



Comparing the Canadian Health System Internationally

CASPHR Annual Meeting 2014

Chelsea Taylor, Canadian Institute for Health Information

Background

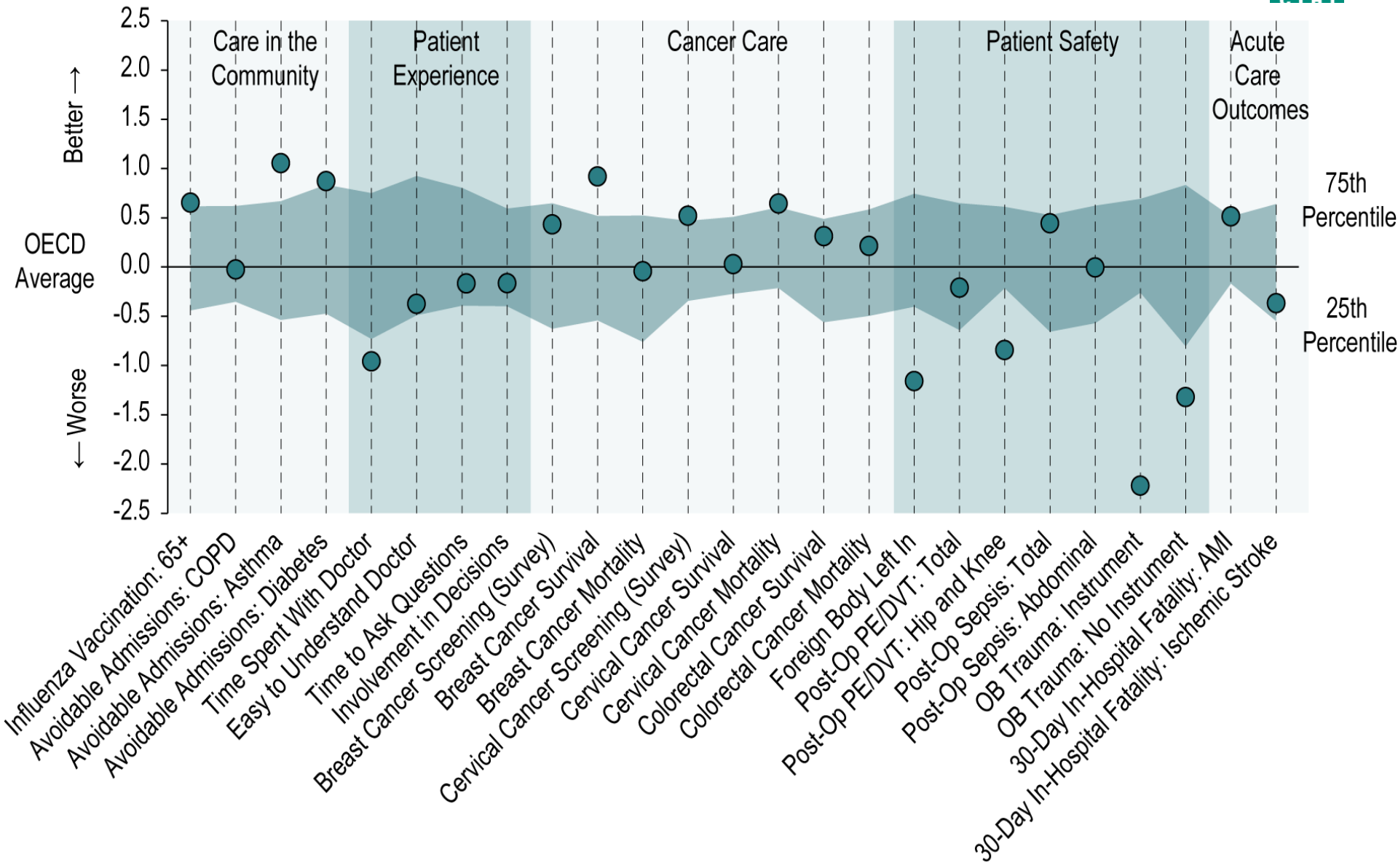
- There is increasing interest in measuring and benchmarking health system performance
- Comparing health systems internationally is beneficial
- OECD produces a biennial report, *Health at a Glance*, with about 100 health care indicators
- CIHI has produced accompanying reports since 2011
- In 2014, CIHI produced an in-depth report and interactive web display focusing on quality of care indicators

