

**Report to
Rapport au:**

**Ottawa Board of Health
Conseil de santé d'Ottawa
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**Submitted by
Soumis par:**

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Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE File Number: ACS2018-OPH-HPP-0006

SUBJECT: OTTAWA PUBLIC HEALTH'S VACCINATE OTTAWA TOGETHER PLAN

**OBJET: PLAN VACCINONS OTTAWA ENSEMBLE DE SANTÉ PUBLIQUE
OTTAWA**

REPORT RECOMMENDATIONS

That the Board of Health for the City of Ottawa Health Unit:

- 1. Receive, for information, an update on the 2015 multi-phase immunization strategy, as described in this report; and**
- 2. Approve OPH's Vaccinate Ottawa Together plan to increase the uptake of publicly-funded vaccines in Ottawa, as outlined in this report.**

RECOMMANDATIONS DU RAPPORT

Que le Conseil de santé de la circonscription sanitaire de la ville d'Ottawa :

- 1. prenne connaissance de la version modifiée de la stratégie d'immunisation en**

plusieurs étapes de 2015, décrit dans ce rapport; et

2. approuve le plan **Vaccinons Ottawa ensemble de SPO**, qui vise à augmenter le taux de vaccination financée par le secteur public à Ottawa, tel que mentionné dans le présent rapport.

EXECUTIVE SUMMARY

In June 2015, the Board of Health approved a multi-phase immunization strategy aimed at strengthening the annual review of immunization records of all children and youth attending schools and licensed childcare centres; identifying best practices for serving residents who are under-immunized and at greater risk for vaccine preventable diseases; and expanding promotion of immunization for all ages.

Over the past three years, Ottawa Public Health (OPH) has made progress on its immunization strategy, particularly in strengthened surveillance. Since 2015, OPH has conducted yearly reviews of all Ottawa students' immunization records. Ottawa's immunization coverage rates for diseases required under the *Immunization of School Pupils Act* (ISPA) have increased over the past three years and are above the provincial average. This increase in compliance may be attributed to enhanced use of technology to report, increased public awareness, and increased access to vaccines through the OPH Immunization Centre. OPH will continue to address new provincial legislative requirements through consultation and support of affected community partners.

While Ottawa has a higher than provincial average for immunization coverage rates, there are subpopulations with lower-than-average rates. To improve vaccine uptake, and address inequities, OPH is now proposing to focus on three key priorities; capturing and analyzing data for better understanding of under-vaccinated populations; collaborating with partners to support the immunization of communities facing health inequities; and providing health promotion messaging to Ottawa residents about immunization.

RÉSUMÉ

En juin 2015, le Conseil de santé a approuvé une stratégie d'immunisation en plusieurs étapes qui visait à renforcer l'examen annuel des dossiers d'immunisation de l'ensemble des enfants et des jeunes fréquentant une école ou un centre de garde agréé; à cerner les pratiques exemplaires en matière de prestation de services aux personnes insuffisamment immunisées ou à risque de maladies évitables par la vaccination; et à promouvoir davantage l'immunisation à tout âge.

Au cours des trois dernières années, Santé publique Ottawa (SPO) a fait des progrès dans la mise en œuvre de sa stratégie, surtout sur le plan de la surveillance. Depuis 2015, SPO a examiné chaque année les dossiers d'immunisation des élèves de la région. À Ottawa, les taux d'immunisation contre les maladies visées par la *Loi sur l'immunisation des élèves* ont augmenté jusqu'à dépasser les moyennes provinciales. Cette hausse de la conformité pourrait être attribuable à divers facteurs, comme un recours accru à la technologie servant à consigner les renseignements sur l'immunisation, une plus grande sensibilisation du public et un meilleur accès aux vaccins grâce au Centre d'immunisation de SPO. SPO continuera d'ailleurs à se conformer aux nouvelles exigences législatives provinciales en effectuant des consultations et en appuyant ses partenaires communautaires touchés par ces nouvelles exigences.

Bien que les taux d'immunisation à Ottawa soient supérieurs à la moyenne provinciale, certaines sous-populations affichent des taux inférieurs à la moyenne. Pour augmenter ces taux et remédier aux inégalités, SPO propose maintenant de miser sur trois grandes priorités : recueillir et analyser des données pour mieux comprendre les populations insuffisamment vaccinées; collaborer avec des partenaires pour favoriser l'immunisation des communautés aux prises avec des inégalités en matière de santé; et transmettre des messages de promotion de la santé aux résidents d'Ottawa au sujet de l'immunisation.

