

Chapter 33

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

1.0 MAIN POINTS

The Saskatchewan Health Authority is responsible for delivering provincially funded childhood immunizations in Saskatchewan. Immunization programs help to avert, control, or eliminate vaccine-preventable diseases. Research shows vaccine use significantly contributes to the prevention and control of infectious diseases in Canada and internationally.¹ This audit did not include processes around delivering the COVID-19 vaccine.

By July 2021, the Authority strengthened its processes to deliver provincially funded childhood immunizations in La Ronge and surrounding area by implementing the remaining three recommendations we first made in 2017.

Within La Ronge and surrounding area, the Authority:

- Properly managed and protected its vaccine inventory by regularly reconciling its on-hand inventory to quantities recorded in its records and completing emergency event recovery plans
- Provided periodic reports to senior management on coverage rate information as it related to provincially funded childhood immunizations to help determine whether immunization services are effective (i.e., providing the right level of services in the right locations)

2.0 INTRODUCTION

The Saskatchewan Health Authority is responsible for delivering immunizations to Saskatchewan residents under *The Provincial Health Authority Act*.

The Authority delivers provincially funded immunization services to 2,491 children under the age of 17 living off-reserve in La Ronge and surrounding area.² Provincially funded childhood immunizations are free, routine vaccines that public health nurses and other healthcare providers (e.g., physicians) provide to Saskatchewan residents.

Ineffective delivery of provincially funded childhood immunizations can put the public at risk due to increased transmission of preventable diseases. Children are particularly susceptible to vaccine-preventable diseases because their immune systems are less mature and therefore less able to fight infections.³

¹ www.canada.ca/en/public-health/services/canadian-immunization-guide/introduction.html (18 August 2021).

² Information provided by the Saskatchewan Health Authority.

³ www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-3-benefits-immunization.html (18 August 2021).



2.1 Focus of Follow-Up Audit

This chapter describes our second follow-up audit of management's actions on the three remaining recommendations we first made in 2017.

Our *2017 Report – Volume 1*, Chapter 9, concluded the Authority had, other than matters reflected in our five recommendations, effective processes to deliver provincially funded childhood immunizations in La Ronge and surrounding area. By August 2019, as reported in our *2019 Report – Volume 2*, Chapter 40 it implemented two 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 agreed with the criteria in the original audit.

To complete this follow-up, we interviewed key staff at the Authority and reviewed relevant documents (e.g., policies and procedures, manuals). In addition, we tested a sample of vaccine reconciliations and emergency event recovery plans.

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 July 31, 2021, and the Authority's actions up to that date.

3.1 Vaccine Inventory Reconciled to Records

We recommended the Saskatchewan Health Authority regularly reconcile its on-hand vaccine inventory to the quantities recorded in its records.

(2017 Report – Volume 1, p. 125, Recommendation 3; Public Accounts Committee agreement February 26, 2019)

Status—Implemented

The Saskatchewan Health Authority, within La Ronge and surrounding area, regularly reconciles its on-hand inventory to quantities in its records.

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

Once a month, public health nurses physically count the vaccines in the storage fridges at each of its four locations. In January 2020, they began recording the physical-count quantity of each vaccine in Panorama. Panorama produces a report comparing the quantity counted to the quantity recorded in the Authority's records. If variances exist, the nurses follow up with staff to determine the reason for discrepancies.

In July 2021, the Authority formalized this process by implementing a work standard for vaccine inventory reconciliations. It requires monthly reconciliations comparing the physical count to the system's quantity. Staff are to follow up on discrepancies and record their resolution.

For three locations in La Ronge and surrounding area tested, we found the Authority completed monthly inventory reconciliations. Public health nurses reviewed variances and provided some explanations. Management indicated public health nurses would, moving forward, document all variance explanations on the reconciliations to comply with the work standard.

Regularly reconciling the amount of vaccines on hand to the amount expected (as reflected in Panorama) decreases the risk that vaccines go missing without notice, or the Authority acquires vaccine inventory it does not need.