The OECD

- Comprehensive and reliable source of international health and economic data
- 34 member organization established in 1961
 - **Australia**
 - **France**
 - Korea
 - Slovak Republic
 - Austria
 - **Germany**
 - Luxembourg
 - Slovenia
 - Belgium
 - Greece
 - Mexico
 - Spain
 - Canada
 - Hungary
 - **Netherlands**
 - **Sweden**
 - Chile
 - Iceland
 - **New Zealand**
 - Switzerland
 - Czech Republic
 - Ireland
 - Norway
 - Turkey
 - Denmark
 - Israel
 - Poland
 - **United Kingdom**
 - Estonia
 - Italy
 - Portugal
 - **United States**
 - Finland
 - Japan

Health at a Glance – Quality of Care

- 25 indicators covering quality of care
- Five categories:
 - Care in the community
 - Patient experience
 - Cancer care
 - Patient safety
 - Acute care outcomes
- Data sources for Canadian values are CIHI and Statistics Canada



Quality of Care at the Provincial Level

- Values for 19 indicators were calculated for each province
- Provincial values can be compared against OECD countries
- Amount of variation between provinces greatly differs among indicators



Interactive Web Display

- [Interactive Web Display](#)

International Comparisons: A Focus on Quality of Care

Indicator Results	Methodology	Peer Countries
-------------------	-------------	----------------

Figure A: How Provinces Compare With OECD Countries on Quality of Care Indicators

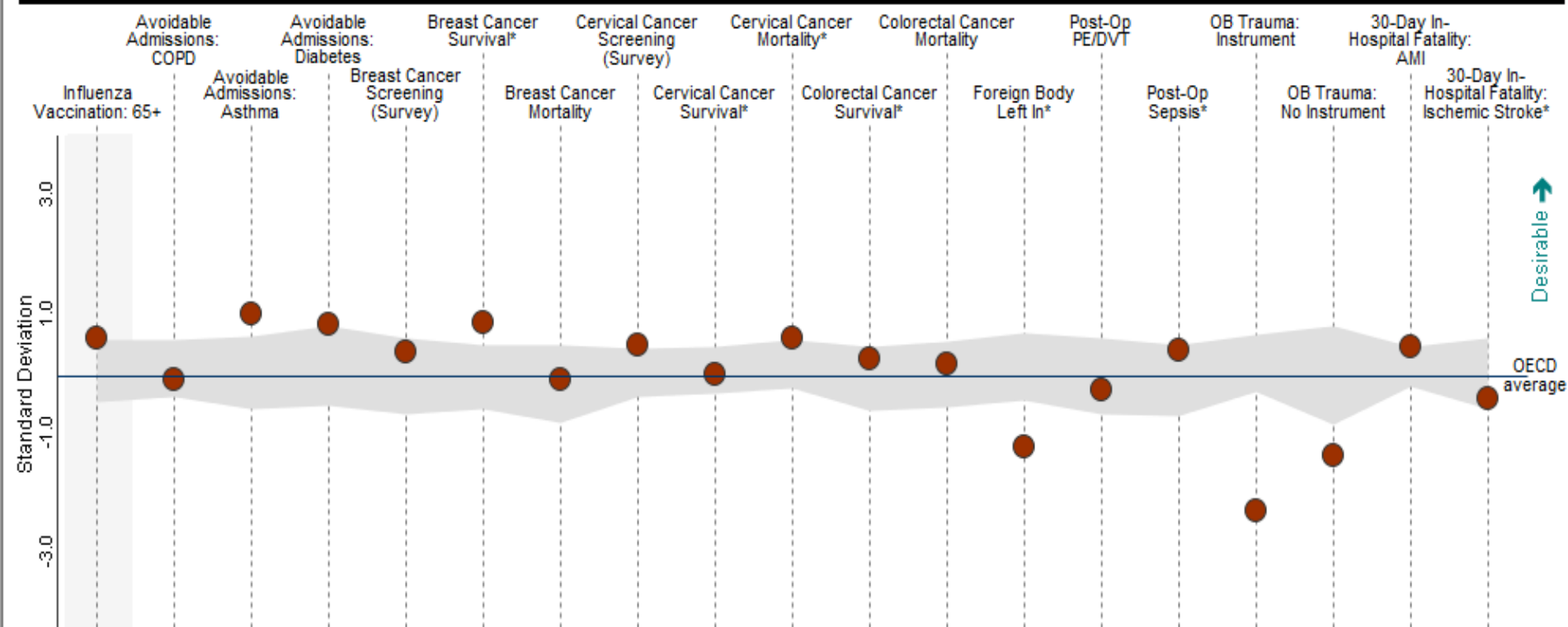


Figure A presents Canadian and provincial results relative to the OECD average, measured in standard deviations.

