

Communicable Diseases Prevention Unit, Public Health Services

RespTas Report

Tasmanian Acute Respiratory Illness Surveillance Report Week ending 22 December 2024



Section 1. Activity Indicators

Summary

Acute respiratory illness (ARI) activity in Tasmania is currently low and stable.

COVID-19 activity is currently moderate and decreasing.

Influenza and respiratory syncytial virus (RSV) activity is currently low and at inter-seasonal levels.

1.1 Community acute respiratory illness surveillance

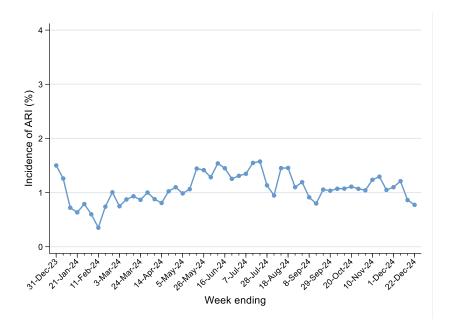
ARI activity in the community is monitored via FluTracking, a longstanding online influenza-like illness surveillance system. Further information is provided in the Appendix. Visit https://info.flutracking.net to participate.

Table 1. Acute respiratory illness reported by FluTracking participants, Tasmania, last four weeks

Week ending	Number of participants	Number reporting ARI	Percentage reporting ARI (%)
1-Dec-24	2,183	24	1.1
8-Dec-24	2,064	25	1.2
15-Dec-24	1,970	17	0.9
22-Dec-24	1,552	12	0.8

ARI - Acute respiratory illness, defined as fever and cough. Data shown are rolling two-week averages. Source: FluTracking, Hunter New England Local Health District, New South Wales Ministry of Health.

Figure 1. Proportion of FluTracking participants reporting acute respiratory illness by week, Tasmania, last 52 weeks



ARI - Acute respiratory illness, defined as fever and cough. Data shown are rolling two-week averages. Source: FluTracking, Hunter New England Local Health District, New South Wales Ministry of Health.

1.2 Sentinel laboratory surveillance

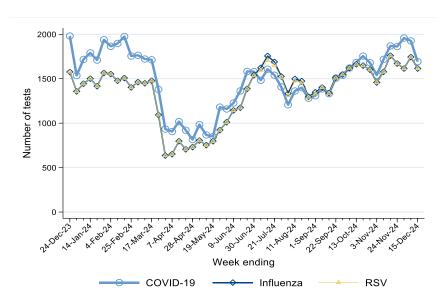
Diagnostic Services Pty Ltd (DSPL) (Hobart Pathology, Launceston Pathology, North West Pathology) and Royal Hobart Hospital (RHH) Pathology provide polymerase chain reaction (PCR) testing data weekly to the Tasmanian Department of Health for surveillance purposes. Further information is provided in the Appendix.

Table 2. PCR testing for respiratory pathogens, DSPL and RHH Pathology, Tasmania, week ending 15-Dec-24

Pathogen	Number of tests	Number of positive tests	Percent positive
Adenovirus	1,107	15	1.4
Bordetella pertussis*	259	7	2.7
Influenza A	1,615	18	1.1
Influenza B	1,615	0	0.0
Metapneumovirus	1,107	101	9.1
Mycoplasma pneumoniae*	259	9	3.5
Parainfluenza	1,107	53	4.8
RSV	1,615	31	1.9
Rhinovirus	1,107	182	16.4
SARS-CoV-2	1,693	98	5.8

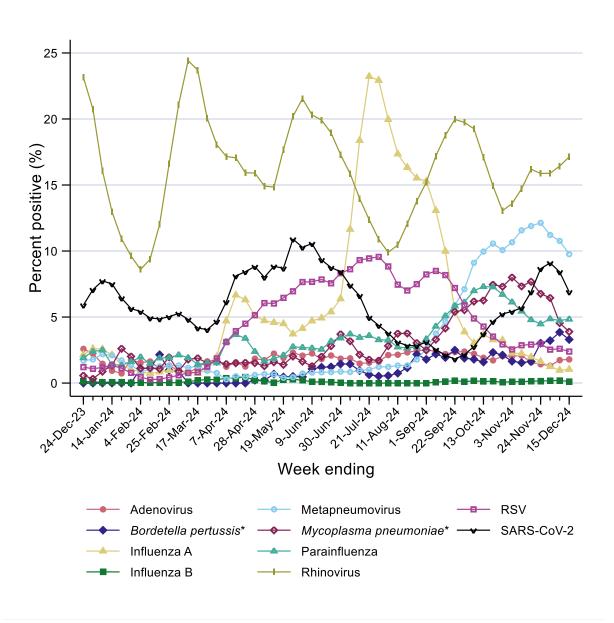
^{*} RHH only. PCR — Polymerase Chain Reaction, DSPL — Diagnostic Services Pty Ltd, RHH — Royal Hobart Hospital. Sources: DSPL and RHH Pathology.

