



Report created on 25 February 2024

Fortnightly Respiratory Surveillance Report

Fortnightly Respiratory Surveillance Report, Tasmania

Public Health Services

Report for the epidemiological fortnight ending 25 February 2024

The Fortnightly Respiratory Surveillance Report provides a current overview of the epidemiology of COVID-19, influenza, respiratory syncytial virus (RSV) and other circulating respiratory viruses in Tasmania.

This report describes trends in community-based influenza-like illness, case notifications, case rates per 1,000 people, PCR testing, hospitalisations and deaths, whole genome sequencing and virology. It presents epidemiological curves to display the magnitude and distribution of cases over time; graphs to monitor PCR testing, and rates per 1,000 people by region of residence and age group; tables to examine trends in weekly case notifications and rates per 1,000 people by region of residence, age group and local government area (LGA); tables to monitor trends in weekly PCR testing for other respiratory pathogens tested in Tasmania; tables to examine weekly hospital admissions and deaths in COVID-19 cases; and tables to monitor weekly trends regarding whole genome sequencing of COVID-19 and the virology of influenza.

Data sources: The Fortnightly Respiratory Surveillance Report consolidates data from a range of sources to provide an understanding of what is happening in the community. These data include pathology results, hospital administrative data, death registrations and community surveys. Data in this report are collected for surveillance purposes and are indicative of trends. Data should not be compared between reports as data for previous weeks are updated as new information becomes available.

Caveats to the data: Information presented in this report is based on data available in the Tasmanian Notifiable Diseases Surveillance System (TNDSS) at the time of reporting and is subject to change. Case notifications are received daily from public and private laboratories in Tasmania. The weekly number of cases reported to Public Health Services underestimates the true number of new infections in the community.

Reporting week is the epidemiological week from Monday to Sunday. Data are presented for the week ending on the date shown in the column header (e.g., data for the week of 20 March to 26 March have the column header "26 March 2024"). Rates presented are calculated as the number of reported cases per 1,000 people per week and the number of PCR tests performed per 1,000 people per week.

Population estimates are calculated using population data from the Australian Bureau of Statistics. The data in this report are calculated using the most recent population data, for 30 June 2021, which was released on 26 July 2022.

Information regarding testing of respiratory viruses (other than SARS-CoV-2) and whole genome sequencing of SARS-CoV-2 are received a week following the data collection cut-off date hence the 7-day lag in reporting.

Hospitalisations for cases with COVID-19 are reported daily from public and private hospitals in Tasmania and include all individuals with COVID-19 admitted to hospital. Hospital admissions with COVID-19 also include admissions whereby COVID-19 was not the primary reason for admission (i.e. incidental diagnosis), and cases diagnosed with COVID-19 after admission (i.e. potentially hospital-acquired infections).

Key messages

Activity

Influenza-like Illness

In the week ending 25 February 2024, the prevalence of reported influenza-like illness (ILI) in the community increased and remains at a moderate level, at 1.7% (Figure 1). ILI may be due to symptoms of various infections including influenza, COVID-19 and other respiratory infections such as respiratory syncytial virus (RSV) and rhinovirus.

COVID-19

- In the week ending 25 February 2024, PCR positivity increased and remains at a moderate level, at 6.1% (Figure 2).
- From 01 January 2024 to 25 February 2024, a total of 5,560 COVID-19 cases were notified in Tasmania, including 708 and 723 cases in the weeks ending 18 February 2024 and 25 February 2024, respectively (Table 1). This reflects a modest increase in recent weeks.
- Of the cases notified in 2024, 1,394 (25.1%) resided in the North, 1,069 (19.2%) resided in the North-West, and 3,092 (55.6%) resided in the South (Table 1).
- In the week ending 25 February 2024, notification rates were highest in the North-West and North (Tables 1 and 2).
- These numbers indicate ongoing moderate COVID-19 activity of the current wave which began in mid-October 2023.

Influenza & RSV

- Influenza and RSV activities are currently at inter-seasonal levels. Due to low activity, analyses of influenza and RSV notifications are not presented in this report.

Other respiratory pathogens

- During the reporting fortnight, infections with Rhinovirus have been diagnosed relatively frequently by respiratory pathogen testing in two major laboratories in Tasmania.

Severity

COVID-19

- This fortnight ending 25 February 2024, hospital admissions associated with COVID-19 have reduced, ICU admissions associated with COVID-19 remain relatively low, and there were no deaths reported where COVID-19 was a cause or contributor (Table 4).
- This fortnight the number of COVID-19 related hospital admissions among all age groups decreased, while adults aged 65 years and older continue to have the highest number of admissions (Table 5).

