Quality of Care: International Comparisons of Canadian Provinces

Olga Krylova, Chelsea Taylor, Mark McPherson, Jennifer D’Silva and Katerina Gapanenko

Abstract
There is increasing interest in comparing Canada’s health system internationally to enhance accountability, promote benchmarking and increase mutual learning. The Canadian Institute for Health Information (CIHI) developed an interactive web display using data from the Organization for Economic Co-operation and Development, CIHI and Statistics Canada.

Introduction
Ensuring quality of healthcare services is a concern for many countries including Canada (WHO 2006). Although each country is unique, policy-makers, practitioners and service users may benefit from international comparisons, which are an insightful tool that can help establish priorities for improvement, set goals and motivate stakeholders to act (Health Council of Canada 2013). International comparisons provide provincial and territorial governments with a broader context for benchmarking and peer learning.

Canada’s healthcare system is decentralized, with responsibility for administering and delivering care falling mainly on provincial and territorial governments. Though they share certain common features and basic standards of coverage, Canadian provinces also have many differences in how they deliver, fund and manage healthcare. Comparing Canadian provinces to other countries’ health systems can help Canadians understand how well their system is working.

Data Sources and Methodology
Nineteen indicators were selected from the Quality of Care group of indicators reported by the Organisation for Economic Co-operation and Development (OECD) in the 2013 version of their biennial Health at a Glance report (OECD 2013). The most recent data for the period 2009–2012 were used for each indicator. National data were accessed from the OECD’s StatsExtract website, and provincial data were calculated from the Canadian Institute for Health Information (CIHI) and Statistics Canada data sources using OECD methodology. Indicator rates were normalized and compared to the OECD average, 25th and 75th percentiles.

An interactive web display was developed to compare results for provinces and Canada to all OECD countries. It also provides an option to compare Canada to its peer countries – countries that we deemed to be most similar to Canada after a scan of the literature: Australia, France, Germany, the Netherlands, New Zealand, Sweden, the United Kingdom and the United States (CIHI 2013). Additional information on demographics, health expenditures, healthcare activities and non-medical determinants of health for the peer countries is also provided to allow users to choose which country to compare with a specific province. A methodology tab is also provided to describe detailed methods for the calculation of each of the 19 indicators. It describes the major differences between OECD and CIHI methodology. The web display is available at: <http://www.cihi.ca/CIHI-ext-portal/internet/EN/TabbedContent/health-system-performance/indicators/international/cihi014192>

Results
Provincial and international healthcare systems can now be compared in terms of quality of care. Among 19 OECD indicators of quality of care, Canadian and provincial results are sometimes much above or much below international averages. There is no province where results are either above or below others on all indicators.

As a whole, Canada presented good results on several measures of effectiveness of care, such as avoidable admissions, influenza vaccinations and cancer care for selected cancers (Figure 1). Canada’s results on some other indicators, however, highlighted that there is still room for improvement. Canada was among the bottom of other countries on measures of patient safety such as obstetric trauma and foreign bodies left in after surgery. Though these results may be partially explained by Canada’s thorough reporting of adverse events, there is an opportunity for advancement.
For some indicators, provincial results were quite uniform when compared to other countries. Provincial results for breast cancer screening, for example, clustered close to each other at just above the average for all OECD countries (see interactive web display for data). For other indicators, provincial results varied across the spectrum of international results. Canada’s average results on avoidable admissions for chronic obstructive pulmonary disorder (COPD) rank close to the average for all OECD countries. Provincial results, however, show wide variation, with rates ranging from 163 per 100,000 population in Ontario (age-sex standardized) to 309 per 100,000 in New Brunswick (Figure 2). Ontario’s rates are more similar to countries like the Netherlands and Sweden, whereas New Brunswick’s results resemble those seen in countries such as Australia and Austria. Traditionally, high avoidable admission rates were thought to be reflective of insufficient care provided in the community. Though this may be partially true (Rosano et al. 2013), research indicates that socioeconomic and lifestyle factors also have a large impact on these admissions (Muenchberger and Kendall 2008; Sanmartin and Khan 2011).
Discussion and Conclusions
Various international and national data sources have been brought together to provide a comprehensive view of the state of healthcare systems in Canada. This analysis and accompanying interactive web display provide useful information for healthcare leaders to identify areas where they are doing well and where there is potential for improvement. Information can be used to work with others across the country and internationally to continually improve healthcare across Canada.

Quality of care remains an important concern in most healthcare systems, and Canadian provinces are no exception. With limited funds, policy-makers must decide what strategic initiatives would have the greatest impact on health outcomes. Wide variations in quality persist across health systems, and no province or country differs from all others across all indicators of quality of care.

International comparisons are valuable for enhancing quality of care. The indicators have been evolving and improving; however, the comparability of data, populations and cultures must be considered before drawing conclusions. Despite this, international and provincial comparisons can direct priority setting and point to areas where funds and efforts can be allocated to improve overall care and, in turn, the health of the population.

About the Authors
Olga Krylova, PhD, is a senior analyst in the Case Mix team at CIHI, in Toronto, Ontario. She is responsible for performing analyses, providing methodological support to projects and writing reports.

Chelsea Taylor, PhD, is a project lead with the Health System Analysis department at CIHI, in Toronto, Ontario. She leads and coordinates the design and development of several CIHI reports.

Mark McPherson, MSc, is a senior analyst in the Emerging Issues department at CIHI, in Toronto, Ontario. He is responsible for performing analyses, providing methodological support to projects and writing reports.

Jennifer D’Silva, MSc, is a project lead with the Health System Analysis department at CIHI, in Toronto, Ontario. She leads and coordinates the design and development of several CIHI reports.

Katerina Gapanenko, PhD, is the manager of Health System Research at CIHI, in Toronto, Ontario. She oversees the development and production of a variety of CIHI’s analytical reports.

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