* Not available for all provinces.

The area between the top and bottom quarters of OECD countries.

International Comparisons: A Focus on Quality of Care

Indicator Results

Methodology

Peer Countries

Figure A: How Provinces Compare With OECD Countries on Quality of Care Indicators

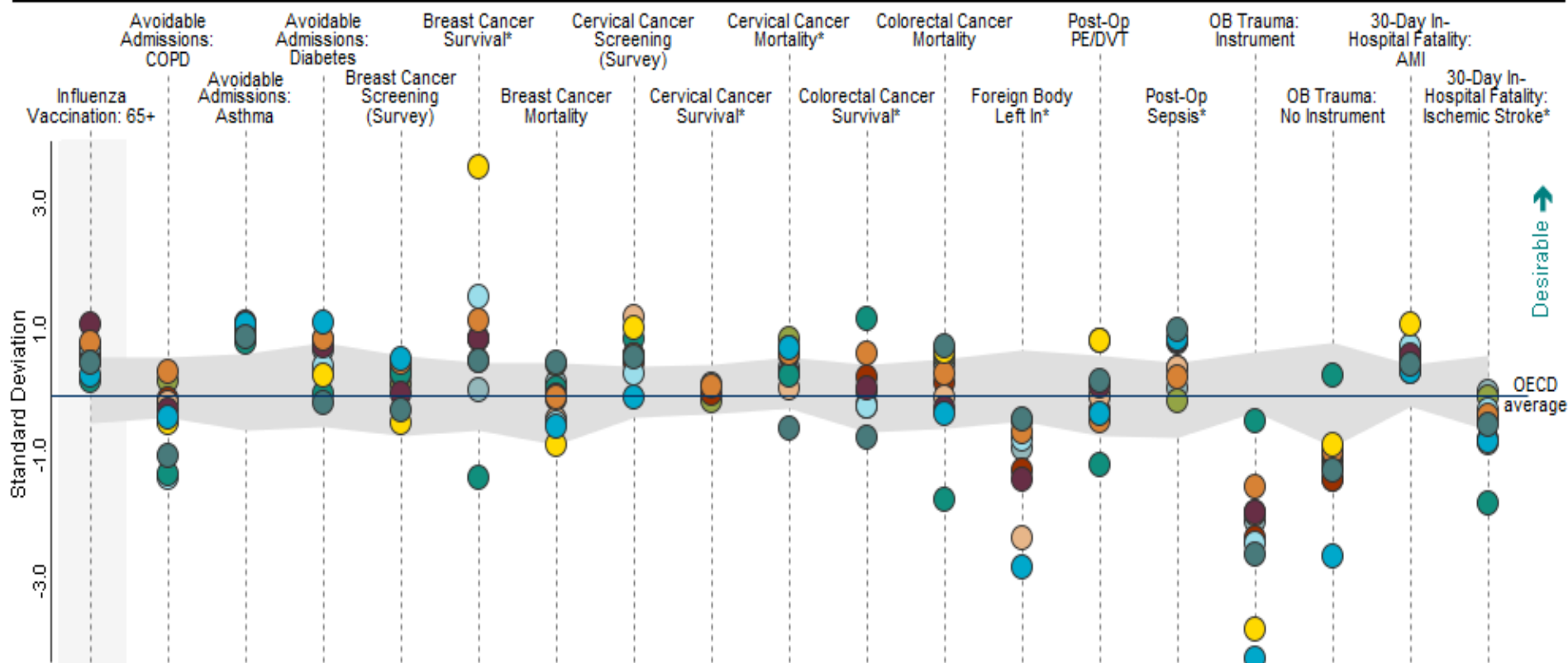


Figure A presents Canadian and provincial results relative to the OECD average, measured in standard deviations.

* Not available for all provinces.

