COVID-19 Trend Analysis

January 1, 2024, to March 31, 2025

Summary of COVID-19 Pandemic

The Omicron variant appeared at the end of November 2021 and hit like a tsunami. The 5th wave saw our key indicators rise dramatically, including record-breaking case counts and hospitalizations during the first month of 2022. The numbers peaked in mid-January before falling significantly by mid-March, signaling the end of the 5th wave.

From January 1st to March 31st, 2022, 6,087 cases were declared, compared to 1,966,959, and 371 cases during the same timeframe in 2021, 2023, and 2024, respectively. It is important to note that the number during the 5th wave was much higher. Only the high-risk cases were identified from December onwards through a PCR test.

The 6th COVID-19 wave occurred from mid-March until the end of April 2022, as we saw our indicators start to rise in mid-March, peak, and then fall by the end of April. Our indicators then leveled off throughout May and June but rose again at the beginning of July, plateauing July-August. This indicates that we were in a 7th wave. By the beginning of September, our cases decreased until mid-September and rose again until October.

The data fluctuated little during the first two months of 2023. However, starting in March 2023, there was a slight increase in cases, followed by a decrease and plateau over the next several months. Similar to other respiratory illnesses, cases increased during the fall and winter.

Despite a significant decrease in cases since the beginning of 2023, positive cases, hospitalizations, and deaths have continued. Similar to summers over the past three years (2020 to 2024), during the summer of 2024 we saw a significant improvement in all indicators: a drop in cases, lower positivity, fewer outbreaks, and fewer deaths. The trend usually indicates an increase in metrics during the fall and a decrease during the summer. This year, COVID-19 indicators have remained relatively stable, with some fluctuations. Reported cases have consistently stayed at lower levels compared to the beginning of the pandemic and previous years.

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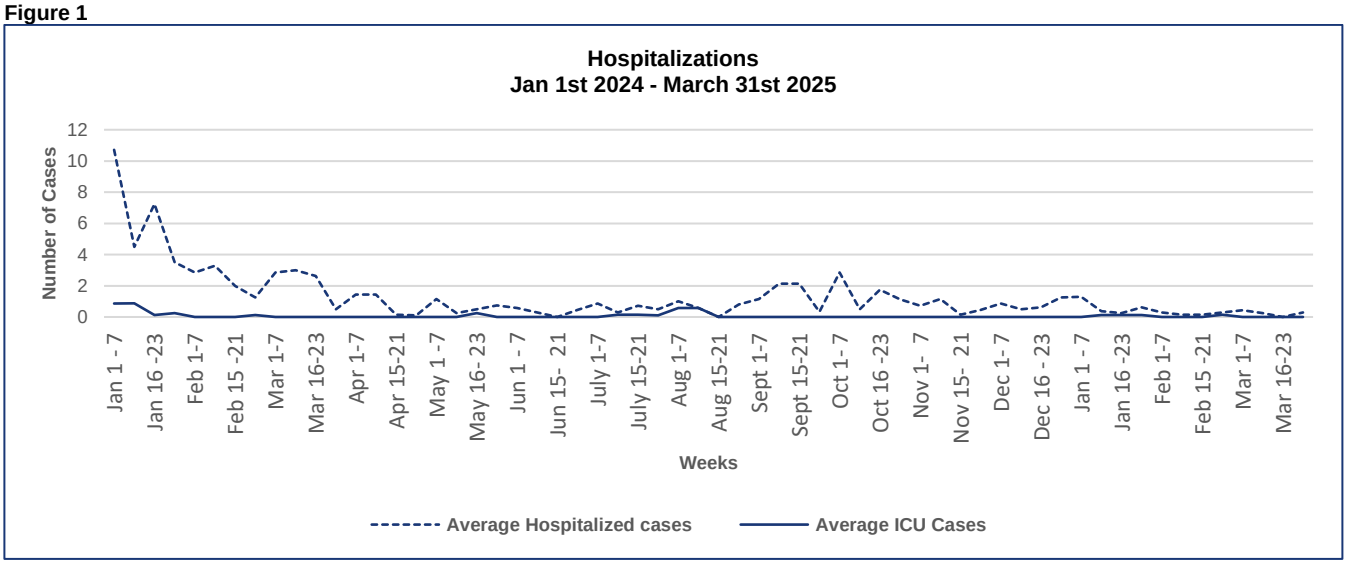
EOHU Hospitalizations

