Improving Health System Efficiency: Perspectives of Decision-Makers

Sara Allin, Sara Guilcher, Dana Riley and Yu Janice Zhang

Abstract

While improving health system efficiency, or value for money, is a priority in Canada, there is little information about optimal approaches for improvement in the Canadian context. Through interviews with senior health system decision-makers from two provinces, this study conducted by the Canadian Institute for Health Information identified the following five main themes along with actions that can be taken to improve health system efficiency in Canada: performance monitoring for accountability and decision-making, system-level integration in governance and care delivery, partnerships outside the health sector to improve population health, physician engagement and remuneration and flexible funding. Future work could apply this framework to assess and compare progress towards health system efficiency in other jurisdictions.

Introduction

Improving health system efficiency, or value for money, is a widely recognized goal across Canada, and internationally. However, approaches to measure efficiency are complex (Cyrus et al. 2016), and there is little information in the Canadian context about the optimal approaches to improve health system efficiency. The Canadian Institute for Health Information (CIHI) has undertaken a multi-phased project to improve the understanding of this complex topic in the Canadian context. The first phase yielded a working definition of efficiency in Canada (CIHI 2012). The second phase applied this definition to existing data at the health region (sub-provincial) level to derive efficiency scores (CIHI 2014). The third phase aimed to better understand some of the drivers of variations in efficiency across regions (CIHI 2016a).

This article summarizes the results of the most recent third phase, a descriptive multiple case study of two provinces – British Columbia (BC) and Nova Scotia (NS) – at different stages of health system restructuring. The case study approach allows for an in-depth examination of the experiences in a particular context to identify themes that may be applicable in other settings (Crowe et al. 2011; Yin 2013). The aim of this study was to build on the earlier quantitative results by learning from regional and provincial decision-makers about the main actions they have taken, and the main challenges they face, in improving health system efficiency.

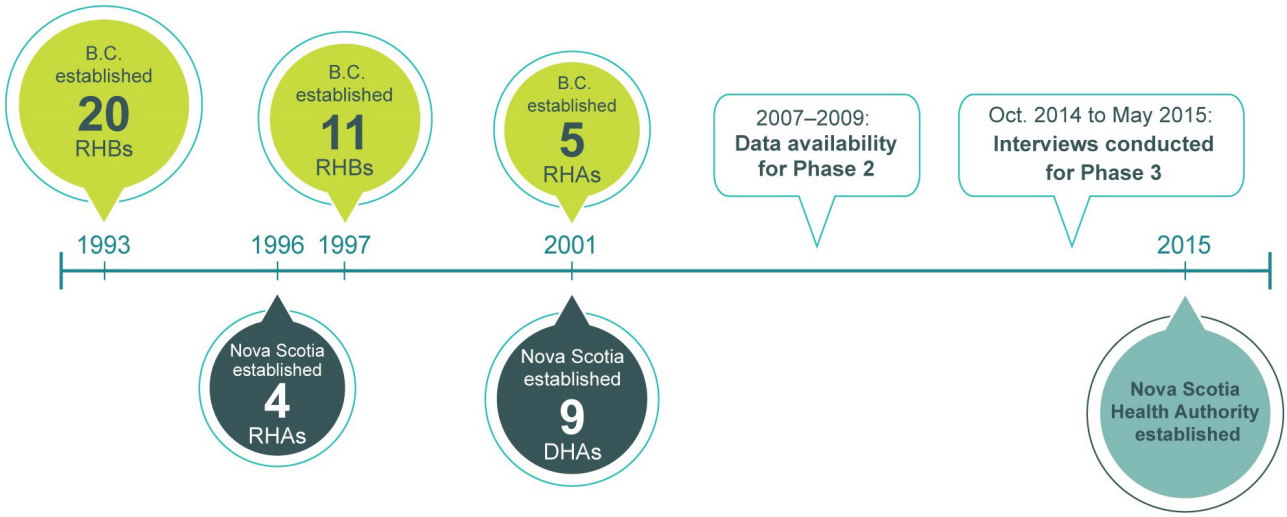
Methods

Semi-structured interviews were conducted with 42 senior health system decision-makers from the ministries of health and health regions in BC and NS between October 2014 and May 2015. Participants were currently or recently employed as decision-makers, directors or clinical/executive leads in the selected health regions within each province. Efforts were made to ensure that the population characteristics of the selected regions did not differ substantially along several dimensions (e.g., demographic, socio-economic and population health characteristics).

At the time of the study, NS was in the process of consolidating its health authorities from nine to one (Figure 1). During the interviews, key informants clarified whether they were reflecting on their previous positions and health system organizations or the current health system structure.

