

Legislative
Assembly
of Ontario



Assemblée
législative
de l'Ontario

STANDING COMMITTEE ON PUBLIC ACCOUNTS

IMMUNIZATION

(SECTION 1.04, 2016 ANNUAL REPORT OF THE OFFICE OF THE AUDITOR
GENERAL OF ONTARIO)

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The Honourable Dave Levac, MPP
Speaker of the Legislative Assembly

Sir,

Your Standing Committee on Public Accounts has the honour to present its Report and commends it to the House.

Ernie Hardeman, MPP
Chair of the Committee

Queen's Park
April 2018

**STANDING COMMITTEE ON PUBLIC ACCOUNTS
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3rd Session, 41st Parliament

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FRANCE GÉLINAS regularly served as a substitute member of the committee.

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LAURA ANTHONY
Research Officer

CONTENTS

INTRODUCTION	1
ACKNOWLEDGEMENTS	1
BACKGROUND	1
Legislation	1
Funding	2
AUDIT OBJECTIVES AND SCOPE	2
MAIN POINTS OF AUDIT	2
ISSUES RAISED IN THE AUDIT AND BEFORE THE COMMITTEE	3
Complex Program Delivery Structure	3
Cost and Reliability Concerns with New Information System	3
Better Tracking of Immunization Coverage Rates	5
Better Process Needed to Track and Address Low Immunization Coverage Rates for Children	5
Better Process Needed for Vaccine-Preventable Disease Entering Canada	6
Improved Promotion of Immunization	7
Cost-Benefit Analysis of Federally Recommended Vaccines	8
Better Oversight of Influenza Immunization Program	8
Improve Influenza Vaccine Program	9
Better Tracking of Adverse Events Following Immunization	9
Better Oversight of Vaccine Wastage	10
CONSOLIDATED LIST OF COMMITTEE RECOMMENDATIONS	11

INTRODUCTION

On November 22, 2017, the Standing Committee on Public Accounts held public hearings on the audit (Section 1.04, *2016 Annual Report* of the Auditor General of Ontario, Follow-Up on VFM Section 3.04, *2014 Annual Report*) of the Immunization program administered by the Ministry of Health and Long-Term Care.

The Committee endorses the Auditor's findings and recommendations, and presents its own findings, views, and recommendations in this report. The Committee requests that the Ministry provide the Clerk of the Committee with written responses to the recommendations within 120 calendar days of the tabling of this report with the Speaker of the Legislative Assembly, unless otherwise specified.

ACKNOWLEDGEMENTS

The Committee extends its appreciation to officials from the Ministry of Health and Long-Term Care. The Committee also acknowledges the assistance provided during the hearings and report-writing deliberations by the Office of the Auditor General, the Clerk of the Committee, and staff in the Legislative Research Service.

BACKGROUND

The Ministry of Health and Long-Term Care is responsible for Ontario's immunization program, including advising the government on which vaccines to publicly fund and the eligibility criteria for each vaccine.

Ontario's publicly funded immunization schedule includes vaccines that protect against 17 infectious diseases including: measles, haemophilus influenzae type b, invasive meningococcal disease, tetanus, and mumps. In 2016 Ontario added human papillomavirus (HPV) for all boys in Grade 7 as well as a shingles immunization program for eligible seniors aged 65 to 70.

Eligible people in Ontario can be immunized against these infectious diseases by a physician or other authorized person free of charge. Most vaccines are administered by family physicians, but other health-related care providers, including public health nurses and pharmacists, also administer certain vaccines, such as the influenza vaccine.

Legislation

Under Ontario's *Health Protection and Promotion Act*, 36 public health units across the province are responsible for administering programs in their respective areas. Each public health unit is led by a local medical officer of health and is governed by a municipally controlled board of health.

Funding

The Auditor General noted in the *2014 Annual Report* that the Ministry does not track or monitor the total costs of delivering the immunization program in Ontario. In 2013-14 the Auditor General estimated the Ministry spent \$118.1 million on vaccine procurement; \$56.4 million to public health units' operating costs, \$50 million on vaccine administration costs (including amounts paid to physicians and pharmacists for administering vaccines), \$4.2 million to Ministry costs to administer the program, \$1.1 million to Ontario Government Pharmacy, and \$2.1 million to Public Health Ontario. The Auditor General estimated that operational funding for Ontario's immunization program was about \$260 million in the 2015-16 fiscal year.