Figure 2. PCR testing for COVID-19, influenza and RSV by week, DSPL and RHH Pathology, Tasmania, last 52 weeks to 15 Dec 2024



^{*} RHH only. PCR — Polymerase Chain Reaction, DSPL — Diagnostic Services Pty Ltd, RHH — Royal Hobart Hospital. Sources: DSPL and RHH Pathology.

Figure 3. Positivity of PCR testing for respiratory pathogens by week, DSPL and RHH Pathology, Tasmania, last 52 weeks to 15 Dec 2024



^{*} RHH only. PCR — Polymerase Chain Reaction, DSPL — Diagnostic Services Pty Ltd, RHH — Royal Hobart Hospital. Data shown are rolling three-week averages. Sources: DSPL and RHH Pathology

1.3 Notifiable disease surveillance

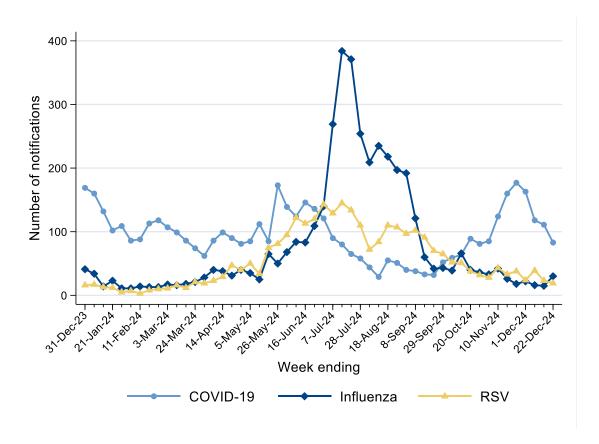
COVID-19, influenza and respiratory syncytial virus (RSV) diagnoses are notifiable to the Tasmanian Department of Health. Further information including case definitions is provided in the Appendix.

Table 3. COVID-19, influenza and RSV notifications, Tasmania, last four weeks

Week ending	COVID-19 notifications	COVID-19 rate*	Influenza notifications	Influenza rate*	RSV notifications	RSV rate*
1-Dec-24	163	28.5	22	3.8	24	4.2
8-Dec-24	118	20.6	16	2.8	39	6.8
15-Dec-24	111	19.4	15	2.6	23	4.0
22-Dec-24	83	14.5	30	5.2	19	3.3
Total YTD [^]	4,794	837.0	4,019	701.7	2,862	499.7

Confirmed cases only. * Notification rate per 100,000 population. ^ Year-to-date (YTD) as at 22-Dec-2024. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2023).

Figure 4. Number of notifications of COVID-19, influenza and RSV by week, Tasmania, last 52 weeks

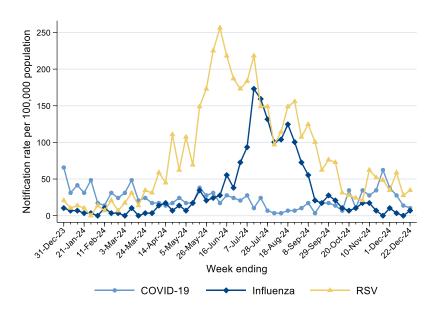


Confirmed cases only. Source: Tasmanian Notifiable Diseases Surveillance System (TNDSS).

Notifiable disease rates by age group

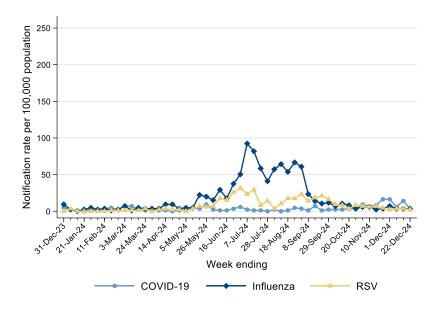
Note: The y-axis scale varies between figures as determined by the data; consider the scale when comparing rates across age groups.

