

## CHILDREN'S IMMUNIZATION

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In the 2007-08 school year:

- 96.1% of 357,698 students in Toronto schools were up-to-date with age-appropriate vaccinations against diphtheria, tetanus, polio, measles, mumps and rubella. 1.9% of students provided exemptions to these mandatory vaccinations. Coverage rates among Toronto students for non-mandatory vaccines are either incomplete or not available.
- 79% and 81% of 28,425 eligible grade 7 students in Toronto schools respectively received two-doses of hepatitis B and one dose of meningitis C vaccine.
- 56% of eligible 13,224 grade 8 female students received three doses of the human papillomavirus (HPV) vaccine in the first year the publicly funded vaccination program was offered. The rates have since improved to 64.7% in 2008-2009 and 62.8% in 2009-2010.

### BENCHMARKS

Immunization coverage is a health indicator that measures the percentage of people who are appropriately vaccinated. Assessment of immunization coverage is recommended nationally for children at two, seven and 17 years of age, with national benchmarks set at 97%, 99% and 99% respectively for most mandatory school vaccines. Children who receive all recommended vaccines by two, seven and seventeen years of age are considered "up-to-date" in their immunization status. Benchmarks for non-mandatory vaccines range from 80 to 100%, depending on the infectiousness of the disease and population of interest.

### IMPORTANCE

Immunization or vaccination has long been recognized as a proven public health tool for controlling and even eradicating infectious diseases such as smallpox which, before the era of vaccines, threatened 60% of the world's population and killed every fourth infected person. Polio infections and related paralysis has similarly been reduced by 99% worldwide, with polio having been eliminated in North and South America. The spread of disease is reduced and even eliminated when most of the population is immunized.

### STATUS/TRENDS

Immunization coverage of children at two years of age in Toronto and Ontario is unknown. TPH currently only collects data on school children. However, the Institute for Clinical Evaluative Sciences (ICES) based on doctors' billings estimated that 75% of children at age two in Toronto in 2003 were up-to-date for age-appropriate vaccines, and four percent had received no vaccines.<sup>i</sup> Additional provincial and national data reflect that a significant number of preschool children may be under-immunized.

Ontario is one of two provinces that has a school vaccination law. Through the enforcement of the *Immunization of Schools Pupils Act (ISPA)* Toronto Public Health produces high annual coverage rates that approximate national benchmark levels for school-aged children. Few other provinces show overall coverage rates among school children over 90%.

### KEY ISSUES

The Immunization of School Pupils Act (ISPA)<sup>ii</sup> and the Day Nurseries Act (DNA)<sup>iii</sup> establish vaccine

requirements for children attending public schools and day nurseries respectively, to ensure children are vaccinated in accordance with the publicly funded immunization schedule. These laws require proof of immunization with mandatory vaccines or a valid medical, religious or philosophical exemption to attend a school or licensed day nursery.<sup>iv</sup> Children can be suspended if parents do not provide the required immunization information or a valid exemption. Not all vaccines are considered mandatory and included in these laws. The ISPA requires up-to-date vaccinations of diphtheria, tetanus, polio, measles, mumps and rubella for school attendance.

Currently, TPH does not assess the immunization status of children enrolled in licensed child care programs or day nurseries in Toronto. TPH would require increased funding and resources to implement day nurseries immunization assessment program.

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<sup>i</sup> ICES, (2006). Jaakkimainen, L., Klein-Geltink, J.E., Guttman, A., Barnesley, J., Zagorski B.M., Kopp, A., Saskin, R., Leong, A., and Wang, L. Indicators of Primary care based on Administrative Data, Chapter 12. In. Jaakkimainen, L., Upshur, R., Klein-Geltink, J.E., Leong, A., Maaten, S., Schultz, S.E. Wang, L. editors. *Primary Care in Ontario: ICES Atlas*. Toronto.

<sup>ii</sup> Ministry of Health and Long-term Care (1990). *Immunization of School Pupils Act. Revised Statutes of Ontario (RSO), 1990. Chapter I.1*. Retrieved on January 14, 2009, from: [http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_90i01\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90i01_e.htm)

<sup>iii</sup> Ontario Ministry of Children and Youth Services, (1990). *Day Nurseries Act, R.S.O. 1990, Chapter D.2*. Retrieved on January 14, 2009, from: [http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_90d02\\_e.htm#BK4](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90d02_e.htm#BK4)

<sup>iv</sup> Ministry of Health and Long-term Care, (2009). *Publicly Funded Immunization Schedules for Ontario – January 2009*. Retrieved on January 21, 2009, from: <http://www.health.gov.on.ca/english/providers/program/immun/pdf/schedule.pdf>