



Canadian Institute for Health Information





Measuring Inpatient Care Experiences

Canadian Patient Experiences Survey – Inpatient Care

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Objectives

- Background
- Evolution of patient experience dimensions using mix-methods
- Development of preliminary measures informing quality improvement and benchmark reporting
- Next Steps



Why Patient Experience?

- Across Canada, there is increasing interest in using patient-centred measures to achieve health system goals.
- Understanding a patient's experience during his or her hospital stay is integral to improving patient-centred care.
- Patient experience has become a key hospital outcome and system output in the new Canadian health system performance measurement framework.
- There is currently no source of comparative pan-Canadian data for measuring patient experiences.



Canadian Patient Experiences Survey-Inpatient Care (CPES-IC) Addressing Information Gap

CPES-IC is a standard Pan-Canadian survey tool:

- Standard method to administer and collect survey data
- Key to performance measurement and improvement
- Hospitals can use comparative reports and collaborate with peers to:
 - Monitor quality of care and inform patient-centred care
- Access to comparable patient experience data to answer emerging research questions and inform health policy planning

What is CPES-IC?



The Canadian Patient Experiences Survey-Inpatient Care (CPES-IC) is comprised of:

- 1) Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) (22 questions)
 - Developed in the U.S. in early 2000's
 - Used in several Canadian jurisdictions
- 2) New Questions developed for the Canadian Context (19 questions)
 - Captures concepts such as admission, timeliness, care transitions, and outcome etc.
- 3) Demographic information (7 questions)



Project Evolution

2011: Initiated CPES-IC development

2013: Conducted cognitive testing and a pilot study

2014: Released:

- Survey in both English and French
- Survey procedure manual for mail survey
- Data Dictionary and Minimum Data Set

2015: Released:

- Preliminary Measures
- Canadian Patient Experiences Reporting System (CPERS) live

Upcoming releases

- Validated Measures
- Release Survey procedure manuals for telephone and web surveys

What are the Steps to Develop Dimensions and Measures?

Step 1

- Evaluate the preliminary dimensions

Step 2

- Refine dimensions/definitions and map questions to dimensions

Step 3

- Define measures and definitions within dimensions

Step 4

- Test psychometric properties of measures using pilot data

Step 5

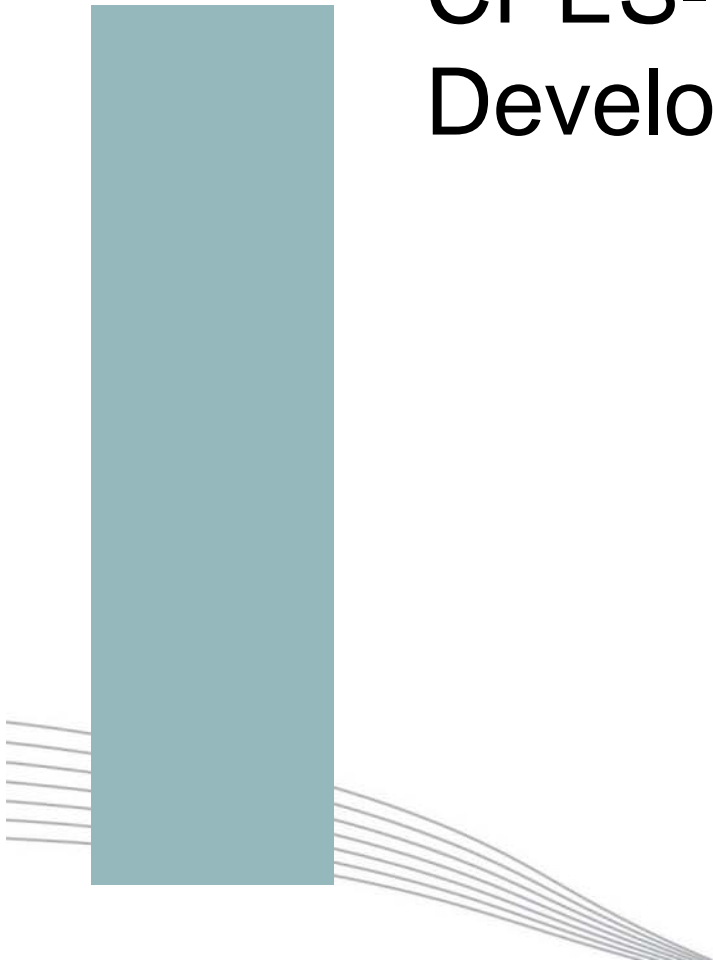
- Validate measures using field test data