BACKGROUND

In 2014, Ottawa Public Health (OPH) adopted a strategic plan for 2015-2018, which included the strategic direction "Enhance Collective Capacity to Reduce Preventable Infectious Disease."¹ This strategic direction included a focus on increasing immunization coverage rates and reported coverage rates.

In June 2015, the Board of Health approved a multi-phase immunization strategy that aimed at strengthening the annual review of immunization records of all children and youth attending schools and licensed childcare centres; identifying best practices for serving residents who are under immunized and at greater risk for vaccine preventable diseases; and expanding promotion of immunization for all ages.

In December of 2015, the Ministry of Health and Long-Term Care launched *Immunization 2020 - Modernizing Ontario's Publicly Funded Immunization Program*, a roadmap aimed at strengthening Ontario's publicly funded immunization program. A number of the priorities set out in this program align with OPH's immunization strategy, most notably, the province's commitment to developing targeted health equity

approaches for vulnerable communities and their commitment to advance the provincial immunization registry.

At its meeting of June 19, 2017, the Board of Health received a report titled *Update on Ottawa Public Health's Immunization Strategy*, which provided an update on the implementation of OPH's multi-phased immunization strategy. The purpose was to provide further updates to the Board on new provincial requirements and actions taken since June 2015 with respect to OPH's multi-phased immunization strategy.

On September 18, 2017, the Ottawa Board of Health received a second report titled *Update on Ottawa Public Health's Immunization Strategy*, further detailing the progress made^[1] on implementing phase 1, new provincial legislative requirements, and new partnerships to address health inequities in immunization in our community.

DISCUSSION

Recommendation 1 – Receive, for information, an update on the 2015 multi-phase immunization strategy, as described in this report

Since September 2017, OPH has implemented new provincial requirements and technological advancements, including:

- Facilitated the distribution of new vaccines under the publicly funded immunization program (shingles and high potency influenza for older adults);
- An online reporting tool for parents to report and view their child's immunizations (33 259 immunizations submitted to date by 6 468 clients and 8 845 immunization yellow cards retrieved);
- Support to licensed childcare providers in implementing the new provincial infection prevention and control protocol, which includes assisting licensed childcare providers to maintain up-to-date immunizations records for children and licensed childcare staff;² and
- Offering parental education sessions for non-medical exemptions³.

OPH is also preparing to implement amendments to the *Immunization of School Pupils Act* (ISPA) which, as of July 1, 2018, will require health care practitioners administering immunizations to a child to report this information to their local health unit. OPH is awaiting further Ministry of Health and Long Term Care (MOHLTC) information about the requirements and is consulting with key local health care practitioners on how to assist them with this new reporting requirement.

Every Child, Every Year: Strengthening the Annual Review of Immunization Records of all Children and Youth

Since 2015, OPH has conducted yearly reviews of the immunization records of all Ottawa students in all grades.⁴ This verification of records allows OPH to identify the students who are under-immunized and who may be at risk in a disease outbreak situation in order to take protective action. With the implementation of Ottawa's multi-year strategy, reported local immunization coverage rates for tetanus, diphtheria, pertussis, poliomyelitis, measles, mumps, rubella, varicella and meningococcal have increased and are above the provincial average. The increase in compliance may be largely attributed to the enhanced use of technology and increased public awareness of the requirement to report immunization to the health unit as well as OPH's review of every child's immunization records every year. A full list of Ottawa's coverage rates for 7 and 17 year olds is outlined in Document 1.

In implementing the new childcare immunization plan, OPH is assisting over 250 licensed day cares with the development of their policies and procedures for maintaining immunization records as well as with the assessment of children's immunization records.

Reducing Inequities: Serving residents who are under-immunized

A component of OPH's multi-phase immunization strategy is to increase the uptake of vaccine in areas where there are under-vaccinated populations. While immunization coverage rates for ISPA vaccines (tetanus, diphtheria, pertussis, poliomyelitis, measles, mumps, rubella, varicella and meningococcal) are higher in Ottawa than the provincial average⁵, improvements are needed to reach the Canadian 2025 Vaccination Coverage Goals⁶. Further, there are subpopulations in Ottawa that have lower-than-average immunization coverage rates. OPH's work in this area has included improving access and providing immunizations to newcomers living in shelters.