The total cost to develop a new public-health information system that includes Panorama, an immunization registry, exceeds \$160 million. The operating budget for Panorama in 2016-17 was just over \$14 million.

AUDIT OBJECTIVES AND SCOPE

The audit assessed whether there were effective governance, information technology systems, and policies and procedures in place to ensure that Ontario's immunization program protects against vaccine-preventable diseases in an efficient and cost-effective manner that is compliant with legislative requirements.

The audit examined the Ministry of Health and Long-Term Care's oversight, tracking, and monitoring of Ontario's immunization program. The 2014 audit found that the Ministry had inadequate information about the total costs of immunization in Ontario; immunization rates for vulnerable groups such as children; the cost-effectiveness in Ontario of federally recommended vaccines; and the total number of vaccines administered. It concluded the Ministry lacked adequate information to monitor whether Ontario's immunization program and delivery mechanisms were operating in a cost-effective manner.

MAIN POINTS OF AUDIT

Overall, the follow-up audit found that only a few of the recommendations from the 2014 audit had been implemented. The Auditor's office believes the Ministry of Health and Long-Term Care's timeline (from the 2014 audit to the proposed 2020 end date) to overhaul the immunization program is too long, given the importance of immunization to Ontario's public health. Further, the Auditor found that there has been little progress made toward implementing the audit's recommendations relating to the timely recording of immunizations in a database, publicly reporting immunization rates at daycares, identifying schools with low immunization rates, and providing vaccinations to all immigrants before they enter Ontario.

Of the original audit's 24 recommended actions, only one had been fully implemented, while 22 remained in the process of being implemented, or have had little to no progress to date (in addition, one recommendation was not going to be implemented).

ISSUES RAISED IN THE AUDIT AND BEFORE THE COMMITTEE

A number of issues were raised in the audit and before the Committee. The Committee considers the issues below to be of particular importance.

The Ministry noted it is making progress with many of the Auditor's recommendations as a part of *Immunization 2020*, a five-year plan to modernize Ontario's publicly funded immunization program.

The Ministry has developed and implemented several digital tools including: Panorama, a digital repository of immunization information; PEAR, a data analysis tool; Immunization Connect Ontario (ICON), an online application to track immunization records; and PHIX, a batch data upload tool. The Ministry is working on providing access to these tools for all 36 public health units.

The Ministry is focused on enabling health care providers to submit and recall immunization records through a version of ICON, directly integrated with electronic medical records (EMRs) and Panorama. The Committee heard that the primary challenge to real-time data entry is waiting for developers to build the right platforms. The Ministry is planning for regulatory amendments in 2018 to the *Immunization of School Pupils Act* to require health care providers to report immunizations to public health units.

The Auditor noted the Ministry's implementation of many recommendations is not moving quickly enough, given the importance of immunization to public health in the province. The Committee emphasized the critical importance of accomplishing the Auditor's recommendations in a timely fashion.

Complex Program Delivery Structure

The 2014 audit had recommended the Ministry review the delivery structure of the immunization program, including overall funding and the distribution of public funding to public health units.

The Committee heard that in 2015 the Ministry implemented a new public health funding model to improve accountability and transparency of provincial public health funding, align public health funding with other ministry funding approaches, and support a more equitable approach to public health funding. As a part of the modernization of Ontario Public Health Standards, the Ministry has established a committee to recommend a revised Public Health Accountability Framework which will outline the requirements for public health units reporting on activities and results, supporting enhanced transparency.

Cost and Reliability Concerns with New Information System

The 2014 audit had recommended the Ministry assess the current data completeness and accuracy deficiencies of Panorama. The Auditor had found that the Ministry had not conducted an analysis of the costs and benefits of implementing two of Panorama's modules. Further, the Auditor had noted that Panorama will not provide the data needed to identify low immunization-coverage rates until immunization information is entered by health-care providers at the time of vaccination.

The Committee asked the Ministry's timing and costs for bringing all modules online and including all Ontarians in the database. The Committee also asked who can input into the repository, if physicians and pharmacists can input real-time data, and family health teams are able to use batch mode transmission using the PHIX tool.

The Committee heard the Ministry has implemented two out of five modules, the immunization and inventory management models, in 36 public health units. The Panorama project had a budget of \$120 million from 2010 to March 31, 2016. The Ministry estimates \$14 million in additional operational costs per year for the current two modules.

