

DEFENDING ONTARIO AGAINST MEASLES

LIFE WITHOUT THE VACCINE

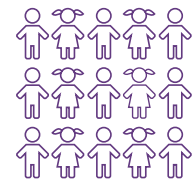
Thanks to routine childhood immunization, Ontario has seen a marked drop in measles cases – a very different story than the days before the vaccine was introduced in 1963.


Pre-1963
300,000 - 400,000 measles cases annually in Canada with 90% of children infected by 10 years of age prior to the vaccine.^{1,2}

2.7 Million
Expected deaths worldwide each year without vaccination.³ Globally, measles is the leading cause of vaccine-preventable deaths in children.^{1,2}

HOW SERIOUS IS MEASLES?

With measles comes many complications, some fatal. These include:^{1,4}

 **Otitis media**
5-15 per 100 cases

 **Pneumonia**
5-10 per 100 cases

 **Encephalitis**
1 per 1,000 cases

 **Death**
1-2 per 1,000 cases

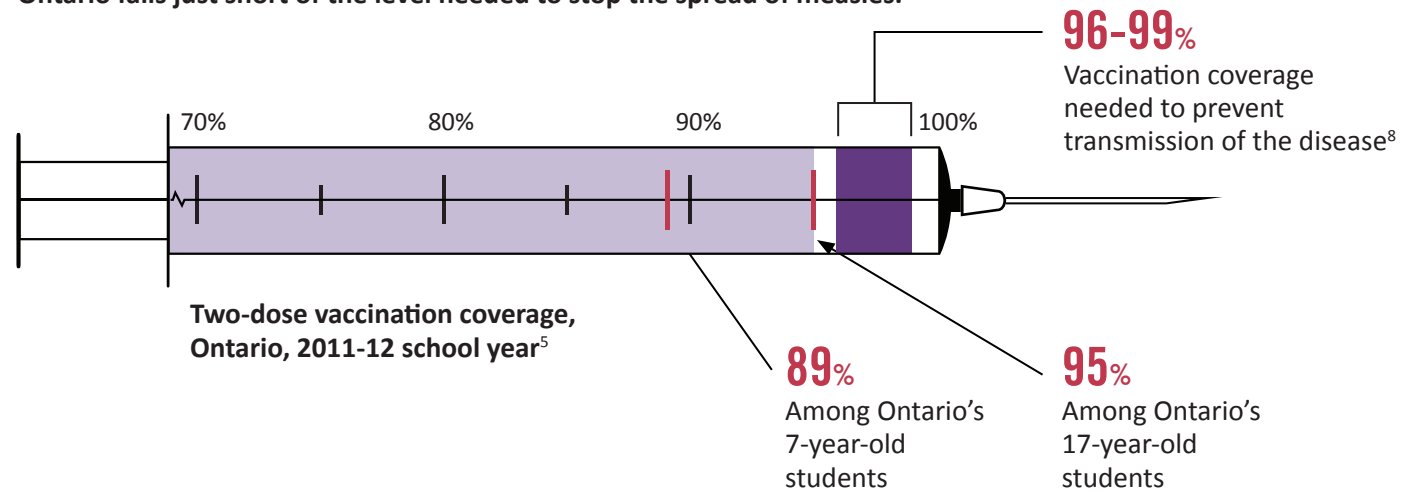
Children under the age of five are most at risk of complications.

Measles during pregnancy can cause:¹

-  Premature labour
- Miscarriage
- Low birth weight

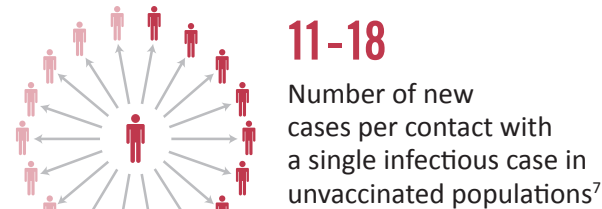
Measles has been eliminated in the Americas, including Ontario – but some Ontarians are still at risk of catching the disease. If the province is to remain free of one of the world's most contagious diseases, we need to be vigilant.

Ontario falls just short of the level needed to stop the spread of measles.



HOW CONTAGIOUS IS CONTAGIOUS?

The virus spreads easily via droplets expelled into the air by sneezes and coughs. The virus may even live on surfaces for two hours and infects most people who cross its path.⁶