The interview guide asked key informants to reflect on health system efficiency in their region or province, including their perspectives on barriers and facilitators for improving the

FIGURE 1.
A timeline of regionalization in BC and NS



BC = British Columbia; DHA: District Health Authority*; NS = Nova Scotia; RHA: Regional Health Authority*; RHB: Regional Health Board*.

*These regional structures are comparable in terms of their level of responsibility for managing health services for their geographically defined populations. This figure excludes the Provincial Health Services Authority and the First Nations Health Authority in BC and the IWK Health Centre in NS.

Sources: British Columbia Ministry of Health Services 2001; Marchildon 2013; Nova Scotia Department of Health and Wellness 2000; Office of the Auditor General of British Columbia 1998.

health system efficiency. Interviews were digitally recorded, transcribed verbatim, verified for accuracy and imported into NVivo 10.0 for thematic analysis. The interviews were inductively and deductively coded using the constant comparative method. The coding frame was developed by the research team following an iterative process and revised to include emergent themes.

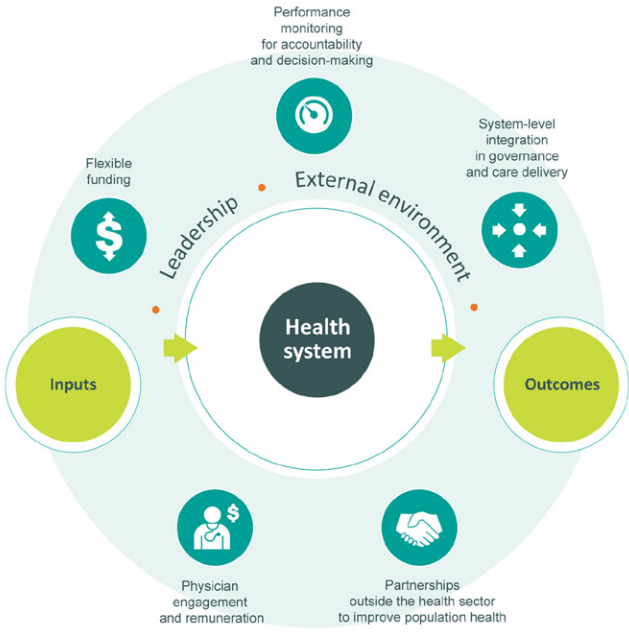
Results

There were five main themes that emerged from the analysis of interview data in the two provinces that help explain the mechanisms through which systems are able to make improvements to health system efficiency. These themes are summarized in Figure 2, and include:

- performance monitoring for accountability and decision-making;
- system-level integration in governance and care delivery;
- partnerships outside the health sector to improve population health;
- physician engagement and remuneration; and
- flexible funding.

Across these themes, the key informants emphasized the importance of strong leadership to enable progress and recognized the challenges in the environment (cultural, geographic, demographic, etc.) that impede system-level improvements.

FIGURE 2.
Conceptual framework for improving health system efficiency



Performance monitoring was identified as a key component to facilitate efficiency improvements through the use of accountability agreements (e.g., those held between BC Ministry of Health and Health Authorities since 2001),

and regular monitoring of performance at the provincial, regional and clinical levels (e.g., with operational dashboards). Key informants from NS identified a need to build analytic and infrastructure capacity to support effective performance monitoring as a way to improve efficiency.

> "How well we measure [efficiency] at the provincial level is really big, and we don't have strong data." (Department of Health and Wellness, NS)

There was widespread agreement among key informants that health system efficiency improvements require better integration of both decision-making and care delivery. For instance, BC key informants cited the integrated governance structure of the health authorities and progress towards better integration between acute and community care as facilitators of efficiency.

> "[W]ith the [re-organization], it's consolidated and there's one set of standards, and so one VP for Acute Care across the health authority. […] I think that's been a big change in this health authority and it's made it a lot more efficient." (Interior Health, BC)

By contrast, NS key informants identified a lack of integration at the provincial and regional levels as a barrier to efficiency, with many expressing the hope that amalgamation would improve integration and result in improved care delivery and efficiency.

> "Instead of having these initial borders in the way, they've now come down and we can focus more on system approaches rather than just on geographical approaches to delivering care." (Department of Health and Wellness, NS)

Greater integration of providers and services along the continuum of care was acknowledged in both provinces as important for improving both efficiency and patient experience.

> "We'll have succeeded when people don't have to tell their story 20 times." (Northern Health, BC)

Key informants in both provinces further recognized that improving health system efficiency requires partnerships across sectors to address the social determinants of health. They described a range of different partnerships between health authorities and local non-profit organizations and communities to improve population health.