The area between the top and bottom quarters of OECD countries.

Select Province

CAN

N.L.

P.E.I.

N.S.

N.B.

Que.

Ont.

Man.

Sask.

Alta.

B.C.

Select Province

- CAN
- N.L.
- P.E.I.
- N.S.
- N.B.
- Que.
- Ont.
- Man.
- Sask.
- Alta.
- B.C.

Select Indicator

Influenza Vaccination: 65+

Select Comparison Countries

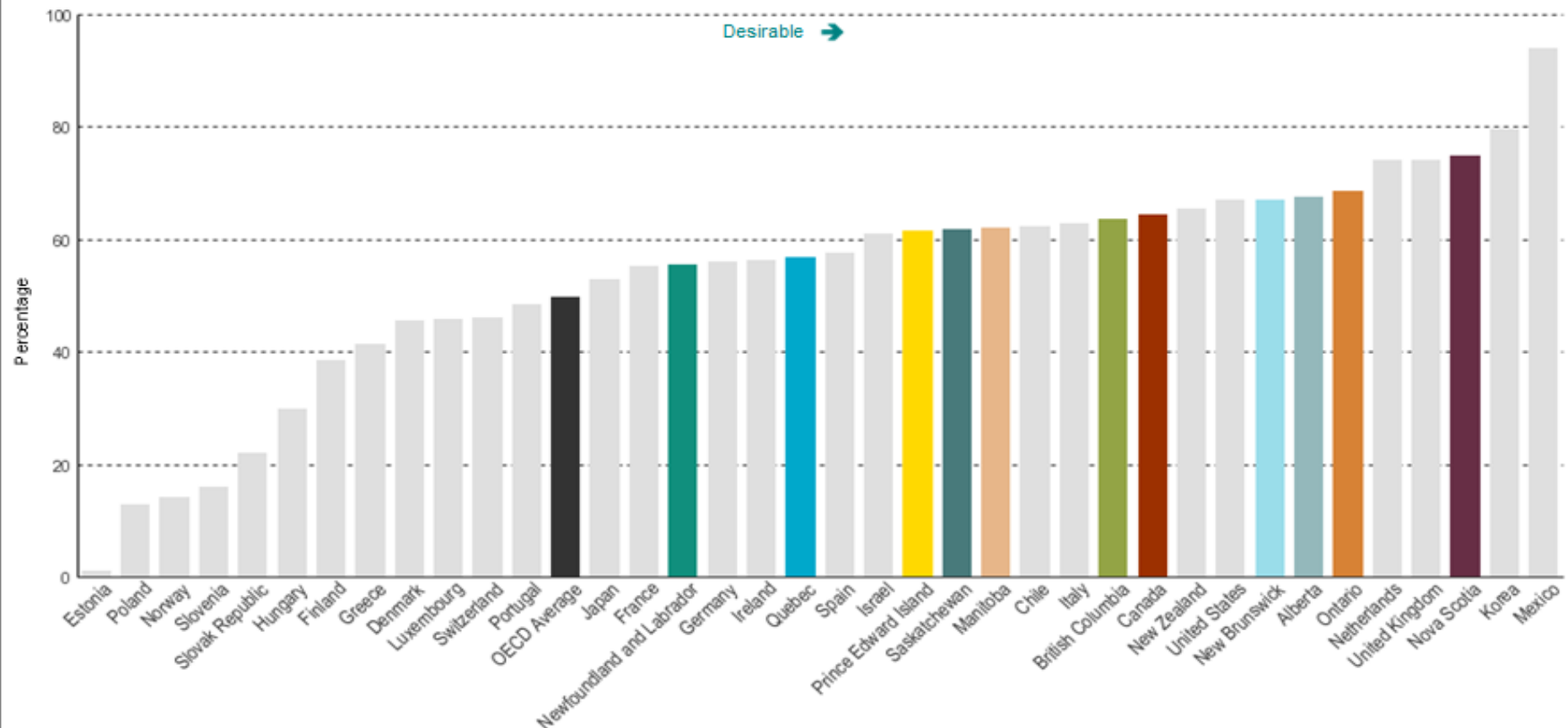
- All OECD Countries
- Peer Countries

Confidence Intervals

Not available for this indicator

Figure B: "Influenza Vaccination: 65+": Provincial Comparison With All OECD Countries

Influenza Vaccination: 65+: Percentage of adults age 65+ who received an influenza vaccination within the past year.



