

Victorian COVID-19 Surveillance Report

Weekly report 22 December 2023

OFFICIAL

Epidemiological Summary

Current indicators show high levels of COVID-19 activity in Victoria.

The emergence of JN.1 in Victoria is expected to contribute to prolonged high levels of COVID-19 activity through December and January.

Daily numbers last 12 weeks



The number of people in hospital with COVID-19 increased this week with a daily average of 306, up from 266 last week. The current average remains high compared to recent months but remains below the most recent peak in May/June.

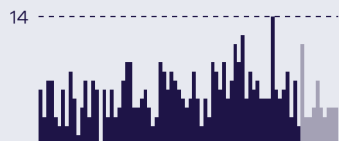
The 7-day average of ICU patients declined this week (15 to 13).



Quantitative wastewater measures indicate there are high COVID-19 viral loads in Victorian wastewater. Metropolitan wastewater catchments have shown increased levels in the most recent samples, while regional quantitative wastewater levels continue to remain high.

Higher levels of SARS-CoV-2 in wastewater suggest higher prevalence of COVID-19 infections in the community.

(Plot shows metro median relative quantitative levels of COVID-19 in wastewater)



Deaths in the most recent 28-day period (08/11/2023 – 05/12/2023) have continued to increase, compared to the prior 28-day period (11/10/2023 – 07/11/2023), with a current 28-day total of 183. Increases and decreases in the reporting of deaths attributable to COVID-19 tend to lag waves of infections and hospitalisations by several weeks.

(Note that reporting periods for deaths are lagged by 2 weeks to allow for delays in data collection)



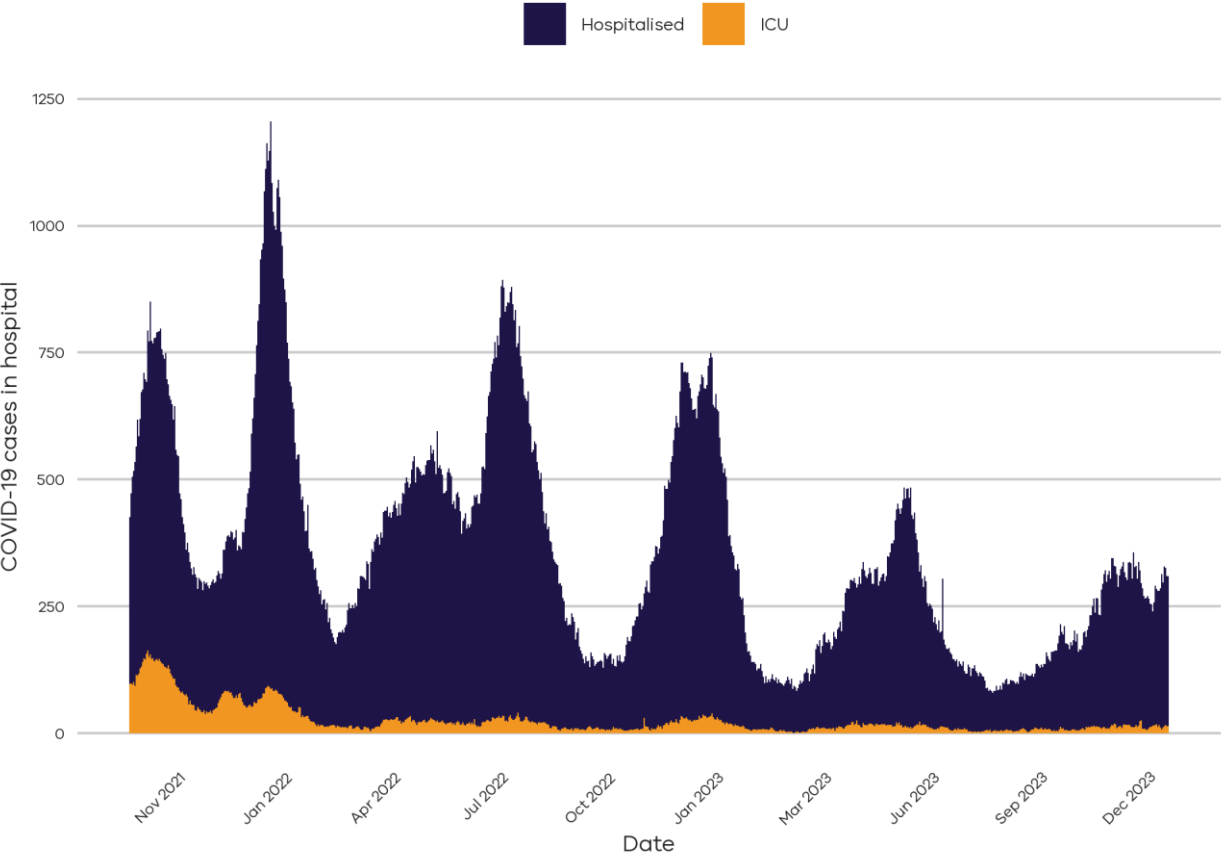
Following rapid growth in recent weeks, **JN.1 (a sublineage of BA.2.86) is now the most prevalent single subvariant in Victorian wastewater samples** and is being closely monitored.

