospitals in cities for delivery is used as a case study. The paper illustrates the potential use of identifying and analyzing 'invisible policies'. An examination of Health Canada's 'invisible' evacuation policy reveals a gap between federal and provincial health care systems related to maternity care services for this particular group of women. The absence of a clearly articulated policy means that provincial policies are not linked to the federal evacuation policy, resulting in dependence on individual practitioners for the success, or failure, of maternity care services for First Nations women. Jurisdictional incongruencies between federal and provincial health care systems further confound efforts to mitigate the impacts of the evacuation policy, in part, because the policy largely remains 'invisible.' Further, invisible maternity care policies contribute to fragmented health care systems for First Nations women, and as such, deserve attention and analysis. The purpose of this paper is to provide analytical tools to identify invisible policies. The lack of literature related to invisible policies demonstrates a shortage in this policy area. This paper provides an initial outline of how identify an invisible policy; such identification can assist in analyzing and make recommendations to improve a government's policy. I used Canada's evacuation policy for pregnant First Nations women living on reserves as a case study. By revealing the evacuation policy as a Canadian policy, I hope it will facilitate an evaluation of the resources necessary to improve the health of First Nations women and children.

Poster Presentations Guide / Guide des présentations d'affiches



Poster Presentations

**Sponsored by Michael Smith
Foundation for Health Research**

Tuesday, May 28, 2013

Présentations d'affiches

**Parraine par Michael Smith
Foundation for Health Research**

Mardi 28 mai 2013

A Monitoring, Evaluation and Learning System to Support the Implementation of Triple Aim in BC

Muneerah Kassam, Product Manager, Monitoring Evaluation & Learning System, Michael Smith Foundation for Health Research

Healthcare transformation using a Triple Aim approach is key to the BC Ministry of Health's Innovation and Change Agenda. In collaboration with the Ministry, MSFHR is building a Monitoring, Evaluation and Learning System (MELS) to enable evaluation of key healthcare reforms, beginning with the Integrated Primary and Community Care Initiative. To support Triple Aim evaluation, the development and implementation of MELS is taking a multi-faceted approach to capture and integrate a wide range of data including administrative data, patient reported outcomes, patient experience and provider data as well as integration-related data. MELS represents the opportunity to link Health Authority data with Ministry data in ways that do not currently exist to provide a comprehensive understanding of the health system. The key components of MELS include an evaluation and learning framework, a network of evaluators embedded into the regional health authorities, Expert Advisory Groups and a data collection and reporting system. The development of MELS is unfolding as its being implemented and applied to IPCC. Early signs of success are focused on building relationships and putting processes and supports in place to collect, analyze and use shared data. These include: .The MSFHR-funded networked-evaluators fostering iterative evaluation of local initiatives, while enabling province-wide coordination of primary data. Breaking down of barriers between long-standing data silos and an increase in the willingness of stakeholders to create a shared repository of health system data. Common regard for the importance that primary data, specifically patient reported outcomes and experience as well as provider data plays in examining healthcare improvements. This session will focus on the contribution of MELS to the implementation of Triple Aim in BC. Through its ability to gather and link together a wide range of health-related administrative and primary data, MELS will provide the BC healthcare community with access to a robust infrastructure capable of using triple aim dimensions to support continuous learning, improvement and decision-making at multiple levels of the health system.

Co-Authors: Heather Davidson, Assistant Deputy Minister, Health Planning and Innovation Division, BC Ministry of Health; Victoria Schuckel, Director, Research, Knowledge Translation & Library Services Branch, Health Planning and Innovation Division, BC Ministry of Health; Muneerah Kassam, Product Manager, Monitoring Evaluation and Learning System (MELS), Michael Smith Foundation for Health Research; Martin Schechter, Chief Scientific Officer, Michael Smith Foundation for Health Research

A New Explanatory Model of Emergency Department Use among Frail Community-dwelling Older Adults

Andrew Costa, Fellow / Assistant Professor (Part-time), ICES, Mount Sinai Hospital / McMaster University

Home care clients are at high risk for emergency department (ED) use. Approximately 8% of adults over the age of 65 in Ontario receive home care services. The objective of this study was to develop and validate a model to identify home care clients at risk for unplanned ED use. A multi-year, census-level cohort study was conducted on home care clients in two Canadian provinces (N=617,035). Census-level data from RAI Home Care assessments were linked to census-level ED records. A needs-based decision tree model, informed by the Andersen Behavioural Model, was created using manual Chi-Square Automatic Interaction Detection. The final model was validated on a separate data partition (N=154,262) and compared to the Elders Risk Assessment (ERA) Index and the Community Assessment Risk Screen (CARS). Multi-level analyses were conducted to test regional variation in model performance. Regression analyses determined the effect of predisposing and enabling factors within needs-based model strata. Overall, 41.2% of home care clients have at least one unplanned emergency department visit within 6 months of an assessment. Previous ED use, cardio-respiratory symptoms, cardiac conditions, and mood symptoms featured heavily in the decision tree model. The model provided good risk differentiation and perceived clinical utility. It achieved an area under the curve of 0.62 (95% CI: 0.61-0.62) and showed clear differentiation in Kaplan-Meier plots using validation data. Multi-level analyses showed no regional variation. The model significantly outperformed the ERA and CARS with respect to overall accuracy and perceived clinical utility. Predisposing and enabling characteristics provided little added differentiation beyond evaluated need. The model serves as a clear articulation of the chronic conditions and symptoms that drive emergency department visits. It can support the targeting of preventative services as well as better communication strategies with primary care. Results suggest that predisposing and enabling factors are neither necessary nor sufficient for ED use.

Co-Authors: John Hirdes, Professor, University of Waterloo

A Process For Crafting Evidence-Based Health Policy And Advocacy Communications

Monika Kastner, Banting Post-Doctoral Fellow, Li Ka Shing Knowledge Institute, St. Michael's Hospital

Our objective was to develop a transparent process to aid researchers and professional organizations in crafting implementable evidence-based health policy recommendations. Making these health policy recommendations in a thoughtful and pragmatic manner is a challenging but crucial task because evidence is often limited and values and feasibility concerns are predominant. Our goal was to apply the findings from a literature review of clinical guideline implementability to inform health policy recommendation development. Our review of four disciplines (medicine, psychology, business, and human factors/design) identified over 350 factors that improve guideline implementability. Using a collaborative and iterative process, we grouped these into five common themes. We organized these themes to create a transparent process for developing evidence-based recommendations and articulate a series of principles for those who construct and write them. We then applied the overall conceptual framework to health policy recommendation development and compared it to existing approaches in the field. In creating a broad framework on guideline implementability, we identified five key aspects of crafting evidence-based recommendations. These aspects routinely surfaced during the systematic review and were organizing features of how to create evidence-based recommendations. This approach is applicable to creating evidence-based policy recommendations because it addresses similar contextual problems (decision-makers have little time, experience information overload, and must consider resource constraints and societal values). The framework consists of two overarching concepts: Development of Content and Communication of Content. Development of Content includes synthesizing evidence and interpreting it based on considered judgment (a transparent interpretation of the evidence, taking into consideration wider values and norms) and feasibility. Communication of Content considers how to package and communicate the recommendations and is composed of message and format. This process for crafting evidence-based policy recommendations is based on a synthesis of four literatures, inferring broad applicability. This process can assist people who communicate evidence-based health policy recommendations by broadening the discussion (which currently focuses on evidence synthesis) and improving the content and communication of evidence-based health policy recommendations.

Co-Authors: Onil Bhattacharyya, Clinician Scientist, St. Michael's Hospital; Leigh Hayden, Research Manager, St. Michael's Hospital; Ananda Chatterjee, Research Associate, St. Michael's Hospital; Melissa Brouwers, Associate Professor, McMaster University

A Readily Available Tool to Measure Socio-Economic Status

Hiba Farhat, BSc, McGill University

This tool is generated in the context of a project to examine the impact of socio-economic status (SES) on health behavior change. The objective is to develop an indicator for SES that captures its multi-dimensional nature while using easily accessible variables. A cohort of 2456 patients, aged between 25-to-75 years, recruited from waiting rooms of 12 clinics and by random digit dialing in four health networks in Quebec. Using annual self-administered questionnaires, socio-demographic information and health behaviors were elicited. Using a split sample, cluster analysis was performed to create homogenous groups by education level, perceived financial situation, house ownership, retirement plan and the possession of complementary insurance. The cluster profiles were then transformed into criteria defining 3 SES groups while using minimal information to reach the most level of agreement with the cluster analysis results. The sample was divided into 3 SES groups as such: 1) high SES which represented 65% of the study population (high levels of education or high levels of perceived financial situation), 2) low SES representing 15% (low education levels and financial situation with the absence of at least the complementary insurance or retirement plan) and 3) middle SES representing 20% (medial levels of education or financial situation). The weighted Kappa statistic ($K=0.64$) indicated a substantial agreement between the definitional criteria and the cluster analysis results. The high SES group was then split into a 'high' group (university education AND high levels of perceived income) and a 'middle-high' group. These subsequent clusters related appropriately to other socio-demographic variables such as employment status, house ownership, and income. This classification of socio-economic status is a robust and readily available tool that can be utilized in health research.

Co-Authors: Steven Sanche, MSc, St. Mary's Research Centre; Fatima Bouharaoui, MSc, St. Mary's Research Centre; Jeannie Haggerty, PhD, McGill University

Accuracy Of Automated Detection Of Deep Vein Thrombosis (DVTs) In Acute Care Hospitalized Patients

Christian Rochefort, McGill University

Deep vein thrombosis (DVT) is a common complication of hospitalization. To prevent it, accurate and timely detection algorithms are needed. With the advent of automated methods for encoding and classifying electronic clinical data, an exciting opportunity has emerged to develop such algorithms. The objective of this study was to assess the accuracy of automated algorithms for detecting cases of lower extremity DVT (LEDVT) from electronic clinical data. All 735 patients who had a radiological exam for a suspected LEDVT were selected from a cohort of 43,212 patients admitted to an academic health center in Montreal (Canada) in 2010. The index radiological reports of these patients were manually coded to identify positive and negative cases of LEDVT. Support vector machine algorithms were applied to the coded radiology reports, and a 10-fold cross-validation scheme was used to assess their accuracy. To assess if gains in accuracy could be obtained by including additional data (e.g., comorbid conditions, risk factors, laboratory values), the areas under curve (AUCs) of algorithms with and without this data were compared. Overall, 162 (21.7%) of the 735 reports were positive for LEDVT. Patient with DVT were older, male and had a greater number of risk factors for DVT, such as active cancer, gait and mobility impairments, recent surgeries or recent hospital admissions. The sensitivity, specificity, PPV and NPV of the algorithm based solely on radiology reports were respectively 0.85 (95% CI: 0.77 - 0.92), 0.97 (95% CI 0.96 - 0.98), 0.89 (95% CI: 0.93 - 0.98) and 0.96 (95% CI: 0.93 - 0.98). The AUC of this algorithm was 0.98 (95% CI: 0.97, 0.99). No significant gain in accuracy was observed from adding electronic data to this algorithm. LEDVT can be accurately detected by an automated algorithm based on transcribed radiology reports. Because these reports are available in real-time, this algorithm could facilitate timely detection and early intervention. Additional research is needed to determine if other common complications of hospital care could be accurately detected by this method.

Co-Authors: Aman Verma, M.Sc., McGill; David Buckeridge, Ph.D., McGill; Christian Jauvin, M.Sc., McGill; Jimmy Fragos, M.Sc., McGill

All-Cause Unplanned Readmission to Acute Care in Canada

Xi-Kuan Chen, Program Lead, Canadian Institute for Health Information

The objectives of this study were to present pan-Canadian rates of all-cause unplanned readmission to acute care within 30 days of initial discharge and to examine the patient, hospital and community factors associated with readmissions for four patient groups (medical, surgical, obstetric and pediatric). Initial hospital admissions were restricted to acute care discharges from all Canadian facilities (except for Quebec) in 2010-2011 from CIHI's Discharge Abstract Database and to discharges from Quebec facilities in 2009-2010 from MED-ECHO in Quebec. The unit of analysis was an episode of care. Patients were categorized into medical, surgical, obstetric and pediatric groups. The Postal Code Conversion File Plus from Statistics Canada was used to assign residence place and neighbourhood income quintiles. Hospital cost was estimated using the 2011 CMG. Hospitals were assigned to teaching, large, medium and small groups based on the methodology developed by CIHI CHRP. About 8.5% of acute care patients were readmitted within 30 days of their initial discharge. The rate was highest in medical patients (13.3%), followed by surgical and pediatric patients (6.5%). Medical and pediatric patients tended to be readmitted for the same or similar conditions, while obstetric and surgical readmissions tended to be for unplanned follow-up care. Admission via emergency department, previous hospitalization history and living in rural and low income neighbourhood were associated with the increased risk of readmission. Age, sex and Charlson Index score were the risk factors of readmission in medical and surgical patients. Small hospitals had the highest readmission rates. Hospitals with longer lengths of stay had lower readmission rates. Readmissions cost about \$1.8 billion, accounting for 11.0% of inpatient care cost. Selected patient, hospital and community level factors had significant effects on the risk for readmission. The transitions of care for patients with high risk for readmission should have better discharge planning and more frequent post-discharge follow-up.

Co-Authors: Lee Carrie, Analyst, Canadian Institute for Health Information

Alternate Level of Care (ALC) Patients in Hospitals: Still an Issue?

Randy Fransoo, Researcher, Manitoba Centre for Health Policy

Use of acute care facilities by patients not needing acute care has been a significant issue in Canadian hospitals. The objective of this study was to analyze admissions to acute care hospitals in Manitoba, and identify the unique characteristics of those who received Alternate Level of Care (ALC) services. Using electronic hospital abstract data housed in the repository at the Manitoba Centre for Health Policy (MCHP), we analyzed all inpatient admissions to acute care facilities in 2009/10 - 2010/11. Hospitalizations that included an ALC code at any point could be identified by a combination of patient service codes, diagnosis codes, and dedicated ALC Reason codes used in Manitoba hospitals. Logistic regression was used to identify the factors related to ALC hospitalization, including hospital type, patient age, sex, income, residence in a nursing home, and reason for hospitalization. Overall, 4,470 of the 127,901 inpatient hospitalizations (3.5%) included at least one ALC type. Despite this low prevalence, these hospitalizations were responsible for 16.6% of all days used. The factors most strongly associated with ALC hospitalization were: hospital type (patients in urban tertiary (Adjusted Odds Ratio = 0.52) or major rural (AOR = 0.45) hospitals were less likely to be coded ALC, both $p < 0.0001$), patient age (older more likely, AOR = 1.05, $p < 0.0001$), presence of mental illness (more likely, AOR=4.02, $p < 0.0001$), and residence in a nursing home (less likely, AOR=0.002, $p < 0.0001$). Patient sex (males less likely, AOR = 0.76, $p < 0.0001$) was weaker, but still significantly associated with ALC hospitalization. Most ALC patients were awaiting either nursing home placement (48%) or home care services (24%). Even though much attention has been paid to non-acute patients for many years, the use of acute care facilities for non-acute care remains significant. The results of this study point primarily to the need for more capacity in both nursing home and home care services.

Co-Authors: Patricia Martens, Dr, MCHP; The Need To Know Team, Manitoba; Heather Prior, MCHP; Charles Burchill, MCHP

An Exploratory Study of Interprofessional Teams in Primary Care Networks: A Case Study of the Chinook Primary Care Network

Renee Misfeldt, Senior Research and Evaluation Consultant, Alberta Health Services

Two objectives: 1. To better understand the structure and functioning of interprofessional teams in the Chinook Primary Care Network (PCN) in Alberta; and 2. To use evidence from the research to inform the effective use of Interprofessional teams in primary care. Established in 2003, PCNs are physician-led networks that provide team-based primary care services for Albertans. Team-based care is a main component of PCN service delivery, however little is known about the factors that impact their development and functioning. Seven PCNs were recruited and interviews were conducted within two teams per PCN, involving leaders, physicians, interprofessional team members, and patients. Case studies were completed for each PCN and thematic analysis across PCNs to identify factors that influence team functioning. A case study of the Chinook PCN will be presented due to its history as an exemplar of interprofessional teamwork. The factors that influence effective team functioning in the Chinook PCN include co-location, governance, education, PCN duration of operation and vision, and relationships. This PCN highly supports a culture of improvement which is a facilitator to team functioning. Barriers to team functioning include physician compensation models, communication challenges with non-English speaking patient populations, and some challenges with staff recruitment in rural areas. Three structures and processes were found within the PCN that guide the use of interprofessional teams: 1) establishing explicit guiding principles for governance, 2) implementing quality improvement roles to support clinical and operational advances to offer the best patient experience, and 3) using patient panels and registries to proactively align population health needs with staff mix and team based services. Promoting collaborative practice through Interprofessional teams is essential for patient-centred care. A highly effective team not only understands and addresses health needs of local populations, but provides better care through staff education and shared decision-making, and has structures and processes to support governance, guiding principles, and quality improvement roles.

Co-Authors: Rob Wedel, Dr., Taber Clinic (Chinook PCN); Renee Misfeldt, Dr., Alberta Health Services; Gail Armitage, Alberta Health Services; Jana Lait, Alberta Health Services

Antipsychotic Dispensing To Seniors After Admission To Long Term Care: Facility-Level Determinants

Riley Glew, MSc candidate, University of Saskatchewan

Antipsychotic medications are often prescribed for behavioural problems of dementia but can have serious adverse effects, particularly in seniors. Our aims were to test the association of long-term care facility (LTCF) characteristics with antipsychotic dispensations to new residents, and describe between-facility differences in the proportion of residents dispensed an antipsychotic. A population-based cohort of new LTCF residents ≥ 65 years was identified from Saskatchewan administrative health databases for the period from April 2002 to March 2011. Residents were followed up to 365 days after first LTCF admission date for antipsychotic dispensations recorded in the prescription drug database. Random-effects logistic regression models, with a LTCF random effect, were used to test the association of facility characteristics (e.g., size, licensing status, type, health professionals active in the facility, and health region) with antipsychotic dispensation. These models were adjusted for the resident characteristics of demographics, disease comorbidity, care needs, and prior pharmaceutical use. The cohort consisted of 25,419 seniors admitted to 222 LTCFs. Most were female (61.8%) and average age at admission was 84.9 years (standard deviation 7.2). Within the first year of admission, an average of 28.8% of residents were dispensed an antipsychotic. Amongst the LTCFs, the median prevalence of antipsychotic dispensing to new residents within the first year of admission was 29.5% (interquartile-range: 22%-38%). After adjusting for resident characteristics, admission to a facility with >100 beds was associated with antipsychotic dispensation (odds ratio 1.6, 95% confidence interval 1.3-2.1, reference 1-35 beds). The coefficient of variation was 0.52, indicating low variability in antipsychotic prevalence between facilities. The adjusted random-effects model revealed a weak within-facility clustering effect (3.9%), indicating little similarity among seniors admitted to the same LTCF. Nearly 30% of LTCF residents received an antipsychotic dispensation within one year of admission. While facility size was associated with antipsychotic dispensation, both between-facility variation and within-facility clustering were small. This suggests that patient characteristics should be the primary focus of future investigations of antipsychotic use among seniors in LTCFs.

Co-Authors: David Blackburn, Dr., University of Saskatchewan; Gary Teare, Dr., Saskatchewan Health Quality Council; Lisa Lix, Dr., University of Manitoba; Verena Schneider-Lindner, Dr., Heidelberg University, Germany

Assessing The Impacts Of Public Engagement On The Health Technology Advisory (HTA) Process

Sarah Boesveld, PhD Student, Centre for Health Economics and Policy Analysis, McMaster University

Efforts to involve 'the public' in health technology assessment (HTA) are rapidly expanding yet evaluation has lagged behind. We assessed the impacts of the Citizens' Reference Panel on Health Technologies (CRPHT) on a provincial health technology advisory process, which produces recommendations for the use of health technologies in Ontario, Canada. A 14-member citizens' reference panel was formed, using a stratified random sampling approach to ensure geographic and demographic balance. The panel met five times between February 2009 and May 2010 and engaged in informed, facilitated discussions to provide input on the assessment of individual technologies and the provincial health technology advisory process more generally. Qualitative methods were used to assess the observed and perceived impacts of the citizens' panel on the health technology advisory process. Organization documents, meeting transcripts, and interviews with citizen panel and advisory committee members were analyzed using content analysis, constant comparison and qualitative description. Our results demonstrate that CRPHT impacts could be traced for all of the technologies reviewed in at least one stage of the HTA process. In general, two types of impacts were observed: i) at a macro-level, the Panel's impact had the effect of raising awareness about a range of societal and ethical values relevant to the technologies reviewed; and ii) at a more micro-level, the Panel was cited as informing OHTAC recommendations for the technologies reviewed. Our results further demonstrate that the impacts observed were likely facilitated by key design features which included periodic opportunities for direct and brokered exchange between the Citizens' Panel and the expert advisory committee to clarify roles, foster accountability and build trust. This study provides novel insights about how public engagement efforts such as citizens' panels can contribute substantively to HTA processes. Tangible impacts were observed for a range of technologies and were facilitated through key design features that promoted role clarification, accountability and trust building between citizens and experts.

Co-Authors: Yvonne Bombard, Dr., Yale University, School of Public Health; Memorial Sloan Kettering Cancer Center, Center for Health Policy and Outcomes & Clinical Genetics Service; Sarah Boesveld, Ms., Health Policy PhD program, McMaster University; Dorina Simeonov, Ms., McMaster University, Department of Clinical Epidemiology and Biostatistics, Centre for Health Economics and Policy Analysis; François-Pierre Gauvin, Dr., McMaster Health Forum, McMaster University

Bridging Silos: Increasing Patient Related Collaboration Between Solo/Small Group Family Practitioners and Home Health Staff

Shannon Berg, Executive Director, Home and Community Care, and PhD Candidate, Vancouver Coastal Health, and UBC

Collaboration between family physicians (FPs) and community health staff is important to the health and quality of life outcomes of their shared patients. This study evaluated an intervention to increase communication about mutual patients of home health staff and FPs working in small group/solo practices, in an urban multi-cultural setting. This mixed methods study first measured usual communication patterns between home health staff (HHS) and FPs during a baseline phase, after which FPs were randomized into two groups. The intervention group were invited to participate in pre-scheduled, secure audio-conferences about shared patients, utilizing a structured process. Quantitative measures included count data (shared patients, contacts about shared patients) and pre/post surveys evaluating perception of FP and HHS collaboration. Qualitative measures (semi-structured interviews, focus groups) were undertaken to learn about what parts of the intervention worked for participants and why, and to explore how to spread successful elements beyond the study population. Twenty-two FPs and approximately 50 HHS participated in the study. Of the 11 intervention FPs, 6 used the audio-conference at least once during the intervention phase. Twenty-two audio-conferences were scheduled, in which a total of 37 patients were discussed, involving 40 HHS members. No statistically significant differences over time in number of shared patients per FP were observed. Fitting a mixed effects model, the number of contacts about shared patients showed a statistically significant increase over time for intervention FPs during the intervention phase. Interview and focus group data is currently being analyzed using the following codes: conferencing criteria (complexity of patient or patient's situation), system silos (differences in work flows, assumptions, structural barriers), communication within/across silos, relationships and recommendations. Perhaps due to the inter-disciplinary research model used (including researchers, decision makers and clinicians from creation of research question through to interpreting results) the intervention has already spread significantly to other areas of the health authority. Study results will be presented in the context of knowledge translation processes utilized.

Case Management And Self-Management Support In Primary Care For Individuals With Chronic Diseases Who Are Frequent Users Of Health Services: Pre-Implementation Evaluation

Maud-Christine Chouinard, Professor, Université du Québec à Chicoutimi

To present results of the pre-implementation evaluation phase of a pragmatic intervention combining case management by a primary care nurse and self-management support based on the Stanford Program for individuals with chronic diseases (diabetes, cardiovascular diseases, respiratory diseases, musculoskeletal diseases and/or chronic pain) who are frequent users of hospital services. The pre-implementation evaluation aimed to describe: 1) the characteristics of the four primary care practice settings (Family Medicine Groups - FMG) in which the intervention will be implemented; 2) their current processes, integration of services and patient satisfaction in this vulnerable population; 3) the issues related to the implementation of the intervention in their setting. Using a realistic evaluation approach, this evaluation was conducted using descriptive qualitative methods: the data were obtained through four focus groups with family physicians (n = 3D 25) and individual interviews with primary care nurses (n = 3D 10). All the primary care professionals identified demonstrated an interest in the project. They described several challenges in the follow-up of vulnerable people with chronic diseases, including problems caused by mental health comorbidities, patient lack of acceptance of their diseases and low socioeconomic status. Many believe that the addition of resources to support these people can improve results and that the case management nurse could facilitate service integration and patient follow-up. Some concerns were expressed about the time required for the development of a trust-based relationship between the nurse and the patient, the availability of additional resources for targeted patients and for doctors, and some loss of information about their patients. Various contextual factors to consider in the implementation of the intervention were described. The context and current processes identified in the follow-up of individuals with chronic diseases who are frequent users of health services, will inform the research team and stakeholders in primary care and the healthcare network, guide the implementation process and help understand their influence on the implementation within FMG.

Co-Authors: Catherine Hudon, MD, PhD, Université de Sherbrooke; Mireille Lambert, MSc, Université de Sherbrooke; Mathieu Cook, MSc, Université de Sherbrooke

Changements organisationnels en contextes professionnels : Lorsque l'efficacité menace l'empowerment

Frédéric Gilbert, Professor, Université du Québec à Montréal

L'empowerment est au cœur de l'expérience au travail des professionnels. Elle réfère à la capacité d'exercer certains pouvoirs et est positivement associée à leur motivation et intention de quitter. Nous analysons les paradoxes exacerbés par des changements organisationnels menaçant l'empowerment des professionnels ainsi que les stratégies mobilisées pour les gérer. À partir de la théorie de l'empowerment de Spreitzer (1995) et la méthode d'analyse des paradoxes de Poole & Van de Ven (1989), nous analysons 5 études impliquant l'introduction d'un changement organisationnel cherchant à améliorer les services offerts dans un contexte de ressources humaines et financières limitées. Des données qualitatives (T1 = 3D 63 entrevues lors de l'introduction du changement et T2 = 3D 50 18 mois plus tard - T2) et quantitatives (questionnaires mesurant l'expérience au travail; T1, n = 3D 252; T2, n = 3D 192) ont permis de capter la nature et le processus du changement ainsi que l'expérience des professionnels. L'analyse des cas met en lumière les paradoxes exacerbés par la tension du changement sur les quatre antécédents de l'empowerment. 1- Le sens au travail des professionnels diverge de celui des gestionnaires. 2- L'autodétermination des professionnels est challengée par l'influence des gestionnaires dans la définition et le processus du changement. 3- La compétence perçue révèle une tension entre spécialisation (expertise/délégation) et approche globale (relation aux patients). 4- La perception d'impact révèle une tension entre une préoccupation pour la clientèle vs. la population. L'analyse met également en lumière les stratégies mobilisées par les acteurs pour gérer ces paradoxes. Elles varient selon les niveaux (équipe, direction ou établissement). La capacité des acteurs à concilier ces paradoxes est au cœur de l'introduction des transformations étudiées. Des changements organisationnels risquent de compromettre un aspect fondamental de l'expérience au travail des professionnels, soit leur empowerment, et ainsi miner leur expérience au travail. L'étude approfondie des cas permet de mieux comprendre l'évolution des paradoxes associés à l'introduction de changements en contexte professionnel et les stratégies pour y faire face.

Co-auteurs(es): Kathleen Bentein, Professor, Université du Québec à Montréal; Carl-Ardy Dubois, Professor, Université de Montréal; Jean-Luc Bédard, Chercheur, Institut national de la recherche scientifique

Children, Social Housing and Neighbourhoods: A PATHS Equity for Children Project

Mark Smith, Associate Director, Manitoba Centre for Health Policy

To examine the association between the neighbourhood in which social housing is located and health and educational outcomes of children. Social housing provides individuals and families with affordable housing. Of the approximately 30,000 people living in social housing managed by Manitoba Housing, 50% are people under the age of 20. In Winnipeg, social housing is located in neighbourhoods with varying socio-economic status. We used 'community centre areas' (72 in Winnipeg) to investigate if the location of social housing is associated with different outcomes for children. Using data available through the Repository at the Manitoba Centre for Health Policy we look at whether there's a connection between the neighbourhood in which the social housing is located and six health and education outcomes. We consistently see that children living in social housing have a poorer health/education status than those not living in social housing, regardless of neighbourhood. Children living in social housing in neighbourhoods with higher SES often have a different profile of health and educational status compared to those living in lower SES neighbourhoods, but this is not consistent for all indicators. There is little difference for immunizations, but teen pregnancies/births are lower in higher SES neighbourhoods and high school completion is higher in these neighbourhoods. Early childhood indicators (immunizations and readiness for school) are not associated with neighbourhood, but school-age indicators are; children living in social housing located in higher socio-economic status neighbourhoods have higher high school completion rates and lower teen pregnancy.

Co-Authors: Greg Finlayson, Research Scientist, Manitoba Centre for Health Policy

Choice, Autonomy, and Consumer Demand: A Critical Analysis of 'Cesarean Delivery on Maternal Request' in Medical Journal Editorials

Sarah Munro, PhD Student, University of British Columbia

In the late 1990s, amid concerns about rising caesarean rates, obstetrical leaders began to debate 'cesarean delivery on maternal request' (CDMR) in medical journal editorials and letters to the editor. I explore how critics persuaded audiences that the emerging concept of CDMR was a real phenomenon and an appropriate/inappropriate delivery option. A systematic literature search identified 42 journal editorials and letters to the editor debating the subject of CDMR published 1998-2012. Data collection and analysis were guided by genre theory and social constructionist grounded theory. Sample texts were read in their entirety and coded for recurring and interesting concepts and generic elements that constituted rhetorical action. Codes were refined into categories through iterative analytic memoing and 'situational mapping' - an exercise illustrating the elements of the situation of inquiry and their interrelationships. Findings were written into an explanatory narrative and discussed within the context of North American health policy on CDMR. Patient autonomy was the central theme emerging from analysis. Proponents of CDMR argued that, at its heart, CDMR represents women's right to manage their own reproductive choices. These authors constructed patients as autonomous consumers managing their own reproductive choices. Policy statements published at the same time echoed these arguments and supported CDMR on the grounds of respect for patient autonomy. Critics of CDMR argued that patient autonomy was circumscribed by medico-legal, financial, and sociocultural factors. Neither side of the debate explicated the features of informed decision-making that support and enact patient autonomy. The prevalence of CDMR was overstated in early publications, while later articles, responding to emerging data on the low prevalence of CDMR in Canada and the United States (0.34%-2.8%), questioned whether CDMR was a real phenomenon. CDMR did not contribute to the rising caesarean rate; rather leaders in the obstetric community constructed the phenomenon and argued it was an appropriate mode of delivery based on the principle of respect for patient autonomy. Physician values and attitudes towards consumer-driven health care influenced health policy regarding CDMR.

Creating A Model To Engage Marginalized Women In Healthcare Program Planning: The AWESOME Project

Mary Elizabeth Snow, Evaluation Specialist, Public Health, Fraser Health

To support healthcare planners to conduct patient engagement (PE) that supports participation of women whose input is typically excluded from healthcare planning (including low socioeconomic status, new immigrants, and refugee women), so that services are responsive to a diversity of patients' values, preferences, and needs, thus improving all patients' experiences. We developed a gender-sensitive PE model based on a sex- and gender-based analysis of the existing PE literature and semi-structured interviews and focus groups with marginalized women and healthcare planners. The data from these interviews were analyzed using a grounded theory approach, and subsequently the themes from the literature reviews and data were used to construct a model and planning manual for gender-sensitive patient engagement. The first iteration of the model is being piloted and evaluated in two clinical programs, which will be complete by early April 2013. Our data show that attending to power differentials is critical to engaging marginalized women meaningfully and that it is important to give value to both the participation itself and the information brought to the engagement by the women. Moreover, the purpose of patient engagement must be clear and the method of engagement must match the needs and abilities of the population of interest, the healthcare planners, and the issue. Our impending evaluation of the pilots will focus on exploring the model's strengths and areas for improvement from the perspectives of both planners and the women who are engaged, and examining how the PE model promoted responsive and equitable healthcare planning. Including marginalized women in PE may increase planners' understanding of vulnerable patients' complex needs, promoting wider, more equitable improvements than a PE strategy that does not foster participation of marginalized populations. Our PE model, based on literature and original research, promotes equitable and responsive healthcare planning through inclusive PE.