> "[T]he relationships with the police, with emergency, with community services … those relationships are so important to getting through those silos, and from where I sit, it has a huge impact on efficiency." (Department of Health and Wellness, NS)

Finally, physician engagement and remuneration, as well as flexible funding, emerged as important themes in the interviews with senior leaders. Physician buy-in was acknowledged as key to making system changes to improve efficiency: BC's Divisions of Family Practice is a promising initiative that engages family physicians in healthcare planning and decision-making.

> "It's not an established habit of physicians to work closely with health authorities in that manner. So, it's taken time to develop the trust and confidence that allows us to do this and there's still a long way to go." (Northern Health, BC)

Conclusions

Overall, the experiences of system leaders in two provinces at different stages of health system transformation provide a rich source of information on the actions and challenges to improve health system efficiency in Canada. The themes that emerged in this study are broadly consistent with concepts in much of the grey and academic literature (CIHI 2016b). Compared with this study, the literature on improving efficiency primarily focuses on performance monitoring. This may reflect the predominance of American studies in the literature or a narrower focus on improving efficiency in service delivery. Future work can apply the framework developed here to assess and compare progress towards health system efficiency in other jurisdictions. Moreover, the limited representation of Canadian studies in the broader literature on health system efficiency signals a need for more research on the measurement of efficiency, and on understanding the mechanisms through which improvements can be made in the Canadian context. HQ

References

British Columbia Ministry of Health Services. 2001. *Government Restructures Delivery of Patient Care* [media release]. December 12, 2001.

Canadian Institute for Health Information (CIHI). 2012. "Developing a Model for Measuring the Efficiency of the Health System in Canada." Retrieved January 24, 2017. <https://secure.cihi.ca/free_products/HS_Efficiency_Tech_Report_EN-web.pdf>.

Canadian Institute for Health Information (CIHI). 2014. "Health System Efficiency in Canada: Why Does Efficiency Vary among Regions?" Retrieved January 24, 2017. <https://www.cihi.ca/en/hse_short_aib_10apr14_en.pdf>.

Canadian Institute for Health Information (CIHI). 2016a. "Improving Health System Efficiency in Canada: Perspectives of Decision-Makers". Retrieved January 24, 2017. <https://secure.cihi.ca/free_products/improving_health_system_efficiency_en.pdf>.

Canadian Institute for Health Information (CIHI). 2016b. "Improving Health System Efficiency in Canada: Description of Methods." Retrieved January 24, 2017. <https://www.cihi.ca/en/improving_health_system_efficiency_in_canada_description_methods_en.pdf>.

Crowe, S., K. Cresswell, A. Robertson, G. Huby, A. Avery and A. Sheikh. 2011. "The Case Study Approach." *BMC Medical Research Methodology* 11. doi:10.1186/1471-2288-11-100.

Cyrus, J., I. Papanicolas and P. Smith. 2016. "A Framework for Thinking about Health System efficiency." In J. Cyrus, I. Papanicolas and P. Smith, eds., *Health System Efficiency: How to Make Measurement Matter for Policy and Management*. Copenhagen, NL: WHO Regional Office for Europe.

Marchildon, G. P. 2013. "Canada: Health System Review." *Health Systems in Transition* 15(1): 1–179.

Nova Scotia Department of Health and Wellness. 2000. *Health Authorities Act Comes into Effect January 1, 2001* [media release]. December 21, 2000.

Office of the Auditor General of British Columbia. 1998. "A Review of Governance and Accountability in the Regionalization of Health Services." Retrieved January 24, 2017. <http://www.bcauditor.com/pubs/1998/report3/review-governance-and-accountability-regionalization-heal>.

Yin, R. 2013. *Case Study Research: Design and Methods* (5th ed.). Thousand Oaks, CA: Sage Publications.

About the Authors

Sara Allin is a senior researcher with the Canadian Population Health Initiative at CIHI, where she leads analytic work on health system performance and equity in health and healthcare.

Sara Guilcher is an assistant professor at the Leslie Dan Faculty of Pharmacy, University of Toronto. Her research focuses on improving health services and outcomes for vulnerable populations with multiple complex health and social needs.

Dana Riley is a senior analyst with the Canadian Population Health Initiative at CIHI. She is responsible for performing analyses, providing methodological support for projects and writing reports.

Yu Janice Zhang is a senior analyst with the Canadian Population Health Initiative at CIHI. She is responsible for conducting data analyses, supporting the methods design and writing reports and papers.