At the end of January 2024, cases were slightly increased, followed by a decrease in the second week of February. This trend continued until the beginning of March, after which the number of cases stabilized. Unfortunately, a few cases still required hospitalization throughout the spring and summer of 2024. During the fall season, there was a slight increase in cases, followed by a decrease at the end of November. Since the fall, there have been fluctuations in the number of hospitalization cases; however, they are within a reasonable range. We have observed a decrease in hospitalizations since the end of January.

Figure 1



Source: Ontario Ministry of Health, Public Health Case and Contact Management Solution (CCM)

Table 1 A

Weeks, 2024	Average Hospitalized Cases	Average ICU Cases
Jan 1-7	11	1
Jan 8-15	5	1
Jan 16-23	7	0
Jan 24-31	4	0
Feb 1-7	3	0
Feb 8 -14	3	0
Feb 15 -21	2	0
Feb 22- 28	1	0
Mar 1-7	3	0
Mar 8-15	3	0
Mar 16-23	3	0
Mar 24-31	1	0
Apr 1-7	1	0
Apr 8 -14	1	0
Apr 15-21	0	0
Apr 22-30	0	0
May 1-7	1	0
May 8-15	0	0
May 16 -23	1	0
May 24-31	1	0
June 1-7	1	0
June 8-14	0	0
June 15-21	0	0
June 22-30	0	0
July 1-7	1	0
July 8-14	0	0
July 15-21	1	0
July 22-31	1	0
Aug 1-7	1	1
Aug 8-14	1	1
Aug 15-21	0	0
Aug 22-31	1	0
Sept 1-7	1	0
Sept 8 -14	2	0
Sept 15-21	2	0
Sept 22-30	0	0
Oct 1-7	3	0
Oct 8 -15	1	0
Oct 16-23	2	0
Oct 24-31	1	0
Nov 1- 7	1	0
Nov 8- 14	1	0
Nov 15- 21	0	0
Nov 22 - 30	0	0
Dec 1- 7	1	0
Dec 8- 15	1	0
Dec 16 - 23	1	0
Dec 24- 31	1	0

