

## NSW Respiratory Surveillance Report - week ending 27 May 2023

**Community transmission of COVID-19 remains at moderate to high level, influenza activity continues to increase rapidly, and RSV activity is stable and showing some signs of declining.**

### Summary

COVID-19, influenza and RSV activity in NSW persists at elevated levels however both COVID-19 and RSV have stabilised in recent weeks. Indicators which are not influenced by the amount of testing for COVID-19, including sewage and healthcare worker furloughing, continue to show moderate to high levels of COVID-19 transmission in the community.

A small decline of 6% in COVID-19 notifications occurred in the previous week. Notification rates have remained stable in all age groups except ongoing fluctuations for those aged 90 years and older. Admissions to hospital have remain stable. There were 2,906 people diagnosed with influenza this week, an increase of 36.3% since the previous week with notification rates highest in children and young people aged 3 – 16 years. The rapid increase in influenza notifications is also reflected in an increase in emergency department (ED) presentations and subsequent hospital admissions for influenza-like illness (Figure 2). RSV activity has stabilised in all age groups, including infants and young children. Hospitals are also experiencing a decline in ED presentations and admissions for bronchiolitis (associated with RSV infection) in young children.

### Data sources and methods

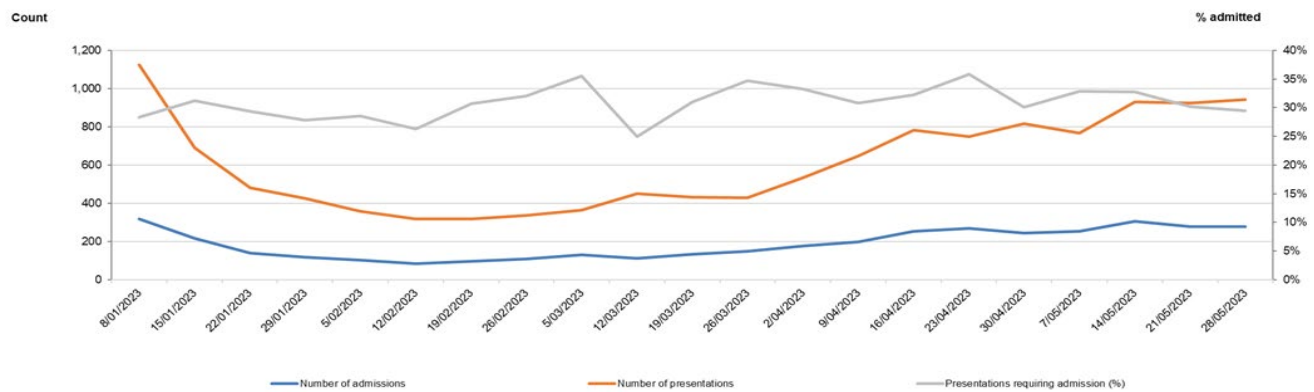
The data source for this report updates as new information becomes available. Therefore, this report cannot be directly compared to previous versions of the NSW Respiratory Surveillance Report or to previous reporting periods. For additional information on the data sources and methods presented within this report please refer to [COVID-19 surveillance report data sources and methodology](#).

## Public Health Rapid, Emergency, Disease and Syndromic Surveillance

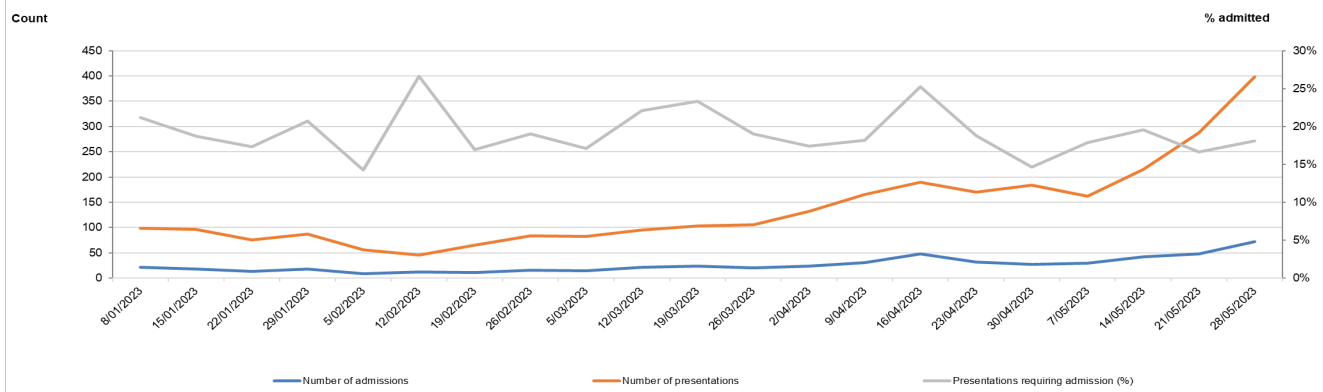
The PHREDSS system provides daily information about presentations to NSW public hospital emergency departments (ED) and subsequent admission to hospital categorised by symptom profile. Here we report on COVID-19, influenza-like illness and bronchiolitis (a common respiratory illness in young children which is mainly caused by respiratory syncytial virus (RSV) infection). These PHREDSS indicators, particularly the number of people admitted to hospital, are useful for monitoring the severity of illness and impact on the health system.

**Interpretation:** ED presentations for coronavirus (Figure 1) rose slightly over the past week however the number and proportion of presentations requiring admission were unchanged from the previous week. The number of presentations and admissions for influenza-like illness (Figure 2) continue to rise however the proportion requiring admission was similar to the previous week suggesting the severity of cases has not changed. ED presentations and subsequent admissions for bronchiolitis in young children (Figure 3) have declined.

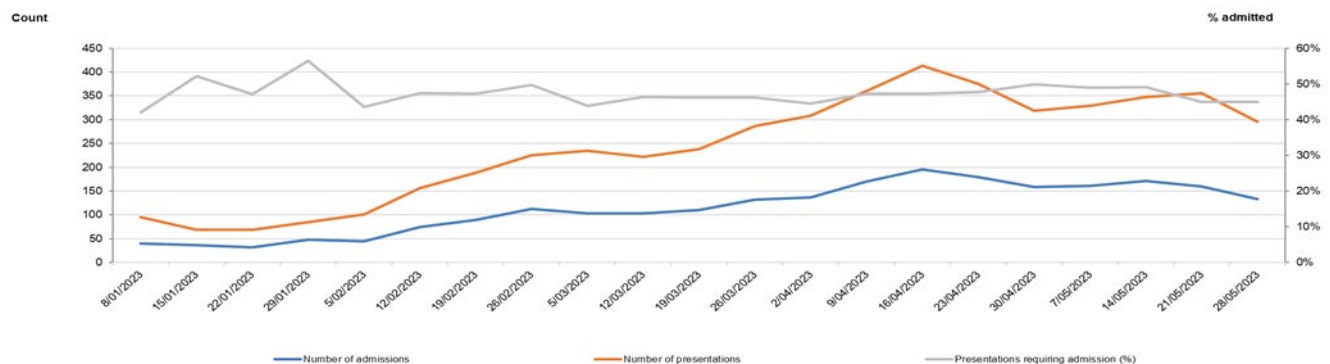
**Figure 1. 'COVID-19' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.**