A mix of Omicron recombinant sublineages continue to make up the majority of variant share in Victoria.

Globally EG.5 and subvariants remain the most prevalent variant of interest. However, of most concern is **JN.1, which remains the fastest growing variant worldwide.**

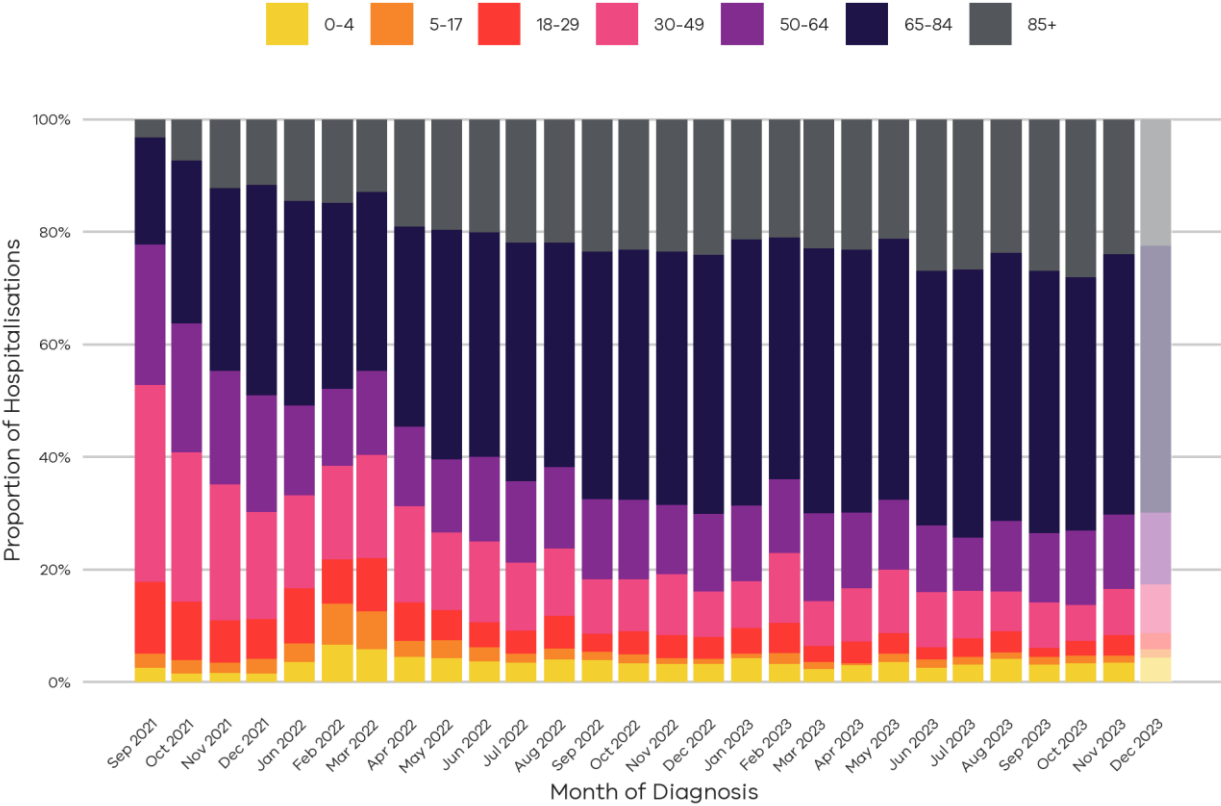
COVID Hospitalisations

Daily COVID-19 cases, in hospital and ICU
Data until 19 December 2023



Data source: Critical Health Resource Information System (CHRIS)

