

Immunization of school children in Halton (2023-24)

Health indicator report

Background

- Immunization is one of the best ways to protect our community from vaccine-preventable diseases. The *Immunization of School Pupils Act* (ISPA) requires Ontario students attending school to be immunized against diphtheria; tetanus; polio; measles; mumps; rubella; pertussis (whooping cough); meningococcal disease; and varicella (chickenpox, for children born in 2010 or later).¹
- Under the ISPA, students can be suspended from school if their immunization records at their local health department show that they are overdue for vaccination and they do not have a valid exemption.^{2,3}
- The purpose of this report is to provide a summary of compliance with the ISPA for the 2023-24 school year among Halton students. The report focuses on students born in 2016 (ages 7 or 8) and 2007 (ages 16 or 17).
- This report also highlights the proportion of students born in 2011 (ages 12 or 13) who completed the vaccine series for meningococcal disease, human papillomavirus (HPV), and hepatitis B by the end of the 2023-24 school year. The Ministry of Health mandates the Health Department to offer these three vaccines to all grade seven students in Halton schools, free of charge.⁴

Key findings

- Compliance is low for students born in 2016 (15%), due to lack of reporting.
- Compliance is high for students born in 2007 (93%), due to enforcement of reporting requirements in the 2023-24 school year.
- Of the three vaccines available to grade seven students, the vaccine to protect against meningococcal disease had the highest completion rate (73%) and the vaccine to protect against HPV had the lowest completion rate (50%).
- The vaccine to protect against HPV continues to have a higher completion rate among females (54%), compared to the completion rate among males (47%).

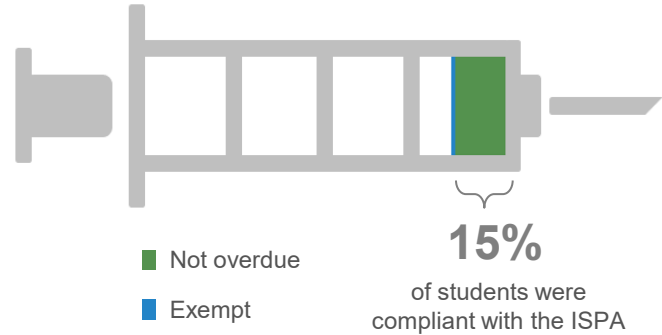


ISPA compliance, ages 7 or 8

ISPA compliant means that the student was not overdue for any immunizations required by the ISPA, or had a valid exemption, as of July 17, 2024.

Overall

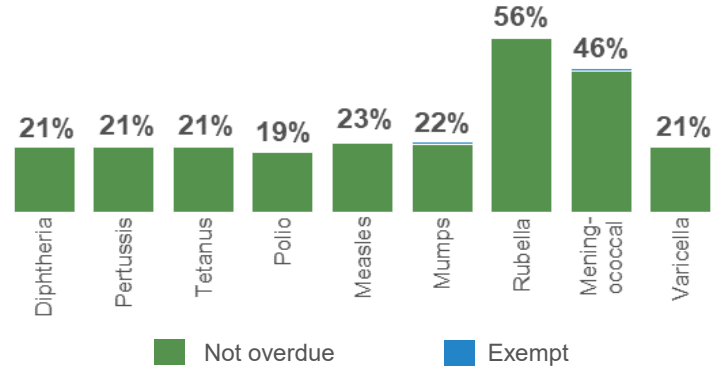
- By the end of the 2023-24 school year, the percentage of students fully in compliance with the ISPA was very low for students aged seven or eight (15%).
- The low compliance rate is because the Health Department has not yet enforced the ISPA for students born in 2016 due to the COVID-19 pandemic; consequently, records are missing for many of these students.