Age distribution

COVID-19

- From 1 January 2024 to 25 February 2024, adults aged 80 years and older had the highest cumulative COVID-19 notification rates at 23.1 cases per 1,000 people, followed by adults aged 40 to 64 years at 11.8 cases per 1,000 people (Table 1).
- COVID-19 notification rates have recently increased modestly in the age groups from 5 to 64 years (Figure 5 & Table 1).

Virology/genomics

COVID-19

- A range of Omicron subvariants and sub-lineages continue to be detected by whole genome sequencing in Tasmania. Among the 97 viruses genotyped in the four weeks ending 18 February 2024, most were characterised as Omicron BA.2 sub-lineages, the majority (87 or 90%) were JN.

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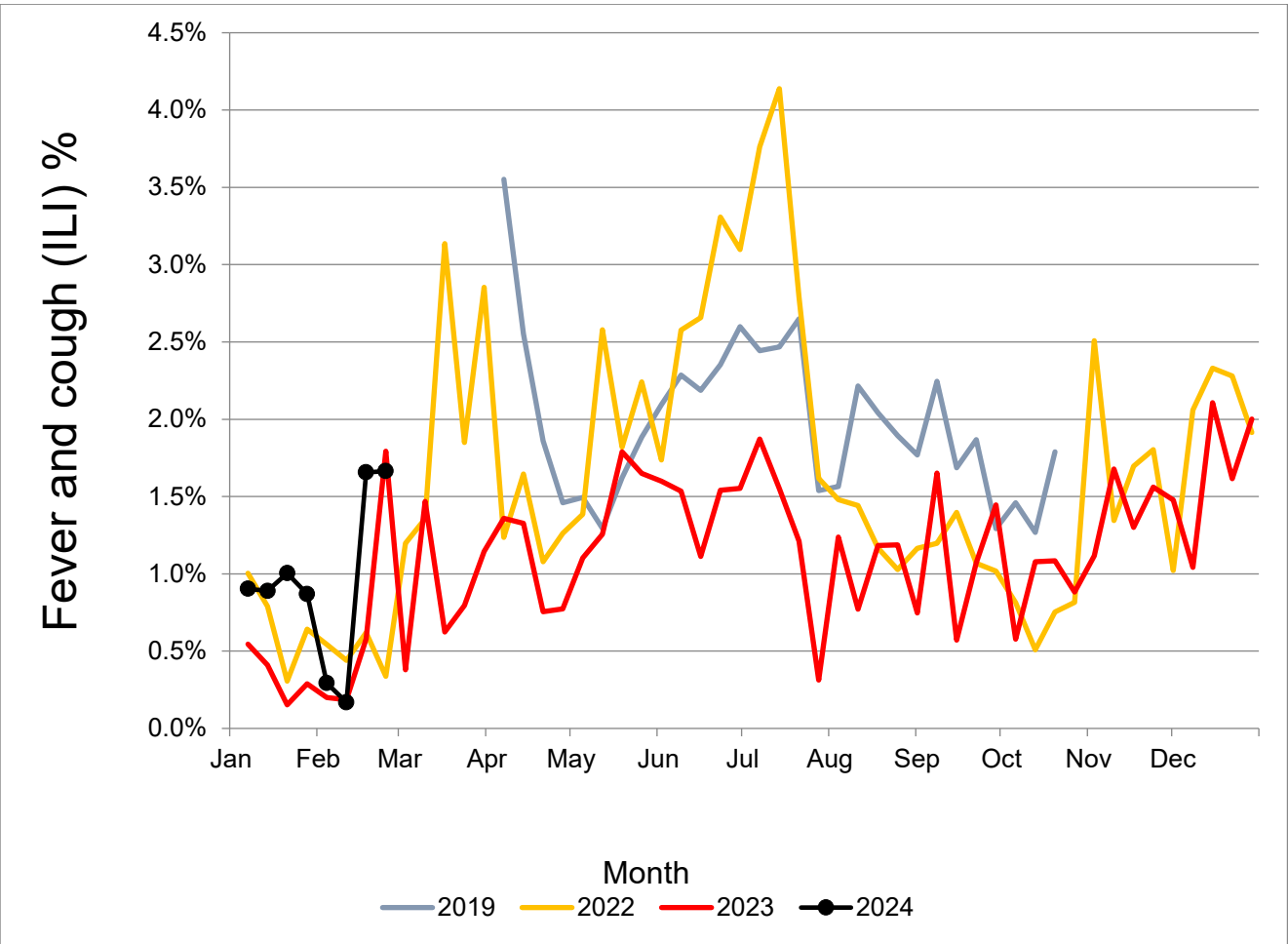
Section 1: Activity

1.1 Community-based surveillance of influenza-like illness

FluTracking is an online health surveillance system used to detect epidemics of influenza across Australia and New Zealand. Participants complete an online survey each week to provide community level influenza-like illness (ILI) surveillance, consistent surveillance of influenza activity across all jurisdictions over time, and year to year comparisons of the timing, attack rates and seriousness of influenza in the community. Influenza-like illness may reflect symptoms of influenza, COVID-19 or other respiratory infections such as respiratory syncytial virus (RSV) or rhinovirus.