COVID-19 hospitalisations by age
Data until 19 December 2023



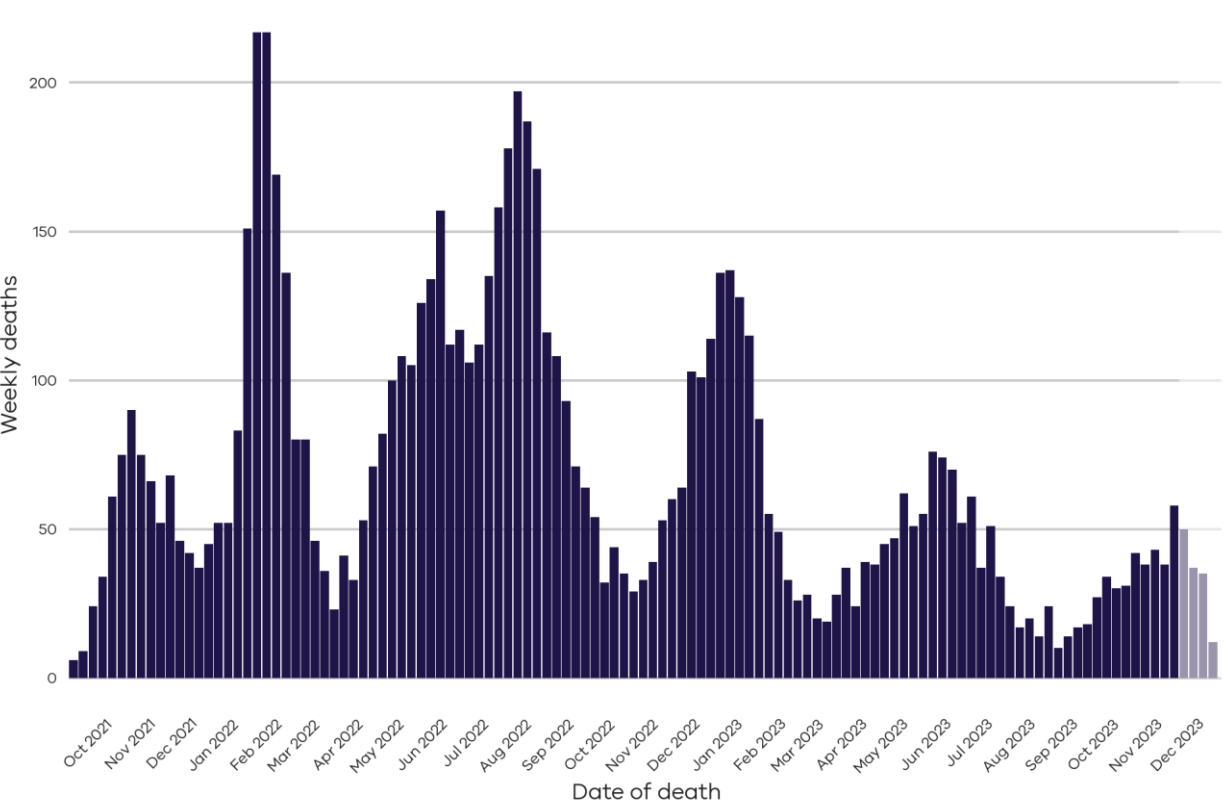
Data source: TREVI, VICNISS

Note: Faded area includes current month where data is incomplete

This graph shows data back to September 2021 when hospitalisations were increasing during the Delta variant wave. Hospitalisations represent the number of COVID-19 positive patients in hospital on a given day.