Notes: Data is available for 27 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology Tab. | Sources: CCHS, 2011, Statistics Canada; OECD Health Data 2013.

Select Province

- CAN
- N.L.
- P.E.I.
- N.S.
- N.B.
- Que.
- Ont.
- Man.
- Sask.
- Alta.
- B.C.

Select Indicator

Avoidable Admissions: Asthma

Select Comparison Countries

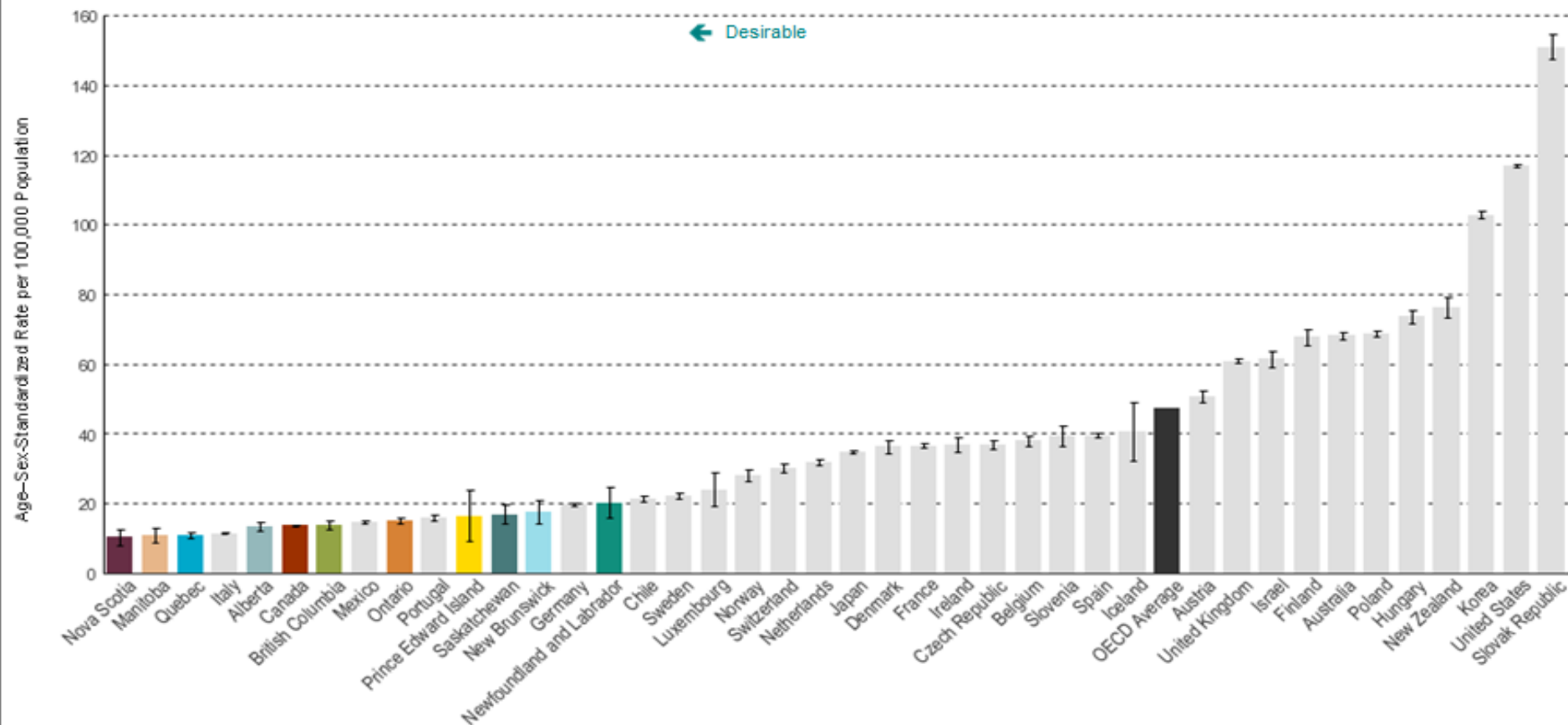
All OECD Countries Peer Countries

Confidence Intervals

Confidence intervals shown by I

Figure B: "Avoidable Admissions: Asthma": Provincial Comparison With All OECD Countries

Avoidable Admissions: Asthma: Number of hospital discharges for asthma of people age 15 and older per 100,000 population.