**Figure 2. 'Influenza-like illness' weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, persons of all ages.**



**Figure 3. Bronchiolitis weekly counts of unplanned emergency department (ED) presentations and admission following presentation, 2023, children aged 0-4 years.**



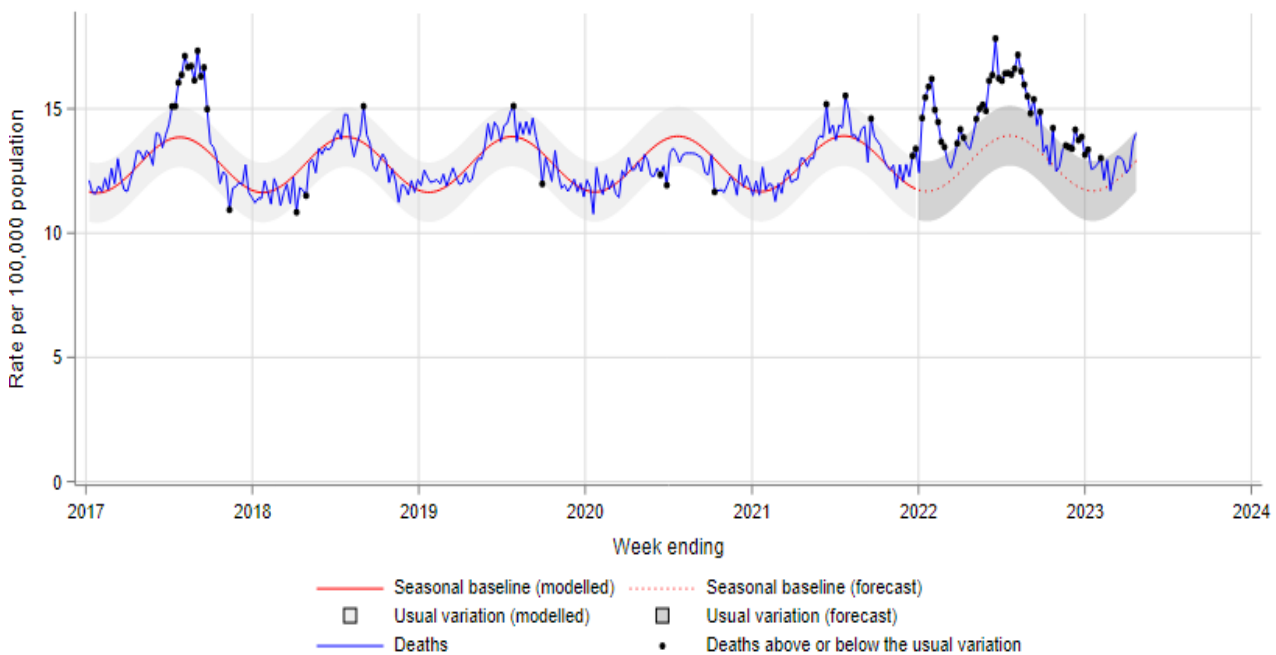
## Death surveillance

### All-cause mortality

All-cause mortality provides a comprehensive measure of the total impact of health threats, such as severe influenza periods, COVID-19 and heatwaves, by counting both deaths directly attributable and indirectly associated with the threat. Monitoring all-cause mortality allows rapid assessment of changing patterns of mortality, and whether the number of deaths in a period is more or less than expected. In this report mortality is determined from counts of deaths in the NSW Registry of Births Deaths & Marriages. The rate of death per week is presented with the seasonal baseline, which summarises the historic (2017-2021) rate of deaths for the corresponding week (red dashed line, grey shading indicates the 95% confidence interval). This indicator provides a signal of the impact from any significant and prolonged cause on the NSW population.

**Interpretation:** Weekly lag adjusted all-cause mortality is within the usual variation.

Figure 4. All-cause death rate per 100,000 population, all ages, 2017 to 23 April 2023.



#### Notes:

In this report, due to the time interval between a death occurring and the date on which the death is registered, only deaths reported 4 weeks prior to the date of analysis are used. Deaths are lag adjusted for the weeks ending 19 March 2023 to 23 April 2023. For additional information see data sources and methods for details.

Death rates presented in this report are not directly translatable to analyses in the ABS Provisional Mortality Statistics and Actuaries Institute COVID-19 Working Group reports which make specific comparisons of mortality in the pre and during pandemic periods

## Notifications of COVID-19, influenza and RSV

Notification data is obtained from laboratory tests for infections, and for COVID-19 only includes tests reported by the public to NSW Health. This indicator provides information about community infection.

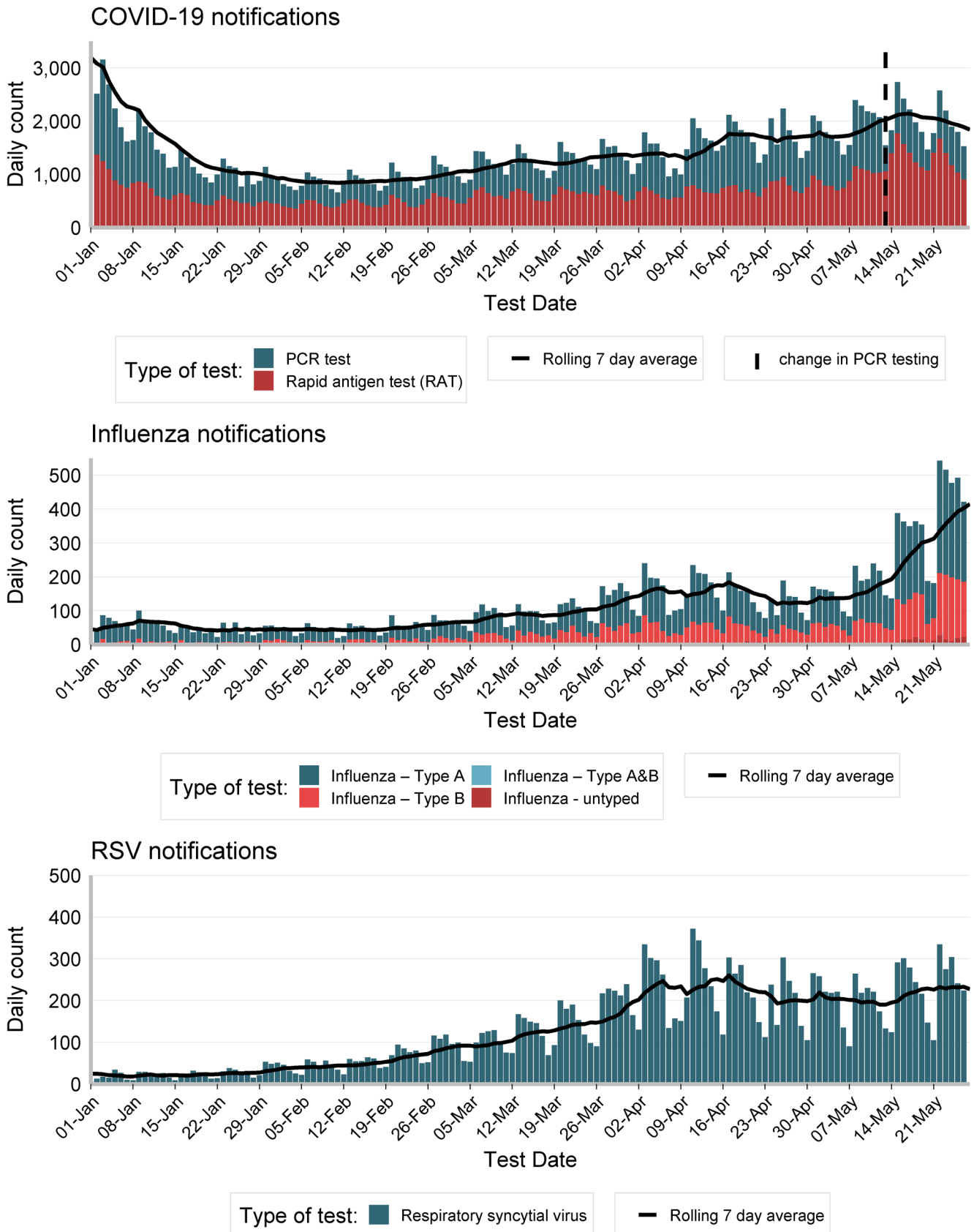
**Interpretation:** Weekly respiratory virus notifications continue to be dominated by COVID-19 across all age groups. Children and young people aged less than 20 years continue to account for half of all influenza notifications.

