Update on COVID-19 Projections

Science Advisory and Modelling Consensus Tables
February 11, 2021
Key Findings

• Public health measures are paying off in declining mobility, cases, positivity, and hospitalizations.
• Focussing vaccination on long-term care homes is paying off with declining daily deaths.
• ICU occupancy is flat and the access to care deficit continues to grow.
• The B.1.1.7 Variant of Concern is spreading. Cases will likely grow again in late February with ICU admissions increasing afterwards.
• Aggressive vaccination and sticking with stay-at-home order will help avoid a third wave and a third lockdown.
• Some key mental health indicators are unchanged. However, important measures such as emergency department admissions, opioid deaths and care for eating disorders are worsening.
Declines in mobility have helped reduce cases
Total new cases per 100,000 residents per week across PHUs

Weekend new cases per 100,000 residents

Data source: Case and Contact Management System (CCM), data up to February 8
COVID-19 testing % positivity across PHUs

Dec 26
Province-wide lockdown
14-days for N. Ontario
28-days for S. Ontario

Jan 18
First dose vaccination complete in prioritized PHUs

Peel, 7.2%
Toronto, 6.1%
York, 5.6%
Ontario, 3.4%

CONTROL (positivity ≥ 2.5%)
RESTRICT (positivity ≥ 1.3%)
PROTECT (positivity ≥ 0.5%)

Data source: Ontario Laboratory Information System (OLIS), data up to February 8
Cases and percent positivity declined across age groups.
Cumulative COVID-19 vaccine dose administrations (426,834 doses to Feb 10, 2021)

Vaccine dose administrations

Current status

Since December 15, 2020, 426,834 vaccine dose administrations have been reported in COVax.

These administrations include Pfizer and Moderna vaccines.

92% of vaccine administrations have been since Jan 1, 2021.

Data Source: COVax. Data to Jan 22nd extracted from COVax Dose Admin by Day Report. Jan 23rd-Feb 7th: COVax daily reports (Health Data Branch, MOH). Includes Pfizer and Moderna vaccines. Excludes records where status is not known.
The majority of deaths arise from long-term care.
Long-term care key indicators improved.

Current status

213 LTC homes have COVID-19 outbreaks (34% of all homes) with 90 outbreaks involving resident cases.

25 of 34 PHUs have at least 1 home in outbreak.

Since January 1st 900 LTC residents and 3 staff have died of COVID-19. Wave 2 deaths (1,821) now roughly equal to Wave 1 (1,848).
Hospitalizations dropped and ICU occupancy stabilized.

Data Sources: Daily Bed Census Summary COVID-19 Report + Critical Care Information System. Extracted via MOH SAS VA February 9, 2021. Does not include patients in alternative health facilities (AHFs)
The highly transmissible B.1.1.7 variant will soon dominate.

- Variants are likely between 5% and 10% of cases now.
- To prevent an increase in total cases Re for B.1.1.7 needs to be below 0.7.
- Current Re is between 0.8 and 0.9, it has only approached 0.7 once.
- Public Health Measures appear to be effective against all variants.
- First cases of B.1.351 (detected in South Africa) and P.1 (detected in Brazil) detected in Ontario.
To control growth with variants, we must push R to 0.7
At $R=0.9$ (just above current) variant triggers exponential growth
If public health measures are lifted, cases could rise dramatically depending on spread of B.1.1.7.
The majority of ICU admissions arise outside of long-term care homes.
ICU Occupancy will follow changes in case rates by two weeks. Growth could start as early as the second week in March.
The impact of the Pandemic has been inequitable and will continue to be inequitable.
Mental health medication dispensing has been stable

**Analysis:**

**ODPRN**

**Data:** ICES data is updated quarterly, with up to a 3 month reporting lag.
Emergency department visits for mental health and addictions care have declined

Analysis: OH MHA Centre of Excellence
Data: Electronic Canadian Triage and Acuity Scale (eCTAS)
Overdose deaths have continued to climb

Notes:
Data provided by the office of the Chief Coroner of Ontario (OCC); Suspect drug-related deaths are identified based on preliminary information reported by the investigating coroners to the office of the Chief Coroner of Ontario. It takes several months for these investigations to be completed and acute drug toxicity deaths to be confirmed; Opioid-related deaths include confirmed and probable, and are considered preliminary. Once investigations are complete, acute opioid toxicity is typically deemed to be at least one of the substances directly contributing to about 65%-80% of suspected-drug related deaths (depending on the time period).
Eating disorder visits and admissions have increased.

Hospitalizations and emergency department visits* for eating disorders among children and adolescents (3 to 17 years) in Ontario by 4-week average, Jan 2017 to Sept 2020

Crude rate per 100,000 population

Analysis: OH MHA Centre of Excellence
Data: ICES
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