Co-Authors: Tweedie Katie, Research Associate, Fraser Health; Hemi Shrestha, Manager, Public Health & Women's Health, Fraser Health; Linda Bachmann, Director, Public Health & Women's Health, Fraser Health; Ann Pederson, Director, BC Centre of Excellence for Women's Health

Decreasing Inequity In Child Outcomes (PATHS): The Effect Of In-School Clinics On Teen Pregnancy & STI Rates

Colleen Metge, Director, Research & Evaluation, Winnipeg Regional Health Authority

Describe how (1) In-School Clinics offered in Manitoba are associated with changes in teenage pregnancy and STI (Chlamydia and gonorrhea) rates and, (2) the socio-economic gap in teen pregnancy and STI rates change over time for those school populations having access to an in-school clinic. In the academic year 2008, 30.1% (n=15,159) of teens in Manitoba aged 14-20 had access to an in-school clinic. The least healthiest regions appear to have a higher proportion of in-school clinics. We report on whether the presence/or not of in-school clinics appears to affect teen pregnancy and STI rates of students in Grades 9 to 12 from 2003-2009, and if clinics reduce the SES inequities in teen pregnancy and STI rates. As part of PATHS Equity for Children: A program of research into what works to reduce the equity gap for Manitoba's children, we examined how In-School clinics changed the rates of teenage pregnancy and STIs. We used a pre-/post-test analysis of secular trends in teen pregnancy and STIs using Manitoba Centre for Health Policy's repository of administrative data. A stepped-wedge design was used to examine those In-school clinic programs offered since 2006 to youth clustered in Winnipeg community areas and other regional health authorities. In-school clinics have not been randomly assigned so we controlled for confounding factors (e.g., Grade 9 performance, income assistance), a 'dose response' equivalent to possible contact hours per student and type of birth control and testing (for STIs) available. In-school clinics appear to have been systematically assigned and supported in schools with higher needs (higher rates of teenage pregnancy and STIs). This 'confounding by indication' affects our ability to comment on any equity gap. Information about clinic hours allowed us to calculate possible contact hours per student available.

Co-Authors: Colleen Metge, Research Scientist, Manitoba Centre for Health Policy; Mariette Chartier, Research Scientist, Manitoba Centre for Health Policy; Souradet Shaw, Research Associate, Department Community Health Sciences, Faculty of Medicine, University of Manitoba; Taylor Carole, Data Analyst, Manitoba Centre for Health Policy

Developing a Framework for Integrating Primary Care and the Cancer System

Jacqueline Liberty, Research Associate, Cancer Care Ontario

To develop a conceptual framework to guide the integration of primary care in the cancer system by examining the relationships between the various structures and tools used to support the role of primary care providers caring for cancer patients. A systematic search of Ovid Medline and EMBASE was conducted in August of 2011 using a combination of keywords and free-text terms. Results were limited to English and the year 2000 onwards. No restrictions were made on publication type. To supplement the scoping review, broad and targeted searches of grey-literature were conducted. Searches yielded a total of 482 unique publications of which 76 pertaining to models of care or tools for integration were retained. For those articles meeting the inclusion criteria, full texts were obtained and relevant information extracted into tables. A thematic synthesis approach was used to develop the framework. This review identified three levels of integration for primary care and cancer systems as well as tools for integration associated with each level. For the purpose of this review, a 'tool' for integration was defined as 'a specific resource or process which facilitates the participation of primary care professionals within the cancer system'. In general, integration efforts are most likely effective when the intervention is multifaceted and focused on numerous levels of integration: the group level (integration between different providers); the practice level (integration between providers and patients); and the system level (integration between providers and the wider health care system). Each of these levels of integration may require different forms of infrastructure (funding, IT, decision-support, etc.) and specific evaluative methods. While there is no one ideal model to integrate primary care in the cancer system, this framework may be used as a starting point for planning and developing a comprehensive model of integration for primary care and cancer.

Co-Authors: Hannah Geddie, Research Associate, Cancer Services & Policy Research Unit, Cancer Care Ontario; Zeinab El-masri, Senior Analyst, KTE & Education, Cancer Care Ontario; Doina Lupea, Senior Program Manager, Primary Care, Cancer Care Ontario; Jeffrey Hoch, Director, Cancer Services & Policy Research Unit, Cancer Care Ontario

Does Predictive Genetic Information Motivate Behaviour Change? A Theoretical And Empirical Evaluation Of Personalized Medicine In Cancer Prevention

Joanne Kim, Ph.D. Candidate, Institute of Health Policy, Management and Evaluation, University of Toronto

Personalized medicine promises to revolutionize healthcare. Using individual molecular profiles to identify at-risk populations for disease prevention is expected to improve population health while saving healthcare costs. This study assessed the impact of predictive genetic testing for colorectal cancer, which has already been implemented in many Canadian primary healthcare settings, on various risk-reducing health behaviours as a way of evaluating the assumed promise of personalized medicine. An observational, retrospective cohort study was conducted using an economic theory of health investments to generate testable hypotheses and specify analytical models. Data were obtained from Australian and Canadian Colon Cancer Registries which conducted genetic testing for colorectal cancer-causing mutations and collected health behaviour information on colorectal cancer cases and their kin. From these Registries, users and non-users of predictive genetic testing for colorectal cancer were identified as those who obtained their genetic testing results and who did not, respectively, with no personal history of colorectal cancer. Risk-reducing health behaviours examined included colonoscopy screening, supplement intake, and smoking habits. The effects of genetic testing results on the various health behaviours of users were compared to those of non-users using regression. Users of predictive genetic testing who tested positive for mutations and were at elevated risk for colorectal cancer were likely to increase colonoscopy screening. Users who tested negative for mutations and were at population-level risk for colorectal cancer were unlikely to substantively decrease colonoscopy screening. The effects of predictive genetic information on supplement intake or smoking habits were minimal. Predictive genetic information and various demographic/socioeconomic factors affected health behaviours as hypothesized by the economic theory. Predictive genetic information appears to motivate change in select health behaviours, possibly reflecting public reliance and provider emphasis on healthcare services rather than lifestyles for disease prevention. This personalized intervention, as is, might improve population health but not save healthcare costs. The immediate implication of the study findings is in identifying potential areas of improvement in clinical counseling and education to minimize unnecessary screening and encourage uptake of other health behaviours. More broadly, this study offers a framework for and an example of evaluating the promise of personalized medicine.

Does Starting An Electronic Medical Record (EMR) Affect Family Physicians' Billings Or Payments?

Liisa Jaakkimainen, Family Physician and Scientist, Institute for Clinical Evaluative Sciences

Several barriers to the adoption of EMRs by family physicians (FPs) have been discussed including the costs of implementation, impact of work flow and loss of productivity. In Ontario, EMR adoption coincided with primary care reform which also had an influence on FPs' income. Objectives: To examine the impact of primary care model change versus starting an EMR on FP billings and payments. Approach: We used information from the Electronic Medical Record Administrative data Linked Database (EMRALD) to conduct a retrospective before and after study of FP office visit billings and payments. Two index dates were examined; the date FPs started using the EMR or the date FPs changed from a fee-for-service (FFS) payment model to a capitation-based model. Results: We found that FPs billings and payments did not decrease after starting an EMR. The overall weighted mean payment for all government sources increased after starting an EMR for EMRALD FPs, as it did for all Ontario GP/FPs. There was a decline in billings when FPs changed from FFS to a capitation model, but an increase in their overall government payments. Conclusion: While many factors need to be considered by FPs when implementing their EMR, a drop in their billings, FFS payments and overall government payments is not likely to occur. Further economic analyses which include measures of productivity and the costs of starting an EMR, including the costs of non-clinical work by FP and their staff are needed to fully describe the impact on EMR implementation at a practice level.

Co-Authors: Susan Schultz, Institute for Clinical Evaluative Sciences; Karen Tu, Dr, Institute for Clinical Evaluative Sciences

Does Your Neighborhood Affect Your Health And Well-Being?

Sneha Abraham, Graduate Student, Department of Community Health Sciences, University of Manitoba

To examine whether neighborhood characteristics have differential effect on health and well-being and does it differ by age. The study was based on 979 individuals aged 45 or over who were interviewed in person in 2007/08 as part of a longitudinal health promotion study that commenced in 1998 in a mid-Western Canadian city. In the interviews, participants were asked a wide range of questions about their health, well-being, health related behaviors and neighborhood perceptions. Multilevel regression analyses were conducted to examine the perceptions of neighborhood characteristics (e.g., traffic, safety concerns, and sidewalks) and their interaction with age, on outcome measures such as neighborhood satisfaction, life satisfaction, mental health and self-rated health. People living in newer dwellings had statistically significantly higher scores on neighborhood satisfaction and self-rated health than people living in older dwellings ($P < 0.05$). Traffic in the neighborhood significantly contributed to lower scores on all outcomes ($P < 0.001$) except life satisfaction. Significant interactions emerged between safety concerns and age on three of the four outcome variables. Safety concerns did not affect older adults (65+ years); however, among younger adults (45-64 years), those who reported greater safety concerns had significantly lower scores on life satisfaction, mental health and self-rated health ($p < 0.001$ and $p < 0.01$ resp.) Perceptions of sidewalks were not a significant predictor of any of the outcomes. The findings add to the growing literature on effects of neighborhood environment on health and well-being. The findings also highlight that the interaction between neighborhood characteristics and age is complex.

Co-Authors: Verena Menec, Dr, Centre on Aging, University of Manitoba

Economic Burden of multimorbidity in the Ontario's Health Care System

Kednapa Thavorn, Post-doctoral Fellow, Li Ka Shing Knowledge Institute, St. Michael's Hospital, Health System Performance Research Network (HSPRN), Institute of Health Policy, Management and Evaluation University of Toronto

Multimorbidity is commonly found in older adults with prevalence estimates of 65–98%. The treatment of such chronic conditions is costly and accounts for 75% of all health care expenditure in the USA and about 80% of health care expenses in Europe. In Canada, about \$39 billion was spent each year for treating people with chronic conditions. Several studies have shown costs associated with individual disease in multimorbid populations; however, very few studies estimated incremental costs of health services associated with multimorbidity. This cross-sectional study describes costs attributable to multimorbidity in Ontario's population and reveals the variation of these costs across number of chronic conditions, type of health services, and pattern of multimorbidity. A cohort of 6,639,089 patients with at least one of 16 prevalent, costly, and disabling conditions was drawn from the 2009/10 Ontario administrative database. We observe an exponential rise in annual medical cost per capita, with an increasing number of conditions. Hospital costs represent the highest largest cost component, irrespective of number of chronic condition. However the proportion share for drug and home care costs increase with multimorbidity while physician costs proportionately decrease. In the context of escalating health care costs, findings from this study provide a first step in understanding the economic burden of multimorbid conditions in the Ontario.

Co-Authors: Walter Wodchis, Associate Professor IHPME, University of Toronto, Principal Investigator HSPRN; Colleen Maxwell, Professor, School of Pharmacy, University of Waterloo; Anna Kone, Epidemiologist, CCO; Andrea Gruneir, Scientist, Women's College Research Institute; Susan Bronskill, Scientist, Institute for Clinical Evaluative Sciences; Yelena Petrosyan, PhD Student, IHPME, HSPRN, University of Toronto; YuQingBai, HSPRN.

Effects of Primary Care Reform in Quebec on Access to Health Care Services

Catherine Dunkley-Hickin, Ms., McGill University

A decade after their implementation, we investigate the impact of Quebec's Groupes de médecine de famille (GMFs) on access to primary care and perceived remaining barriers. We emphasize potential access - i.e. several measures that capture whether an individual reports having timely access to needed care. We use data from seven waves of the Canadian Community Health Survey to capture reported access to primary care and barriers to access. GMF participation is voluntary, resulting in GMFs emerging at different rates in different health regions across Quebec. We constructed a GMF 'participation' measure using the share of primary care physicians participating in GMFs in each health region and year. We use multivariate regression analysis to control for time trends in the outcomes, time-invariant differences between regions and individual-level covariates, and estimate the impact of GMFs on access to primary health care services and on specific barriers. We verified that regions with ultimately high vs. low rates of GMF participation were not systematically different in the pre-policy period in terms socioeconomic characteristics or health care access, making comparisons of these regions appropriate. Preliminary results suggest that rates of having a regular doctor have increased over time in all Quebec health regions. However, this measure of access varies across regions and some, including Montreal, always report lower rates of access. Individual characteristics that predict access to primary care are age, sex, education, income, immigrant status, language spoken, number of chronic diseases and self-reported health. Controlling for time trends, fixed differences between regions, and individual characteristics, reported access does not change significantly as GMF participation increases. Improved access to primary health care was one of the primary objectives of Quebec's primary care reform a decade ago. Our findings suggest that increased GMF participation has not improved several important measures of access, and that additional measures may be necessary to increase potential access to primary care.

Co-Authors: Erin Strumpf, Dr, McGill

Establishing A Performance Measurement System For A Regional Geriatric Assessment And Intervention Network - Challenges And Enablers To Implementation

Natalie Ceccato, Geriatric Assessment and Intervention Network

Ontario has entered an era of accountability, evidenced by exponential growth in performance indicators for public reporting and funding. With the introduction of patient-based funding, establishing effective performance measurement systems is essential. While organizations such as CIHI and HQO promote system consistency with indicator nomenclature and methodology, understanding of performance measurement, specifically the importance of standardized development and implementation processes may be limited. The need to demonstrate value for investment at the hospital or program level warrants the awareness, education and skill to establish effective internal systems to monitor, analyze, and integrate clinical and improvement activities. Moreover, as regional integration and partnerships increase, performance measurement is essential in supporting alignment and accountability. The Geriatric Assessment and Intervention Network (GAIN) clinics were implemented in 2010 in four community hospitals with the aim of providing consistent and comprehensive geriatric services in the Central East Local Health Integration Network. Using a case study approach, we describe challenges and enablers in establishing standardized reporting for the regional GAIN clinics. The GAIN performance report provided a critical tool for alignment and accountability around established performance criteria; however, implementation challenges are compounded when programs are regional and consensus among multiple stakeholders is required. Leadership buy-in and role clarity around decision-making were instrumental in this respect. An added challenge was fragmented hospital information systems, consisting of multiple disparate databases and incompatible systems at the various sites. We also encountered limited frontline capacity for consistent implementation of processes including data entry, methodology, and reporting. Substantial investments were required to support standardization, including regional leads for analytics and dedicated project management. Our experience suggests that while standard performance metrics and systems provide significant value in supporting accountability and integration, organizational readiness and capacity are critical to implementation. Education and tools to support performance measurement are needed to assist hospitals in developing strong internal performance measurement. Given system investments in quality improvement, accurate data is a critical enabler for linking performance measurement to improvement action.

Co-Authors: Erin Salkeld, Project Manager, Lakeridge Health; Nancy Veloso, Patient Care Director, Medicine, The Scarborough Hospital; Deb Galet, Director, Post Acute Specialty Services, Lakeridge Health; Lisa Shiozaki, Executive Vice President & Chief Nursing Executive, Lakeridge Health

Evolution of a Community-Based Participatory Approach in a Rural and Remote Dementia Care Research Program

Allison Cammer, Doctoral Student, University of Saskatchewan

There is growing recognition of the importance of long-term researcher-knowledge user exchange processes in facilitating the use of research in decision-making. We describe the trajectory of our team's integrated knowledge exchange approaches over the last 15 years of health service research, including benefits, challenges, and lessons learned. Since 1997 our team has led a community-based participatory research program aimed at improving health service delivery for persons with dementia and their caregivers in rural and remote settings. A multi-stage community-based approach was used to plan a research program in rural dementia care (consultations with health region boards, workshops to identify research priorities, pilot study), forming the foundation of the team's subsequent research program. Over time, decision-maker and other community partner involvement has become more formalized, with two-way engagement across all stages of the research process. Ongoing engagement between researchers and community is required given the ever-changing nature of health services. Involving decision-makers and other community partners in the full research process has improved the quality, relevance, application, and sustainability of our findings. An annual knowledge exchange meeting with our Decision-Maker Advisory Council builds relationships and research capacity. These evident benefits of decision-maker involvement have supported the team's evolution from a relatively traditional focus to the fully integrated approach that shapes all aspects of our research. Although developing and sustaining decision-maker and other community-partner and knowledge user involvement is resource and time-intensive, our experience shows that this approach is highly suited to health services research, in general, and most likely to lead to sustained improvements in dementia care in rural and remote settings, more specifically.

Co-Authors: Debra Morgan, Professor, University of Saskatchewan; Margaret Crossley, Professor, University of Saskatchewan; Norma Stewart, Professor, University of Saskatchewan; Andrew Kirk, Professor, University of Saskatchewan

Exploring The Relationship Between Governance Models In Healthcare And Health Workforce Transformation: A Systematic Review

Karen Jackson, Senior Research & Evaluation Consultant, Alberta Health Services

The objective of this systematic review funded by the Canadian Institutes for Health Research was to examine the relationship between health system governance and workforce transformation. Particular attention was paid to how specific governance elements facilitate transformational change in the workforce to ensure the effective use of all health providers. In accordance with standard systematic review procedures, the research team screened more than 4300 peer-reviewed and grey abstracts found in database searches, website searches, and bibliographies. Searches were limited to Canada and other countries with health systems similar to Canada's (i.e., Sweden, the United Kingdom, the Netherlands, New Zealand, Australia, and the United States). One hundred and thirteen articles were retained and extracted for this review. A Rapid Engagement Group composed of prominent health system experts was formed to guide the research team and included topics were prioritized based on their recommendations. Five governance types with close relation to workforce transformation were identified in the empirical literature. Shared governance, Magnet accreditation, and professional development initiatives were all associated with improved outcomes for the health workforce (e.g., decreased turnover, increased job satisfaction, increased empowerment, etc.). While clinical governance and similar initiatives focussing on care quality were associated with apprehension among providers about implementation, most of the research examined showed that the provision of training opportunities increased quality and improved work attitudes. Research on structures of care delivery suggests that moves to team-based care are accompanied by issues with stress and role clarity, that outcomes vary for providers in private versus public organizations, and that co-operative clinics are beneficial for physicians. The results of the review show governance models consider workforce issues. To successfully implement governance models or processes, there are key strategies recommended to support change and achieve desired outcomes. The most important of these is to build trust by clearly articulating the organization's goals and sharing responsibility for reform.

Co-Authors: Stephanie Hastings, Research & Evaluation Consultant, Alberta Health Services; Gail Armitage, Research & Evaluation Consultant, Alberta Health Services; Shelanne Hepp, Research & Evaluation Consultant, Alberta Health Services; Jordana Linder, Research & Evaluation Consultant, Alberta Health Services; Sara Mallinson, Research & Evaluation Consultant, Alberta Health Services; Renee Misfeldt, Senior Research & Evaluation Consultant, Alberta Health Services; Esther Suter, Director - Workforce Research and Evaluation, Alberta Health Services

Health Benchmarking: A Tool for Measurement and Management

Jeannette Lye, Research Associate, Conference Board of Canada

Benchmarking is becoming increasingly important in striving for better accountability and value for money. We present an outline of the framework used in our recent provincial health benchmarking report. We detail data availability/gaps in current indicator collection and the methodological challenges in presenting this evidence in a coherent structure. We undertook a review of currently used benchmarking methodologies and held a high level workshop to garner views from healthcare leaders across Canada. We used the findings from these to refine our own benchmarking framework and indicator list. To marshal this data into a useful format we adopted a report card style (A-B-C-D) ranking system which we also discuss in detail. Finally we also discuss methods employed to overcome common benchmarking challenges including indicator inclusion criteria, missing data, and other factors. A variety of benchmarking methodologies and frameworks are used around the world and within Canada. While there are differences between these, they share common elements that guided our framework development. We hope that the framework, ranking system, and overall methodology we developed will allow a variety of audiences to access the data in a meaningful way. We contend that benchmarking is a simple, powerful quality improvement tool that helps healthcare administrators better manage resources, and policy makers make better policy decisions. This work will increase understanding of how to apply benchmarking methodologies, including design of a framework, selection of indicators, and ranking results.

Co-Authors: Philip Astles, Senior Research Associate, The Conference Board of Canada; Sheila Rao, Senior Research Associate, The Conference Board of Canada

Innovative Practices in Cultural Competency and Safety for First Nations, Inuit & Metis People in Urban Health Systems

Elaine Kachala, Policy Lead, Health Council of Canada

To learn about the need for cultural competency and safety in mainstream urban health care; to identify practices that are leading to improvements in access to care, the patient care experience, health outcomes and the health care system, and to understand the factors that contribute to successful practices. The Health Council of Canada held meetings in seven cities across Canada, bringing together Aboriginal and non-Aboriginal health professionals representing organizations involved in the delivery of health care services to First Nations, Inuit, and Métis people in urban settings. The meetings explored overarching questions about the importance of cultural competency and safety, the impact of developing culturally competent and safe services and factors that contribute to successful practices. This project was supported by a literature review on the topic, along with a review of government initiatives that created the foundation for innovative practices to develop. First Nations, Inuit, and Métis people do not access health services at the same rates that other Canadians do. This phenomenon is influenced by experiences of racism within the health care system and in broader Canadian society. More than 30 innovative practices that are improving cultural competency and cultural safety were selected to be shared across Canada. All involve change in at least one of the following areas: 1) system-wide transformation; 2) collaboration that builds capacity; 3) knowledge that transforms practice; 4) culturally-based services that meet community-identified needs; and 5) research that enhances capacity and evidence-based decision making. Culturally competent and safe health care services are improving access to care, the care experience for patients and providers, and efficiencies in the health care system. To achieve cultural safety, organizations and institutions must develop appropriate policies, structures and processes, and focus on communication, relationships and collaboration with First Nations, Inuit and Métis people. Many Canadian governments, health care organizations and health care professions are headed in this direction, and others should follow their lead.

Length Of Wait (For Cataract Extraction) Changes - As A Result Of Changes In Enrolments And Changes In Admissions

Paul Armstrong, Dr, University of East London

To formulate an accurate account of the relationship between change in the size of a list and changes in the length of wait. We considered the relationship between eight counts: a) the count of all those enrolled on the list during the Period of interest and, b) that subset admitted 0-2 months subsequently; c) the count of enrolments during the preceding Period and, d) that subset admitted 0-2 months subsequently; e) the count of all those admitted (from a particular cross-tabulation of Cohort and waiting time Category) during the Period of interest and, f) that subset enrolled 0-2 months previously; g) the count of all those admitted (from the same cross-tabulation) during the preceding Period and, h) that subset enrolled 0-2 months previously. We report a formula which is compatible with stable population theory and identifies every apparent exception to the stock-flow model previously identified in the National Cataract Register for Sweden. It allows us to predict the direction and exact extent of any change in the length of wait following enrolment (the subsequent wait). This formula predicts a direct relationship between change in size and change in length of the subsequent wait, and it predicts an inverse relationship between change in size and change in length of the prior wait. It is no longer necessary to attribute such an inverse relationship to supplier-induced demand.

« J'ai eu l'impression d'être abandonné par le système de santé » : qui sont ces personnes et quels sont les facteurs en cause ?

Christine Beaulieu

Évaluer quels sont les facteurs qui provoquent un sentiment d'abandon chez les patients qui fréquentent des cliniques de soins de santé de première ligne au Québec. Voir si ce sentiment est lié davantage à l'absence de ressources médicales ou à la lourdeur des cas. Un total de 2 507 patients ont été recrutés en personne ou par téléphone en 2010, dans trois régions du Québec pour participer au programme de recherche d'une cohorte interrégionale sur la santé en évolution (PRÉCISE). Des adultes, âgés entre 25 et 75 ans ont répondu à un questionnaire écrit auto administré couvrant plusieurs dimensions de la santé et portant sur leur expérience de soins des 12 derniers mois, en plus de comporter plusieurs variables sociodémographiques. Parmi nos répondants, 25% se sont sentis abandonnés par le système de santé au cours de la dernière année : 44% des personnes sans médecin de famille habituel vs 23% chez celles qui en ont un ($p < 0.0001$). Avoir une clinique habituelle ne semble pas significatif. Parmi les 502 personnes ayant éprouvé un sentiment d'abandon et ayant un médecin de famille, les raisons les plus fréquentes sont : médecin non disponible (44%), difficulté d'être vu à la clinique habituelle (43%) et difficulté à obtenir des soins d'un spécialiste (38%). La présence de multimorbidité (2 maladies chroniques et plus) augmente de 33% la probabilité de se sentir abandonné par le système alors que le fardeau associé aux limitations dues à ces maladies augmente cette probabilité de 75%. La présence d'un médecin de famille habituel améliore la perception de la prise en charge et diminue le sentiment d'abandon. Cette présence ne semble pas suffisante à sécuriser totalement les patients présentant plusieurs maladies chroniques qui expriment néanmoins un manque d'accès aux ressources, tel qu'illustré par les raisons principales invoquées.

Co-auteurs(es): Fatima Bouharaoui, M.Sc., Hôpital St.Mary; Jeannie Haggerty, Ph.D, Université McGill; Martin Fortin, MD, M.Sc., Université de Sherbrooke

Laying The Foundation For Primary Care Performance Measurement In Ontario

Wissam Haj-Ali, Project Lead, Primary Care Performance Measurement & Reporting, Health Quality Ontario

Ontario lacks a system-wide, sustainable approach to measuring primary care performance, an essential requirement for managing and improving performance at the practice and system levels. In response, Health Quality Ontario (HQO) and the Canadian Institute for Health Information (CIHI), in collaboration with key stakeholders, are leading the development of a primary care performance measurement framework. An environmental scan was conducted to examine the current state of primary care performance measurement in Ontario, throughout Canada, and internationally. Informed by the scan, a Steering Committee that includes key primary care stakeholders identified aspects of primary care performance across eight domains that might be valuable to measure on a regular basis to inform decision-making at the practice and system levels. On November 21, 2012, HQO and CIHI co-hosted an invitational Summit with senior leaders from organizations representing primary care data partners and information users in Ontario to prioritize potential areas of performance measurement. Following facilitated small group discussion, Summit attendees ranked the potential areas of performance measurement through a nominal voting process. Building on the Summit results, a survey tool is being developed and will be shared broadly with primary care stakeholders to validate and further refine the initial set of identified performance measurement priorities. Two sets of performance measurement priorities, one addressing the practice/organizational level and the other addressing the system (community, regional, provincial) level, will be finalized in early spring. Supported by the Steering Committee, working groups will then be established to propose specific measures corresponding to the identified performance measurement priorities and a Technical Advisory Committee will identify appropriate data sources and make recommendations regarding the infrastructure needed to support data collection, analysis and reporting. The emerging set of performance measures, developed through broad stakeholder engagement, will be an important step toward a comprehensive, coherent performance measurement framework to support the planning, management and continuous improvement of primary care in Ontario at both the practice and system levels.

Co-Authors: Katherin Creighton-Taylor, Project Coordinator, Primary Care performance Measurement and Reporting, Health Quality Ontario; Tanya Flanagan, Project Lead, Primary Health Care Information, Canadian Institute for Health Information; Brian Hutchison, Senior Advisor, Health Quality Ontario; Saurabh Ingale, Research Assistant, Primary Care, Health Quality Ontario; Michelle Rey, Health Quality Ontario, Director, Performance Measurement and Reporting; Patricia Sullivan-Taylor, Canadian Institute for Health Information, Manager, Primary Health Care Information; Greg Webster, Canadian Institute for Health Information, Director, Primary Health Care Information and Clinical Registries; Maria Zaccaria Cho, Canadian Institute for Health Information, Senior Program Coordinator, Primary Health Care Information

Mandatory Influenza Vaccination Programs for Healthcare Workers: Ethically Justifiable?

Maryana Hnatyshyn, Dalhousie University, Schulich School of Law

A newly introduced British Columbia influenza vaccination policy for healthcare workers (HCW) proves that mandating vaccination entails many ethical considerations in democratic societies. However, could ethics be relied on to combat a vaccination mandate? My objective is to research whether ethics justifies mandatory influenza vaccination of HCW. Though I use the Beauchamp/Childress four principles of bioethics (autonomy, maleficence, non-maleficence, justice) to build my framework, the foundation from which I do my analysis constitutes moral considerations arising from the realm of vaccination of HCW. To this end, I also utilize the principle of solidarity - a core value in public health ethics that aims to promote the common good. Consequently, I look at mandatory influenza vaccination of HCW through the lenses of bioethics and public health ethics, including its relational account, in order to fully assess the individualistic and relational paradigms of vaccination as a public health intervention. In relation to autonomy, my 'double approach' balances principles of necessity and effectiveness; both principles rely on science and exhaustion of voluntary measures which might undermine the mandate. An analysis of the 'no harm' principle, the duty not to infect, and to take steps to secure good outcomes for patients leads to the conclusion that influenza vaccination is an obligation for HCW without interfering with their duty to protect themselves. Discussion of distributive justice shows that mandatory vaccination assures fairness in the distribution of costs and eliminates free riding. I show also that solidarity cannot be used to justify mandatory vaccination so long as the rates of influenza vaccination of HCW in voluntary programs are equivalent to the rate achieved via a solidarity motivation. I conclude, based on the principles I analysed, that mandatory influenza vaccination of HCW has more ethics 'pros' than 'cons'. Therefore, I would answer my research question in the following manner: ethical considerations highly support mandatory vaccination, but they do not fully justify it.

Mental Health Service Use Patterns For Immigrant Groups And Long Term Residents In Ontario

Anna Durbin, Ms, University of Toronto

Little is known about immigrant use of health services in Ontario, Canada. The proposed session will describe extant research on mental health service use by immigrants with different characteristics. It will also outline the methodologies to be used in three studies on this topic that are part of a doctoral dissertation. Ontario administrative health service use databases will be linked to an immigration database managed by Statistics Canada with information collected from immigrants at arrival to Canada. Multivariate modelling will test an adapted version of Andersen's help seeking model that incorporates immigration related variables (region of origin, time since immigration, and visa class), as well as area variables with relevance to immigrants (neighbourhood deprivation and proportion of immigrants). The mental health service use outcomes include use of primary care, psychiatric care, emergency department care, and inpatient admissions. Separate models will be developed to predict use of services for non-psychotic and psychotic disorders. Worldwide Canada has the second largest proportion of foreign born individuals. Annually about one half of Canadian immigrants settle in Ontario. The proposed work marks advancements over existing immigrant mental health service use research in Canada. Immigrants arrive from diverse source countries, and are admitted in different visa classes with distinct entrance criteria (economic/business; family reunification and refugee). Even so existing Canadian research on immigrant mental health service use generally does not consider heterogeneity within this population. In addition, existing research often is based on cross-sectional self-report surveys and measures use of only one type of service at one point in time. Moreover, survey data are typically less complete and accurate than administrative health service use data. The proposed work helps fill knowledge gaps in Canada research on immigrant mental health service use. As well, the methodological strengths distinguish this work from much current Canadian research. A more nuanced description of immigrant mental health service use can help Ontario policy-makers and clinicians to improve service delivery.

Multimorbidity and Hospitalization Outcomes Over One Year

Andrea Gruneir, Scientist, Women's College Research Institute

The increasing prevalence of multimorbidity, or the co-occurrence of two or more chronic conditions, will pose a significant challenge for the health system to meet the components of the Triple Aim (population health outcomes, patient experience, and cost). As part of a larger panel of projects aimed at describing the impact of multimorbidity, this study focuses on quantifying increases in health services use, in particular hospitalizations, with greater multimorbidity among adults in Ontario. Using linked administrative data, we identified a cohort of 6,639,089 individuals with at least one of 16 prevalent, costly, and disabling conditions as April 1, 2009 and then followed them over one year to track all hospital encounters. We found that the age-adjusted hospitalization rates increased 3.5-fold among women (from 10.5% to 35.5%) and nearly 5-fold among men (from 7.1% to 33.3%) as the number of conditions increased from 1 to 5 or more. A similar incremental increase in the age-adjusted death rates across the number of conditions was observed for each woman and man. We identified a total of 1,353,521 inpatient hospitalizations which accounted for 9,931,601 days in hospital. The proportion of individuals who experienced more than 1 hospitalization, whose stay included alternate level of care days, who died at hospital discharge, and who experienced a 30-day readmission increased with the number of conditions, as did the average length of stay in hospital and the average number of days on alternate level of care. The results of this study illustrate a substantial increase in hospital use with the increasing burden of multimorbidity.