A weekly web-based survey is sent to voluntary participants to capture information on influenza-like illness, including symptoms and indicators of impact and severity. Data presented here relate to new cases (incidence) of influenza-like illness, defined as fever and cough, based on week of onset of symptoms.

More information on joining FluTracking can be found at: <https://info.flutracking.net/>



Data source: FluTracking (age-standardized data), Hunter New England Local Health District, New South Wales Ministry of Health. Note: Information regarding influenza-like illness are received from FluTracking a week following the data collection cut-off date hence the 7-day lag in reporting. Reporting periods for FluTracking vary by year. ILI – Influenza-like illness (reporting fever and cough). 2020 and 2021 have been removed from this figure as incidence of ILI for both these years were less than 1.0 per cent.

Figure 1: Proportion of FluTracking participants in Tasmania reporting influenza-like illness (fever and cough) by week, during 2019 to 2024.

1.2 COVID-19

1.2.1 Weekly percentage of PCR tests positive for COVID-19

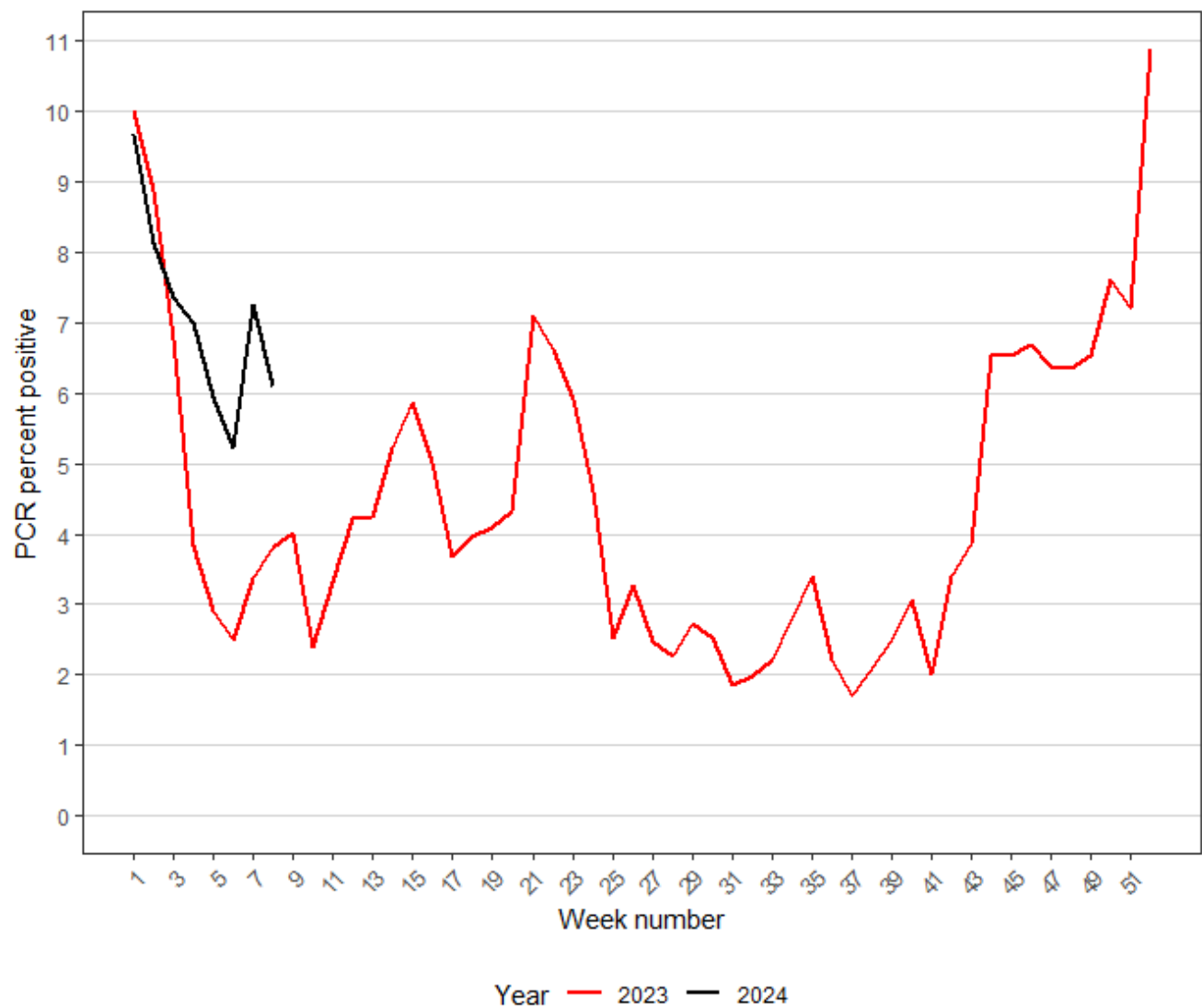


Figure 2: Weekly percentage of PCR tests positive for COVID-19 in Tasmania from 01 January 2023 to 25 February 2024.

