TECHNICAL NOTES

Last Updated: March 3, 2021

Glossary

ACTIVE

A case which is admitted to the hospitalized, in the ICU, self-isolating or under investigation

CASE AND CONTACT MANAGEMENT (CCM)

is an information system for the reporting and surveillance of COVID-19 in Ontario

CHILDCARE OUTBREAK

Childcare Outbreak is defined as one or more laboratory-confirmed COVID-19 cases among staff of children.

CLOSE CONTACT

Close contact can result from: providing care for a positive case (e.g., healthcare workers, family members or other caregivers), living with a case, or having similar close physical, or prolonged face-to-face contact with a positive case while the case was ill

DATE REPORTED

Date the case was reported on the public website

ESTIMATED DATE OF ONSET

Date of symptom onset for a case, based on a hierarchy of dates. This is a calculated field using the earliest date available in iPHIS/CCM for each stage of the hierarchy to provide the closest possible approximation of onset date. If symptom onset date is not available, specimen collection date is used. If the specimen collection date is not available, the lab test date is used. If the lab test date is not available, the lab report date is used. If the lab report date is not available, the case report date is used.

EFFECTIVE REPRODUCTIVE NUMBER

The effective reproductive number, Rt, estimates the average number of people infected for every one person with COVID-19 and it is a measure of virus spread in the community. Rt is estimated based on the estimated date of infection.

INSTITUTIONAL OUTBREAK

Institutional Outbreak is defined as one or more resident or health care/child care worker case(s)

INTEGRATED PUBLIC HEALTH INFORMATION SYSTEM (IPHIS)

is an information system for the reporting and surveillance of Diseases of Public Health Significance (such as COVID-19) in Ontario

INDETERMINATE

Lab result could not be determined

HOSPITALIZED – ICU

Individuals who have been admitted to the Intensive Care Unit (ICU) at the hospital

HOSPITALIZED – NOT IN ICU

Individual admitted to the hospital, but not in the Intensive Care Unit (ICU)

NORTHERN 6

Municipality grouping which includes Aurora, East Gwillimbury, Georgina, Newmarket, King and Whitchurch – Stouffville

ONTARIO LABORATORIES INFORMATION SYSTEM (OLIS)

is an information system for the reporting and surveillance of lab test orders and results of Public Health Significance (such as COVID-19) in Ontario

LOCAL TRANSMISSION

Individuals who did not have close contact with a travel-related case or any known case of COVID-19

LAB REPORT DATE

Date that laboratory results were reported to York Region public health

RESOLVED

A case which no longer has a fever and their symptoms have been resolved for 14 days since the original date of symptom onset meaning the individual is no longer infectious.

SCHOOL OUTBREAK

A school outbreak may be declared by York Region Public Health in a school when there are two or more lab-confirmed COVID-19 cases in students and/or staff (or other visitors) with an epidemiological link within a 14-day period, where at least one case could have reasonably acquired their infection in the school (including transportation and before/after school care). If there is a known exposure in the school setting, or if none of the cases have a known source of infection outside of the school setting, then it is reasonable to presume the infection had been acquired in the school. .

SCHOOL UNDER SURVEILLANCE

A school may be placed under surveillance by York Region Public Health when at least one student and/or staff (or other visitor) are identified as a probable or confirmed COVID-19 case, and when infection was unlikely acquired in the school setting, and where there is no evidence of transmission within the school. Schools under surveillance are not declared in outbreak.

SELF-ISOLATING

Separating yourself, avoiding contact with other people and staying home (e.g., not attending work, school)

SPECIMEN COLLECTION DATE

Date that a lab specimen was collected

TRAVEL

Case is a result of travel outside of Canada

UNDER INVESTIGATION

A case which has been newly reported to public health and the investigation is ongoing

UNKNOWN EXPOSURE SOURCE

A case where the exposure source is unknown

WORKPLACE CLUSTER

Workplace cluster is defined more than one case among employees

Maps

WHY HEXAGONS?

Hexagons help standardize the area across York Region, and their circular nature helps to reduce the issue of using irregularly shaped areas such as Census boundaries, which in York Region, can vary drastically due to the mix of urban, sub-urban, and rural land. Hexagons show curves in data more naturally than grids and have a lower perimeter-to-area ratio. In addition, there are no defined neighbourhood or community boundaries in York Region. Using available information at the smallest census geography level, Dissemination Areas (DA), is too granular in urban areas to discern any trends, while the larger Census Tracts (CT) mask local trends in rural areas, which may be important to highlight. Each hexagon presented in these maps are 5 square kilometres in size.

RATE FORMULA

The Case Rate of Community COVID-19 map shows the total number of new community cases within a specific time period divided by the total population (excluding long term care home and congregate setting residents) and multiplied by 100,000.

The Positivity Rate of Community COVID-19 Testing in York Region map shows the number of positive laboratory specimens within a given time period divided by the total number of all laboratory specimens tested within the same time period (excluding long term care home and congregate living facility residents).

The Community COVID-19 Testing Rate per 100,000 Population in York Region map shows total number of laboratory tests within a given time period divided by the total population (excluding long term care home and congregate setting residents) and multiplied by 100,000.

DATA NOTE

Ontario Laboratories Information System (OLIS)

- Lab testing data are made available through the Ontario Laboratories Information System (OLIS) through iPHIS Cognos, extracted by 11:30am daily. An internal model optimizes the interpretation of these lab results
- All York region laboratories that conduct COVID-19 testing report to OLIS.
- OLIS data provides client address of residence as per their health card information. Approximately 6.5% of OLIS data could not be geocoded based on this address information.
- OLIS lab data has been aggregated to the specimen-level. One individual client may have multiple specimens tested.