The Ministry noted that of the 6.6 million Ontarians currently included in Panorama, the majority are school-aged children, but acknowledged the value of including all Ontarians in the repository. The Ministry indicated that it began by inputting school-age children and noted the repository's capability to house adult population records. The Ministry stated that public health units are primarily responsible for entering immunization records, and that some units have been inputting adult population data. While interdisciplinary teams have the capability to send records directly to Panorama, they are not doing so in all cases across the province.

The Committee heard that Panorama's immunization repository has been set up to accept transactions from electronic medical records (EMRs). The primary challenge for real-time data entry is waiting on EMR product vendors to make EMRs capable of sending real-time data. The Ministry noted that some EMR vendors are currently making product modifications, and awaiting the Ministry's final specifications in February 2018. The Ministry noted that in March 2018 health care providers will be able to enter and view immunization records through ICON, which will be integrated with EMRs and Panorama.

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

- 1. The Ministry of Health and Long-Term Care should make optimal use of Panorama by**
 - a) including all Ontarians' immunization data in the immunization repository;**
 - b) assessing the advantages and disadvantages of each Panorama module and calculating the costs associated with implementing additional modules; and**
 - c) establishing a specific timeline for individual physicians and pharmacists to enter real-time immunization data into Panorama.**
- 2. The Ministry of Health and Long-Term Care should provide a more detailed account of Panorama's current \$14 million annual operating budget, including Ministry spending on**

information and technology, maintenance, and research and development.

- 3. The Ministry of Health and Long-Term Care must confirm if, as planned, it finalized the specifications for product vendors in February 2018, and if health care providers were able to enter and view immunization records through ICON, as of March 2018. If either or both of these goals have not been accomplished, the Ministry must provide an explanation to the Committee.**

Better Tracking of Immunization Coverage Rates

In the 2014 audit, the Auditor recommended the Ministry establish provincial immunization target rates appropriate to Ontario's needs. The province uses national immunization target rates established by the Public Health Agency of Canada.

The Auditor explained to the Committee that the Province may adjust federal target rates if it is determined that a higher coverage rate is more appropriate to protect Ontario's herd immunity. Herd immunity is a form of protection from infectious disease that occurs when a large percentage of the population has been immunized. Further, the Province could add additional vaccinations, or track immunization coverage rates for specific age groups which differ from the federal categories (currently ages 2, 7, and 17). The Ministry stated it is currently in the process of reviewing the national vaccination coverage goals for applicability for Ontario.

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

- 4. The Ministry of Health and Long-Term Care should determine if national vaccination coverage goals are appropriate for Ontario and if they are suitable, should officially adopt them as Ontario's target coverage rates. If the goals are unsuitable, the Province should set provincial coverage rate targets.**
- 5. The Ministry of Health and Long-Term Care should determine if the federally determined tracking immunization rates for individuals aged 2, 7, and 17, are appropriate for Ontario's needs.**

Better Process Needed to Track and Address Low Immunization Coverage Rates for Children

The 2014 audit recommended the Ministry harmonize the exemptions process between daycare and schools, ensure parents who exempt their children from vaccinations for non-medical reasons are aware of the risks, and ensure public health units identify and address areas with low immunization coverage rates.

The Ministry noted it harmonized the exemptions process by amending the *Child Care and Early Years Act, 2014* as well as the *Immunization of School Pupils Act*

(ISPA). The changes to the ISPA also ensure parents who exempt their school children from vaccinations for non-medical reasons are required to complete an educational course.

The Committee asked about the frequency and content of Public Health Ontario's coverage reports, in particular, when the reports would include immunization coverage rates by schools and daycares.

The Ministry noted it has plans to report on immunization coverage rates by schools, and then daycares, and is currently in discussion with Public Health Ontario. The Committee heard the Ministry is concerned with protecting individuals' privacy and the integrity of the data.

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

- 6. The Ministry of Health and Long-Term Care should formally set a timeline by which it will collect and publish information for immunization coverage rates by schools and daycares.**
- 7. The Ministry of Health and Long-Term Care should ensure that childhood immunization coverage rates reach herd immunity levels by**
 - a) identifying specific communities or areas with low immunization coverage rates; and**
 - b) promoting and educating these communities or areas on the benefits of immunization.**

Better Process Needed for Vaccine-Preventable Disease Entering Canada

Refugees are considered higher risk than other immigrants due to a lack of previous healthcare and unmet medical needs. The 2014 Audit recommended exploring with the federal government the possibility of providing immigrants the opportunity to receive vaccinations before arriving in Ontario.

