Weekly report: COVID-19 case epidemiology and vaccination program update

Report date: May 1, 2024
Unless otherwise indicated, analyses are based on data up to and including April 27, 2024 that were available as of May 1, 2024.

Highlights

Reported COVID-19 cases

As of April 27, 2024, Public Health was reporting the following among residents of Sudbury and districts:

- **25,393** total known cases of COVID-19 since the beginning of the pandemic.
- **8** known active cases of COVID-19.
- **251** deaths due to COVID-19, of which **0** had occurred in the previous 14 days.

Note: As of December 31, 2021, eligibility for publicly funded PCR testing is limited to people who are associated with highest-risk settings or who are at high risk of severe health outcomes if they become infected. Therefore, counts of new and active cases underestimate the true number of people with COVID-19 in Sudbury and districts.

COVID-related hospitalizations

On April 27, 2024, hospitals within Sudbury and districts were reporting:

- **5** admitted patients with a confirmed case of COVID-19, of which **2** had been admitted for treatment of COVID-19-related illness and **3** had been admitted for other reasons.
- **0** patients admitted to the intensive care unit (ICU) with a confirmed case of COVID-19.

Vaccination

As of April 27, 2024:

- **591,630** doses of a COVID-19 vaccine had been administered to residents of Sudbury and districts.
- Overall, **16.9%** of local residents aged 6 months and older are up-to-date with their COVID-19 vaccine by having received a fall 2023 dose, compared to **66.0%** who were previously vaccinated and **17.1%** who remain unvaccinated.

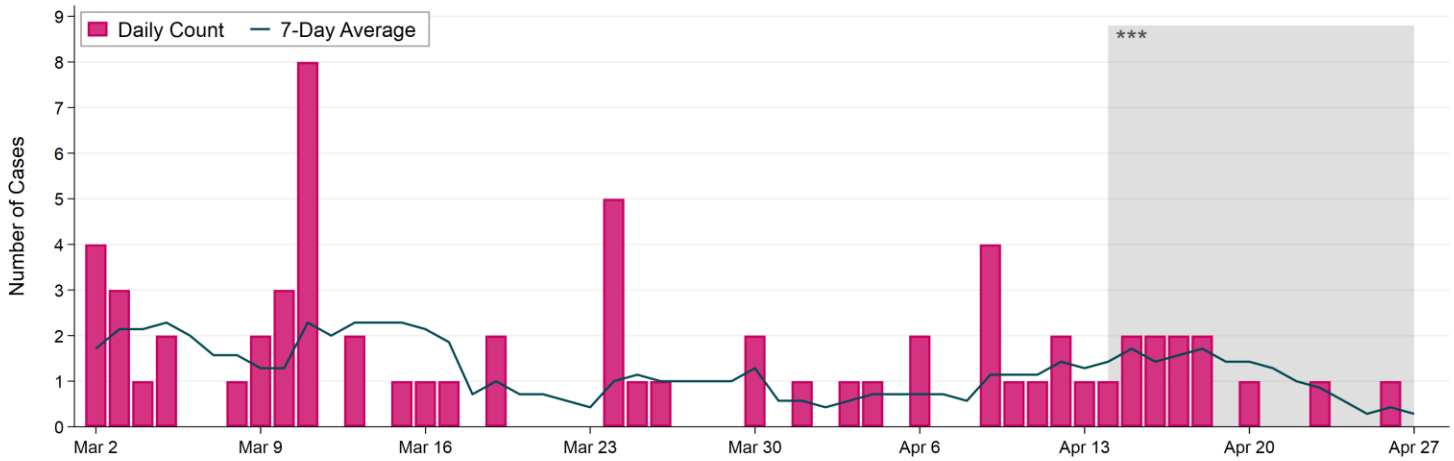
Recent epidemiologic trends

Reported COVID-19 cases

As of April 27, 2024, there had been **2** reported COVID-19 cases with symptom onset (or testing, if asymptomatic) in the previous 7 days, an average of **0.3** cases per day. This is lower than the previous week in which **10** cases (or **1.4** cases per day on average) had been reported (see Figure 1). There were **8** known active cases in Sudbury and districts on April 27, 2024, compared to **14** known active cases 7 days prior (see Figure 2).

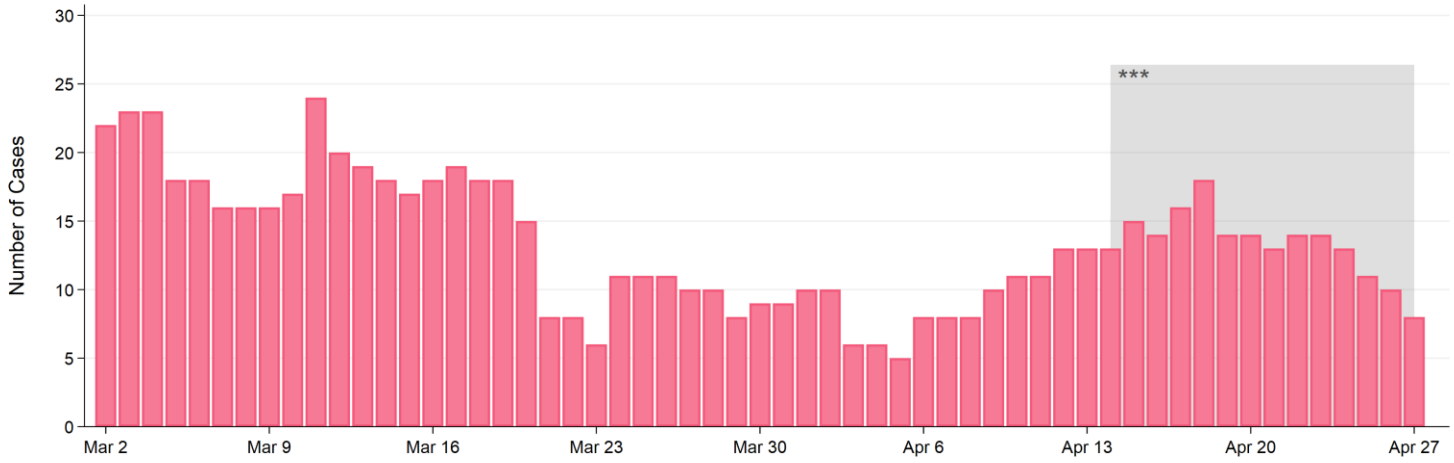
Note: As of December 31, 2021, eligibility for publicly funded PCR testing is limited to people who are associated with highest-risk settings or who are at high risk of severe health outcomes if they become infected. Therefore, counts of new and active cases underestimate the true number of people with COVID-19 in Sudbury and districts.

FIGURE 1. Daily COVID-19 cases, past 8 weeks, Sudbury and districts



Dates are the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

FIGURE 2. Daily active COVID-19 cases, past 8 weeks, Sudbury and districts



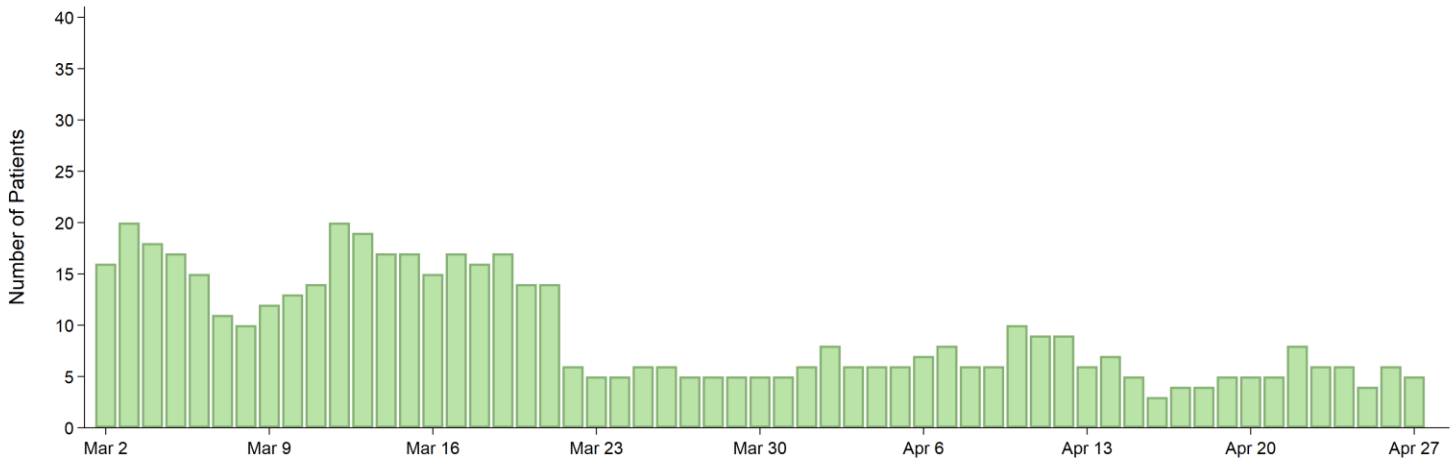
Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

COVID-19 cases in local hospitals

On April 27, 2024, there were **5** confirmed cases of COVID-19 in local hospitals (see Figure 3), **2** of which were admitted due to COVID-19. Of these cases, **0** were currently in the intensive care unit (ICU) (see Figure 4). Seven days prior, on April 20, 2024, there were **2** patients in hospital for treatment of COVID-19 of which **0** were in the ICU.