Step 6

- Develop methodology for comparative reporting



CPES-IC Dimensions Development



Early Survey Dimensions (2011)

In 2011, 13 dimensions guided the development of CPES-IC new questionnaire items

HCAHPS Dimensions	Additional Canadian Dimensions
Communication with nurses Communication with doctors Physical environment Responsiveness of staff Pain control Communication about medications Discharge information Ratings: <ul style="list-style-type: none"> • Rate hospital from worst to best • Recommend hospital to family and friends 	Admission to hospital Internal coordination of care Person-centered care Discharge and transition Outcomes

Why Revisit the Initial Dimensions?

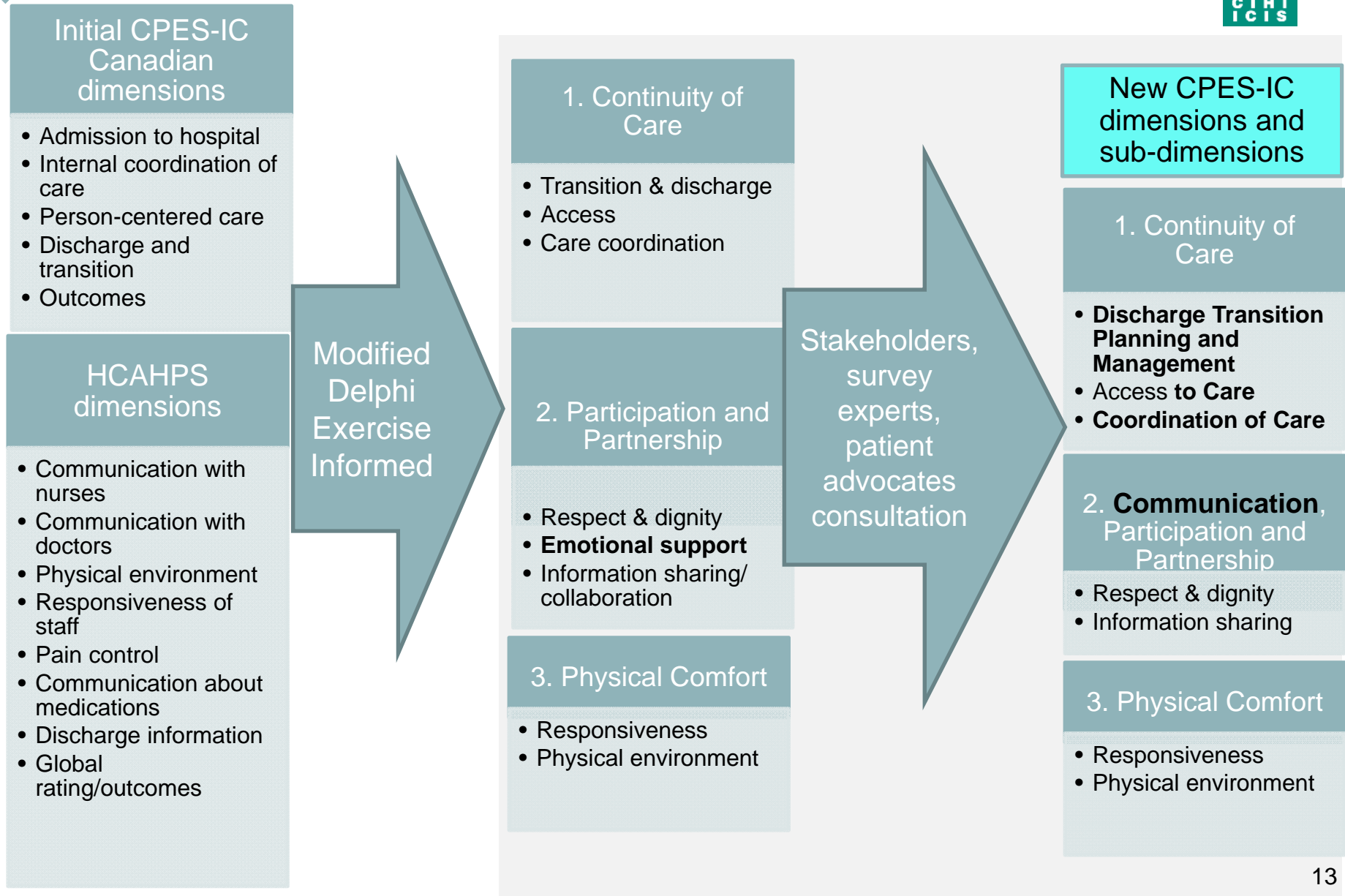
- In 2014, a review of the preliminary dimensions using the 2013 CPES-IC pilot data highlighted:
 - One-to-many relationship existed between the construct of dimensions and the questions
 - Dimensions are broad and more than one theme is covered
 - For example: Admission to hospital dimension encompasses wait times questions, information questions, and coordination questions

