

Chapter 40

Saskatchewan Health Authority—Delivering Provincially Funded Childhood Immunizations in La Ronge and Surrounding Area

1.0 MAIN POINTS

By August 2019, the Saskatchewan Health Authority implemented two of the five recommendations we made in our 2017 audit about processes to deliver provincially funded childhood immunization in La Ronge and surrounding area.

Within La Ronge and surrounding area, the Authority annually analyzes and reports on childhood immunization coverage rates by community, and properly stores vaccines as required by the Saskatchewan Immunization Manual.

However, the Authority, within La Ronge and surrounding area, does not:

- Properly manage vaccine inventory by regularly reconciling its on-hand vaccine inventory to quantities recorded in its records
- Consistently prepare complete emergency event recovery plans expected by the Saskatchewan Immunization Manual
- Give its Board provincially funded childhood immunization coverage rates

Ineffective delivery of provincially funded childhood immunizations can put the public at risk due to increased transmission of preventable diseases.

2.0 INTRODUCTION

This chapter describes our first follow-up of management's actions on the recommendations we made in 2017 about processes to deliver provincially funded childhood immunization in La Ronge and surrounding area.

Immunization is a cornerstone of public health. Research shows its use significantly contributes to the prevention and control of infectious diseases in Canada and internationally.¹

2.1 Background

Under *The Provincial Health Authority Act*, the Saskatchewan Health Authority is responsible for the planning, organization, delivery, and evaluation of health services. This includes delivering immunizations to Saskatchewan residents.

¹ www.healthycanadians.gc.ca/healthy-living-vie-saine/immunization-immunisation/canadian-immunization-guide-canadien-immunisation/introduction-eng.php (26 September 2019).



The Authority delivers provincially funded immunization services to 2,859 children under the age of 17 living off-reserve in La Ronge and surrounding area.

Provincially funded childhood immunizations are free, routine vaccines that public health nurses and other health care providers (e.g., physicians) provide to Saskatchewan residents.

2.2 Focus of Follow-Up Audit

This audit follows up on five recommendations made in our *2017 Report – Volume 1*, Chapter 9, about the former Mamawetan Churchill River Regional Health Authority's processes to deliver provincially funded childhood immunizations.² We concluded that for the period from February 1, 2016 to January 31, 2017, the former Mamawetan Churchill River Regional Health Authority had effective processes other than areas identified in our five 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 Authority's progress toward meeting our recommendations, we used the relevant criteria from the original audit. The Authority's management agreed with the criteria in the original audit.

To complete this follow-up audit, we reviewed the Authority's policies and procedures, and other documents relevant to childhood immunization. In addition, we tested a sample of temperature logs and emergency event recovery plans.

3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation for facilities in La Ronge and surrounding area including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at August 31, 2019, and the Authority's actions up to that date.

3.1 Analysis of Immunization Coverage Rates by Community Conducted

We recommended the Saskatchewan Health Authority periodically formally analyze and report childhood immunization coverage rates by community. (*2017 Report – Volume 1*, p. 123, Recommendation 1; Public Accounts Committee agreement February 26, 2019)

Status—Implemented

The Authority annually analyzes and reports on childhood immunization coverage rates by community in La Ronge and surrounding area.

