Quality Measurement and Reporting of Health Data in Canada

Health Level Seven International
Working Group Meeting

Canadian Institute for Health Information
Canada’s Health Care System

Federal government

Provincial governments (10)

Territorial governments (3)
Canada Performance Improvement Landscape

Federal Departments Agencies
Health Canada, Public Health Agency of Canada, Statistics Canada

National Organizations
Includes CIHI, Canadian Patient Safety Institute

Provincial Health Quality Councils

Other data/information shops
Institute for Clinical and Evaluative Sciences, MB Center for Health Policy
About CIHI

• The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential information on Canada’s health systems and the health of Canadians

**Vision**

Better data.  
Better decisions.  
Healthier Canadians.

**Mandate**

Deliver comparable and actionable information to accelerate improvements in health care, health system performance and population health across the continuum of care.
CIHI’s responsibility is to provide and publicly report on health data and information that improve outcomes in health system performance and population health across the country.
Out of our 30 data holdings, 10 have 100% participation and 22 have 80+% participation.

We are collecting more data than ever.

What we do with the data holdings

Develop standards

Manage data holdings

• Data quality assessments

Enrich

• Case Mix Grouper (CMG)
• Population Risk Adjustment Grouper (PRAG)

Disseminate

• Through standard annual reports
• E-tools
• Research requests
Standards and Data Quality

Standards: Cornerstone of high-quality, meaningful information

- CIHI is a national leader in developing and implementing standards for data definitions and collection

Data Quality: Fundamental to our mandate

- Built-in data quality checks to collection systems
- Regular data surveillance and monitoring
- Chart reviews, re-abstraction studies
- Education on data requirements
New Strategic Directions

Be a trusted source of standards and quality data
Deliver more timely, comparable and accessible data across the health continuum

Expand analytical tools to support measurement of health systems
Deliver reporting tools, methods and information that enable improvements in health care, health system performance and population health

Produce actionable analysis and accelerate its adoption
Collaborate with stakeholders to increase their ability to use data and analysis to accelerate improvements in health care, health systems and the health of populations
Our Priority Themes

Quality and safety measurement is 1 of our priority themes
Quality Measurement

Indicator Library

Metadata for CIHI’s health indicators: includes definitions, methodology and characteristics such as reporting level for each indicator; summarized in one standard template

http://indicatorlibrary.cihi.ca/display/HSPIL/About+This+Tool
Consultations with policy-makers and health system managers

Identify relevant, appropriate and actionable analyses in consultation with Strategic Analytical Advisory Committee

Methodological development in consultation with expert advisory groups

Reporting of health system performance
Public reporting of health system performance

- [yourhealthsystem.cihi.ca](https://yourhealthsystem.cihi.ca) – In Brief, In Depth, Insight

Analytical reports and indicator development, e.g.

- Organ donation in Canada
- Antipsychotic use in Long Term Care
- Trends in Income-Related Health Inequalities in Canada
- Alcohol attributable hospitalizations
- In-hospital infections
Your Health System: In Brief (public)
- 15 indicators in 5 themes selected based on consultation with Canadian public
- Clear, easy-to-read infographics

Your Health System: In Depth (public)
- 45 indicators from 1,800 hospitals and LTC homes
- Interactive visuals for peer comparison, benchmarking and top performer identification

Your Health System: Insight (private)
- Flexibility to explore performance drivers
- Supports drill down to patient level data
- Monthly updates with open-year data
Your Health System: In Brief

http://yourhealthsystem.cihi.ca/
Quality of Care

Every year, more than 150,000 Canadians die in hospitals, which is about 65% of all deaths in Canada.

Top causes of death in Canadian hospitals:
- Stroke
- COPD
- Pneumonia
- Heart attack
- Sepsis
- Heart failure

Canada’s hospital mortality ratio (the number of actual deaths relative to the number of expected deaths):

- 2010: 108
- 2011: 103
- 2012: 100
- 2013: 95
- 2014: 96*

* Quebec data is not included.

(Source: CIHI, Statistics Canada, http://yourhealthsystem.cihi.ca/)
Your Health System: In Depth

45 performance indicators covering:

• Population health, long-term care, acute care

Focus on regional and facility results

http://yourhealthsystem.cihi.ca/
Reporting Indicators for Comparisons and Quality Improvement

http://yourhealthsystem.cihi.ca/
Your Health System: Insight

- **Who?** – Health system managers and analysts from health care facilities (data submitters), health regions and ministries/dept. of health

- **Where?** – Secure password protected web-based tool hosted by CIHI

- **When?** – Available now, 4 years of closed data + open year data updated monthly

- **Why?** – Provide information to support decision making, performance measurement and quality improvement

- **What?** – Business intelligence tool with pre-set dashboards and customizable slice and dice capacity providing access to chart-level (when authorized) and aggregate information at facility, regional, provincial and national levels

[https://www.youtube.com/watch?v=vuzWEzCVhQk&feature=youtu.be](https://www.youtube.com/watch?v=vuzWEzCVhQk&feature=youtu.be)
Now in Insight

• 30-Day readmissions
  – overall, obstetric, < 19 years, surgical, medical
• Emergency department wait times
  – total, time to physician Ax, time for bed, time to disposition decision
• 30-day in-hospital mortality following major surgery
• Hospital Standardized Mortality Ratio (HSMR)

Next to be added to Insight

• More content from inpatient and emergency department data

Future of Insight

• Integrated across the continuum of care
  – home care, long term care, rehabilitation, etc
• More clinical and administrative plus financial and health human resources information
Health Inequalities Interactive Tool

- Social determinants (smoking and obesity)
- Quality of care (influenza immunization and COPD hospitalizations)
- Health status: Motor related injury hospitalizations, among others

Wait Times Interactive Tool

Detailed information on wait times in Canada can be accessed via CIHI’s Wait Times eTool at waittimes.cihi.ca.

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http://waittimes.cihi.ca/
Looking ahead

Close the existing data gaps across the continuum of care in priority areas such as primary care.
Questions?