











- x Male/Female information are sourced from the Sex field in CCM and are intended to represent sex assigned at birth. On October 14, 2021, changes were made in CCM to enable reporting on the Sex field where this data field is supplemented by archived Male/Female information previously entered in the Gender field.
- x Orientation of case counts by geography is based on the permanent health unit (also referred to as diagnosing health unit or DHU). DHU refers to the case's public health unit of residence at the time of illness onset and not necessarily the location of exposure. Cases for which the DHU was reported as MOH-PHO (to signify a case is not a resident of Ontario) have been excluded from the analysis.
- x The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

### SEVERITY INDICATORS (HOSPITAL ADMISSIONS AND DEATHS)

- ☑ Data on hospital admissions, and deaths are likely under-reported as these events may occur after the completion of public health follow up of cases. Cases that were admitted to hospital or died after follow-up was completed may not be captured in CCM.
- x Hospital admissions include all cases admitted to hospital (or that had their hospital stay extended) because of COVID-19. It includes cases that have been discharged from hospital as well as cases that are currently in hospital. Includes Intensive Care Unit (ICU) cases but not emergency room visits. Hospital admissions were identified by a reported hospital admission ~~field~~/hX
- x Hospital admission date refers to the first admission date recorded on the case record. Hospital service transfers (e.g., alternate level of care (ALC)) are not reflected in the hospital admission date.
  - x If hospital admission date is missing, then ICU admission date is used (if applicable). When there is no ICU admission date to serve as a proxy, then the case reported date is used.
- x For surveillance purposes, a COVID-19 death is defined as a death resulting from a clinically compatible illness in a confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g., trauma). There should be no period of complete recovery between the illness and the reported death.
- x Deaths are determined by using the Outcome and Type of Death fields in CCM. COVID-19 deaths are counted ~~as follows~~ [v]vX, A ~~code~~ [v]vX
- x COVID-~~19~~ [v]vX
  - x If the date of death is missing, the outcome date field is used as a proxy. When there is no outcome date to serve as a proxy, then the case reported date is used.
- x COVID-19 deaths in cases 0 to 19 years of age are not stratified by public health unit due to concerns regarding small counts of this sub-population, particularly in smaller health units.
- x Hospital occupancy data presents the average daily occupancy count per week of people in hospital (including intensive care unit (ICU)) with active COVID-19 (i.e., testing positive). ICU occupancy data presents the number of people in ICU because of COVID-19. These counts differ ~~by~~ [v]vX number of people admitted to hospital each week due to COVID-19. Hospital and ICU bed occupancy data are not available by age, sex nor public health unit.

- ICU bed occupancy data for surveillance weeks 37 to 42 (i.e., between September 10, 2023 and October 21, 2023) are not included due to technical issues with the Ontario Ministry of Health’s Hospital Daily Bed Census and Critical Care Information System, that affected data reported between September 9 and October 20, 2023. ICU bed occupancy data for the week of September 3, 2023 is incomplete due to this issue and was averaged over the 6 days for which data were available.
- For detailed updates about this data source, refer to the Ontario Data Catalogue webpage for [COVID-19 cases in hospital and ICU, by Ontario Health \(OH\) region](#).
- Historical COVID-19 outcome data between January 15, 2020 to March 31, 2023 have been updated as part of ongoing provincial data quality initiatives. As a result, changes to historical COVID-19 cases and deaths were included in this tool as of December 1, 2023.

## OUTBREAKS

- Outbreak reported week is based on the outbreak reported date, and if unavailable, the date the public health unit created the outbreak.
- Ongoing outbreaks are those that are reported in CCM as ‘Open’ without a ‘Declared Over Date’ recorded and were reported within the past 5 months.
- Outbreaks are declared by the local medical officer of health or their designate in accordance with the Health Protection and Promotion Act and criteria outlined in Ministry guidance documents.<sup>6</sup>
- Confirmed outbreaks in high-risk settings are defined in Ministry of Health’s [Appendix 1: Case Definitions and Disease Specific Information for COVID-19](#).<sup>7</sup> Guidance for specific settings includes: [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units](#), [COVID-19 Guidance: Acute Care](#).<sup>11,12</sup>
  - Note: Prior to May 5, 2021, a confirmed COVID-19 outbreak in a long-term care home or retirement home setting was defined as a single, laboratory-confirmed case of COVID-19 in a resident or staff member.
  - Outbreak definitions have changed over the course of the pandemic and outbreaks were declared based on the definitions in place at the time.