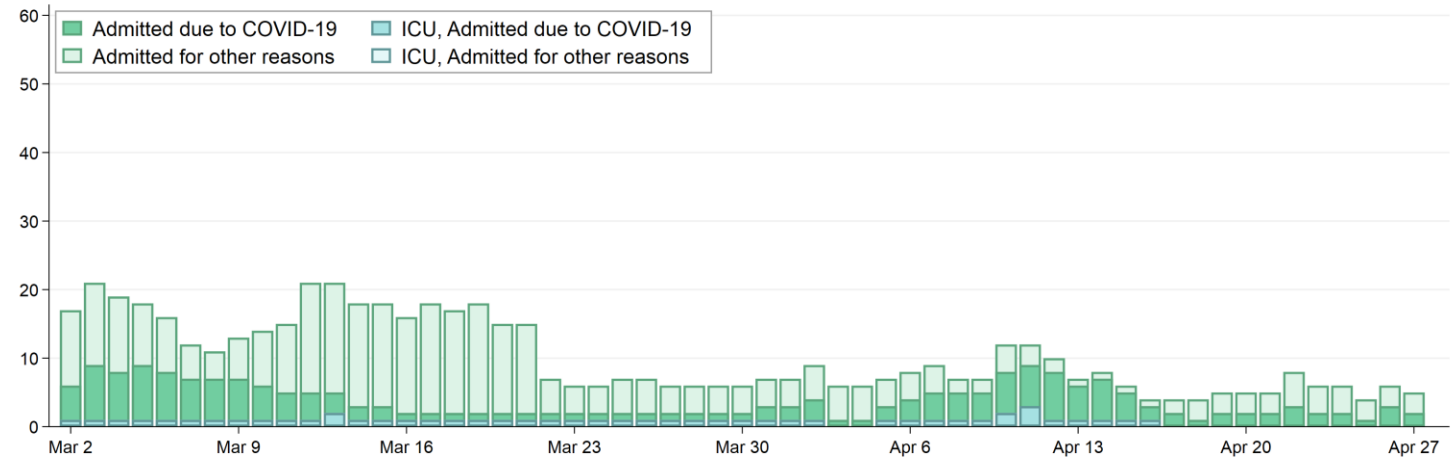
An additional **3** patients with confirmed COVID-19, in hospital on April 27, 2024, had been admitted for reasons other than COVID-19 (Figure 4).

FIGURE 3. Patients in local hospitals with confirmed COVID-19, by date, past 8 weeks, Sudbury and districts



Counts shown are of patients currently in hospital, not new daily admissions. They include all patients diagnosed with COVID-19 including those admitted for treatment of other conditions. Counts may include residents of other geographic areas. Data Source: Daily Bed Census Summary, accessed via the COVID-19 Regional Hospitals Dashboard, Ontario Ministry of Health, May 1, 2024.

FIGURE 4. Confirmed cases in local hospitals, by date and reason for admission, past 8 weeks, Sudbury and districts



Counts shown are of patients currently in hospital, not new daily admissions. They include all patients diagnosed with COVID-19 including those admitted for treatment of other conditions. Counts may include residents of other geographic areas. Data Source: Daily Bed Census Summary, accessed via the COVID-19 Regional Hospitals Dashboard, Ontario Ministry of Health, May 1, 2024.

Case demographics and area of residence

Table 1, below, summarizes the number and percentage of total and active COVID-19 cases reported in Sudbury and districts as of April 27, 2024, by their age, sex, and geographic area of residence.

TABLE 1. Number and percentage of reported COVID-19 cases, by age, sex and geographic area of residence, Sudbury and districts

Characteristic	Total Cases	Active Cases
Numbers of Cases	25,393 (100%)	8 (100%)
Sex: Male	8,717 (34.3%)	6 (75.0%)
Sex: Female	13,562 (53.4%)	1 (12.5%)
Sex: Not specified**	3,089 (12.2%)	1 (12.5%)
Ages: 19 and under	3,089 (12.2%)	1 (12.5%)
Ages: 20-39	7,721 (30.4%)	0 (0.0%)
Ages: 40-59	6,440 (25.4%)	2 (25.0%)
Ages: 60-79	4,881 (19.2%)	2 (25.0%)
Ages: 80 and over	3,245 (12.8%)	3 (37.5%)
Ages: Not specified**	17 (0.1%)	0 (0.0%)
Area: Greater Sudbury	21,518 (84.7%)	6 (75.0%)
Area: Manitoulin District	1,821 (7.2%)	2 (25.0%)
Area: Sudbury District, North	427 (1.7%)	0 (0.0%)
Area: Sudbury District, West	1,162 (4.6%)	0 (0.0%)
Area: Sudbury District, East	465 (1.8%)	0 (0.0%)

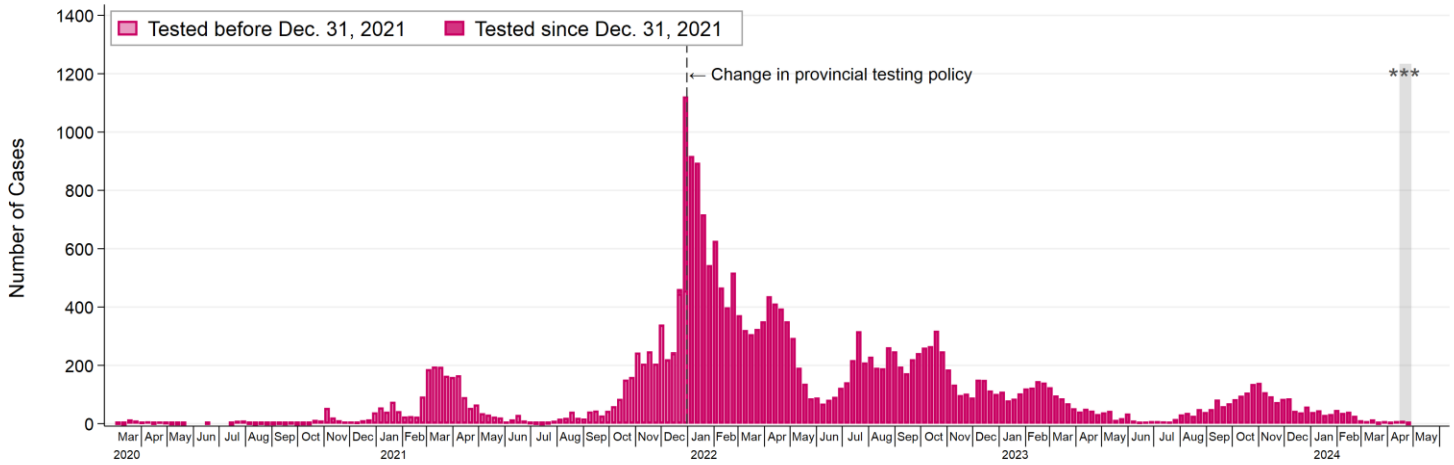
Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *Data on sex and age groups are listed as unspecified until there are sufficient numbers to allow them to be assigned to the appropriate categories. This ensures that individual cases cannot be identified. Sex is not specified for cases aged 19 years and under. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