Co-Authors: Susan Bronskill, Scientist, Institute for Clinical Evaluative Sciences; Colleen Maxwell, Professor, School of Pharmacy, University of Waterloo; Anna Kone, Epidemiologist, CCO; Yelena Petrosyan, PhD Student, IHPME, Health System Performance Research Network (HSPRN), University of Toronto; YuQing Bai, HSPRN. Walter Wodchis, Associate Professor IHPME, University of Toronto, Principal Investigator HSPRN

Multimorbidity As A Driver Of Health Care Utilization: Results Of The 2012 Health Quality Council Of Alberta's Patient Satisfaction And Experience Survey

Calypse Agborsangaya, Mr, University of Alberta

Multimorbidity, the concurrent occurrence of two or more chronic conditions, is increasingly common in the general population and hence primary care. Health care utilization patterns by multimorbidity status have not been adequately evaluated. We determined the relationship between multimorbidity and health care utilization, and perceived access to care. The analyses were based on data from adult (≥ 18 years) respondents to the Health Quality Council of Alberta (HQCA) 2012 Patient Satisfaction and Experience Survey. Logistic regression models were fitted to determine the association between multimorbidity and outcomes (inpatient and outpatient hospitalization, emergency room (ER) visits and perceived access to care). Respondents' perception of access to care was also evaluated by multimorbidity status. Population sampling weights were applied in all analyses. A total of 4803 respondents were included in this analysis. Mean age was 47.8 (SD, 17.1) years and 56% were female. After adjusting for age, sex, income and obesity status, multimorbidity was associated with increased likelihoods of hospitalization (OR=1.8, 95% CI 1.4 - 2.3), outpatient hospital visits (2.0, 95% CI 1.7 - 2.4) and ER visits (OR=1.9, 95% CI 1.5 - 2.4). Moreover, respondents with multimorbidity were more likely to report difficulty with access to health care services compared to persons without multimorbidity (39.7%, versus 32.0%, $p < 0.0001$; OR= 1.4, 95% CI 1.2 - 1.8). Multimorbidity is an independent predictor of health care utilization, particularly inpatient and outpatient hospitalization as well as ER visits. Difficulty with access to care was commonly reported in persons with multimorbidity. Although these results warrant replication in a longitudinal setting, they may be vital for health care delivery policy.

Co-Authors: Emmanuel Ngwakongnwi, Dr, Health Quality Council of Alberta; Markus Lahtinen, Dr, Health Quality Council of Alberta; Tim Cooke, Health Quality Council of Alberta; Jeffrey Johnson, Dr, University of Alberta

Overview of the PATHS Equity for Children Program of Research

Marni Brownell, Associate Professor/Senior Research Scientist, University of Manitoba/Manitoba Centre for Health Policy

The PATHS Equity for Children is a program of research evaluating multiple health and social programs that have been implemented in Manitoba over the past decade to determine not only whether they improved child health and development, but also whether they resulted in reducing socioeconomic inequities in childhood outcomes. PATHS employs integrated Knowledge Translation, involving our collaborative team of scientists from the Manitoba Centre for Health Policy (MCHP), along with national and international scientists, students, clinicians, NGOs and regional and provincial policy-makers. PATHS was envisioned through extensive discussions amongst this group, who met to identify and select interventions to study in this program of research. PATHS is using the world-class data Repository housed at MCHP to conduct population-based analyses of 14 separate health and social interventions. As part of these evaluations, we are developing new and enhancing existing population-based methodologies on equity measurement, including changes in equity over time. All children born in Manitoba 1984-2010 comprise the analytic cohort, with exposures to the 14 interventions varying across birth cohorts. Program-common and project-specific predictor and outcome variables are developed using health, education and social service data in the Repository. For selected outcomes, qualitative analyses will determine potential barriers or facilitators in reducing childhood inequities. An integrative analysis is planned in the final year of the program, to explore synergies amongst programs, and whether program integration has a differential impact on inequity. Ongoing collaboration is maintained through monthly team meetings, and semi-annual Advisory Board meetings, where analytic plans and results of active projects are discussed. Advisory Board members, including key stakeholders, provide context to analyses, and help situate findings within the larger policy context in Manitoba. Through the PATHS Equity for Children program of research, we will be able to advance knowledge on what works to improve outcomes for children at varying stages along the developmental trajectory, and to identify policies and programs that reduce inequities in developmental health.

Co-Authors: Patricia Martens, Dr., University of Manitoba/Manitoba Centre for Health Policy; Alan Katz, Dr., University of Manitoba/Manitoba Centre for Health Policy; Dan Chateau, Dr., University of Manitoba/Manitoba Centre for Health Policy; Nathan Nickel, Dr., Manitoba Centre for Health Policy

Patient Assessment Of Chronic Illness Care Within The Teamcare-PCN Study: A Controlled Trial Of A Collaborative Care Model For Patients With Diabetes

Fatima Al Sayah, PhD Candidate, University of Alberta

The increasingly well-documented gap between clinical research findings and practice has spurred a number of efforts to improve the quality of chronic illness care. We intended to use data from the TeamCare-PCN trial to assess patients' perspective on the degree to which the care provided to them at Primary Care Networks (PCNs) is congruent with models of chronic care. This was a cross-sectional descriptive analysis using baseline data from the TeamCare-PCN trial (N=154). It will be followed by a longitudinal analysis to explore whether the TeamCare-PCN intervention enhanced perceptions of quality of care for individuals with diabetes and depression. The Patient Assessment of Chronic Illness Care - 11 items (PACIC), with a percentage scale ranging from 0% (none) to 100% (always) in increments of 10%, was used to assess patients' perspectives on the quality of their care. An overall score of the 11 items was computed, and the level of quality of care was as follows: low (0-30%), medium (40-60%), and high (70-100%). Patients' evaluation of different components of chronic care was generally low with only a medium rating for setting goals and organization of care. The mean (SD) total PACIC score was 34.7 (27.1); 50% rated the quality of chronic care as low, 28.6% as medium, and 18.8% as high. There were no differences in the PACIC score or ratings by sex, education, depression status, health literacy, or self-efficacy. The PACIC score was significantly correlated with the EQ-5D index score ($r=0.19$), SF-12v2-PCS score ($r=0.25$), general diet management ($r=0.19$), foot care ($r=0.23$), satisfaction with healthcare ($r=0.30$), and satisfaction with personal doctor ($r=0.41$). Patients who indicated that their personal doctor listened carefully to them, showed respect for what they had to say, and spent enough time with them had significantly higher PACIC scores than their counterparts. Additionally, patients who indicated that they have seen a nurse/practitioner had also significantly higher PACIC scores than those who didn't. The quality of chronic care that individuals with diabetes and depression receive through the PCN is less than optimal. Patients who had higher ratings of quality of care had better self-care management behaviours and also better quality of life. Further, it seems that the experience with personal physician plays an important role in how patients perceive and rate the quality of care.

Co-Authors: Sumit R. Majumdar, Professor, University of Alberta; Lisa Wozniak, University of Alberta; Sandra Rees, University of Alberta; Jeffrey A. Johnson, Professor, University of Alberta

Patient Preferences: Understanding Risk-Benefit Trade-Offs Of Genomic Testing In Chemotherapy Decisions For Breast Cancer Patients

Karen Pykerman, Research Associate, University of Calgary

Gene expression profiling (GEP) of tumours informs baseline risk prediction, potentially affecting decisions about adjuvant chemotherapy for women with early breast cancer (BrCa), of whom only 15% will experience a recurrence. We aimed to measure the value of GEP testing information in chemotherapy treatment decisions based on risk-benefit tradeoffs. Limited evidence exists on the clinical utility of GEP in chemotherapy treatment decisions. Based on findings from our qualitative research (focus groups, interviews with patients and medical oncologists), we developed a discrete choice experiment survey (DCE) and administered it via an internet survey to three groups for our pilot: patients with a history of BrCa ($n=27$); women from the general public ($n=55$); and medical oncologists across Canada ($n=3$). The DCE included 12 choice tasks with 5 attributes and 3 scenario profiles considering orthogonality, D-efficiency and level balance. Preferences were analyzed using conditional logit and hierarchical Bayes and evaluated for goodness-of-fit. Most (>80%) respondents know someone who had chemotherapy for cancer. However, few respondents (<10%) know someone who had GEP testing. Across the three groups, the most important attributes in chemotherapy treatment decisions were (in order): GEP test score indicating likely benefit from chemotherapy, doctor's estimate of risk of cancer returning (based on clinical algorithms), likelihood of permanent side effects, trust in cancer treatment doctor, and likelihood of temporary side effects. In a scenario of intermediate risk of cancer returning based on clinical algorithms alone (no GEP score), 12% of respondents chose chemotherapy compared to 89% of respondents with a GEP score of 44 (high likelihood of benefit from chemotherapy). GEP testing is highly valued and strongly influences chemotherapy treatment decisions in all three groups. These findings provide preliminary evidence supporting the clinical utility of GEP in BrCa treatment decisions.

Co-Authors: Yvonne Bombard, Postdoctoral Fellow, Yale University, Memorial Sloan Kettering Cancer Center, University of Toronto; Maureen Trudeau, University of Toronto, Sunnybrook Health Sciences Centre; Natasha Leighl, University of Toronto, Princess Margaret Cancer Centre; Deborah A. Marshall, Associate Professor; Canada Research Chair, Health Services Research; Arthur J.E. Child Chair, Rheumatology Research, McMaster University, University of Calgary, Alberta Bone & Joint Health Institute

Potential Effects of Policy Enhancements to the Primary-to-Specialist Hip and Knee Referral System in Alberta

Ken Fyie, Research Associate, University of Calgary

Wait times from referral to surgical consultations are a growing concern for Canadian provincial governments. An electronic referral tool, incorporating system-enhancing elements, has been proposed to reduce wait times for hip and knee consultations. The objective was to use scenario analyses to determine if these elements could reduce wait times. Elements were chosen in consultation with clinic staff and researchers at the Alberta Bone and Joint Health Institute. These elements were a province-wide next available surgeon option, standardizing referral information, MSK triaging of patients, and tracking voluntary and involuntary wait time. Scenario analyses for each element used referral data collected from three Alberta hip and knee clinics and a comparator clinic in Hamilton, Ontario for 2010-2011. Wait times from referral to surgical consultation were the primary outcome. One-way sensitivity analyses were used to determine the changes in wait times from initial values, with comparison made between Alberta and Hamilton results. Increasing the percentage of referrals selecting next available surgeon from 70% to 100% would potentially reduce estimated surgeon consultation wait times by 4 business days. Increasing the number of referrals completing all referral requirements from 77% to 99% would potentially reduce surgical consultation wait times by 3 business days. Increasing MSK screening from 70% to 100% would potentially decrease surgical consultation wait times by 1 business day, but would potentially reduce wait times for patients of higher urgency by 6 business days. Separating voluntary, patient-related wait times potentially reduces system-reported wait times by 5-10 business days. Compared to Hamilton, the effects of increased next available surgeon selection were larger and the effect of MSK triage was similar. The scenario analyses show a proposed electronic referral tool, with multiple system-enhancing elements, would likely decrease wait time due to an increased percentage of complete and correctly directed referrals and increased triaging of patients. System resources spent processing referrals before could then be allocated to more important clinic functions.

Co-Authors: Tom Noseworthy, Professor, University of Calgary; Cy Frank, Professor, University of Calgary; Linda Woodhouse, Professor, University of Alberta; Deborah Marshall, Professor, University of Calgary

Prevalence and Characteristics of Multimorbidity in Ontario

Anna Koné, Epidemiologist, Institute of Health Policy, Management and Evaluation, University of Toronto; Cancer Care Ontario

There is a growing need to address care management, patient experience and costs, for individuals with non-communicable disease (NCD) and particularly those with multiple NCDs or multimorbidity. Multimorbidity is known to be associated with high costs and gaps in quality of care and its prevalence is expected to increase dramatically due to the aging population and improved survival. In this study, we aim to determine the prevalence, evaluate the demographic and clinical characteristics, and describe trends in multimorbidity. The study is based on a population-based analysis covering all eligible Ontarians. A cohort of patients with at least one of 16 conditions was identified from clinical administrative databases including hospital physician and pharmacy claims. The cohort included 5,263,845 as at April 1, 2003 and 6,639,089 as at April 1, 2009. Our results showed that multimorbidity is highly prevalent in Ontario and has increased significantly in recent years (40% of increase between 2003 and 2009). One in 4 Ontarians have at least 2 of 16 conditions and. As expected, age was strongly related to multimorbidity: more than 3 in 4 people age 75 or over had 2 or more conditions. Individuals living in poorer and more marginalized neighborhoods had more conditions on average and were more likely to have multimorbidity, suggesting an existence of health disparities. Moreover, multimorbid patients didn't have predominant combinations of conditions, making it challenging to design an effective disease-oriented management program. Our results highlight the importance to evaluate the impact of multimorbidity on health outcomes, costs and quality of care, given the high and growing prevalence.

Co-Authors: Andrew Calzavara, Institute for Clinical Evaluative Sciences; YuQing Bai, Health System Performance Research Network (HSPRN); Susan Bronskill, Scientist, Institute for Clinical Evaluative Sciences; Anna Kone, Epidemiologist, CCO; Andrea Gruneir, Scientist, Women's College Research Institute; KednapaThavorn, Post-doctoral Fellow, Li KaShing Institute; Colleen Maxwell, Professor, School of Pharmacy, University of Waterloo; Walter Wodchis, Associate Professor IHPME, University of Toronto, Principal Investigator HSPRN.

Projections Of Preventable Risk Factors For Cardiovascular Disease In Canada From 2001 To 2020: A Microsimulation Modelling Approach

Deirdre Hennessy, Post-doctoral Fellow, OHRI

Improvements in preventable risks have contributed to a decrease in cardiovascular disease (CVD) incidence. It is uncertain whether this decrease will continue given current trends in risk factor prevalence. Our objective was to use microsimulation modelling to project the prevalence of CVD risks to 2020, thereby informing future CVD trends. The population-based health microsimulation model (POHEM) used national administrative and survey data on births, deaths, migration, socioeconomic position and CVD risk factors. Algorithms that described change in risk factor status over time, based on sociodemographic characteristics and previous CVD risks, were derived from the same data sources. The initial model population was 22.5 million individual 'actors' representing the Canadian population ≥ 20 years in 2001. The life trajectory of 'actors' unfolded to create a life-course of CVD-related risks. The prevalence of smoking, body mass index ≥ 30 , diabetes, hypertension and lipid levels for the simulated Canadian population was modelled and projected to 2020. The prevalence of preventable CVD risk factors, including smoking, body mass index ≥ 30 , diabetes, hypertension, lipid levels and multiple risk factors were projected from 2001 to 2020. From 2001 to 2009, the prevalence of projected CVD risks closely approximated observed risks, available from Canadian population-based survey data. Except for obesity and diabetes, the prevalence of all CVD risk factors was projected to decrease through to 2020. The largest decreases projected were for smoking (from 25.7% in 2001 to 17.7% in 2020) and uncontrolled hypertension (from 13.3% in 2001 to 6.0% in 2020). Notably, in 2017 obesity (body mass index ≥ 30) was projected to surpass smoking as the most prevalent risk factor, while the prevalence of multiple risks is projected to remain low at about 0.2%. Using microsimulation modelling, this study demonstrated an overall decrease in the prevalence of CVD risk factors through 2020. The likely summary effect of changing risk factor prevalence is a continued decline in CVD incidence. These estimates represent the baseline trend in risk factor prevalence and need to be interpreted appropriately.

Co-Authors: Meltem Tuna, OHRI; Carol Bennett, OHRI; Anya Okhmatovskaia, McGill University; Douglas Manuel, OHRI

Readiness For Interprofessional Education: Views From The Clinical Setting

Brenda Gamble, Assistant Professor, University of Ontario Institute of Technology

Interprofessional collaborative practice (IPCP) is seen as key to improving healthcare system performance. Interprofessional education (IPE) during training fosters respect among professions by developing communication skills to support IPCP. We surveyed Sunnybrook Health Sciences Centre's (SHSC's) frontline providers to determine their readiness for training students in an IPE environment. An electronic self-administered questionnaire is being distributed by email invitation to all of SHSC's frontline providers (e.g., nurses, physicians, allied health and managers) who come in contact with students during their clinical training. The questionnaire includes the validated Readiness for Interprofessional Learning Scale (RIPLS), questions to determine views on interprofessional collaborative practice (IPCP) and items related to demographics, employment and educational characteristics. The analysis will include descriptive statistics, factor analysis, and an analysis of variance (ANOVA). We will analyze by professional group to determine if views differ within professional cultures. Data collection is ongoing with completion in March 2013. Previous survey of health sciences' students (N=440) using the same questionnaire identified two principal factors using RIPLS items which explained 68% of the variance; 1) collaboration ($\alpha = 0.9$) and 2) scope of practice ($\alpha = .73$). Students demonstrated their readiness for collaboration but also recognized the importance of understanding one's own role as well as the roles of others. This current survey of healthcare professionals will provide baseline data that can be used to determine if focused IPE educational interventions are required for frontline providers with the goal of ensuring students enter an IPE ready clinical environment. Introducing IPCP competencies into the curricula is one of the fundamental aspects of IPE. However, what happens in the clinical setting during training is paramount. Knowing views on IPE and IPCP are key to developing learning strategies in the clinical setting for both frontline providers and students.

Co-Authors: Ruth Barker, Director of Health Professions and IPE/IPC, Sunnybrook Health Sciences Centre; Manon Lemonde, Dr., University of Ontario Institute of Technology

Reporting on Primary Healthcare Performance in Canada

Matthew Hogel, Research Assistant, Bruyere Research Institute

To describe public primary health care performance reporting in Canada including; who is reporting, on what indicators, and using what data sources. Secondary objective: to assess whether the provinces and federal government are meeting primary healthcare (PHC) reporting obligations and reflecting the priorities of patients, physicians, and policy makers. Health system performance reports, which included PHC-related indicators and were publicly released post-2003, were obtained from provincial and federal ministry of health, and health quality council websites, as well as provincial and national governmental and non-governmental organisation and professional association websites. PHC-related indicators from each report were extracted and matched to an attribute from a PHC performance framework. Reported attributes were compared to reporting obligations from the First Ministers' Accord of 2004 and to patients, providers, and policy makers' PHC reporting priorities identified through a literature review and environmental scan. No provinces, nor the federal government, have met the PHC reporting obligation established with the First Ministers' Accords from 2000-2004. Alberta, New Brunswick, Ontario, and Quebec are reporting most regularly and on the widest range of attributes of PHC performance, but are only meeting about 50% of the reporting requirements. We identified 52 priority PHC indicators for patients, providers, and policy makers. Of those 52, few were common to two or more stakeholders and only 5 overlapped with reporting obligations from the First Ministers' Accords. The provinces reporting most consistently and thoroughly (identified above) are routinely reporting on only 11 of the 52 priority indicators for patients, providers or policy makers. Poor overlap between provincial reporting obligations, current patients, providers, and policy makers' priorities and the indicators currently being reported on suggests inadequate information is available to key stakeholders in PHC across Canada. Establishing new and relevant common reporting priorities based on current needs and available data is essential.

Co-Authors: Sharon Johnston, Associate Professor, Bruyere Research Institute; CT Lamont Primary Care Research Centre

Resource Utilization And Expected Costs Of Screening Current And Former Smokers For Lung Cancer In Canada

Sonya Cressman, Health Economist, British Columbia Cancer Agency, The Canadian Centre for Applied Research in Cancer Control

With the aim of reducing lung cancer deaths in Canada, the Pan-Canadian early lung cancer detection study recruited 2537 current or former smokers starting in September, 2008. An economic analysis was conducted to estimate the potential costs and benefits of screening if it were to translate into provincial programs. Prospectively collected resource utilization data and costing analysis is presented for early lung cancer detection as a sum of screening costs (cost of all resources utilized to confirm true negative and false positive screen tests) and treatment costs that correspond to resources applied to obtain diagnostic confirmation of true positive and false negative results for screened individuals. All costs have been calculated from the government payer and societal perspective. Societal costs, including productivity effects and out-of-pocket expenditures, are informed from screening participants and questionnaires that were administered to lung cancer patients in British Columbia. The average CT-screening cost over a fixed period of 18 months for the pan-Canadian participants who did not have cancer was \$619 (95%CI: \$548-\$690) per-person; depending mainly upon geographic screening location. The average rate of non-invasive investigations, which is accounted for by follow-up CT scans, was 49% (CI: 45%-54%) and varied significantly between different jurisdictions. The rate of invasive investigations for individuals who had true negative or false positive results was low (<0.4%) as was the rate of complication (<0.004%). 85 individuals had lung cancer detected and diagnosed prior to December 31, 2012. The average cost of screening and the subsequent diagnostic workup for those people with screen detected lung cancer was \$4,594 (95%CI: \$4,208-\$4,981) per person, depending on lung cancer stage and histological subclass. This information arrives while Canadian healthcare systems face impacts from several private, opportunistic, lung-screening clinics that are already operational. At least three jurisdictions in Canada are in the process of considering pilot programs for screening current or former smokers for lung cancer. This information may facilitate pilot planing and economic modelling.

Co-Authors: Dean Regier, Sr. Health Economist, British Columbia Cancer Agency, The Canadian Centre for Applied Research in Cancer Control; Ian Cromwell, Health Economist, British Columbia Cancer Agency, The Canadian Centre for Applied Research in Cancer Control; Stuart Peacock, Co-director, Associate Professor, Distinguished Scientist, British Columbia Cancer Agency, The Canadian Centre for Applied Research in Cancer Control, The investigators of the Pan-Canadian Early Lung Cancer Detection Study

Rural Pharmacist Practice, Interest And Engagement In Academic Activities

Feng Chang, Assistant Professor, University of Waterloo School of Pharmacy

In rural Southwestern Ontario, pharmacists are more geographically isolated with no formal organization for professional development or peer engagement. This project aims to establish a baseline understanding of current rural pharmacist practices, and determine interest and feasibility for rural pharmacists to engage in academic activities such as teaching and research. All registered pharmacists with primary work location in Huron, Perth, Bruce, and Grey Counties in Southwestern Ontario were invited via an information letter to complete a short electronic survey. The survey included questions about their practice and involvement in academic activities. A one-page poster was sent one week later to remind pharmacists to participate. Follow-up calls were conducted within two weeks. Pharmacists who completed the survey then had the option of participating in a local focus group meeting or in a one-on-one structured interview as their schedule permitted to discuss their input in more detail. A total of 245 pharmacists were contacted. Twenty-five (10.2%) provided consent to participate. Approximately 84% worked in community pharmacies, 12% in hospitals, 8% in Long-term Care, and 4% in Family Health Teams. Almost half (42%) completed professional development programs within the last year. A majority (63%) trained students. For those who did not, 56% were interested. Most (96%) were not involved in research but a majority (58%) expressed interest. A majority (70%) also indicated willingness in joining a formal academic network. Common themes regarding challenges in practice were a lack of communication, both in the community (between pharmacist and the Family Health Team, for example) and with external organizations such as universities, shortage of resources including relief staff, and geographical isolation. A small but significant number of rural pharmacists appear proactive in practice and supportive of academic activities. Creative methods of engaging them in research and education can strengthen rural pharmacy practice, improve rural health research, and increase meaningful exposure to rural settings for students.

Co-Authors: Jenessa Dalton, Gateway Rural Health Research Institute

Selecting A Generic Health Status Instrument For The Systematic Collection Of Patient-Reported Outcomes

Angie Chan, Project Manager, University of British Columbia

A large, longitudinal mail survey of community-based patients undergoing elective surgery was established to measure the impact of that care on patient-reported outcomes (using a pre- and post-surgery study design). The objective of this analysis was to ascertain which of the commonly used generic health status instruments to adopt. We established a set of criteria with which the generic health status instruments were evaluated. These included: 1) type of instrument and ability to rank order health states (psychometric- versus preference-based), 2) perceived responder burden (number of questions), 3) affordability (licensing fees), 4) Canadian applicability (generalizability to Canadian population), 5) use in similar applications and international comparability. The peer-reviewed and grey literature-bases were scanned to identify the most commonly used generic health status instruments and any review of their application. The websites for each of the instruments were reviewed to extract the most current information regarding costs and Canadian applicability. At the outset, it was determined that a preference-based instrument - able to rank order health states - would best meet the analytic needs of our survey, we narrowed or search of the literature accordingly. Three commonly used preference-based instruments were identified: the EuroQoL EQ-5D, Health Utilities Index 3 (HUI3), and the Quality of Well-Being Scale (QWB). With five questions, the EQ-5D had the fewest questions of the three instruments. The EQ-5D was the only instrument that did not have a licensing fee associated with its paper-based use. Both the EQ-5D and the HUI3 had established health state values using a Canadian sample. All of the instruments had been used in a number of different jurisdictions, though the standard QWB was not intended for mail-based surveys. Based on our criteria, the EQ-5D best satisfied the needs of our survey of surgical patients. Not only did it present the lowest responder burden, but it also was the most affordable. Its Canadian-based population norms and use in similar large-scale mail survey of community-based patients were also favourable.

Co-Authors: Trafford Crump, Post-Doctoral Fellow, University of British Columbia; Angie Chan, Project Manager, University of British Columbia-Vancouver Coastal Health; Jason Sutherland, Assistant Professor, University of British Columbia; Joleen Wright, Director, Vancouver Coastal Health

Social Housing And Health In Manitoba: A First Look

Mark Smith, Manitoba Centre for Health Policy

Fourteen years of social housing data (1995-2008) were acquired from the provincial government. This allowed for an unprecedented opportunity to profile the population of individuals living in social housing and, through data linkage, to compare them to the rest of the province on a number of health and social indicators. Using the entire population of the province a cross-sectional comparison was made between those living in social housing and those not on 19 indicators of morbidity, mortality, health care utilization and social development. Logistic regression models were developed to control for variations in age, sex, region of residence, presence of comorbidities, income, and neighborhood level SES, and other confounding factors. 50% of the population in social housing is under age 20, 75% are female and 50% of applicants receive income assistance. As expected for such a low SES group there are significant differences on most health status measures when compared to individuals not in social housing. However, after controlling for other factors in the logistic regression models most differences between the two groups disappeared indicating that there is no independent effect of social housing. The exceptions were total respiratory morbidity, mammography and high school completion. In two other cases, cervical cancer screening and complete immunization by age two, the modeled rates were actually higher for individuals in social housing. High school completion rates showed a very significant interaction with neighborhood level SES in social housing. Despite overall poor health status, after controlling for income and other confounding factors individuals in social housing score better on some measures of health care utilization and prevention and high school completion rates showed a very strong interaction with neighborhood level SES. The policy implications of this research are discussed.

Co-Authors: Greg Finlayson, Dr., MCHP; Patricia Martens, Dr., MCHP; Jim Dunn, Dr., McMaster University; Ruth-Ann Soodeen, Ms., MCHP

Strengthening Evidence-Based Practice With Youth-Focused Service Providers Through An Active Knowledge Translation And Exchange Approach

Joanna Henderson, Clinician Scientist, Centre for Addiction and Mental Health

To examine the impact of an active knowledge translation approach on service providers' youth concurrent disorder-related attitudes, knowledge and practices and to enhance understanding about the factors that impact knowledge translation success in youth-serving agencies across Canada. The existence of substance abuse treatment systems for youth vary across Canada but are generally comprised of agencies, services and resources that are not well coordinated nor integrated, neither within nor across sectors, often resulting in fragmented care and barriers to service access for youth. The purpose of this initiative is to examine the impact on service providers of being involved in a project that provides concurrent disorder capacity building activities, supports cross-sectoral networking, and facilitates implementation of a common screening tool across organizations. This presentation will describe findings based on data gathered from participating service providers at 3 points in time: 1) prior to capacity building activities and implementation of the common screening tool across agencies; 2) at the conclusion of the implementation period for the screening tool; and 3) at 6 month (approx.) follow-up. Results will be presented regarding service providers' attitudes, knowledge and practices regarding youth concurrent disorders and cross-sectoral collaboration. In addition, individual and agency factors related to concurrent disorders-related attitudes, knowledge and practices by service providers will be described, as will their relation to changes in knowledge, attitudes and practices over time. Despite generally positive attitudes toward youth concurrent disorders-related issues, service providers reported gaps in knowledge and practice. Active knowledge translation practices such those examined in this project appear to hold promise and service providers reported generally favorable responses to participation. Implications for knowledge translation practice and research will be discussed.

Co-Authors: Gloria Chaim, Deputy Clinical Director, Centre for Addiction and Mental Health

Successful Interdisciplinary Collaboration In Health Services And Policy Research: A Case Study Of A Multi-Year, Multi-Method Research Project

Laurie Goldsmith, Assistant Professor, Simon Fraser University

While some literature on interdisciplinarity in health services and policy research exists, little of this literature reflects on existing successful collaborations. We used our own CIHR-funded multi-method research project to reflect on successful interdisciplinary collaboration to suggest lessons for other interdisciplinary teams and to encourage further investment in planning funds. We used a case study approach to reflect on our team's successes over time. We systematically tracked the history of the formation of our research team, including documenting the early meetings, the timing and ways that team members joined the team. We also reflected on all of the reasons why collaboration was important to our project throughout the planning and research project. This multi-method research project is still underway and we will continue to reflect throughout this process, including a summative evaluation of our overall success at interdisciplinary collaboration when the project ends. The main factor in our success at interdisciplinary collaboration was the more than two years spent in planning the project and building the team before a research grant was submitted to CIHR. This process was greatly assisted by planning funding and in-kind support from a variety of organizations. Our substantial planning time led to a strong grant that was funded on first submission and facilitated team members getting to know each other, including better understanding other's perspectives, creating the beginning of shared goals and shared language, and building goodwill and trust. Even before formally starting our research project we already understood that each team member brought significant value. Various team members also operated as champions and translators when needed throughout the planning and research time. Successful interdisciplinary collaboration is facilitated by time and support for the planning process, the development of shared goals and shared language, and early and ongoing project champions and translators. Our interdisciplinary was also enhanced by team members' goodwill leading to trust and faith in each other and the project.

Surgeon Caseload And Its Association With Rate Of Breast Conserving Surgery In Breast Cancer Patients In Alberta, Canada

Stacey Fisher, M.Sc. Candidate, School of Public Health, University of Alberta

A recent national report on breast cancer has shown that the rate of breast conserving surgery (BCS) in Alberta is very low when compared to other Canadian provinces. We sought to investigate the relationship between surgery type (BCS or mastectomy) and surgeon caseload in breast cancer patients. All patients diagnosed with stage I, II or III breast cancer in Alberta from 2002-2010 who received surgery were identified from the Alberta Cancer Registry and included in the study. Patient demographics and clinical characteristics were obtained from the cancer registry. Type of surgery and surgeon (anonymized) were obtained from provincial physician claims data. Surgeons were categorized as high (> 30 surgeries per year) or mid/low (<30) volume. Surgeon-specific rates of BCS were calculated. Multiple regression was used to assess the relationship between surgeon volume and BCS adjusted for patient demographics and clinical characteristics. A total of 14 314 patients were included in the study and received surgery from 45 surgeons. BCS was received by 46% of patients, and 17% of all patients received at least one additional surgery within a year of their initial surgery. High volume surgeons (N= 35) performed 92% of all surgeries. Of all high volume surgeons, 54% performed BCS on more than half of their patients, while only 30% of all mid/low volume surgeons (N= 10) performed BCS on more than half of their patients. Low-volume surgeons are less likely to perform BCS than high volume surgeons, however, both groups have relatively low rates of BCS. Given patient preference for BCS, further investigation into this phenomenon in Alberta is needed to fully understand the difference in care from other parts of Canada and the US.