3.2 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—Implemented

The Saskatchewan Health Authority has complete, up-to-date emergency event recovery plans in facilities in La Ronge and surrounding area that store vaccines. Staff are made aware of the plans.

The Saskatchewan Immunization Manual sets out procedures for staff to follow in emergency event recovery plans in the event of an emergency (e.g., power outages, natural disasters). The manual requires a written emergency event recovery plan for every facility storing vaccines. As shown in **Figure 1**, the Manual sets requirements that each plan must include.

Figure 1—Emergency Event Recovery Plan Requirements

- Emergency phone numbers for employees, building maintenance, power companies, and repair companies
- Specified arrangements for an alternate storage facility with backup power for proper interim storage and vaccine monitoring
- Written procedures for entering the alternate facility and vaccine storage spaces in an emergency if the facility is closed or it is after hours

Source: Adapted from *The Saskatchewan Immunization Manual*.

For three facilities in La Ronge and surrounding area tested, we found each had a complete, up-to-date emergency event recovery plan. Each facility placed the plan on the side of the vaccine storage fridge as required, and staff of each facility were made aware of the plans.



Complete and up-to-date emergency event recovery plans help ensure vaccines are protected in the event of an emergency, and the Authority does not incur monetary losses through vaccine inventory loss.

3.3 Periodic Reporting Provided to Senior Management

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—Implemented

Senior management, rather than the Board, at the Saskatchewan Health Authority receives quarterly coverage rate information as it relates to provincially funded childhood immunizations.

With the amalgamation of the Authority in 2017, it restructured its reporting so that the Board no longer receives and reviews childhood immunization coverage rate information. Rather, this is now the responsibility of Authority senior management.

On a monthly and quarterly basis, the Executive Director in La Ronge and surrounding area receives reports on immunization coverage rates. The reports compare monthly immunization coverage rates to the provincial target of 90% for the number of children who received:

- One dose of pertussis vaccination by 91 days of age
- One dose of measles vaccination by two years of age
- Two doses of measles vaccination by five years of age⁴

The reports include provincial rates, as well as rates by different provincial areas. In addition, the report informs the Executive Director of downward trends and where action plans are needed to increase immunization coverage rates.

Each quarter, various individuals within the Authority (e.g., senior medical health officers, medical health officers, immunization coordinators, public health nurse managers) review reports on immunization coverage rates. The report sets out immunization coverage rates for two- and seven-year-olds for three diseases (pertussis, measles, meningococcal).⁵ It also includes provincial rates, as well as for different areas in the province.

As shown in **Figure 2**, pertussis and measles immunization rates for two-year-olds in La Ronge and surrounding area at June 30, 2021 are lower than provincial rates, whereas they are above the provincial rate for all diseases for seven-year-olds. The immunization coverage rates increase significantly as children reach school age (i.e., seven years old).

⁴ Certain childhood vaccines are supposed to be received by certain ages. For example, a child should receive their first pertussis vaccination by two months old.

⁵ Pertussis (i.e., whooping cough), meningococcal (i.e., meningitis).

Figure 2—Childhood Immunization Coverage Rates for Pertussis, Measles, and Meningococcal at June 30, 2021

| Coverage Rate % | Age Groups | |
|---------------------------------|-------------|-------------|
| | 2-year-olds | 7-year-olds |
| Regional Pertussis | 59.3 | 89.0 |
| Provincial Pertussis | 78.1 | 73.8 |
| Regional Measles | 59.3 | 94.8 |
| Provincial Measles | 78.0 | 87.2 |
| Regional Meningococcal | 89.2 | 95.5 |
| Provincial Meningococcal | 87.8 | 89.9 |

Source: Adapted from the Ministry of Health, *Childhood Immunization: Coverage statistics for 2- and 7-year-old children, Quarterly Report: June 2021*.

Management indicated it uses this report to know where to focus the Authority's work. For example, management can produce detailed reports breaking down the number of overdue immunizations by community in its region.

Having management receive periodic reporting on childhood immunization coverage rates helps the Authority determine whether immunization services are effective (i.e., providing the right level of services in the right locations) and make more informed decisions about its immunization efforts.

