

# COVID-19 Epidemiology and Surveillance Definitions

Manitoba Health, Seniors and Active Living

Version: April 26, 2021

<b>Version</b>	<b>Date</b>	<b>Changes</b>
Version 1	May 27, 2020	New document
Version 2	June 10, 2020	Outbreak definitions added
Version 3	April 26, 2021	Outbreak definitions updated

*Please note: This document may be updated periodically as the COVID-19 pandemic evolves; therefore, surveillance definitions are subject to change.*

Contents

- COVID-19 Case Definitions..... 3
  - Confirmed Case..... 3
  - Probable case..... 3
  - Suspect case..... 4
    - Exposure criteria: ..... 4
- Case for Public Reporting..... 5
  - PHIMS technical definition..... 5
- Case Status..... 6
  - Recovered ..... 6
  - Fatal..... 6
    - Death due to COVID-19..... 6
    - Death not due to COVID-19 ..... 6
  - Active ..... 6
  - Inactive..... 7
- Outbreak ..... 8
  - Definition ..... 8
  - Outbreak codes (Cadham Provincial Laboratory)..... 8
- Sensitive Environment ..... 9
- Healthcare Worker..... 11
  - MHSAL..... 11
  - Shared Health / Occupational and Environmental Safety and Health..... 11
- Re-start Dashboard Metrics..... 12

## COVID-19 Case Definitions

Source:

[Interim Guidance Public Health Measures](#)

[PHAC National Case Definition](#)

### Confirmed Case

A person with:

- laboratory confirmation of infection with the virus that causes COVID-19 performed at a community, hospital or reference laboratory (NML or a provincial public health laboratory) running a validated assay. This consists of detection of at least one specific gene target by a NAAT assay (e.g. real-time PCR or nucleic acid sequencing)..

*Note:*

- *nucleic acid amplification tests must be validated for detection of the virus that causes COVID-19 Positive laboratory tests during early stages of testing (e.g. first 10 positive tests) at a non-reference laboratory require additional testing at a reference laboratory for confirmation.*
- *laboratory tests are evolving for this emerging pathogen, and laboratory testing recommendations will change accordingly as new assays are developed and validated.*

### Probable case

A person who:

- has a fever (> 38°C), **AND/OR**
- has new onset of (or exacerbation of chronic) cough or difficulty breathing, **AND**
- meets exposure criteria, **AND**
- for whom laboratory diagnosis of COVID-19 is:
  - inconclusive (inconclusive is defined as a positive test on a single real-time PCR target or a positive test with an assay that has limited performance data available),
    - NAATs must be validated for detection of the virus that causes COVID-19.
    - An indeterminate result on a real-time PCR assay is defined as a late amplification signal in a real-time PCR reaction at a predetermined high cycle threshold value. This may be due to low viral target quantity in the clinical specimen approaching the limit of detection (LOC) of the assay, or may represent nonspecific reactivity (false signal) in the specimen. When clinically relevant, indeterminate samples should be investigated further in the laboratory (e.g. by testing for an alternate gene target using a validated real-time PCR or nucleic acid sequencing that is equally or more sensitive than the initial assay or method used) or by collection and testing of another sample from the patient with initial indeterminate result.

**OR**

- A (un-tested) person with:
  - Fever (over 38 degrees Celsius), **AND/OR**
  - Cough (new or exacerbated chronic); **AND**
  - Close contact<sup>1</sup> with a confirmed case of COVID-19, **OR**
  - Lived in or worked in a closed facility known to be experiencing an outbreak of COVID-19 (e.g., long-term care facility, correctional facility)

### Suspect case

A person with symptoms that include two or more of:

- Fever (signs of fever)
- Cough (new or exacerbated chronic)
- Sore throat
- Runny nose
- Headache, **AND**

Meets the exposure criteria **OR**

Had close contact with a probable case of COVID-19.

*Note:* COVID-19 may present as a co-infection with other pathogens. At this time, the identification of one causative agent should not exclude COVID-19 where the index of suspicion may be high.