Notes: Data is available for 31 OECD countries and all provinces. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology Tab. | **Sources:** DAD, 2011–2012, CIHI; MED-ÉCHO, 2011, MSSS. Population estimates, 2011, Statistics Canada. OECD Health Data 2013.

Select Province

CAN

N.L.

P.E.I.

N.S.

N.B.

Que.

Ont.

Man.

Sask.

Alta.

B.C.

Select Indicator

Breast Cancer Survival

Select Comparison Countries

All OECD Countries

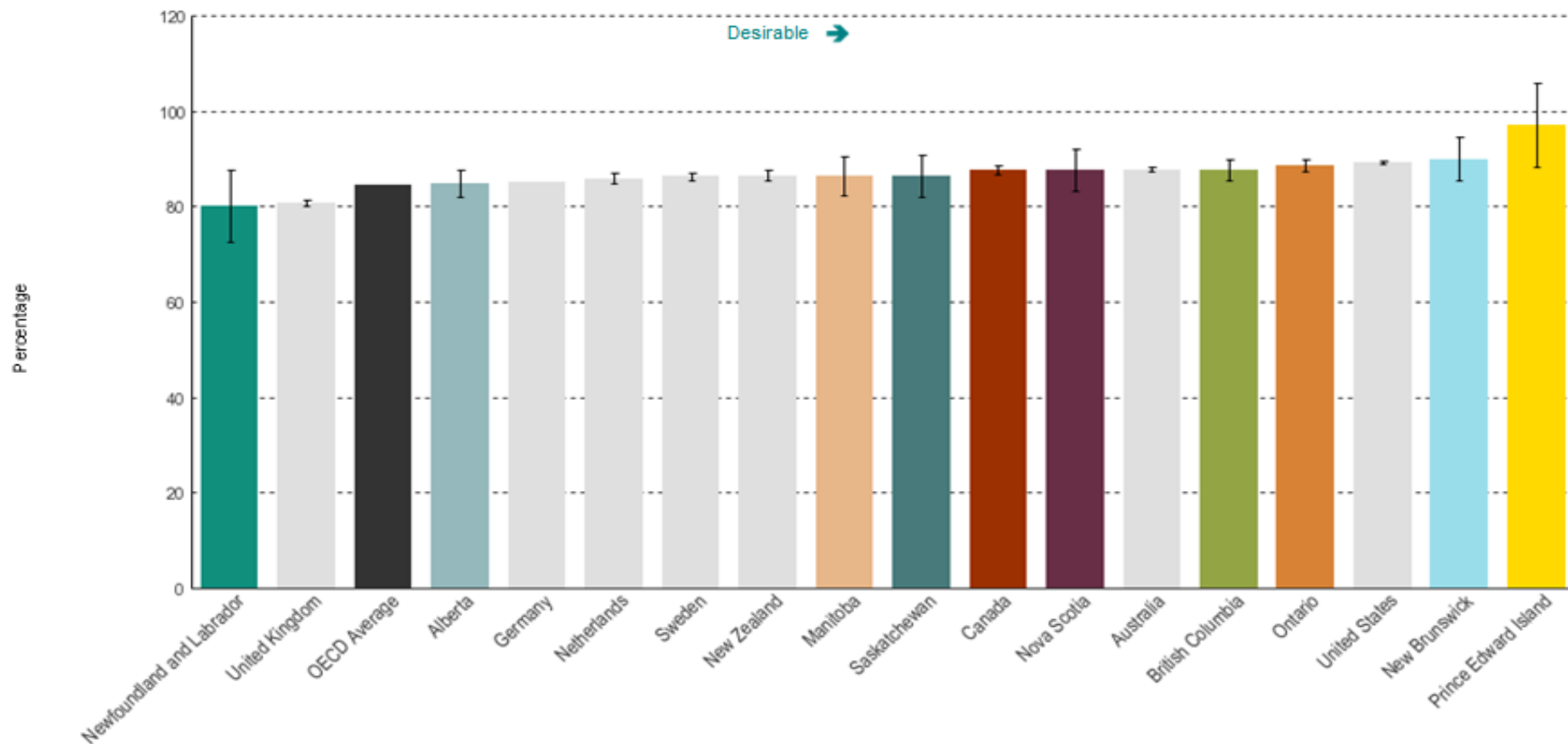
Peer Countries

Confidence Intervals

Confidence intervals shown by I

Figure B: "Breast Cancer Survival": Provincial Comparison With Peer Countries

Breast Cancer Survival: Five-year relative survival rate for breast cancer.