1.2.2 Number of COVID-19 cases notified per week

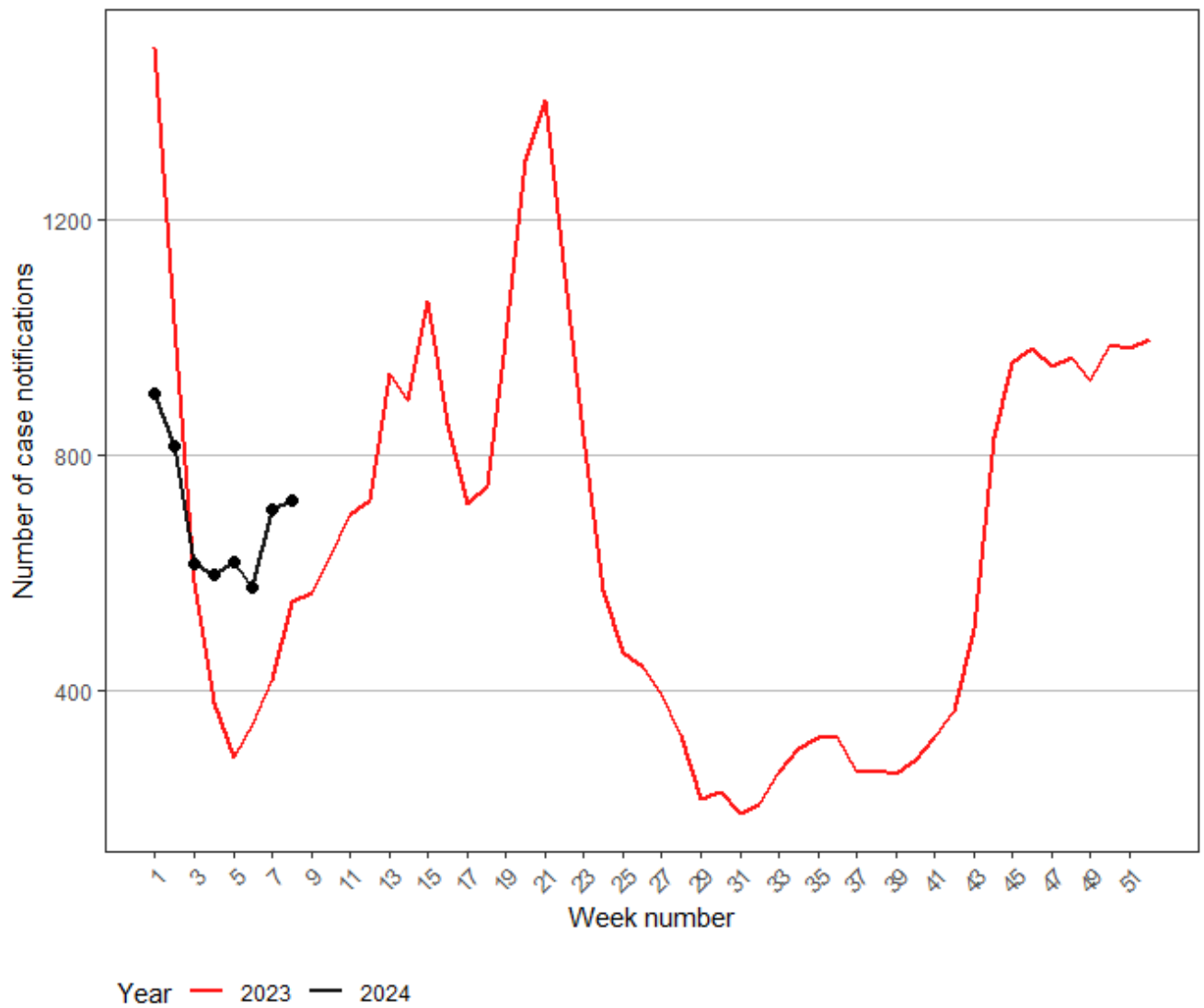


Figure 3: Number of COVID-19 cases in Tasmania notified per week from 01 January 2023 to 25 February 2024

1.2.3 Weekly COVID-19 case numbers and the number of cases per 1,000 people, by region of residence and age group

Table 1: COVID-19 cases and number of cases per 1,000 people (rate) per week notified in Tasmania for each of the last four weeks, and total number and overall number of cases per 1,000 people (rate) from 01 January 2024 to 25 February 2024, by region of residence and age group.