OPH's Immunization Centre provided 8 790 doses of vaccines in 2017 to individuals who either had no health care provider or who had limited access to a health care provider. According to a recent voluntary demographic questionnaire, families who attended the clinic identified as follows⁷:

- Approximately 2/3 (66%) were not born in Canada. Almost half of respondents not born in Canada (49%) arrived in Canada in the past five years.
- Almost one quarter (22%) identified a language other than French or English as

their preferred language for communicating with a health care provider. Other than French or English, Arabic (5%) and Mandarin (4%) were identified as preferred languages most often.

- About half (51%) reported having a low income, based on the Low Income Measure – before tax.

Providing immunizations to newcomers living in shelters

Evidence demonstrates that newcomers to Canada are often under-immunized. They face specific challenges to receiving vaccinations due to language, lack of records and limited access to a health care provider.^{8 9}

In the last few years, Ottawa has seen an increase in the number of refugees, both government assisted refugees (GARs) and refugees seeking asylum. However, gathering local Ottawa immunization data of newcomers has been challenging. To eliminate barriers for this population to receive vaccinations, OPH has continued to work with the Centretown Community Health Centre and the YMCA to assess newcomers' immunization records and to provide vaccines for these individuals.

Expanding promotion of immunization

OPH uses social media to engage parents and others in discussions about vaccines, to promote vaccine safety and effectiveness, and to promote OPH's immunization services. In addition, OPH provides information to health care providers regarding vaccines and their availability. Some providers have expressed interest in learning more about best practices to promote vaccination to their patients.

Recommendation 2 - Approve OPH's Vaccinate Ottawa Together plan to increase the uptake of publicly-funded vaccines in Ottawa, as outlined in this report.

Although universal immunization programs exist in Ontario, there are populations with lower immunization rates. Based on the literature, several factors may contribute to under immunization. While local, provincial and national data is limited, the populations or groups identified (in the literature from other countries) as being more likely to be under-vaccinated are individuals belonging to mixed ethnicity^{10 11 12 13}, newcomers, children not attending traditional school settings¹⁴, and individuals belonging to certain religious communities^{15 16} or cultural groups. Increased maternal age¹⁷, having multiple children^{18 19 20}, having a marital status as common-law, and being a single parent have also been associated with lower vaccination rates^{21 22}.

To improve vaccine uptake in Ottawa, OPH is proposing to focus on three key priorities. The proposed plan, based on a population health approach, aims to improve the health of the entire population and to reduce inequities to receiving vaccines among community groups²³.

1. Capture and analyze data for a better understanding of under vaccinated populations

Currently there is limited local data on the reasons why some parents choose not to or are unable to vaccinate their children and/or report the vaccines to OPH. To address this gap and better understand the reasons for not receiving or reporting vaccines, OPH will engage with parents through focus groups and a parent advisory committee.

OPH will also increase monitoring and tracking of local population health data related to vaccination coverage and barriers to help inform future and ongoing targeted interventions.

As well, OPH will strive to learn about other under-vaccinated groups, including individuals who are considered at risk according to the publicly funded schedule (i.e. residents with chronic health conditions, people requiring shingles).

2. Collaborate with partners to support the immunization of communities facing health inequities

OPH has many partners that currently provide immunization to residents. By leveraging these partnerships and working together, we will enable Ottawa residents to receive the recommended immunizations as per the Ontario schedules for publicly-funded vaccines²⁴.

OPH will continue to work closely with childcare operators, school boards, school administrators and multicultural liaison officers to gain a better understanding of the systemic barriers to vaccination and vaccine reporting. OPH will also work with these partners to plan and deliver immunization services that meet the community's needs.

In addition, OPH will work collaboratively with its health care provider partners to increase the offer and uptake of publicly-funded vaccines available to groups at higher risk of disease (e.g., pneumococcal vaccine, HPV vaccine, influenza).