COVID Mortality

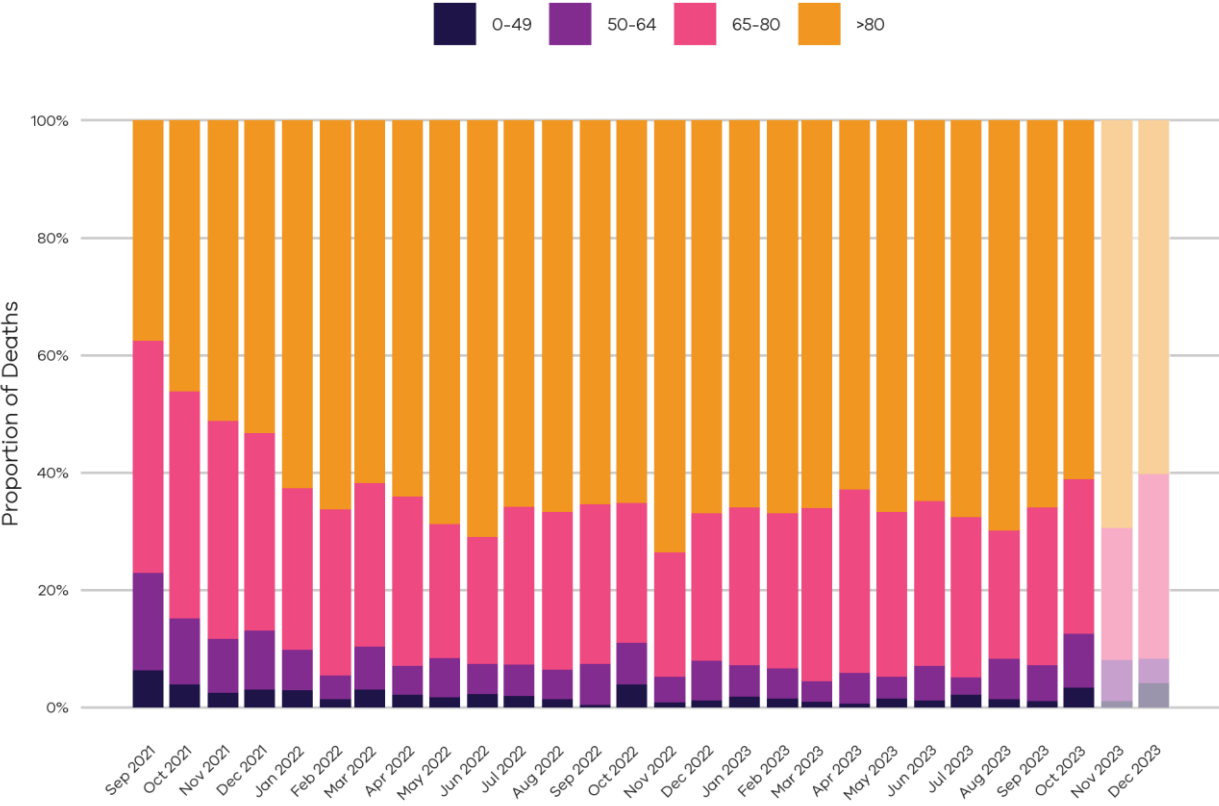
Weekly deaths
Data until 19 December 2023



Data source: TREVI

Note: Faded area includes last 4 weeks where data is incomplete

COVID-19 deaths by age
Data until 19 December 2023



Data source: TREVI

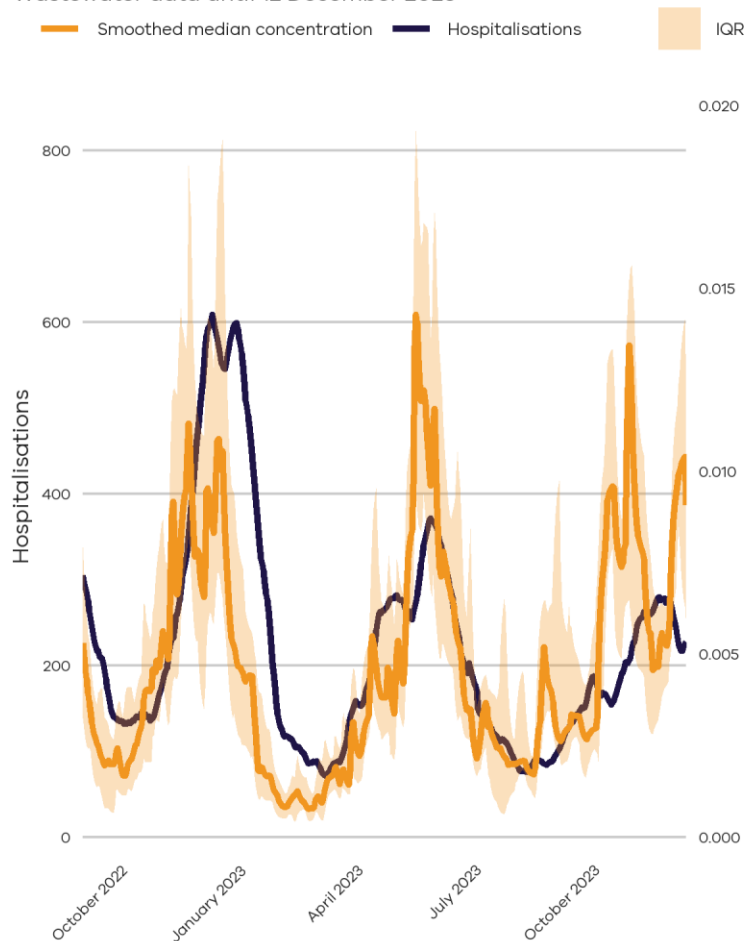
Note: Faded area includes last 4 weeks where data is incomplete