Historical epidemiologic trends

Case counts by week

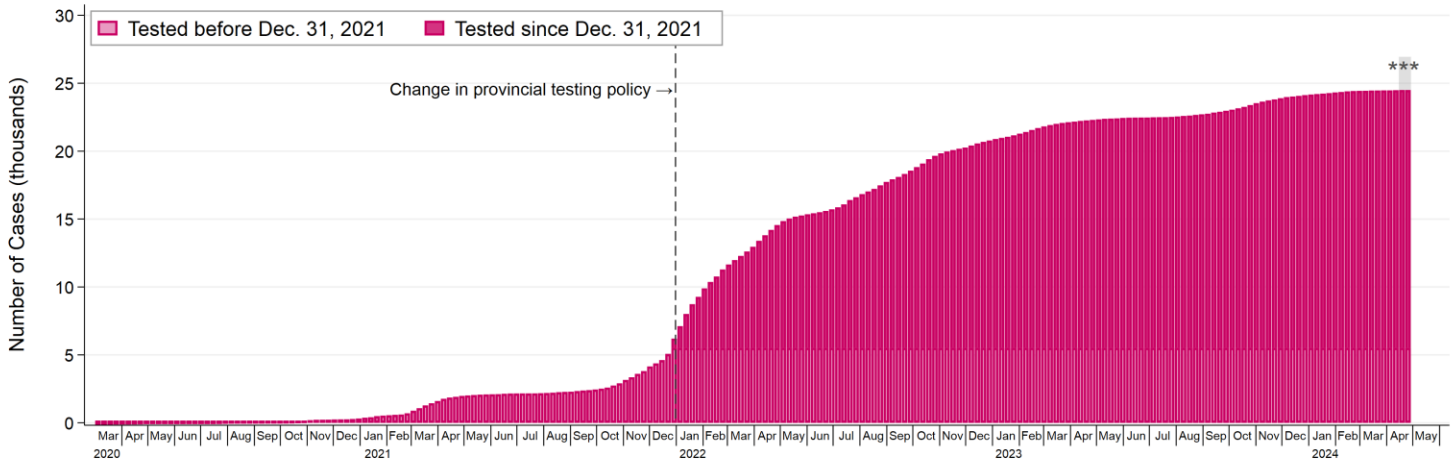
The following graphs show weekly COVID-19 case counts in Sudbury and districts since the first case was reported locally (Figure 5), and the cumulative weekly case count (Figure 6).

FIGURE 5. Confirmed COVID-19 cases, by week, Sudbury and districts



Weeks represent the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

FIGURE 6. Cumulative confirmed COVID-19 cases, by week, Sudbury and districts



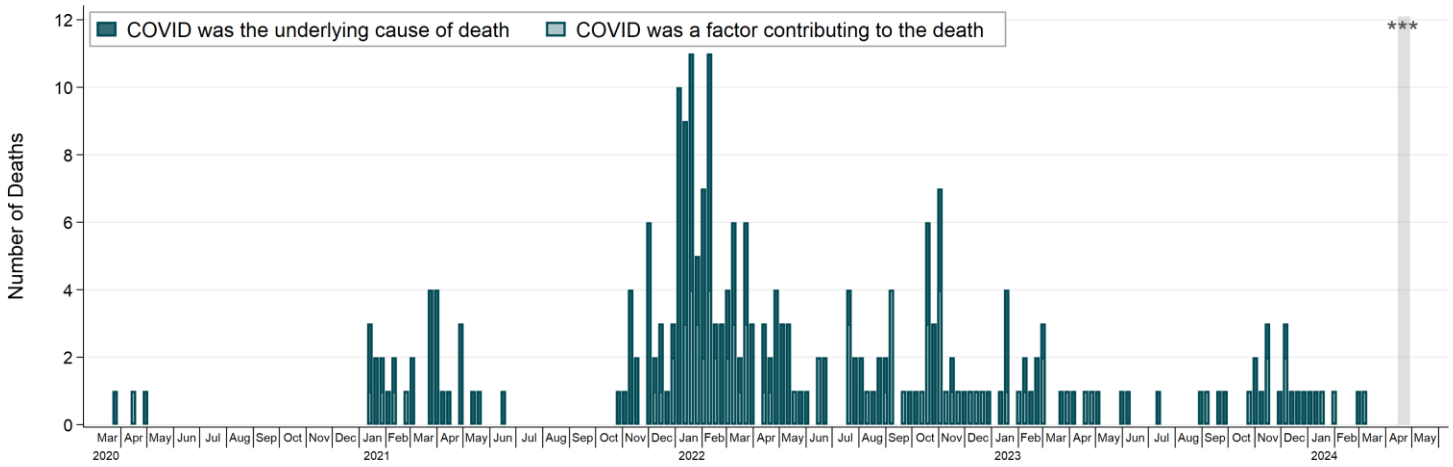
Weeks represent the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

COVID-19-related deaths

A COVID-19-related death is one in which COVID-19 is either the underlying cause of death, such as in deaths due to COVID pneumonia, or where COVID-19 has contributed to a death from other causes, such as a cardiac arrest. Deaths among COVID-19 cases in which COVID-19 did not play a role in the death are excluded from these counts.

As of April 27, 2024, there have been **251** COVID-related deaths among local residents since the start of the pandemic. COVID-19 was the underlying cause of death in **169** of these deaths and was a factor contributing to **82** other deaths. There have been **0** COVID-19-related deaths in the past 14 days. Figure 7, below, shows the occurrence of COVID-19-related deaths by week since the start of the pandemic.

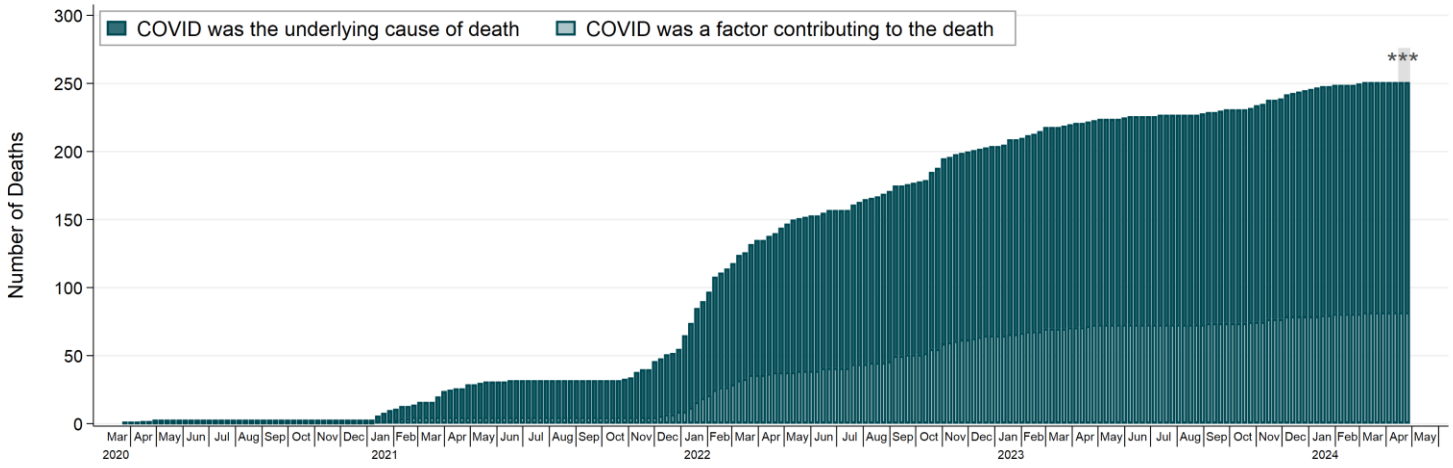
FIGURE 7. COVID-related deaths, by week and type of death, Sudbury and districts



***Preliminary data, as there may be delays in a COVID-related death being reported to public health. Deaths among COVID-19 cases in which COVID-19 was not either the underlying cause of death, or a factor contributing to the death, were excluded. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM) May 1, 2024.

Figure 8, below, shows the cumulative count of local deaths by week.

FIGURE 8. Cumulative COVID-related deaths, by week and type of death, Sudbury and districts



***Preliminary data, as there may be delays in a COVID-related death being reported to public health. Deaths among COVID-19 cases in which COVID-19 was not either the underlying cause of death, or a factor contributing to the death, were excluded. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM) May 1, 2024.

Outbreaks

An outbreak may be declared within a given setting, such as a hospital, long-term care home, retirement home, or community congregate living setting, if there are two or more cases of COVID-19 in a 10-day period that have some link with each other with evidence that infection occurred in that setting. Public Health assesses each unique situation in determining if an outbreak should be declared, including, for example, occupation, exposures in the home, symptoms of the case, specific risk factors, and local epidemiology.

Prior to changes to provincial case and contact management guidance made on December 31, 2021, numerous outbreaks were declared in schools, workplaces, and in other locations or groups within the community. Following those changes, community outbreak investigations now focus on the highest-risk settings in our community, primarily locations where vulnerable people gather and/or live together such as group homes, shelters, hospices, and correctional institutions.

As of April 27, 2024, Public Health had declared 510 COVID-19 outbreaks in various local settings, as shown in Table 2, below.