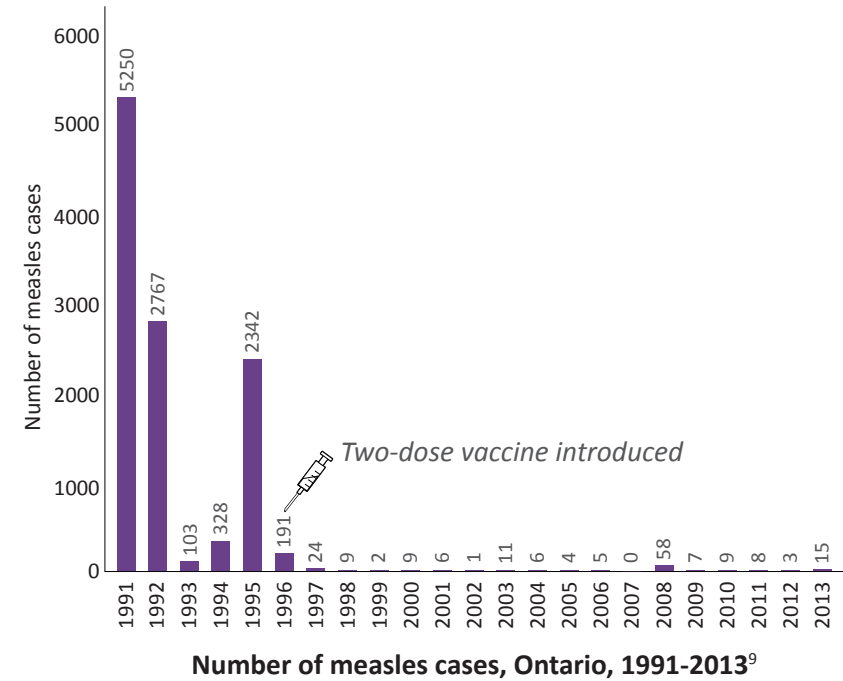


IMMUNIZATION IS OUR BEST DEFENCE

IMMUNIZATION IS KEY

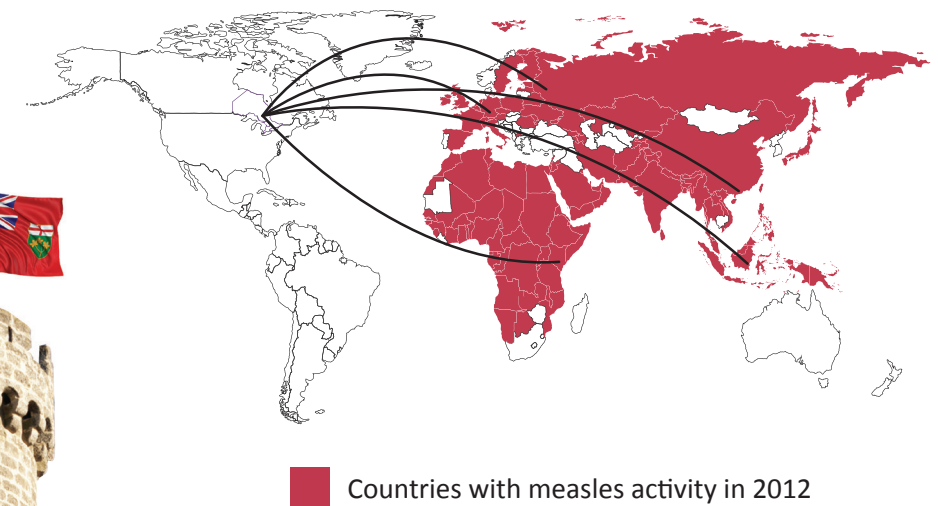
Receiving two doses of vaccine is a free and very effective form of protection against the virus both for individuals and the community.

Since the two-dose vaccine was introduced in Ontario in 1996, very few cases of measles have been reported each year.



RISKS BEYOND OUR BORDERS

Exposure to the measles virus by those travelling abroad and from visitors to Canada puts unvaccinated Ontarians at risk.¹⁰



1. National Advisory Committee on Immunization; Public Health Agency of Canada. Canadian immunization guide. Evergreen ed. Part 4 active vaccines: measles vaccine. Ottawa, ON: Her Majesty the Queen in Right of Canada; 2012. Available from: <http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-meas-roug-eng.php> 2. World Health Organization. Measles vaccines: WHO position paper. Wkly Epidemiol Rec. 2009; 84(35):349-60. Available from: <http://www.who.int/wer/2009/wer8435.pdf> 3. National Center for Immunization and Respiratory Diseases. Vaccines and immunizations. Basics and common questions: what would happen if we stopped vaccinations? [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2013 Sep 18. Available from: <http://www.cdc.gov/vaccines/vac-gen/whatifstop.htm#measles> 4. Wolfson LJ, Grais RF, Luquero FJ, Birmingham ME, Strebel PM. Estimates of measles case fatality ratios: a comprehensive review of community-based studies. Int J Epidemiol. 2009;38(1):192-205. 5. Public Health Ontario. Immunization coverage report for school pupils 2011-12 school year. Toronto, ON: Queen's Printer for Ontario; 2013. 6. Plans-Rubio P. Evaluation of the establishment of herd immunity in the population by means of serological surveys and vaccination coverage. Hum Vaccin Immunother. 2012;8(2):184-8. 7. National Center for Immunization and Respiratory Diseases, Division of Viral Diseases. Measles (Rubeola). Transmission of measles [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2009 Aug 31. Available from: <http://www.cdc.gov/measles/about/transmission.html> 8. Anderson RM, May RM. Infectious diseases of humans: dynamics and control. Oxford: Oxford University Press; 1992. 9. Data Source: Integrated Public Health Information System (iPHIS), Distributed by Public Health Ontario, Extracted December 2, 2013 10. Measles & Rubella Initiative. The measles & rubella initiative 2012 annual report. Washington, DC: American Red Cross; 2012. Available from: <http://www.measlesrubellainitiative.org/wp-content/uploads/2013/07/MRI-2012-Annual-Report.pdf>