## Influenza and Other Respiratory Viruses

### INFLUENZA CASE COUNTS AND OUTBREAKS OF INFLUENZA AND OTHER RESPIRATORY VIRUSES

- Dates used for laboratory-confirmed influenza cases are based on the date the case was reported to the public health unit (PHU) as recorded in iPHIS.
- Cases of influenza A&B are included in the influenza A counts. In the surveillance periods before the COVID-19 pandemic, cases of influenza A&B made up less than 0.4% of all influenza cases.
- Influenza A cases may be further categorized into a subtype (H3 and H1). Not all laboratory-confirmed influenza A cases have testing completed to determine the subtype.
- Age and sex information for influenza cases reported by Toronto Public Health after March 15, 2020 are not available as these cases were no longer entered in iPHIS. Only aggregate influenza case counts by type, subtype and week are available after this time.
- Severity indicators are not available for influenza cases as data on hospitalization and deaths are not routinely collected and recorded in iPHIS.

- Unlike the other surveillance periods presented, the 2014–15 and 2020-21 surveillance periods included a week 53, which occurs once every five to six years. Week 53 in 2014–15 corresponded to December 28, 2014 to January 3, 2015. In 2020-21 week 53 corresponded to December 27, 2020 to January 2, 2021.
- The number of new institutional influenza outbreaks reported for the current week is based on the date the outbreak was reported to the PHU; when reported date is unavailable, the date the outbreak was created in iPHIS is used. Outbreaks of influenza A and B are included in the counts for outbreaks of influenza A.
- Outbreak reported week is based on the outbreak reported date, and if unavailable, the date the public health unit created the outbreak.
- Any outbreak where influenza was identified is reported under the appropriate influenza category (“Influenza A” or “Influenza B”) regardless of whether other viruses were also identified in the outbreak. Outbreaks of influenza A and B are included in the counts for outbreaks of influenza A.
- In iPHIS, public health units indicate the outbreak setting using the iPHIS exposures. Confirmed outbreaks in institutions (as defined in the HPPA) and public hospitals are reported in four groupings for this data tool: Long-term Care Homes, Retirement Homes, Hospitals and Other.<sup>6</sup>

## PHU ACTIVITY LEVELS

- Influenza public health unit activity levels are calculated weekly for each PHU by PHO using iPHIS data on laboratory-confirmed influenza cases and laboratory-confirmed influenza outbreaks in institutions and public hospitals. Influenza public health unit activity levels are not updated retroactively.
  - Due to lags in data entry in iPHIS, the influenza public health unit activity level reported may, in some instances, not align with a PHU’s true activity level.
- Influenza public health unit activity levels calculated for a particular surveillance week may not necessarily correspond to the number of new outbreaks reported in the same week because of ongoing outbreaks from previous weeks.
- Activity level data for Huron Perth Public Health prior to the 2020-21 surveillance period is not available in the map view as this health unit was formerly two separate health units and is unable to be displayed. Similarly, Southwestern Health Unit was formerly two separate health units prior to the 2018-19 surveillance period and therefore data is not available for the periods prior.
- Influenza public health unit activity levels are defined as follows and based on data reported from iPHIS:
  - **No activity:** No laboratory-confirmed cases of influenza reported and no ongoing laboratory-confirmed influenza outbreaks in an institution or public hospital.
  - **Sporadic:** At least one laboratory-confirmed case of influenza within the surveillance area at any time within the surveillance week based on the date the health unit received the laboratory report, with no ongoing laboratory-confirmed influenza outbreaks in an institution or public hospital.
  - **Localized:** At least one ongoing laboratory-confirmed influenza outbreak in an institution or public hospital during the surveillance week even if the outbreak was declared over on the first day of the surveillance week.