**Table 1: Notifications of COVID-19, influenza and RSV, NSW, tested in the week ending 27 May 2023.**

	COVID		Influenza		RSV	
	Week ending 27 May 2023	Year to Date	Week ending 27 May 2023	Year to Date	Week ending 27 May 2023	Year to Date
Gender						
Female	7,620	119,674(58%)	1,497	9,009(51%)	826	9,715(51%)
Male	5,234	88,176(42%)	1,406	8,629(49%)	760	9,222(49%)
Age group (years)						
0-4	441	6,659(3%)	365	2,455(14%)	767	11,592(61%)
5-9	604	6,333(3%)	696	3,777(21%)	90	815(4%)
10-19	1,566	16,997(8%)	686	3,010(17%)	87	649(3%)
20-29	1,123	24,329(12%)	155	1,318(7%)	58	586(3%)
30-39	1,811	31,851(15%)	304	2,119(12%)	63	801(4%)
40-49	2,060	30,673(15%)	289	1,870(11%)	75	585(3%)
50-59	1,716	28,860(14%)	166	1,150(7%)	102	789(4%)
60-69	1,364	26,524(13%)	124	904(5%)	98	982(5%)
70-79	997	19,636(9%)	79	641(4%)	107	939(5%)
80-89	820	11,606(6%)	33	324(2%)	85	815(4%)
90+	368	4,589(2%)	6	78(0%)	56	384(2%)
Local Health District of residence						
Central Coast	587	9,394(5%)	105	453(3%)	64	1,072(6%)
Far West	71	586(0%)	4	29(0%)	4	12(0%)
Hunter New England	1,923	26,821(13%)	238	1,219(7%)	213	1,310(7%)
Illawarra Shoalhaven	703	12,910(6%)	112	871(5%)	61	1,225(6%)
Mid North Coast	248	4,305(2%)	92	339(2%)	27	357(2%)
Murrumbidgee	551	6,245(3%)	188	618(3%)	94	378(2%)
Nepean Blue Mountains	733	10,150(5%)	178	832(5%)	120	1,156(6%)
Northern NSW	307	5,596(3%)	114	611(3%)	27	514(3%)
Northern Sydney	1,546	25,314(12%)	387	2,767(16%)	154	2,952(16%)
South Eastern Sydney	1,058	22,924(11%)	230	1,659(9%)	119	2,035(11%)
South Western Sydney	1,392	21,608(10%)	389	2,591(15%)	237	2,680(14%)
Southern NSW	371	5,286(3%)	50	200(1%)	46	248(1%)
Sydney	914	17,953(9%)	191	1,361(8%)	59	1,324(7%)
Western NSW	643	8,369(4%)	67	297(2%)	98	546(3%)
Western Sydney	1,769	28,082(13%)	554	3,724(21%)	263	3,079(16%)
Aboriginal status						
Aboriginal and/or Torres Strait Islander	481	6,703(3%)	102	502(3%)	62	631(3%)
Not Aboriginal or Torres Strait Islander	9,391	152,059(73%)	1,481	9,381(53%)	766	9,326(49%)
Not Stated / Unknown	2,992	49,317(24%)	1,323	7,776(44%)	760	8,989(47%)
<b>Total</b>	<b>12,864</b>	<b>208,079(100%)</b>	<b>2,906</b>	<b>17,659(100%)</b>	<b>1,588</b>	<b>18,946(100%)</b>

Note: Total includes all cases including those with missing gender, age, LHD; or who interstate or overseas residents.

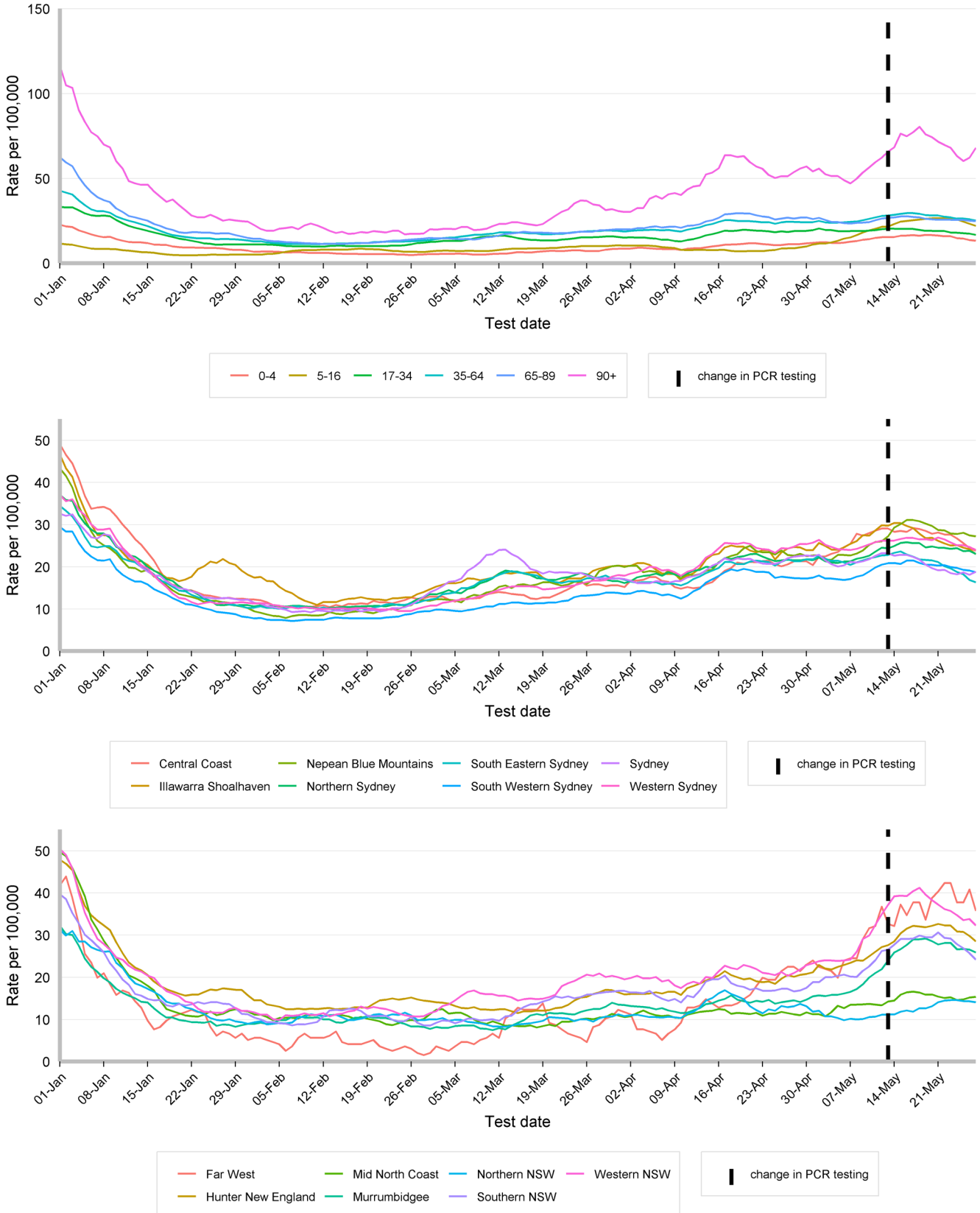
Figure 5. People notified with COVID-19, Influenza and RSV, by date of test and type of test performed, NSW, 01 January 2023 to 27 May 2023.