Data Suppression

- Due to small counts, hexagons with very high rates should be interpreted with caution.
- To protect privacy and data stability, hexagons with A) fewer than 20 total specimens tested, B) fewer than 160 residents, and C) no specimens tested, are suppressed.
- Suppression is visualized only for hexagons with fewer than 20 total specimens tested.

Geospatial Processing

- Population estimates by hex are based on 2019 Environics DemoStat data redistributed across hexes, based on block weighted centroids.
- Community population estimates are determined by removing congregate living facility population estimates from total population estimates.
- Congregate living facility population estimates are determined from the number of congregate living facility beds within York Region. The number of congregate living facility beds which are filled at a given time is unknown.
- Approximately 6% of OLIS data were linked to congregate living facilities and were removed from mapping of community testing rates.

Variant of Concern (VOC)

A Mutation of Interest (MOI) is a viral isolate of SARS-CoV-2 which contains one or more key mutations compared to the reference strain which allows the disease to be more likely to spread quickly, to cause more severe disease, and/or to evade the immune system, potentially leading to re-infection or vaccine failure.

A Variant of Concern (VOC) is a viral isolate of a known SARS-CoV-2 lineage which contains one or more key mutations compared to the reference strain which allows the disease to be more likely to spread quickly, to cause more severe disease, and/or to evade the immune system, potentially leading to re-infection or vaccine failure. VOC isolates are confirmed by an added diagnostic step through Whole Genome Sequencing (WGS).

Viral isolates positive for SARS-CoV-2 are screened for mutations common to VOCs. Due to the significant volume of positive tests, not all positive MOIs will receive laboratory confirmation of VOC lineage.

Cases identified with a Variant of Concern (VOC) or a Mutation of Interest (MOI) have been included based on the best available information. Classification of these cases within the most recent 14 days may be underestimated due to lab testing and reporting delay. For more information, please visit the *Public Health Ontario Variants of Concern* landing page.

School Outbreaks

SCHOOL OUTBREAKS

A school outbreak may be declared by York Region Public Health in a school when there are two or more lab-confirmed COVID-19 cases in students and/or staff (or other visitors) with an epidemiological link within a 14-day period, where at least one case could have reasonably acquired their infection in the school (including transportation and before/after school care). If there is a known exposure in the school setting, or if none of the cases have a known source of infection outside of the school setting, then it is reasonable to presume the infection had been acquired in the school.

School outbreaks can be declared over after 14 days if there has been no evidence of ongoing transmission related to the exposures in the school, and if there are no further cases in students and/or staff (or other visitors) which can be linked to exposed individuals with pending tests.

SCHOOLS UNDER SURVEILLANCE

A school may be placed under surveillance by York Region Public Health when at least one student and/or staff (or other visitor) are identified as a probable or confirmed COVID-19 case, and when infection was unlikely acquired in the school setting, and where there is no evidence of transmission within the school. Schools under surveillance are not declared in outbreak.

A positive case at school does not mean the individual was exposure to COVID-19 at school. Cases associated with a school under surveillance will be investigated as community-related cases.

Schools under surveillance may be declared over by York Region Public Health when any probable or confirmed students and/or staff (or other visitors) is determined upon investigation not to be a case, or when the case is resolved after 14 days from symptom onset, the first positive lab result, or the last day at school, whichever is longest, and where there is no evidence of transmission within the school.

REPORTING INFORMATION

In alignment with the Ontario Ministry of Health *COVID-19 Guidance for School Outbreak Management*, all school-related case counts will be made publicly available (including licenced child care centres). To protect the privacy and confidentiality of students, staff, and essential visitors, case-specific information will not be posted on our external website. Data on schools and case counts are updated daily at 5pm (7 days per week). Discrepancies in counts may result from this routine reporting schedule. Discrepancies in counts between York Region Public Health and other sources of school outbreaks data may result from this routine reporting schedule. Additional information can be found at The Ontario Ministry of Health *COVID-19 Cases in Schools and Child Care Centres*.

Recovery Measures

All *York Region* measures are presented for the most recent appropriate timeframe, either as a rolling count, average, or median.

INDICATOR DEFINITIONS

7-Day Average of New Cases in the Community: Daily average of all newly reported community cases only within the most recent week.

Total New Hospitalizations in the Last 7 Days: Daily rolling count of newly hospitalized cases with COVID-19

Total New Institutional Outbreaks in the Last 7 Days: Daily rolling count of newly confirmed COVID-19 institutional outbreaks

Total Active Institutional Outbreaks in the Last 7 Days: Daily rolling count of ongoing confirmed COVID-19 institutional outbreaks that were open at least one day

% of New Cases with an Unknown Source of Infection: Daily moving-average proportion of new cases under investigation or unknown

Reproductive Number: Daily reproductive number estimate by date of infection

% Positivity: Average proportion of all COVID-19 specimens tested positive within the most recent week

% Positive Specimens w/ 24Hr Turnaround Time: Daily moving-average proportion of all COVID-19 specimens reported within 24Hrs of specimen collection

% Positive Specimens w/ 48Hr Turnaround Time: Daily moving-average proportion of all COVID-19 specimens reported within 48Hrs of specimen collection

% of Cases Followed Up within 1 Day: Daily moving-average of proportion of all COVID-19 cases contacted within 1 day of the case report date. Cases referred to FNIHB, lost to follow-up/ untraceable, or out of province are excluded.

DATA SOURCE

Case data are extracted once at 3pm daily from an internally created and maintained database at York Region Public Health. Data in the most current update may differ from other data presented by York Region. The statistics presented in this report represent the most current disease counts in York Region and supersede all previous reports. Case counts include residents of York Region only, or any outbreaks with York Region as the location of exposure. Community cases are determined by removing estimated number of congregate cases based on bed counts of group homes, emergency or seasonal shelters, and long-term care facilities