The Committee asked about challenges in ensuring that refugees, immigrants, or certain minority communities are immunized.

The Ministry responded that it depends on a refugee's status, for example whether they are federally sponsored, at the time of entry into Canada. The Ministry stated it has started conversations with Immigration, Refugees and Citizenship Canada (IRCC), and the Ministries of Citizenship and Immigration, and International Trade to find opportunities to provide resources to immigrants before their arrival in Ontario. The provincial ministries have agreed to distribute Ministry of Health and Long-Term Care materials to newcomers.

The Committee urges the Ministry to follow up with the federal government and endorses providing refugees with access to free immunization prior to entry into the country.

Improved Promotion of Immunization

The 2014 audit recommended the Ministry

- work with the College of Physicians and Surgeons of Ontario to ensure that physicians have access to clinical and technical evidence on vaccines;
- determine if targeted bonus payments to certain physicians are effective in encouraging higher vaccination rates; and
- consider a more coordinated approach with public health units on public education regarding vaccines.

The Ministry and Public Health Ontario have developed communication materials to assist health care providers when offering information to patients. Further, the Ministry and Public Health Ontario have developed public education materials, including a webpage, with information about immunization.

The Committee asked what efforts the Ministry is currently contributing towards diminishing vaccine hesitancy amongst parents and individuals. Vaccine hesitancy is the delay in acceptance or the outright refusal of vaccines despite their availability. The Committee heard the Ministry is taking an educational approach to overcoming vaccine hesitancy. With funding from the Public Health Agency of Canada, the Ministry is working to replace the traditional yellow-card immunization tracking document with the CANImmunize digital tool to keep track of personal and family immunization records on smartphones.

The Ministry stated it had conducted a review of research studies and concluded there is little evidence to support that the incentive payments to physicians result in higher vaccination rates. The Committee heard that bonuses paid to physicians for providing preventative care (including vaccinations) were negotiated with the Ontario Medical Association (OMA). The Ministry stated as of November 1, 2017, it was in discussions with the OMA regarding a new Physician Services Agreement.

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

- 8. The Ministry of Health and Long-Term should continue to advance the most effective practices to combat vaccine hesitancy and learn from other jurisdictions' best practices.**
- 9. The Ministry of Health and Long-Term Care should optimize the CANImmunize tool by**
 - a) integrating the CANImmunize data to the Panorama data; and**
 - b) increasing the number of Ontarians who utilize CANImmunize to monitor and track their own or their family's vaccinations.**

- 10. The Ministry should ensure that incentives paid to physicians to improve immunization rates are evidence-based and achieve the desired outcome.**

Cost-Benefit Analysis of Federally Recommended Vaccines

The Auditor found the Ministry has still not adopted a consistent process for examining the costs and benefits of publicly-funded vaccines in Ontario. The 2014 audit had recommended that the Ministry investigate and analyze cases when the vaccination costs are less than the health-care costs of treating people who acquire vaccine-preventable diseases.

The Ministry stated it is currently waiting for the National Advisory Committee on Immunization (NACI) to complete the process of expanding its mandate to include an assessment of factors to consider when making evidence-based recommendations. Once NACI has completed this process, the Ministry can implement a formalized analysis process.

Committee Recommendation

The Standing Committee on Public Accounts recommends that:

- 11. The Ministry of Health and Long-Term Care should develop and establish a consistent process for conducting a cost-benefit analysis of vaccines and report the time frame for the NACI's and the Province's cost-benefit process to the Committee.**

Better Oversight of Influenza Immunization Program

The 2014 audit recommended that the Ministry consider requiring hospital staff to either be immunized against influenza or wear a mask.

The Committee asked if the Ministry has obtained evidence on the efficacy of the influenza vaccine in reducing the transmission of influenza from hospital staff to patients. Further, it asked what steps are being taken by the Ministry to prevent the spread of influenza in hospitals.

The Ministry responded that it will not now be developing legislation to require a "vaccine or mask" policy in Ontario hospitals since further research is necessary. The Ministry currently encourages hand washing to prevent and control the spread of influenza in hospitals.

The Ministry described additional options it is exploring to monitor health care worker (HCW) influenza:

- introduce public reporting of HCW influenza;
- incorporate HCW influenza immunization initiatives into the Universal Influenza Immunization Program (UIIP), the annual flu shot program offered by the Ministry that provides the influenza vaccine free of charge;

-
- incorporate HCW influenza prevention into broader ministry initiatives;
 - standardize and improve the quality of HCW influenza immunization coverage data; and
 - recognize and support hospitals and long-term care homes that are improving their HCW influenza immunization coverage rates.

