

## Chapter 27

### Health—Coordinating the Use of Lean

#### 1.0 MAIN POINTS

The healthcare sector began utilizing Lean in 2009. In 2011, the Ministry of Health hired a consultant to train staff on Lean principles, tools, and methodology as a first step in a sector-wide deployment. Lean is a continuous improvement methodology involving cycles of analyzing processes to identify areas for improvement, carrying out activities intended to achieve those improvements, and monitoring the impact of resultant changes.

The initial focus of the Lean initiative was on training and baseline data was not collected. Evaluating outcomes achieved since 2009 remains difficult for the Ministry because of both the absence of baseline data, and the challenge in separating the impact of improvement efforts through Lean principles from other contributing factors (such as shifting demographics or additional health sector investments). Without sufficient, verifiable data, the Ministry does not intend to publicly report on the benefits realized from the use of Lean.

The Ministry indicated it is planning on holding information sessions for health sector partners highlighting how the health system is using continuous improvement tools to improve the quality and safety of healthcare service delivery.

#### 2.0 INTRODUCTION

##### 2.1 Background

As noted in our 2014 audit, the health sector made a significant initial investment in Lean—a continuous improvement methodology and systematic approach expected to add value for patients, eliminate waste, and implement best practice. This was to be achieved by analyzing processes to identify areas for improvement, carrying out activities intended to achieve those improvements, and monitoring the impact of changes.

In 2009, the Ministry mandated the health sector to use Lean as a way to refine systems and processes, and improve healthcare service delivery. In 2013, the Ministry of Health assigned the Saskatchewan Health Quality Council responsibility for coordinating the use of Lean across the health sector.<sup>1</sup> In 2016, as a result of shifting priorities for the Health Quality Council, this responsibility transitioned back to the Ministry.

Between 2011 and 2014, the Ministry and health sector, assisted by hired consultants, provided extensive training to identify Lean leaders, trained most health sector employees at one-day introductory improvement courses, and completed Lean improvement events at health sector agencies.<sup>2,3</sup>

<sup>1</sup> The Saskatchewan Health Quality Council (HQC) is an independent organization mandated by the *Health Quality Council Act* to monitor and assess continuous quality improvement across Saskatchewan's healthcare system ([saskhealthquality.ca](http://saskhealthquality.ca)).

<sup>2</sup> *2014 Report – Volume 2*, Chapter 34, p. 220. Over three-years, from 2011 to July 2014, the Ministry paid a consultant \$23.3 million to assist in deploying Lean across the health sector.

<sup>3</sup> Lean events are where the owners and operators of a particular process meet with the intent of identifying process improvements.



Since February 2016, the Ministry assumed responsibility for the coordination of Lean across the health sector and is managed through the Provincial Quality, Safety & Lean Management Committee. The Committee is expected to provide oversight to the continuous improvement activities in support of a fully integrated, Patient-First transformed health system that has no waits, waste, or defects and continues to improve quality. The Committee comprises of members from all health sector agencies (i.e., Ministry of Health, Saskatchewan Health Authority, Saskatchewan Cancer Agency, 3sHealth, eHealth Saskatchewan, and the Health Quality Council). The Committee normally meets quarterly but has not met since January 2020 due to other priorities related to the COVID-19 pandemic.

## 2.2 Focus of Follow-Up Audit

In 2014, we assessed the Saskatchewan Health Quality Council's processes to coordinate the use of Lean as a continuous improvement methodology across the health sector. Our *2014 Report – Volume 2*, Chapter 34, concluded that the Health Quality Council did not have full authority to carry out its responsibilities, as well as did not have effective processes to coordinate the use of Lean as a continuous improvement methodology across health sector agencies.<sup>4</sup> We made five recommendations.

In 2016, the Health Quality Council's role changed whereby it continued to collaborate with the Ministry of Health and other health sector agencies to support the use of Lean in the health sector, but it no longer served a coordinating role. The Ministry assumed the coordinating responsibility.

By February 2019, the Ministry implemented four of the five recommendations we made in the 2014 audit.<sup>5</sup>

This chapter describes our third follow-up of management's actions on the one outstanding recommendation.