### Exposure criteria:

*In the 14 days before onset of illness, a person who:*

- Traveled to an affected area (including inside Canada). **OR**
- Participated in a mass gathering identified as a source of exposure (e.g., conference) **OR**
- Close contact with a person with acute respiratory illness who has been to an affected area within 14 days prior to their illness onset **OR**
- Laboratory exposure to biological material (e.g. primary clinical specimens, virus culture isolates) known to contain COVID-19.

Factors that raise the index of suspicion should also be considered. Other exposure scenarios not specifically mentioned here may arise and may be considered (e.g. history of being a patient in the same ward or facility during a nosocomial outbreak of COVID-19).

---

<sup>1</sup> A close contact is defined as a person who provided care for the patient, including healthcare workers, family members or other caregivers, or who had other similar close physical contact or who lived with or otherwise had close prolonged contact with a probable or confirmed case while the case was ill.

## Case for Public Reporting

A person who is confirmed or probable and reported in PHIMS.

PHIMS technical definition: for the earliest report date and most recent investigation, a case is defined by the classification history and disease category from the investigation. A case will exclude the following classifications:

- not a case
- suspect
- clinical
- not a contact
- person under investigation

And includes the following disease categories:

- Severe acute respiratory infection (SARI)
- COVID-19

## Case Status



### Recovered

A case is recovered when:

- Isolation has been discontinued  
OR
- COVID-19 precautions have been discontinued (for hospitalized and facility-based cases)

Guidance on discontinuing isolation can be found in [Public Health Measures Guidance – Managing in the Community](#). Additional information on hospitalized and facility based cases can be found in other [provincial guidance documents](#).

### Fatal

Death due to COVID-19

Source: Adapted from [WHO International Guidelines for Certification and Classification \(coding\) of COVID-19 as a cause of death](#)

A death resulting from a clinically compatible illness, unless there is a clear alternative cause of death that cannot be related to COVID disease (e.g. trauma). There should be no period of complete recovery\* from COVID-19 between illness and death.

Death not due to COVID-19

A death in an active COVID-19 case with an alternative cause of death that cannot be related to COVID disease (e.g., trauma).

\*note “recovery” in this context means no residual effects or complications from COVID-19, and does not refer to the status of “recovered”, which refers to clients who are off isolation or precautions and are no longer considered infectious

### Active

A case is active when:

- Case is currently in isolation  
OR
- Case is on precautions (for hospitalized and facility-based cases)

PHIMS technical definition: Cases are considered “active” unless there is a recorded Status Assessment of “Recovered” or “Fatal” within the client’s investigation. A date must be recorded for all statuses.

### Inactive

A case is inactive when the case is:

- Recovered
- OR
- Fatal

PHIMS technical definition: Cases are considered “inactive” when there is a recorded Status Assessment of “Recovered” or “Fatal” within the client’s investigation. A date must be recorded for all statuses.

## Outbreak

### Definition

In the context of the COVID-19 pandemic, **two or more cases of COVID-19** diagnosed within a 14-day period in a setting, with evidence of transmission occurring within the setting defines an outbreak. In a highly vulnerable setting, a single laboratory-confirmed case of COVID-19 in a staff member, volunteer, or resident may define an outbreak at the discretion of the Medical Officer of Health.

### Outbreak codes (Cadham Provincial Laboratory)

If an outbreak is detected, an outbreak code can be requested from Cadham Provincial Laboratory. This allows for any samples relating to the outbreak to be tracked by the laboratory and by public health and provides a way to categorize the outbreak in PHIMS.