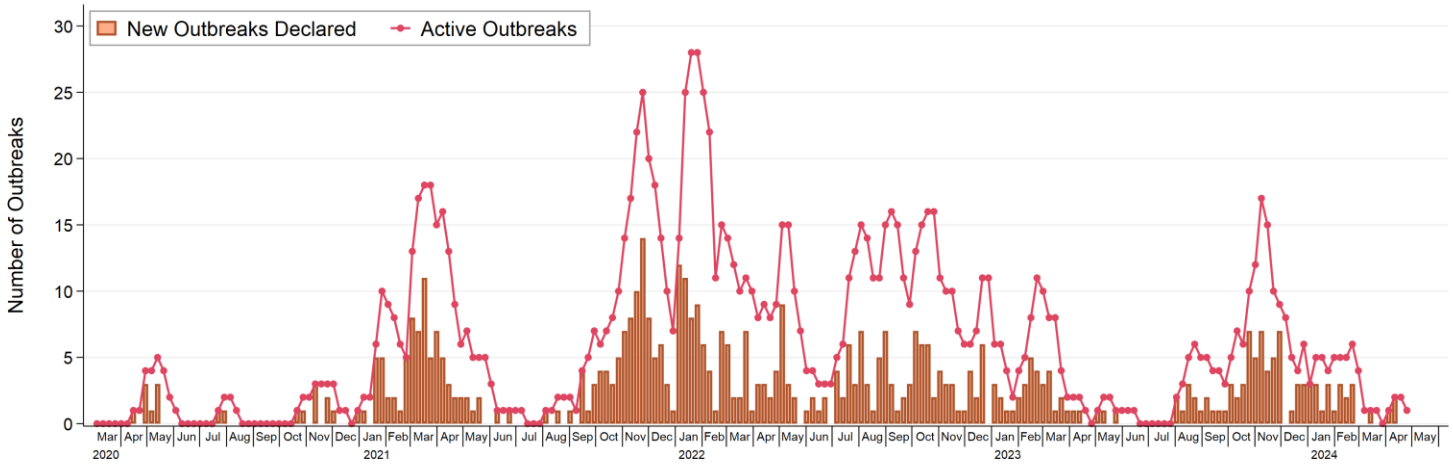
TABLE 2. Number of COVID-19 outbreaks declared, by type of setting and by year, Sudbury and districts

Type of Setting	Declared in 2020	Declared in 2021	Declared in 2022	Declared in 2023	Declared in 2024*	Currently Active
Hospital	0	9	68	44	13	0
Long-term care and retirement homes	14	18	65	37	10	0
Congregate living settings	0	15	67	19	0	0
Schools and daycares	2	64	0	0	0	0
Workplaces	0	46	0	0	0	0
Other settings	3	15	0	1	0	0
TOTAL	**19**	**167**	**200**	**101**	**23**	**0**

*Year to date. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

Figure 9, below, shows the number of new and active local outbreaks declared each week.

FIGURE 9. New and active COVID-19 outbreaks, by week, Sudbury and districts



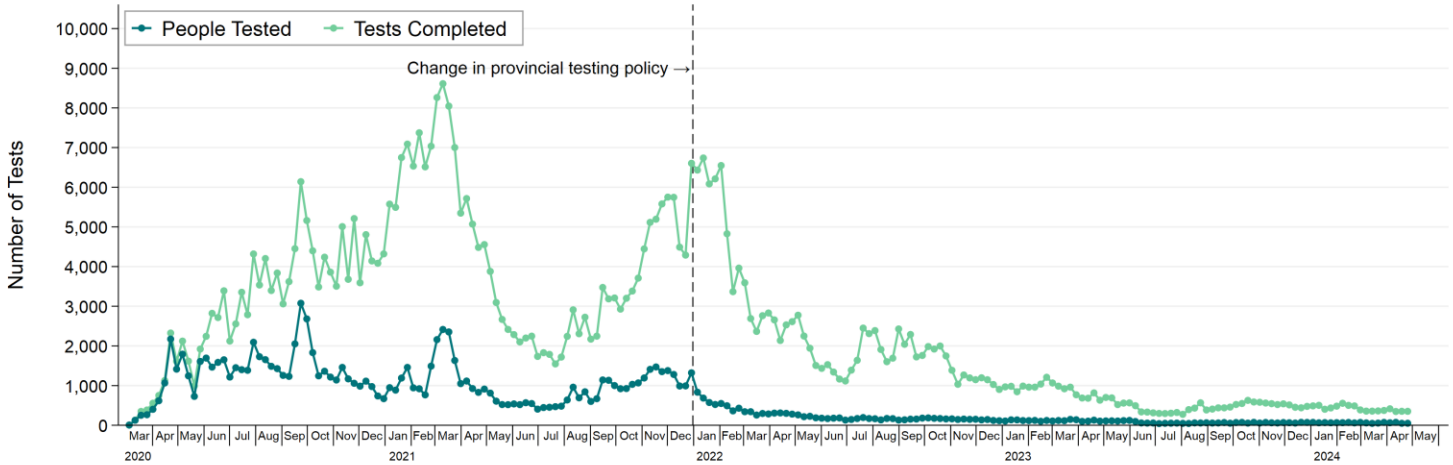
Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

Testing

As of April 27, 2024, there had been **521,888** tests for COVID-19 among residents of Sudbury and districts. This includes preliminary counts of tests completed in the previous 6 days. Note that an individual can be tested on multiple occasions, and that samples collected on each such occasion may undergo multiple laboratory tests, which are counted separately.

Figure 10, below, shows the number of tests completed each week, as well as the number of individual people tested.

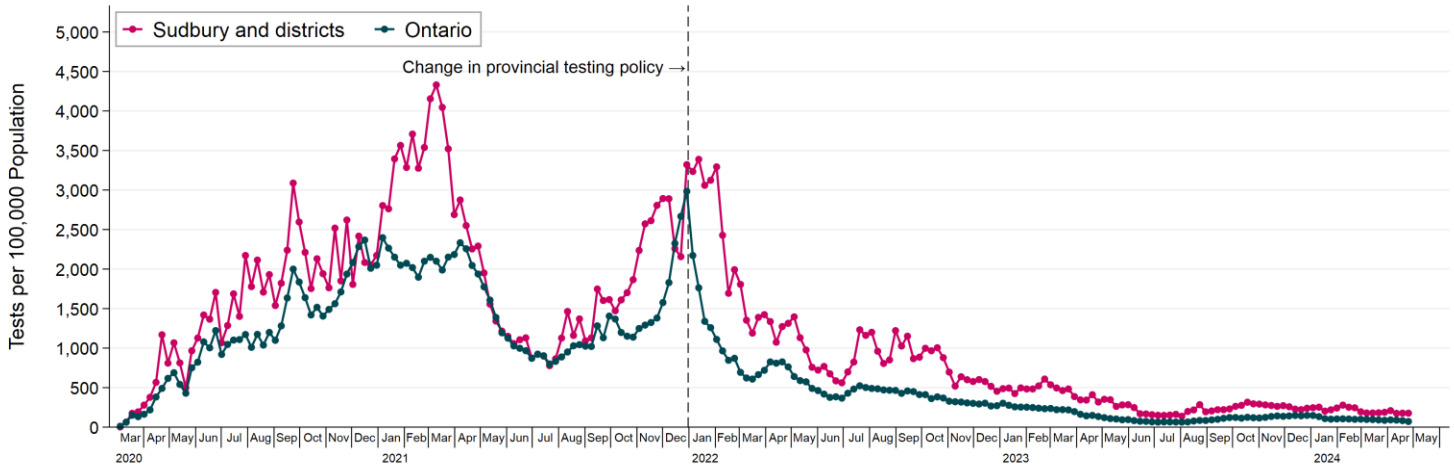
FIGURE 10. Number of tests and people tested, by week, Sudbury and districts



‡ Preliminary data. An individual may be tested on multiple occasions, and the samples collected may undergo multiple tests, each counted separately.
Data source: Ontario Ministry of Health, Ontario Laboratories Information System (OLIS), accessed via the COVID-19 Dashboard, May 1, 2024.

Figure 11, below, shows the rate of tests completed per 100,000 population in Sudbury and districts compared to Ontario, overall. Note that if two regions have equivalent prevalence rates of COVID-19, a higher rate of testing will likely result in a larger number of COVID-19 cases being identified and reported, and thus a higher reported incidence rate.

