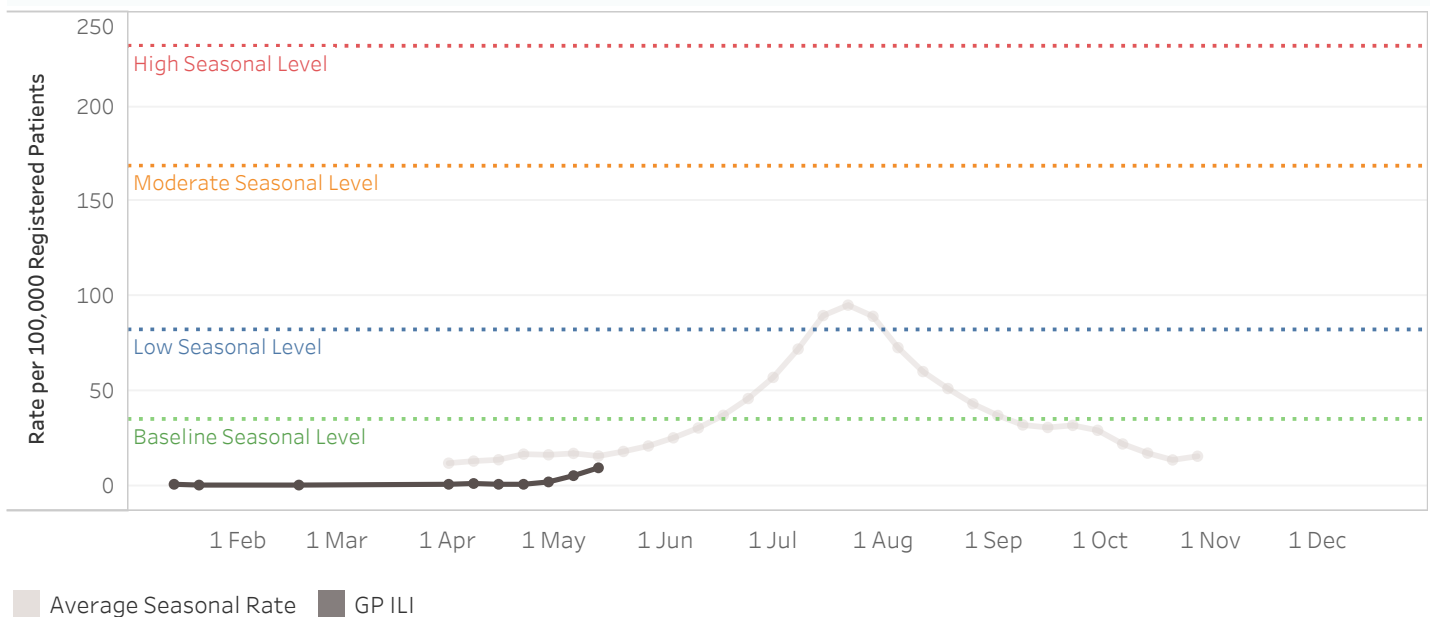


Week Ending 13 May 2018

National Overview

Flu and other respiratory virus activity remains low and below the seasonal average. The recent slight increase General Practice visits and hospital admissions for acute respiratory illness is expected due to the official start (30 April) of annual influenza surveillance. We do not expect influenza virus circulation to increase notably for at least a few more weeks. Rhinovirus is still the most commonly detected respiratory virus in 2018.

Weekly General Practice Influenza-like Illness (ILI) Rates To 13 May 18

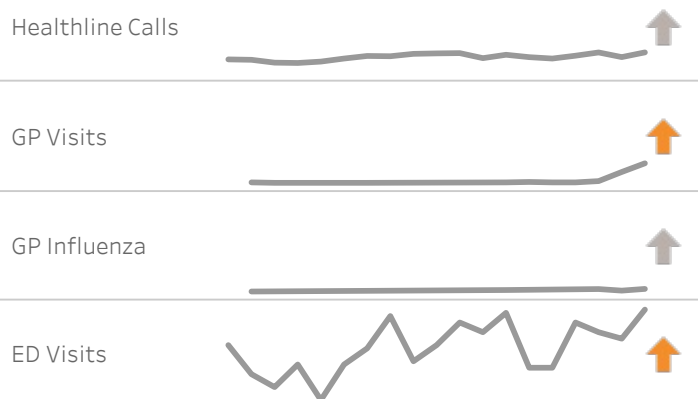


Indicators of community respiratory virus activity (Healthline calls and GP or emergency department visits for ILI) were still at low levels last week, but increased slightly compared with the previous week.