### Rates of COVID-19 notifications per 100,000 population

**Interpretation:** There have been small declines in COVID-19 notification rates in children aged less than 17 years. Notification rates are declining in the majority of Local Health Districts. COVID-19 testing recommendations changed on 13 May 2023 to PCRs being available by referral only. Rapid antigen tests are now recommended for the general population other than those in high-risk groups.

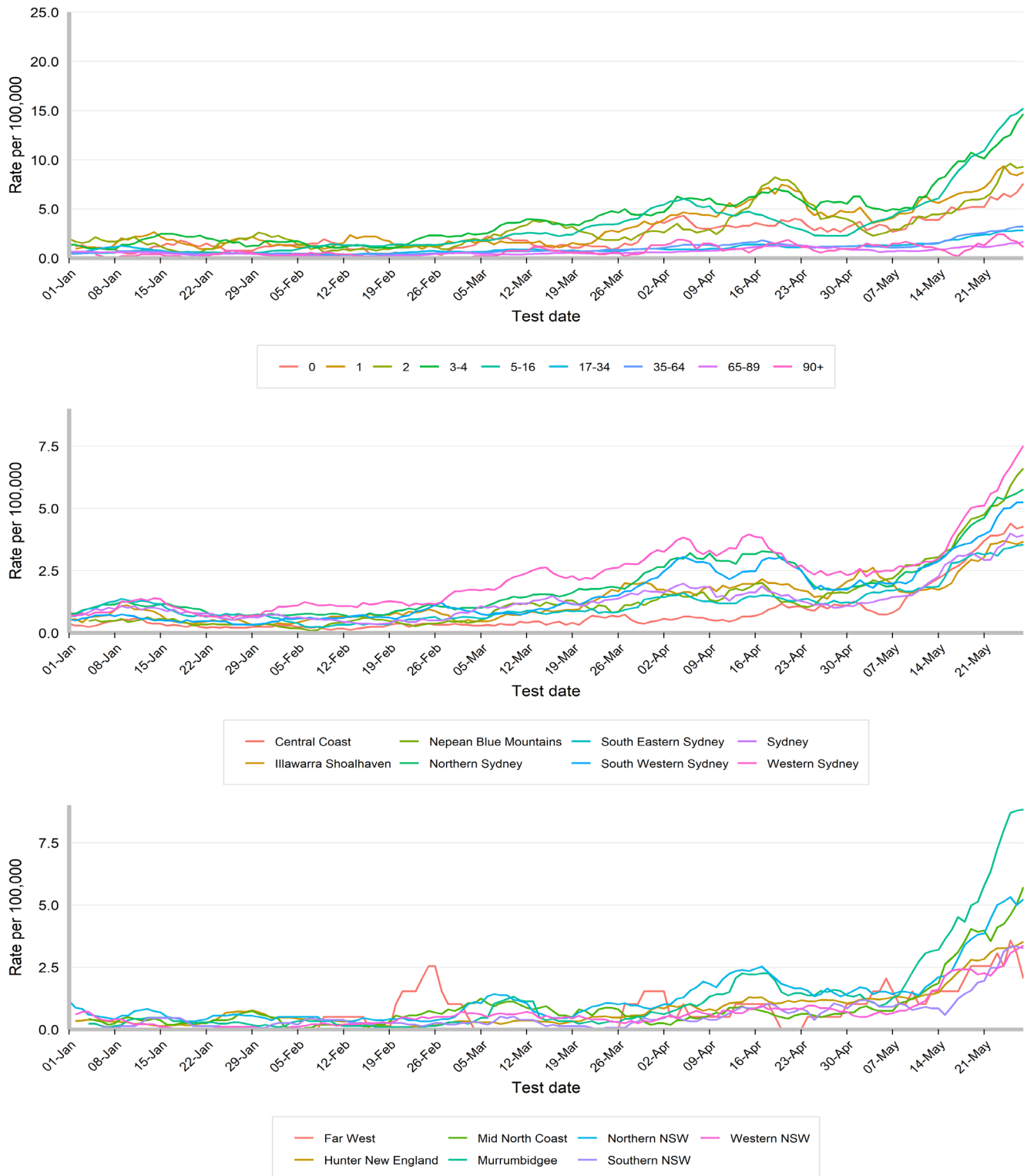
**Figure 6. Daily seven-day rolling average rate of COVID-19 notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 27 May 2023.**



### Rates of influenza notifications per 100,000 population

**Interpretation:** Rates of influenza notifications have continued to rapidly increase in all age groups other than those aged 90 years and older, and in the majority of Local Health Districts. The predominance of young children and adolescents is likely a reflection of increased transmission in school settings, lower vaccination rates and potentially increased testing in this age group if unwell