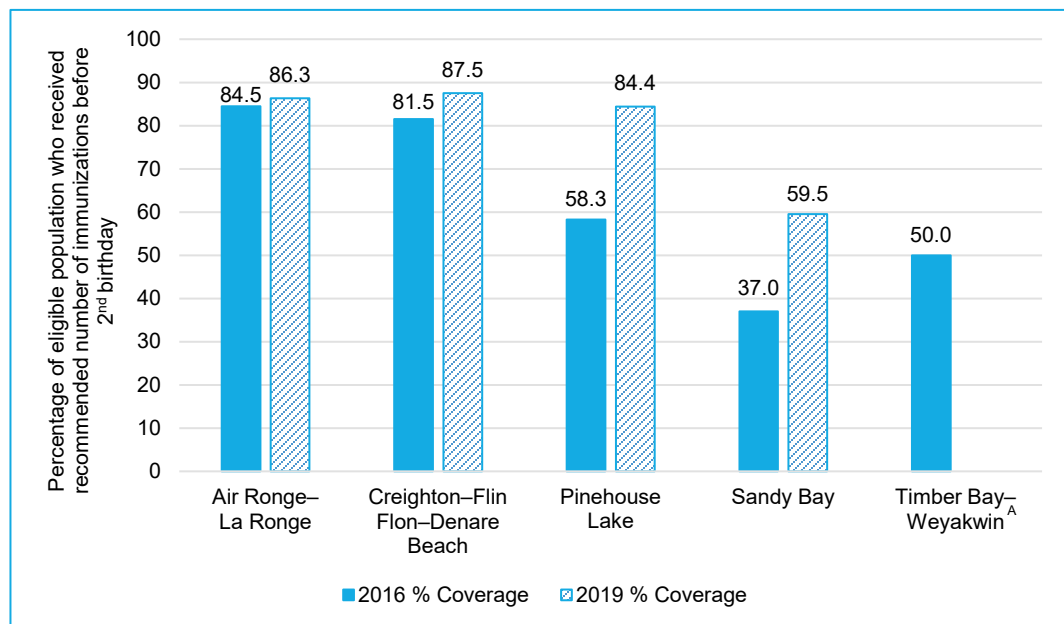
² The former Mamawetan Churchill River Regional Health Authority became part of the Saskatchewan Health Authority in December 2017.

In January 2017, the Authority began analyzing and reporting on childhood immunization coverage rates by community for each calendar year. The reports include the community coverage rates for two-year-old children for pertussis, measles, and meningococcal serogroup C. The Medical Health Officers in La Ronge and surrounding area receive these reports.

Formally analyzing immunization coverage rates by community helps the Authority to decide where to adjust its immunization strategies to increase coverage.

Focused efforts and analysis can help increase coverage, and the Authority focused on communities with lower coverage rates. As shown in **Figure 1**, from 2016 to July 15, 2019, the pertussis immunization coverage rates for two-year-old children improved in each community.

Figure 1—Comparison of 2016 and 2019 Two-Year-Old Childhood Immunization Coverage Rates for Pertussis by Community in La Ronge and Surrounding Area



Source: Information prepared by Population Health Unit.

^A Included in Air Ronge–La Ronge for 2019.

3.2 Vaccines Properly Stored

We recommended the Saskatchewan Health Authority properly store vaccines as required by the Saskatchewan Immunization Manual.

(2017 Report – Volume 1, p. 125, Recommendation 2; Public Accounts Committee agreement February 26, 2019)

Status—Implemented

The Authority, within La Ronge and surrounding area, properly stores vaccines consistent with the requirements of the Saskatchewan Immunization Manual.



To maintain vaccine effectiveness, the Manual requires the Authority to keep vaccines within the recommended temperature range (two to eight degrees Celsius). To help do so, the Manual directs staff to record the minimum/maximum temperatures of storage fridges twice a day using a temperature log. The storage fridges must also contain a continuous temperature recorder.³ In addition, the Manual requires regular maintenance on the storage fridges.

We found for all three locations we sampled:

- Staff consistently filled out the temperature logs more than 90% of the time
- Continuous temperature recorders installed in all storage fridges
- Maintenance performed regularly on storage fridges

Following recommended storage procedures helps keep vaccines within recommended temperature ranges, thus maintaining vaccine effectiveness.

3.3 Vaccine Inventory Not Reconciled to Records

We recommended the Saskatchewan Health Authority regularly reconcile its on-hand vaccine inventory to quantities recorded in its records. (2017 Report – Volume 1, p. 125, Recommendation 3; Public Accounts Committee agreement February 26, 2019)

Status—Not Implemented

The Authority, within La Ronge and surrounding area, does not regularly reconcile its on-hand vaccine inventory to quantities recorded in its records.

