

What is COVID-19?

- COVID-19 is a new strain of the coronavirus that was first seen in humans in November 2019 in central China. It was identified by gene sequencing by January 9, 2020.
- Coronaviruses usually affect mammals such as bats, camels, civets, or birds but may evolve and be transmitted to humans. COVID-19 was most likely a result of animal-to-human transmission.
- Coronaviruses are responsible for 15% to 30% of common colds, but they also cause serious illnesses such as Severe Acute Respiratory Syndrome (SARS) and Middle Eastern Respiratory Syndrome Coronavirus (MERS CoV).
- The epicentre is the city of Wuhan, Hubei Province, with a population of 11 million. It is a major hub for the transportation of people and goods via air, rail and roads.
- The virus was reported to the World Health Organization (WHO) on December 31, 2019, and WHO declared COVID-19 a Public Health Emergency of International Concern and an “unprecedented outbreak” on Jan 30, 2020.
- See [PHAC](#) for up-to-date statistics on the number of cases and fatalities. The majority of cases and fatalities are in China.

How does COVID-19 spread?

- Human-to-human transmission was confirmed by China’s national health commission after health care workers became infected while caring for patients.
- Generally, this new coronavirus appears to be targeting older people with pre-existing medical conditions with fewer cases in children.
- The key concerns are how transmissible this new coronavirus is between people and what proportion become severely ill and end up in hospital. At the end of February, the available numbers indicated that about 80% of cases are mild, 15% develop severe symptoms, and 5% become critically ill. The fatality rate is estimated at 2.3%—much lower than SARS or MERS CoV—but it may be even lower due to unreported mild illnesses.
- The incubation period is estimated at 14 days according to the WHO.
- COVID-19 is most likely spread by direct contact with infected secretions or droplets in the air due to coughing and sneezing. It may live on surfaces for about 2 hours, but exact timing is unknown.

What are the symptoms of COVID-19?

- Respiratory infection symptoms range from moderate to severe and include fever, cough, breathing difficulties, and myalgia; however, fever may be absent in the elderly, the very young, immunosuppressed, or those taking fever-lowering medications.
- Pneumonia, acute respiratory failure and multi-system organ dysfunction may occur, especially in patients with comorbid conditions.
- The treatment is supportive care though antiviral drugs are being used with some success, and it has been determined that steroids make it worse. Antibiotics are not effective with viruses; there is no approved vaccine for coronaviruses.
- Fatalities tend to be older adults with underlying medical conditions.
- To prevent the transmission of illnesses, cover your face with tissue when coughing or sneezing, then dispose of the tissue and wash / sanitize your hands with 70% alcohol-based hand rub (ABHR); or cough / sneeze into your flexed elbow; wash hands frequently with warm water and soap or ABHR; and do not touch your face unless your hands are clean.

What process should Health Care Providers (HCPs) follow?

- Screening over the phone by Public Health, Telehealth, or HCP's office is best practice.
- HCPs are required to report a person under investigation (PUI) to Public Health and the Ministry of Health and Long-Term Care (MOHLTC) HCP hotline (pending).
- Public Health Ontario Labs have a test with a turnaround time of approximately 4 days. Public Health Labs no longer need to approve testing. Presumptive positive results must be confirmed at the National Microbiology Lab.
 - Clinical examination and testing must take place in an environment that meets MOHLTC requirements, including the use of N95 fit-tested masks.
- The current case definition for a PUI for COVID-19
 - Part 1:** Fever and / or onset of cough or difficulty breathing **AND** any of the following (see Part 2) within 14 days prior to onset of illness
 - Part 2:** Travel to an Impacted Area* **OR** Close contact with a confirmed or probable case of COVID-19 **OR** Close contact with a person with acute respiratory illness who has been to an impacted area

*Impacted Area includes all countries / areas with a Government of Canada [Travel Advisory for COVID-19](#). As of February 25, 2020, this includes: China, Hong Kong, Iran, Italy, Japan, Singapore, and South Korea.
- As the list of countries will be updated regularly, refer to [Ministry of Health](#) for updates.
- **Your patient needs to say YES to Part 1 and YES to at least one section in Part 2 to be considered a PUI for COVID-19.**
- If there is a suspected risk of exposure, HCPs should follow IPAC protocols for Routine Practices and Additional Precautions (Contact, Droplet).
- Until there is a specific case and contact management protocol for COVID-19, HCPs should follow the existing process for MERS CoV.
- The MOHLTC is creating a roadmap for HCPs to follow: Emerging Infectious Respiratory Disease Roadmap (pending).

