QUICK EPIDEMIOLOGICAL SUMMARY

Hospitalizations and deaths among COVID-19 cases in Ontario: Waves 1, 2 and 3

Purpose
This brief report presents information on COVID-19 cases with a focus on severe outcomes. It examines differences over time and between waves. For the purposes of this analysis severe outcomes are defined as COVID-19 cases who were ever hospitalized or died.

Summary
- Deaths in COVID-19 cases per 100,000 people were highest in wave 1 and lowest in wave 3. The reverse was true for the rate per 100,000 people of cases ever hospitalized.
- The proportion of COVID-19 cases that were ever hospitalized decreased from wave 1 to 2 before increasing again in wave 3 for all age groups except the 80+ age group. Among those 80 years and over the proportion increased slightly from wave 1 (25.2%) to wave 2 (26.0%) before increasing more substantially in wave 3 (40.9%).
- The proportion of deaths in COVID-19 cases by wave and age group was highest for cases reported in wave 1 overall (7.0%). The proportion of deaths declined noticeably from wave 1 compared to wave 2 in the 60-79 age (10.5% to 3.1%) and the 80+ age group (33.1% to 20.7%). The proportion of COVID-19 cases that died was the highest in the 80+ age group in all three waves.
Results

Figure 1. Incidence of COVID-19 cases and number of cases with severe outcomes over time by case reported week

Figure 2. Proportion of COVID-19 cases that were ever hospitalized by age group and COVID-19 wave
Figure 3. Proportion of COVID-19 cases that died by age group and COVID-19 wave

Age Groups

- Wave 1: n = 42,505
- Wave 2: n = 260,557
- Wave 3: n = 247,685
Data source and Caveats

- The data for this report were based on information successfully extracted from the Public Health Case and Contact Management Solution (CCM) for all PHUs by PHO as of **September 20, 2021 at 1 p.m.** for cases reported from February 1, 2021 onwards and as of **September 20, 2021 at 9 a.m.** for cases reported up to January 31, 2021.

- For information on COVID-19 data, refer to the [Ontario COVID-19 Data Tool](#).

- COVID-19 waves refer to COVID-19 cases reported week using the following dates:
  
  - Wave 1: February 26, 2020 to August 31, 2020 (length of wave 188 days)
    - The week starting February 23, 2020 presented in Figure 1 contains data from February 26 on.
  
  - Wave 2: September 1, 2020 to February 28, 2021 (length of wave 181 days)
  
  - Wave 3: March 1, 2021 to July 31, 2021 (length of wave 153 days)