The Authority uses a centralized provincial IT system called Panorama to maintain vaccine information (e.g., quantity of vaccine on-hand), and determine when more vaccines are needed.

At least once a month, staff physically count the vaccines in the storage fridges.⁴ They record the quantity of each vaccine counted. However, no one compares the quantity counted to the quantity recorded in Panorama.

Not reconciling the amount of vaccines on-hand to the amount expected increases the risk vaccines could go missing without notice. It also increases the risk the Authority acquires vaccines it may not need.

³ Continuous temperature recorders provide information about the length of time vaccines may have been outside of the recommended temperature range.

⁴ In one location, staff count vaccines weekly. In other locations, staff count vaccines monthly.

3.4 Not All Emergency Event Recovery Plans Complete

We recommended the Saskatchewan Health Authority document and make staff aware of emergency event recovery plans as required by the Saskatchewan Immunization Manual. (2017 Report – Volume 1, p. 126, Recommendation 4; Public Accounts Committee agreement February 26, 2019)

Status—Partially Implemented

While facilities located in La Ronge and surrounding areas that store vaccines had emergency event recovery plans and staff working in these facilities were aware of the plans, not all of the plans were complete.

The Saskatchewan Immunization Manual sets out procedures for developing emergency event recovery plans for staff to follow in the event of an emergency (e.g., power outages, natural disasters). It requires a written emergency event recovery plan for every facility storing vaccines. It requires each plan to include, at least the following:

- Emergency phone numbers for employees, building maintenance, power companies, and repair companies
- The arrangements for an alternative storage facility with backup power where the vaccines can be properly stored and monitored in the interim
- Written procedures for entering the alternative facility and vaccine storage spaces in an emergency if the facility is closed or it is after hours

For the three facilities located in La Ronge and surrounding area sampled, we found each had an emergency event recovery plan. Each facility placed the plan on the side of the vaccine storage fridges as required, and staff of each facility were aware of the plans and their location.

However, one of the three plans did not contain all of its expected content. This plan did not include the written procedures for entering the alternative facility and vaccine storage spaces in an emergency if the facility is closed or it is after hours.

Incomplete emergency event recovery plans increase the risk vaccines are improperly protected in the event of an emergency. It also increases the risk of the Authority incurring monetary losses through vaccine inventory loss.

3.5 Limited Reporting to the Board

We recommended the Saskatchewan Health Authority periodically give its Board coverage rate information as it relates to provincially funded childhood immunizations. (2017 Report – Volume 1, p. 128, Recommendation 5; Public Accounts Committee agreement February 26, 2019)

Status—Partially Implemented



The Authority does not give its Board coverage rate information as it relates to provincially funded childhood immunizations, although, it plans to do so in the near future.

Up until the amalgamation of the health authorities in December 2017, the former Mamawetan Churchill Regional Health Authority Board continued to receive reports on the number of individuals not receiving immunizations when expected. The June 2017 and October 2017 reports included pertussis immunization coverage rates for the number of children who received pertussis vaccination by 91 days of age.⁵ However, since the amalgamation, the Authority's Board does not receive immunization coverage rate information. Management indicated it expects to report to the Board on a comparison of actual rates to the provincial and national targets in late September 2019.

The Authority set immunization targets for increasing childhood immunization coverage rates for pertussis and measles (e.g., meet or exceed the provincial target of 90% by 2022 and the national vaccine coverage goals of 95% by 2025).

Without adequate reporting, the Board cannot determine whether the Authority's immunization services are effective (i.e., is it providing the right level of services in the right locations) and may not make informed decisions about the Authority's immunization services.

⁵ Certain childhood vaccines are supposed to be received by certain ages and grades. A child should receive their first pertussis vaccination by two months old.