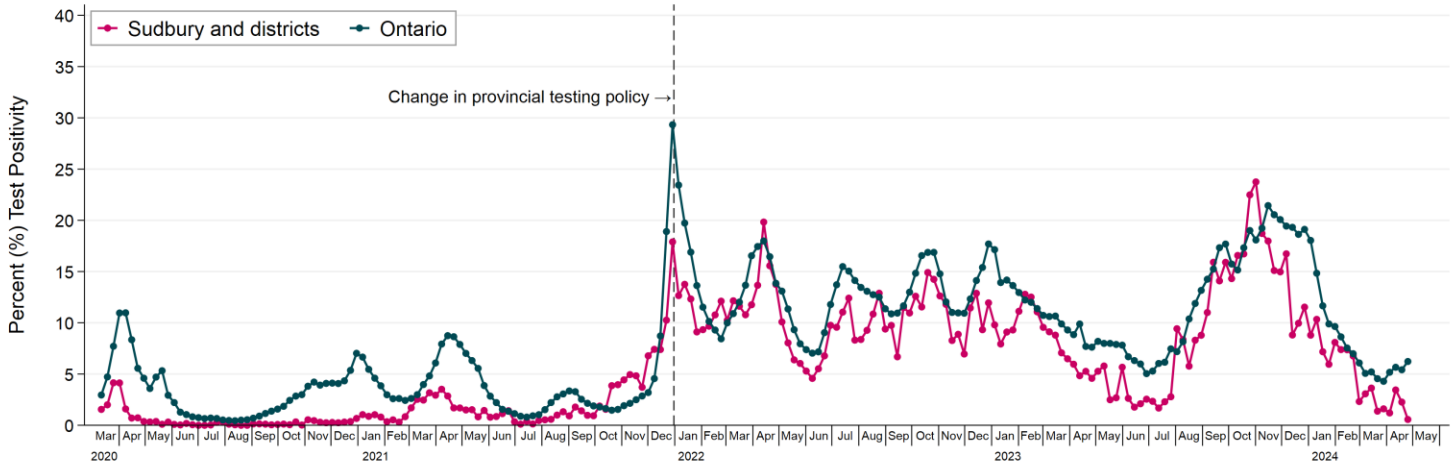
FIGURE 11. Rate of tests per 100,000 population, by week and geographic region



‡ Preliminary data. An individual may be tested on multiple occasions, and the samples collected may undergo multiple tests, each counted separately. Data source: Ontario Ministry of Health, Ontario Laboratories Information System (OLIS), accessed via the COVID-19 Dashboard, May 1, 2024.

Figure 12, below, shows the percent test positivity in both Sudbury and districts and in Ontario overall. This is the percentage of all laboratory tests completed that are positive for COVID-19. A high rate of test positivity (for example, 5% or above) can mean rates of transmission are high, rates of testing are too low, or both. Either way, it indicates that there are likely more people in the community who are positive for COVID-19 but haven't been tested yet.

FIGURE 12. Percent positivity of COVID-19 tests, by week and geographic region



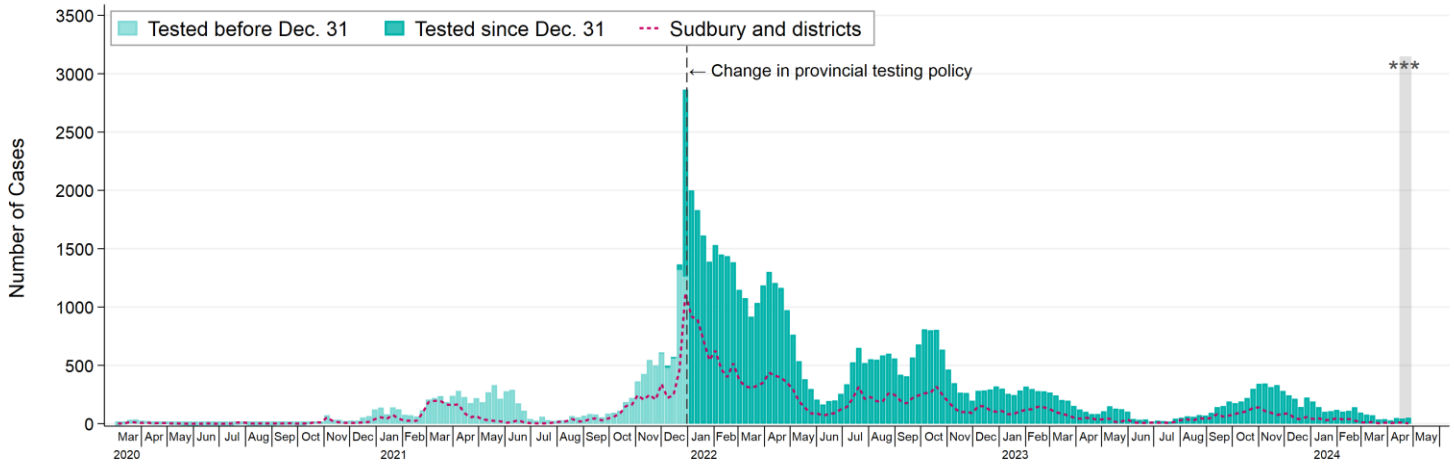
‡ Preliminary data. Samples collected may undergo multiple tests, each counted separately. Data source: Ontario Ministry of Health, Ontario Laboratories Information System (OLIS), accessed via the COVID-19 Dashboard, May 1, 2024.

Regional context

Case counts by week

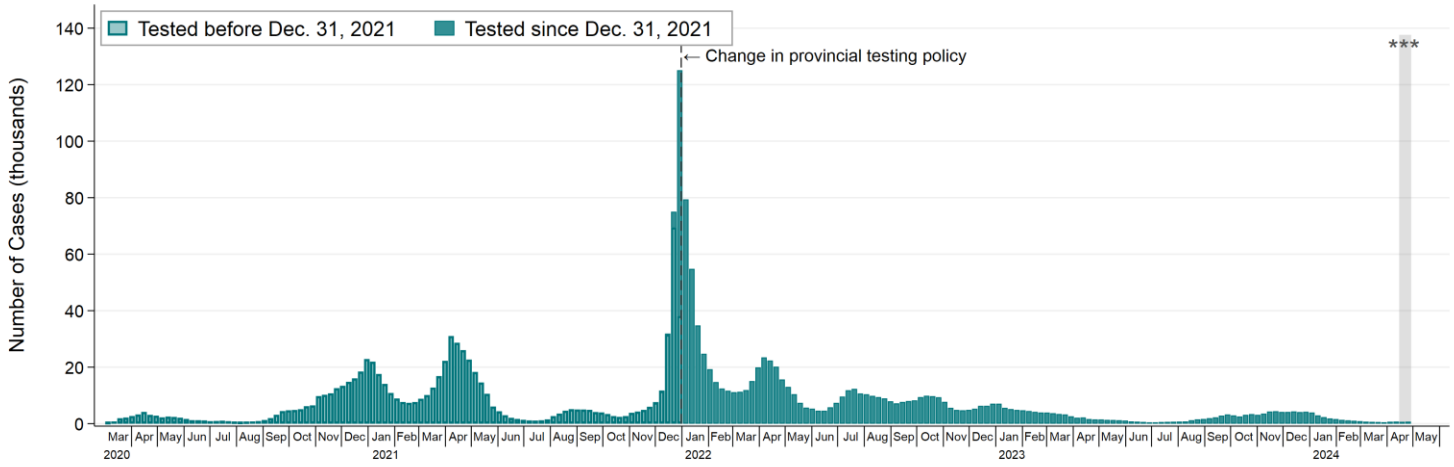
Figure 13, below, shows the number of newly reported COVID-19 cases by week in Northeastern Ontario and how many of those resided in Sudbury and districts. Figure 14 shows the weekly count in Ontario overall. Note that the vertical axis in the Ontario graph is very different, since provincial case counts are much higher than local counts.