Date is based on date of death, not date of when each death was reported. This applies to all death metrics in the report unless stated otherwise.

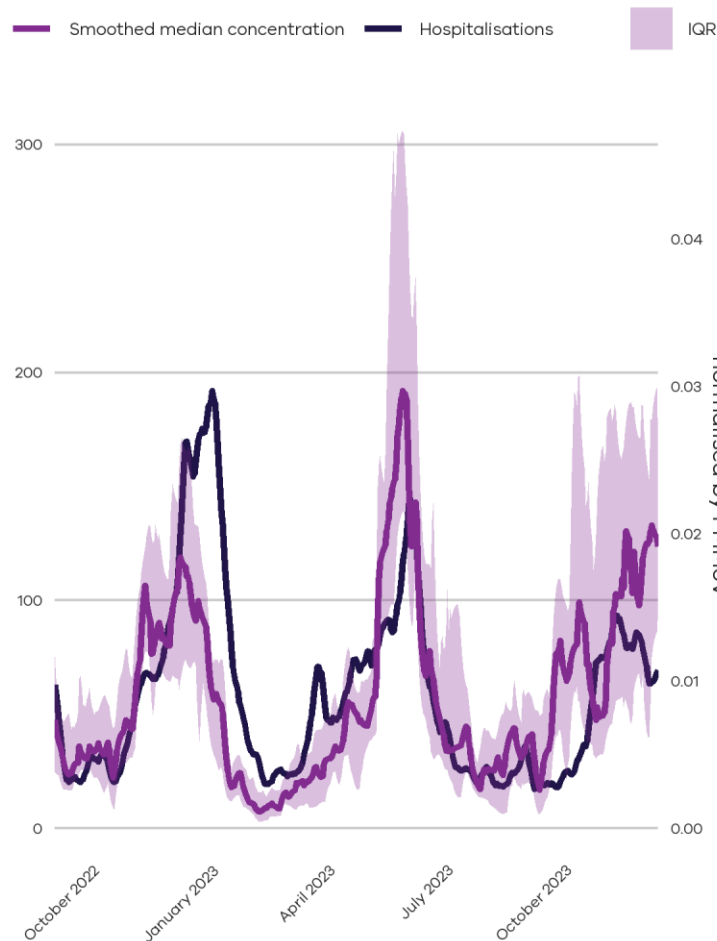
Quantitative Wastewater Levels

Metro Melbourne

Wastewater data until 12 December 2023



Regional Victoria



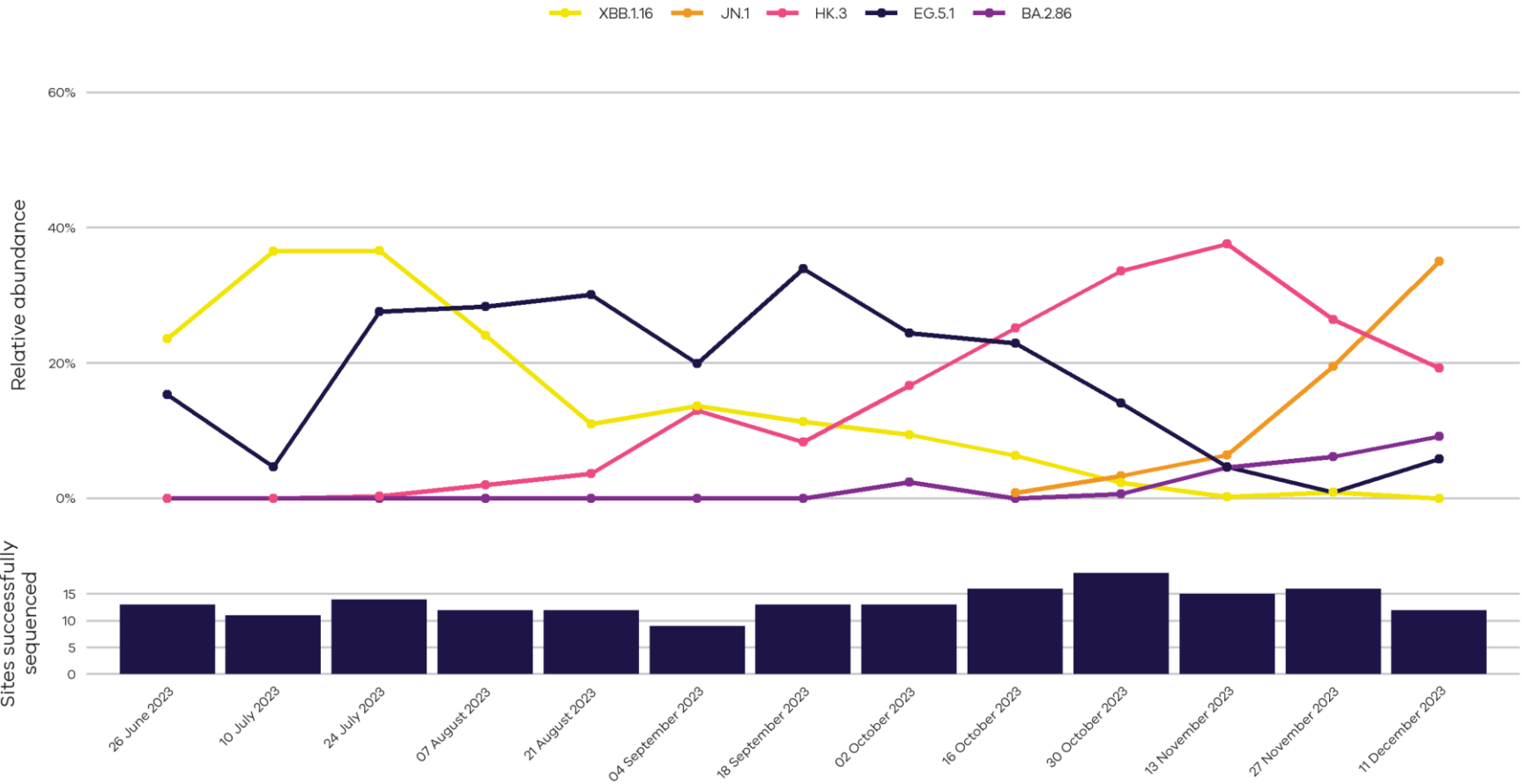
Quantitative wastewater sampling and 7-day average hospitalisations provide insights into changes in prevalence and COVID-19 wave detection.

These charts show the median SARS-CoV-2 wastewater viral loads with hospitalisations over time, which show a close relationship.

Quantitative SARS-CoV-2 levels are normalised by PMMoV (a non-pathogenic virus that is shed consistently by the population) and smoothed over the read period to account for rainfall, population movements and catchment size.

Wastewater surveillance: variant trends in Victoria

Variant trends in wastewater
Latest date data retrieved: 12 December 2023



The polyclonal representation of SARS-CoV-2 subvariants across Victoria continues to be dominated by Omicron XBB recombinant sublineages.

Analysis of wastewater samples can help us understand which SARS-CoV-2 variants are currently circulating in Victoria. In the past there have been waves of infections and hospitalisations when a new variant or subvariant has spread quickly relative to the others.

There are a number of closely related sublineages circulating in Victoria. Only the most detected variants have been displayed here.