Notes: Data is available for 21 OECD countries and 9 provinces. Rates for Quebec are excluded due to data limitations. Variation in indicator results can occur due to differences in data collection, the data quality and the data years available. For more information on indicator methodology and comparability, see the Methodology Tab. | **Sources:** Canadian Vital Statistics, 2003 to 2008, Canadian Cancer Registry, 2003 to 2008, and Life Tables, 2003 to 2008, Statistics Canada; OECD Health Data 2013.

Health System Descriptors for Peer Countries, Canada and Provinces, 2012 (or Nearest Year)

Health System Descriptor	Canada (Year)	Peer Countries								OECD Standard Deviation	OECD Average (Range)
		Australia	France	Germany	Netherlands	New Zealand	Sweden	United Kingdom	United States		
Population											
Total Population (Millions of People)	34.9 (2012)	22.7	63.2	81.8	16.7	4.4	9.4	62.2	311.6	58.7	36.5 (0.32–311.6)
Population Density (Inhabitants per km ²)	3.5 (2011)	2.9	115.2	228.9	401.9	16.5	21.0	253.5	31.7	128.0	135.6 (2.9–498.3)
Percentage of Population Older Than 65 (%)	14.7 (2011)	13.7	17.1	20.7	15.9	13.3	19.3	16.2	13.2	3.8	15.4 (6.1–3.3)
Income Inequality (Gini Coefficient)	0.32 (2010)	0.33	0.30	0.29	0.29	0.32	0.27	0.34	0.38	0.06	0.31 (0.24–0.50)
Spending											
Current Health Spending (Excluding Capital) (\$US, PPP)	4,441 (2012)	N/A	3,970	4,346	4,973	3,182	3,703	3,281	8,175	1,531	3,410 (1,286–8,175)
Private Share of Current Expenditure (%)	30.3 (2012)	N/A	22.2	23.0	14.3	17.3	18.4	N/A	51.2	10.7	27.0 (14.4–55.1)
Health Care Activities											
Hospital Discharges (All Causes, per 100,000 Population)	8,249 (2010)	15,945	16,853	24,417	12,201	14,654	16,251	13,640	12,549	4,502	15,650 (5,051–27,347)
Hospital Average Length of Stay (All Causes, Days)	7.7 (2010)	5.0	5.6	9.3	5.3	8.3	6.0	7.3	4.8	2.5	7.2 (3.9–16.4)
Acute Care Beds (per 1,000 Population)	1.7 (2010)	3.4	3.4	5.3	3.3	2.6	2.0	2.4	2.6	1.4	3.4 (1.6–8.0)
Doctor Consultations per Capita	7.4 (2010)	6.9	6.8	9.7	6.6	3.7	3.0	5.0	4.1	2.9	6.8 (2.7–13.2)
Non-Medical Determinants											
Percentage Daily Smokers (Self-Reported) (%)	15.7 (2011)	15.1	23.3	21.9	20.8	16.5	13.1	19.6	14.8	4.7	20.5 (13.1–31.9)
Obesity Prevalence (Self-Reported) (%)	18.0 (2011)	N/A	13.0	15.0	11.0	N/A	11.0	N/A	29.0	5.1	15.3 (2.1–28.5)

Choose a province:

CAN

N.L.

P.E.I.

N.S.

N.B.

Que.

Ont.

Man.

Sask.

Alta.

B.C.