FIGURE 13. Confirmed COVID-19 cases, by week, Sudbury and districts and Northeastern Ontario



Weeks represent the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

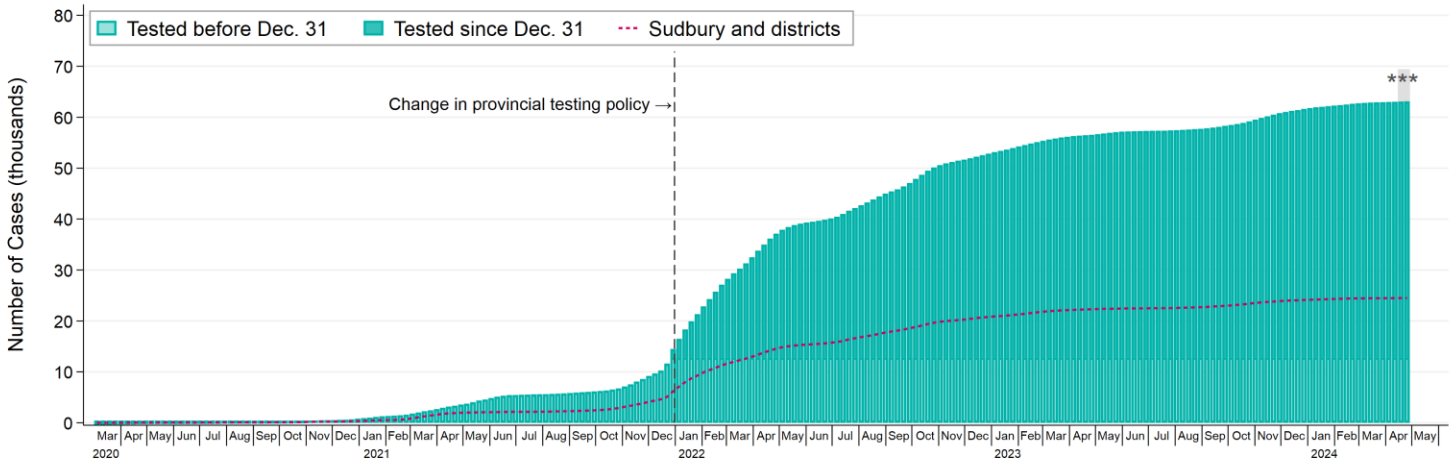
FIGURE 14. Confirmed COVID-19 cases, by week, Ontario



Weeks represent the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

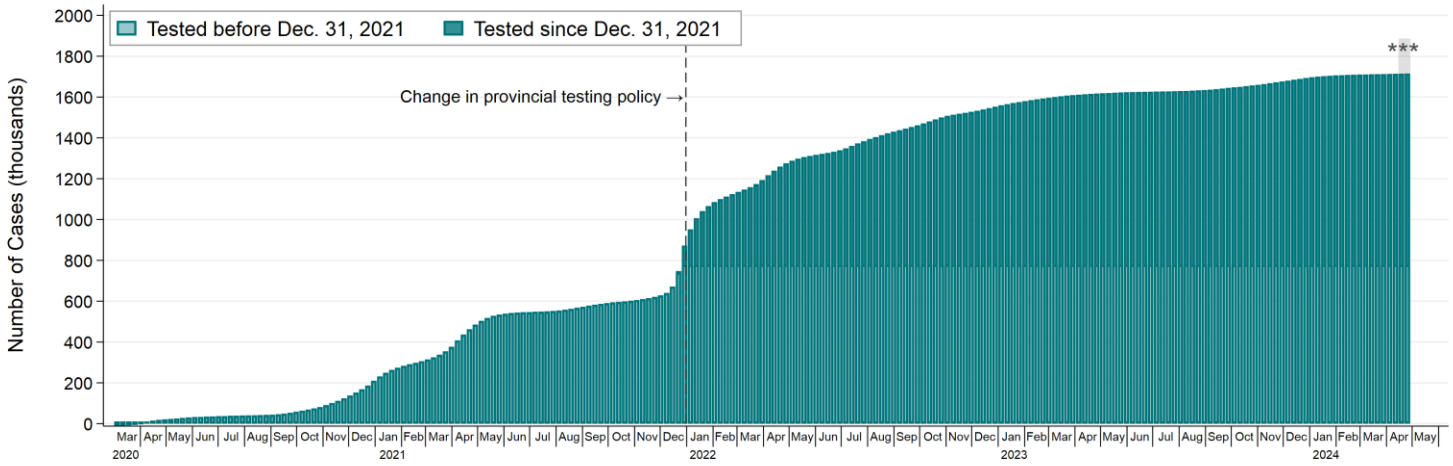
Figures 15 and 16 present a comparison of cumulative weekly case counts by region. Again, note the difference in the vertical axis for the Ontario graph.

FIGURE 15. Cumulative confirmed COVID-19 cases, by week, Sudbury and districts and Northeastern Ontario



Weeks represent the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024.

FIGURE 16. Cumulative confirmed COVID-19 cases, by week, Ontario



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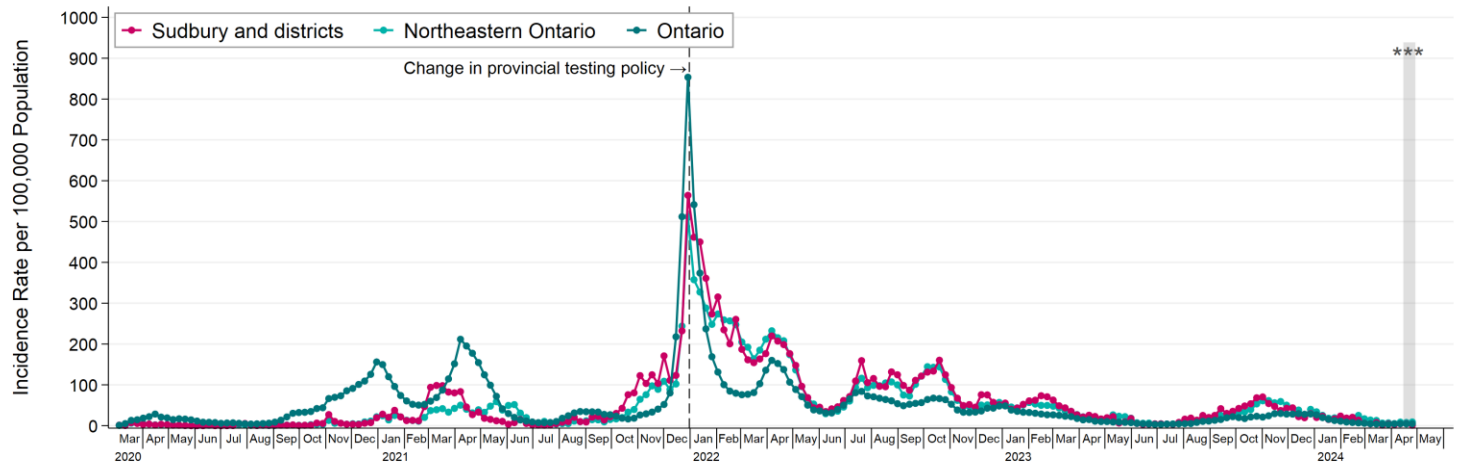
Incidence rates by week

Figure 17, below, presents weekly COVID-19 incidence rates by geographic region. These rates are the number of new cases of COVID-19 each week per 100,000 people in the population.

FIGURE 17. Incidence rate of COVID-19 per 100,000 population, by week and geographic region



Weeks represent the earliest of the following: the case's date of symptom onset, their date of testing, or the date the case was reported to public health. Due to changes in provincial testing policy effective December 31, 2021, confirmed cases are an underestimate of the true number of people with COVID-19. *** Infections occurring during this period may not yet be detected and/or reported. Data Source: (1) Ontario Ministry of Health, Case and Contact Management Solution (CCM), May 1, 2024; (2) Population Projections 2020, Ontario Ministry of Health, IntelliHEALTH Ontario, April 21, 2021

Vaccination

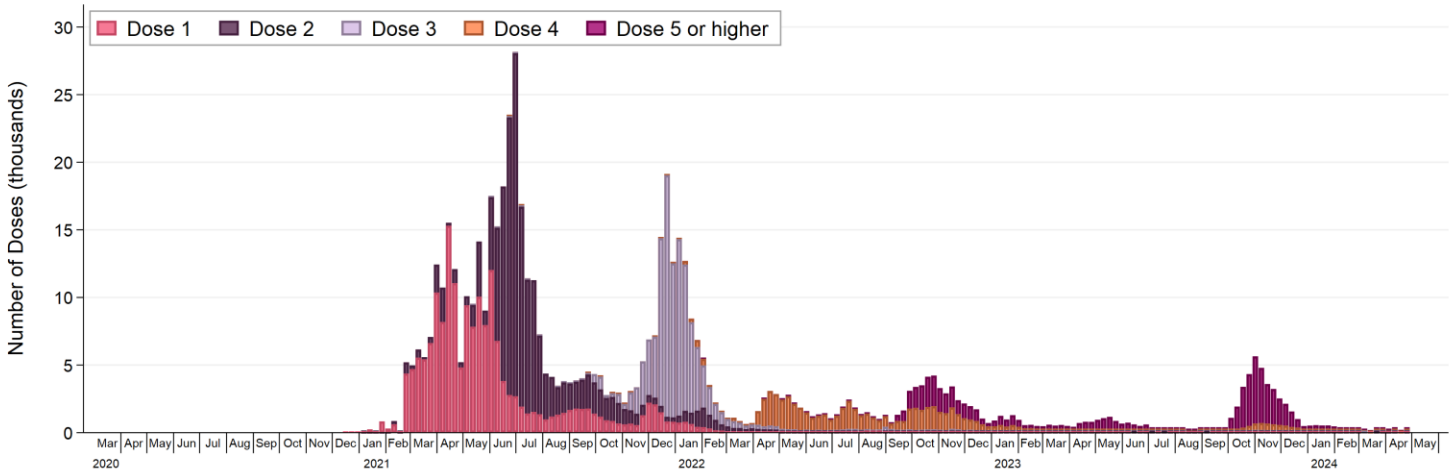
All Ontarians aged 6 months and older are eligible to receive an approved COVID-19 vaccine at a recommended interval of 6 months since their last dose, or a minimum of 3 months. Vaccines are safe and effective and help to protect you and those around you from serious illness. It is important that you receive all recommended COVID-19 vaccine doses, as this will help you build long-term protection against COVID-19, decrease the risk of developing post COVID-19 conditions (commonly known as 'long COVID'), and will provide protection against severe illness, including hospitalization and death.

