



INFORMATION REPORT

TO:	Mayor and Members Board of Health
COMMITTEE DATE:	September 18, 2017
SUBJECT/REPORT NO:	Strategies to Promote Vaccination and Address Vaccine Hesitancy (BOH17033) (City Wide)
WARD(S) AFFECTED:	City Wide
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Council Direction:

The Board of Health, at its meeting on February 8, 2017, approved the following motion: "That Public Health Services staff bring a report to the Board of Health by September 18, 2017 meeting, describing strategies to promote vaccination and address vaccine hesitancy."

Information:

Maintaining high levels of vaccination coverage in the population is crucial for maintaining herd immunity at the population level and preventing the spread of vaccine

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

preventable diseases. Ongoing work is required to ensure community awareness of the benefits of vaccination.

Vaccination is one of the most effective public health interventions. Due to the use of vaccines, the number of cases of, and the number of deaths due to vaccine preventable diseases in Canada and worldwide has decreased. With vaccination successfully controlling or eliminating many previously common diseases, concerns among some have shifted from the risks of these diseases to the risks of vaccines.¹ The World Health Organization (WHO) Strategic Advisory Group of Experts Working Group on Vaccine Hesitancy has defined vaccine hesitancy as a “delay in acceptance or refusal of vaccines despite availability of vaccine services”².

The scientific evidence on the benefits of vaccination is clear; however, sometimes groups and/or individuals portray vaccination in a negative manner in both traditional and social media. In some cases, the potential risks from vaccines are seen as immediate, tangible threats whereas risks of the diseases prevented by vaccination are seen as vague and unlikely³. A lack of understanding of health issues often involves misunderstanding and misinterpretation of health evidence⁴.

While online resources are widely available for education on vaccination and other health topics, distinguishing between accurate and inaccurate information can be difficult. Both pro-vaccine and vaccine hesitant groups encourage parents to become educated about vaccinations; however, each group promotes different resources as accurate and relevant.

Vaccine hesitancy is a complex issue, driven by, and associated with, a variety of factors including socioeconomic status, parental education, access to vaccinations, and context. There is no universal algorithm to predicting vaccine hesitancy. Given the complexity of the issues, research has shown that both local and global approaches are required to address vaccine hesitancy.⁵

Data on Vaccination Uptake

Most Canadian parents choose to have their children receive all recommended vaccines which is reflected by overall high rates of childhood immunization rates across Canada⁶. According to the results of the last Childhood National Immunization Coverage Survey (CNICS), only 1.5% of children in Canada have never received a vaccine⁷.

Local data shows that of the 82,000 students registered in Hamilton schools, only 1,400 of these students have not received vaccinations due to a statement of conscientious objection or religious belief. This represents 1.7% of the school age population which is comparable to the national immunization coverage survey for children who have not received vaccine, and has remained stable over time in Hamilton.

Factors Influencing Vaccine Uptake

While the media often attributes lack of vaccine uptake to an increase in anti-vaccination rhetoric amongst the general public, this is not necessarily the case. Many other factors influence the uptake of vaccination including access to vaccinations, lack of information, concern about vaccine safety and pain. Under-reporting of vaccinations to public health also impacts reported vaccination coverage in the population.

a) Vaccine Safety

Vaccines are among the safest tools of modern medicine. The vast majority of side effects from vaccines are minor and temporary, such as a sore arm or mild fever.⁸ In Canada, serious side effects occur very rarely. The estimated annual reported rate of anaphylaxis ranges from 0.4 to 1.8 reports per 1,000,000 doses of vaccine distributed in Canada.⁸

Studies of parents' concerns regarding vaccinations report that among parents opposed to and supportive of vaccines, their major concerns are around issues of vaccine safety and effectiveness, with many wanting very detailed information on vaccines (e.g., vaccine ingredients, testing, short and long-term side effects, etc.).⁹ This highlights the vital importance of including vaccine safety messaging in health communication materials.

b) Pain

Vaccinations can be a source of distress for individuals of any age, as well as for the health care provider. If not addressed, the pain and anxiety associated with vaccinations can increase fears, which could potentially lead to avoidance of future medical procedures and lack of adherence to vaccination schedules.

c) Multiple Injections

According to Ontario's immunization schedule most childhood visits for vaccines, require multiple injections at one time, which raises concerns among some parents and providers about pain experienced by the child, worry about potential side effects, and uncertainty about vaccine effectiveness.

d) Source of Information

Research has shown that parents want more information regarding vaccinations and a lack of information can lead to worry and regret about vaccination decisions¹⁰. Parents seek the following information regarding vaccines:

- Unbiased, balanced information describing the benefits and harms related to vaccinations;
- Clear, accurate and accessible vaccine information (e.g., distributed through a variety of locations, including outside health services); and,
- Timely information before each vaccination appointment.

Canadian parents still consider health care providers as their most trusted sources of information and advice about vaccination; therefore, the recommendations of health care providers are a major driver of vaccine acceptance¹¹.

e) Communication

Effective communication with parents about childhood vaccinations can influence vaccination uptake.

There is no universal approach to vaccine promotion. A wide variety of strategies, information and media are required to successfully meet the needs of all stakeholders and have positive influences.

