

RESPIRATORY VIRUSES

MORE THAN A WINTER WORRY

IDENTIFYING RESPIRATORY VIRUSES

Identification of respiratory viruses, including influenza, helps us manage individual cases as well as institutional outbreaks. Reports using laboratory and surveillance data inform us about respiratory virus activity in the population.^{1,2}

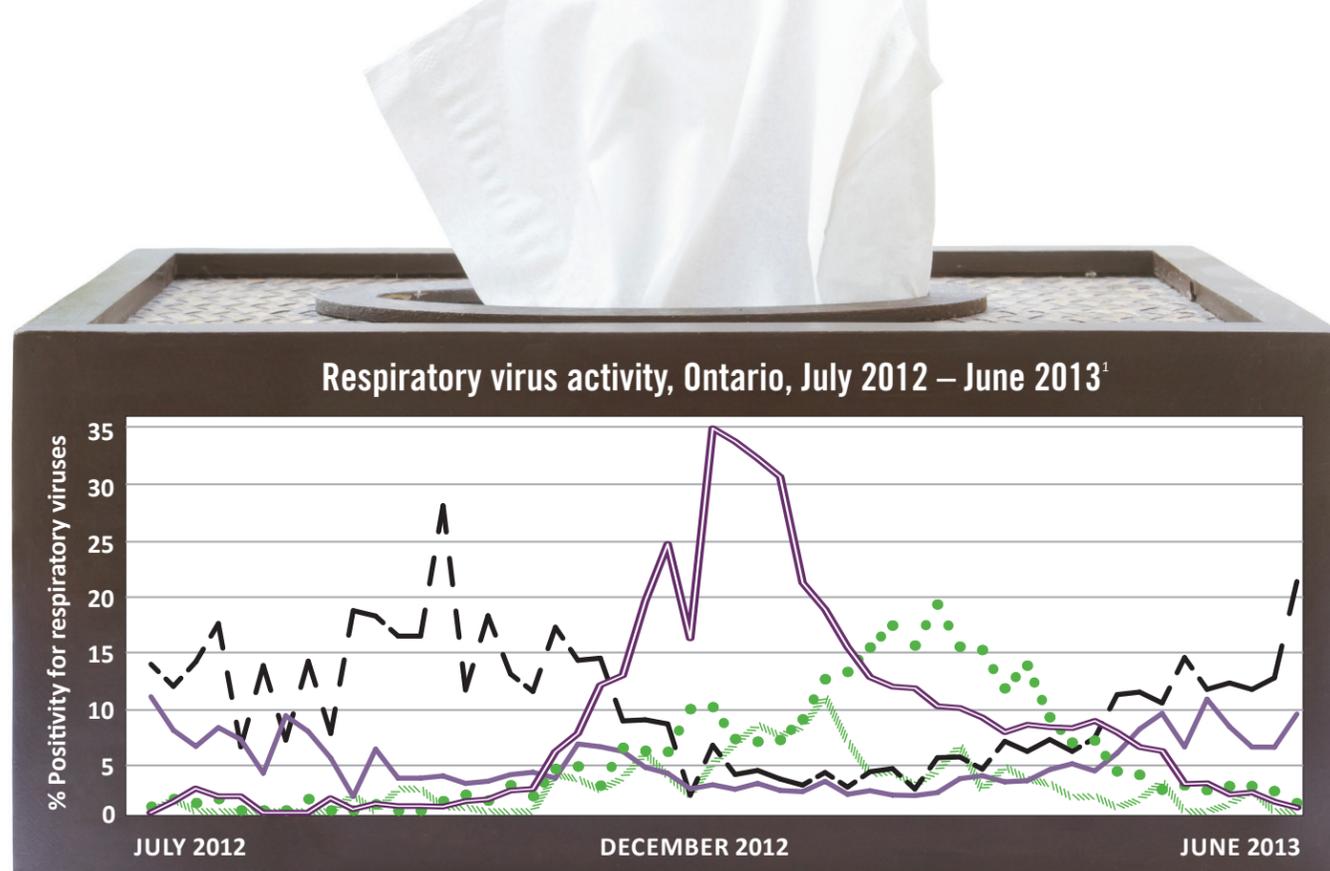


Laboratory testing: Specimens are tested for respiratory viruses using various laboratory methods to confirm a diagnosis.³



Syndromic surveillance: Existing health-related data independent of a confirmed diagnosis is used to enable early detection and investigation of clusters of illnesses.⁴

While influenza remains a significant threat to the health of Ontarians, a number of other respiratory viruses cause disease and illness throughout the year. Understanding respiratory viruses that pose a health threat allows for better clinical and public health management.



Per cent positivity reflects the percentage of specimens with a positive result among those submitted for lab testing. This gives an indication of the dominant types of respiratory viruses circulating at that point in time.

CONSIDER OTHER RESPIRATORY VIRUSES

Many respiratory viruses share common symptoms. Seasonal reports detailing the activity of certain viruses are important tools to avoid misdiagnosis.