Doses by week

This section presents information on COVID-19 vaccinations administered to residents of Sudbury and districts, including those administered by Public Health, primary care, pharmacies, hospitals, First Nations, and other partners. Public Health Sudbury & Districts began administering COVID-19 vaccines in late January 2021.

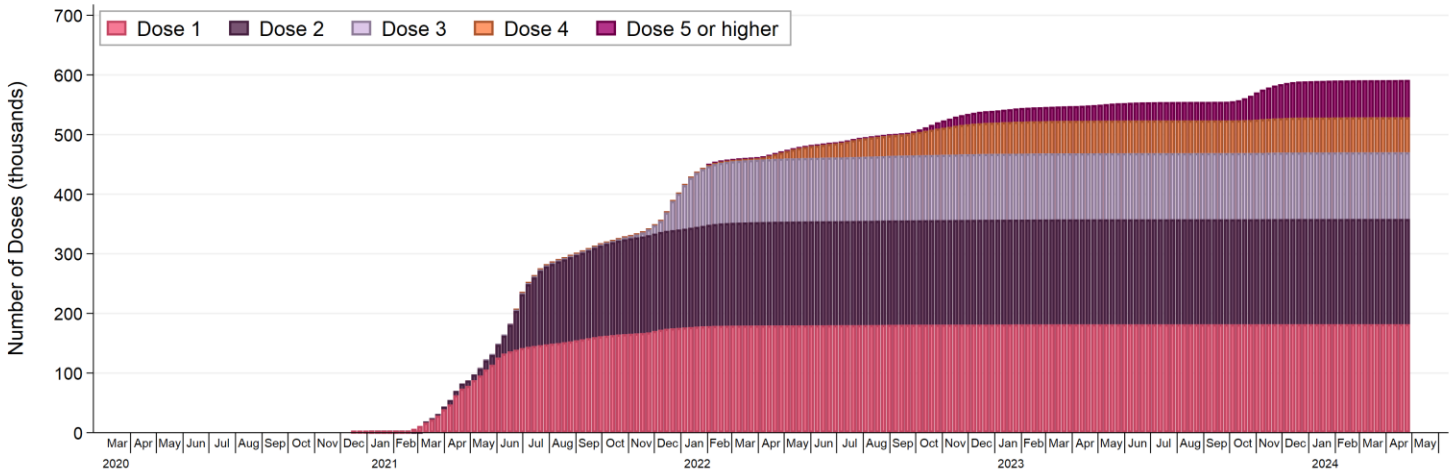
As of April 27, 2024, **591,630** doses of a COVID-19 vaccine had been administered to local residents. Figures 18 and 19, below, show the weekly and cumulative number of doses administered to local residents, respectively, by week and by dose number.

FIGURE 18. COVID-19 vaccinations received, by week and dose number, Sudbury and districts



Includes all vaccine doses given to residents of Sudbury and districts, including those administered by public health, primary care, hospitals, pharmacies and other partners. Data Source: Ontario Ministry of Health, COVaxON Application, May 1, 2024.

FIGURE 19. Cumulative COVID-19 vaccinations received, by week and dose, Sudbury and districts



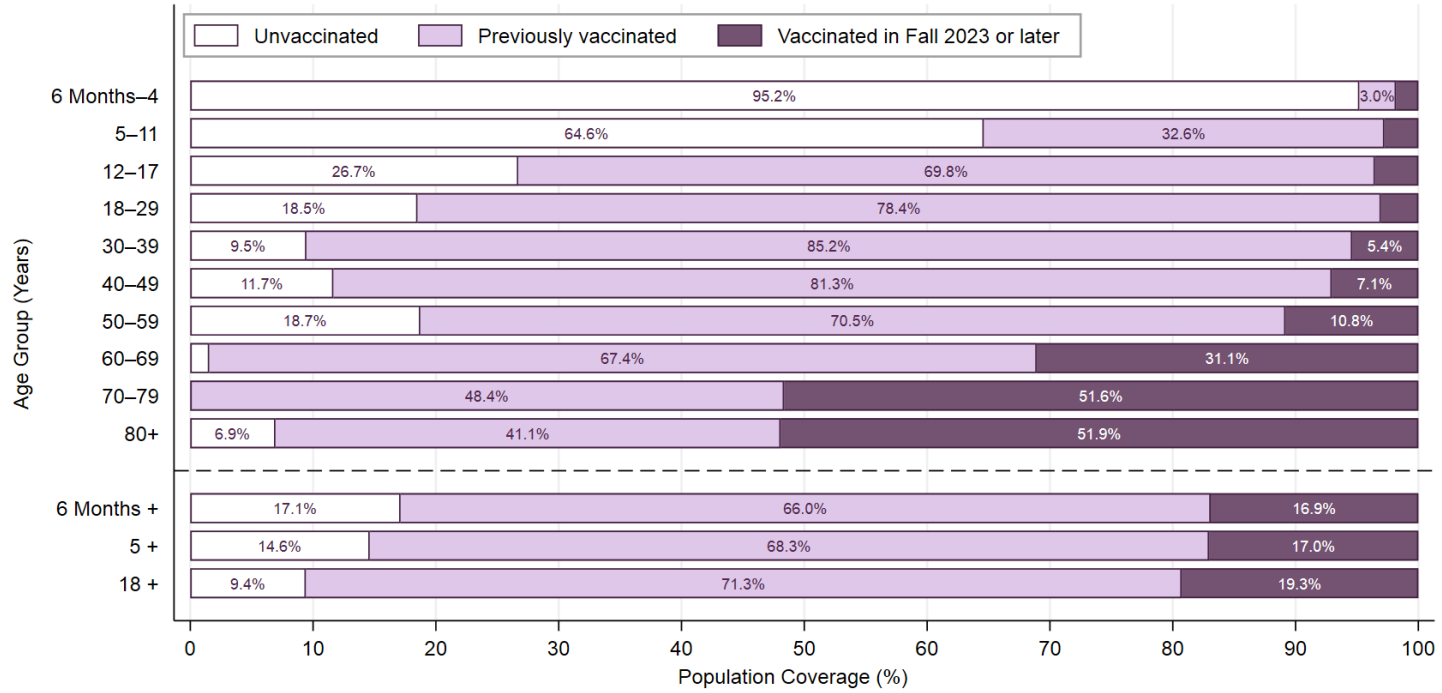
Includes all vaccine doses given to residents of Sudbury and districts, including those administered by public health, primary care, hospitals, pharmacies and other partners. Data Source: Ontario Ministry of Health, COVaxON Application, May 1, 2024.

Population vaccination coverage

In Ontario, individuals 6 months and older are considered up-to-date with their COVID-19 vaccines if they have received a fall 2023 COVID-19 dose. As of April 27, 2024, **16.9%** of residents of local residents aged 6 months and older have received a COVID-19 vaccine in fall 2023 or later.

Figure 20, below, shows the current vaccination status of residents of Sudbury and districts of various ages.