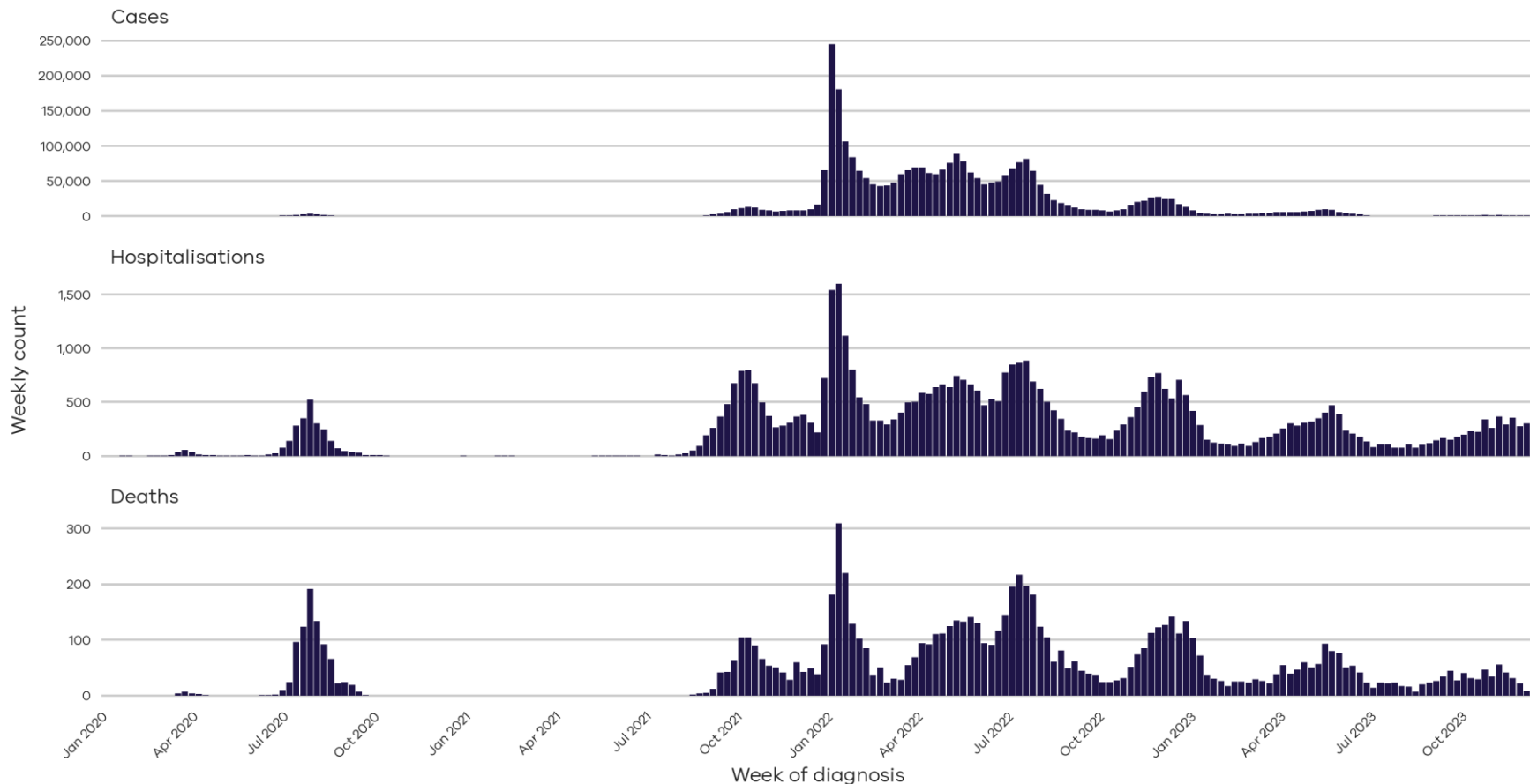
Please note that due to lower viral loads detected in recent months, Victoria has recently made a change to sequencing methodology, which has been retrospectively applied to the period reported here.

Appendix

COVID-19 Historical Data

Epidemic curve of weekly COVID-19 metrics

Data until 19 December 2023



Data source: TREVI

Cases are reported according to the definitions given in the Coronavirus (COVID-19) CDNA National Guidelines for Public Health Units. Where multiple positive test results are received for the same person within 35 days of the initial test result they are counted as a single case. **As of 30 June 2023, probable cases are not collected by the Victorian Department of Health, case counts since this date reflect cases with a positive PCR test only.**

COVID-19 Hospitalisations represent the number of active COVID-19 patients in hospital on a given day. This is reported in two ways:

- as reported by Victorian hospitals to the Critical Health Resource Information Service (CHRIS) as aggregated data.
- as reported to the Victorian Nosocomial Infection Surveillance System (VICNISS) at case level. Totals using demographic breakdowns from VICNISS may differ from totals using the aggregated values from CHRIS.

COVID-19 deaths are counted according to the Victorian surveillance definition, including all deaths reported in the Victorian Deaths Index (VDI) with COVID-19 listed as a primary or contributing cause of death on the medical death certificate, or a death within 35 days of diagnosis, excluding clearly unrelated causes such as trauma. Deaths may be reported retrospectively as the time between death, submission of the data to VDI and linkage to case data may vary.