Figure 5. COVID-19, influenza and RSV notification rates by week, 0- to 4-year-olds, Tasmania, last 52 weeks



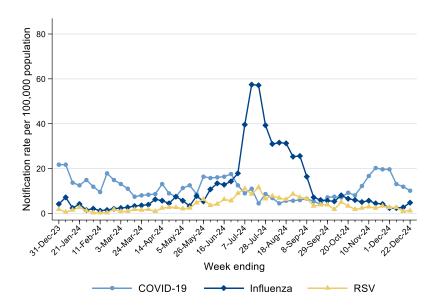
Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2023).

Figure 6. COVID-19, influenza and RSV notification rates by week, 5- to 17-year-olds, Tasmania, last 52 weeks



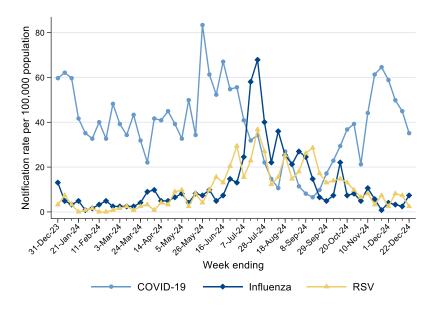
Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2023).

Figure 7. COVID-19, influenza and RSV notifications by week, 18- to 64-year-olds, Tasmania, last 52 weeks



Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2023).

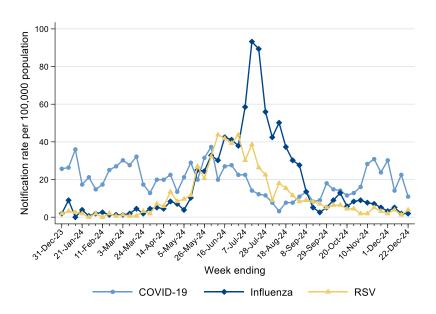
Figure 8. COVID-19, influenza and RSV notifications by week, people aged 65 years and over, Tasmania, last 52 weeks



Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2023).

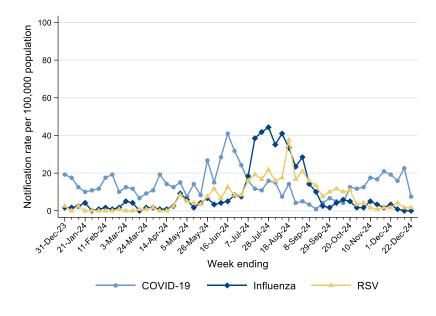
Notifiable disease rates by region of residence

Figure 9. COVID-19, influenza and RSV notification rates by week, North region residents, Tasmania, last 52 weeks



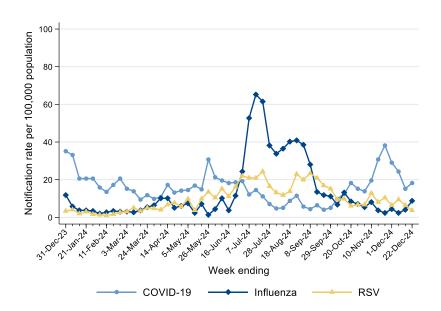
Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2022).

Figure 10. COVID-19, influenza and RSV notification rates by week, North-West region residents, Tasmania, last 52 weeks



Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2022).

Figure 11. COVID-19, influenza and RSV notification rates by week, South region residents, Tasmania, last 52 weeks

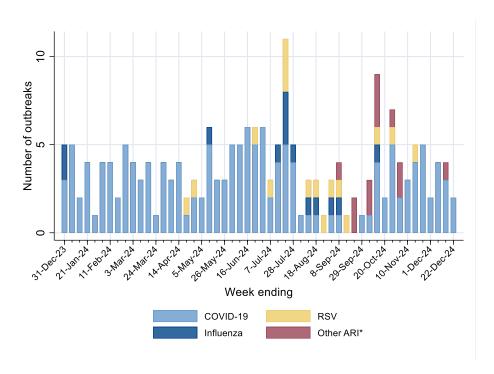


Confirmed cases only. Sources: Tasmanian Notifiable Diseases Surveillance System (TNDSS), Australian Bureau of Statistics estimated resident population (Jun 2022).