Severe acute respiratory illness (SARI) admissions to sentinel hospitals in Auckland and Counties Manukau DHBs are low. SARI surveillance runs from May to September annually. To support emerging pathogen detection, ICU admissions are monitored all year.

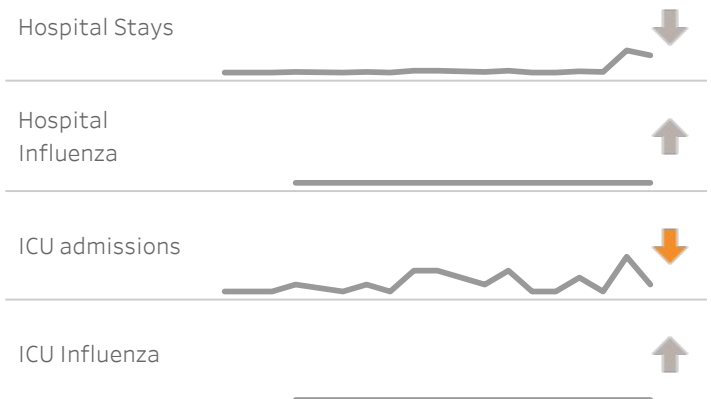
Influenza-like Illness (ILI) Activity to 13 May 18

Arrow colour indicates whether the current weekly change is statistically significant.



Acute Hospital Activity (SARI) to 13 May 18

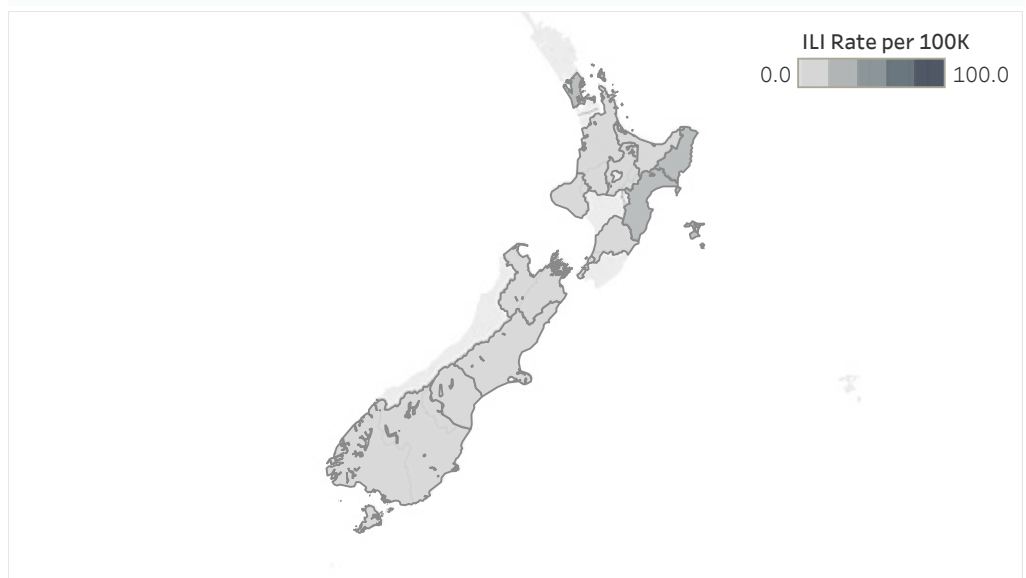
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

ILI activity as measured by GP visits and Healthline calls is still low in all New Zealand District Health Boards. These ILI-related rates are not consistently elevated in any region of NZ yet this year. Healthline calls and GP visits are monitored year round for ILI. Nationally, 78 sentinel practices track ILI visits. Interpretation of DHB-level GP ILI rates should be done with caution, because rates for an individual DHB are dependent on the number and size of participating practices in the DHB.