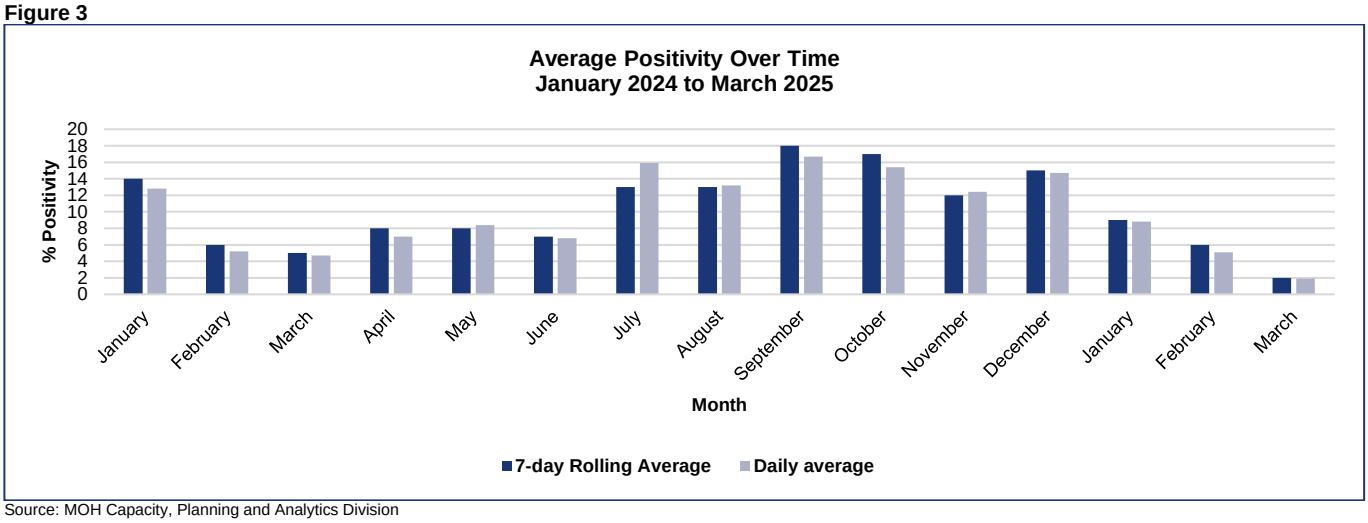
Table 1 B

Weeks, 2025	Average Hospitalized Cases	Average ICU Cases
Jan 1-7	1	0
Jan 8-15	0	0
Jan 16-23	0	0
Jan 24-31	1	0
Feb 1-7	0	0
Feb 8 -14	0	0
Feb 15 -21	0	0
Feb 22- 28	0	0
Mar 1-7	0	0
Mar 8-15	0	0
Mar 16-23	0	0
Mar 24-31	0	0

EOHU Positivity Rate: a 7-day rolling average

From a high of 16.9% on January 2nd and a 7-day rolling monthly average of 12.8% for January 2024, these rates remained stable in February and March before increasing in April until the end of October, reaching a high of 18% for the 7-day rolling monthly average and 16.7% for the daily average for September. Since January 2024, the monthly 7-day rolling average has decreased to 5% in March with higher increases since then. This trend mirrors what we have seen in previous years as we transition into the fall and winter season.

Figure 3



Source: MOH Capacity, Planning and Analytics Division

Table 3

Month 2023/2024	7-day Rolling Average (%)	Daily Average (%)
January	14	12.8
February	6	5.2
March	5	4.7
April	8	7
May	8	8.4
June	7	6.8
July	13	16.1
August	13	13.2
September	18	16.7
October	17	15.5
November	12	12.4
December	15	14.7
January	9	8.8
February	6	5.1
March	2	1.9

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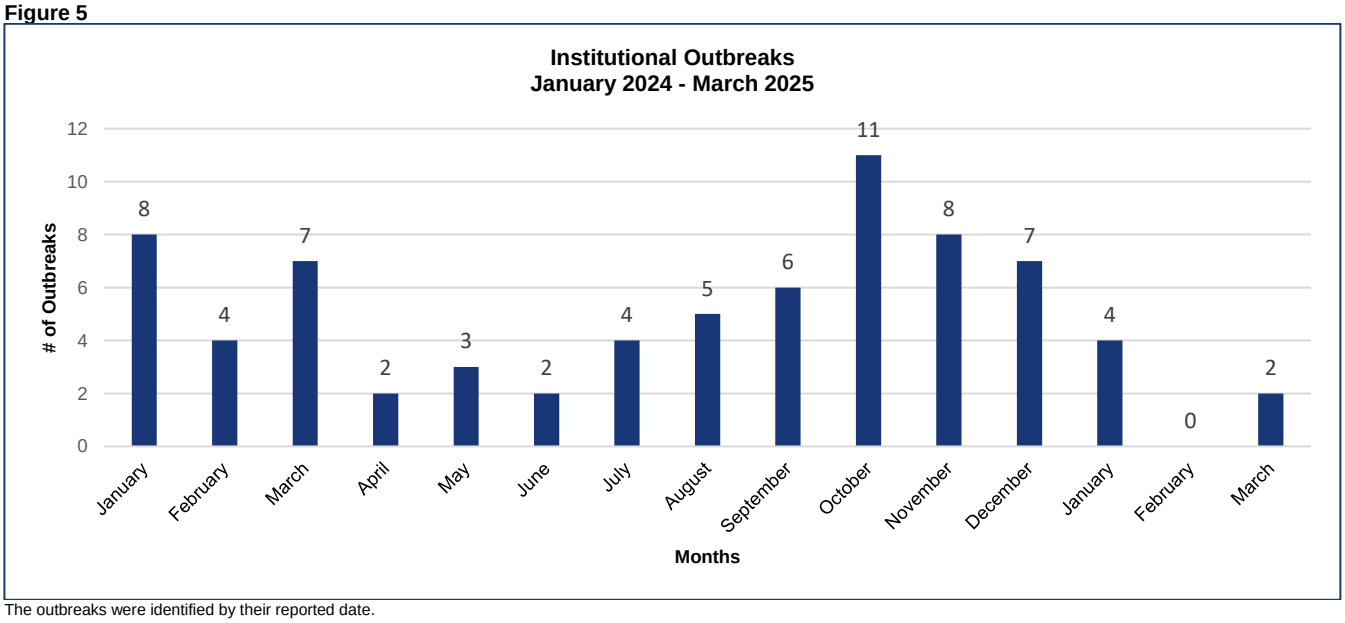
EOHU Institutional Outbreaks