Percentage of students in compliance with the ISPA, seven or eight years of age, Halton Region, 2023-24

Disease

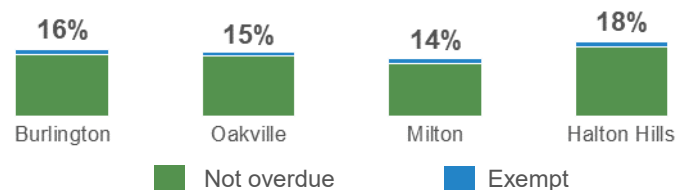
- Compliance rates for students aged seven or eight were very low for vaccines protecting against all diseases except for rubella and meningococcal disease.
- This is likely because booster shots are required for vaccines protecting against diphtheria, pertussis, tetanus, polio, measles, mumps, and varicella between the ages of four and six, and most students in this birth cohort have not updated their records since they were younger.



Percentage of students in compliance with the ISPA, by disease, seven or eight years of age, Halton Region, 2023-24

Municipality

- There were no significant differences in ISPA compliance by municipality for students aged seven or eight.



Percentage of students in compliance with the ISPA, by school municipality, seven or eight years of age, Halton Region, 2023-24

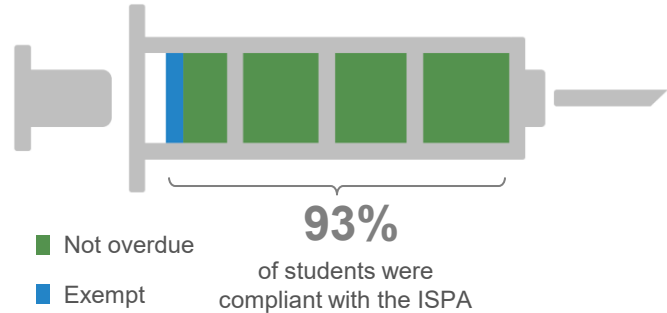


ISPA compliance, ages 16 or 17

Overall

- By the end of the 2023-24 school year, the percentage of students fully in compliance with the ISPA was 93% for students aged 16 or 17.
- The compliance rate is high because the Health Department carried out a complete ISPA enforcement process for grade 11 and 12 students during the 2023/24 school year (including sending reminders, offering catch-up clinics, and ultimately suspending students who remained non-compliant).

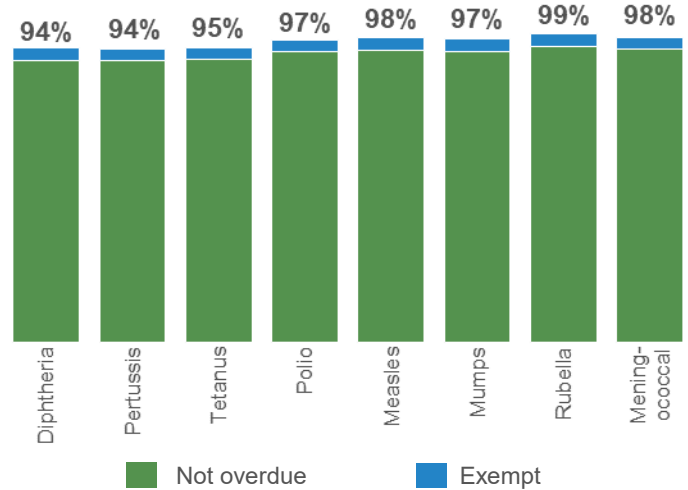
ISPA compliant means that the student was not overdue for any immunizations required by the ISPA, or had a valid exemption, as of July 17, 2024.



Percentage of students in compliance with the ISPA, 16 or 17 years of age, Halton Region, 2023-24