PHS Strategies to Increase Vaccination Uptake

1) Reporting and Monitoring

a) Screening of Immunization records

The vaccine program screens vaccine records of students attending school in Hamilton to ensure students are up to date with their vaccinations according to Immunization School Pupils Act (ISPA). Screening letters are sent to parents/students whose records are not up to date at PHS. This letter reminds parents to report vaccine records to PHS. Suspension orders are sent to parents/students who have not updated PHS after receiving a screening letter.

b) Child Care Centres

The Medical Officer of Health ensures that operators of child care centres receive annual recommendations with respect to immunizations required for enrollment and attendance. As well, PHS provides assistance with assessing and maintaining records of the immunization status of attendees.

c) Immunization Reporting to PHS

In an effort to increase the ease of reporting vaccinations, the MOHLTC has developed Immunization Connect Ontario (ICON) which is an online reporting tool for vaccinations. PHS uses ICON and has their own uniquely branded web site for local clients to report on: www.hamilton.ca/reportingvaccines

d) Vaccine Safety

Vaccine safety concerns are taken very seriously by PHS and the public health system in Ontario, Canada and internationally. For this reason, PHS has multiple overlapping systems that review the different components involved with vaccine safety. One example would be the mandatory adverse event following

immunization-reporting process. All adverse events following immunization are tracked locally as well as at the provincial and national levels.

2) Communications and Resources

a) Multilanguage Insert:

- PHS communications to the public, regarding vaccinations, often include a multi-language insert that prompts the reader to get help with reading the information if English is not their first language.
- Almost all forms at PHS Vaccine Program are translated into French.

b) Grade 7 Student Communications:

PHS provides clear, non-biased vaccine information and resources to Grade 7 students and their parents which include:

- “Priming Information” is sent home with grade 6 students in the spring. This includes a parent letter and facts sheets about the vaccines that are going to be offered in grade 7.
- “Student Resource Postcards” are sent home with grade 7 students in the fall. This resource provides a link to the *Student Information* webpage found on the City of Hamilton website.
- Posters that promote the grade 7 vaccines are sent to schools in the fall. These posters are placed outside the grade 7 classrooms.

c) Vaccine consent forms and fact sheets:

- These resources are distributed to the grade 7 students in September in advance of school clinic.

d) Access to Information

- Our City website provides detailed information on vaccine related topics for parents.
- A vaccine program info line is available for the public daily (8:30am – 4:30pm),
- PHS has also partnered with other local health units to develop and promote vaccine awareness videos.

3) Physician Outreach Strategies:

As the research states, physicians and other health care providers are the most trusted source for vaccine information. PHS is committed to providing these stakeholders with the most up-to-date and important vaccine information, so that they can keep their patients informed. Some of the ways PHS does this are:

a) Vaccine Notification “tear off” Pads:

“Parents Must Notify Public Health” chits/tear off pads are distributed to health care provider offices and distributed to parents when their child is vaccinated to remind parents to report all vaccinations to PHS via: online, phone, mail, fax, in person.

b) Health Professionals Webpage:

PHS’ website has a *Health Professionals* section that provides information about vaccine ordering, cold chain, adverse events following immunization, and vaccination schedules.

4) Public Health Service Provision

a) Community Clinics:

PHS offers vaccination clinics at multiple locations in the Hamilton area. Clients can schedule clinic appointments without a referral or health card.

b) School Clinics:

PHS offers Hepatitis B, Meningococcal A, C, Y, W-135 and Human papillomavirus vaccinations to all grade 7 students attending school in the Hamilton area.

5) Collaboration with Stakeholders

a) School Board Collaboration:

PHS collaborates with Hamilton school boards in organizing, implementing and evaluating school based vaccination clinics and in developing health promotion campaigns.

b) School Screening and Suspension process:

PHS collaborates with principals regarding the specific suspension process dates, how to prevent students from being suspended and how to get students compliant with ISPA regulations.

c) Principal Communications:

Regarding the grade 7 school vaccines clinics, letters are sent to school principals to inform them of the grade 7 school vaccination clinics process and PHS contact information.

Summary

Vaccine hesitancy is an important issue that continues to be addressed to maintain high vaccine coverage rates uniformly across the City of Hamilton. This ensures herd immunity at the population level and decreases the incidence and consequences of vaccine preventable diseases. Understanding the complexities of this issue will help determine individual and collective vaccination behaviors for the development of

effective and efficient vaccination policies, programs and targeted population interventions.

As immunization continues to be a priority for the Ministry of Health and Long Term Care, PHS anticipates increased mandated requirements for programs and services related to immunization. Thus, Hamilton's PHS Vaccine Program continues to review and implement numerous techniques and strategies to increase vaccine uptake.

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¹¹ Dubé E, Bettinger JA, Fisher WA, Naus M, Mahmud SM, Hilderman T. Vaccine acceptance, hesitancy and refusal in Canada: Challenges and potential approaches. Can Comm Dis Rep. 2016;42(12):246- 51.

¹² Why are children still crying? Going beyond "evidence" in guideline development to improve pain care for children: the HELPinKIDS experience – ordered from Mac; Psychological interventions for needle-related procedural pain and distress in children and adolescents 2013