GP Visits (ILI) Rate by DHB - Current Week



Control Measures

The 2018 publically funded seasonal influenza vaccine contains the following four components (i.e. this is a quadrivalent vaccine):

- o A(H1N1): an A/Michigan/45/2015 (H1N1)pdm09-like virus
- o A(H3N2): an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus
- o B: a B/Phuket/3073/2013-like virus (belonging to B/Yamagata lineage)
- o B: a B/Brisbane/60/2008-like virus (belonging to B/Victoria lineage)

Overseas acute respiratory disease surveillance

- Australia: Current low ILI activity at inter-seasonal levels. During the 2017 flu season, although variable, most states reported high ILI activity. Nationally, ILI activity was the highest since 2009, and had a prolonged peak period of activity compared with previous years. Indicators of severity were higher than recent years but proportionate to the increased influenza activity. The illness was considered no more severe than in recent seasons. Influenza A(H3N2) predominantly circulated.¹
- Europe: Currently, mostly low ILI activity at inter-seasonal levels. During the 2017/18 flu season, a higher proportion of influenza B was detected in Europe overall, and B/Yamagata lineage virus predominated which was not a component of the trivalent 2017/18 Northern Hemisphere seasonal influenza vaccine. However, virus type predominance varied with country. Most A(H3N2) virus which has been genetically characterised was antigenically similar to the recommended 2017/18 seasonal influenza vaccine. A(H1N1)pdm09 outnumbered A(H3N2) among those viruses typed. A prolonged peak of influenza activity may have contributed to the season's severity. Influenza B predominated among those with the most severe indicators of disease, and especially affected the 65+ age group.² The UK reported a moderate flu season, although activity varied with country. Influenza B predominated but A virus co-circulated. High indicators of severity were noted, especially associated with influenza B infection and among the 65+ age group. Significant excess all-cause mortality was reported in the 65+ age group, as seen in 2016/17 and 2014/15 UK flu seasons which were A(H3N2) predominant years.³
- North America: Current decreasing influenza activity in the region. There was high ILI activity reported in the region during the 2017/18 season, with influenza B and A viruses co-circulating.⁴⁻⁶ Canada report decreasing ILI activity. During 2017/18, higher than expected levels of ILI activity and above average indicators of severity were reported. Influenza A (mostly H3N2) predominated and B virus co-circulated.⁴ USA report mostly low ILI activity at inter-seasonal levels. During 2017/18, most states reported high ILI activity. The national weekly peak ILI incidence was reportedly the highest since the 2009/10 influenza season. Indicators of illness severity were also high compared with more recent seasons. Influenza A(H3N2) predominated with increased B virus later in the season.^{5,6}
- Elsewhere: Influenza activity is reportedly low in Western and Eastern Asia, with A(H1N1)pdm09 predominating most recently. Influenza activity has been decreasing across Central Asia. South East Asian influenza activity has remained low.⁶
- Emerging diseases: In 2017, ongoing detections of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in the Middle East and human infection with avian influenza A(H7N9) in China were reported. The detection of cases associated with exposures (to camels and birds, respectively) in these areas has continued in 2018. In February, the world's first reported case of human avian influenza A(H7N4) infection was detected in China. None of these three viruses (MERS-CoV, A(H7N9) and A(H7N4)) are known to spread easily from person to person at present and are classified by the WHO as being of low risk of international spread.^{7,8} In March the Netherlands detected the first case of a new seasonal genetic reassortant of influenza A(H1N2), producing mild ILI in a child. The public health risk of this virus is assessed by the WHO as comparable to other seasonal flu viruses currently circulating.⁷

Further information on overseas acute respiratory disease activity:

1. Australia: www.health.gov.au/flureport (accessed 16/5/18)
2. Europe: www.flunewseurope.org/ (accessed 16/5/18)
3. UK: www.gov.uk/government/uploads/system/uploads/attachment_data/file/704664/Weekly_national_influenza_report_week_18_2018.pdf (accessed 16/5/18)
4. Canada: www.canada.ca/content/dam/phac-aspc/documents/services/publications/diseases-conditions/fluwatch/2017-2018/week17-april-22-28-2018/pub-eng.pdf (accessed 16/5/18)
5. United States: www.cdc.gov/flu/weekly/ (accessed 16/5/18)
6. WHO Global Flu Update: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ (accessed 16/5/18)
7. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2018/en/ (accessed 16/5/18)
8. WHO Avian and other zoonotic influenza www.who.int/influenza/human_animal_interface/en/ (accessed 16/5/18)