Region of Residence	04Feb2024		11Feb2024		18Feb2024		25Feb2024		Total Since 1 January 2024	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
North	126	0.8	153	1.0	236	1.5	194	1.3	1394	9.0
North-West	134	1.1	142	1.2	162	1.4	165	1.4	1069	9.0
South	357	1.2	282	1.0	310	1.1	364	1.2	3092	10.5
Unknown Region	1	-	0	-	0	-	0	-	5	-
Age Group										
0-4	27	0.9	14	0.5	18	0.6	17	0.6	177	6.0
5-17	47	0.6	43	0.5	69	0.8	81	1.0	355	4.3
18-39	167	1.2	124	0.9	184	1.3	179	1.3	1437	10.2
40-64	219	1.3	201	1.2	279	1.6	278	1.6	2048	11.8
65-79	112	1.4	112	1.4	88	1.1	91	1.1	958	11.7
80 and over	46	1.8	83	3.3	70	2.8	77	3.0	585	23.1
Unknown Age	0	-	0	-	0	-	0	-	0	-
Total	618	1.1	577	1.0	708	1.2	723	1.3	5560	9.8

1.2.4 Weekly number of COVID-19 cases per 1,000 people notified since 01 January 2023, by region of residence

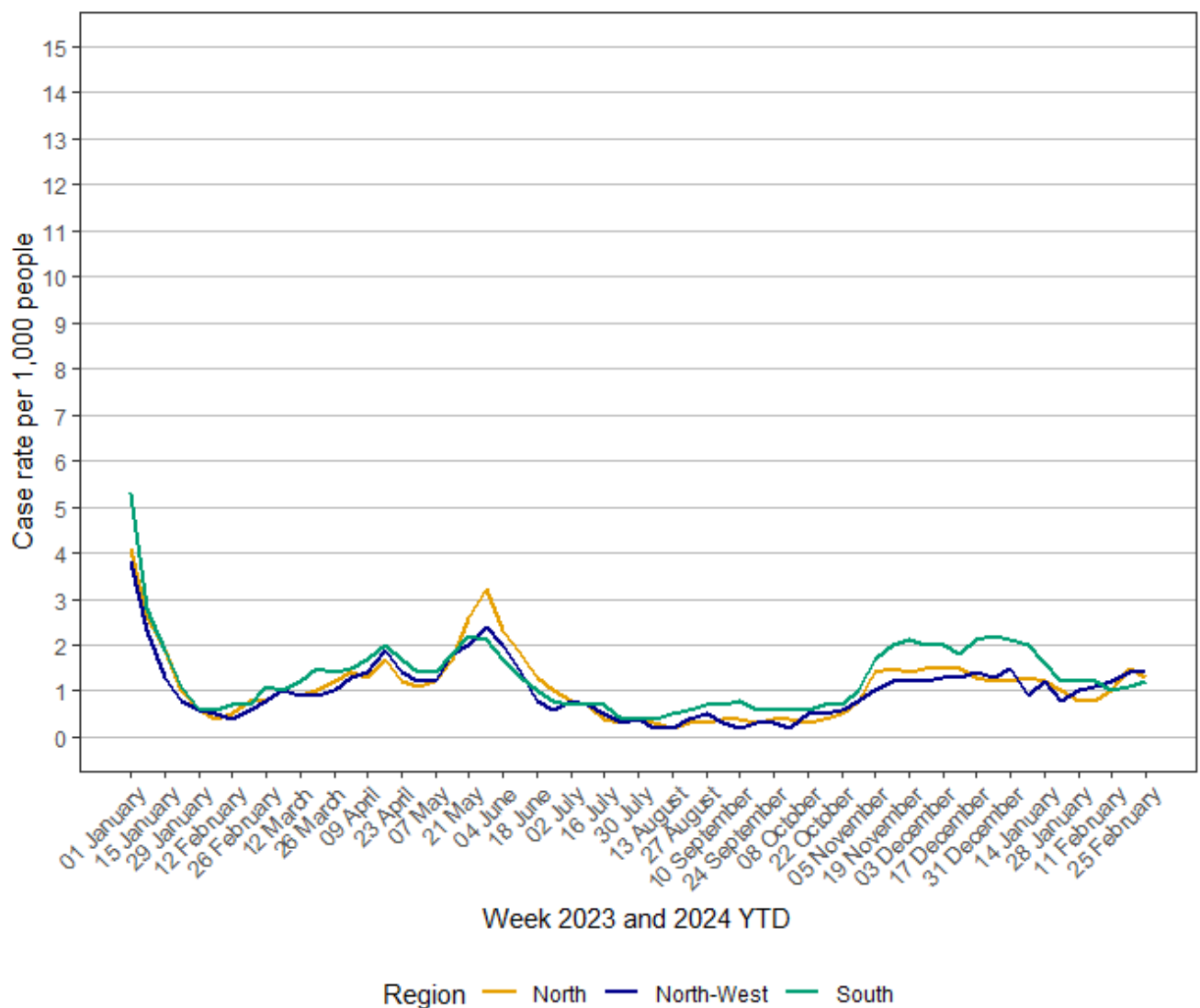


Figure 4: Weekly number of COVID-19 cases per 1000 people (rate) notified in Tasmania from 01 January 2023 to 25 February 2024, by region of residence.

1.2.5 Weekly number of COVID-19 cases per 1,000 people notified since 01 January 2023, by age group

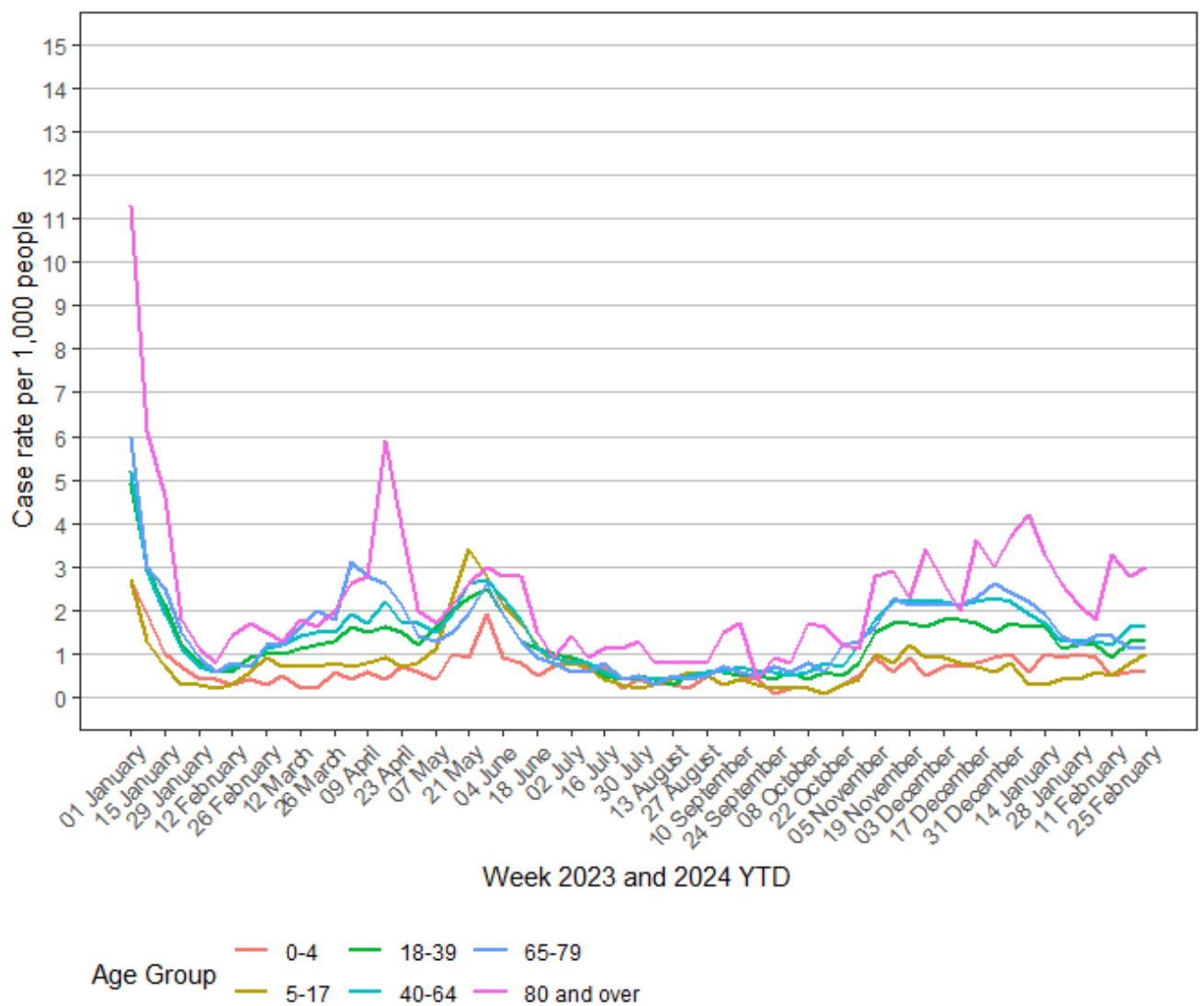


Figure 5. Weekly number of COVID-19 cases per 1,000 people (rate) notified in Tasmania from 01 January 2023 to 25 February 2024, by age group.