1.4 Outbreak surveillance – residential aged care homes

In the event of a respiratory outbreak (defined as 2 or more resident cases within 72 hours) residential aged care homes (RACHs) are required to notify the Tasmanian Department of Health. The COVID-19 Outbreaks in Residential Aged Care Homes: Toolkit provides guidance on the prevention, identification and public health response to acute respiratory illness outbreaks in RACH settings in Tasmania.

Figure 12. Number of new acute respiratory illness outbreaks in residential aged care homes by pathogen, Tasmania - last 52 weeks



RSV - Respiratory syncytial virus. * Other ARI - acute respiratory illness (causative pathogen is not notifiable or not yet known). Source: Tasmanian Acute Respiratory Outbreak Register.

Table 4. Number of new acute respiratory illness outbreaks in residential aged care homes by disease and region, Tasmania, last four weeks

Region	Number of COVID-19 outbreaks	Number of influenza outbreaks	Number of RSV outbreaks	Number of other ARI* outbreaks
North	2	0	0	0
North-West	2	0	0	1
South	7	0	0	0
Total	11	0	0	1

RSV - Respiratory syncytial virus. * Other ARI - acute respiratory illness (causative pathogen is not notifiable or not yet known). Source: Tasmanian Acute Respiratory Outbreak Register.

The Australian Department of Health and Aged Care's <u>COVID-19 outbreaks in Australian</u> <u>residential aged care facilities report</u> provides a weekly snapshot of the impact of COVID-19 in residential aged care homes nationally.

1.5 COVID-19 whole genome sequencing

Specimens from people with COVID-19 undergo whole genome sequencing to monitor circulating variants. As the COVID-19 virus constantly changes, new COVID-19 variants will continue to occur. An increase in COVID-19 notifications in December 2023 was associated with the emergence of the JN sub-lineage (Figure 13). KP is a sub-sub-lineage of JN, and its increasing incidence throughout May 2024 was associated with increases in COVID-19 activity at this time. In recent months, a new variant has been identified, XEC (a recombinant of two BA.2.86 descendants), which has also been increasing nationally.

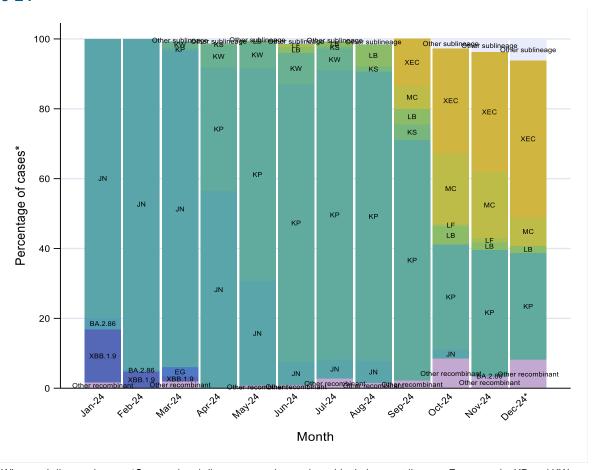
In the four weeks to 8-Dec-24, sub-lineage was known for 32.2% (199/618) of confirmed cases of COVID-19.

Table 5. Most common COVID-19 sub-lineages, Tasmania, four weeks to 8-Dec-24

Sub-lineage / sub-sub lineages	Number of notifications	Percentage of notifications
KP	71	35.7
XEC	70	35.2
MC	36	18.1
Other recombinant	10	5.0
Others	12	6.0
Total*	199	100.0

Based on the four weeks to 8-Dec-24. Four most frequently identified sub-lineages stated in the table. * Where sub-lineage known. Source: Tasmanian Notifiable Diseases Surveillance System (TNDSS).

Figure 13. Notifications of COVID-19 by sub-lineage, Tasmania, last 12 months to 8-Dec-24



^{*} Where sub-lineage known. ^Some sub-sub-lineages are shown alongside their parent lineage. For example, KP and KW are sub-sub-lineages of JN. Sub-sub-lineages with <10 sequences are collapsed into their parent lineage where known or 'Other sub-lineage'/'Other recombinant' where parent lineage is yet to be determined. Source: Tasmanian Notifiable Diseases Surveillance System (TNDSS).

1.6 Influenza typing

Figure 14. Notifications of influenza by virological type and week, Tasmania, 2024

In 2024 year-to-date, influenza A accounted for the majority of influenza notifications (98.4%, 3,956/4,019), followed by influenza B (1.6%, 63/4,019).