Disease

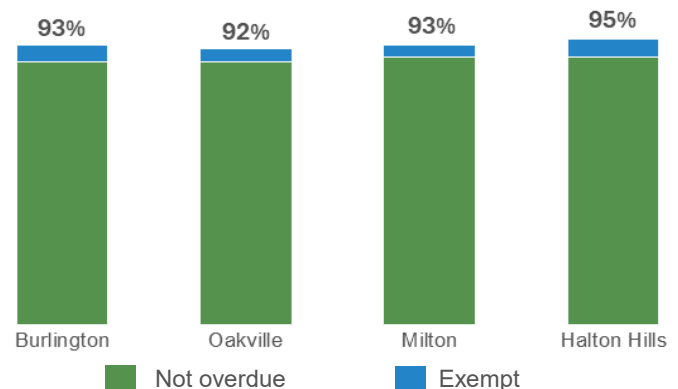
- Compliance rates for students aged 16 or 17 were lowest for vaccines protecting against diphtheria and pertussis.
- Students are due for a booster shot for vaccines protecting against diphtheria, pertussis, and tetanus between the ages of 14 and 16. It is likely that some students became due for this booster after enforcement and have not yet reported the immunization to the Health Department.



Percentage of students in compliance with the ISPA, by disease, 16 or 17 years of age, Halton Region, 2023-24

Municipality

- ISPA compliance rates were highest among students attending school in Halton Hills. This difference was **statistically significant** only when comparing Halton Hills to Oakville.



Percentage of students in compliance with the ISPA, by school municipality, 16 or 17 years of age, Halton Region, 2023-24

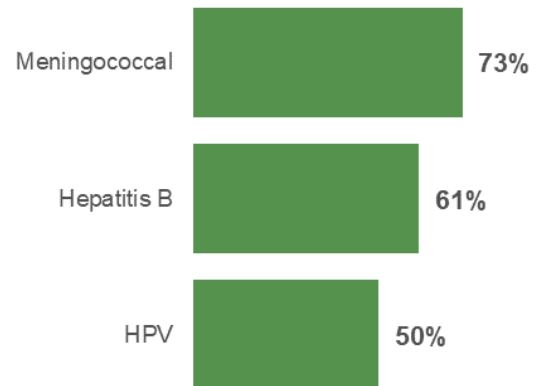


Grade seven vaccination

Disease

- At the end of the 2023-24 school year, the vaccine to protect against meningococcal disease had the highest completion rate (73%) among students aged 12 or 13, followed by vaccines to protect against hepatitis B (61%) and HPV (50%).
- Completion may be higher for the vaccine to protect against meningococcal disease because this vaccination is required under the ISPA. The vaccine to protect against meningococcal disease also requires only one dose for completion, whereas the vaccines to protect against hepatitis B and HPV require two doses each.

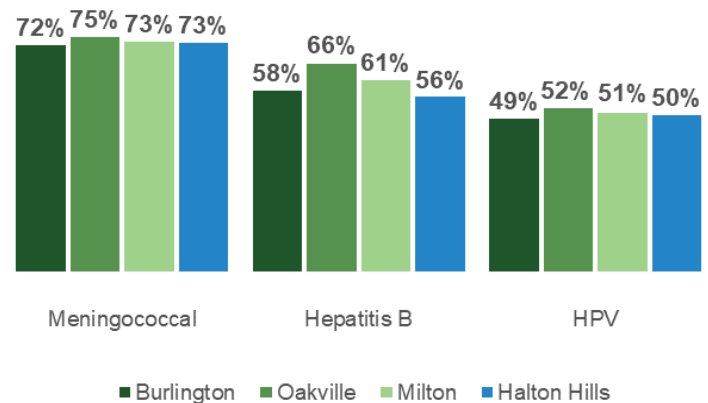
Completion means that the student received all doses of vaccine required for protection against a given disease by July 17, 2024, with all doses being valid (i.e. administered at the right time).



Percentage of students completing vaccine series, by disease, 12 or 13 years of age, Halton Region, 2023-24

Municipality

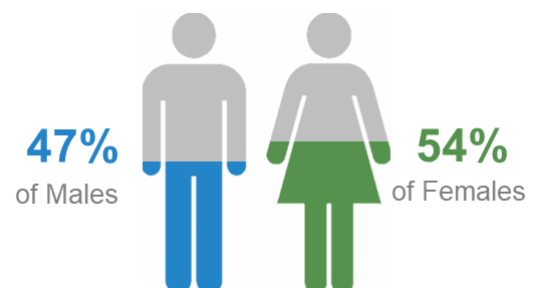
- There were no significant differences by municipality in completion for vaccines protecting against HPV and meningococcal disease.
- Hepatitis B vaccination completion was highest among students attending school in Oakville. This difference was **statistically significant** when comparing Oakville to all other municipalities.