- **Widespread:** Multiple ongoing laboratory-confirmed influenza outbreaks in long-term care homes, retirement homes or public hospitals. For PHUs with 30 or more of these institutions or public hospitals, at least 10% must be experiencing an ongoing influenza outbreak to be assessed as having “widespread” activity. For PHUs with fewer than 30 of these institutions or public hospitals, at least 15% must be in an active influenza outbreak. Denominator information is based on the number of long-term care homes, retirement homes and hospitals in each PHU.

## PHAC CIRID LABORATORY DATA – INFLUENZA AND OTHER RESPIRATORY VIRUSES

- Percent positivity for influenza and other circulating non-influenza respiratory viruses represents viral respiratory specimens tested by 18 Ontario laboratories that submit results to the Public Health Agency of Canada’s Centre for Immunization and Respiratory Infectious Diseases (CIRID).
- Percent positivity data are obtained from the PHAC CIRID respiratory virus detection tables, which are shared with PHO each week. The numbers reported represent results submitted to the CIRID by 18 participating laboratories in Ontario, including 11 PHO laboratory locations and seven hospital-based laboratories. Therefore these data represent a subset of laboratory tests conducted for each respiratory virus in the province.
- As of the 2022-23 surveillance period, the Shared Hospital Laboratory and the Sault Area Hospital (week 46 onwards) began reporting testing data to CIRID, resulting in an increase in the weekly number of tests reported. Results were assigned to a particular surveillance week based on when test results were reported to PHAC.
- These data represent the number of tests performed, which may not necessarily correspond with the number of patients, as more than one specimen may have been submitted per patient.
- Unlike case and outbreak data, these data are not updated retroactively when results are submitted late for previous surveillance weeks.
- The indicator ‘Total number of positive tests’ is not presented for the Public Health Agency of Canada data source, however it is available for other laboratory data sources. Therefore, when Public Health Agency of Canada (PHAC) is selected as the data source, the value for the ‘Total number of positive tests’ will display as zero in the tooltip when hovering over the graph.
- The indicator ‘Total number of tests’ is only displayed for influenza A and influenza B for the Public Health Agency of Canada data source.

## PHO LABORATORY DATA– INFLUENZA AND OTHER RESPIRATORY VIRUSES

- Trends over time should be interpreted with caution as PHO’s respiratory testing algorithm changes each year. For current information on testing eligibility, please refer to the PHO respiratory viruses (including influenza) Test Information Sheet.<sup>8</sup>
- Date was assigned using sample collection date if provided and login date (date the sample was received at PHO) otherwise.
- Public health unit was assigned using patient’s postal code if provided and submitter’s postal code otherwise.
- Percent positivity for populations with a small number tested may be unstable and should be interpreted with caution.

- Results may not be representative of Ontario overall as other microbiology laboratories also perform testing for influenza and other respiratory viruses.
- Current PHO respiratory testing includes routine testing of select population groups<sup>8</sup>, including:
  - Symptomatic children (<18 years) seen in the emergency department (ED)
  - Symptomatic hospitalized patients (ward and intensive care unit)
  - Symptomatic residents in congregate living settings (non-outbreak)
  - Specimens from the first four symptomatic individuals (including healthcare workers/staff) in an outbreak that request respiratory virus testing
  - Individuals attending physician offices that are part of the Sentinel Practitioner Surveillance Network (SPSN).<sup>13</sup> SPSN patients are exempt from laboratory testing restrictions.

### **Key Changes In PHO's Testing Algorithm**

- As of September 20, 2017, routine testing was no longer provided for individuals seen in ambulatory and ED (not admitted) settings.
- From November 2018 to October 2019, PHO did not routinely test for human coronavirus and entero/rhinovirus. Counts for these two viruses should be interpreted with caution for this period.
- As of November 2, 2020, a new laboratory-developed multiplex respiratory virus PCR panel, "FLUVID", was implemented which includes influenza A, influenza B, SARS-CoV-2, and respiratory syncytial virus.
- As of December 31, 2021, SARS-CoV-2 testing in ambulatory settings was restricted to high-risk populations and individuals who work in high-risk settings. Prior to that, testing was provided to all individuals across all settings.
- As of November 1, 2022, the Ministry of Health and Long-Term Care approved an expanded influenza testing program for long-term care and retirement homes to other laboratories. As such, the volume of specimens tested by PHO for these institutions decreased.

