

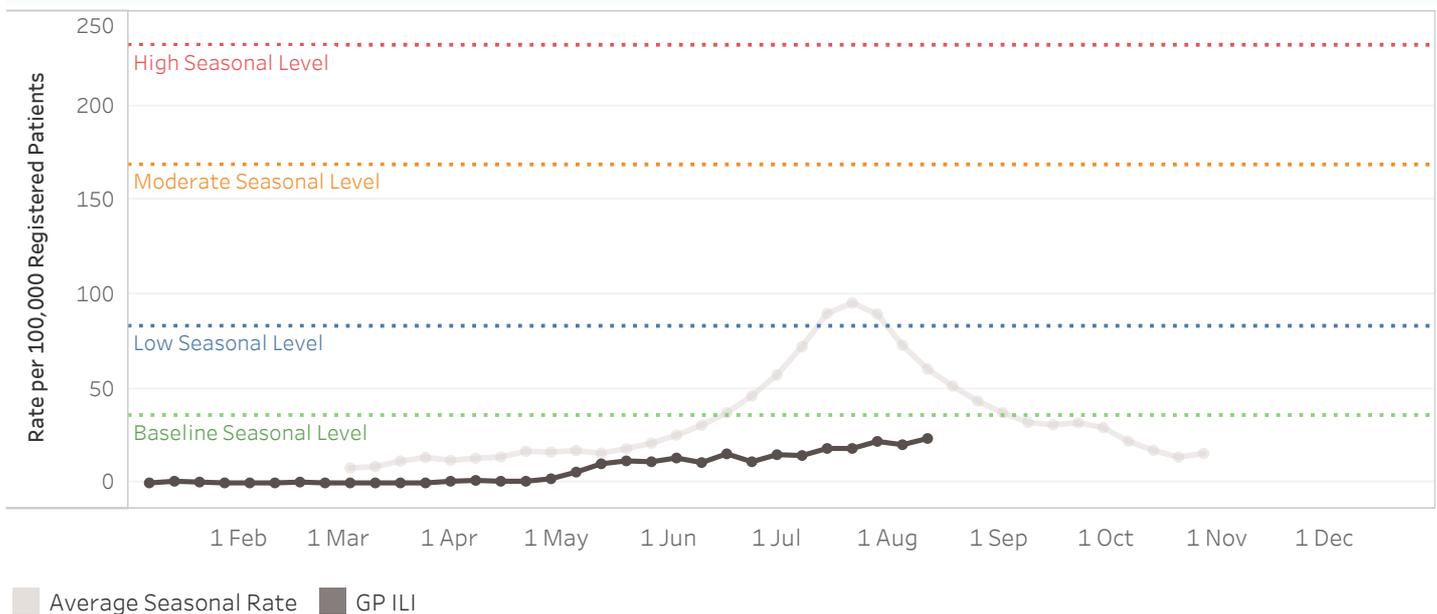
Week Ending 12 August 2018

National Overview

Flu and other respiratory virus activity is still unseasonably low in New Zealand, although activity continues to slowly increase. Flu A(H1N1) is the predominant flu virus in the community and sentinel hospitals in New Zealand. Although levels are still low, flu is being increasingly detected in the community. Although we are now in the latter part of the season, there may continue to be an increase in influenza activity over the next few weeks.

Weekly General Practice Influenza-like Illness (ILI) Rates

To 12 Aug 18

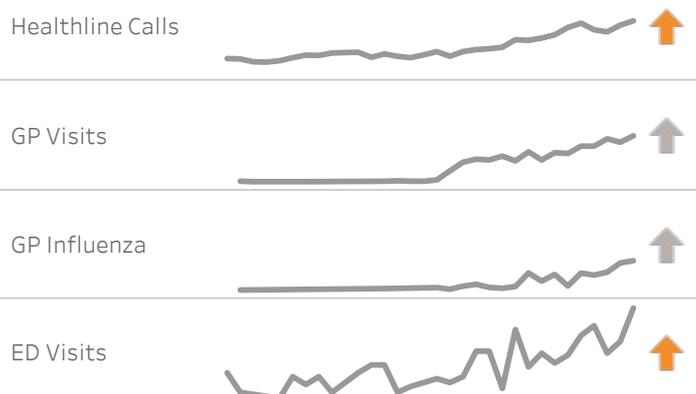


Indicators of community respiratory virus activity are still at low levels, although slightly more elevated in recent weeks. These trends and laboratory test positivity suggest there is increasingly more widespread influenza transmission in the community.