Percentage of students completing vaccine series, by school municipality and disease, 12 or 13 years of age, Halton Region, 2023-24

Sex (HPV)

- A greater proportion of females completed the vaccination series for HPV compared to males, and this difference was **statistically significant**.



Percentage of students completing vaccine series for HPV, by sex, 12 or 13 years of age, Halton Region, 2023-24

Data notes

Definitions:

Compliant means a student is not overdue or has an exemption for each vaccine protecting against diphtheria, pertussis, tetanus, polio, measles, mumps, rubella, and meningococcal disease for students born in 2007; or for vaccines protecting against diphtheria, pertussis, tetanus, polio, measles, mumps, rubella, meningococcal disease, and varicella for students born in 2016.

Students are considered compliant for a particular disease or combination of diseases if they have any forecast status other than 'overdue' in Panorama for that disease or combination of diseases, or if they have a valid exemption on file.

Completion means that the student received all doses of vaccine required for protection, with all doses being valid (i.e. administered at the right time).

Students are considered to have completed the series for a particular disease if they do not have a forecast status for the disease in Panorama, unless they have an exemption.

Limitations:

Students are considered complete for a school-based vaccine if they have no forecast status in Panorama for that disease, indicating that they have finished the vaccine series appropriately and require no further vaccination for immunity. Students with an exemption for a school-based vaccine were not considered complete despite having no forecast status. Students who completed the vaccine series despite having an exemption, or who have an exemption due to natural immunity, were not taken into account and were assumed not to have completed the series.

Note that students technically do not require an exemption for the vaccine protecting against hepatitis B as it is not required by the ISPA, but some students have one recorded because broad exemptions for all vaccines were carried over from a previous system (IRIS).

Students attending "virtual" schools (5 students aged 7 or 8; 10 students aged 12 or 13) were excluded from the analysis by municipality, since virtual schools do not have a municipality assigned to them. However, these students were included when calculating all other rates.

Compliance and completion rates were based on the best information available to the Halton Region Health Department. It is likely that many students considered non-compliant have actually received their vaccines, but their parents have not reported the vaccines to the Health Department.

Compliance is not equivalent to coverage. Children with an exemption are ISPA-compliant, but they are often not immune to the diseases for which they are exempt from vaccination. Similarly, children who are due for vaccination are ISPA-compliant as long as they are not yet overdue, but they may no longer be immune.

This report includes only children attending schools in Halton as of July 17, 2024; these children may not reside in Halton, and some children who do reside in Halton may attend school elsewhere. Municipality is based on the school location. All immunization data for all antigens and age groups is based on data extracted on July 17, 2024, except for compliance with meningococcal vaccine among 7- or 8-year-olds, which was evaluated based on data extracted on July 1, 2024.

Data Source: Ministry of Health and Long-Term Care, Panorama and Panorama Enhanced Analytical Reporting Tool, extracted July 17, 2024.

References

1. Ontario. Ministry of Health. 2024. Vaccines for children at school. Accessed August 2024 from <https://www.ontario.ca/page/vaccines-children-school>
2. General, RRO 1990, Reg 645. Accessed August 2024 from <https://www.ontario.ca/laws/regulation/900645>
3. Immunization of School Pupils Act, RSO 1990, c I.1. Accessed August 2024 from <https://www.ontario.ca/laws/statute/90i01>
4. Ontario. Ministry of Health. 2024. Ontario's routine immunization schedule. Accessed August 2024 from <https://www.ontario.ca/page/ontarios-routine-immunization-schedule>

For more health indicator and health status reports, visit the Halton Health Statistics webpage at [halton.ca](https://www.halton.ca).

Last updated: October 2024