Co-Authors: Yutaka Yasui, School of Public Health, University of Alberta; Marcy Winget, Cancer Care- Alberta Health Services, School of Public Health, University of Alberta

The 'ACT-Pharm' Study: Is Contraception Task-sharing Acceptable and Feasible among Rural Pharmacists in British Columbia (BC)

Wendy V. Norman, Assistant Professor, University of British Columbia

Access to prescription contraceptives in rural areas is often limited by the hours and location of physician or youth clinic services. Pharmacists are trusted, available professionals. This study aimed to explore the acceptability and feasibility for independent provision of contraception by pharmacists in rural BC. As prescribing services are increasingly within the scope of pharmacists in Canada, hormonal contraception provision may be a suitable addition to pharmacists' scope of practice. This mixed methods study mailed surveys to all 333 rural pharmacies in BC (August-October 2012) with fax and telephone reminders at one month. Participants were invited to a structured telephone interview. Surveys were also distributed to a purposive cluster-randomized sample of 32 urban pharmacies near Vancouver, for comparison purposes. Questions followed Rogers Diffusion of Innovations theory, were reviewed by a panel of experts and refined by focus group and pilot testing among community pharmacists. Surveys were returned by 127 (38%) among all rural pharmacies, as well as by 15 (47%) of urban pharmacies sampled. Respondents were half (74/142) male, one-quarter (95/142) managers or owner-pharmacists, and reported a mean of 16 years in practice. Seventy percent of rural (53% of urban) pharmacies reported a private counselling area. Over 84% (107/127) of rural pharmacists indicated interest to prescribe hormonal contraceptives. Factors associated through logistic regression with willingness to prescribe were: comfort using a protocol, presence of a confidential counselling room, certification in special skills such as immunization, and fewer years in practice. Pharmacists indicated a need to clearly understand assessment protocols and liability issues, prior to implementation. Pharmacists in rural BC report a high degree of acceptability and feasibility for independent prescription of hormonal contraceptives. As pharmacists are often the most accessible health professional in rural areas, pharmacist provision of hormonal contraceptives carries the potential to improve timely access to contraception.

Co-Authors: Michael Wong, Mr., University of British Columbia; Judith A. Soon, Dr., University of British Columbia; Peter J Zed, Dr., University of British Columbia

The Canadian Foundation for Healthcare Improvement (CFHI): Our Triple Aim Impact in Canada

Kaye Phillips, Director, Performance Improvement, Canadian Foundation for Healthcare Improvement

This study explores the impact of CFHI's past programming in the goal areas of healthcare efficiency, patient and family centred care and coordinated healthcare. This analysis was undertaken to identify successes, inform future programming, and learn from best practices for accelerating healthcare improvement in Canada. CFHI undertook an analysis identifying past program impacts across Canada. As a broad research topic, a mixed methodology was used. This encompassed a variety of both quantitative and qualitative methods. Methods include, but are not limited to case studies, social network analysis, citation analysis, geographic, and thematic analysis of the three CFHI goals. Measures included: leveraging ratio, project dollar-value, number of partnerships, number of jurisdictions per project, author location, organizational improvements (e.g. improved access, efficiency, flow, quality of care, patient safety, integration and coordination of care), changes in health outcomes, quantifiable savings, project influence, and project spread. CFHI demonstrates positive impacts to the health systems in Canada within the three areas. Many projects were able to demonstrate improvements in all three categories. Within the field of efficiency funded programs demonstrated decreases in emergency room and specialist visits, cost-savings, time saving activities, and increased efficiency of health resource allocation. In the field of patient and family centred care CFHI intervention projects demonstrated increases in service accessibility, patient feelings of well-being, patient quality of life, quality of care, and caregiver job satisfaction and retention. Coordinated healthcare projects demonstrated better informed decision making, coordination of services, partnerships, support networks, and identification of tensions and barriers to providing better services. This analysis informs CFHI's forward-looking goals and offers a rich resource of case studies and learning experiences which can aid others who pursue healthcare improvement in Canada and beyond. With a wealth of experiences, regionally and thematically, this study shows it is possible to successfully pursue Triple Aim in Canada.

Co-Authors: Keesa Elicksen, Interim, Canadian Foundation for Healthcare Improvement; Jonathan Sachs, Evaluation Specialist, Canadian Foundation for Healthcare Improvement

The Current State of e-Referral and e-Consultation in Canada: An Environmental Scan

Matthew Hogel, Research Assistant, Bruyere Research Institute

To gain a better understanding of the electronic systems that have been implemented in Canada aimed at increasing access to specialist care, including the barriers and facilitators they have encountered in their implementation and maintenance. A literature review was performed to identify peer-reviewed publications describing electronic consultation/referral (eConsultation/eReferral) systems implemented in Canada. Grey literature was examined using an internet search and a scan of selected private and governmental organization websites. A targeted list of individuals involved with the projects identified was generated from the literature search, and open-ended interviews were performed to gain insight into the strengths and weaknesses of those individual projects. The interviews were aligned with the RE-AIM model dimensions to evaluate the Reach, Effectiveness, Adoption, Implementation, and Maintenance of each system. The peer-reviewed literature search revealed zero publications describing a Canadian eConsultation system. The grey literature search revealed a number of Canadian systems intended to increase access to specialist care through the use of technology. Many used synchronous techniques to connect physicians, compiled databases containing specialist information to ensure appropriate referrals, or were push-forward patient information repositories. A minority consisted of asynchronous two-way communication between primary care physicians and specialists intended to reduce unnecessary referrals. Most systems were specialty-specific. The interview phase revealed a number of common challenges with respect to the adoption, implementation and maintenance of electronic systems. These included physician recruitment and engagement, aligning heterogeneous referral systems, and changing physician's workflow habits. Securing ongoing resources and funding were also barriers to system maintenance. There is a void in Canada of electronic systems aimed at eliminating unnecessary referrals to increase access to specialist care. A recurring theme for successful implementation and sustained use is having physician champions, and engaging physicians throughout the process to design a system that they will find effective and use.

Co-Authors: Clare Liddy, Dr., Bruyere Research Institute; CT Lamont Primary Care Research Centre; Erin Keely, Dr., The Ottawa Hospital

The Evaluation and Use of Economic Evidence to Inform Cancer Drug Reimbursement Decisions in Canada

Jaclyn Beca, Research Manager, St. Michael's Hospital

In Canada, pharmaceutical manufacturers are required to submit economic evaluations when seeking reimbursement. Our objectives were to describe the role of economic evidence in the cancer drug review process in Canada, and investigate the nature of problems encountered in the review and interpretation of economic evidence used in the process. We conducted a retrospective review of cancer drug review meeting minutes and reviewers' comments on pharmacoeconomic studies submitted to the interim joint oncology drug review (iJODR) process in Canada. We used pharmacoeconomic reviewers' reports and relevant cancer drug review expert advisory committee meeting minutes during the first year of the review process (April 2007 to March 2008). Fifteen economic submissions were reviewed. The committee could not determine the value for money of the drugs from several of the submitted pharmacoeconomic analyses. One-third of the studies had flaws significant enough that the advisory committee could not determine the cost effectiveness of the drugs from the results. The common issues outlined by the reviewers and committee were related to the uncertainty of comparative clinical benefits, quality of life and costs. The reviewers felt that few analyses provided sufficient sensitivity analyses around key variables to assess the robustness of results. Most problems identified by reviewers are simple to fix and do not involve advanced methods. Canada has a separate review process of both clinical and economic evidence for making cancer drug funding recommendations. Transparent analyses and detailed critique of evidence are crucial to the use of economic evidence in reimbursement decisions. Rigorous evaluation is resource intensive and benefits from a shared process among several jurisdictions.

Co-Authors: Jean Yong, Research Manager, Keenan Research Centre, Li Ka Shing Knowledge Institute, St. Michael's Hospital; Jeffrey Hoch, Research Scientist, Keenan Research Centre, Li Ka Shing Knowledge Institute, St. Michael's Hospital

The Father Friendly Initiative : An Innovative Program to Support Father Involvement in Health Services

Pascale de Montigny Gauthier, Research Coordinator, University of Quebec in Outaouais

The Father Friendly Initiative within the Family (FFIF) program was developed in order to empower health professionals to support father involvement, and ultimately prevent child abuse and neglect. This presentation will describe the FFIF, its implementation in a region of Quebec, Canada, and evaluation strategies and results. It is well-known that father involvement benefits children's cognitive and social development and contributes to mothers' well-being. Furthermore, fathers who are involved with their children right after birth tend to stay involved later on in life. Recent researches have highlighted that social and professional support can be protective factors of father involvement. A logical model was used to develop the Father Friendly Initiative within the Family program. Program evaluation was carried out through qualitative and quantitative data collection and analysis. Forty interdisciplinary and inter-establishment professionals were empowered to support father involvement in 2010-2011. These health and social professionals adopted father friendly attitudes, beliefs and behaviors after participating in this innovative program. The implications for health and social services and practices towards fathers as well as for policy development for the support of father involvement will be discussed.

Co-Authors: Kate St Arneault, Chair Coordinator, Université du Québec en Outaouais; Francine deMontigny, Canadian Research Chair, Université du Québec en Outaouais; Christine Gervais, Research Coordinator, Université du Québec en Outaouais; Diane Dubeau, Professor, Université du Québec en Outaouais

The Francophone/Acadian Experience: Primary Healthcare in Halifax, Nova Scotia

Caila Aubé, Dalhousie University

The ability to understand and be understood is essential if people are to benefit from healthcare services. This research explored the experience of Francophones/Acadians who receive primary healthcare in Halifax, Nova Scotia. This included learning about the processes, behaviours, challenges and expectations within their social and professional environment of healthcare. Fifteen self-identified Francophones/Acadians who lived in the vicinity of Halifax for at least five years were recruited to participate in one 90 minute interview. The interviews were conducted in French to respect the participants' culture and language. They were transcribed and translated into English. The analysis was informed by phenomenological qualitative analysis methods. Transcripts were coded to determine emerging themes. These themes were presented to the participants for their input on the analysis process. Final results were determined once participants had the opportunity to review the themes and provide their comments. Five major themes emerged from this research. First, 'communication and difficulty with language' explains experiences such as: insecurity of not being understood and not understanding; worries about quality and safety; and language barriers which increased stress and anxiety before, during and after appointments. Second, 'coping mechanisms' captures the extra effort and energy required of participants to adapt behaviours in order to function within the health services. Third, the 'role of the Francophone/Acadian community' explains how the community is used as a network and resource and also highlights reasons to fight for services. Fourth, 'sensitivity level of professionals' has a large influence on the participants' experience. Last, there was an 'internal struggle for Francophones and Acadians' between wanting French services and needing services regardless of language. French services were important for many reasons including quality, personal, community and cultural. Despite this importance, the need to receive quality and timely services often required using English services. Sensitivity education for health professionals as well as support for coping mechanisms may be a cost-efficient intervention to improve Francophone/Acadian experience.

The Impact of Comorbid Conditions on the Quality of Diabetes Care in Ontario

Yelena Petrosyan, PhD student, University of Toronto, Health System Performance Research Network (HSPRN)

Health care providers face difficulties in addressing multiple treatment needs in diabetes patients with comorbid chronic diseases. There are two main typologies of comorbid conditions in diabetes patients: diabetes-related or concordant, such as cardio-vascular diseases, and non-diabetes-related or other clinically unrelated such as musculoskeletal conditions, mental diseases, etc. This study aims to assess the quality of diabetes care for diabetes alone compared to diabetes in the presence of comorbid conditions in Ontario, and to study 1) the association between diabetes care quality (glycated hemoglobin (HbA1c) and LDL-cholesterol tests and eye exams; and a composite of the 3 measures) in the period of 2007-2009 and hospital admissions due to diabetes-related conditions in the period 2009-2011 among diabetes patients with concordant vs. other comorbid conditions in Ontario. The population-based cross-sectional retrospective cohort study identified all Ontarians with physician-confirmed diagnosis of diabetes using clinical administrative databases including hospital and ambulatory physician visits. Among the study cohort of 1,043,016 diabetes patients, only 15% of diabetic patients lived without comorbidity, indicating that diabetes mostly occurs in conjunction with other conditions. Generally diabetics with multimorbidity had greater achievement on process quality indicators than those with only diabetes, particularly, diabetes patients with 2 or 3 co-existing conditions. However, diabetics with dementia and asthma experienced low quality of care. The hospitalization rate in diabetes patients increases with increase in the number of comorbid conditions. The results of our study aims to identify areas for diabetes care improvement.

Co-Authors: Walter Wodchis, Associate Professor IHPME, University of Toronto, Principal Investigator, HSPRN; Susan Bronskill, Scientist, Institute for Clinical Evaluative Sciences; Anna Kone, Epidemiologist, CCO; Andrea Gruneir, Scientist, Women's College Research Institute; Kednapa Thavorn, Post-doctoral Fellow, Li Ka Shing Institute; Colleen Maxwell, Professor, School of Pharmacy, University of Waterloo; Yuqing Bai, HSPRN

The Impact of the Feminization of British Columbia's Primary Care Physician Workforce on Service Supply

Lindsay Hedden, PhD Candidate, School of Population and Public Health, UBC

An increasing proportion of females in the primary care physician (PCP) workforce is frequently claimed to be contributing to a perceived primary care service shortage. This systematic review examines the current evidence that quantifies the impact of workforce feminization on overall primary care service supply. Medline, Embase, Web of Science, Science Direct, PsycholINFO, and Cochrane controlled trials register, were searched to January 2013 using variations of the terms 'primary care', 'women', 'manpower', and 'supply and distribution'. Forward and reverse citation searches, as well as a scan of grey literature were also completed. Studies that compared male to female PCPs on any of the following outcomes were included: part-time versus full-time status; hours worked or spent on patient care; billings; productivity; length of career or retirement; and leaves of absence. Data source and adjustment methods were also abstracted. From the over 1100 abstracts screened, six studies and two reports met the inclusion criteria and were included in the final review. Female PCPs self-report working fewer hours than their male counterparts; provide fewer services; see fewer patients; and take more leaves of absence. The studies that used billings activity both concluded that women bill less. Methodological variation, particularly in the choice of outcome measure, makes comparison across studies challenging. Additionally, half of the included studies relied on self-reports, prone to selection and recall biases; six and were cross sectional, and did not account for time trends or cohort effects. Several failed to account for age, practice location, parenthood, training, and other potential confounders. The rhetoric that the increasing proportion of female PCPs has a dampening effect on service supply is based on few, methodologically limited studies. This trend has not yet been adequately considered in the context of other concurrent demographic and practice pattern shifts, using data measuring that measures activity directly.

The Influence Of Unemployment Status On Health Outcome Of Canada's Immigrant Population: Result From Canadian Community Health Survey, 2010

Jing Han, Western Regional Training Centre for Health Services Research (WRTC), University of Manitoba

With the expansion of the immigrant population, the health of Canada's immigrant population is of prime concern for researchers and policymakers under current economic challenges. The aim of this paper is to investigate the influence of unemployment on health outcome and the utilization of Canadian health resource for immigrant population. This paper provides a cross-sectional analysis of the sensitivity of physical and mental health to the unemployment shock faced by eligible labor force drawn from Canadian Community Health Survey (CCHS) 2010. A research is conducted by comparing various health outcomes and the measurements of health service utilization among different population subgroups: immigrants and non-immigrants, immigrants with different cultural and racial origins, immigrants of less than 10 years and larger than 10 years residence in Canada. Employing the latent model and economic marginal effect analysis, this paper examines unemployment is influential in shaping immigrants' health status and behaviour. The paper finds robust evidence that Canada's immigrant population is much more vulnerable under the unemployment shock compared with native-born Canadian although the association between unemployment and adverse health outcomes universally exists in total population. By emphasizing the importance of job security and income stabilization, this paper explores labour market activities of immigrants as potential socio-economic explanatory factors to the diminished health advantage, as known as 'healthy immigrant effect'. The results of the logistic regression models designed for the immigrants and non-immigrants about the effect of unemployment on health outcomes in this study suggest that the health status of immigrants tends to sensitively deteriorate with unemployment spell or any unfavorable variation in labour market in contrast with non-immigrants with the similar health and socio-economic characteristics. Considering the detrimental impact of unemployment on the health, the need for social policies and strategies that effectively reduce the unemployment and create favorable vocational opportunity, especially for immigrants, is necessary in order to substantially improve their health condition and greatly economize on the budget of health care service.

The Role Of The Health Care Sector In Canadian Obesity Strategies

Lee Johnston, PhD Student, Simon Fraser University

The health care system has an important role to play in the treatment, prevention and management of obesity, but operates within a much larger system of influences. We examined how Canadian obesity strategies framed the role of the health care system in order to explore opportunities for broader intersectoral engagement. We extracted approximately 530 recommendations from six documents written by and for governments and health authorities from across Canada. The data set included strategies, reports and position statements focused specifically on obesity. For comparison, 96 recommendations were also extracted from an Institute of Medicine (IOM) review of systems-based approaches to obesity strategizing. Recommendations were coded for a range of variables including type of activity, sector of implementation, and actors to implement. Two researchers coded all data and conflicts were reviewed until consensus reached. Recommendations relevant to health care settings were then extracted and their contents summarized for analysis (n=54). Three documents placed little to no focus on the role of the health care sector. The others included recommendations for clinical care related to monitoring, breastfeeding support, training and education, wider implementation of treatment models and surgical interventions, and better integration across health care services. One document was unique in recommending health services be re-oriented under a health-, rather than weight-, focused paradigm regarding obesity. This paradigm was reinforced in recommendations across other sectors. Other recommendations that crossed system boundaries included drawing on a broad range of stakeholders from various sectors to assist in reorienting health services, clinicians adopting an active role in advocating for healthier community environments, and the establishment of consistent messaging in health promotion materials both within and outside of clinical settings. Improvements to obesity prevention, treatment and management will likely be reinforced by supportive changes in multiple settings. It is therefore beneficial to consider recommendations for primary care in relation to activities aimed at other sectors. More analysis is needed to determine the feasibility of implementing the recommendations highlighted here.

Co-Authors: Karen Tulloch, Ms., Simon Fraser University; Diane T. Finegood, Dr., Simon Fraser University

Understanding Continuance Intentions of Physicians with Electronic Medical Records (EMR): An Expectation-Confirmation Perspective

Nicole O'Brien, MSc Candidate, Brock University

To examine physician satisfaction with electronic medical records (EMR) in the post-adoption phase. More specifically, to examine how physicians' satisfaction impacts on their intention to continue using and further adopt additional functions of EMR. Expectation-confirmation theory is used with perceived risk incorporated for the theoretical framework. This framework uses eight hypotheses to aid in the understanding of physicians' continuance intentions. A field survey of 135 Canadian physicians that utilize EMR was attained to support the model empirically. The study found that physicians are willing to continue using and adopting further functions of EMR. Additionally, the research suggests that physicians' perception of usefulness impacts their satisfaction. Furthermore, satisfaction with EMR influences the physicians' willingness to continue using and further adopt functions of EMR. The perception of risk for physicians showed little effect on physician's satisfaction or continuance intentions with EMR. For physicians to be willing to continue using and/or implementing further functions of EMR they need to be satisfied with EMR. Physician satisfaction is influenced by EMR being perceived to be useful. The perception of risk with EMR although inherent does not impact physicians conclusions regarding EMR in the post adoption phase.

Co-Authors: Anteneh Ayanso, Associate Professor, Brock University; Tejaswini Herath, Assistant Professor, Brock University; Madelyn Law, Assistant Professor, Brock University

Using Network Analysis to Understand and Advance Falls Prevention Services and Programs

Phuc Dang, MA Candidate, Brock University

The purpose of this study is to understand referral linkages that exist among falls prevention agencies in a southern Ontario region using network analysis theory. Limited studies have focused on referral pathways of public health programs and no research to date has addressed falls prevention referral linkages through network analysis. This was an embedded, single case study with multiple units of analysis which included fifteen individual interviews. The participants included professionals in the areas of health promotion, long-term care, acute care, paramedicine, and allied health. The data was analyzed through the constant comparative approach. Four main categories emerged through the constant comparative analysis approach with associated themes: 1) professionals will refer their clients to appropriate falls prevention services based on their level of trust (e.g. strong level of trust that the program will provide quality service would result in referrals); 2) there is high importance placed on the reputation of the falls prevention programs (e.g. falls prevention programs with an established reputation within the community would receive referrals); 3) the awareness of various falls prevention programs (e.g. awareness of key services that programs provide allow professionals to make appropriate referrals for their clients); and 4) the value of community committees (e.g. community committees allow professionals to understand and connect with other falls prevention programs). Current literature illustrates the importance of legitimacy of programs in referral practices. This study outlines the benefit of using a network analysis lens to understand referral practices and the importance for developing tools (e.g. program list, standard referral forms) and communications that will promote seamless referrals among falls prevention programs.

Co-Authors: Madelyn Law, Assistant Professor, Brock University; Laura Cousens, Associate Professor, Brock University; Miya Narushima, Associate Professor, Brock University

Using the '5x5' Framework to Evaluate Community Health Worker Program Design for Mental Health Care in India

Andra Ragusila, University of Toronto, Centre for Addiction and Mental Health

Community Health Workers (CHWs) are increasingly common in primary care delivery in low income countries. The literature review provides a case study of efficiency of CHWs mental health pilot projects in India, focusing on project scale-up and sustainability. It aims to inform policy decisions for internal and external funders. The literature search was conducted using: PubMed, Scopus, Web of Knowledge, ProQuest, Ovid, Jstor, Factiva, Scholar's Portal and EBCSO. The search combined the search terms: 'India', 'mental health' and a list of common CHWs terms gathered from a WHO CHWs literature review in 2007. The search was limited to available online, English language articles. The '5x5' framework was chosen to guide the review as it captures key professional skills and implementation processes needed to ensure project scale-up. It was also recommended by the WHO for guidance mental health system designs. A total of 354 titles, 30 abstracts, and 20 full articles were reviewed prior to the selection of 10 articles for inclusion. Skill packages: the majority of studies reported CHWs had access to training in front line services and in delivering therapeutic interventions. Over half the studies reported CHWs worked with professionals who could prescribe medication, provide supervision and consultation and provide quality oversight. Implementation rules: Prior to program design, less than half of the studies reported assessing the local cultural context and identifying local care pathways. 4 studies mentioned some training manuals were provided, and 2 reported decision support tools for the CHWs. Only 1 study mentioned quality measures for CHWs work. None of the studies reviewed addressed program sustainability. CHWs mental health programs are feasible and effective, however programs use unique skill packages and implementation tools, which hampers future project integration and scale-up. The review stresses the importance for standardizing CHWs program design frameworks to maximize the use of limited mental health resources in India.

Validating the CPCSSN Algorithms for Eight Chronic Diseases

Michael Green, Associate Professor, Department of Family Medicine, Queen's University

This study sought to: (1) validate eight chronic disease electronic medical record (EMR) diagnostic algorithms developed by the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) and (2) refine these diagnostic algorithms to improve sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV). CPCSSN developed case definitions for hypertension, diabetes mellitus, depression, chronic obstructive pulmonary disease, osteoarthritis, dementia, epilepsy and Parkinson's disease from readily available EMR information, including diagnoses, billing data, lab tests, and medications. We retrospectively reviewed a random sample of EMR charts from 6 of the 10 CPCSSN networks. We oversampled for persons >60 years, with epilepsy, or Parkinson's. All chart abstractors were blinded to the CPCSSN diagnosis during the chart review process. Primary outcome measures were sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) for each disease with the associated 95% confidence interval. Data from 1,870 charts were obtained from 6 networks located in British Columbia, Alberta, Ontario, Nova Scotia, and Newfoundland. These data were obtained from 4 EMR systems. For the total sample, sensitivity ranged from 78% (osteoarthritis) to >95% (diabetes, epilepsy and Parkinson's); specificity was > 94% for all diseases; PPV ranged from 69% (dementia) to 93% (hypertension); NPV ranged from 86% (hypertension) to >99% (diabetes, dementia, epilepsy and Parkinson's disease). Depression and COPD had sensitivity >80% and specificity >94%. Dementia was also very sensitive (94%) and specific (98%), however, PPV (69%) was limited. Osteoarthritis lacked sensitivity (78%) but had excellent specificity (95%), PPV (88%) and NPV (90%). Variation in PPV was found across the networks and different EMR systems. The CPCSSN diagnostic algorithms demonstrated excellent sensitivity and specificity for hypertension, diabetes, epilepsy, and Parkinson's. CPCSSN data can now be used for public health surveillance, primary care and health services research, and to inform policy for these diseases. The algorithms for the other four diseases have room for modest improvement.

Co-Authors: Tyler Williamson, PhD, Queen's University; Shahriar Khan, MSc, Queen's University; Richard Birtwhistle, MD, MSc, FCFP, Queen's University; Sabrina Wong, RN, PhD, University of British Columbia; Nandini Natarajan, MD, CCFP, Dalhousie University; Donna Manca, MD, CCFP, University of Alberta; Neil Drummond, PhD, University of Alberta

Valuing Productivity Loss Due To Absenteeism: Firm-Level Evidence From A Canadian Linked Employer-Employee Data

Wei Zhang, PhD Candidate, University of British Columbia

This study aims to measure the impact of absenteeism on output and wages at the firm level. Our goal is to test whether wages equal marginal productivity and therefore comment on the appropriateness of using wages to value the productivity losses as per the human capital approach. Pooled data (1999, 2001, 2003, and 2005) from the Canadian Workplace and Employee Survey was used. Absenteeism was defined as the absence rate according to paid sick leave and other paid leave excluding vacations, paternity/maternity leave, and absence due to strikes or lock-out. The impact of absenteeism on output at the firm level was estimated using a modified Cobb-Douglas production function. Production and wage functions were simultaneously estimated to compare marginal productivity and wages for absenteeism using nonlinear least squares (NLS) and first differences (FD). Bootstrapping was employed to test for equality of the parameters. A total of 18,381 observations were included in the NLS estimation and 9,811 observations in FD estimation. At the workplace level, the average absence rate was 2% and 8% of the workers worked in teams. The average age was 40 years with 54% female workers. After controlling for capital stock, labour, and other workforce and workplace characteristics, the NLS estimates of the absenteeism impact on marginal productivity and wage were -2.3 and -1.3 for team work, respectively. Correspondingly, the FD estimates were -3.05 and -0.81. This implies that the higher absence rate, the lower was marginal productivity and wage yet the reduced productivity was much higher than the reduced wage. The absenteeism impact difference between the marginal productivity and wage was not statistically significant. This study provides evidence suggesting that absenteeism results in lower productivity and wages, and the reduced wage due to absenteeism somewhat under-represents the reduced productivity for team workers. When workers are absent, the resulting productivity losses exceed wages if team work is involved.

Co-Authors: Huiying Sun, Statistician, Centre for Health Evaluation and Outcome Sciences; Simon Woodcock, Professor, Simon Fraser University; Aslam Anis, Professor, University of British Columbia

What If Implementation Is Not The Problem? Exploring The Missing Links Between Knowledge And Action

Sara Kreindler, Researcher, Winnipeg Regional Health Authority

Given all the available knowledge about effective implementation, why do many organizations continue to have - or appear to have - an implementation problem? This project examined why organizational change remained such a struggle for one Canadian health region, seeking to pinpoint the greatest obstacle on its journey from knowledge to action. A five-year corpus of reports by an 'embedded' research and evaluation unit offered a unique source of systematically collected and analyzed data on the region's internal processes. Of 19 reports, 12 evaluated the implementation of programs or projects (some of which had been successfully implemented, others not); 7 described research or consultations on broader issues regarding implementation and decision-making. Thematic analysis was used to (a) identify factors that best differentiated successful from unsuccessful implementation experiences, and (b) gain insight into the region's overall strengths and weaknesses. Findings were considered in the light of the implementation and knowledge-translation literatures. Findings suggested that the region had no 'implementation problem': It possessed the capacity to successfully implement change - and when implementation failed, the reason often seemed to involve a poorly-chosen intervention, not an unusual kind or number of barriers to implementation. Nor was the problem a lack of organizational knowledge to inform intervention selection; decision-makers displayed a sophisticated understanding of fundamental issues, and had a solid infrastructure for accessing research evidence. However, managers' high-level knowledge was not made actionable, and micro-level decision-making often produced piecemeal actions inadequately informed by existing knowledge. The problem, then, arose at the stage of linking knowledge to action through 'operationalization' - crafting a concrete, specific, and immediately actionable solution that is fully informed by knowledge of complex, system-level issues. Operationalization emerged as the essential 'step two' between the steps of knowledge (understanding the problem) and action (implementing a solution). If this region's experience is shared by other organizations, operationalization may be at the heart of the 'know-do' gap, and a critical area for further knowledge-translation research and practice.

What Network Works for What? A Scoping Review on Knowledge-based Networks

Olivier Demers-Payette, Ph.D. Candidate, Département d'administration de la santé, Université de Montréal

While studies on knowledge-based networks have grown in recent years, little guidance exists as to which kind of network should be deployed to meet what knowledge use objectives. We thus performed a scoping review on the types and characteristics of knowledge-based networks that are promoted and implemented in healthcare. We first performed an open and iterative literature search on few electronic databases to explore the importance of the scholarship on networks for knowledge use in health. This search retained 100 papers (from 7692 in total) from which we define relevant keywords, data sources, study selection criteria and data extraction categories. With these elements specified, we then performed a second review of qualitative and quantitative peer-reviewed papers (published in English; 2004-2011) on knowledge-based networks in health. After a comprehensive screening, 62 new relevant articles (from a total of 248 articles) were added to our final corpus for analysis. Our scoping review enabled identifying a typology of knowledge-based networks, which was developed by comparing and contrasting their key features in terms of governance and knowledge use. There are six different types of knowledge-based network in the health sector that serve different purposes and enable reaching different goals: 1) clinical networks; 2) communities of practice; 3) bridge the gap networks; 4) implementation networks; 5) policy networks; 6) R&D networks. The analysis of these network attributes suggests that various types of knowledge-based network may be implemented and may co-exist simultaneously in a given setting to promote knowledge use. Networks are dynamic entities where knowledge production, translation and use are intertwined. Types of knowledge-based networks could be developed as part of a more comprehensive approach to evidence-informed governance because, together, they offer several of the incentives and enabling factors required for supporting different types of knowledge use.

Co-Authors: Jean-Louis Denis, Professeur titulaire, École nationale d'administration publique; Pascale Lehoux, Professeur titulaire, IRSPUM, Université de Montréal; Louise-Hélène Trotter, Institut national de santé publique du Québec

What Will It Take To Lead In Healthcare?: The Role Of Emotional Intelligence To Facilitate Change In The Delivery Of Care

Brenda Gamble, Assistant Professor, UOIT

Healthcare leadership development is important to ensure that leaders have the skills/competencies needed to support ongoing change within the healthcare system. Results are presented from three national surveys and two focus groups conducted to determine the views on the leadership skills necessary to lead in the hospital and community/homecare setting. A series of national surveys were completed in partnership with the Canadian College of Health Leaders (CCHL), the Canadian Home Care Association (CHCA), and the Canadian Forces Health Services (CFHS) Group. The electronic questionnaire included variables related to demographics, educational and employment history, and previous experience with the healthcare system. Respondents were asked a series of questions to determine their views on the skills and competencies needed to lead in healthcare today and results were analyzed using Statistical Analysis Software. Focus groups were conducted at the 2011 CHCA and the 2012 National Health Leadership Conference to better understand the survey results. Survey results are based on the views of healthcare leaders (n=716) working in hospitals/institutions (30.1%), community (19.2%), government (15.3%), military (12.4%), consulting (8.2%), and other (e.g., education) (14.8%). Respondents, regardless of employment setting, identified the same skills/competencies needed to lead: human resources, interpersonal and people skills; communication; flexibility; and systems thinking. Focus group participants (N=50) were not surprised that regardless of employment setting respondents identified the same skills/competencies. What is important to recognize, is that how those skills/competencies are applied varies due to the setting of the delivery of care, the experience of the healthcare worker and the client. The skills/competencies identified align with the concept of emotional intelligence, which is associated with leadership, and the development of integrated teams in the healthcare literature. In light of the policy directions that support both integrated teams and the shift of care from the hospital setting to the community/home setting, EI can be viewed as a useful concept for healthcare leaders responsible for leading integrated teams to address the challenges of conflict and miscommunication.