## **COVID-19 Vaccine Uptake**

For further information on the processing, analysis, and caveats of the vaccination data presented in this tool, please refer to the Technical Notes section of the COVID-19 Vaccine Uptake Report.

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# Appendix A: COVID-19 Indicators

## Indicator: Cases

- Any move from 0 → **Higher**
- Any move to 0 → **Lower**
- Compared to case counts in the previous week:
  - an increase of 10% or more cases → **Higher**
  - a change less than 10% → **Similar**
  - a decrease of 10% or more → **Lower**

## Indicator: Percent Positivity

- Any move from 0 → **Higher**
- Any move to 0 → **Lower**
- If percent positivity in the previous week was under 10%:
  - an increase of 1 percentage point or more → **Higher**
  - a change less than 1 percentage point → **Similar**
  - a decrease of 1 percentage point or more → **Lower**
- If percent positivity in the previous week was 10% or over:
  - an increase of 10% or more → **Higher**
  - a change less than 10% → **Similar**
  - a decrease of 10% or more → **Lower**

## Indicator: Outbreaks

- Any move from 0 → **Higher**
- Any move to 0 → **Lower**
- If the number of new outbreaks in the previous week was under 50:
  - an increase of 5 or more outbreaks → **Higher**
  - a change less than 5 outbreaks → **Similar**
  - a decrease of 5 or more outbreaks → **Lower**
- If the number of new outbreaks in the previous week was over 50:
  - an increase of 10% or more → **Higher**
  - a change less than 10% → **Similar**
  - a decrease of 10% or more → **Lower**

## Overall Weekly Indicator Change

The interpretation of the weekly indicator change is compared against the current epidemiologic context. If there is discordance between the indicator assessments, the magnitude of the change in each indicator is considered and cases and percent positivity are given greater consideration.

## Appendix B: Influenza Indicators

### Indicator: Cases

- Any move from 0 → **Higher**
- Any move to 0 → **Lower**
- If case counts in the previous week were under 25:
  - an increase of 5 or more cases → **Higher**
  - a change less than 5 cases → **Similar**
  - a decrease of 5 or more cases → **Lower**
- If case counts in the previous week were over 25:
  - an increase of 20% or more cases → **Higher**
  - a change less than 20% of cases → **Similar**
  - a decrease of 20% or more cases → **Lower**
- If case counts in the previous week were over 500:
  - an increase of 10% or more cases → **Higher**
  - a change less than 10% → **Similar**
  - a decrease of 10% or more → **Lower**

### Indicator: Percent Positivity

- Any move from 0 → **Higher**
- Any move to 0 → **Lower**
- Minimum increase of 1 percentage point up to 10%, then a 2 percentage point increase up to 20% and a 3 percentage point increase up to 30% etc. → **Higher**
- Change is less than the number of percentage points required to call activity higher or lower. → **Similar**
- Minimum decrease of 1 percentage point up to 10%, then a 2 percentage point decrease up to 20% and a 3 percentage point decrease up to 30% etc. → **Lower**

### Indicator: Influenza Outbreaks

- Any move from 0 → **Higher**
- Any move to 0 → **Lower**
- If the number of new outbreaks in the previous week was under 50:
  - an increase of 5 or more outbreaks → **Higher**
  - a change less than 5 outbreaks → **Similar**
  - a decrease of 5 or more outbreaks → **Lower**

- If the number of new outbreaks in the previous week was over 50:
  - an increase of 10% or more → **Higher**
  - a change less than 10% → **Similar**
  - a decrease of 10% or more → **Lower**

### Indicator: Public Health Unit Activity Levels

- If average of activity levels is > than in previous week → **Higher**
- If average of activity levels is equal to that of the previous week → **Similar**
- If average of activity levels is < than in previous week → **Lower**

### Indicator: Overall Weekly Indicator Change

The interpretation of the weekly indicator change is compared against the current epidemiologic context. If there is discordance between the indicator assessments, the magnitude of the change in each indicator is considered and cases and percent positivity are given greater consideration.



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