How were CPES-IC New Dimensions Developed?

- Conducted environmental scan
 - Reviewed the work occurring in New Zealand and in the UK
 - A trend to consolidate to 3-5 major dimensions
- Conducted a Modified Delphi process with stakeholders
 - Gathered input on important, appropriate, and current patient experience dimensions and definitions
 - Redefined dimensions and definitions for CPES-IC
- Conceptual mapping questions to dimensions and sub-dimensions
- Tested the reliability and validity of the dimensions and sub-dimensions using 2013 Pilot data
- Further consulted with stakeholders, survey experts, patient advocates and refined dimensions and sub-dimensions

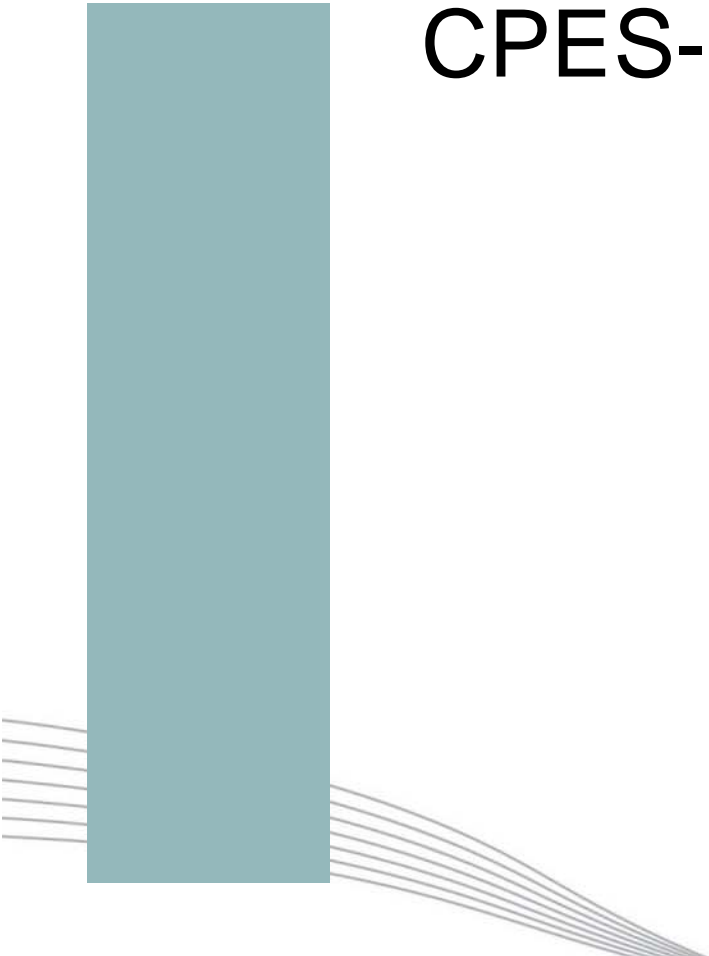
Step 2

What are the new CPES-IC Dimensions ?





CPES-IC Measures Development



Step 3

How were CPES-IC Measures Developed?



Applied mix methods and integrated,

1. *Qualitative*: literature review, consultations with stakeholders and survey experts
 - HCAHPS composite and single measures remained intact
 - Conceptual creation of initial measures based on content analysis of each Canadian question in each sub-dimension
2. *Quantitative*: psychometric testing examined
 - 1,215 completed survey records from 2013 pilot data
 - Reliability and construct validity
 - Patient level only

How was the Reliability?