Finally, OPH will consult with health care providers to assess how OPH can best support them to vaccinate their patients and to implement the new provincial requirement to report all immunization records to the local health unit. This requirement, which seeks to increase connections among the health care system, will

potentially increase workload for health care providers (and OPH), as more immunization records will be submitted. For example, OPH expects to receive at least 72,000 records for ISPA-related vaccines for children entering kindergarten this year; information has not previously been collected for all pre-school children.

3. Communicate health promotion messaging to Ottawa residents about immunization

Under provincial legislation, a statement of medical exemption or a statement of conscience or religious belief is required from any parent who does not have their child vaccinated. In Ottawa, over 4 860 students have an exemption on file for one or more vaccines and just over half of these exemptions (53%) are for philosophical reasons.²⁵

Vaccine hesitancy refers to a delay in acceptance or a refusal of vaccination despite availability. Vaccine hesitancy is influenced by a number of factors, including: information/knowledge about the vaccine; past personal or close family/friend experiences with vaccinations; and perceptions about vaccine importance and risk. OPH is working to gain a better understanding of the residents who are vaccine hesitant in Ottawa.

To address residents' concerns about vaccines, and to increase uptake of immunization as a way to stay healthy at all ages, OPH will develop a comprehensive communications campaign. The campaign will use information gathered from parents and other clients, local data and the literature, to promote immunization, increase knowledge about immunization, and dispel myths about vaccines.

By focusing efforts and resources in these key areas, OPH is likely to shift Ottawa further towards the goals of *Immunization 2020 - Modernizing Ontario's Publicly Funded Immunization Program*: An informed and confident public regarding immunization, residents receive high quality immunization services and immunization programs are evidence-informed.

RURAL IMPLICATIONS

There are no rural implications associated with this report.

CONSULTATION

Consultation has been undertaken and continues to be undertaken with clients, partners and stakeholders as described in this report.

LEGAL IMPLICATIONS

There are no legal impediments to receiving the information described in recommendation 1 of this report and no legal impediments to implementing recommendation 2.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated with this report.

FINANCIAL IMPLICATIONS

There are no direct financial implications associated with this report.

ACCESSIBILITY IMPACTS

There are no direct accessibility impacts associated with this report.

SUPPORTING DOCUMENTATION

Document 1: Immunization Coverage Estimates for School Pupils in Ottawa

DISPOSITION

Staff will implement the Vaccinate Ottawa Together plan, as described in this report.

