

## Chapter 26

### Health – Co-ordinating the Use of Lean

#### 1.0 MAIN POINTS

Lean is a continuous improvement methodology. It involves analyzing processes to identify areas for improvement, carrying out activities intended to achieve those improvements, and monitoring the impact of changes.

By February 2019, the Ministry of Health, working with others in the health sector, had established a risk management framework for the health sector. The use of the framework allows for consistent evaluation and scoring of risks across all health care sector agencies.<sup>1</sup>

The Ministry was also working on plans to report publicly on the benefits realized from using Lean within the health sector since 2011. It aims to report publicly on Lean in 2020.

#### 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. The Government mandated that the health sector use Lean as a way to improve systems and processes, and improve the delivery of health services.

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

Since February 2016, the Ministry co-ordinates the use of Lean across the health sector through a Provincial Quality, Safety & Lean Management Committee. The Committee is comprised 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).

##### 2.2 Focus of Follow-Up Audit

In 2014, we assessed the Health Quality Council's processes to co-ordinate the use of Lean as a continuous improvement methodology across the health sector. Our *2014 Report – Volume 2*, Chapter 34 concluded that because the Health Quality

<sup>1</sup> Health sector agencies include the Ministry of Health, the Saskatchewan Health Authority, the Saskatchewan Cancer Agency, 3sHealth, eHealth Saskatchewan, and the Health Quality Council.

<sup>2</sup> *2014 Report – Volume 2*, Chapter 34 (p. 220). From 2011 to July 2014, the Ministry paid a consultant \$23.3 million to assist in its deployment of Lean.

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



Council did not have full authority to carry out its responsibilities, it did not have effective processes to co-ordinate the use of Lean as a continuous improvement methodology across the health sector agencies.<sup>4,5</sup> We made five recommendations. By September 2016, three of the five recommendations were implemented.<sup>6</sup>

This chapter describes our second follow-up of management's actions on the two outstanding recommendations.

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 towards meeting our recommendations, 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 with Ministry management progress they made in meeting our recommendations; reviewed supporting documentation; and viewed reports made available to staff, senior management, and the public.

## 3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at February 28, 2019, and the Ministry of Health's actions on behalf of the Provincial Quality, Safety & Lean Management Committee, up to that date.

### 3.1 Public Report on the Benefits Realized From the Use of Lean Needed

***We recommended that the Ministry of Health (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** – Partially Implemented

As of February 2019, the Ministry has not decided which health sector outcomes it will use to show the public the benefits realized from the use of Lean. Ministry management indicated that the Ministry aims to report publicly on Lean in 2020.

In 2016 (after our last follow-up audit), the Provincial Quality, Safety & Lean Management Committee formed an Improvement Reporting Working Group to update improvement-reporting processes. The Ministry is leveraging the work of this Committee while it forms an evaluation plan for Lean implementation.

<sup>4</sup> The original report regarding these recommendations can be found at [www.auditor.sk.ca/publications/public-reports](http://www.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> In April 2016, Health Quality Council's role changed whereby it continues 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 serves a co-ordinating role.

<sup>6</sup> We reported the first follow-up in *2016 Report – Volume 2*, Chapter 38 (pp. 263-267).

At February 2019, the Ministry had a draft public reporting plan on what to report at the provincial level based on the Government's objectives noted in **Figure 2**. This plan included potential evaluation questions and methods to be used to determine if Lean improvements are meeting the Government objectives.

**Figure 2—Government's Objectives for Use of Lean As Stated in 2014**

The Government had broad objectives for the use of Lean, and specific ones for the health sector.

The Government stated it was using Lean as a systematic way to improve systems and processes, streamline its work, and improve service delivery to the public. It was also using Lean as one way to create a culture within the Government that will continuously seek to improve service delivery.

The Health Quality Council stated that Lean makes health care better in several ways:

- It increases safety by eliminating defects and errors
- Patients are more satisfied with their care
- The staff doing the work are the ones who look for waste and find better ways to deliver care
- It reduces cost, by getting rid of waste
- Patients have better health outcomes

Source: 2014 Report – Volume 2, Chapter 34.

Our review of the Ministry's draft public reporting plan found the proposed evaluation methods seem more resource intensive than using an evaluation approach that leverages, to the extent possible, existing publicly reported broad outcome measures for the health sector. We noted that a 2014 study that the University of Saskatchewan did for the Health Quality Council suggested the use of broad outcome measures recognized in international literature (e.g., selecting indicators for patient safety at the health system level) as a way to measure success for three of the five specific Lean objectives listed in **Figure 2**.<sup>7</sup>

We found the Ministry, the Saskatchewan Health Authority, other health sector agencies, and the Canadian Institute for Health Information publicly report on some of the broad outcome measures that the 2014 study had suggested.<sup>8</sup> For example, the Saskatchewan Cancer Agency annually reports on the number of cervical cancer tests performed, and Saskatchewan's participation rate that coincides with an outcome indicator for the better health outcomes objective.

We further found some other publicly reported measures can link to the Government's objectives set for Lean. For example, the Saskatchewan Health Authority's report on how well it is meeting its target to reduce emergency department waits by 35% can link to the Lean's patient satisfaction objective.

We encourage the Ministry to consider leveraging data and relevant publicly-available measures (e.g., medication errors, emergency room wait times) in its consideration as to how best to determine and report on the benefits realized from the use of Lean in the health sector.

Comparing baseline data (at the point in which Lean was implemented) for those relevant broader health sector outcomes to current data could show whether continuous improvements in the delivery of health services have occurred.

<sup>7</sup> The 2014 Study suggested using indicators used by Organization of Economic Co-operation and Development (OECD) countries published in *The International Journal for Quality in Health Care*.

<sup>8</sup> [www.cihi.ca/en/access-data-and-reports](http://www.cihi.ca/en/access-data-and-reports) (15 March 2019).



## 3.2 Risk Management Framework in Use

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***We recommended that the Ministry of Health (formerly assigned to the Health Quality Council) implement a risk management framework for co-ordinating the use of Lean across the health sector.*** (2014 Report – Volume 2, p. 226, Recommendation 1; Public Accounts Committee agreement January 13, 2016)

**Status** –Implemented

By May 2017, the Ministry established and participating health sector agencies were using a risk management framework included in a risk management model.

The Provincial Quality, Safety & Lean Management Committee developed a risk management model. The model allows for the evaluation and scoring of risks in three categories: people development, process improvement, and business management.

We found that each participating health sector agency completed their risk assessments using the model. Each had determined a rationalized score for each identified risk.

Evaluation teams at each health sector agency completed this work. Those teams included the Chief Executive Officer and the Vice President responsible for quality/continuous improvement.

Implementing a risk-management framework better equips the Ministry and other health sector agencies to manage and address issues that affect the use of Lean.

The Ministry expects each health sector agency to continue using the risk management model, and re-evaluate risks in summer 2019.