In 2024, we reached the first peak in the number of outbreaks at the beginning of the year (in January), with 8 outbreaks dropping to less than 3 in April through June. The number of outbreaks rose to 11 in October, then fell to 0 in February which is the lowest we have seen in the last couple of years.

Figure 5



The outbreaks were identified by their reported date.
Source: EOHU, Institutional outbreak advisory, ID team

Table 5

Months 2023/2024	Outbreaks
January	8
February	4
March	7
April	2
May	3
June	2
July	4
August	5
September	6
October	11
November	8
December	7
January	4
February	0
March	2

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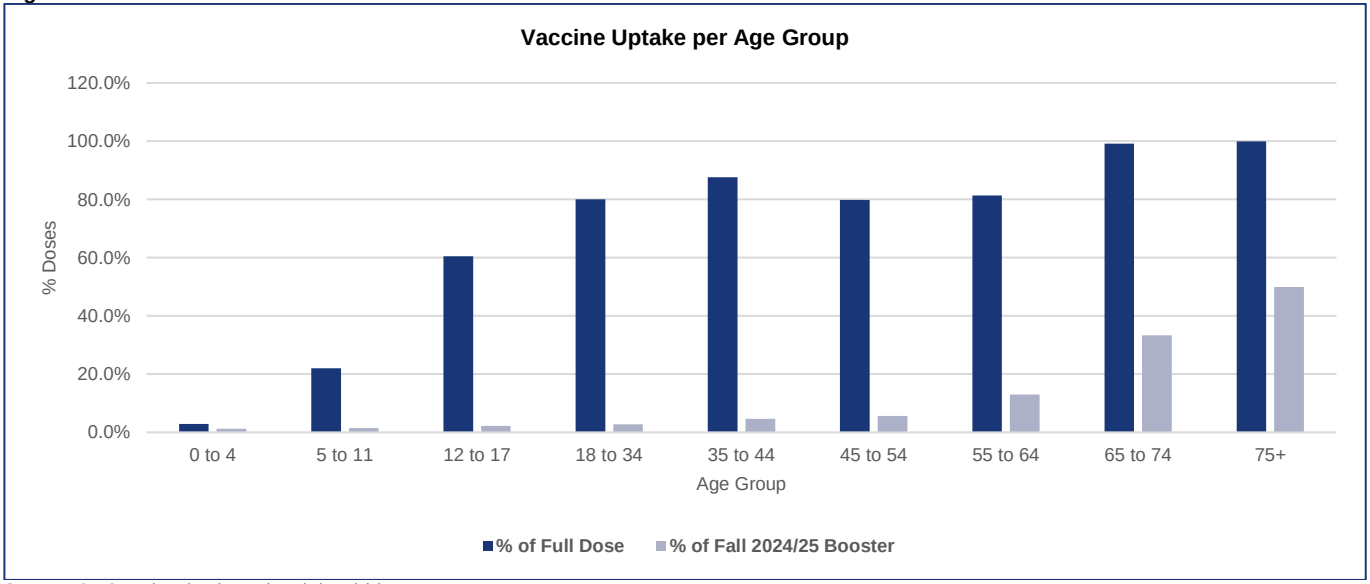
EOHU Vaccine Coverage