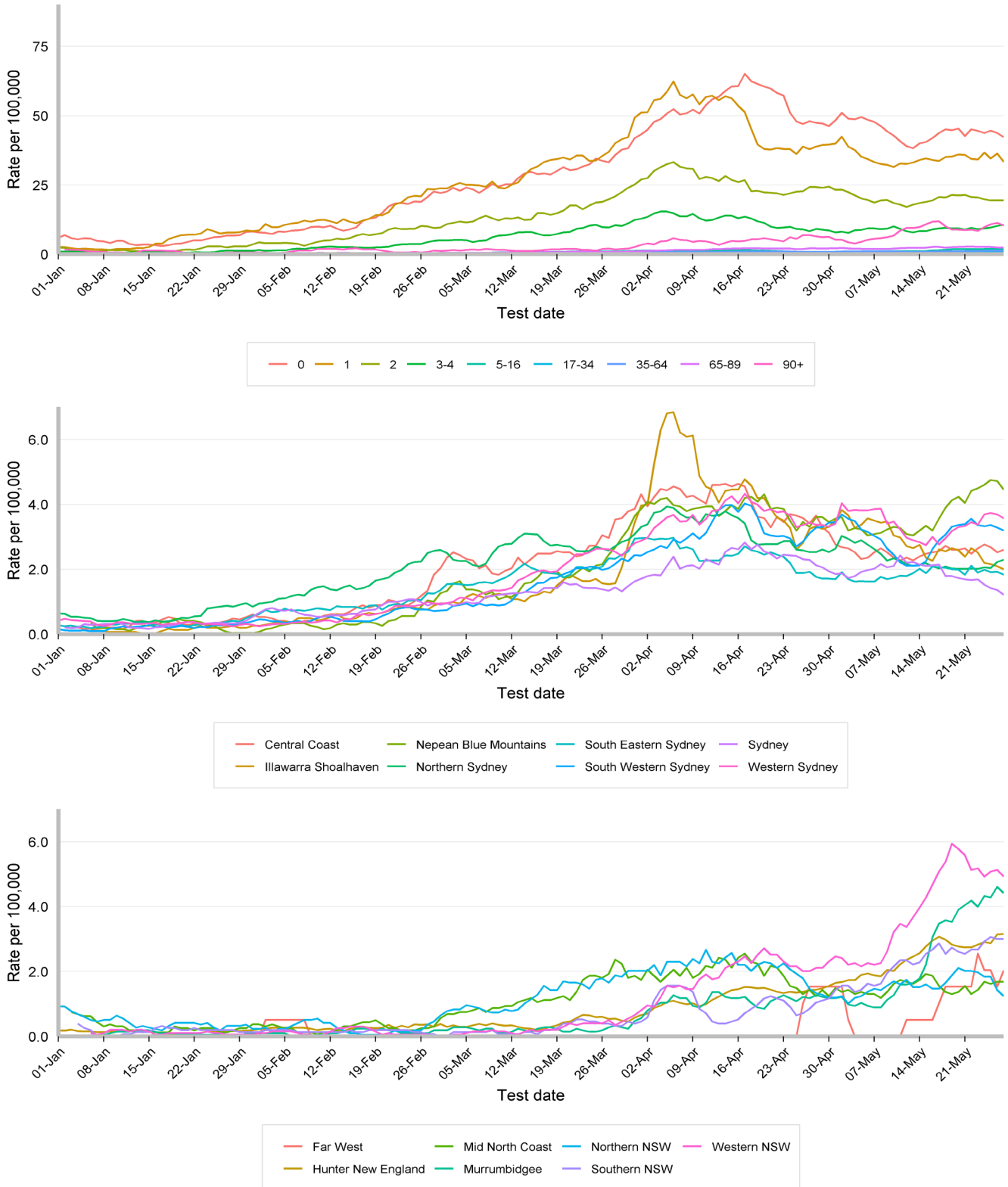
Figure 7. Daily seven-day rolling average rate of influenza notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 27 May 2023.



### Rates of respiratory syncytial virus notifications per 100,000 population

**Interpretation:** Rates of RSV notifications have been stable across all age groups however they continue to fluctuate across Local Health Districts.

**Figure 8. Daily seven-day rolling average rate of respiratory syncytial virus notifications per 100,000 population, by age group, Local Health District and test date, NSW, 01 January 2023 to 27 May 2023.**



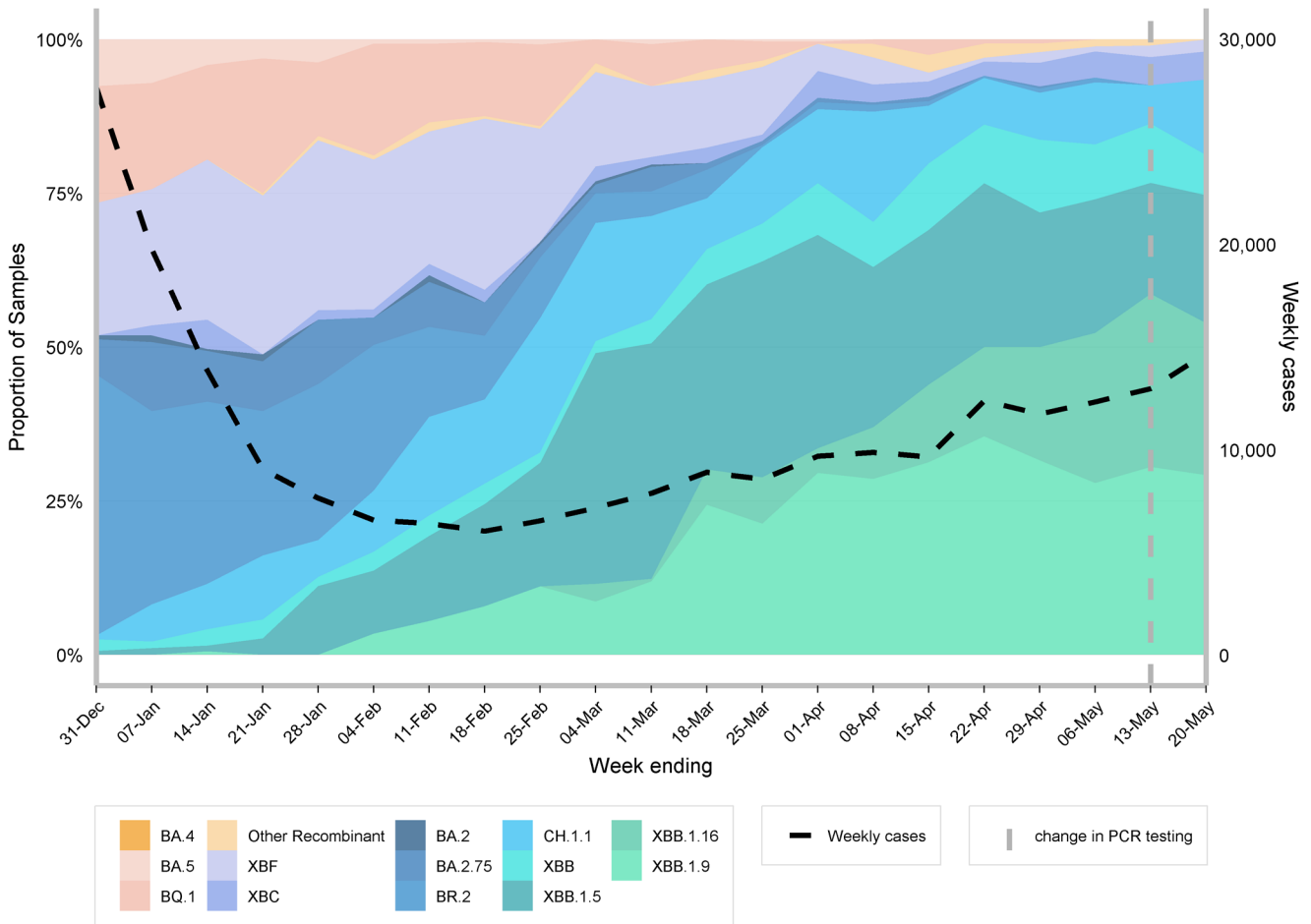


### COVID-19 Whole Genome Sequencing

Specimens from people with COVID-19 undergo whole genome sequencing to identify and understand the behaviour of circulating variants. Community samples are sourced from cases who test via PCR at community pathology services and may not necessarily reflect the distribution in all cases across NSW. NSW continues to monitor results from cases who are admitted from ICU to monitor for increased disease severity and from cases who return from overseas to monitor for new variants introduced into NSW. There is a lag between the date a PCR test is taken and the date that the results of WGS are reported. S genes were detected in 99.2% of SARS-CoV-2 positive specimens.