1.2.6 Weekly COVID-19 case numbers and number of cases per 1,000 people, by Local Government Area

Table 2. COVID-19 cases and number of cases per 1,000 people (rate) notified per week in Tasmania, for each of the last four weeks to 25 February 2024 and for the year-to-date period from 1 January 2024 to 25 February 2024, by Local Government Area (LGA).

	04Feb2024		11Feb2024		18Feb2024		25Feb2024		Total Since 1 January 2024	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Break O'Day	5	0.7	3	0.4	6	0.9	8	1.2	44	6.3
Brighton	48	2.5	17	0.9	24	1.2	11	0.6	217	11.3
Burnie	22	1.1	21	1.0	22	1.1	36	1.8	181	8.9
Central Coast	33	1.4	30	1.3	29	1.2	20	0.9	198	8.5
Central Highlands	0	-	2	0.8	5	1.9	1	0.4	10	3.9
Circular Head	4	0.5	3	0.4	7	0.8	4	0.5	34	4.1
Clarence	86	1.4	64	1.0	60	1.0	99	1.6	694	11.1
Derwent Valley	13	1.2	7	0.6	5	0.4	17	1.5	124	11.2
Devonport	34	1.3	58	2.2	55	2.0	41	1.5	289	10.7
Dorset	0	-	3	0.4	6	0.9	5	0.7	28	4.0
Flinders	0	-	0	-	1	1.1	0	-	7	7.5
George Town	7	1.0	9	1.2	9	1.2	10	1.4	64	8.9
Glamorgan-Spring Bay	4	0.8	6	1.2	2	0.4	2	0.4	35	6.8
Glenorchy	74	1.4	59	1.2	68	1.3	55	1.1	560	10.9
Hobart	57	1.0	48	0.9	85	1.5	100	1.8	684	12.2
Huon Valley	12	0.6	11	0.6	9	0.5	11	0.6	137	7.3
Kentish	2	0.3	5	0.7	11	1.6	14	2.1	65	9.6
King Island	0	-	0	-	1	0.6	0	-	1	0.6
Kingborough	38	0.9	54	1.3	28	0.7	47	1.2	428	10.5
Latrobe	16	1.3	12	0.9	18	1.4	34	2.7	134	10.5
Launceston	64	0.9	65	0.9	112	1.6	107	1.5	764	10.6
Meander Valley	15	0.7	38	1.8	39	1.8	35	1.7	194	9.2
Northern Midlands	13	0.9	8	0.6	28	2.0	8	0.6	106	7.6
Sorell	16	0.9	9	0.5	17	1.0	16	0.9	149	8.8
Southern Midlands	5	0.7	5	0.7	4	0.6	4	0.6	38	5.6
Tasman	4	1.5	0	-	3	1.1	1	0.4	16	6.1
Waratah-Wynyard	20	1.4	11	0.8	17	1.2	12	0.8	140	9.6
West Coast	3	0.7	2	0.5	2	0.5	4	0.9	27	6.2
West Tamar	22	0.9	27	1.0	35	1.4	21	0.8	187	7.3

1.3 All respiratory pathogens

1.3.1 Weekly number of tests and percentage of PCR tests positive for all respiratory pathogens

Two pathology providers in Tasmania provide respiratory pathogen PCR testing data to Public Health Services for routine surveillance: Royal Hobart Hospital (RHH) Pathology and Diagnostic Services Pty Ltd (DSPL) (Hobart Pathology, Launceston Pathology, North-West Pathology). Depending on the test conducted, multiplex testing may cover adenovirus, Bordetella pertussis, influenza A, influenza B, metapneumovirus, Mycoplasma pneumoniae, parainfluenza, respiratory syncytial virus (RSV), rhinovirus and SARS-CoV-2 infections. Data in this table provides an indication of circulating respiratory pathogens other than SARS-CoV-2.

Table 3: Number of PCR tests (both positive and negative) and percentage of tests positive for all respiratory pathogens tested in Tasmania for each of the last four weeks to 25 February 2024 and from 01 January 2024 to 25 February 2024.