Improve Influenza Vaccine Program

The Auditor found the Ministry had not performed an analysis, as recommended in the 2014 audit, to determine the reasonableness of the fee paid to pharmacists for providing vaccinations. Further, the audit had recommended the Ministry review and revise its claims payment system that rejects billings for patients who already received their influenza vaccine.

The Committee asked about the rate paid to health care providers to administer the influenza vaccination. It heard that physicians are paid \$10 to administer the influenza vaccination and pharmacists are paid between \$7 and \$7.50. The Committee asked for further clarification on this matter.

The Ministry stated it has now assessed the reasonableness of the rate paid to different health care providers, including pharmacists, and determined the pharmacists' fee is justified. The Ministry noted that 1.2 million out of 4.3 million doses of the influenza vaccine are administered via pharmacies. The Committee heard that in some cases, individuals may require two doses of influenza vaccine. As a result, the Ministry stated it does not have plans to reject claims related to two influenza billings for the same patient in the same year.

Better Tracking of Adverse Events Following Immunization

The 2014 audit recommended that the Ministry

- collaborate with Public Health Ontario to require that when administering vaccinations, health-care providers give patients standardized information about which adverse events (reactions) should be reported;
- collect information on health-care providers who have administered vaccines with adverse events; and
- follow up on areas with unusual trends.

The Ministry reported that it has worked with Public Health Ontario to develop a fact sheet to provide parents with information on how to identify an adverse reaction. The Ministry is currently waiting for approval of revisions to the *Health Protection and Promotion Act* that would allow the collection of information on health care providers who administer vaccines with adverse events. The Committee heard that a Public Health Accountability Framework is currently being developed that includes guidelines for tracking areas with adverse events following immunization. In November 2016 Public Health Ontario published public health unit-specific adverse events reporting rates for the first time.

Committee Recommendations

The Standing Committee on Public Accounts recommends that:

- 12. The Ministry of Health and Long-Term Care should immediately begin developing a plan for collecting and tracking information on the health-care providers who administer vaccines with adverse events.**
- 13. The Ministry of Health and Long-Term Care and Public Health Ontario should develop and implement an official strategy for following up on adverse events following immunization once the Public Health Accountability Framework is finalized in January 2018.**

Better Oversight of Vaccine Wastage

The 2014 audit recommended that the Ministry implement processes to ensure the number of vaccines ordered is reasonable, revise minimum standards for refrigeration used to store vaccines, and review vaccine wastage by health care providers.

The Committee asked what information has been gathered from public health units about vaccine wastage in physicians' offices; the percentage of wastage for the measles, mumps, and rubella vaccines; and the number of unannounced inspections of physicians' offices.

The Committee heard that Panorama's inventory management module has played a large role in tracking vaccine wastage. The Ministry estimates it has a 6%-7% level of vaccine wastage overall, and below 10% for the vaccines for measles, mumps and rubella. The Ministry noted it is not its practice to conduct unannounced visits but would conduct an unannounced visit if the premises had previously been non-compliant with storage and handling requirement. The Ministry noted this is a new requirement that comes into force with the new Public Health Ontario Standards on January 1, 2018.

The Ministry indicated that regulatory amendments are being developed to the *Immunization of School Pupils Act* that will provide additional data to assess vaccine inventories and ordering. The modernization of the Ontario Public Health Standards and its protocols, which would revise standards for fridges and thermometers as well as vaccine wastage, was scheduled to take effect January 1, 2018.

Committee Recommendation

- 14. The Ministry of Health and Long-Term Care should examine best practices from other provinces and jurisdictions with a view to decreasing vaccine wastage.**

CONSOLIDATED LIST OF COMMITTEE RECOMMENDATIONS

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 - c) establishing a specific timeline for individual physicians and pharmacists to enter real-time immunization data into Panorama.**
- 2. The Ministry of Health and Long-Term Care should provide a more detailed account of Panorama's current \$14 million annual operating budget, including Ministry spending on information and technology, maintenance, and research and development.**
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- 6. The Ministry of Health and Long-Term Care should formally set a timeline by which it will collect and publish information for immunization coverage rates by schools and daycares.**
- 7. The Ministry of Health and Long-Term Care should ensure that childhood immunization coverage rates reach herd immunity levels by**
 - a) identifying specific communities or areas with low immunization coverage rates; and**