Co-Authors: Olena Kapral, MA Candidate, University of Ottawa; Paul Yelder, Dr., UOIT; Winston Isaac, Dr., Ryerson University

Why Has The Canadian Government Placed An Orphan Drug Strategy On Their Decision Agenda Now? Examining The Agenda Setting Process Using Causal Stories

Mark Embrett, McMaster University

The Ministry of Health's announcement of a National Orphan Drug Framework on October 3rd, 2012 was the first federal public acknowledgement of orphan drugs since the 1997 Drugs Directorate (DD) policy statement. During those 15 years, there have been various recommendations by national task forces to put a national orphan drug strategy on the federal government agenda. Canadians have also witnessed nearly every other developed country initiate a national orphan drug strategy of some kind. Why, after 15 years of silence, has the Canadian Federal Government decided to put the development of a national orphan drug strategy on their decision agenda now? Causal Stories, told through Canadian newspapers, magazines, and publicly available government documents and parliamentary proceedings, were searched for between 1990 and 2012. Documents were analyzed for their use of symbols, numbers, and facts in stories told by political actors. The assertion is that these stories are intended to promote an issue onto, or keep it off, the agenda, through battles between political actors over causation, blame and responsibility. The initial story from the DD stated that Canada's population was too small and the cost was too high for an orphan drug policy. This story was one of blame avoidance by attributing causation to natural circumstances. Over the next fifteen years, a powerful interest group, the Canadian Organization for Rare Disorders (CORD), mobilized the rare disease community into a cooperative effort that generated collective action. They redefined the DD story from one of natural causes, to inadvertence, and finally to intentional causation. Their story blamed the federal government directly for not acting on behalf of the 3 million Canadians with rare diseases, when patients in other countries were receiving better care. The collective momentum of CORD gained them political access in 2007 when they presented their story, claimed the federal government was responsible, and presented their solution in parliament. In 2012, CORD received acknowledgement from Health Canada and the Senate for their consultation towards the new orphan drug strategy. Through the strategic use of facts, numbers and symbols, the absence of a national orphan drug policy became a dominant problem. This was primarily accomplished through the collective action of CORD, and their ability to gain parliamentary access, which provided an opportunity to present solutions.

Poster Presentations

Wednesday, May 29, 2013

Présentations d'affiches

Mercredi 29 mai 2013

A Compromise Too Far: Canadian Case Studies In Direct-To-Consumer Advertising Regulation

Barbara Mintzes, Assistant Professor, School of Population and Public Health, University of British Columbia

In 1996 and 2001, Canada introduced partial direct-to-consumer advertising (DTCA) of prescription drugs through shifts in administrative policy. We examine regulatory decisions in response to complaints since these changes were implemented. Although Canada delegates most of the regulation of pharmaceutical promotion to third parties, Health Canada directly adjudicates complaints about DTCA. We present a case series of complaints about DTCA campaigns and Health Canada's response to those complaints to examine the stringency of regulation, with a focus on the public health concerns raised in the complaints. The following aspects of regulation are examined: - advertising of unapproved ('off-label') uses; - financial inducements to use a product; - fear-mongering; - products with serious safety concerns; - transparency in decision-making; and - effectiveness of enforcement actions. These case studies span a 10-year period and a range of prescription medicines and health conditions. Examples include products for smoking cessation, obesity, acne, contraception, male hypogonadism, arthritis, infectious disease and cardiovascular prevention. Although Health Canada's mandate is health protection, a striking aspect of these cases is the agency's lack of response to any of the public health concerns raised in complaints, even when the concerns echoed its own safety advisories. When regulatory action was taken, it was limited to a request to the company to end the campaign. In the face of repeated offenses, no further action was taken, even for products with a serious potential for harm. We found substantial discordance between public health priorities and the regulation of DTCA in Canada. Enforcement lacks transparency, accountability or effective sanctions. Clear changes are needed to avoid stimulation of unnecessary or unnecessarily hazardous medicine use, and to realign regulation of advertising with a broader health protection agenda.

Co-Authors: Joel Lexchin, Professor, School of Health Policy and Management, York University

A New Conceptual Framework and Methodology for Systematically Synthesizing Qualitative Research to Address Social Values in Health Technology Policy Assessment

Meredith Vanstone, Postdoctoral Fellow, McMaster University

Health Technology Assessment (HTA) is a comprehensive evaluation of a technology, including consideration of social values as well as economic impact, safety and effectiveness. This project developed and piloted novel methods for incorporating qualitative research evidence into HTA to address social and ethical values issues concerning care for chronic conditions. Existing methodologies for synthesizing qualitative data were appraised for their possible congruency with the requirements of HTA. Drawing on this body of literature, and with consideration of the unique requirements of HTA, a conceptual framework and feasible, policy-relevant methodology were developed for the synthesis of qualitative research. The methodology was developed specifically to respond to the unique challenges presented by the context of HTA. For example, HTA requires data relevant to a very specific technology and context, often imposes a short time frame, and may require both identification of social values of interest and application of how they might be relevant in a particular context. As part of the Ontario Health Technology Assessment Committee's mega-analysis on the topic of optimizing chronic disease management, four systematic syntheses of qualitative research were completed using our pilot methodology. The research teams met regularly throughout the process, discussing the strengths and challenges of the methodology and refining as necessary. After the completion of the four reports, feedback was sought from stakeholders as to the relevance of the information produced. The methodology was refined accordingly by the team. A conceptual framework and methodology for synthesizing qualitative research was developed for the field of HTA. This framework and methodology may be used by others who wish to analyze social and ethical implications of particular health technologies for policy decision-making.

Co-Authors: Mita Giacomini, Professor, McMaster University; Deirdre DeJean, PhD Student, McMaster University; Francesca Brundisini, PhD Student, McMaster University; Winsor Shawn, PhD Student, McMaster University

A Qualitative Study of Public and Patient Involvement in Resource Allocation

Zahava Rosenberg-Yunger, Post Doctoral Fellow, Centre for Research on Inner City Health Li Ka Shing Knowledge Institute St Michael's Hospital

Public involvement in drug resources allocation decisions is necessary because it is rooted in democratic principles and facilitates public trust and confidence. Frameworks for evaluating public and patient (herein non-expert) involvement are needed but do not exist. This qualitative study focused on understanding non-expert involvement to establish such a framework. We recruited and interviewed a purposeful sample of key Canadian informants. Inclusion criteria included being conversant in English and being either a current or former member of a provincial or federal drug advisory committee, a government employee, a patient advocacy group representative, or a pharmaceutical industry employee. We also collected documents related to issues such as reimbursement decisions, submission guidelines, and membership guidelines from committee websites. We analyzed the data using a thematic approach consisting of line-by-line coding to develop categories and constant comparison to examine relationships within and across codes and categories. Interviewing continued until we attained saturation. We interviewed 27 participants from ten committees (5 experts and 6 non-experts), 6 patient group representatives, 4 industry representatives and 6 employees of provincial Ministries of Health. Four themes emerged: 1) Committee procedures: respondents thought existing criteria did not address all important decision determinants; 2) Communication and education: respondents reported the requirement for improved communication (between members and ministry staff; and committees and stakeholders), the need for appropriate supports for members and the role of non-experts in public and patient group education; 3) Involvement: respondents noted a need for increased clarity regarding the purpose and type of non-expert involvement as well as membership and level of involvement; and 4) Patient submission: respondents reported a need for increased clarity surrounding expectations and content requirement for submissions. Although committees have mechanisms for non-expert involvement, the degree and type of involvement varies. Our study highlights the need for increased clarity regarding decision criteria, the objectives of involving non-experts, and the role of patient submissions. These findings will help generate a conceptual model and evaluation framework of non-expert involvement.

Co-Authors: Ahmed Bayoumi, Research Scientist and Associate Professor, Centre for Research on Inner City Health Li Ka Shing Knowledge Institute

A Realist Evaluation of a Nurse Practitioner-Led Care Transition Intervention in Ontario, Canada

Kristen B. Pitzul, PhD Student, University of Toronto

The effectiveness of care transition interventions at decreasing readmissions and Emergency Department (ED) visits among high-risk adults is sensitive to contextual and implementation factors. This realist evaluation examines these factors in a case study of a nurse practitioner (NP)-led care transition intervention for high-risk seniors. The NP-led intervention was based on Coleman's Care Transition Intervention. A convenience sample of patients 65 years or older was recruited from two Ontario hospitals prior to discharge from an acute care episode and screened to select patients at high risk of readmission. A qualitative thematic analysis was used and a realistic framework was used to contrast with findings with those of similar programs. Unstructured formative interviews of participants were conducted, and the intervention NP provided a summative report of her experience. Clinical decision makers, hospital staff, and Community Care Access Center (CCAC) staff participated in summative semi-structured interviews. A total of 69 patients received the NP-led intervention though largely not exactly as intended. Stakeholders identified the lack of knowledge translation surrounding program elements, objectives, and goals as a barrier to optimal program delivery. Challenges to successful care transition included lack of time, and referral process bottlenecks. Interviews with clinical decision makers, hospital staff, and CCAC staff revealed that they felt the program was not well defined. Further, there was a potential minimization bias as care was delivered closer to the status quo than originally intended. Contextual factors aid or impede the implementation of a NP-led care transition intervention. Strong leadership, pre-intervention stakeholder training and education, clear role definitions for frontline staff, and positive working relationships between existing staff and intervention staff are important elements on which to base implementation of future care transitions interventions.

Co-Authors: Natasha E. Lane, Ms., University of Toronto; Anu MacIntosh-Murray, Dr., University of Toronto; G. Ross Baker, Dr., University of Toronto; Walter P. Wodchis, Dr., University of Toronto

Adolescent Health and Educational Achievement: A Life Course Exploration

Elizabeth Wall-Wieler, University of Manitoba

Administrative data provide unique opportunities to examine the life course from different perspectives. Time-varying predictors, in conjunction with background variables, assess the development of several health and educational outcomes. Important health outcomes include: externalizing mental conditions, major health conditions, major injuries, and asthma. Educational outcomes include high school graduation. Multi-level modeling of administrative data from a cohort of children born in Manitoba between 1984 and 1989 (n = 65,248) allowed comparing family and individual level characteristics controlling for unmeasured variables and using extensive sensitivity testing. Time-varying predictors include residential mobility, family structure, and health measures. Receipt of income assistance, receipt of services from Child and Family Services, and child taken into care are only available for ages 9 to 13. Background variables include: place of residence at birth (of oldest sibling), mother's age at first birth, birth weight, gestational age and gender. The predictors available provided the best fit for externalizing mental conditions (c-stat = 0.9071) and high school graduation (c-statistic 0.8984); the major conditions model (c-statistic = 0.6752) generated the poorest fit. The predictor with the greatest odds of a given health outcome between the ages of 14 and 18 was a diagnosis of that particular outcome in the previous age group (9-13). Family structure changes were most significant in reducing the odds of graduation when they occurred between the ages of 0 and 3; however, family structure changes during any age group significantly increased the odds of an externalizing mental conditions diagnosis between the ages of 14 and 18. Effects of the background variables varied with age and outcome studied. Childhood measures had significant, but varying, impact on health and educational outcomes in late adolescence. The importance of timing of exposure and accumulation of risk differed markedly among outcomes. Similarities between models predicting externalizing mental conditions and high school graduation highlight the need for a multidisciplinary orientation.

Co-Authors: Leslie L. Roos, Dr., Manitoba Centre for Health Policy

Applying Lean Principles to Complex Care Coordination

Michael Schull, Director, Division of Emergency Medicine, Department of Medicine, University of Toronto

Building Bridges to Integrate Care (BRIDGES) is an incubator to test innovative models of integrated care delivery. The focus is on continuous learning and assessment of models to improve care for complex and chronic disease patients that span hospital, community and primary care, and identify system barriers to integration. BRIDGES solicits proposals from providers for innovative models to evaluate, and applies 'lean startup' principles for management in a context of high uncertainty. Together, they identify a target population, develop a prototype, and test it using randomized trials or propensity matched cohorts studies with common outcome measures for all models. Integrated care models are unlikely to succeed immediately; BRIDGES helps teams identify the inherent assumptions of their model, understand risks and the potential for failure, use metrics to understand what aspects of the model do and don't work, and refine the intervention to improve the likelihood of success. Six integrated models have been implemented to date, with strategies like case management, multidisciplinary case consultation and a navigation hub. These models face common internal and external challenges. Each model contains internal assumptions, with uncertainty regarding intervention element design, patient selection criteria, and intervention timing. Common external challenges include patient recruitment to new models of care, provider and organizational engagement and bureaucratic barriers. Preliminary results suggest that slow initial recruitment can hinder early modification of the model; explicit variations in the model at different sites can speed learnings; adopting metrics that are actionable with clear accountability is key; and consider early modifications of the model. Integration has been challenging, but many models have developed effective coordination across primary care, hospital and community services. The 'lean startup' approach to innovations may help alleviate common challenges faced in delivering and testing integrated care delivery models for complex patients. This involves a focus on continuous learning from early versions of the model, and being flexible about modifying elements that are not working as intended. The lessons yielded are widely relevant to the development of future models.

Co-Authors: Onil Bathacharyya, MD PhD Assistant Professor, Dept. of Family and Community Medicine, University of Toronto; Tamara Mohammed, Project Manager, BRIDGES; Jose Ricardo de Mello Brandao, Health Services Evaluator, BRIDGES; Jennifer Christian, Project Coordinator, BRIDGES; Dr Wendy Levinson, Sir John and Lady Eaton Professor and Chair of the Department of Medicine, University of Toronto; Dr Lynn Wilson, Chair of the Department of Family and Community Medicine (DFCM), University of Toronto; Dr. Michael Schull, Senior Scientist, Institute for Clinical Evaluative Sciences; CIHR Applied Chair in Health Services and Policy Research; Director, Division of Emergency Medicine

Assessing the Effectiveness of a Stakeholder Consultation Exercise in Supporting Saskatchewan's Primary Healthcare Change Initiative (PHCI)

Adam Mills, PhD Candidate, University of Regina

Effective stakeholder consultation is a key element in supporting health-system change. Part of a larger examination of factors facilitating and impeding health-system transformation led by the Canadian Foundation for Healthcare Improvement (CFHI) and Saskatchewan Ministry of Health, this study assessed the effectiveness of a stakeholder consultation used for Saskatchewan's PHCI. Employing a mixed method research design, this study was principally guided by a validated set of 'democratic criterion' drawn from the relevant literature. Data collection involved two different instruments. First, an internet-based questionnaire was circulated to all 106 stakeholders who participated in the consultation. Adopting a five-level Likert-type scale, the questionnaire asked participants to rate 13 statements with respect to the processes and outcomes of the consultation exercise. Second, sixteen 20 minute semi-structured phone interviews were conducted with a stratified sample. The responses were coded and analysed for prevailing and noteworthy themes. Three main themes emerged from the collected data. Foremost, the responses strongly suggest that the stakeholder consultation was highly effective, particularly in that it exerted a positive impact on both legitimizing the planning stages of the PHCI and achieving broad early stage buy-in for the Ministry of Health's primary healthcare policy direction. Second, a notable amount of respondents acknowledged a greater appreciation for the critical issues and concerns faced by other stakeholder groups in the pursuit of primary health care system improvement and transformation. Lastly, because of the preliminary stage of the initiative, a notable number of stakeholders emphasised a degree of uncertainty regarding the eventual achievement of the intended policy outcomes aspired by the PHCI. Stakeholder buy-in is a key factor in achieving health-system transformation. This study suggests that executing effective stakeholder consultations can favourably impact this buy-in. These findings will be incorporated into a broader study led by CFHI and Saskatchewan Ministry of Health exploring key factors facilitating and impeding change in Saskatchewan's PHCI.

Barriers to Integrated Health Care: Patients and Providers Exploring the Journey

Karen Jackson, Senior Research and Evaluation Consultant, Alberta Health Services

This qualitative research project integrates root cause analysis methodology to explore the underlying causes of challenges patients face in accessing integrated health services. Through in-depth exploration and analysis, our research seeks to generate practical action plans that address the heart of the barriers encountered in integrated care planning and coordination. Marrying two distinct approaches, case study methodology serves as the overarching analytic framework for data collection and analysis, and root cause analysis (RCA) is then performed on selected challenges to elicit seminal issues and to propose corresponding corrective actions. Twenty-six patients and providers, each representing one of three sub-populations - mental health, seniors, or children with special needs, shared their experiences accessing health and social support services, and their perceptions of care coordination among various services. A subsequent half-day workshop brought together key stakeholders and decision makers from Alberta Health Services to develop action plans to address the core issues identified. The majority of key challenges occurred across groups and include: (1) difficulty accessing appropriate services, programs, providers and information; (2) limited understanding of external health resources and services among providers; (3) insufficient communication among providers as well as between patients and providers; (4) lack of continuity and/or consistency of care; (5) limited opportunities for collaboration and integrated care planning between providers; and (6) lack of person-centered care (i.e., patient/family involvement in planning, decision-making, etc). The root cause analysis further revealed that many of the challenges identified pointed to a few common causes including poor system support and structures for integrated and person-centered care, and ignorance of the roles required to optimize performance, and could be mitigated by common corrective actions. Given that issues were similar across sub-populations, mitigating strategies have the potential to improve care for many people and will have high applicability to other jurisdictions. As well, the results and unique methodology serve as a starting point for potential future root cause analysis work in integrated health care.

Co-Authors: Nicole Wallace, Research and Evaluation Consultant, Alberta Health Services; Omenaa Boakye, Research and Evaluation Consultant, Alberta Health Services; Esther Suter, Director, Workforce Research and Evaluation, Alberta Health Services

Clinical-Decision-Maker Collaboration To Liberate Data For Performance Measurement In Alberta

Carolyn De Coster, Executive Director, Alberta Health Services

Alberta Health Services (AHS) values both top-down and bottom-up measures of performance. Clinical, bottom-up measures are richer and more meaningful when AHS administrative data are linked with clinical data. The purpose of this project is to establish a process for sharing data between clinical groups and AHS. This is the first step envisioned in an iterative approach to liberate data in Alberta. Two clinical groups - Cardiac Sciences and Neurosciences - self-identified to participate in a proof-of-concept project. A project charter was developed with specified goals and timelines for achievement. Clinical areas committed to providing content expertise, sharing their clinical data and carrying out the analyses; AHS was expected to provide access to its data, and support in understanding and using the datasets. A key outcome was the development of a clinical dashboard to inform practice. A process evaluation was designed to inform the next iteration of this model. The project demonstrated the feasibility of sharing data but also revealed several challenges. A key component of success was the support and involvement of clinical opinion leaders. Regular meetings charted progress and kept the project on track; however meeting invites could be better managed to include the right people at the right time. Personal schema space was provisioned to the clinical, university-based analysts; however remote log-in took weeks to arrange. In order to expand to other clinical groups, a more systematic approach will be necessary. AHS support in accessing, understanding and using the data was critical. Relevant clinical indicators were identified; mechanisms for documenting, reporting, refreshing and maintaining the indicators should be identified sooner. Issues of governance, privacy, and analyst training need to be resolved. Sharing of data between decision-makers and clinical areas is a key strategy to strengthen performance measurement in AHS. Plans are underway to use the experience of these initial projects to expand to further clinical areas. Clinicians and AHS analytical teams are enthusiastic in their support of expanding this initiative.

Co-Authors: Stafford Dean, Vice-President, Data Integration, Measurement & Reporting, Alberta Health Services; Lorrene Thiessen, Executive Director, Data Integration, Measurement & Reporting, Alberta Health Services; Sam Weibe, Head, Division of Neurology, University of Calgary; Merrill Knudtson, Professor, Cardiac Sciences, University of Calgary

Cross Cultural Research In Supportive Cancer Care: Challenges In Conceptualization And Measurement

Joyce Lee, PhD Candidate, University of British Columbia

This presentation addresses the complexities and highlights several key considerations in conducting cross-cultural research about supportive cancer care for patients and their family caregivers. Particularly, we report on lessons learnt from challenges in the operationalization of research design during the early phase of our study. The current study adopts a mixed methods approach, which involves analyses of quantitative data from cross-sectional surveys and qualitative data from semi-structured interviews, to explore the psychological and social implications of cancer among Chinese-speaking patients and families in British Columbia (BC). A comparison group of Anglophone Canadian cancer patients and family caregivers in BC is used. This study is in the recruitment phase: only 40 participants have completed the surveys thus far and interviews have yet to commence. The goal is to recruit 320 participants for the survey and 20 participants for interviews. Key challenges that have emerged thus far include the dyadic focus of the research and the contextualization of language in the respective participant groups. Given the family focus of the study, it is disappointing that the family caregiver participation rate is lower than the patient participation in both Chinese and Anglos, although this discrepancy is greater in the Chinese-speaking group. We have also observed variation by gender in the response rate and in the participant preferred mode of survey data collection (phone vs. written survey). In addition, potential study participants have diverse interpretations and meanings of key concepts. Particularly, the terms 'Anglophone' and 'family caregiver' warrant further clarification. The importance of cross-cultural supportive cancer care research is evident by an increasingly diverse cancer population in Canada. This cross-cultural study seeks to contribute to improvement of individual and family experience of care. The challenges identified must be addressed in order to achieve these goals and assure culturally competent care.

Co-Authors: Arminee Kazanjian, Dr., University of British Columbia; Carolyn Gotay, Dr., University of British Columbia; Rick Sawatzky, Dr., Trinity Western University

Delay in Cancer Diagnosis and Primary Healthcare

Dominique Tremblay, Professor, Université de Sherbrooke

To measure associations 1) between having a regular source of primary care and overall delay in cancer diagnosis, and 2) between involvement of regular source of primary care as 'point of entry' for cancer investigation and delay in cancer diagnosis. Survey of 377 patients with cancer (166 breast, 106 lung, 105 colorectal; 262 with symptoms starting up the process of investigation and 115 detected through screening) recruited in four hospital oncology clinics in Montréal and Montérégie (Québec). Data from self-administered patient questionnaires documented having a regular source of primary care (RSPC) and use of health services in the period preceding cancer diagnosis. Two types of delay are analysed among the patients whose symptoms led to investigation: delay between onset of initial symptoms and start of investigation, and delay between start of investigation and cancer diagnosis. Among the 262 patients whose symptoms led to investigation, median symptom-investigation delay was 62 days for people with no RSPC (10%) vs 47 days for people with RSPC (90%). Median investigation-diagnosis delay was similar (32 days), whether or not patients had RSPC. When point of entry for cancer investigation was RSPC (50% of patients having a RSPC), symptom-investigation delay was 47 days. When point of entry was emergency room or specialists (patients with or without RSPC), symptom-investigation delays were 84 and 45 days respectively. However, investigation-diagnosis delay was longer (45 days) for patients whose RSPC was the point of entry for investigation, rather than emergency (7 days) or specialists (34 days). Despite the great variability of the phenomenon studied, our results indicate that having a regular source of primary care reduces overall cancer diagnosis delays. However, using the regular source of care as point of entry for investigation is linked to longer investigation-diagnosis delay than going through emergency or a specialist.

Co-Authors: Sylvie Provost, Medical Consultant, Direction de santé publique de l'Agence de la santé de Montréal and INSPQ; Raynald Pineault, Medical consultant, Direction de santé publique de l'Agence de la santé de Montréal and INSPQ; Astrid Brousselle, Associate professor, Université de Sherbrooke and Hôpital Charles LeMoine research centre; Pierre Tousignant, Medical consultant, Direction de santé publique de l'Agence de la santé de Montréal and INSPQ; Danièle Roberge, Researcher, Hôpital Charles LeMoine research centre and Université de Sherbrooke

Determinants of Socioeconomic Disparities in Eye Screening Services among Diabetic Patients in Alberta, 1995-2009

Jongnam Hwang, School of Public Health, University of Alberta

Despite strong recommendations for annual eye screening, the rate of screening for diabetic retinopathy among patients living in Alberta has decreased over the past years. The aim of this study was to assess contributors to socioeconomic disparities in the use of eye screening services among diabetic patients in Alberta. We used data from the Alberta Diabetes Surveillance System, 1995-2009. A total of 1,949,498 diabetic patients in a 15-year period were included. SES was represented by 3 measures: census-based median household income, material and social deprivation at Alberta's sub-regions level. Patient's contact to an ophthalmologist was used as receiving DR screening. For each indicator, we calculated the Concentration Index (CI) for each year, and then used regression-based decomposition to identify major contributors to SES-related disparities. We found that SES-related disparities in the use of eye screening services exist in diabetic patients in Alberta. In addition, material deprivation was the largest contributor to income-related disparities over a 15-year period (1995: 38.6%; 2002:36.2%; 2009:54.8%). The area of residence in the province was an important contributor to disparities in eye screening, but varied by the SES indicator. For example, residing in rural areas increasingly contributed to income-related disparities in eye screening by 14 to 18% from 1995 to 2009, but 44 to 70% of social deprivation related disparities during that same time frame. Individuals aged over 65 also increasingly contributed to social deprivation-related disparities, from 13% in 1995 to 43% in 2009. We confirmed that major contributors to SES-related disparities in eye screening services vary across three SES indicators and the degree of contribution has changed over times. The finding suggests developing health policy to alleviate different determinants of SES-related disparities in the use of eye screening services in diabetic patients.

Co-Authors: Sarah Bowen, PhD, School of Public Health, University of Alberta; Chris Rudnisky, MD, Faculty of Medicine and Dentistry, University of Alberta; Jeffrey Johnson, PhD, School of Public Health, University of Alberta

Do Overweight Or Obese Individuals In Manitoba Use More Health Services Than Others?

Taru Manyanga, Graduate Student, University of Manitoba

To assess and compare the rates of health services use among Obese, Overweight, and Normal weight adults in Manitoba. BMI values collected from the HHS, the NPHS, & CCHS (excluding pregnant women) were linked to the administrative population health data held in the repository housed at the Manitoba Centre for Health Policy (MCHP). Sample weights provided by Statistics Canada were used to ensure results would reflect the entire population. Health services use rates by sex were calculated using generalized linear models adjusted for age, and results are presented by BMI group (Normal, Overweight, and Obese) or continuous BMI value where possible. Physician visits, prescription drug use and hospital separations were also analyzed using multivariate modelling. Overall, the Obese group had the highest rates of health services use, although the differences between this group and the Normal and Overweight groups were often small. The Obese group overall used only 15% more physician visits per year than others ($p < 0.01$). For a number of indicators, higher rates were only evident at particularly high BMI values. In many cases, the Overweight group used no more services than the Normal weight group. Illness level ($p < 1E-10$) was by far the strongest predictor of health service use rates followed by sex ($p < 1E-10$), and then other factors including BMI ($P < 0.01$), age ($P < 0.01$), and area-level socioeconomic status ($p < 0.05$). Although Obese individuals were more likely than others to use more health services, differences in use were small and unlikely to overwhelm the healthcare system. This finding is particularly important because no previous studies have provided results for a large representative sample with such comprehensive data on health service use.

Co-Authors: Randy Fransoo, Dr., Manitoba Centre for Health Policy; Patricia Martens, Dr., Manitoba Centre for Health Policy; Heather Prior, MSc., Manitoba Centre for Health Policy; Dan Chateau, Dr., Manitoba Centre for Health Policy

Do Physicians View Obesity as a Chronic Disease?

Cristina Longo, MSc, PhD(c), McGill University

To compare the frequency of ICD-9 obesity-specific coding in Quebec's medical service and hospitalization databases with self-reported Body Mass Index (BMI) measures of a large population-based adult sample. We conducted a validation study using an existing Régie de l'assurance maladie du Québec (RAMQ) dataset generated from a large population-based cohort, which linked BMI data from the 1992 and 1998 Santé Québec Health Surveys to health administrative databases. The ICD-9 codes contained within the databases were available from the year preceding the survey date to 2006. Selected participants were within normal, overweight, and obese weight classes aged 20-79 years. During follow-up, participants with self-reported BMI values within the defined weight categories at baseline were compared and validated with the ICD-9 codes for overweight and obesity found using health databases. The final study sample consisted of 17 033 persons within the defined age and weight categories. Of the 17 033, a total of 3 154 (18.5%) and 6 712 (39.4%) had self-reported BMI values corresponding to the obesity and overweight categories, respectively. Of the participants who were classified as obese at baseline using the survey data, only 877 (27.8%) were found to have at least one of the ICD-9 codes for obesity in the medical service claims and hospitalization databases during the course of follow-up. For those classified as overweight at baseline, a mere 500 (7.4%) had the corresponding ICD-9 code for overweight within the health administrative databases. Findings indicate that physicians rarely report overweight and obesity using the ICD system. An explanation for this may be that physicians do not view obesity as a chronic disease, despite consensus amongst researchers. This has significant implications for quality of care, as obesity is a risk factor for adverse outcomes.

Co-Authors: Gillian Bartlett, PhD, McGill University; Brenda Macgibbon, PhD, Université du Québec à Montréal; Nancy Mayo, PhD, McGill University; Stella Daskalopoulou, MD PhD, Montreal General Hospital

Efficacy And Consumer Preferences For Calorie Labelling On Menus

Jocelyn Pang, BSc, School of Public Health and Health Systems, University of Waterloo, Waterloo, Ontario; MSc, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario

Obesity is on the rise and is one of the leading challenges to public health. Evidence has shown some success in reducing calorie intake to combat obesity through health policies that require calorie labeling on menu boards. This study evaluated the effectiveness and consumer preference of calorie labelling on menus. Participants were randomized to view menu items according to one of four experimental conditions: No-Calorie information; Calorie-Only information; Calorie + Health Statement; and Calorie + Physical Activity Scale. Participants selected a snack and then rated menus from all conditions on level of understanding and perceived effectiveness. Linear regression models were used to examine the effect of experimental condition on the calorie level of the snack choice. Crosstabs were used to examine the association among experimental condition and preference for menu formats. Statistical significance was determined at a p-value less than 0.05 for all analysis. Participants in the No-Calorie condition selected snacks with significantly higher calorie amounts than participants in the Calorie-Only and the Calorie + Health Statement conditions, with a trend towards lower calories in the Calorie + Physical Activity Scale condition ($p = 0.02$, $p = 0.01$, $p = 0.53$, respectively). The Calorie + Health Statement menu was perceived as most understandable and the Calorie + Physical Activity Scale menu was perceived as most effective in helping to promote healthy eating. Participants selected the No-Calorie menu format as both the least understandable and as the least effective. This study provides preliminary evidence that menu labelling may promote healthier food selection among young adults, with consumer preference for menus that including contextual health statements. Overall, the study provides support to health policies that require calorie information on menus particularly those that require a statement on recommend daily amounts.

Co-Authors: David Hammond, PhD, School of Public Health and Health Systems, University of Waterloo, Waterloo, Ontario

Evaluating Care by Design (CBD): A New Model of Dedicated Physicians-per-floor and Team Approach in Long Term Care

Emily Gard Marshall, Assistant Professor, Dalhousie Family Medicine

Objectives: To evaluate a new model of care (CBD) in long-term care facilities (LTCF), with a dedicated physician-per-floor and team approach implemented by Capital Health, Halifax, NS using mixed methods. Previously, LTCF residents maintained their family physician, resulting in care-coordination and continuity challenges with high rates of emergency department (ED) transfers. Quantitative: LTCF, Emergency Health Services and Acute chart reviews were conducted measuring indicators of care and health outcomes pre-CBD (Sept-Feb 2008-2009) and post-CBD (Sept-Feb 2010-2011) for all 911-involved and 100 non-911-involved residents during the two time-periods (n=684). Qualitative: Perspectives of CBD were gathered during 11 key stakeholder focus groups with physicians, nurses, care aids, LTCF administrators, extended care paramedics, residents, and family members. Topics discussed included the transition to CBD, team practices, and perspectives on the physician role, including the challenges and benefits experienced. Increased family physician contact with LTCF residents was observed with CBD. Residents with 10+ physician visits increased from 35.1% to 55.9%; with 10+ physician notes in charts increased from 37.1% to 58.1%. There was a reduction in LTCF 911-calls (71 calls/month pre-CBD to 62 post-CBD). ED-transferred residents were twice as likely to have physician contact prior to transfer (79% vs. 39% pre-CBD). Emerging qualitative themes include: support for CBD across all stakeholder groups with a desire to maintain CBD. Participants described augmented communication among team members with increased physician visits, continuity and accessibility, leading to timely and informed clinical decision-making and better health goals identification, comfort-care wishes and polypharmacy. Challenges identified include: discontent if physicians are not meeting protocol, need for accountability structures, communication barriers, and physician retention. Results are promising, supporting the continued integration of the physician-per-floor model with 24 hour on-call coverage. A number of policy recommendations including development of feedback and accountability structures have emerged. Further outcomes (i.e. quality indicators) continue to be analyzed and will be complete by March 2013.