To conduct this audit engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook—Assurance* (CSAE 3001). To evaluate the Ministry of Health's progress toward meeting our recommendation, we used the relevant criteria from the original audit. The Health Quality Council agreed with the criteria in the original audit.

To complete this audit, we discussed progress made in meeting our recommendation with Ministry management and reviewed supporting documentation.

## 3.0 STATUS OF RECOMMENDATION

This section sets out the last recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at July 31, 2021, and the Ministry of Health's actions up to that date.

<sup>4</sup> The original report regarding these recommendations is located at [auditor.sk.ca/publications/public-reports](http://auditor.sk.ca/publications/public-reports). We reported the original audit work in *2014 Report – Volume 2*, Chapter 34, pp. 217–234.

<sup>5</sup> We reported our first follow-up in *2016 Report – Volume 2*, Chapter 38 pp. 263–267 and our second follow-up in *2019 Report – Volume 1*, Chapter 26, pp. 273–276.

### 3.1 Public Reporting on Benefits Realized From Using Lean No Longer Feasible

***We recommended the Ministry of Health (responsibilities formerly assigned to the Health Quality Council) report to the public on outcomes achieved through the use of Lean across the health sector.*** (2014 Report – Volume 2, p. 233, Recommendation 5; Public Accounts Committee agreement January 13, 2016)

**Status**—No longer relevant to assess

The Ministry of Health does not have sufficient, verifiable data on the outcomes achieved using Lean to report publicly.

The Ministry did not establish baseline data when initially deploying Lean to support measuring whether outcomes improved the health sector as a result of using Lean, due to the initial emphasis on training outcomes. Measuring outcomes achieved since 2009 (Lean deployment date) remains difficult for the Ministry to differentiate between those resulting from the use of Lean and those outcomes from other work (e.g., the amalgamation of regional health authorities into one provincial authority in 2017), healthcare investments or demographic shifts such as an aging population.

Regional health authorities and the Saskatchewan Cancer Agency began improvement activities using Lean methodologies in 2009. However, these health agencies worked independently rather than collectively to learn from one another. In 2011, the Ministry hired a consultant to coordinate Lean use and deploy it across the health sector.<sup>6</sup>

In 2012, the Health Quality Council commissioned an independent research team from the University of Saskatchewan to undertake a multi-year evaluation of Lean in the health sector. The team intended to select outcome indicators and establish baseline data for evaluation. The study suggested the use of broad outcome measures (e.g., patient safety indicators) as a way to measure success for some intended Lean objectives (e.g., increasing safety by eliminating defects and errors); however, the study did not outline baseline data.

Comparing data at the time of Lean's initial implementation in relation to the broad outcome measures identified in the study to current data could potentially show whether continuous improvements in the delivery of health services occurred (since using Lean). For example, we found the Ministry reported, in its *2019–20 Annual Report*, a 3.4% time reduction for physicians to complete initial patient assessments in emergency departments over the previous year. However, the Ministry cannot explain how much of the reduction resulted from continuous improvement initiatives (Lean) or other factors, (e.g., increased staffing, space).

The Ministry determined the available verifiable data is insufficient to report on the outcomes Lean achieved and does not intend to publicly report on the benefits realized from the use of Lean.

<sup>6</sup> The Ministry of Health contracted with John Black and Associates (JBA) to support the implementation of Lean across the provincial health system. The contract ended March 2015. [www.saskatchewan.ca/government/news-and-media/2014/december/29/jba-contract-ends](http://www.saskatchewan.ca/government/news-and-media/2014/december/29/jba-contract-ends) (24 August 2021).



At August 2021, the Ministry indicated it is focusing its current efforts on using the learnings to date, gathering the right information to evaluate the impacts on health outcomes, and facilitating the sharing of continuous improvements made by various health sector partners across the health system. For example, in fall 2021, the Ministry is planning a series of presentations for health sector partners on how the health system is using continuous improvement tools to improve the quality and safety of healthcare service delivery.