

# Provincial Respiratory Surveillance Dashboard: Technical Notes

Last updated: November 21, 2024

## DATA SOURCES

### [Admission, Discharge and Transfer \(ADT\) Database](#)

The Admission, Discharge and Transfer (ADT) database provides a record of admissions, discharges and transfers for all acute care facilities in Manitoba. Key information related to each hospital visit that is recorded in the ADT system includes census and activity metrics for each hospital encounter such as visit type, admission and discharge dates, assigned unit and bed details, services, providers, and alternate level of care (ALC) details. Data for in-patient transfers and insurance providers are also provided.

### [Emergency Department Information System \(EDIS\)](#)

The Emergency Department Information System (EDIS) contains information on patients who are seen in hospital Emergency Departments. The system captures a variety of data including: patient demographics; date, time, mode and arrival status; initial measures (e.g., chief complaint, allergies, heart rate, blood pressure, breathing) that are used to determine the Canadian Emergency Department Triage and Acuity Scale (CTAS) final score; the health care providers involved; the treatment provided - orders (blood work, diagnostic tests, medications and other services), consults; and discharge diagnosis and status.

### [Laboratory Information Management System \(LIMS\)](#)

Cadham Provincial Laboratory (CPL) provides public health laboratory services that include Microbiology, Virology, Parasitology, Serology, Newborn Screening, Public Health Chemistry and Quality Assurance. Reference services for identification and typing of microorganisms are available to all medical and veterinary laboratories in the province. Services are available to all registered medical practitioners and midwives, hospitals, health units, medical officers of health, public health inspectors and other recognized health practitioners. The CPL LIMS contains patient demographic data and laboratory related data on the sample, test performed and the test result.

### [eHealth Hub \(Shared Health Labs Feed\)](#)

eHealth\_hub is a Shared Health electronic business service that coordinates electronic delivery of information between systems to authorized health-care providers in Manitoba. Laboratory results from Diagnostic Services, Shared Health and Cadham Provincial Laboratory (CPL) are included.

## Public Health Information Management System (PHIMS)

PHIMS is a secure, integrated electronic public health record designed to assist public health practitioners in Manitoba with management of communicable disease cases and contacts, outbreaks, immunizations and vaccine inventory.

## DEFINITIONS

### Case Counts

The number of individuals with laboratory confirmation of one or both of two respiratory viruses defined below.

### COVID-19 (SARS-CoV-2)

**Laboratory-confirmed case** – An individual with confirmation of infection with SARS-CoV-2 documented by:

- The detection of at least one specific gene target by a validated laboratory-based nucleic acid amplification test (NAAT) assay (e.g., real-time PCR or nucleic acid sequencing) performed at a community hospital, or reference laboratory (the National Microbiology Laboratory or a provincial public health laboratory) **OR**
- The detection of at least one specific gene target by a validated point-of-care (POC) NAAT, that has been deemed acceptable to provide a final result (i.e. does not require confirmatory testing) **OR**
- Seroconversion or diagnostic rise (at least four-fold or greater from baseline) in viral specific antibody titre in serum or plasma using a validated laboratory-based serological assay for SARS-CoV-2 (note serological assays are not routinely done for diagnostic purposes)
- Reinfection: Positive tests that occur for the same individual and that are more than 90 days of each other based on specimen collection date are considered a reinfection.

### Influenza

**Laboratory-confirmed case** – An individual with confirmation of infection with influenza virus documented by:

- Isolation of influenza virus by cell culture from an appropriate clinical specimen **OR**
- Detection of influenza virus nucleic acid by nucleic acid amplification test (NAAT) or real-time PCR **OR**
- Demonstration of influenza virus antigen in an appropriate clinical specimen

### Testing

Respiratory specimens are submitted to participating laboratories (e.g., Cadham Provincial Laboratory, Shared Health Diagnostic Services Manitoba, Dynacare etc) to identify the presence of respiratory viruses (e.g., SARS-CoV-2, influenza, RSV, adenovirus etc.). Test volume and test positivity are calculated for the current week and current season.

## Severity

*Associated*: A severe outcome is defined as an *associated* hospital admission, associated admission to intensive care unit (ICU) or associated fatality among laboratory-confirmed cases of COVID-19 or influenza. The virus does not have to be attributable to the hospitalization or fatality.

- Hospital/ICU associated admissions: All laboratory-confirmed cases of COVID-19 or influenza admitted to hospital (or ICU) in Manitoba within 14 days of the index date (defined as the earliest of specimen collection date, lab result received date, public health report date) for at least an overnight stay. Transfers are considered as part of the overall hospital episode.
- Associated fatality: All laboratory-confirmed cases of COVID-19 or influenza who have died within 10 days prior to or 30 days after their respective index date.

*Attributable*: A severe outcome is defined as an *attributable* admission to intensive care unit (ICU) or attributable fatality among laboratory-confirmed cases of COVID-19 or influenza as determined clinically by ICU physicians.

## Vaccine Monitoring

Vaccine coverage is defined as the percentage of Manitoba residents that have received at least one dose of vaccine for the disease of interest during a given respiratory virus season.

- COVID-19 (SARS-CoV-2): All formulations of COVID-19 vaccines are included in the calculation of vaccine coverage.
- Influenza: Both standard dose and high dose vaccines are included in the calculation vaccine coverage.

## Outbreaks

Outbreaks are reportable to Public Health and documented in PHIMS. The predominant disease identified is used in the numeration of outbreak counts. Outbreaks with multiple diseases are reported as “multi-disease” outbreaks. In general, only institutional outbreaks require management. Outbreaks are reported by the location where they occur: *long-term care, acute care, or other settings*. Outbreak definitions within acute and long-term care facilities are outlined within the following disease-specific protocols:

- [COVID-19 Infection Prevention and Control Guidance for Personal Care Homes](#)
- [COVID-19 Specific Disease Protocol \(Provincial\) - Acute and Community Health-care settings](#)
- [Seasonal Influenza protocol \(gov.mb.ca\)](#)

Outbreaks in the community are not generally monitored. In the event that a community outbreak is being investigated, the definition is outlined within the [Coronavirus-COVID-19 Protocol](#).

## Emergency Department Visits

The daily number of visits to Emergency Departments (ED) and Urgent Care overall and those that are related to respiratory-like illness (RLI) as defined as patients whose chief complaints at the time of triage

include one or more of the following symptoms: *weakness, shortness of breath, cough, headache, fever, sore throat, and upper respiratory tract infection complaints.*

## **GLOSSARY**

### **Current Week**

The current week is the *epidemiological week's* data that are presented. Weeks are defined as Sunday to Saturday and align with the Public Health Agency of Canada's [FluWatch](#) calendar.

### **Current Season**

Seasons are defined as epidemiological week 35 of one year to epidemiological week 34 of the following year. The 2024–2025 season began on August 25, 2024 and ends August 23, 2025.

### **Health Region**

In Manitoba, the province is comprised of five health regions: Winnipeg, Interlake-Eastern, Prairie Mountain, Southern Health-Sante Sud and Northern. Surveillance data that are disaggregated by health region are based on the client's residence at time of investigation or laboratory test result.

### **Index Date**

The earliest of specimen collection date, lab result date or public health received date.