Co-Authors: Boudreau Michelle, Dalhousie Family Medicine; Barry Clarke, Dr., Dalhousie Family Medicine

Evaluating Pay-for-Performance in the Emergency Department

Andrew Boozary, Research Student, Institute for Clinical Evaluative Sciences (ICES)

In 2008, Ontario launched the Emergency Department (ED) Wait Times Strategy to address overcrowding. One intervention, Pay-for-Results (P4R), provided financial incentives to hospitals to reduce ED length-of-stay (LOS). We sought to evaluate the effect of P4R on ED LOS. P4R and comparator sites were compared for the first 12 months after P4R implementation in each of the first three years using health administrative data (2008/2009 [P4R-FY1], 2009/2010 [P4R-FY2], and 2010/2011 [P4R-FY3]). ED wait times in the first year of P4R were compared with baseline (one year prior); all models controlled for important patient and contextual factors. The primary outcomes were 90th percentile ED LOS, median ED wait time and time to physician initial assessment (PIA). Other quality of care measures were also compared as potential unintended consequences. There were 19 EDs in P4R-FY1 (with 21 comparator sites), an additional 20 and 22 sites joined in P4R-FY2 and P4R-FY3 (with 34 and 18 comparator sites) respectively. P4R-FY1 sites had the worst baseline performance, highest admission rates, and the most teaching hospitals. In multivariable models, P4R-FY1 was independently associated with small but significant reductions in the median and 90th percentile ED LOS (aOR -0.14 [95%CI -0.19, -0.01] and aOR -0.74 [95%CI -0.98, -0.49] respectively) and PIA times (aOR -0.13 [95%CI -0.15, -0.11] and aOR -0.24 [95%CI -0.29, -0.18] respectively) compared with comparator hospitals; P4R-FY2 and P4R-FY3 was also associated with significant reductions in the same outcomes, with the exception of 90th percentile ED LOS where we found only weak trends toward reduction. Quality of care outcomes showed no significant differences. P4R was associated with small but significant reductions in most ED-LOS and PIA measures; baseline performance was inversely associated with improvement. Further research is needed on how best to design and implement such incentives to maximize their effectiveness.

Co-Authors: Andrew Boozary, HBMSc, MPP, Institute for Clinical Evaluative Sciences; Marian Vermeulen, MHSc, Institute for Clinical Evaluative Sciences; Therese Stukel, PhD, Institute for Clinical Evaluative Sciences; Michael Schull, MD, MSc, Institute for Clinical Evaluative Sciences

Evidence Uniformed Health Policy Decision Making: Comparing Media Discourse to Population Data in Fluoridation Decisions in Canada

Robert Rivers, MA., University of British Columbia

This study used media discourses and population level dental health data to examine the hierarchical nature of evidence in water fluoridation policy decisions among different Canadian health regions. Additional data were included to demonstrate different dental health outcomes according to fluoridation by health region. A systematic search of Canadian newspapers on fluoridation policy discussions yielded 170 articles, (Editorials 43, News Brief 46, News Story 65, Opinion 16) from 2008-2013. A discourse analysis was conducted to uncover themes on the hierarchy of evidence presented for continuing or discontinuing fluoridation among councillors, special interest groups and the general public. Additional evidence is provided to link discourse themes to available population health data from the 2009-2010 Canadian Community Health Survey (n=184,562) examining the association between decay, dentist visits over the last 12 months, dental insurance plan among youth aged ≤ 24 years in a multivariable logistic regression model. Personal agency and mistrust of available evidence overshadowed professional opinion, population health data and the idea that 'Fluoridation is a Public Good'. Discourses revealed that when fluoridation was continued councils considered a variety of evidence such as cost savings, professional opinion, public health research and political ideations (e.g. Toronto, Edmonton). When councils decided against fluoridation individual agency and mistrust of available evidence were more likely to influence health policy (e.g. Calgary, Waterloo). Multivariable logistic regression revealed that youth in fluoridated regions were less likely to have dental caries (OR: 0.79; 95% CI: 0.76, 0.81; $p < 0.001$) adjusting for dental insurances and dental visit in last 12-months. Annual household income was excluded due to collinearity with dental insurance. The model could predict nearly 90% of the outcome. Trade off is apparent between increased public involvement in decisions on fluoridation. Data demonstrated benefits to youth dental health in fluoridated regions. Discourse themes identified individual autonomy and mistrust as the strongest influence over policy decisions to discontinue fluoridation. Findings suggest engaging general public in guarding against evidence-uniformed health policies.

Co-Authors: Nazrul Islam, University of British Columbia School of Population and Public Health

Examination Of Preventative Health Services For Persons With Multimorbidity And Disability In Ontario: Do Geography And Complexity Matter?

Sara Guilcher, Post-Doctoral Fellow, Physical Therapist, Centre for Research on Inner City Health and Health System Performance Research Network

(1) To describe the distribution of persons with multimorbidity/disability across geography, (2) To describe screening rates for cervical, breast, and colorectal cancer, influenza vaccinations, lipids, glucose and bone mineral testing by geographical category, and (3) To describe the incremental changes in screening rates as multimorbidity/disability increases by geographical category. Using a retrospective cohort, the Canadian Community Health Survey (CCHS) will be linked to administrative data housed at the Institute for Clinical Evaluative Sciences (ICES). Cases will be included if individuals self-reported having a disability or greater than two chronic conditions, and greater than or equal to 18 years of age. Individuals identified in the CCHS who meet the inclusion/exclusion criteria will be linked using health card numbers. Physician fee codes will be used to identify services for influenza vaccination, colonoscopy, mammography, pap smears, lipids, glucose, and bone mineral testing for patients who are eligible for each service. Overall services will be compared for people with versus without multimorbidity/disability by geographical category (e.g. Local Health Integrated Network (LHIN), sub-LHIN, rurality, Neighbourhood Deprivation Index, Ontario Marginalization Index). We anticipate that screening rates will be lower for persons with multimorbidity/disability compared to the control group. Screening rates will likely be lower based on geography, such that those living in rural communities will have lower rates. Further, screening rates will be inversely proportional to level of multimorbidity/disability, such that those with greater needs will likely have less screening. Additionally, we will be stratifying screening rates by social determinants of health such as gender, income, education, ethnicity and expect that the intersection of these factors with multimorbidity/disability will negatively influence screening rates compared to controls. This research addresses a gap in the literature by examining preventative health services practices across different levels of multi-morbidity/disability by geography. If we can identify the extent of health inequities for specific marginalized groups based on geographical factors, we can target these populations and settings for solution-focused interventions.

Co-Authors: Aisha Lofters, Post-Doctoral Fellow, Physician, Centre for Research on Inner City Health, St. Michael's Hospital; Rick Glazier, Scientist, Physician, Centre for Research on Inner City Health, St. Michael's Hospital; Ahmed Bayoumi, Scientist, Physician, Centre for Research on Inner City Health, St. Michael's Hospital; Susan Jaglal, Professor, University of Toronto, Health System Performance Research Network

Examining Use Of Evidence In Health Technology Assessments Through Three Perspectives Of Decision-Making Theory

Juliana Yi, PhD Student, University of Toronto

Health technology assessment (HTA) is used to inform investment decisions for new health technologies. This study explores possible explanations for why the integration of context-sensitive forms of evidence (social and ethical considerations) has been a challenge for decision-makers even though HTA has sought to be multidisciplinary in providing policy advice. Informed by theories and perspectives (functionalist, political, symbolic) of organizational decision-making, four questions surrounding the use of evidence in HTA are examined. They are (1) How, when and why are rational procedures used in decision-making; (2) What are the relative weights placed on analytical, judgmental and political processes in HTA?; (3) How does membership composition of a committee influence decisions?; and (4) How are conflicts in handling evidence resolved? Through organizational ethnographic methods, specifically non-participant observation of an HTA committee's deliberations and semi-structured interviews with committee members, the culture of HTA and the perspectives and practices of integrating evidence are explored. This study expands on theories of decision processes. It also stands to contribute to the literature concerned with the relationship between organizational structure and decision process. In addition, the study also contributes to an understanding of the interrelationships between symbolism, politics, judgement and formal analysis in decision-making. The investigation intends to improve effective decision-making in the evaluation of health technologies in four ways: (1) increase knowledge of how evidence is incorporated; (2) provide an optimal composition of decision-making groups; (3) clarify and reinforce objectives of HTA committees; and (4) improve strategies for conflict resolution. This study contributes to a very limited number of ethnographic accounts of health technology evaluation and the application of organizational decision-making theory in understanding how evidence is used in HTA. Knowledge on decision processes, composition of committees involved in decision-making, and the role of politics, symbolism and rationality may facilitate in understanding why challenges in regards to the integration of context-sensitive forms of evidence exists in current practices of HTA.

Co-Authors: Whitney Berta, Dr., University of Toronto

Experiencing Evidence-Based Supported Employment Services: Qualitative Findings Of A Mixed-Methods Study

Eric Latimer, Associate Professor, McGill University

Most people with mental illness (MI) are unemployed, yet desire to work. The Individual Placement and Support (IPS) model of supported employment is most effective at helping people with MI in general attain this goal. The present study investigates the way people with MI and recent experiences of homelessness experience IPS services. Fourteen participants from a randomized controlled trial designed to evaluate the efficacy of IPS in a homeless population were invited to participate in repeated semi-structured qualitative interviews near the beginning, half-way, and near the end of their participation. The interviews were designed to explore the participants' opinions about the role mental illness and homelessness played in their employment histories as well as their experience of IPS. Thematic analysis was used to highlight recurrent themes and determine common experiences and solutions to the obstacles which impede peoples' return to work. At the final interview four of the 14 participants were competitively employed, two had just left employment, one was about to begin a new job and the remainder had suspended their search. We found that initial reticence to working with IPS specialists faded to be replaced by trust. Developing with time, trust and rapport, which figured prominently in the last interviews, facilitated conversations about strategies for 1) overcoming obstacles, such as having a criminal record, 2) disclosing sensitive information to employers, such as having been homeless, and 3) dealing with workplace stressors, such as needing to concentrate. People who found work were more likely than those who did not to mention having such conversations with their IPS specialist. One mechanism through which evidence-based supported employment specialists appears to be effective among recently homeless participants of a Housing First intervention, appears to be through enabling them to trust the IPS specialists enough that they can begin to adopt behaviors that enable to obtain employment.

Co-Authors: Rob Whitley, Associate Professor, McGill University; Daniel Poremski, Doctoral Student, McGill University

Factors Associated With Patient Perception Of Cancer Services Responsiveness

Dominique Tremblay, Professor, Université de Sherbrooke

This study aims to report on patient perception of cancer services responsiveness and to identify individual and organizational determinants of positive patient experience, in view of highlighting areas for potential improvements. A cross-sectional survey was conducted among 1379 adult patients (response rate 80%) who visited consecutively one of the participating ambulatory cancer clinics of nine hospitals across the province of Quebec. Responsiveness was measured using an adapted version of the WHO's Health Services Responsiveness questionnaire, the Cancer Services Responsiveness tool (CSR-T). The CSR-T has 19 items (Min=3D1; Max=3D4) and four dimensions: prompt access to care, communication, person-centered response and quality of care environment. Descriptive statistics and logistic regression analysis were conducted in order to report on perceived responsiveness and to identify individual and organizational influencing factors. Our study suggests that cancer services were perceived highly responsive with mean scores for the overall CSR-T (Mean =3D3.87, SD=3D0.14) and each dimension ranging from 3.34 to 3.72 with small SD (0.48, 0.17 respectively). Regression models showed that perceived responsiveness increased with age and was higher among male respondents, those with the lowest level of education and those who reported a positive self-assessed health status and well-being. Regarding organizational determinants, rural geographic location of the cancer clinic was deemed the most consistent determinant of positive patient perception of cancer services responsiveness. Academic affiliation was associated with a positive perception of environment and overall responsiveness. Our findings indicate that cancer services responsiveness is very positively rated by patients. Nevertheless, variations exist and may be explained by both patient and organizational characteristics. This study provides valuable information from the users' perspective to enable care providers to target cancer services improvements.

Co-Authors: Danièle Roberge, Professor, Université de Sherbrooke; Djamel Berbiche, Senior statistician, Centre de recherche de l'Hôpital Charles-Le Moyne; Ouahiba Djouder, Statistic technician, Centre de recherche de l'Hôpital Charles-Le Moyne; Bich-Lien Nguyen, Master degree student, Université de Sherbrooke

Financial and Non Financial Incentives for Health Care Providers in Canada: An Overview of Reviews

Renee Misfeldt, Senior Research and Evaluation Consultant, Workforce Research and Evaluation, Alberta Health Services

Incentive strategies are aimed at improving overall health human resource (HHR) outcomes, however, there is a lack of information on what incentives are most effective to recruit and retain health care providers. The overview reports on the effectiveness of financial and non-financial incentives for improving HHR outcomes (HHR). An overview of reviews published in 2000 or later that summarized effectiveness of incentives for improving health human resource outcomes was conducted. Thirty-three reviews met the inclusion criteria and were evaluated for methodological quality by at least two research members using the AMSTAR quality assessment tool. Of those, 13 reviews met the quality criteria and were included in the overview. Information from these 13 reviews was extracted including a description of the review, the incentives and their impact on HHR outcomes. The information on the relationship between incentives and HHR outcomes was assessed and synthesized. While financial compensation is the most recognized approach taken within an incentives package, the evidence is mixed regarding its effectiveness especially as a sole or even the dominant incentive within a recruitment and retention strategy. The possible exception to this is the rural and remote health care workforce. The evidence suggests health care providers also respond positively to quality workplace environments including opportunities for professional development and training and the promotion of work life balance, interprofessional collaboration and professional autonomy. There is less evidence, however, that workload and related factors (e.g. job demand and role overload), restructured staffing models, and re-engineered work designs and ward practices impact HHR outcomes. Overall, the evidence on effective strategies for improving HHR outcomes for the health workforce is mixed. Financial compensation did not definitively emerge as the most critical. Other incentives aimed at improving the workplace environment and balancing work life need to also be considered by employers and planners

Co-Authors: Jana Lait, Research and Evaluation Consultant, Alberta Health Services; Gail Armitage, Research and Evaluation Consultant, Alberta Health Services; Jordana Linder, Research and Evaluation Consultant, Alberta Health Services; Shelanne Hepp, Research and Evaluation Consultant, Alberta Health Services; Dr. Esther Suter, Director of Workforce Research and Evaluation, Alberta Health Services; Karen Jackson, Senior Research and Evaluation Consultant, Alberta Health Services

Health Information on the Internet: What do Caregivers Want?

Tabitha Tonsaker, Miss, McGill University

Caregivers are a vulnerable population at risk for physical and psychological distress. The Internet is a promising avenue of support for this population. This project aims to 1) explore caregivers' online health information seeking strategies and behaviors; 2) investigate caregivers' preferences for structural and design features of a new website. An evidence-based website, www.healthexperiences.ca, is being developed that presents Canadians' personal experiences with health and illness (first module on caregiving). Focus groups were used to explore caregiver's preferences for and use of online health information. Using a semi-structured topic guide, 15 caregivers were asked to share information about online health information use and retrieval, including why and how they search for web-based health information, why they choose to trust certain websites over others, and how they intend to use health information accessed online. Participants were also asked to comment on four different preliminary designs of the [healthexperiences.ca](http://www.healthexperiences.ca) webpage. 1) Caregivers appreciate the Internet has a health resource, but assert it should only be used to supplement other sources of information (ex: from physicians). Participants demonstrate a common approach to accessing online health information: Google search; scanning top links; assessing credibility through design, ownership, presence of advertisements; appraising content and triangulating information; and developing a long-term relationship with a trusted site. Reasons for accessing online health information attributed to empowerment with decision-making, enhancing doctor's visits, care recipient health management, and self-care. Some feel social media is becoming essential to all web initiatives (including e-health), however they are cautious about privacy violations. 2) Participants desired a landscape design, dynamic/interactive feel, clear and brief text, and emphasized the importance of presenting information regarding web-source credibility. Consultation with target audiences is valuable when developing online health initiatives. Feedback concerning structure and design was translated to the company (KnowledgeOne) designing www.healthexperiences.ca. Caregivers offered key insights regarding online health information use, which is helpful for the development of [healthexperiences.ca](http://www.healthexperiences.ca), and future web-based initiatives to provide support to caregivers.

Co-Authors: Ilja Ormel, Mrs, St. Mary's Hospital; Brent Hopkins, Mr, St. Mary's Hospital; Gillian Bartlett, Dr, McGill University; Susan Law, Dr, St. Mary's Hospital/McGill University

Health Related Quality Of Life And Healthcare Utilization By Burden Of Disease: Analysis Of 2011 Commonwealth Survey Data For Canada

Emmanuel Ngwakongnwi, Health Systems Data Analyst, Health Quality Council of Alberta

This study examined the impact of chronic conditions on health-related quality of life (HRQL) and healthcare resource utilization in the 2011 Commonwealth Survey of Sicker Adults. Study sample included respondents from Alberta, Ontario, Quebec, aged 18 years or older (N=3D2,384), who reported having any of six chronic conditions assessed in the survey. HRQL was measured using the EuroQol-5 dimensions (EQ-5D-3L). Health care utilization measures included: use of medical care in the past one year; emergency room visits, hospitalization and surgery in the past two years. A two-tailed Z-test of proportional differences was used to assess reported problems (some/extreme) in each EQ-5D dimension for respondents reporting a single chronic condition (n=3D969) compared to those reporting two or more conditions (n=3D1,415). We found statistically significant differences between the proportion of respondents with a single chronic condition and those with multiple conditions in reporting some/extreme problems in mobility (21.8% vs 43.4%), self-care (5.3% vs 10.7%), usual activities (26.9% vs 44.9%), pain/discomfort (55.1% vs 76.5%), and anxiety/depression (22.2% vs 35.7%). Likewise, there were significant differences between respondents with a single chronic condition and those with multiple conditions in the frequency of receiving any medical care (66.9 % vs 74.8%, p<0.001), emergency room visits (54.7% vs 59.0%, p=3D0.037), and hospitalization (33.4% vs 38.6%, p=3D0.01). Overall, for all healthcare utilization measures, respondents with a single chronic condition had higher health utilities compared to those with multiple conditions. There were variations in health status described by the EQ-5D descriptive system and health utilities generated by the EQ-5D scoring system. People reporting multiple chronic conditions had the least optimal health and the most frequent users of healthcare services compared to those with a single condition.

Co-Authors: Markus Lahtinen, Health System Analytical Lead, Health Quality Council of Alberta; Tim Cooke, Senior Health System Analytical Lead, Health Quality Council of Alberta; Lise Poissant, Associate Professor, Université de Montréal; Feng Xie, Assistant Professor, McMaster University

Improving Chronic Kidney Disease Care In Ontario Through Patient-Based Funding

Ophelia Michaelides, Policy Research Analyst, Ontario Renal Network - Cancer Care Ontario

The Ontario Renal Network (ORN) aims to lead a province-wide effort to better organize and manage the delivery of renal services. The ORN's Triple Aim strategy will: improve the health of the chronic kidney disease (CKD) population; be accountable to CKD patients; and manage the costs of CKD-care. The ORN is championing the path towards a patient-centered approach to delivering CKD-care through the development of a patient-based funding framework, as the province undergoes health system funding reform. The objectives of this funding framework are to provide a clinically meaningful approach to align funding with best practice and improve patient outcomes and provider accountability. Implementation of the ORN patient-based funding framework began in 2012/13 and will be phased-in over a three-year period, eventually establishing funding equity across service providers in addition to aligning funding with quality care. The ORN has begun to achieve its funding framework objectives by revising funding rates for CKD services and, developing and implementing bundled patient-based payment for dialysis and pre-dialysis care. As part of the ORN's multi-year implementation timeline, the funding framework will also be extended beyond the hospital sector, while continuing to improve upon current activities. This implementation approach is guided by the principles of shared accountability and transparent information sharing, and is mobilized by strong medical leadership, multidisciplinary provincial and regional forums and efforts to equip service providers to integrate new ideas. The ORN's CKD patient-based funding framework is helping to align funding to high quality patient-focused care and has significant potential for positive impact, particularly when integrated with other ORN initiatives to improve access to needed services, to promote evidence-based practice and to drive quality improvement across the provincial CKD system.

Co-Authors: Peter Magner, Dr., Ontario Renal Network - Cancer Care Ontario, The Ottawa Hospital; Rosalee Lahaie, Ontario Renal Network - Cancer Care Ontario; Kelly Woltman, Ontario Renal Network - Cancer Care Ontario; Graham Woodward, Director of Planning, Reporting and Evaluation, Ontario Renal Network - Cancer Care Ontario

Income Support And The Use Of Emergency And Inpatient Medical Services Among Adults With Intellectual And Developmental Disabilities (IDD) In Ontario

Elizabeth Lin, Independent Scientist, Centre for Addiction and Mental Health

To evaluate the contribution of income support, in comparison with sociodemographic and geographic factors and physical and psychiatric comorbidities, to the frequency of use of emergency department (ED) and inpatient medical services among adults with intellectual and developmental (IDD) disabilities. We studied a newly available Ontario cohort of 66,000 adults with IDD created by merging health administrative and provincial income support data for fiscal 2009. We compared four groups, based on which data source(s) identified them with IDD and their income support: two health-only groups (one with no support, one with non-IDD support), support-only, and IDD-both (i.e., both health and support). These groups were compared on sociodemographics, geographic characteristics, physical and psychiatric comorbidities, and 2-year contacts with formal health care. Multivariate regressions evaluated the contributions of income support and sociodemographic and clinical factors to 2-year ED and inpatient service use. The health-only (no support) group had the highest proportion of young adults (18-25 year olds) while the IDD-both and support-only groups were more likely to be rural. The health-only (non-IDD support) and support-only groups had the highest proportions of individuals living in the poorest neighbourhoods and having COPD. The health-only (non-IDD support) group also had the highest rate of psychiatric comorbidity and were 30 percent more likely to visit the ED and between two and three times more likely to have an inpatient stay than the other three groups. Initial results indicate that income support is associated with lower rates of use of ED and inpatient services but that psychiatric comorbidity (i.e., dual diagnosis) is also an important contributor. Through partnering with policy-makers, we linked social services and health data to provide a more inclusive cohort of adults with IDD. Both health factors and disability-related supports contribute to health care use. Individuals with IDD, particularly high ED and inpatient users, require better planning and coordination across the responsible ministries.

Co-Authors: Yona Lunskey, Section Head, Dual Diagnosis Research / Associate Professor, Department of Psychiatry, Centre for Addiction and Mental Health / University of Toronto; Robert Balogh, Assistant Professor, Faculty of Health Sciences, University of Ontario Institute of Technology; Dorina Simeonov, Project Manager, Institute for Clinical Evaluative Sciences; Andrew S. Wilton, Analyst, Institute for Clinical Evaluative Sciences

Interactive Health Technology Assessment (HTA) Education Workshops for Health Care Practitioners and Managers in Surgical Services

Elizabeth Oddone Paolucci, Assistant Professor of Departments of Surgery and Community Health Sciences, University of Calgary

Evaluate the impact of the educational intervention on the use of the Local HTA Decision Support Program by OR and Unit Managers of the Surgery Clinical Network within Alberta Health Services for introducing new health technologies. Utilize participant feedback to improve the Program as more systematic, consistent, and transparent. Prospective, descriptive study of 56 OR/Unit Managers of AHS SCN, comprised of educational intervention (2 hour workshop) and evaluations (pre, post, and 12 month questionnaires). Participants completed pre-workshop questionnaires measuring HTA knowledge and current practices in assessing/adopting new technologies. Didactic presentation was delivered on what HTA is, resources available, how to submit review requests, and the Local HTA Decision Support Program. Small group sessions applied these learnings through practical case scenarios utilizing the Local Program. Post-workshop questionnaires (similar to pre-workshop questionnaire) also assessed workshop quality and how the Program can be best applied in participant-specific environments to inform decision-making. Of the 56 participants, 82% were female, 32% had a Nursing Degree, 50% worked in a tertiary facility, 55% were Unit Managers, 81% managed Operating Rooms, and 50% were in their current role for 2 years. Careful quantitative and qualitative analyses of both pre- and post- questionnaire results demonstrated that although Health Care Managers are regularly approached by physicians, clinicians, and company representatives to introduce new technologies in their area, there is wide variation in knowledge and evaluation practices of new technology demands. It is not surprising that participants expressed enthusiasm on receiving further education and support in using the Local HTA Decision Support Program, which is geared to reduce such practice variation when appropriate. Health Care Managers are challenged to make wise decisions regarding introducing medical technologies that are patient effective, safe, and cost-efficient. The Local HTA Decision Support Program is offered as one systematic and transparent resource Managers can utilize in making decisions in an era of finite resources and ever-increasing medical possibilities.

Co-Authors: Paule Poulin, Dr., Alberta Health Services; Trevor Schuler, Dr., University of Alberta; Lea Austen, Dr., Alberta Health Services; Gabrielle Zimmermann, Dr., Canadian Agency for Drugs and Technology in Health – CADTH

Is There A Relationship Between Quality Indicators And Patient Satisfaction In Seizure Monitoring Units?

Khara Sauro, Doctoral Student, University of Calgary

Patient satisfaction with care is an important component of quality of care and has been shown to improve clinical outcomes, such as adherence to medical treatment. The purpose of this study is to examine the relationship between patient satisfaction and quality indicators in a seizure monitoring unit (SMU). A standardized patient satisfaction scale, the Hospital Consumer Assessment of Healthcare Providers and Systems, was administered to consecutive adults discharged from the Calgary SMU between September 2010 and November 2012. Quality indicators such as length of stay and adverse events were prospectively collected on all patients. Univariate and multivariate analyses were conducted to explore the relationship between patient satisfaction and quality indicators (length of SMU stay, adverse events while in the SMU, clinical utility of the admission, the number of seizures while in the SMU, and re-admission to the SMU) and patient demographic variables (age, gender, and years of education). Data from 108 patients were analyzed. Satisfaction with care in the SMU was very high, with satisfaction with nursing and physician care being rated equally high (9.2/10). The average overall rating of satisfaction with SMU care was 27.2/30. In the univariate analysis, satisfaction of care was unexpectedly positively associated with experiencing an adverse event while in the SMU. A relationship between years of education and satisfaction with care was observed in the multivariate analysis - those with less education were more satisfied with care ($p=0.048$). The relationship between patient satisfaction with care and quality indicators in SMUs has not been previously studied. The unexpected finding of an association between satisfaction with care and experiencing an adverse event warrants further exploration and confirmation, perhaps by developing a SMU-specific patient satisfaction questionnaire.

Co-Authors: Jodie I Roberts, University Of Calgary; Sophie Macrodimitris, Psychologist, University Of Calgary; Samuel Wiebe, Neurologist, University Of Calgary; Neelan Pillay, Neurologist, University Of Calgary; P. Federico, Associate Professor, Dept. Clinical Neurosciences & Dept. Radiology; W. Murphy, Clinical Associate Professor, Dept. Clinical Neurosciences; C. Krassman, Nurse Educator, Alberta Health Services; N. Jetté, Assistant Professor, Dept. Community Health Sciences & Dept. Clinical Neurosciences

Learning From the Leading Provinces: Benchmarking Provincial Health System Performance

Jeannette Lye, Research Associate, The Conference Board of Canada

This presentation will discuss the results of a provincial health system benchmarking exercise which aims to assess the overall health of the population and the state of provincial health care systems. Health system performance benchmarking was done using 89 indicators across four performance categories: health status, life style factors, health system performance and health system resources. Results were ranked using a report-card style (A-B-C-D). Ranks were assigned to each province for performance on individual indicators, indicator categories and overall. This benchmarking project allows understanding of variations in health status across the provinces and to identify the provinces with better health care system performance. Results will be presented on interesting individual indicators, as well as indicator categories and overall performance across our overall framework. The variables used to provide socio-economic context for the benchmarked indicators will also be presented and discussed. This project will help to determine benchmarks from which improvements could be monitored over time and to create awareness among policy-makers, health care stakeholder and the public on provincial health system performance.

Co-Authors: Philip Astles, Senior Research Associate, The Conference Board of Canada; Gabriela Prada, Director, Health Innovation, Policy and Evaluation, The Conference Board of Canada

Lessons Learned from the Development of an Interprofessional Emergency Early Pain Management Policy and Protocol to Enhance Patient Care

Julie Spence, Emergency Physician, St. Michael's Hospital

Early pain management for emergency department (ED) patients should be a high clinical priority; however there remains an absence of a uniform approach. Instruments such as policies and protocols enable a consistent, standardized approach that supports optimal pain management through time-based metrics and frequency of pain assessment. In an academic inner city level 1 trauma centre (patient volume: 72,000/yr), an inter-professional team of ED physicians, ED nurses, acute pain consultants, pharmacists, and research coordinators developed an early pain management policy, RN-initiated protocol and a best practices-informed ED-specific order set. Appraisal of the literature and institutional analyses informed the delivery model, metrics, and policy. Partnerships with key stakeholders were built to facilitate approval, implementation, and evaluation. The platform developed will inform the implementation of future QI driven policy initiatives. Analysis of Canadian literature identified inconsistent metrics, terminology, and application. An ED-specific early pain management policy was developed based on best practices. Approval was required from 2 institutional committees working in series. Keys to success included: collaborative, energetic multi-professional ED leadership; centralized administration support; early identification of policy development and approval processes; identification and engagement of key stakeholders; close collaboration with partners; and integrated network of professionals and management. Challenges encountered included: lack of formally documented procedures; incorporation of external departmental policies and language; hospital templates that align poorly with ED-specific context; incorporation of committee and non-committee member preferences. These administrative processes, which did not impact clinical or operational issues, provided challenges to the timely implementation of a best practices QI initiative. There were procedural challenges encountered during the implementation of this QI-driven policy. Key QI principles include timely development of patient focused models that incorporate measures of impact, and application of necessary change. Administrative processes may impede timely adoption of best practices and policies, and hinder Knowledge Translation in the ED setting.

Co-Authors: Karen Gaunt, Clinical Leader Manager, St. Michael's Hospital; Gillian Martin, Nurse Practitioner, St. Michael's Hospital; Glen Bandiera, Chief, ED, St. Michael's Hospital; Kirsty Nixon, Registered Nurse, St. Michael's Hospital

Linking Administrative Data Sources to Analyze Cost of Care over the Continuum

Scally Chu, Student, UBC Centre for Health Services and Policy Research

Provinces are beginning to move away from viewing healthcare as a series of discrete events that occur in silos, towards a comprehensive view of care across settings and providers over time. The objective of this analysis is to link administrative data sources over time, over settings and between healthcare providers. We analysed a cohort of patients hospitalized for ischemic stroke in the province of Ontario over a two-year period. Using anonymous data, we linked inpatient rehabilitation, complex chronic care long term care, emergency department use, home care, and physician billing data to draw a comprehensive view of patients' care over time. Based on location of residence, we developed an analytic dataset which identifies occurrences of healthcare utilization and costs for different periods of time, including 30-days and 90-days after discharge from the hospital. We then contrast common pathways for stroke patients with costs of publicly-funded healthcare utilization. There are approximately 3,000 patients hospitalized for ischemic stroke in Ontario annually. For patients that are discharged alive, and live at least 90 days, the average cumulative cost of care in the first 30 days following discharge is \$30,519. The average cumulative cost for the 90-day period following discharge is \$39,649. The all-cause readmission rate for these patients is 16.5%, costing an average of \$17,703 per patient. More than 24% of these stroke patients visit a hospital emergency department at least once in the 90-day period following discharge. The destination of discharge is associated with a significant portion of the cost of treating patients. Those discharged to complex continuing care average \$34,322 per patient, to inpatient rehabilitation average \$24,651, and to long-term care average \$11,997. Following patients over time and between healthcare settings reveals significant variations in the use and cost of healthcare. As re-hospitalizations and ED visits are common, additional strategies for supporting patients' recovery should be pursued. The analyses demonstrate that risk adjustment is needed to control for variation in utilization and cost.

Co-Authors: Guiping Liu, Research Analyst, UBC Centre for Health Services and Policy Research; Trafford Crump, Post-Doctoral Fellow, UBC Centre for Health Services and Policy Research; Jason Sutherland, Assistant Professor, UBC Centre for Health Services and Policy Research

Maternity Nurses' Experience With Providing Newborn Screening Education To Mothers In The Immediate Post-Birth Setting In Ontario

Diana An, Masters Student, University of Toronto

The primary objective of this study was to gain a general understanding of the educational experiences of postpartum nurses in hospital as it related to NBS. The secondary objective was to understand how nurses' experience with NBS education compared to other teaching activities on the postpartum unit. This study employed a qualitative, exploratory, descriptive approach and involved one-on-one interviews with 30 nurses and six nursing leaders from two large hospitals in Ontario. Thematic analysis was used to identify common themes. The experiences of nurses and nursing leaders from both hospitals were similar: nurses were routinely engaged with NBS education, said that it was an important test to be done, and saw their role to play in it; however, their engagement with it was limited for three reasons: patient and organizational factors which prioritized other teaching topics before NBS and features specific to NBS itself. This study fills in the gap in the literature on the educational experiences of maternity nurses who are directly involved with providing NBS education to parents. Results from the study will also inform decision makers on the current challenges to providing NBS education to mothers and will assist them in building a better NBS program for the public.