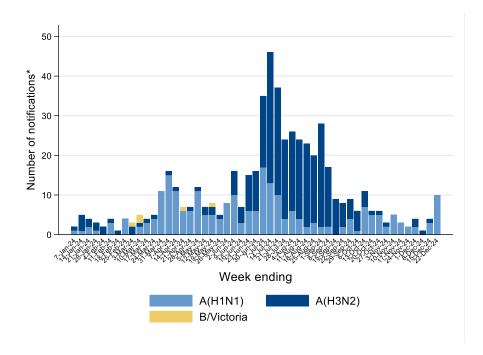
A subset of influenza notifications are further characterised by subtype/lineage. In 2024 year-to-date, 13.8% (556/4019) of influenza cases notified in 2024 had subtype/lineage determined (Table 6; Figure 14).

Table 6. Notifications of influenza by virological subtype/lineage, Tasmania, 2024 year-to-date

Subtype/Lineage	Number of notifications	Percentage of notifications
A (H3N2)	309	55.6
A (H1N1)	242	43.5
B Victoria	5	0.9
B Yamagata	0	0.0
Total*	556	100.0

^{*} Where subtype/lineage known. Source: Tasmanian Notifiable Diseases Surveillance System (TNDSS).

Figure 14. Notifications of influenza by virological subtype/lineage and week, Tasmania, 2024 year-to-date



^{*} Where subtype/lineage known. Source: Tasmanian Notifiable Diseases Surveillance System (TNDSS).

2. Severity indicators

Local indicators of severity sourced from Tasmanian FluTracking participants are provided here. The <u>Australian Respiratory Surveillance Report</u> provides an understanding of disease severity and impact at a national level.

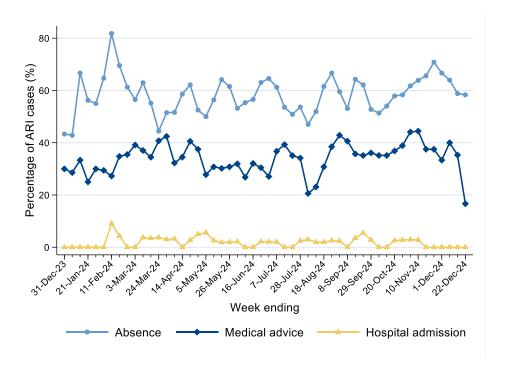
2.1 Acute respiratory illness in the community

Table 7. Severity indicators reported by FluTracking participants, Tasmania, last four weeks

Week ending	Number reporting ARI	Absent from work or normal duties ≥3 days (%)*	Sought medical advice (%)*	Admitted to hospital (%)*
1-Dec-24	24	66.7	33.3	0.0
8-Dec-24	25	64.0	40.0	0.0
15-Dec-24	17	58.8	35.3	0.0
22-Dec-24	12	58.3	16.7	0.0

Data shown are rolling two-week averages. ARI - Acute respiratory illness, defined as fever and cough. *Due to ARI, as reported by participants. Source: FluTracking, Hunter New England Local Health District, New South Wales Ministry of Health.

Figure 15. Severity indicators reported by FluTracking participants by week, Tasmania, last 52 weeks



Data shown are rolling two-week averages. ARI - Acute respiratory illness, defined as fever and cough. Absence defined as absent from work or normal duties for 3 or more days due to ARI, medical advice defined as sought medical advice due to ARI, hospital admission defined as hospital inpatient due to ARI. All measures self-reported by participants. Source: FluTracking, Hunter New England Local Health District, New South Wales Ministry of Health.

2.2 Mortality surveillance

The Australian Bureau of Statistics (ABS) produces two regular reports that provide preliminary information on mortality – Provisional Mortality Statistics and Deaths due to Acute Respiratory Infections. These reports are based on information contained on death certificates.

Provisional Mortality Statistics monitors patterns of mortality (by all-causes and specified leading causes of death) to identify any changes potentially associated with the pandemic. See: Provisional Mortality Statistics

Deaths due to Acute Respiratory Infections focuses on all deaths registered and reported with COVID-19, influenza or RSV recorded on the death certificate. The report includes counts of deaths due to COVID-19, influenza and RSV registered in Tasmania. See: Deaths due to Acute Respiratory Infections

Section 3. Indicators to monitor uptake of public health interventions

3.1 Vaccination coverage

Vaccination remains the most important measure to protect those at risk of severe disease from COVID-19 and influenza.