	04Feb2024		11Feb2024		18Feb2024		25Feb2024		Total Since 1 January 2024	
	Tests	Percent positive	Tests	Percent positive	Tests	Percent positive	Tests	Percent positive	Total Tests	Cumulative prevalence YTD
Adenovirus	272	2.9	194	0.5	200	1.5	226	1.3	1708	1.2
Bordetella pertussis	33	0.0	26	3.8	29	0.0	33	3.0	235	0.9
Influenza A	1577	0.7	1528	0.7	1472	0.9	1445	1.0	10313	1.1
Influenza B	1577	0.0	1528	0.1	1472	0.0	1445	0.1	10313	0.1
Metapneumovirus	272	0.7	194	1.5	200	1.0	226	1.3	1708	1.4
Mycoplasma pneumoniae	33	0.0	26	0.0	29	3.4	33	0.0	234	1.7
Parainfluenza	272	1.5	194	2.1	200	1.0	226	2.7	1708	1.5
Rhinovirus	272	8.5	194	8.2	200	12.0	226	15.9	1708	10.9
RSV	1577	0.4	1528	0.3	1472	0.2	1445	0.5	10313	0.7

Section 2: Severity

2.1 COVID-19

2.1.1 Clinical severity and deaths in reported COVID-19 cases by reporting week

Table 4: Hospital admissions with or due to COVID-19, number of ICU admissions (for any reason), and deaths for which COVID-19 was a cause or contributing factor, in Tasmania for each of the last four weeks to 25 February 2024 and from 01 January 2024 to 25 February 2024.

Reporting Week	04Feb2024	11Feb2024	18Feb2024	25Feb2024	Total Since 01 January 2024
All Hospital Admissions with COVID-19	52	31	23	16	466
Intensive Care Admissions	3	1	1	0	12
Deaths	1	3	0	0	8

2.1.2 Hospital admissions in reported COVID-19 cases by age group

Table 5: Hospital admissions with or due to COVID-19 in Tasmania for each of the last four weeks to 25 February 2024 and from 01 January 2024 to 25 February 2024, by age group.

Age Group	04Feb2024	11Feb2024	18Feb2024	25Feb2024	Total Since 01 January 2024
0-4	3	2	4	0	37
5-17	0	0	0	1	4
18-39	8	3	1	2	64
40-64	9	3	5	3	74
65-79	12	11	7	4	129
80 and over	20	12	6	6	158
Total	52	31	23	16	466

2.1.3 Deaths in reported COVID-19 cases by age group

Table 6: Deaths for which COVID-19 was a cause or contributing factor, in Tasmania for each of the last four weeks to 25 February 2024 and from 01 January 2024 to 25 February 2024, by age group.

Age Group	04Feb2024	11Feb2024	18Feb2024	25Feb2024	Total Since 1 January 2024
0-4	0	0	0	0	0
5-17	0	0	0	0	0
18-39	0	0	0	0	0
40-64	0	0	0	0	0
65-79	0	0	0	0	1
80 and over	1	3	0	0	7
Total	1	3	0	0	8

Section 3: Genomics/Virology

3.1 COVID-19

3.1.1 COVID-19 variants identified by whole genome sequencing.

Like all viruses, SARS-CoV-2 changes over time. The World Health Organization monitors these changes and classifies lineages according to the risk that they pose to global public health. In Australia, The Communicable Diseases Genomic Network (CDGN) Variants of Concern (VOC) Working Group is closely monitoring SARS-CoV-2 changes to gain a better understanding of the impact of mutations (<https://www.cdgn.org.au/variants-of-concern>). Those that they identify as having changes that increase transmissibility, increase virulence, or decrease the effectiveness of vaccines or treatments are designated as variants of concern.

Whole genome sequencing is used in Tasmania to monitor for new SARS-CoV-2 variants circulating in the community, in particular variants of concern. Whole genome sequencing is a laboratory procedure that identifies the genetic profile of an organism. Whole genome sequencing can help understand how a virus transmits, responds to vaccination and the severity of disease it may cause. It can also help to monitor the spread of the virus by identifying specimens that are genomically similar. In Tasmania, whole genome sequencing for SARS-CoV-2 is conducted at the Royal Hobart Hospital Pathology Laboratory.

Not all case specimens are sequenced. Specimens from people with COVID-19 who are admitted to hospital, or ICU are prioritised, to identify and understand lineages with increased disease severity. Specimens from overseas arrivals are also prioritised to monitor for the introduction of new variants into the community. As this is not a random sample, the proportion of sequences identified does not necessarily reflect their distribution in the community.

There is a time lag between the date a PCR test is taken and the date that the results of whole genome sequencing are reported to Public Health Services. The count of specimens which have been sequenced for recent weeks will therefore increase over time.

COVID-19 variants identified by whole genome sequencing in Tasmania:

- During the four weeks, 28 January to 18 February 2024, a total of 97 samples were sequenced.
- Among the viruses that were genotyped, the majority of variants characterized were Omicron recombinant BA.2 sub-lineages.
- Among 97 samples, 87 (90%) were JN sub-lineages, mostly JN.1.



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