**Interpretation:** XBB sublineages currently account for almost all samples sequenced from the community.

**Figure 9. Estimated distribution of COVID-19 sub-lineages in the community, 01 January 2023 to 20 May 2023.**



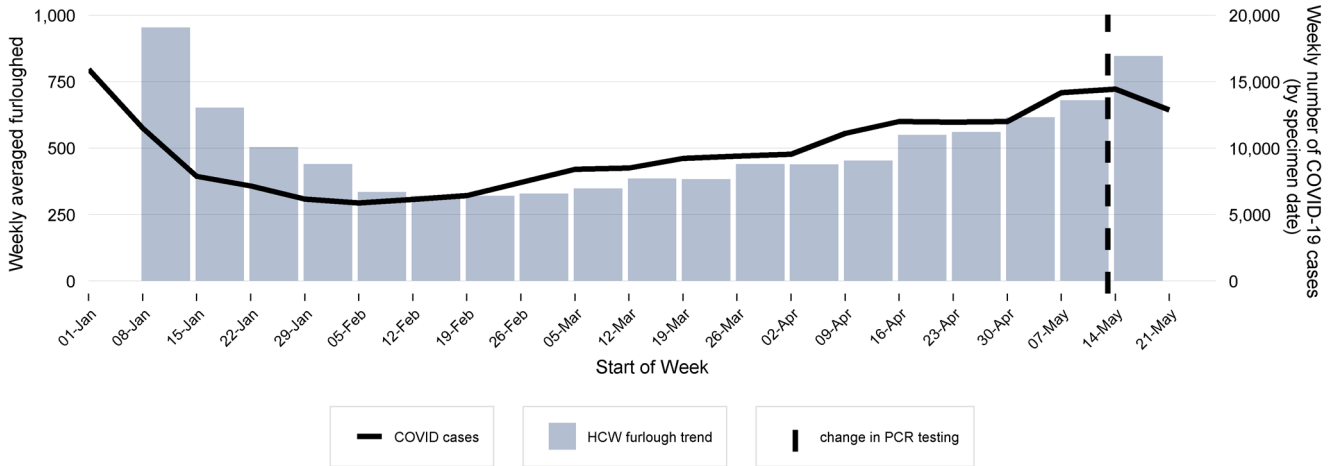
## Other surveillance indicators

### NSW Healthcare worker furloughing

Healthcare workers are included in these statistics if they are in isolation and unable to work due to testing positive to COVID-19, exposure to COVID-19, and/or whilst waiting for a negative test result. This indicator is helpful to assess the level of COVID-19 circulating in the community when community testing decreases.

**Interpretation:** The number of healthcare workers furloughed remains at moderate to high levels.

**Figure 10. Average number of healthcare-worker furloughing and number of COVID-19 notifications by week in NSW, 01 January 2023 to 21 May 2023.**

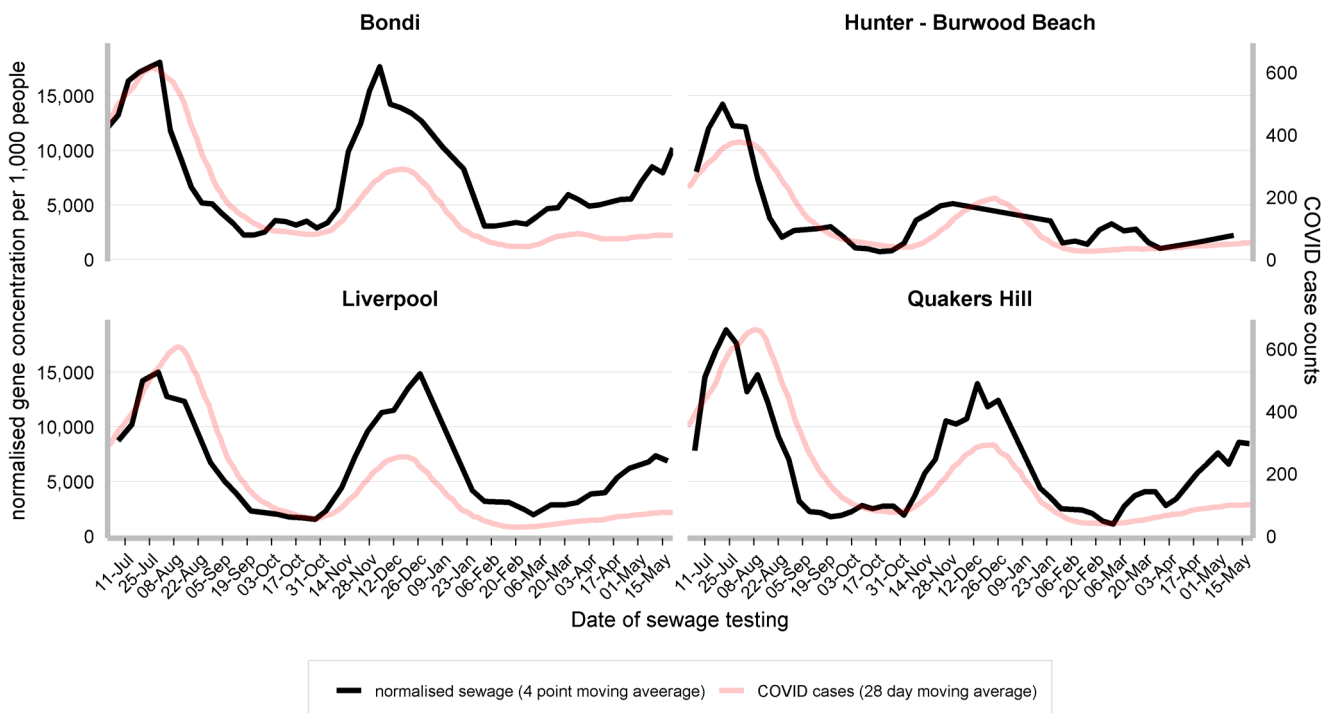


## COVID-19 Sewage surveillance program

Trends are presented for Sydney Bondi, Quakers Hills, Liverpool and Burwood Beach sewage catchments from 5 February 2022 to the week ending 21 May 2023. For more information, please see the COVID-19 Sewage Surveillance Program website: <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/sewage-surveillance.aspx>.