Information on requesting outbreak codes through CPL can be found here:

Cadham Provincial Laboratory – Guide to Services (page 12):

<https://www.gov.mb.ca/health/publichealth/cpl/docs/guide.pdf>



## Sensitive Environment

Category	Definition
Animal handler (abattoir, veterinarian, farmer, etc.)	Persons who are in regular contact with animals or animal products in Manitoba. Does not include people who are only in contact with domesticated pets in the household.
Child care (work/volunteer/attendee)	Persons who regularly spend time in child care settings (e.g., daycares) in Manitoba. Schools are also included.
Correctional Centre (work/volunteer)	Paid and unpaid persons serving in correctional centre settings in Manitoba.
Correctional Centre (resident)	Persons residing in correctional centre settings in Manitoba.
Health care facility (resident/patient)	Persons receiving care in healthcare settings in Manitoba.
Health care facility (work/volunteer)	<p>Paid and unpaid persons serving in healthcare settings in Manitoba who have the potential for direct or indirect exposure to patients or infectious materials, including body substances; contaminated medical supplies, devices, and equipment; contaminated environmental surfaces; or contaminated air.</p> <p>Note: this can include health care workers working in community as well (e.g., home care workers).</p>
Personal care home (resident)	<p>Persons residing in a Personal Care Home in Manitoba (where 24-hour Nursing care and services are on hand and provided by healthcare personnel in a secure environment 24 hours a day<sup>1</sup>.)</p> <p><a href="#">List of PCHs in Manitoba.</a></p>
Personal care home (work/volunteer)	<p>Paid or unpaid persons serving in a Personal Care Home in Manitoba (where 24-hour Nursing care and services are on hand and provided by healthcare personnel in a secure environment 24 hours a day<sup>1</sup>.)</p> <p><a href="#">List of PCHs in Manitoba.</a></p>
Shelter (resident)	Persons using shelters in Manitoba (temporary, short-term accommodation for homeless individuals and families <sup>2</sup> ).
Shelter (work/volunteer)	Paid or unpaid persons serving in shelters in Manitoba (temporary, short-term accommodation for homeless individuals and families <sup>2</sup> ).

Laboratory worker	Persons working within a laboratory setting who have the potential for exposure to biological material (e.g. primary clinical specimens, virus culture isolates) known to contain COVID-19.
Other congregate setting	Other setting where risk of COVID-19 transmission and/or risk of severe outcomes may be elevated.

## Healthcare Worker

### MHSAL

Paid and unpaid persons serving in healthcare settings in Manitoba who have the potential for direct or indirect exposure to patients or infectious materials, including body substances; contaminated medical supplies, devices, and equipment; contaminated environmental surfaces; or contaminated air.

### Shared Health / Occupational and Environmental Safety and Health

A health care worker (HCW) refers to all paid and unpaid persons serving in healthcare settings in Manitoba who have the potential for direct or indirect exposure to patients or infectious materials, including body substances; contaminated medical supplies, devices, and equipment; contaminated environmental surfaces; or contaminated air. For the purposes of this report, HCW only includes personnel in hospitals, long-term care settings, community health clinics and services (including agency staff), and diagnostic/laboratory services.

## Re-start Dashboard Metrics

### Trailing 7 day total cases among staff/residents in highly vulnerable settings

In past 7 days, total number of confirmed or probable cases classified as any of the following:

- Correctional centre – resident
- Correctional centre – work/volunteer
- Healthcare facility – resident
- Healthcare facility – work/volunteer
- Personal care home – resident
- Personal care home – work/volunteer
- Shelter – resident
- Shelter – work/volunteer

Trailing 7-Day Total Cases among staff/residents in highly vulnerable settings	< 5
	5 - 15
	> 15

### Contact tracing: Percentage of contacts registered in PHIMS within 1 day of case registration for last 25 cases

Calculation of time period:

Earliest classification date of the contact investigation –

Earliest classification date of linked case investigation when becoming “Case-lab confirmed” or “Case-probable”

Contact Tracing	> 90% of contacts registered in PHIMS within 1 day of case registration in PHIMS; for last 25 cases
	80% - 89% of contacts registered in PHIMS within 1 day of case registration in PHIMS; for last 25 cases
	< 80% of contacts registered in PHIMS within 1 day of case registration in PHIMS; for last 25 cases