Co-Authors: Fiona Miller, Associate Professor, University of Toronto; June Carroll, Associate Professor and Clinician-Scientist, University of Toronto; Beth Potter, Assistant Professor, University of Ottawa

Meeting the Needs of an Aging Population: The Importance of More Responsive Models of Alternate Transportation for Rural and Urban Seniors

Tara Pidborochynski, University of Alberta

Transportation plays a central role in the maintenance of mobility and engagement of seniors in their communities. A significant number of seniors need to rely on alternate modes of transportation due to declines in driving competency as a result of medical conditions and/or treatments for those conditions. However, many existing alternatives to driving are not well suited to the needs of seniors. The objective of our research was to 'hear from seniors themselves' what they consider important in alternate transportation service (ATS) provision. Survey methodology with purposive sampling and oversampling in rural-based regions of the province. A Random-Digit Dialing approach was used to interview 901 seniors across the province of Alberta. Interviews were conducted by the Population Research Lab using the Computer Assisted Telephone Interviewing system. Ethics approval was received from the Health Research Ethics Board. The overall mean age of respondents was 73 years (SD = 6.8), with the majority (61%) of respondents between 65 and 74 years of age. The majority (88%) of respondents held a valid driver's license, and the majority of those licensed were currently driving. The vast majority (79%) of those who had stopped driving had not planned for the day that they would no longer drive. In general, the pattern of results on the Availability, Acceptability, Accessibility, Adaptability, and Affordability of ATS differed as a function of driving status (current driver/non-driver) and location (rural/urban). However, the availability of alternate transportation for medical needs was rated as somewhat or very important by the vast majority (97%) of respondents. Importantly, the results underscore the need for driving retirement and mobility management education for seniors in general. The results also inform on the development of more responsive models of transportation for seniors in both urban and rural areas. It is well established that lack of access to a private vehicle often results in unmet needs, including reductions in access to medical and essential services. Notably, rural seniors have more unmet needs than their urban counterparts because of transportation deficiencies in rural areas. Results of our research can be used to develop more responsive models of alternative transportation services to support our aging population.

Co-Authors: Bonnie Dobbs, Dr., University of Alberta; Donald Voaklander, Dr., University of Alberta

Mining Canadians Rich Physician Claims Health Data: Features and Face Validity

Ceara Cunningham, University of Calgary

Physician claims data is one source of coded health information unique to Canada. However, there is skepticism from data users and clinicians about the overall quality and validity of this data. The objective of this study investigates features and patterns of diagnosis codes used in the Alberta physician claims database. Alberta physician claims from January 1, 2011 to March 31, 2011 were analyzed. Claims were excluded from analysis if the medical service provided was x-ray, pathology, anaesthetic, surgical assistant or a laboratory test. Descriptive statistics were used to examine the diversity and frequency of diagnosis codes used by specialty, the level of coding precision by specialty, primary reason for medical visit by specialty and proportion of claims submitted stratified by physician payment program. A total of 7,441,005 claims were submitted by 6,601 physicians. Total average number of claims submitted for all specialties was 1,079. Family medicine submitted an average of 1,330 claims, 690 for internal medicine and 722 for surgery. The total average of unique diagnosis codes submitted for all specialties was 82. Family medicine used an average of 121 diagnosis codes, 32 for internal medicine and 36 for surgery. Overall, 43.5% of all physicians used a more precise code than required. Of those, 40.0% physicians in family medicine used more precise code than required, 55.2% in internal medicine and 57.6% in surgery. Physicians in a fee-for-service program submitted a total average of 88 claims as compared to 44 claims from physicians in an alternative payment program. A total of 7,441,005 claims were submitted by 6,601 physicians. Total average number of claims submitted for all specialties was 1,079. Family medicine submitted an average of 1,330 claims, 690 for internal medicine and 722 for surgery. The total average of unique diagnosis codes submitted for all specialties was 82. Family medicine used an average of 121 diagnosis codes, 32 for internal medicine and 36 for surgery. Overall, 43.5% of all physicians used a more precise code than required. Of those, 40.0% physicians in family medicine used more precise code than required, 55.2% in internal medicine and 57.6% in surgery. Physicians in a fee-for-service program submitted a total average of 88 claims as compared to 44 claims from physicians in an alternative payment program.

Co-Authors: Pin Cai, Analyst, Alberta Health Services; Hude Quan, Professor, University of Calgary; Nathalie Jette, Associate Professor, University of Calgary; David Topps, Associate Professor, University of Calgary

Multi-Level Factors Influence The Implementation And Use Of Complex Innovations - Synoptic Reporting Tools - In Cancer Care

Robin Urquhart, Knowledge Broker, Cancer Outcomes Research Program, Capital Health/Dalhousie University

The implementation of innovations (i.e., new tools and practices) in healthcare organizations remains a significant challenge. The objective of this study was to examine the key interpersonal-, organizational-, and system-level factors that influenced the implementation and use of complex innovations - synoptic reporting tools - in three specific cases of cancer care. Using case study methodology, this study examined three cases in Nova Scotia, Canada, wherein synoptic reporting tools were implemented within clinical departments/programs. Three theoretical perspectives guided the design, analysis, and interpretation of the study. Data were collected through semi-structured interviews with key informants across four units of analysis (individual user, implementation team, organization, and larger healthcare system), document analysis, nonparticipant observation, and examination/use of the synoptic reporting tools. Analysis involved production of case histories, an in-depth analysis of each case, and a cross-case analysis. Numerous factors, which existed at multiple levels of the system, were important to the implementation and use of synoptic reporting tools. The analysis revealed five common factors that were particularly influential to implementation and use across the three cases: stakeholder involvement, managing the change process, administrative and managerial support, the presence of clinical champions, and attributes of the innovations themselves (e.g., complexity, compatibility with interests and values). Key factors distinct to one or two of the cases were: implementation approach, project management, resources, culture, leadership, monitoring and feedback mechanisms, and healthcare system components (e.g., care delivery structures, infrastructure, and socio-historical context). The analyses showed that several contextual factors, including the timing of implementation and technical requirements of the tools, contributed to the differences across cases. The findings contribute to our understanding of the multi-level factors that influence the implementation and use of innovations in healthcare organizations. This includes several important issues under-reported in the literature: interpersonal aspects of implementation, including stakeholder involvement; managerial support, specifically the role of middle managers; and healthcare system components.

Co-Authors: Geoffrey Porter, Dr., Dalhousie University; Joan Sargeant, Dr., Dalhousie University; Lois Jackson, Dr., Dalhousie University; Eva Grunfeld, Dr., University of Toronto

Not All High Users Are Created Equal: Correlates Of Higher-Than-Expected Health Care Services Use In British Columbia

Kimberly McGrail, Assistant Professor, Centre for Health Services and Policy Research, SPPH, UBC

A small proportion of users accounts for a large share of health care expenditures. High users tend to have complex conditions but there are also wide variations in care. This analysis brings together the 'high user' and 'variations' literature by assessing correlates of higher than expected service use. This analysis used individual-level physician, hospital, PharmaNet and registry data from 2009/10. Physician and pharmaceutical costs were available in the data sets. Hospital costs were estimated using CIHI's resource intensity weights. Observed expenditures for each individual were calculated overall and for 8 sub-components (GPs, medical specialists, surgical specialists, laboratory, imaging, acute care, day surgery and pharmaceuticals). Expected expenditures were estimated with a two-part approach implemented using the 'lmixed' procedure in SAS. Modeling variables included age, sex and ACG, a validated estimate of need for health care services. We used regression to identify characteristics associated with having higher than expected expenditures. As expected, health care expenditures are highly skewed. The top 5% of users (n~200,000) accounted for 51% of total expenditures (>\$4 billion). Costs per capita for high users are remarkably similar across age groups. What differs is the proportion of individuals within an age group who are in the overall top 5%, ranging from about 1% for young children and adolescents to nearly 30% of those aged 85+. There is considerable variation in the difference between observed and expected values (put differently, variation in health system costs not explained by age, sex, and health status). Variables reflecting health system (having a regular family doctor), socioeconomic (income decile), and geographic (rurality) characteristics all contributed to explaining remaining the variation. There are variations in health care services use that cannot be explained by basic demographics or need for health care services. Some of these differences appear to be systematic in the sense that they relate to identifiable characteristics of individuals (e.g. location of residence) or the system (e.g. having a regular doctor) that a priori would not be hypothesized to influence need. Further research will assess the extent to which these differences are mediated by individual and/or regional physician practice styles.

Co-Authors: Ruth Lavergne, PhD Candidate, CHSPR; Sandra Peterson, Programmer / Analyst, CHSPR; Saskia Sivananthan, PhD Candidate, CHSPR; Rachael McKendry, Research Assistant, CHSPR

Off-Label Policy Use

Serena Purdy, Magister, University of Toronto

To lay the theoretical groundwork for 'Off-Label Policy Use': the application of formal policies in situations to which they do not apply. This paper is part of a larger project aimed at expanding policy theory to account for the behaviour of front-line workers in the absence of explicit formal policy. This paper presents preliminary conceptual development in an area of theory that is underdeveloped and underdiscussed: informal policy. Policy theory tends to focus on formal policy: legislation and law that has been enacted by government after due process; however, this paper argues that informal policy is deeply ingrained in the healthcare system and highly problematic. For example, its namesake, the well recognized 'Off-label drug use,' is the predominant driver in a recent call by bioethicists at John's Hopkins to redefine healthcare and research ethics entirely. 'Street-level bureaucracy' was first coined by Michael Lipsky in 1980, who argued that, ultimately, policy implementation depends upon the people who implement it. Accordingly, state employees such as police and social workers should be seen as part of the 'policy-making community' and as exercisers of political power. This paper expands on Lipsky's theory to account for formal policies applied to situations where no formal policy is prescribed, or where formal policies are inadequate. In such situations, health care service providers can reasonably be expected to develop their own conventions, rules, norms, and systems of meaning to guide their practice. Informal policies may provide the foundation of formal policy development, or serve as highly resistant institutional impediments when formal policy is implemented at a later date. The outcome of this paper will be to develop a theoretical basis for informal policy studies as related to existing formal policy studies. This in turn will contribute to a better understanding of the implications of inaction and delayed action in by policy makers.

Co-Authors: Maxwell J. Smith, University of Toronto

Partnering for Change: Examining Primary Healthcare System Transformation

Martha MacLeod, Professor School of Nursing/School of Health Science, University of Northern British Columbia; Dr. Suzanne Johnston, Vice President Clinical Programs, Northern Health

Northern Health (NH) is leading a process of whole system change with staff, physicians, and communities to improve population health, improve provider and patient experience and contain costs. The research on this process is to understand how networks of partners can best be engaged to transform primary health care (PHC). A multiple case study approach is used to examine how health system change actually takes place regionally and within 7 communities across northern British Columbia over a four-year period. Interviews with community leaders, physicians and health authority staff involved in the change along with documents such as meeting minutes, administrative data, and the results of NH evaluations provide data for analyses. The concept of social entrepreneurship provides a way to understand the process of developing and implementing integrative PHC approaches. Research findings, which are brought back to NH and the communities each year, contribute to ongoing organizational changes. The first round of interviews conducted in 2012 illustrate the early steps in the processes of change. The work of building new approaches to PHC has started through a clear inclusive vision, communicated through a strong NH strategic plan, developed with extensive input from northern residents, physicians and NH employees. PHC transformation has been situated in communities, allowing staff, physicians and community organizations to take hold of opportunities for innovation. Early findings include the ways in which NH is working with varying levels of readiness for change in the communities and some key ingredients for beginning change. These include creating opportunities for engaging in conversations, mobilizing local innovations while keeping a regional direction, and acknowledging and working with the complexities and uncertainties of change itself. These findings and others arising from the 2013 round of interviews provide an opportunity to learn how to change health systems, how to engage communities, how partnerships may contribute to changes in health services, and how health care systems can be re-aligned to better serve the needs of the population.

Co-Authors: Martha MacLeod, University of Northern British Columbia; Cathy Ulrich, Northern Health; Neil Hanlon, University of Northern British Columbia; Suzanne Johnston, Northern Health

Quality and productivity in Family Medicine Group : Who are the best? Male or female physicians?

Roxane Borges Da Silva, Dr., Institut de recherche en santé publique de l'Université de Montréal

In 2002, Québec implemented Family Medicine Groups (FMG) to improve access to primary care. Our objective was to compare practices of female and male physicians, in terms of quality and productivity for diabetic patients in FMG. Data came from Régie de l'assurance maladie du Québec. Our sample was composed of 906 physicians (431 female, 475 male) and their diabetic patients, extracted at time-5 of a cohort. We chose quality indicators from Canadian Diabetes Association's clinical practice guidelines: examination by an ophthalmologist or optometrist in the past two years; prescription for Angiotensin Converting Enzyme Inhibitor (ACEI) and Angiotensin Receptor Antagonists (ARA) for diabetics over 65; prescription for statin for diabetics over 65; and annual physical exam. Productivity was measured using total number of acts billed per year. Student-tests determined if differences by sex were significant. Compared to patients of male physicians, more patients of female physicians had been to an ophthalmologist or optometrist in the past two years (73% vs. 70%), more had received tobacco counselling (1.8% vs. 1.4%), more of those over 65 had received at least one statin prescription during the year (68.2% vs. 64%) or had been given at least one prescription for ACEI or ARA during the year (69.5% vs. 65.7%) and had had an annual physical exam (43% vs. 31%). Female physicians performed fewer acts per year than male physicians (3100 vs. 4920). All differences were statistically significant. Female physicians with diabetic patients had better quality of care indicators than male physicians, while male physicians had higher productivity. These results raise questions for the future, given that the proportion of female among young physicians is increasing.

Co-Authors: Valérie Martel, Université de Montréal; Régis Blais, Professor, Université de Montréal

Regionalization and Health System Performance in Nova Scotia, New Brunswick, Manitoba, and Saskatchewan

Jonathan Harris, MPP Student, Johnson-Shoyama Graduate School of Public Policy

Regionalization of health services in Canada was expected to improve appropriateness and continuity of care over extensive geographical areas and allow more directed funds for public and population health initiatives. The purpose of this study is to assess the impact of regionalization on health system performance in four provinces with large rural populations. Changes in governance and organization of service delivery through regional health authorities (RHAs) in Nova Scotia, New Brunswick, Manitoba, and Saskatchewan were analyzed through retrospective comparative analysis. These provinces were chosen because of similarity in urban/rural breakdown and differing approaches to regionalization. New Brunswick and Manitoba have initiated recent organizational changes in their respective health systems, while Nova Scotia and Saskatchewan have undertaken comparatively less change. Decentralization was quantified, taking into account the number of RHAs and their level of decision-making autonomy. A composite measure of health system performance is constructed using variables from the CCHS and CIHI's Health Indicators. Results to be shared at this conference will: 1) a new composite measure of health system performance based on correlation with avoidable mortality as measured by potential years of life lost (PYLL); 2) an evaluation of the effect of decentralization on health system performance in the provinces of interest. Although regionalization and associated decentralization are thought to have had a positive effect on health system performance, this assumption has to date been largely untested. This study will draw conclusions about how different policies around health system regionalization have affected system performance in Nova Scotia, New Brunswick, Manitoba, and Saskatchewan.

Co-Authors: Gregory Marchildon, Dr., University of Regina

Returning Research Results And Incidental Findings: Challenges For The Healthcare System

Karine Sénécal, Academic Associate, Centre of Genomics and Policy

The Tri-Council Policy Statement (TCPS2) establishes new obligations concerning the return of research results. Yet, it did not address how this should occur. Our objectives are to: .Provide guidance on the return of research results; .Identify the challenges at the interface of the healthcare system and research. Based on a systematic comparative review of literature and of international, Canadian and Québec normative text, the Quebec Network of Applied Genetic Medicine (RMGA) convened a working committee (i.e. legal and ethical experts) to develop the Statement of Principles on the return of research results and incidental findings. The RMGA completed its series of consultations with partners for the health researcher community (FORGE Canada and MICYRN) by using group discussions and written comments. The experts concluded that in the light of increased genomic research, a Statement of Principles was needed to help bridge the gap between what is recommended in the TCPS2 and the practice. More specifically, this Statement provides tools for developing a plan to manage the return of research results; making decisions about results that should/could be returned (or not); and how, when, to whom, by whom, etc. the results should be returned. The issues raised in the Statement of Principles may be used to address general research results, individual research results and incidental findings. Furthermore, examples include recommendations that address child-specific issues, intra-familial communication, biobank research and longitudinal studies. The return of research results raises challenges for the healthcare system: TCPS2 puts forward considerable duties as to the return of incidental findings, and recommends the furnishing of genetic counseling services for the return of research results. This Statement addresses how return of research results could be operationalized.

Co-Authors: Karine Sénécal, Academic Associate, McGill University; Bartha Maria Knoppers, Director, Centre of Genomics and Policy, McGill University; Denise Avard, Research Director, Centre of Genomics and Policy, McGill University; Conrad Fernandez, MD, Dalhousie University

Shifts In Strategic Priorities By Ontario's Acute Care Hospitals In An Environment Of Accountability

Seija Kromm, PhD Candidate, University of Toronto

Accountability is being increasingly focused on in Ontario's healthcare system. Mechanisms affecting acute care hospitals include Hospital-Service Accountability Agreements and legislated requirements as found in the Excellent Care for All Act (2010). This study explores shifts in strategic priorities of acute care hospitals in this environment of increased accountability requirements. Ontario hospital CEOs from three types of acute care hospitals (teaching (T), large community (LC), and small community (SC)) were surveyed about their hospital's strategic priorities in late 2011 using the Strategic Priorities Survey. The survey contained 37 strategic issues grouped into nine domains. Respondents were asked to indicate whether each issue was articulated in their corporate documents, and to rate the level of importance and challenge of each issue. Using ANOVA analysis, data from 2011 was compared with data collected from these hospitals in 2004 by researchers at the University of Toronto. Analysis also compared responses by hospital type. The survey response rate was 45.7% (71.4% T, 54.4% LC, and 26.7% SC hospitals). Aggregate data showed a trend toward fewer strategic issues being articulated, lower ratings of importance, and fewer challenges in 2011 compared to 2004. Articulation of patient satisfaction was universal in 2011, an increase from 2004 that aligns with ECFAA. Small hospitals were more likely to articulate issues, and increased ratings of importance and challenge in 2011 compared to 2004; opposite to the trend in other acute care hospital types. Comparing acute care hospital types in 2011 and 2004, fewer statistically significant differences in articulation and ratings of importance were found; while more issues had statistically significant different ratings of challenge when SC hospitals were compared to the other two hospital types. This study provides information about how increased focus on accountability can affect organizational priorities. The data revealed shifts in articulation, ratings of importance and challenge between the two survey years. Fewer differences between hospital types in 2011 may indicate a move towards standardization in ratings of importance.

Co-Authors: Raisa B. Deber, PhD, University of Toronto; G. Ross Baker, PhD, University of Toronto; Walter P. Wodchis, PhD, University of Toronto; Nancy Kraetschmer, PhD, University of Toronto

Speech-Language Pathology Diet Texture Medical Directive: Impact on Accuracy and Timeliness of Diet Order Entry

Carolyn Chalmers, Speech Language Pathologist, University Health Network

To evaluate the use, safety, and timeliness of a Speech Language Pathologists (SLPs) medical directive to order, modify and/or discontinue a diet texture. Relevance: While medical directives for SLPs to order diet texture changes are common in clinical practice their use, safety, and efficiency has not been studied. A medical directive for SLPs ordering diet textures was implemented in an acute care hospital in 2009. Interprofessional staff were surveyed regarding perception of accuracy, safety, timeliness and quality of diet texture changes recommended by the SLP at 1 month pre- (n=148) and 1 year post (n=151) directive implementation. Chart audits were also conducted to assess timeliness and accuracy of diet orders in the electronic patient record (EPR) for all SLP patients 1 year pre (n=), 1 month post (n=139), and 1 year post-directive implementation (n=114). T-tests were used to compare outcomes pre/post medical directive implementation ($\alpha=0.05$). While most questions had more positive responses post medical directive SLPs and non SLPs had different ratings for timeliness, time consumption and error rate. By 1 year post directive 98% of orders were written utilizing the medical directive. The number of orders never entered correctly was significantly decreased ($p<0.00$) post directive (16.3% pre vs. 8.9% post). The amount of time to enter the diet texture was also significantly decreased ($p=0.01$) from 8.1 pre to 3.8 hours post. One year post, 17.5% of patients that SLP entered in EPR had therapeutic diet errors. The majority (8/10) occurred when the SLP started a diet texture without a specified therapeutic diet order. An error in diet texture was noted for 1.8% of patients 1 year post implementation. Overall, there was a positive impact from the introduction of a SLP medical directive. SLPs used the directive frequently. Orders were both more timely and consistently entered although some errors were noted. An annual refresher course and competency quiz were instituted to ensure compliance with appropriate use of the directive.

Co-Authors: Nesamet Girma, Speech Language Pathologist, University Health Network; Jennifer Barker, Speech Language Pathologist, University Health Network; Louis Liu, Gastroenterologist, University Health Network; Carol Heck, Scientist, University Health Network

The Accreditation Canada Worklife Pulse Survey: Validation Of The English & French Versions And The Healthy Work Environment Model

Genevieve Lavigne, Postdoctoral fellow, McGill University

Accreditation Canada's 21-item questionnaire is used as part of the Canadian accreditation program of healthcare organizations. It provides a snapshot of the quality of the work life and employees' psychological and physical health. The present research aimed at validating the English and French versions of the survey and a model designed to predict healthy work environments. The proposed model suggests three work environment groups based on the quality of work life scores which lead to very different health outcomes. This study uses a correlational design with data collected between 2008 and 2010 using the Accreditation Canada survey. Participants were employees of healthcare organizations from all Canadian provinces and occupied a variety of positions such as nurses, doctors, Allied Health, technicians, managers and senior executives. A total of 9,578 French-speaking and 16,398 English-speaking individuals completed the 21 Pulse survey items. First, the English and the French versions of the survey, and the overall sample as well were compared by gender and by age groups. The only item which revealed a systematic difference between the English and French sample is the 'job satisfaction' item. Job satisfaction was systematically found to be lower in the French-speaking sample. Second, the validation of the healthy work environment model suggests that the healthy work environment group is associated with high work adjustment, good physical and mental health as well as low absenteeism and health-related presenteeism. On the other hand, the results also suggest that the poor work environment group and to a less significant extent the subthreshold work environment group is associated with low work adjustment, poor physical and mental health and high absenteeism and health-related presenteeism. These results were found both in the French and the English samples. The present study supported the validity of the French and English versions of the Accreditation Canada's Worklife Pulse survey as well as the predictive validity of the healthy work environment model. This argues in favour of the pertinence of using the Worklife Pulse to assess global quality of worklife in healthcare organizations.

Co-Authors: Charles Sounan, Senior Researcher, McGill University; Mélanie Lavoie-Tremblay, Associate Professor, McGill University; Jonathan Mitchell, Manager, Policy and Research, Accreditation Canada; Bernadette Macdonald, Vice President, Programs and Services, Accreditation Canada

The Canadian Inherited Metabolic Diseases Research Network: Achieving The Triple Aim For Inborn Errors Of Metabolism

Sylvia Stockler, MD, PhD, University of British Columbia

Achieving optimal outcomes from the perspectives of patients/families, clinicians, and the health system is challenging for rare diseases, as exemplified by inborn errors of metabolism (IEM). Our objective is to design and implement a pan-Canadian, multidisciplinary, evaluative research program that supports evidence-informed care for patients with IEM and their families. The Canadian Inherited Metabolic Diseases Research Network (CIMDRN) is comprised of approximately 40 investigators from across Canada whose expertise spans the fields of metabolic medicine, clinical evaluative sciences, and health policy. Drawing from this body of expertise and guided by a novel research framework, we are developing a practice-based research program to address the challenges presented by IEM, including: difficulties in applying 'gold-standard' approaches (i.e., experimental designs) to generate the evidence needed to support health care decisions at both the system and clinical levels; limited understanding of the comparative effectiveness of novel versus existing interventions; and clinically heterogeneous disease manifestations. Our program is initially focusing on observational research in the field of IEM, incorporating outcomes from across the 'triple aim', which include: patient and family experiences, medically important outcomes, and health system impacts. We have established the foundation of our multi-centre research platform, which invites participation from nearly all children in Canada diagnosed with IEM over a 10-year period. We are assembling longitudinal data from provincial policy, health system administrative, and clinical sources; and from interviews and questionnaires with individual patients and their families. These data are used to investigate associations among patterns of interventions and outcomes at the individual patient and health system levels. Integrating data across the triple aim helps to make explicit the trade-offs involved in providing care for rare diseases. Our research network and platform will contribute the evidence needed for health policymakers and clinicians to improve evidence-informed health care for IEM, thereby optimizing interventions and outcomes for patients, families, care providers, and health systems. Our work will likewise inform methodological approaches to observational and experimental research into rare diseases.

Co-Authors: Hilary Vallance, MD, University of British Columbia; Marni Brownell, PhD, Manitoba Centre for Health Policy; Pranesh Chakraborty, MD, FRCPC, FCCMG, Children's Hospital of Eastern Ontario; Doug Coyle, PhD, University of Ottawa; Ms. Monica Hernandez, MSc, Newborn Screening Ontario; Ms. Maria Karaceper, BSc, University of Ottawa; Ms. Sara Khangura, BA, University of Ottawa; Dr. Jonathan Kronick, MD, PhD, The Hospital for Sick Children; University of Toronto; Dr. Jennifer MacKenzie, MD, Kingston General Hospital; Dr. Julian Little, PhD, University of Ottawa; Dr. John Mitchell, MD, Montreal Children's Hospital; Dr. Murray Potter, MD, McMaster Children's Hospital; Dr. Kathy Speechley, PhD, Western University; Dr. Yannis Trakadis, MD, Montreal Children's Hospital; Dr. Kumanan Wilson, MD, Ottawa Hospital Research Institute; Dr. Beth Potter, PhD, University of Ottawa

The Drivers of Prescription Drug Expenditures: A Methodological Study

Elena Lungu, A/Manager NPDUI, Patented Medicine Prices Review Board

To provide the formula that decomposes the growth in prescription drug expenditure into eight drivers of drug cost and three drivers of dispensing fees along with the corresponding cross effects. It offers the option of further decomposing drug cost and dispensing fees into three demographic effects and corresponding cross effects. The cost driver analysis breaks down the overall change in prescription drug expenditures into the factors that contribute to it, by isolating and quantifying each factor through a cost decomposition methodology. This study proposes a cost driver approach that conceptually starts from the basic formula of the Laspeyres index. The very basic principle is determining the effect of a specific factor by holding the other factors unchanged, through the use of shares, price or cost and volumes. The methodology divides overall expenditure change into a variety of direct and cross effects, both of which are being discussed in the paper. The report will benefit a broad audience interested in this topic. Firstly, it provides to a non-technical audience a general understanding of the factors that drive prescription drug expenditures. Secondly, it offers a technical audience a clear description of how the methodology works, what are the requirements and alternative approaches. And thirdly and most importantly, it is designed to assist the working-level analyst perform the cost driver analysis by making available the actual formulas and methodological notes required to complete this work. It also discusses methodology adjustments and enhancements as well as limitations. A discussion on the cross effect and the various ways to report the residual effects is provided. This methodological report is an important toll that will allow research groups to design and conduct cost driver analyses using their available data and answering their relevant research questions. It also identifies and defines the various factors that drive drug expenditures and dispensing fee expenditures.

The Effect Of Alternative Payment Programs On Daily Distress Experienced By Physicians

Juan-Nicolás Peña-Sánchez, PhD Student, University of Saskatchewan

To compare distress levels of physicians who are paid by fee-for-service (FFS), alternative payment plans (APP), and blended methods. To explore interactions between payment method and physicians' specialties, practice profiles and age groups. To compare the proportions of patients seen with complex medical-social conditions among FFS, APP and blended methods. A cross-sectional study was conducted in 2011 among physicians practicing in the Saskatoon Health Region, Saskatchewan. Physicians completed a survey, measuring their levels of daily distress with a previously validated questionnaire. Distress of physicians was measured on a scale from 1.00 to 7.00 and compared by payment method with One-way ANOVA. Interaction effects between payment method and physicians' specializations, practice profiles and age groups were studied with Two-way ANOVAs. One-way ANOVA was used to compare the percentages of patients seen with complex medical-social conditions among payment groups. Scheffe Tests were used to detect significant differences. A total of 382 physicians (45.3%) completed the questionnaire. Response bias was tested and found to be negligible. About half of the physicians were paid by FFS (45.3%), 24.6% by APP and 30.1% by blended forms of payment. No differences among levels of daily distress were found by payment method [$F(2,379)=0.78$, p -value=0.46]. No interaction effects were identified between payment method and specialty group, or between payment and practice profile; however, an interaction effect between age group and payment method was identified [$F(6,368)=2.25$, p -value=0.04], where physicians over 60 years-old paid through blended methods reported lower levels of daily distress than younger colleagues. Furthermore, physicians with APP and blended payment methods see higher proportions of patients with complex medical-social conditions than those paid by FFS [$F(2,379)=11.9$, p -value<0.001]. Physicians' distress is not increased by a specific payment method, or affected by interactions between payment scheme and clinical profile or specialty group. Among senior physicians, blended alternatives might reduce levels of daily distress. Physicians paid by APP see more patients with complex medical and social conditions.

Co-Authors: Rein Lepnum, Professor, School of Public Health, University of Saskatchewan

The Impact Of EMR Implementations On Canadian Primary Care: Establishing A Return-On-Investment (ROI) Based Value Proposition For EMRs For Physicians

Steven Sanche, MSc Statistics, St. Mary's Research Centre

Determine the return on investment (ROI) for primary care practices following the implementation of electronic medical record (EMR) systems for patient care and assess the impact on clinical and operational efficiencies. We also sought to identify facilitators that are most important to the realization of the net positive value. Primary care clinicians were eligible to participate and enrol their practice (group or solo, non-walk-in) if they implemented an EMR between 2005 and 2011 and met other eligibility criteria. To determine ROI and process changes from paper-based practice (pre) to EMR-enabled practice (post), and across the 18-month EMR implementation period (peri) - financial summary data were abstracted directly from clinic records in collaboration with clinicians and clinic accounting representatives. Validated quantitative instruments were completed using an online tool or interviewer-led by telephone or in-person during site visits. Upon completion of a semi-structured qualitative exit interview, honoraria for participation were provided. 117 primary care physicians from across Canada expressed interest to participate in response to a national promotion/recruitment strategy and screening process. A projected 20+ clinics (40+ practices, 11 EMR vendors) will complete the study sample in February 2013. Interim results include 16 clinics from across Canada. Considering all contributing sources supporting EMR implementation, the amount paid by clinics averaged \$50K, (range: \$7K - \$140K). ROI: number of months to pay back implementation costs was 9 months (range: 1-28 months). The average FTE clinicians at the beginning of the EMR implementation was 3.0 (range: 1.0 to 8.5) and 3.4 (range: 0.8 to 8.0) post implementation. EMR use, satisfaction; and the impact on operational efficiencies; quality and continuity of care; and practice workflow will be reported. Affordability is not a barrier to EMR adoption, in this interim analysis 79% report breakeven within 1-year (92% in two years). While operational and process efficiencies are well demonstrated, important facilitators; enhancements to automation of clinic processes and system interoperability are necessary to support quality and continuity of care outcomes.