Initially, there was significant uptake for the first and second doses of the COVID-19 vaccine in the youth and adult population (individuals aged 12 and over). However, as the graph below indicates, the fall booster dose is less popular across all age groups. All age groups have yet to reach 60% coverage for the fall booster dose.

The fall 2024 booster has shown a similar pattern, with better uptake among the older populations and minimal uptake among the younger populations.

Figure 6



Source: MOH Capacity, Planning and Analytics Division

Table 6

Age	Full Doses	Fall 2024/2025 Booster
0 to 4	2.9%	1.2%
5 to 11	22.0%	1.5%
12 to 17	60.5%	2.2%
18 to 34	80.0%	2.8%
35 to 44	87.6%	4.7%
45 to 54	79.8%	5.6%
55 to 64	81.4%	13.0%
65 to 74	99.2%	33.4%
75+	99.9%	49.9%

Seeing that a large portion of the population was vaccinated and exposed to COVID-19, the indicators plateaued mainly during the winter and spring of 2023, followed by a drop in the summer. However, as people moved indoors for the cold season and adults and children returned to work and school, the ebbs and flows in the indicators demonstrated that COVID-19 is still present and active in our community.

In the fall of 2022, we saw high rates of influenza and RSV co-occurring with an increase in COVID-19 activity, which overwhelmed our healthcare system. Fortunately, we did not see the same situation in 2023.

Many residents currently hospitalized have a variety of different co-morbidities and influencing factors. For many, the factor is age. However, in our population under 70 years old, the following co-morbidities are common: congestive heart failure, heart disease, chronic obstructive pulmonary disease (COPD), diabetes, obesity, renal disease, and different cancers. This highlights the importance of protecting yourself and loved ones if these co-morbidities exist.

Scientific literature has demonstrated a waning in the protection offered by COVID-19 vaccines after six months. However, many specialists think that over 50% of the population has been exposed to the virus. Combined with the vaccination rate, this may explain why the later waves are less strong[1]. However, the variants circulating continued to impact our population due to the low coverage of the booster doses. Therefore, the population needs to receive their fall booster, as these boosters effectively restore protection against infection[2]. The waning protection offered by the earlier doses (less than 50%) increased to 92% following a booster. Different variants of the COVID-19 virus are still present in our communities. The best protection against catching the virus is to stay updated with the COVID-19 boosters.

Recommendations:

- ✓ Consider getting the fall booster shot. This is especially important if you or people you are in touch with regularly have co-morbidities (see summary above).
- ✓ If you are in a crowded public space and are not up-to-date with your vaccine coverage, consider staying 2m apart from others and wearing a mask.
- ✓ Ensure you wash or disinfect your hands as often as necessary.

1 “A lot of Ontarians have already been infected with the Omicron variant — seroprevalence studies suggest half the population has natural immunity, he said — and that combined with high vaccination rates and the fact that a new variant of concern has not yet emerged, all bode well, Moore said.” –Interview with Dr. Moore on August 5th, 2022, CTV News

2. Cristina Menni PhD et al (2022). COVID-19 vaccine waning and effectiveness and side-effects of boosters: a prospective community study from the ZOE COVID Study. The Lancet Infectious Diseases, Volume 22, (7), P. 1002-1010.