**Interpretation:** Gene concentrations per 1,000 people have continued to increase over the previous weeks. This indicates that transmission continues to occur in the community despite decreases in case notifications.

**Figure 11. Gene concentration, per 1,000 people in each sewage catchment, 1 January 2023 to 21 May 2023.**

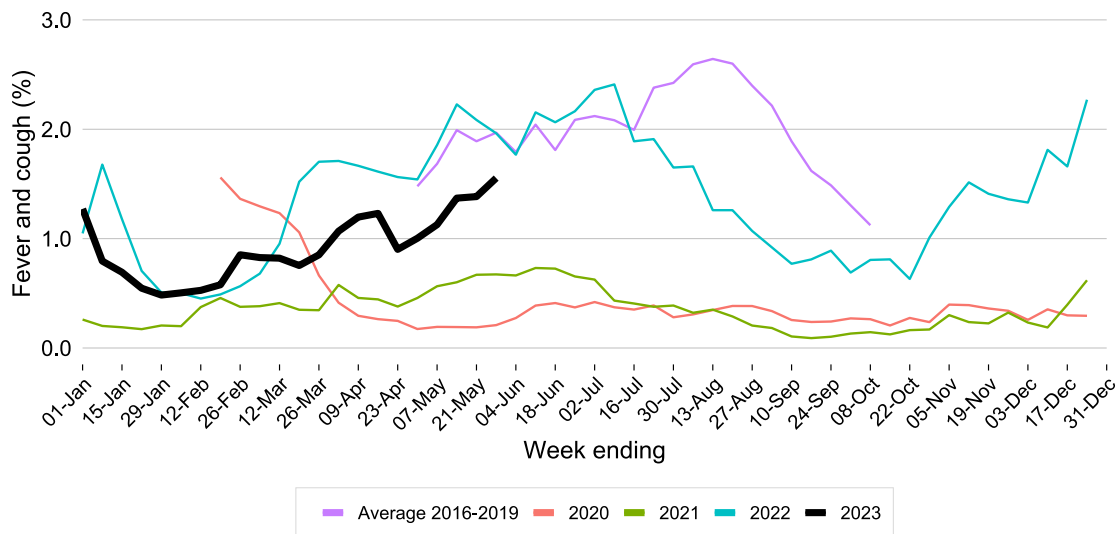


## FluTracking and NSW sentinel laboratory network

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 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. More information about FluTracking and ways to be involved are available here: <https://info.flutracking.net/about/>

**Interpretation:** The proportion of people reporting fever and cough has continued to rise rapidly throughout May (Figure 12), consistent with the trends observed for influenza notifications and presentations to emergency departments for influenza-like illness.

**Figure 12. Proportion of FluTracking participants reporting influenza-like illness, NSW, 1 January to 28 May 2023.**

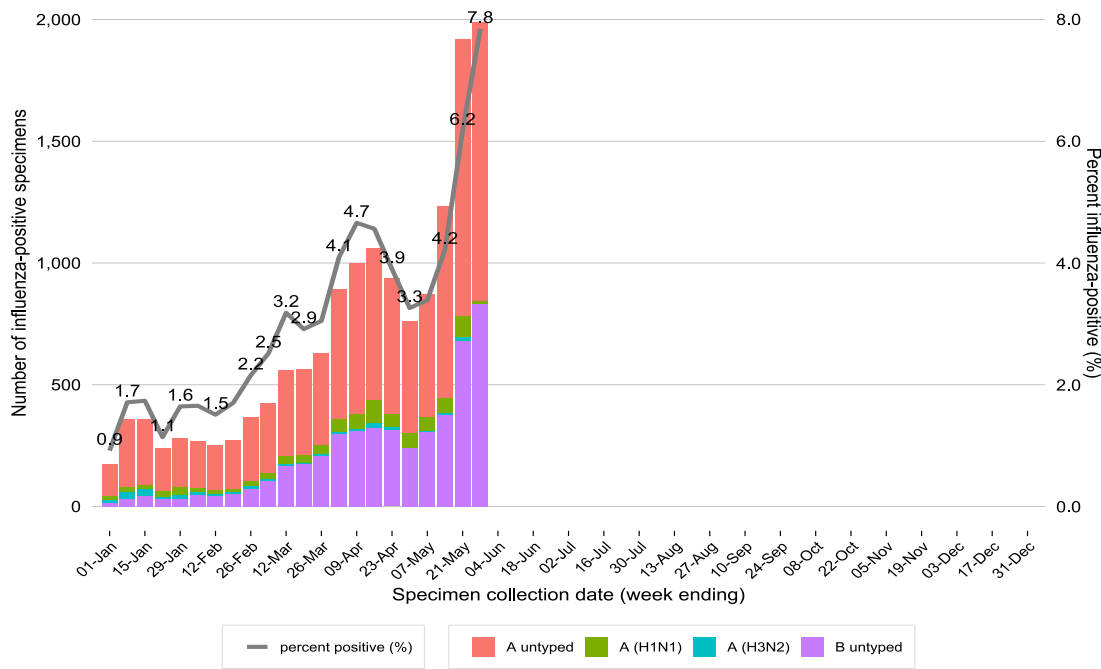


Epidemiological week 21, ending 27 May 2023

The NSW sentinel laboratory network comprises of 13 public and private laboratories throughout NSW who provide additional data on positive and negative test results. This helps us to understand which respiratory viruses are circulating as well as how much. For the week ending 28 May 2023, 8 out of 13 sentinel laboratories provided PCR testing data related to influenza and 1 out 4 sentinel laboratories provided PCR data related to COVID.

**Interpretation:** The number of tests, and proportion of tests positive for influenza continue to increase (Figure 13) while the proportion positive for COVID-19 (Figure 14) declined in the past week. For other respiratory viruses (Figure 15 and Table 2) the proportion of tests positive for rhinovirus are rapidly increasing, consistent with the winter months, enterovirus and RSV positivity are rapidly declining.

**Figure 13. Number and proportion of tests positive for influenza at sentinel NSW laboratories, 1 January 2023 to 28 May 2023.**



**Figure 14. Number and proportion of tests positive for COVID-19 at sentinel NSW laboratories, 1 January 2023 to 28 May 2023.**