Co-Authors: Michel Lortie, PEng, St. Mary's Research Centre; Liette Lapointe, Prof., McGill University; John Hughes, Dr., McGill University; Isabelle Vedel, Dr., McGill University

The Impact Of Publicly Funded Human Papillomavirus (HPV) Vaccination On Cervical Dysplasia: The Ontario Grade 8 HPV Vaccine Cohort Study

Leah Smith, Student, McGill University

Although provincial publicly funded HPV vaccination programs have been in place for over six years, there is no information on the benefits they have had on adolescent health. The objective of this study was to investigate the impact of Ontario's Grade 8 HPV vaccination program on risk of cervical dysplasia. We used Ontario's administrative health and immunization databases to identify a population-based cohort of all girls in Grade 8 in 2003/04-2006/07 (ineligible for free vaccination) and 2007/08-2008/09 (eligible for free vaccination). Girls were followed from September 01 of Grade 8 until no later than August 31 of Grade 11. Baseline characteristics (e.g., socio-demographics, vaccine history) of ineligible and eligible girls were compared. New cases of cervical dysplasia were identified during study follow-up, and the risk of this outcome was calculated. A multivariable generalized linear model (binomial distribution, log link) was used to compare risk of dysplasia between eligibility cohorts. Using the data available at the time of analysis (i.e., from 21 of Ontario's 36 health regions), we identified a cohort of 231,507 girls - 155,999 ineligible and 75,508 eligible. Each eligibility cohort was followed for an average of 4.0 years. Baseline characteristics were similar between cohorts, with the exception of income level. The risk of cervical dysplasia by the end of Grade 11 was 2.4, 2.3, 2.4, and 2.5 per 1000 for the 2003/04, 2004/05, 2005/06, and 2006/07 ineligible cohorts, respectively. This risk dropped to 1.3 and 1.4 per 1000 for the 2007/08 and 2008/09 eligible cohorts, respectively. The generalized linear model revealed a strong protective effect of HPV vaccine program eligibility on the risk of cervical dysplasia (risk ratio=0.62, 95% confidence interval 0.49-0.76). Results from this large, population-based cohort study provide the first evidence of the health benefits of publicly funded HPV vaccination programs in Canada. These findings are currently being verified using province-wide data and the Regression Discontinuity design, a quasi-experimental technique that allows for causal inference in an observational setting.

Co-Authors: Jay Kaufman, Dr., McGill University; Erin Strumpf, Dr, McGill University; Linda Levesque, Dr, Queen's University

The Importance of Theory in Health Services Research

Suman Budhwani, University of Toronto, IHPME; Juliana Yi, IHPME, University of Toronto; Kristen Pitzul, IHPME, University of Toronto; Kaileah McKellar, IHPME, University of Toronto

Using theory to inform research is a well-known verse heard by academic researchers and graduate students alike. Unfortunately, in the face of limited timelines and constricted budgets, theory is often the first to be discarded in favour of more 'applied' science. This becomes particularly true when theory is often thought of as an abstract phenomenon, rather than the foundation on which research designs and methods are based, and analysis and knowledge dissemination occurs. Together, this panel of PhD students from the Institute of Health Policy, Management, and Evaluation, University of Toronto will reflect upon their own experiences in utilizing theory to form their research. They will trace the importance of theory throughout the research process from hypothesis generation to knowledge dissemination, offering examples from experience in diverse areas of health services research. Juliana Yi will discuss the role of theory in qualitative studies and how theory can inform hypotheses and questions posed for investigation through the use of ethnographic methods. This will be illustrated through a proposed study that examines the integration of context-sensitive forms of evidence, such as social and ethical considerations, into health technology assessments. Kristen Pitzul will guide the discussion on commonly used conceptual frameworks in health services research, including an in depth examination of the most frequently used conceptual framework in health care utilization studies. Discussion will specifically focus on the appropriate adaptation of this framework in informing research designs of various context and multi-pronged interventions. Kaileah McKellar will discuss the application of theory to the appropriate selection of performance measures. Her discussion will include moving from general theory to program specific theory, which will be illustrated by her research utilizing social network theory to understand the potential benefits of a transdisciplinary community of practice through the development of a theory of change. Finally, Suman Budhwani will conclude with how theory can be used to drive knowledge dissemination in practice. Highlighting the differences between laboratory versus real-life settings, she will explore how theory can drive best practice within health care organizations. This panel will inform conference attendees, particularly students, about the importance of theory by demonstrating how theory can be applied to the stages of the research process through the discussion of concrete examples based on this student panel's experiences.

Co-Authors: Juliana Yi, PhD Student, IHPME, University of Toronto; Kaileah McKellar, PhD Student, IHPME, University of Toronto; Kristen Pitzul, PhD Student, IHPME, University of Toronto

Themes And Variations In Canadian Health Services Research

Ruth Lavergne, Doctoral Candidate, Centre for Health Services and Policy Research

A large body of health services research is based on the premise that geographic variations in utilization or cost provide useful information, signaling barriers to access or the potential for waste. Examining such variations in Canada has unique challenges, given the diversity of geographic contexts for healthcare service delivery. This scoping review maps geographic variations research in Canada, describing approaches used and identifying limitations. A search to identify Canadian studies that examine sub-national variations in healthcare service use was undertaken in Medline (up to January 2013), followed by forward and backward citation searches. The 126 relevant studies were subdivided into those that examine variations in use of specific drugs or procedures and examining classes of service (e.g. primary care, emergency departments, hospitalizations). These were further categorized by data source, population, geographic units, definitions of rurality (where used), methods of quantifying variation, and methods of adjustment for population characteristics. Marked geographic variations are observed in use of individual procedures and classes of service. It is evident that the health system as encountered by patients differs between places. However, research often focuses on services in isolation, failing to account for system complexity and potentially appropriate substitution of services. While large differences in distribution of resources exist, smaller differences in utilization may be observed. The relationship between variations in use and outcomes is rarely examined. Methodologically, improvements are needed in how places are defined and described, in ensuring comparisons across populations are sound, and in assessments of outcomes. Based on this review, a logic model for understanding population and health system drivers of variation in service use, across geographic contexts, is proposed. While variations in service use are well documented, there are few clear conclusions about factors that shape observed variations, or their implications for patient outcomes. It remains difficult to separate variations in healthcare services use arising from different social and geographic contexts, from situations of over- or underuse.

TIDE-BC Complex Diagnostic Clinic: A Multidisciplinary Approach to Causal Diagnosis of Complex Intellectual Disability

Tyler Murphy, BC Children's Hospital / UBC

Intellectual Disability (ID), defined as IQ<70, is a debilitating, lifelong disorder. Affecting 2-3% of the population worldwide, it carries huge health care costs. Causes are extremely heterogeneous making diagnostic evaluation challenging. We established a multispecialty clinic and assessed its impact on diagnostic yield, time to diagnosis, costs, satisfaction and collaboration. The TIDE-BC Complex Diagnostic Clinic (TIDE-CDC) was developed to enable multidisciplinary assessment/collaboration for complex children with ID. The clinic was organized to allow for a child to be evaluated by three different specialists in one hospital visit. Immediately following the clinic, TIDE-CDC rounds were held with attendance of the referring physician, evaluating specialists, and a diverse team of clinical and laboratory professionals. Each patient was thoroughly discussed and a diagnostic plan was made for each child. The referring physician followed up with the patient and coordinated any necessary testing. Patient/provider surveys were performed to evaluate the clinic. 24 children, who previously had been extensively evaluated and presented with complex neurological/ systemic features, were seen at the clinic over a period of 15 months. Etiology was identified in > 50% of children. Diagnoses allow for improved genetic counseling and better management as well as closure for the family. All families reported a positive experience and 85% of families reported the clinic was an improvement from their previous health care experiences aimed at diagnosis. Specialists reported improved communication, learning, and a more successful diagnostic evaluation. A cost analysis showed the clinic could potentially reduce costs incurred through eliminating multiple specialist consultations and avoiding unnecessary or repeat testing. The clinic/rounds proved to be a valuable teaching entity for medical students, residents, and fellows. TIDE-CDC is an innovative model of efficient personalized medicine that is generating evidence to support a multispecialty collaborative approach to diagnosing ID patients. Our novel approach improves quality of care and reduces health care costs, providing access to innovative technologies requiring multidisciplinary interpretation.

Co-Authors: Clara van Karnebeek, Clinical Associate Professor, BC Children's Hospital / University of British Columbia; Sylvia Stockler, Head of the Department of Biochemical Diseases, BC Children's Hospital / University of British Columbia; Wynona Giannasi, Research Manager, Howe Group; Marion Thomas, Clinic Manager, BC Children's Hospital

Trends In Cancer Chemotherapy Costs In The Last Year Of Life In British Columbia

Reka Pataky, Data Linkage Coordinator, Canadian Centre for Applied Research in Cancer Control, BC Cancer Agency

The cost of therapy for advanced cancer is rising rapidly, as more costly drugs for this indication enter the market. Understanding utilization of these drugs is a challenge facing many jurisdictions. We sought to investigate trends in chemotherapy utilization and cost in cancer patients in the last year of life. Using population-based data from the British Columbia (BC) Cancer Registry, we identified adult patients who died of cancer in 2002-2007, and who had been first diagnosed with cancer fewer than five years before death. Drug utilization and costs in the last year of life were calculated directly from dispensing records for the Provincial Systemic Therapy Program, the single provider of chemotherapy drugs for cancer patients in BC. Analysis was conducted using multivariate regression, adjusting for patient characteristics, cancer type, and year of death. Costs are expressed in 2010 dollars. There were 29,854 patients in our cohort, of whom 43% received chemotherapy in the last year of life. Patients with breast cancer, ovarian cancer or melanoma had the highest rates of chemotherapy utilization, over 75%. Mean cost for all cancer sites rose from \$3638 (95% CI: 3395-3881) to \$5229 (95% CI: 4900-5559) from 2002 to 2007. Our analysis indicates that both the likelihood of receiving chemotherapy in the last year of life and the cost per user increased, by 5.1% ($p < 0.0001$) and 8.6% ($p < 0.0001$) per year respectively. This effect varied widely by cancer site. Costs for lymphoma, melanoma, esophageal, gastric and brain cancer increased by more than 20% per year. Chemotherapy costs rose rapidly over this short window of time, growth rates varying across different cancer types. Understanding these patterns may contribute to improving the appropriateness of chemotherapy at end of life, and reducing costs.

Co-Authors: Winson Cheung, BC Cancer Agency; Claire de Oliveira, Postdoctoral Research Associate, University Health Network; Stuart Peacock, Co-director, Canadian Centre for Applied Research in Cancer Control, BC Cancer Agency; Murray Krahn, Director, Toronto Health Economics and Technology Assessment Collaborative, University of Toronto

Triple Aim Policy Options For Canada: Reducing Maternal Mortality Worldwide

Farah Shroff, Adjunct Professor, University of British Columbia, Department of Family Practice & School of Population & Public Health

1. To describe the scope of maternal mortality issues worldwide 2. To discuss policy options for Canadian responses, aiming for better health, improved provider experience and lower cost This policy paper examines an area of potentially massive health gains: reduction of global maternal mortality rates. Daily, approximately 800-1000 women die, mainly in Afghanistan and African nations. Most of these deaths are preventable: with the presence of a (female) skilled attendant during childbirth; better transport; legalizing abortion; promoting the health of mothers (nutrition, rest) and treating complications in pregnancy; drying and wrapping newborns (keep them warm); early and exclusive breastfeeding; preventing, detecting and treating infections. While these relatively simple solutions are well known, progress is slow. What are Canada's contributions to reducing these deaths? This paper discusses the need for health policy directives that meet the triple aim: improve maternal health, improve maternity care and save costs. A relatively unexplored area is the need to meet women where they are at, specifically with respect to their first choice of care provider. Most South World women consult holistic health care providers and traditional birth attendants for their primary care needs. These providers, while serving the majority of the population, are often overlooked as possible solutions to health care problems. We explore the viability of international health policy directives that focus on working with traditional birth attendants and other traditional health care providers, with the aim of improving maternal health, encouraging collaborative team based care and alleviating financial and social costs. Canadian international health policy initiatives that aim to reduce maternal mortality worldwide ought to emphasize collaboration with traditional birth attendants and other traditional health care providers.

Co-Authors: Jimmy Minhas, Final Year Medical Student, University College Dublin; Chris Laugen, Doctoral Student, School of Population & Public Health, University of British Columbia, Child & Family Research Institute Trainee

Understanding the Role of Influentials in Evidence-Based Nursing

Emily Pearsall, Student, University of Toronto

Engaging in evidence-based practice (EBP) enables nurses to deliver high quality, cost-effective care however, research shows that evidence is not always used in practice. Evidence exists that influential people (influential) may increase the use of EBP. This study explores the characteristics, activities, mechanisms and effectiveness of influentials in nursing. A realist review of the literature guided by social influence theory was conducted to understand how influentials are operationalized in nursing and their effectiveness. A realist review is an explanatory analysis aimed at discerning what works for whom, in what circumstances, in what respects and how. Medline, CINAHL, hand-searching of publications and reference lists were scanned. Included studies described, compared, or evaluated the implementation of EBP in the context of nursing in an acute care hospital setting by an influential. Both qualitative and quantitative data were extracted. The search was limited by papers published in English, between 1993 and 2012. In total, 365 abstracts were reviewed with 12 studies meeting the inclusion criteria. Most studies were based in the UK (6) and Canada (4). Influentials were labelled as Champions (6), Managers (3), Knowledge Brokers (2), and Change Agents (1). Professional role varied widely from: advance practice nurses (6), managers (3), specialty nurses (2), and ward nurses (1), and was not consistently matched with the influentials label. Characteristics commonly attributed to influentials were being a leader, knowledgeable, and supportive. Common activities were formal and informal educational meetings, dissemination of knowledge and frequent communication. Seven studies described the effectiveness of influentials, four of which reported that influentials increased the use and knowledge of guideline recommendations by ward nurses. There is limited and inconclusive evidence on how influentials promote EBP in nursing. More qualitative studies need to be conducted to understand their characteristics, activities and mechanisms. There is also a need for rigorous testing of effectiveness of influentials to confirm how the role of the influential is best operationalized.

Co-Authors: Lianne Jeffs, PhD, University of Toronto; Anna Gagliardi, PhD, University of Toronto

Use Of Publicly Funded Home Visits In The Last 60 Days Prior To Death At Home Or Hospital In Palliative Care Recipients - A Propensity Score Based Analysis

Mo Yu, Master's Student, University of Toronto

Recent policies in Ontario focus on shifting palliative care away from hospitals and facilitating death at home to improve patients' quality-of-life and reduce health care costs. This study compares the use of publicly funded home visits between palliative care recipients who died at home and who died in hospitals. 137 cancer patients and their primary care-givers were recruited from the Temmy Latner Centre for Palliative Care at Mount Sinai Hospital. The centre provides home-based multidisciplinary palliative care. Care-givers of the patients were interviewed every two weeks and asked to provide information on demographics, socio-economic status, patients' health service utilization and functionality. Patients were stratified into quartiles based on their estimated propensity score (probability of home death). Patients' use of publicly funded home visits while on home care in the last 60 days prior to death was assessed and compared within each quartile between home death and hospital death patients. Logistic regression results showed that patient sex and co-residency status were both significant predictors of place of death ($P < 0.05$). Being male and living alone significantly decreased one's probability of dying at home. Pooled results across all quartiles indicated that there was no significant difference in the use of publicly funded home visits in the last 60 days prior to death between palliative care recipients who died at home or who died in hospitals. When comparing separately within each quartile, the result was the same (no significant difference in the use of home visits). There was one exception. In quartile 3, people who died at home had significantly more PSW visits than people who died in hospitals (4339 minutes and 1561 minutes respectively, $P = 0.0465$). Findings indicated no significant difference in the use of publicly funded home visits between patients who died at home and who died in hospitals. Consequently, changing the site-of-care may not have a significant impact on home-based health services use but would reduce overall care costs through less use of hospitals.

Co-Authors: Jimmy Minhas, Final Year Medical Student, University College Dublin

Utiliser l'expérience des usagers et des intervenants pour soutenir une réorganisation de services : l'exemple du continuum québécois de services de réadaptation pour les personnes ayant un AVC

Marie-Eve Lamontagne, O.T., Ph.D., Université Laval

Documenter l'expérience des usagers, de leurs proches et des intervenants quant au continuum québécois de services de réadaptation pour les personnes ayant un AVC, et connaître leurs priorités quant aux éléments actuels de l'organisation de services 1) à maintenir et 2) à améliorer. Pour consulter les usagers et des proches, nous avons tenu 10 focus groups dans six régions du Québec. Les intervenants de la réadaptation ont été recrutés par leur Agence régionale de la santé et des services sociaux respective, et consultés à l'aide d'un sondage électronique. Pour ces deux groupes, les notions d'accessibilité, de continuité, de coordination et d'information ont été explorées. Les participants ont été invités à s'exprimer quant aux forces du continuum de services et quant aux cibles d'amélioration prioritaires. Les usagers sont généralement satisfaits de l'humanisme et de l'expertise des intervenants en place. L'accessibilité des services de réadaptation, particulièrement pour les clientèles atypiques et en milieu communautaire, est problématique. L'offre d'information est fragmentaire en fonction des établissements et répond peu au besoin des usagers. Les intervenants perçoivent l'accessibilité de façon moins positive que la continuité ou que la coordination, et en font la cible d'amélioration prioritaire pour la réorganisation des services. Ils souhaitent améliorer la continuité et la coordination des services notamment via l'amélioration des procédures de transfert et par la mise en place de structures formelles de collaboration. L'expérience des usagers, des proches et des intervenants est essentielle à considérer dans une réorganisation de services. Elle permet de cibler des zones prioritaires d'amélioration et d'identifier des moyens novateurs de répondre aux besoins des usagers. L'accessibilité demeure un problème fondamental et prioritaire des services de réadaptation pour les personnes ayant un AVC.

Co-auteurs(es): Carol Richards, Ph.D., Université Laval; Mélanie Rosa-Goulet, M.Sc, CIRRS; Daniel Garneau, Agence régionale de la santé et des services sociaux de la Capitale Nationale; Comité d'experts sur l'offre de service de réadaptation post-AVC

Utilization of Primary Care Services in Two Community Health Centre in Ontario

Maude Laberge, PhD Student, University of Toronto

This study has two objectives related to the utilization of physician and nurse practitioner services in two Community Health Centres. The first is to understand whether there is substitution or complementarity between NPs and physicians. The second objective is to determine whether there are variations between the two CHCs. Data on patients and their visits with NPs and physicians was collected from two CHCs (n1=2,236 patients and n2=2,055 patients). Data included the number of physicians and NP visits, patients' socio-demographic information as well as their socio-economic status and health status. Two-part models were run using a Probit for the probability of 1) having a physician visit and 2) having a NP visit and a Poisson regression with the number of physician visits and the number of NP visits as the outcomes. The models were run with pooled data with a dummy variable for the CHC and separately. In one CHC, an increase in the number of NP visits was associated with an increased number of physician visits but the physician visits did not have a significant effect on the number of NP visits. In the other CHC, NP visits was negatively associated with the physician visits but physician visits had a significant positive effect on the number of NP visits. When the data was pooled, NP visits was positively associated with physician visits but physician visits were not significant in predicting NP visits. The difference in the results between the two CHCs suggest that there may be unobserved organizational factors that affect utilization of physician and NP services differently. More research would be required to understand the specific roles that the providers play with each CHC.

Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) Case Detection Algorithm for Hypertension using Nova Scotia EMR Data

Nandini Natarajan, Associate Professor/Family Physician, Dalhousie University

Maritime Family Practice Research Network (MaRNet-FP) Nightingale electronic medical record (EMR) data from Nova Scotia was used to assess the validity of CPCSSN developed EMR based case detection algorithm (CDA) against both EMR chart abstraction and physician validation of hypertension diagnosis. 390 EMR patient charts were randomly selected from all Nova Scotia patients who were diagnosed with hypertension by the CDA. A chart abstractor blinded to diagnosis of hypertension by CDA retrospectively reviewed the 390 EMR patient charts and identified patients with hypertension. Six family physicians blinded to diagnosis of hypertension by CDA then reviewed their patient's charts and confirmed the diagnosis of hypertension in a yes/no form. Physician validation was considered the 'gold standard'. CDA diagnosis was first compared against chart abstraction diagnosis and second against physician validation. Data was analyzed for sensitivity, specificity, positive and negative predictive values. Chart abstraction validation provided a sensitivity of 83.9%, a specificity of 93.1%, a positive predictive value of 93.9% and a negative predictive value of 82.2%. Preliminary results from physician validation provided a sensitivity of 80.5%, a specificity of 90.4%, a positive predictive value of 93.5% and a negative predictive value of 73.1%. Hypertension has high prevalence rates in Nova Scotia and is a modifiable risk factor for cardiovascular disease. It would be valuable to accurately diagnose hypertension from family practice EMR for surveillance and research. The validity of CPCSSN CDA was reasonably high for diagnosing hypertension using EMR data in Nova Scotia.

Co-Authors: Kristine Van Aarsen, MSc, Dalhousie University; Nandini Natarajan, MD, CCFP, Dalhousie University; Nirupa Varatharasan, MSc, Dalhousie University; Sarah Sabri, MSc, Dalhousie University; Wayne Putnam, MD, FCFP, Dalhousie University

Variation in Emergency Department Visit Rates from Long-Term Care Homes in Ontario

Andrea Gruneir, Scientist, Women's College Research Institute

Transfers to the emergency department (ED) from long-term care homes (LTCHs) can be challenging for residents and are influenced by health system factors. This study describes ED visit variation across LTCHs, and quantifies the association between LTCH characteristics (location, ownership, size, and historical ED transfer rate) and visit rate variation. Using linked administrative data, we identified all Ontario LTCH residents ≥ 65 years between January 1 - March 31, 2010 and all ED visits over one year. We used funnel plots with 95% confidence bounds to assign each LTCH to one of three groups based on the ED visit rate of residents: 1) high (>95% of the upper bound); 2) intermediate (within 95% bounds); and 3) low (>95% of the lower bound). We used logistic regression to estimate the association between LTCH structural characteristics and the likelihood of either being a high- or low-rate LTCH relative to an intermediate-rate LTCH. We identified 71,780 residents in 604 LTCHs. Mean age was 84.8 years and 72% were female. Across LTCHs, the mean ED visit rate was 28.4% (interquartile range 21.6-34.5%). 115 (19.0%) and 130 (21.5%) LTCHs were assigned as high-rate and low-rate, respectively. After case-mix adjustment, high-rate LTCHs were more likely to be within 5 minutes of an ED (adjusted odds ratio 1.7, 95% confidence interval 1.1-2.8), to have high historical visit rates (AOR=4.3, 2.5-7.6), and less likely to have fewer than 100 beds (AOR=0.5, 0.3-0.9) than intermediate-rate LTCHs. Low-rate LTCHs differed from intermediate LTCHs on historical visit rate only (AOR=0.1, 0.05-0.2). There was substantial variation in ED visit rates across LTCHs in Ontario. High rates of ED transfer appeared to be associated with relatively stable LTCH characteristics such as ease of access to EDs suggesting that system structures could be targeted to reduce ED transfer rates.

Co-Authors: Susan Bronskill, Scientist, Institute for Clinical Evaluative Sciences; Alice Newman, Analyst, Institute for Clinical Evaluative Sciences; Chaim Bell, Clinician Scientist, Mount Sinai Hospital; Paula Rochon, Senior Scientist, Women's College Hospital; Geoffrey Anderson, , University of Toronto

Variation in Treatment and Survival Patterns of Breast Cancer Patients in Alberta, Canada 2002-2010: Opportunities for Quality Improvement

Stacey Fisher, Student, University of Alberta

Treatment guidelines for stage I-III breast cancer are total mastectomy or breast conserving surgery (BCS) plus radiation. Studies have shown that women prefer the latter due to its less disfiguring nature. We examined overall rates of BCS by stage, geographic variation and the relationship to survival. All women diagnosed with stage I-III breast cancer in years 2002-2010 who had surgery were identified from the Alberta Cancer Registry and included in the study. The relationship between type of surgery received and patient demographics, clinical characteristics, and receipt of radiation or chemotherapy were assessed. Cox-proportional hazard models were run adjusting for all demographic, clinical and treatment variables available to assess the relationship between treatment received and breast cancer-specific death. Breast cancer-specific mortality rates of those who received BCS plus radiation compared to complete mastectomy are highlighted. The percentage of breast cancer patients who received BCS varied overall by stage: 52% stage I, 36% stage II, and 17% stage III. Rates also varied geographically; the 2 urban regions consistently had BCS rates slightly above average for all disease stages and rural/remote regions had rates that were 5-15% lower than the provincial average. Inconsistent with treatment guidelines, 10-15% of patients who received BCS did not receive radiation. Breast cancer-specific mortality was worse for stage II and III patients who received mastectomy compared to those who received BCS plus radiation: HR (95% confidence interval) 1.51 (1.19, 1.90) and 1.94 (1.33, 2.81), respectively after adjusting for demographic/clinical characteristics. Mortality rates did not differ by type of surgery for stage I patients: 1.06 (0.75, 1.49). BCS rates in Alberta overall are quite low and vary appreciably geographically. Importantly, patients who receive BCS and radiation have significantly better survival than those who do not. Efforts are needed to improve the rate of BCS followed by radiation; such efforts should improve survival.

Co-Authors: He Gao, Mr., University Alberta; Yutaka Yasui, Prof, University of Alberta; Kelly Dabbs, Dr., Alberta Health Services, Marcy Winget, Scientific Director, Innovation and Decision Support, Cancer Care, Alberta Health Services

Variations In Practice Among Physicians Providing Clinical Care To Individuals With Dementia: A Systematic Review

Saskia Sivananthan, Doctoral Candidate, UBC Centre for Health Services & Policy Research

Despite best practice guidelines established in the medical community, studies indicate variations in dementia care. Our objective was to determine to what extent actual practice is consistent with clinical guidelines for dementia care. A systematic review of empirical studies of clinical services provided by physicians to seniors 60 years or older with a primary or secondary diagnosis of dementia. Web of Knowledge, PubMed, Science Direct, MedLine, PsychINFO, EMBASE and Google Scholar databases were searched for articles in English published prior to March 1st, 2012. We assessed seven dementia care processes recommended by guidelines: formal memory testing, imaging, laboratory-testing, interventions, counselling, community service and specialist referrals. Twelve-thousand-two-hundred-and-sixty-four studies were identified of which twelve studies met the final inclusion criteria. Only 40% of the studies that identified dementia care as a primary research objective included measures of the full scope of dementia care processes as identified by guidelines. There was broad variation in the proportion of physicians who reported conducting each dementia care process. This was of particular note for the formal memory testing process which ranged from 4%-96% and the specialist referral process which ranged from 12%-81%. Recently published studies reflected a shift in scope of care, reporting higher proportions of physicians who provided interventions, counselling and referrals to specialist. Despite availability and dissemination of established best practice guidelines there is still wide variation in physician practice patterns in dementia care. Better information on practice patterns and their relationship to outcomes for patients is needed to address the needs of the increasing number of individuals who will require dementia care.

Co-Authors: Joseph Puyat, Doctoral Candidate, UBC Centre for Health Services & Policy Research; Kimberlyn McGrail, Assistant Professor, UBC Centre for Health Services & Policy Research

What's It Going To Take To Implement Caregiver Education And Support Programs In Ontario: A Key Informant Study

Victrine Tseung, Miss, University of Toronto

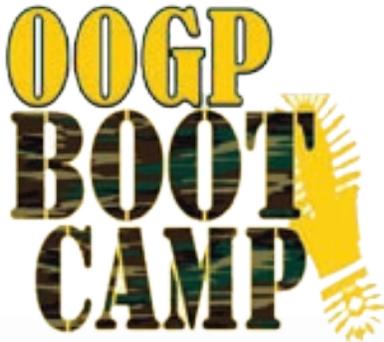
Family caregivers play a crucial role in supporting stroke survivors. Although evidence shows that caregiver education and support programs are beneficial, they are not being implemented by the health care system. This study identifies the organizational/systemic factors that influence the implementation of caregiver programs into the Ontario Stroke System. This study employs a qualitative case study design using the Ontario Stroke System as the research case, as it represents a pre-eminent model of stroke care in Canada. In the first phase of this research, qualitative interviews were conducted with a purposive sample of 12 key informants from the Ontario Stroke System and Network, Community Care Access Centres, Local Health Integration Networks, Ministry of Health, community-based stroke caregiver programs, and non-stroke caregiver programs. Participants were asked to discuss their experiences with and perceptions of caregiver programs and the key organizational/systemic factors that may influence the implementation of such programs. Four themes were identified: 1) it is important to demonstrate the need for caregiver education and support programs (e.g., develop a shared understanding of the role of family caregivers within the health care system); 2) programs considered for implementation need to have a strong evidence base (e.g., demonstrate ability of program to contribute to system efficiencies and health care utilization); 3) caregiver education and support should be incorporated into standard clinical practice (e.g., dedicate resources to caregiver education and support, incorporate it into the care pathway, and develop standardized materials that are adaptable to different local contexts); and 4) key stakeholders should be involved in the implementation plan and process (e.g., have a credible advocate for the program, and obtain buy-in from all stakeholders). This study identifies the factors that may influence caregiver program implementation, and has begun to clarify how these factors affect the implementation process. The topics identified in this study will be explored further in the next data collection phase involving broader representation from the Ontario Stroke System.

Co-Authors: Susan Jaglal, Dr., University of Toronto; Nancy Salbach, Dr., University of Toronto; Jill Cameron, Dr., University of Toronto

When A Nursing Home Is 'Home': How Do Canadian Nursing Homes Measure Up On Quality?

Lacey Langlois, Team Lead, Analysis & Reporting, Canadian Institute for Health Information

There is an increasing shift toward greater transparency and accountability across the care continuum. Using data from the Continuing Care Reporting System (CCRS) at CIHI, this presentation aims to establish a baseline for tracking the quality of care provided to nursing home residents. The CCRS collects information on nursing home residents assessed using the RAI-MDS 2.0 assessment. Data flowing into the reporting system are used primarily for resident care planning, but can also be used for aggregate reporting and planning at the facility, region, and provincial levels. Adjusted quality indicator rates in the domains of physical function, quality of life and safety were calculated using data from six provinces and territories in order to examine both within- and between-jurisdiction variation in facility rates. Quality indicators were adjusted for both facility and resident differences beyond facility control to ensure a fair comparison. Data from 966 homes showed considerable within- and between-jurisdiction variation in indicator rates. Adjusted for differences in residents and homes across the country, the results reveal that while some homes do better than others, no single home or jurisdiction performs well on all of the indicators. Further, a low-performer in one province might be considered a high-performer in another, speaking to the importance of comparable data across the country. Variation across organizations highlights those performing well to demonstrate what is possible. The rates also show that some problems such as new pressure ulcers are rare, and others, such as declining mood are more common. Success stories will be included to highlight the potential for improvement in performance when organizations use their data to drive quality. Information from the CCRS demonstrates that quality of nursing home care varies across Canada even when adjusted for differences in facility and resident characteristics. As jurisdictions strive for high performance in all homes, this information contributes to a baseline for discussing success and quality improvement.



Getting Ready for Success

The CIHR Institutes of Health Services and Policy Research (IHSPR), Gender and Health (IGH) and Population and Public Health (IPPH) are responding to the CIHR Open Operating Grant Program (OOGP) reform to ready our research communities for success.

The October OOGP Boot Camp will unite a prominent group of nominated researchers to develop and assess tools that will be shared with the communities to ensure success throughout the OOGP reform.

Stay connected to the progress of this important initiative through the IHSPR Innovator newsletter.
Learn more about the CIHR OOGP reform at: www.cihr-irsc.gc.ca/e/44761.html

A pan-Canadian Vision and Strategy for Health Services and Policy Research

Health care system challenges are best addressed through a common vision and collaborative approach. To facilitate this, the CIHR Institute of Health Services and Policy Research (IHSPR) will work with its partners and community to develop a pan-Canadian vision and strategy for health services and policy research.

The vision and strategy will be informed by a map of Canada's existing assets and resources in health services and policy research, key informant interviews, and a community survey. Your input is important and we invite you to be a part of the vision.

To learn more and participate in the online survey, please contact Meghan McMahon at: info.ihspr@mcgill.ca



CAHSPR Canadian Association for
Health Services and Policy Research
ACRSPS l'Association canadienne pour la recherche
sur les services et les politiques de la **santé**

Mark your Calendars!

The date and location has been set for
the 11th Annual CAHSPR Conference

May 13-15, 2014

The Hilton Toronto • Toronto, ON

cahspr.ca

**better research,
better decisions,
 better health.**

Credit: Wladyslaw