These symptoms include:⁷⁻¹⁰

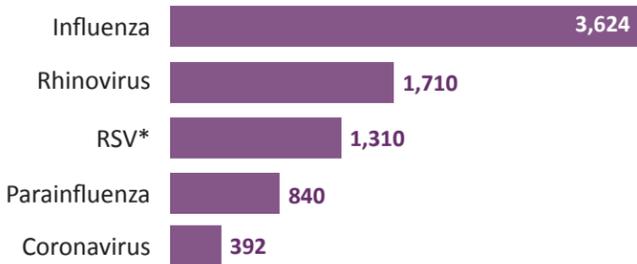
- Fever
- Sneezing
- Runny nose
- Cough
- Sore throat
- Headache

This group of respiratory viruses causes similar complications, including:

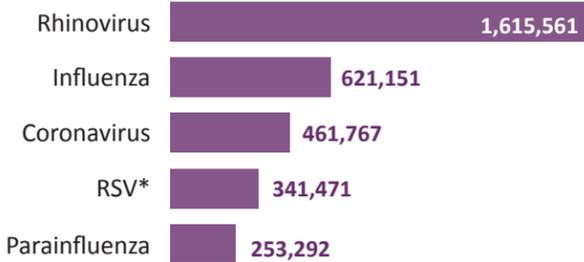
- Acute bronchitis
- Pneumonia
- Bronchiolitis
- Ear infection
- Upper respiratory tract infection

RESPIRATORY VIRUSES AND ONTARIANS

Estimated health-adjusted life years lost annually due to respiratory viruses, Ontario⁵



Estimated average annual incidence of respiratory viruses, Ontario⁵



*Respiratory syncytial virus

TAKE PRECAUTIONS



The influenza vaccine is the best way to prevent illness from the influenza virus. Get vaccinated in the fall before influenza season starts.

No vaccine or anti-viral medications for non-influenza viruses exist. Personal protective measures remain essential in preventing disease spread.



Cough or sneeze into sleeve



Clean your hands



Remain home if ill



Respiratory virus infections place an economic burden on Ontario, including cost of treatment and lost productivity at work and at school.

5-20%

Per cent of employees in Canada that took any sick leave due to influenza in any given season over the past decade⁶



Employees with lower incomes and less job security are more likely to attend work while sick.¹¹

1. Public Health Ontario. Ontario respiratory virus bulletin [Internet]. Toronto, ON: Ontario Agency for Health Protection and Promotion; c2014. Available from: <http://www.publichealthontario.ca/en/ServicesAndTools/SurveillanceServices/Pages/Ontario-Respiratory-Virus-Bulletin.aspx> 2. Public Health Ontario. Laboratory respiratory pathogen surveillance reports [Internet]. Toronto, ON: Ontario Agency for Health Protection and Promotion; c2014. Available from: <http://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/PHO-Laboratories-surveillance-updates.aspx> 3. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Labstract – May 2013: Influenza and other respiratory viral testing algorithm for spring and summer 2013 (May 21, 2013 to October 31, 2013). Toronto, ON: Queen's Printer for Ontario; 2013. Available From: http://www.publichealthontario.ca/en/eRepository/LAB_SD_076_Influenza_respiratory_viral_testing.pdf 4. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Provincial Infectious Diseases Advisory Committee. Syndromic surveillance discussion paper. Toronto, ON: Queen's Printer for Ontario; 2012. Available from: http://www.publichealthontario.ca/en/eRepository/PIDAC_SyndromicSurveillance_DiscussionPaper_ENG_2013.pdf 5. Kwong JC, Crowcroft NS, Campitelli MA, Ratnasingham S, Daneman N, Deeks SL, et al. Ontario Burden of Infectious Disease Study (ONBOIDS): An OAHPP/ICES report. Toronto: Ontario Agency for Health Protection and Promotion, Institute for Clinical Evaluative Sciences; 2010. Available from: http://www.publichealthontario.ca/en/eRepository/ONBOIDS_ICES_Report_ma18.pdf 6. Schanzer DL, Zheng H, Gilmore J. Statistical estimates of absenteeism attributable to seasonal and pandemic influenza from the Canadian Labour Force Survey. BMC Infect Dis. 2011;11:90. Available from: <http://www.biomedcentral.com/1471-2334/11/90> 7. Qazi S. Respiratory disease, acute viral. In: Heymann DL, editor. Control of communicable diseases manual. 19th ed. Washington, D.C.: American Public Health Association; 2008. p. 515-520. 8. National Center for Immunization and Respiratory Diseases, Division of Viral Diseases. Respiratory syncytial virus infection (RSV) [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2013 Dec 2. Available from: <http://www.cdc.gov/rsv/> 9. National Center for Immunization and Respiratory Diseases, Division of Viral Diseases. Human parainfluenza viruses (HPIVs) [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2012 Nov 5. Available from: <http://www.cdc.gov/parainfluenza/> 10. Public Health Agency of Canada. Rhinovirus: Pathogen safety data sheet – infectious agent [Internet]. Ottawa, ON: Her Majesty the Queen in Right of Canada; 2011 Apr 19. Available from: <http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftsr/rhinovirus-eng.php> 11. Aronsson G, Gustafson K, Dallner M. Sick but yet at work. An empirical study of sickness presenteeism. J Epidemiol Community Health 2000;54:502-509. Available from: <http://jech.bmj.com/content/54/7/502.full>