- Reliability
 - Internal consistency
 - Ordinal alpha (Range: 0.64-0.93)
 - Item-discrimination
 - Item-total correlations
 - Most questions correlated highest with their proposed measure
- Sensitivity analysis
 - Minimal increases in alpha when additional items are added to the initial composite measures (less than 0.1).
 - Resulted in regrouping of questions to form a composite

How was the Construct Validity?



- Construct validity
 - Convergent validity
 - Measure to Global Rating Correlations
 - Higher is better
 - Range: 0.24-0.68
 - Results similar to HCAHPS patient-level results
 - Divergent validity
 - Correlations between measures
 - Low to moderate correlations (maximum was 0.73)
 - Acceptable divergent validity

Preliminary Core Patient Experience Measures



- The preliminary core set of Pan-Canadian patient experience measures consists of
 - 10 composite measures (6 HCAHPS and 4 Canadian)
 - 8 single measures (2 HCAHPS and 6 Canadian)
 - 4 overall hospital rating measures (2 HCAHPS and 2 Canadian)
- For more information visit CIHI website:
<http://tinyurl.com/plwmk6g>

What are the New CPES-IC Measures?



HCAHPS measures	Canadian Measures
Communication with Nurses	Information Shared with Patients in the Emergency Department (Admission through ED)
Communication with Doctors	Internal Coordination
Explanation about Medications	Involvement in Decision-making
Staff Responsiveness	Post-Discharge Management
Pain Controlled	Enough Information Given about Admission Process, Prior to Arrival (Direct Admission)
Discharge Planning	Admission into the Hospital Organized (Direct Admission)
Cleanliness	Waiting Too Long in the ED for a Hospital Bed (Admission through ED)
Quietness	Transfer from ED to Hospital Bed Organized (Admission through ED)
Hospital Rating (i.e. worst to best)	Received Information about Condition and Treatment
Intent to Recommend Hospital to Family and Friends	Emotional Support
	Hospital Stay Helpful
	Overall Hospital Experience (i.e., poor experience to very good experience)

Details are included in Appendix 1

What are the Limitations?

- Lack of hospital identifiers in the pilot data
 - Unable to test the measures structure at hospital level
- Some changes made to the survey after pilot testing
- Further analyses are also limited by the amount of data available
 - Item response theory model
 - Consistency across survey modes, service lines, sub-groups

What are the Next Steps?

Step 5

- Validate the dimensions and measures using field test data collected in fiscal 2015-2016 at both patient and hospital levels

Step 6

- Develop methodology for comparative reporting and benchmarking
- Enhance current standards for implementation by developing e-mail and telephone standards for survey administration and an online prototype of CPES-IC
- Future analytics steps may include
 - Driver of patient experience
 - Health Outcome/Factor Links



Questions
Thank You!

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Direct general questions to prems@cihi.ca



Appendix 1: Initial core set of patient experience measures



HCAHPS measures			Canadian Measures		
Communication with Nurses	Composite	Q1, Q2, Q3	Enough Information Given about Admission Process, Prior to Arrival (Direct Admission)	Single	Q24
Communication with Doctors	Composite	Q5, Q6, Q7	Admission into the Hospital Organized (Direct Admission)	Single	Q25
Explanation about Medications	Composite	Q16, Q17	Information Shared with Patients in the Emergency Department (Admission through ED)	Composite	Q26, Q27
Staff Responsiveness	Composite	Q4, Q11	Waiting Too Long in the ED for a Hospital Bed (Admission through ED)	Single	Q28
Pain Controlled	Composite	Q13, Q14	Transfer from ED to Hospital Bed Organized (Admission through ED)	Single	Q29
Cleanliness	Single	Q8	Internal Coordination	Composite	Q30, Q31, Q32
Quietness	Single	Q9	Received Information about Condition and Treatment	Single	Q33
Discharge Planning	Composite	Q19, Q20	Emotional Support	Single	Q34
Hospital Rating (i.e. worst to best)	Single	Q21	Involvement in Decision-making	Composite	Q35, Q36
Intent to Recommend Hospital to Family and Friends	Single	Q22	Post-Discharge Management	Composite	Q37, Q38, Q39
			Hospital Stay Helpful	Single	Q40
			Overall Hospital Experience (i.e., poor experience to very good experience)	Single	Q41