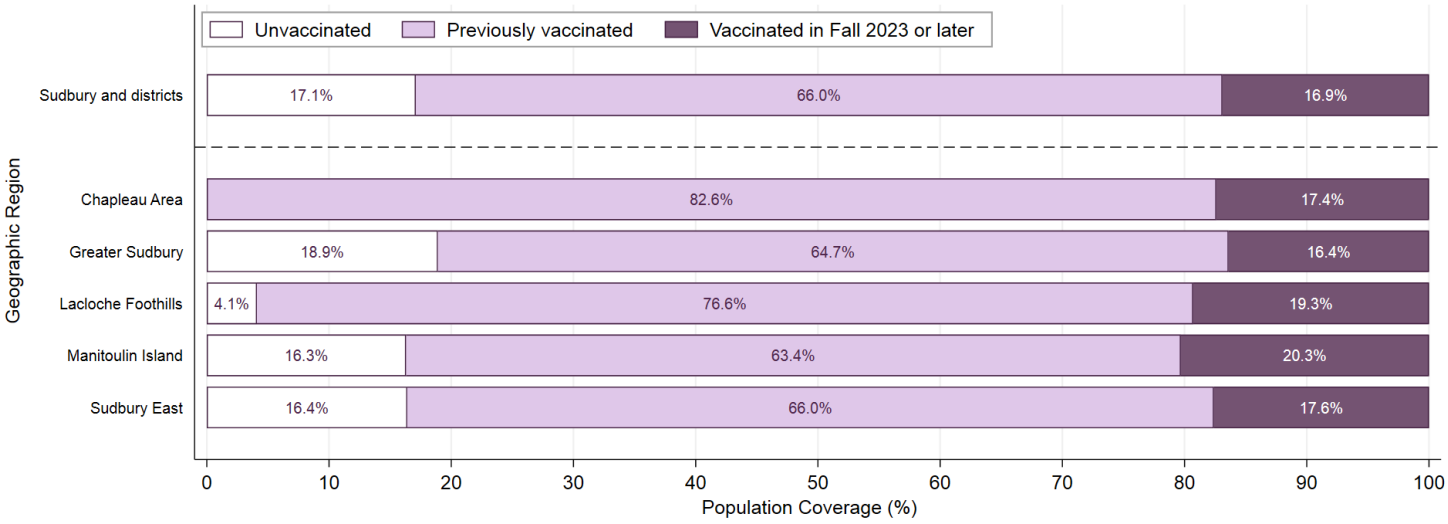
FIGURE 20. Population COVID-19 vaccine coverage (%), by age, Sudbury and districts



Age is the clients' current age. Data Source: Ontario Ministry of Health, COVaxON Application, May 1, 2024; Statistics Canada Population Estimates, 2021; Ontario Data Catalogue, COVID-19 Vaccine Data by Age, May 1, 2024.

Figure 21, below, presents the current vaccination status of local residents aged 6 months and older by geographic region.

FIGURE 21. Population COVID-19 vaccine coverage (%), by geographic region, ages 6 months and older Sudbury and districts



Approximately 2% of doses could not be mapped to a particular geographic area due to gaps in data entry and are therefore excluded from the sub-regional coverage estimates. They are, however, included in estimates for Sudbury and districts and Ontario. Data Source: Ontario Ministry of Health, COVaxON Application, May 1, 2024; Statistics Canada Population Estimates, 2021.

Adverse events following immunization (AEFIs)

As of April 27, 2024, **458** adverse events following immunization (AEFIs) have been reported among residents of Sudbury and districts. This represents **0.077%** of the 591,921 doses administered in Ontario to local residents.
Table 3 summarizes the number and rates of AEFIs reported per 100,000 doses administered, by brand/product.

TABLE 3. Adverse events following immunization (AEFIs), count and rate, by Product, Sudbury and districts

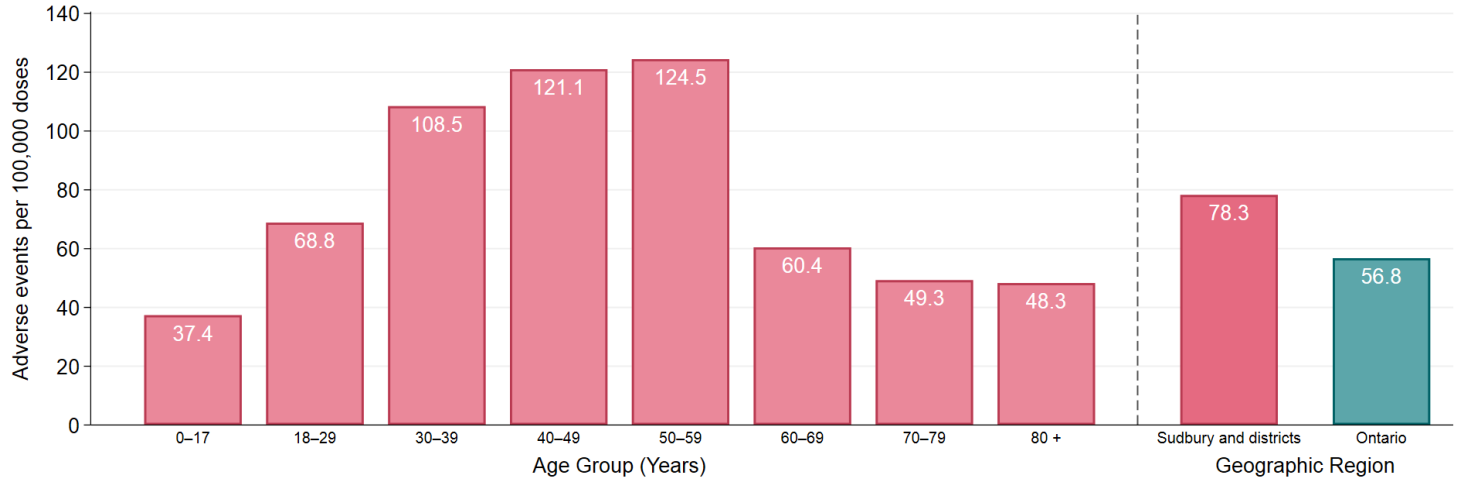
Product Name	Number of AEFIs	Total Doses Administered	Rate of AEFIS per 100,000 Doses
Pfizer-BioNTech Comirnaty	233	307,413	75.8
Pfizer-BioNTech Comirnaty Bivalent BA.4/5	3	28,316	10.6
Pfizer-BioNTech Comirnaty XBB.1.5	2	25,601	7.8
Pfizer-BioNTech Comirnaty Pediatric	6	15,417	38.9
Pfizer-BioNTech Comirnaty Tris-Sucrose	1	680	147.1
Pfizer-BioNTech Comirnaty XBB.1.5 Pediatric	0	253	0.0
Pfizer-BioNTech Comirnaty Bivalent BA.4/5 Pediatric	0	185	0.0
Pfizer-BioNTech Comirnaty Infant	0	145	0.0
Pfizer-BioNTech Comirnaty XBB.1.5 Infant	0	26	0.0
Pfizer-BioNTech Comirnaty Bivalent	0	15	0.0
Pfizer-BioNTech Comirnaty Bivalent BA.4/5 Infant	0	1	0.0
Moderna Spikevax	192	171,292	112.1
Moderna Spikevax Bivalent	4	22,193	18.0
Moderna Spikevax XBB.1.5	0	10,691	0.0
Moderna Spikevax Bivalent BA.4/5	0	2,348	0.0
Moderna Spikevax Pediatric	1	1,234	81.0
Moderna Spikevax Bivalent BA.4/5 Infant	0	2	0.0
AstraZeneca COVISHIELD/Vaxzevria	13	5,362	242.4
Johnson & Johnson Janssen	2	195	1,025.6
Other/Unspecified	1	552	181.2
TOTAL	**458**	**591,921**	**77.4**

Includes all vaccine doses given to residents of Sudbury and districts, including those administered by public health, primary care, hospitals, pharmacies and other partners, but excluding doses administered outside the province. Data Source: Ontario Ministry of Health, Case and Contact Management (CCM) Solution, May 1, 2024; Ontario Ministry of Health, COVaxON Application, May 1, 2024.

An adverse event following immunization (AEFI) is an unwanted or unexpected health effect that happens after someone receives a vaccine, which may or may not be caused by the vaccine. Health care providers are required by law to report AEFIs to public health, and vaccine recipients or their caregivers may also voluntarily report AEFIs. These reports are an important part of public health's continuous monitoring of vaccines for safety. Of particular importance are events which require medical consultation, or unusual or unexpected events. Common or mild events do not need to be reported such as fever not accompanied by any other symptoms, injection site reactions that last less than four days, fainting, or events that are clearly attributable to other causes.

Figure 22, below, shows the rate of AEFIs by age group, and for all ages by geographic region.

FIGURE 22. Rate of adverse events following immunization (AEFIs) per 100,000 doses, by age and geographic region, Sudbury and districts



Due to a relatively small number of events and the resulting statistical instability, these rates should be interpreted with caution. Includes all vaccine doses given to residents of Sudbury and districts, including those administered by public health, primary care, hospitals, pharmacies and other partners. Age is the age of the client on the day the AEFI was reported. Data Sources: Ontario Ministry of Health, COVaxON Application, May 1, 2024; Ontario Ministry of Health, Ontario Ministry of Health, Case and Contact Management (CCM) Solution, May 1, 2024.