- ¹ Ottawa Public Health. (2015). Ottawa Public Health Strategic Plan 2015-2018.
- ^[1] Ottawa Public Health. (2017). Update on Ottawa Public Health's Immunization Strategy. Presented to the Board of Health September 2017.
- ² Ministry of Health and Long-Term Care. (2018). Infection Prevention and Control Protocol, 2018. Retrieved from http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/protocols_guidelines/Infection_Prevention_And_Control_Protocol_2018_en.pdf on May 16th, 2018
- ³ Ministry of Health and Long-Term Care. (2017). Immunization of School Pupils Act, R.S.O. 1990, c.1.1. Retrieved from <https://www.ontario.ca/laws/statute/90i01> on May 16th, 2018
- ⁴ Ottawa Public Health. (2018). Data from 2017/2018 surveillance.
- ⁵ Public Health Ontario. (2017). Immunization Coverage Report: Data Tables Preview. Health Unit: Ottawa Public Health.
- ⁶ Government of Canada. (2018) <https://www.canada.ca/en/public-health/services/immunization-vaccine-priorities/national-immunization-strategy/vaccination-coverage-goals-vaccine-preventable-diseases-reduction-targets-2025.html#1.0>
- ⁷ Ottawa Public Health Epidemiology Data. (2018). SDOH Survey at Constellation Immunization Clinic.
- ⁸ Wilson, L., Rubens-Augustson, T., Murphy, M., Jardine, C., Crowcroft et al. (2018). Barriers to immunization among newcomers: A systematic review. *Vaccine*. (36): 1055-1062. doi: 10.1016/j.vaccine.2018.01.025
- ⁹ James, Lynsey. YMCA health needs – Debrief on year end initiatives meeting minutes; 2017 May 26; Ottawa, ON
- ¹⁰ Fisher, H., Audrey, S., Mytton, J.A., Hickman, M. & Trotter, C. (2013). Examining inequalities in the uptake of the school-based HPV vaccination programme in England: a retrospective cohort study. *Journal of Public Health*. 36(1): 36-45. doi: 10.1093/pubmed/fdt042.
- ¹¹ Fisher, H., Trotter, C.L., Audrey, S., MacDonald-Wallis, K & Hickman, M. (2013). Inequalities in uptake of Human Papillomavirus Vaccination: a systematic review and meta-analysis. *International Journal of Epidemiology*. 42. 896-908. Doi:10.1093/ije/dyt049
- ¹² Gallagher, K.E., Kadokura, E., Eckert, L.O., Miyake, S., Mounier-Jack, S. et al. (2016). Factors influencing completion of multi-dose vaccine schedules in adolescents: a systematic review. *BMC Public Health*. (16): 172. doi: 10.1186/s12889-016-2845z
- ¹³ Holman, D.M., Benard, V., Roland, K., Watson, M., Liddon, N. (2014). Barriers to Human Papillomavirus Vaccination Among US Adolescents. *JAMA Pediatrics*. 168(1): 76-82. doi: 10.1001/jamapediatrics.2013.2752.
- ¹⁴ Fisher, H., Audrey, S., Mytton, J.A., Hickman, M. & Trotter, C. (2013). Examining inequalities in the uptake of the school-based HPV vaccination programme in England: a retrospective cohort study. *Journal of Public Health*. 36(1): 36-45. doi: 10.1093/pubmed/fdt042.
- ¹⁵ Fournet, N., Mollema, L., Ruijs, W.L., Harmsen, I.A., Keck, F. et al. (2018). Under-Vaccinated groups in Europe and their beliefs, attitudes and reasons for non-vaccination; two-systematic reviews. *BMC Public Health*. (18)196. doi: 10.1186/s12889-018-5103-8. ¹⁵
- ¹⁶ Holman, D.M., Benard, V., Roland, K., Watson, M., Liddon, N. (2014). Barriers to Human Papillomavirus Vaccination Among US Adolescents. *JAMA Pediatrics*. 168(1): 76-82. doi: 10.1001/jamapediatrics.2013.2752.
- ¹⁷ Zhang, J., Ohinmaa, A., Nguyen, T.H., Mashinter, L., Hanrahan, A. et al. (2008). Determinants for immunization coverage by age 2 in a population cohort in the Capital Health region, Edmonton Alberta. Government of Canada Communicable Disease Report. Retrieved: <https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2008-34/34-09/determinants-immunization-coverage.html> on April 16th 2018.
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¹⁹ Marcia de Cantuaria Tauil, Ana Paula Sayuri Sato, Eliseu Alves Waldman. (2016). Factors associated with incomplete or delayed vaccination across countries: A systematic review. 34: 2635-2643. doi: 10.1016/j.vaccine.2016.04.016.

²⁰ Kim, S.S., Frimpong, J.A., Rivers, P.A. & Kronenfeld, J.J. (2007). Effects of Maternal and Provider Characteristics on Up-to-Date Immunization Status of Children Aged 19-35 Months. American Journal of Public Health. 97(2): 259-266.

²¹ Zhang, J., Ohinmaa, A., Nguyen, T.H., Mashinter, L., Hanrahan, A. et al. (2008). Determinants for immunization coverage by age 2 in a population cohort in the Capital Health region, Edmonton Alberta. Government of Canada Communicable Disease Report. Retrieved: <https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2008-34/34-09/determinants-immunization-coverage.html> on April 16th 2018.

²² Kim, S.S., Frimpong, J.A., Rivers, P.A. & Kronenfeld, J.J. (2007). Effects of Maternal and Provider Characteristics on Up-to-Date Immunization Status of Children Aged 19-35 Months. American Journal of Public Health. 97(2): 259-266.

²³ Public Health Agency of Canada. (2013). What is the Population Health Approach? Retrieved from https://www.canada.ca/en/public-health/services/health-promotion/population-health/population-health-approach/what-population-health-approach.html#key_elements on May 17th, 2018

²⁴ Ontario Ministry of Health and Long-term Care. 2016. *Publicly Funded Immunization Schedules for Ontario*. Catalogue No. 019715 (PDF) December 2016 © Queen's Printer for Ontario 2015

²⁵ Ottawa Public Health Epidemiology Data. (2018). Exemptions in Ottawa.