What are the activity restrictions / self-monitoring required based on risk level?

- **Full activity restriction / self isolation / monitor for symptoms required for:**
 - Asymptomatic individuals returning from Hubei province, China (contact Public Health within 24 hours of return)
 - Asymptomatic individuals with known close contact to a confirmed case of COVID-19
 - Symptomatic individuals with recent travel from mainland China or with known close contact to a PUI for COVID-19
- **Self monitoring of symptoms is required for:**
 - Asymptomatic individuals with recent travel to mainland China
 - Asymptomatic individuals with known or potential close contact with a PUI

Note: Any individuals who meet criteria for self isolation, or those who develop symptoms, are to contact Public Health immediately for appropriate education and follow-up requirements.

What are the risks to the public in Canada?

- The risk to public health in Canada is deemed as low by [PHAC](#), but COVID-19 has now been detected in at least 50 countries around the world. It makes sense to prepare for the possibility that the virus could spread further. The Government of Canada is working with

partners at all levels of government to respond to COVID-19 and to plan and prepare should the number of cases increase in Canada.

- There is a Canadian government [travel advisory](#) to avoid non-essential travel to China and all travel to Hubei Province; in addition, all travellers returning from mainland China are being screened at major airports.
- Anyone with travel plans should check the latest travel advisories for the most up to date recommendations.

Other questions? Talk to your health care provider or call our Communicable Diseases Program at 613-966-5500 Toll Free 1-800-267-2803 TTY: Dial 711 Website: hpePublicHealth.ca

References / Related Links

CDC Interim Healthcare Infection Prevention and Control Recommendations for Patients Under Investigation for 2019 Novel Coronavirus

<https://www.cdc.gov/coronavirus/2019-ncov/infection-control.html>

European Centre for Disease Prevention and Control

<https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>

Evans, Dr. Gerald. (Feb 19, 2020). Chief of Infectious Diseases at Kingston General Hospital. Education Workshop for Health Care Providers at Hastings Prince Edward Public Health. Slides available.

IPAC position statement (Jan 7 – outdated): [https://ipac-](https://ipac-canada.org/photos/custom/Members/pdf/PHA_China_Resp_Illness_2020-01-07_FINAL.pdf)

[canada.org/photos/custom/Members/pdf/PHA_China_Resp_Illness_2020-01-07_FINAL.pdf](https://ipac-canada.org/photos/custom/Members/pdf/PHA_China_Resp_Illness_2020-01-07_FINAL.pdf)

Ministry of Health (MOH)

[Emerging Infectious Respiratory Disease Roadmap](#)

Public Health Agency of Canada PHAC

<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>

Public Health Ontario PHO 2019-nCov homepage: <https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus>

PHO Test Information: <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/wuhan-novel-coronavirus>

Washington Post. The Health 202: Coronavirus infections are skyrocketing. (Jan 27, 2020).

<https://www.washingtonpost.com/news/powerpost/paloma/the-health-202/2020/01/27/the-health-202-coronavirus-infections-are-skyrocketing/5e2c9ad988e0fa6ea99d46f1/>

World Health Organization. (Jan 27, 2020). Novel Coronavirus (2019-nCoV) Situation Report – 7.

<https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200127-sitrep-7-2019--ncov.pdf>

Feb 28, 2020

Public Health is committed to providing accessible programs and services to all. To request this or any other publication in an alternative format, please contact us by phone at 613-966-5500 or by email at accessibility@hpeph.ca.