For the latest recommendations and eligibility guidance, see <u>COVID-19 vaccination | Tasmanian Department of Health</u> and Flu vaccination | Tasmanian Department of Health.

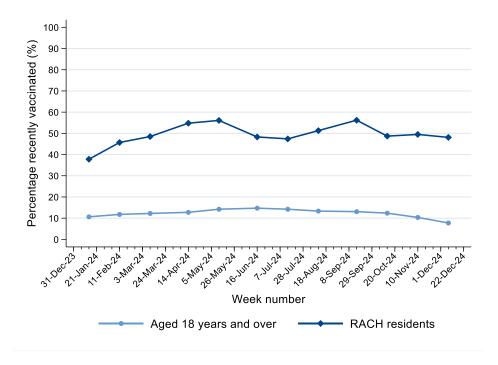
COVID-19 vaccination

Table 8. Percentage recently vaccinated* against COVID-19 by population group, Tasmania, as at 11-Dec-24

Population group	Number vaccinated	Eligible population	Percentage recently vaccinated (%)
People aged 18 years and over	35,500	458,398	7.7
Residential Aged Care Home (RACH) residents	2,100	4,366	48.1

^{*} Any dose in the last six months. Sources: Australian Government Department of Health and Aged Care: COVID-19 Vaccine Rollout (updated monthly); Australian Bureau of Statistics estimated resident population (Jun 2023).

Figure 16. Percentage recently vaccinated* against COVID-19 by population group and week, Tasmania, last 52 weeks



^{*} Any dose in the last six months. Sources: Australian Government Department of Health and Aged Care: COVID-19 Vaccine Rollout (updated monthly); Australian Bureau of Statistics estimated resident population (Jun 2023).

Influenza vaccination

The seasonal influenza vaccination campaign for 2024 has concluded and coverage data is no longer reported.

3.2 COVID-19 treatments

COVID-19 oral antiviral treatments are available through the Pharmaceutical Benefits Scheme for <u>eligible patients</u>. The Australian Department of Health and Aged Care provides data on scripts dispensed by month for Tasmania, found <u>here</u>.

Appendix

Surveillance systems and data sources used in this report are described below.

FluTracking

Description: FluTracking is a syndromic surveillance system for acute respiratory illness (ARI) launched in Australia in 2006 by the University of Newcastle in partnership with Hunter New England Health Local Health District, Hunter Medical Research Institute and the Commonwealth Government. ARI may be caused by COVID-19, influenza, respiratory syncytial virus (RSV) or other respiratory infections such as rhinovirus. A weekly web-based survey is sent to voluntary participants to determine ARI activity in the community based on the presence of symptoms, and if symptomatic, indicators of severity such as absence from work and normal duties, whether medical advice was sought, or admission to hospital. More information on FluTracking including how to participate can be found at: https://info.flutracking.net/.

Population under surveillance: FluTracking participants: Community members (with and without ARI symptoms) who have signed up to participate.

Activity indicator: Percentage of survey participants reporting new ARI symptoms (defined as fever and cough) in the period of interest.

Severity indicators: Percentage of survey participants reporting ARI who reported:

- absence from work or normal duties for 3 or more days due to ARI
- seeking medical advice due to ARI
- having an inpatient hospital admission due to ARI.

Reporting period and frequency: Weekly; to previous Sunday. Data are presented as rolling two-week averages to smooth weekly variation which arises due to small numbers.

Notes on interpretation: Compared with notification and testing (laboratory) data, FluTracking is less affected by health-seeking behaviours and testing practices. The self-selecting sample of participants means data may not represent true levels of ARI in the general population. Efforts are currently underway to recruit underrepresented groups including younger people, males, and Aboriginal people.

Data presented relate to new cases of ARI based on week of onset. Participants reporting absence from work/normal duties, seeking medical advice or hospital admission are recorded against the first week of the episode of ARI. Because participants can complete surveys late or report absence or medical care later in an episode of illness, data for all weeks can be subject to change.

Sentinel laboratory data

Description: Two pathology providers in Tasmania provide respiratory pathogen testing data weekly to the Tasmanian Department of Health for routine surveillance: Diagnostic Services Pty Ltd (DSPL) (Hobart Pathology, Launceston Pathology, North West Pathology) and Royal Hobart Hospital (RHH) Pathology.

Population under surveillance: Individuals who have undergone respiratory testing through DSPL and RHH Pathology.

Activity indicator by pathogen: Percent positive (percentage of tests positive for the pathogen).