Health System Descriptors for Peer Countries, Canada and Provinces, 2012 (or Nearest Year)

Health System Descriptor	N.B. (Year)	Canada (Year)	Peer Countries								OECD Standard Deviation	OECD Average (Range)
			Australia	France	Germany	Netherlands	New Zealand	Sweden	United Kingdom	United States		
Population												
Total Population (Millions of People)	0.8 (2012)	34.9 (2012)	22.7	63.2	81.8	16.7	4.4	9.4	62.2	311.6	58.7	36.5 (0.32–311.6)
Population Density (Inhabitants per km ²)	10.5 (2011)	3.5 (2011)	2.9	115.2	228.9	401.9	16.5	21.0	253.5	31.7	128.0	135.6 (2.9–498.3)
Percentage of Population Older Than 65 (%)	16.3 (2011)	14.7 (2011)	13.7	17.1	20.7	15.9	13.3	19.3	16.2	13.2	3.8	15.4 (6.1–3.3)
Income Inequality (Gini Coefficient)	0.28 (2010)	0.32 (2010)	0.33	0.30	0.29	0.29	0.32	0.27	0.34	0.38	0.06	0.31 (0.24–0.50)
Spending												
Current Health Spending (Excluding Capital) (\$US, PPP)	4,721 (2011)	4,441 (2012)	N/A	3,970	4,346	4,973	3,182	3,703	3,281	8,175	1,531	3,410 (1,286–8,175)
Private Share of Current Expenditure (%)	30.0 (2011)	30.3 (2012)	N/A	22.2	23.0	14.3	17.3	18.4	N/A	51.2	10.7	27.0 (14.4–55.1)
Health Care Activities												
Hospital Discharges (All Causes, per 100,000 Population)	11,083 (2010)	8,249 (2010)	15,945	16,853	24,417	12,201	14,654	16,251	13,640	12,549	4,502	15,650 (5,051–27,347)
Hospital Average Length of Stay (All Causes, Days)	9.0 (2010)	7.7 (2010)	5.0	5.6	9.3	5.3	8.3	6.0	7.3	4.8	2.5	7.2 (3.9–16.4)
Acute Care Beds (per 1,000 Population)	2.6 (2010)	1.7 (2010)	3.4	3.4	5.3	3.3	2.6	2.0	2.4	2.6	1.4	3.4 (1.6–8.0)
Doctor Consultations per Capita	7.1 (2010)	7.4 (2010)	6.9	6.8	9.7	6.6	3.7	3.0	5.0	4.1	2.9	6.8 (2.7–13.2)
Non-Medical Determinants												
Percentage Daily Smokers (Self-Reported) (%)	18.9 (2009–2010)	15.7 (2011)	15.1	23.3	21.9	20.8	16.5	13.1	19.6	14.8	4.7	20.5 (13.1–31.9)
Obesity Prevalence (Self-Reported) (%)	24.0 (2011)	18.0 (2011)	N/A	13.0	15.0	11.0	N/A	11.0	N/A	29.0	5.1	15.3 (2.1–28.5)



Health Care Activities

Hospital Discharges (All Causes, per 100,000 Population)	11,083 (2010)	8,249 (2010)	15,945	16,853	24,417	12,201	14,654	1
Hospital Average Length of Stay (All Causes, Days)	9.0 (2010)	7.7 (2010)	5.0	5.6	9.3	5.3	8.3	
Acute Care Beds (per 1,000 Population)	2.6 (2010)	1.7 (2010)	3.4	3.4	5.3	3.3	2.6	
Doctor Consultations per Capita	7.1 (2010)	7.4 (2010)	6.9	6.8	9.7	6.6	3.7	

Conclusion

- Report and Web Display provide comprehensive view of the state of our health system
- Useful for setting benchmarks
- Can help direct priority setting
- May motivate stakeholders to act

Acknowledgements

Canadian Institute for Health Information (CIHI)

- Xi-Kuan Chen, Program Lead
- Jennifer D'Silva, Program Lead
- Jihee Han, Analyst
- Kristen Hart, Analyst
- Olga Krylova, Senior Analyst
- Mark McPherson, Analyst
- Ling Na, Analyst
- Chelsea Taylor, Program Lead
- Luigi Vedovat, Senior Coordinator
- Jeremy Veillard, Vice President
- Kathleen Morris, Director
- Katerina Gapanenko, Manager

External Experts

- Jennifer Blake, *The Society of Obstetricians and Gynaecologists of Canada*
- Niek Klazinga, *OECD*
- Sandi Kossey, *Canadian Patient Safety Institute*
- Gaetan Lafortune, *OECD*
- Patrice Lindsay, *Heart and Stroke Foundation of Canada*
- Claudia Sanmartin, *Statistics Canada*
- Terry Sullivan, *University of Toronto*



Visit www.cihi.ca

For inquiries email: HSR@cihi.ca