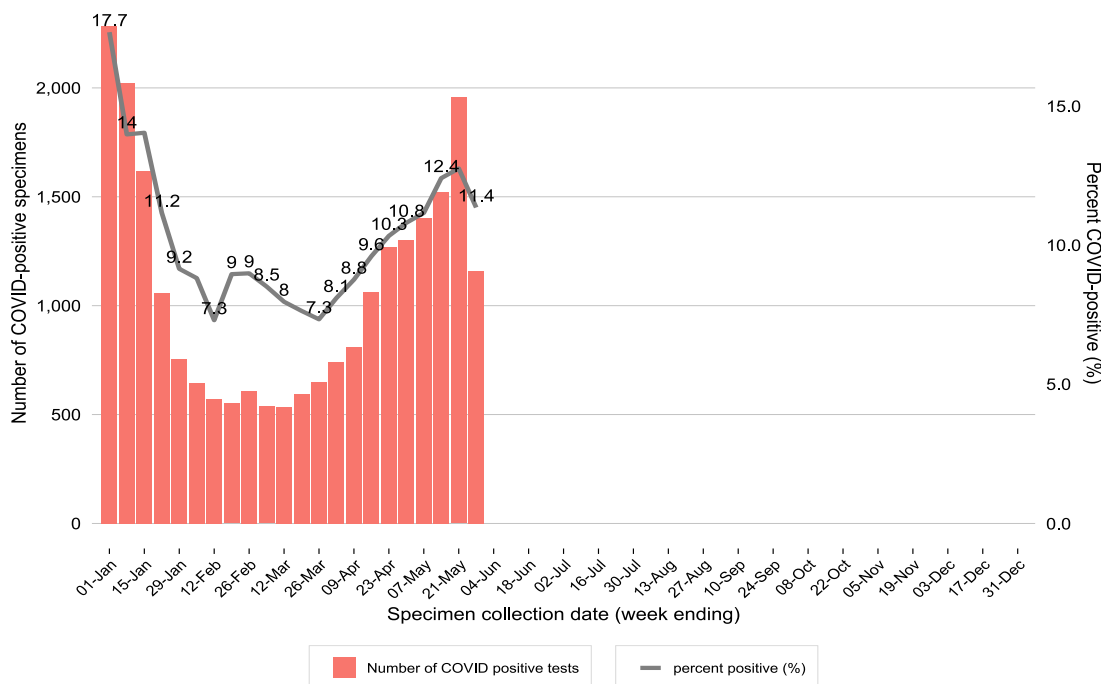


Figure 15. Number of positive PCR test results and proportion of tests positive for other respiratory viruses at sentinel NSW laboratories, 1 January 2023 to 28 May 2023.

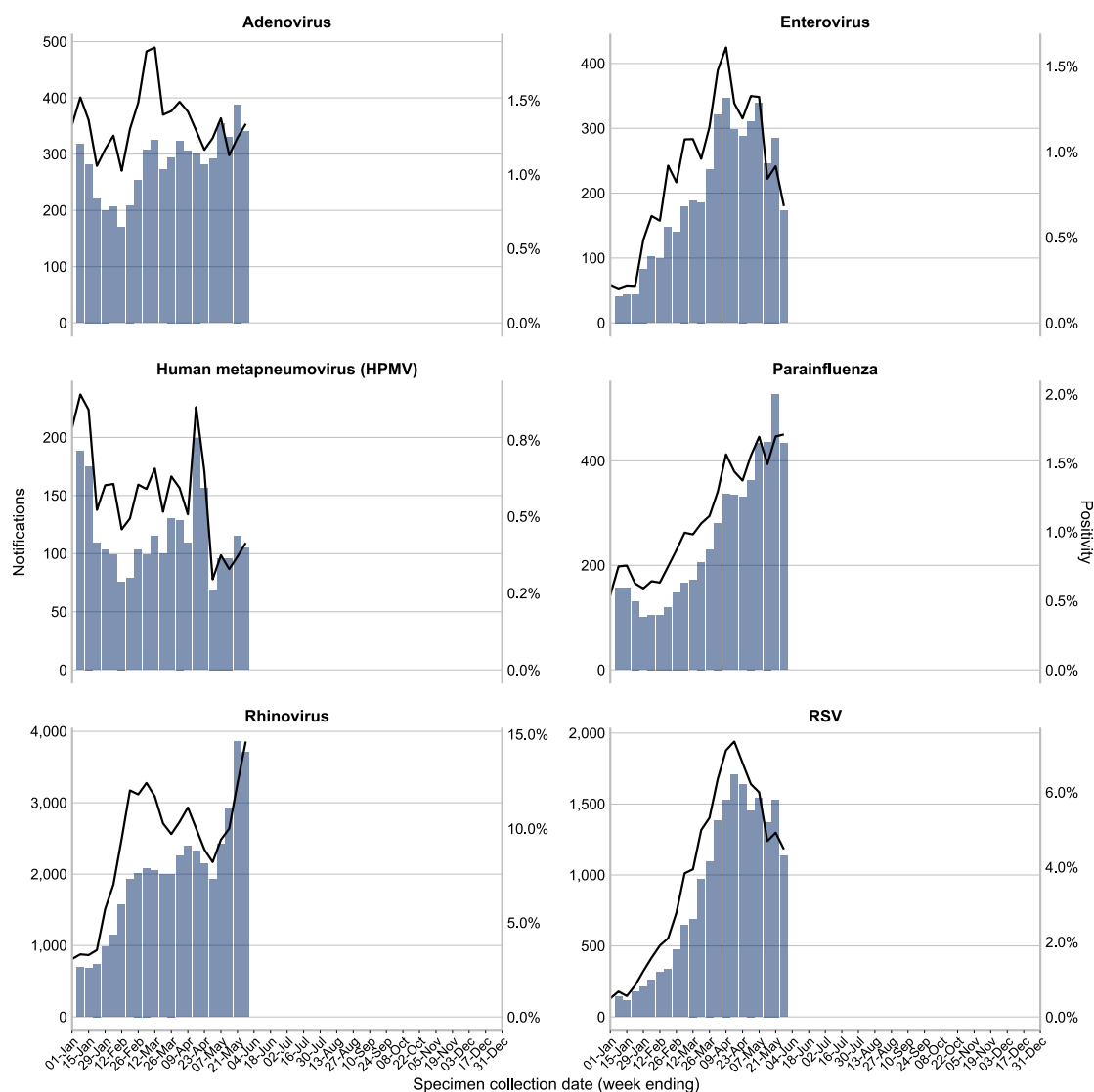


Table 2. Total number of respiratory disease notifications from sentinel laboratories, NSW in the four weeks to 28 May 2023.

	Week ending				Year to date
	07 May	14 May	21 May	28 May	
	n(% pos)	n(% pos)	n(% pos)	n(% pos)	n
Influenza	870 (3.4%)	1,232 (4.2%)	1,921 (6.2%)	1,989 (7.8%)	15,404
Adenovirus	354 (1.4%)	330 (1.1%)	388 (1.2%)	340 (1.3%)	6,224
Respiratory syncytial virus (RSV)	1,540 (6.0%)	1,372 (4.7%)	1,531 (4.9%)	1,135 (4.5%)	18,803
Rhinovirus	2,415 (9.4%)	2,922 (10.0%)	3,858 (12.4%)	3,708 (14.6%)	42,387
Human metapneumovirus (HMPV)	96 (0.4%)	96 (0.3%)	115 (0.4%)	105 (0.4%)	2,599
Enterovirus	339 (1.3%)	246 (0.8%)	285 (0.9%)	173 (0.7%)	4,137
<b>Number of PCR tests conducted</b>	<b>25,662</b>	<b>29,210</b>	<b>31,116</b>	<b>25,345</b>	<b>463,829</b>
SARS-CoV-2	1,403 (11.2%)	1,524 (12.4%)	1,956 (12.8%)	1,158 (11.4%)	23,658
<b>Number of COVID PCR tests</b>	<b>12,572</b>	<b>12,281</b>	<b>15,334</b>	<b>10,199</b>	<b>218,559</b>

Recent data is subject to change.