Reporting period and frequency: Weekly; to previous Sunday. Data are presented as rolling three-week averages to smooth weekly variation which arises due to small numbers.

Notes on interpretation: Data presented include numbers of polymerase chain reaction (PCR) tests for a range of respiratory pathogens based on specimen collection date; more than one test may be counted per person, from different specimens or different times. These testing data cannot be directly compared with the notification data. Data are influenced by health-seeking behaviours and access, testing practices among clinicians, broader testing strategies, and laboratory practice and capacity. For example, testing reduced substantially in March 2024 due to changes in inpatient testing policy. Changes in percent positive may not represent changes in disease incidence in the community. Includes testing by DSPL and RHH Pathology. Excludes testing conducted in other laboratories in Tasmania. Data from DSPL primarily reflect primary care testing and data from RHH testing in the hospital setting. Pathogens tested for may vary by specimen, laboratory and test conducted.

Tasmanian Notifiable Disease Surveillance System (TNDSS)

COVID-19, Influenza and respiratory syncytial virus (RSV) are notifiable conditions in Tasmania under the *Public Health Act 1997*. Consequently, all pathology laboratories in Tasmania are required to notify cases that meet the nationally agreed case definitions to Public Health Services. Notifications are received regularly from public and private laboratories in Tasmania. Data are correct at the time of reporting but are subject to change due to late notifications.

Population under surveillance: Tasmanian residents or overseas visitors diagnosed in Tasmania who meet laboratory criteria for confirmed case of COVID-19, influenza and RSV. Access <u>CDNA</u> surveillance case definitions | Australian Government Department of Health and Aged Care.

Activity indicator: Notification count and rate with disaggregation by age group and region of residence.

Reporting period and frequency: Weekly; to previous Sunday.

Notes on interpretation: Data are reported by calculated onset date, the earliest of onset date, specimen date or notification date. As there is no routine public health follow up of individual cases, cases are typically reported by the week of specimen collection. COVID-19 data are based on laboratory-confirmed cases only to enable valid comparisons between COVID-19, influenza and RSV over the entire reporting period. Positive Rapid Antigen Test (RAT) registration (notification of probable cases of COVID-19) in Tasmania ceased on 12 April 2024. As with sentinel laboratory data, notification data are heavily influenced by factors including health-seeking behaviours and testing practices. Changes in surveillance indicators may reflect changes in testing practices and not actual disease incidence in the community.

Tasmanian Acute Respiratory Outbreak Register

All residential aged care homes (RACHs) in Tasmania must notify new outbreaks of COVID-19, influenza, RSV or other acute respiratory infection to Public Health Services. Outbreaks are defined as two or more resident cases within 72 hours (as documented in COVID-19 Outbreaks in Residential Aged Care Homes: Toolkit to support planning, preparedness and response Tasmanian Department of Health).

Population under surveillance: Residents of RACHs in Tasmania.

Activity indicator: Count of new outbreaks in RACHs by disease and region.

Notes on interpretation: Outbreaks are reported based on the date of notification to Public Health Services.

COVID-19 whole genomic sequencing data

Population under surveillance: COVID-19 PCR positive individuals whose samples have undergone whole genome sequencing through RHH Pathology.

Reporting period and frequency: Weekly with a reporting lag of two weeks to allow time for sequencing.

Notes on interpretation: The cases sequenced are a small proportion of all infections and so results may not reflect actual occurrence in the community.

Australian Immunisation Register

The Australian Immunisation Register (AIR) is a national register that records vaccines given to all people in Australia. The AIR is administered by Services Australia on behalf of the Australian Department of Health and Aged Care. It is mandatory for vaccination providers to report COVID-19, influenza, and other vaccines on the National Immunisation Program schedule to the AIR. The AIR is governed under the Australian Immunisation Register Act 2015, and the associated Australian Immunisation Register Rule 2015. https://www.servicesaustralia.gov.au/australian-immunisation-register.

Vaccination coverage data for COVID-19 and influenza are based on publicly available data from the Commonwealth Government with additional calculations and analysis conducted by the Tasmanian Department of Health. Numbers vaccinated are taken from the Australian Department of Health and Aged Care – for COVID-19, from the 'COVID-19 Vaccine Rollout' report; for influenza, from the 'Australian Immunisation Register - Influenza Data' reports. Population denominators used for additional coverage estimates are taken from the Australian Bureau of Statistics.



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