Severe acute respiratory illness (SARI) admissions to sentinel hospitals in Auckland and Counties Manukau DHBs have remained fairly stable. Similar numbers of influenza viruses and non-influenza respiratory viruses are currently being detected in SARI surveillance. Where influenza is detected, A(H1N1) predominates.

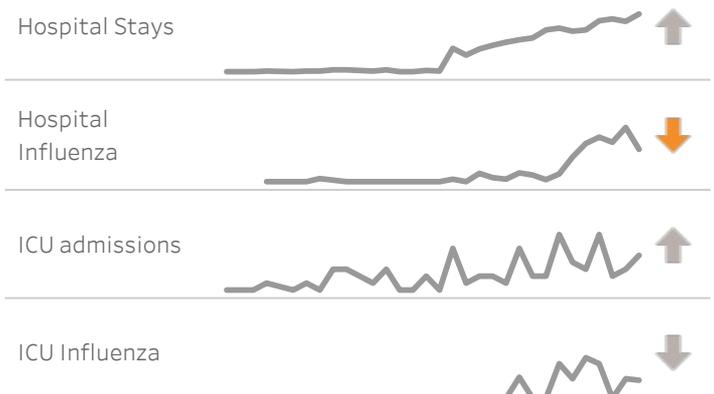
Influenza-like Illness (ILI) Activity to 12 Aug 18

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



Acute Hospital Activity (SARI) to 12 Aug 18

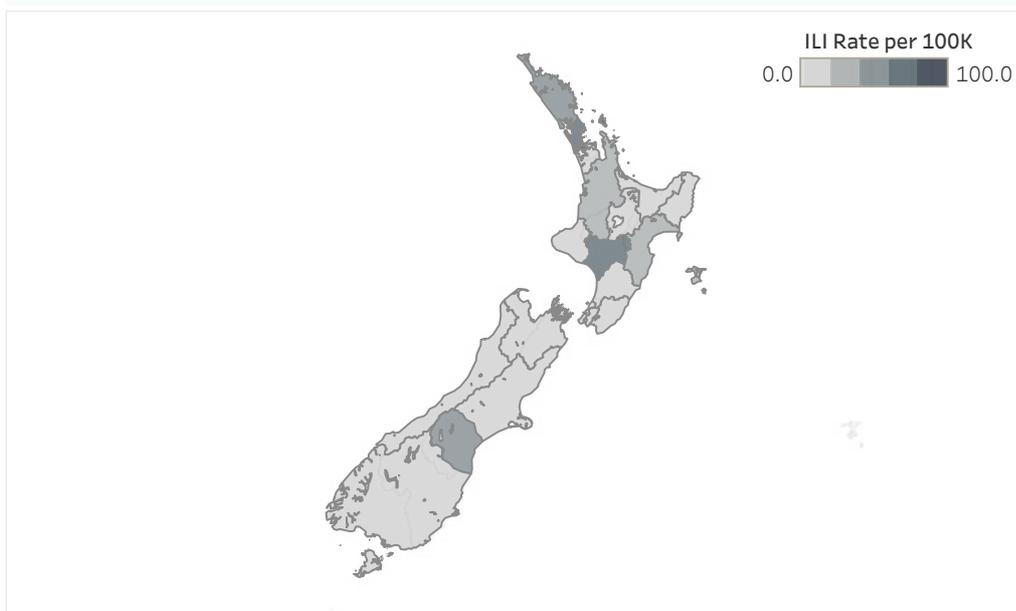
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

National GP visits for ILI have generally increased in recent weeks. Waitemata DHB has the highest rate of visits so far this season, while rates in other areas are mostly substantially lower. These lower rates could be due to low ILI visits at GPs or sparse surveillance coverage in the area. 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/INF16H-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

- Pacific region: Australian ILI activity is still reportedly low at inter-seasonal levels (based on data reported to 29 July 2018).¹ Where influenza is detected, A viruses predominate, but rhinovirus has been the most commonly detected respiratory virus so far.^{1,2} An influenza A outbreak is decreasing in French Polynesia.³
- Southern and South East Asia: Influenza activity has been low among reporting countries. Cambodia has increasing influenza activity with detection of A(H1N1)pdm09 and B viruses.²
- Elsewhere in the tropical zone of the Southern Hemisphere: Influenza activity has varied in South America, including elevated activity in Colombia and Peru where influenza A(H1N1)pdm09 virus predominates, and decreasing activity in Bolivia. Influenza A(H1N1)pdm09 and B viruses predominate where reported in tropical African countries. Activity has been reportedly low in Central America except Guatemala and Mexico where influenza A(H1N1)pdm09 virus predominates.²
- Elsewhere in the temperate zone of the Southern Hemisphere: Influenza activity has been starting to decrease in South Africa where influenza A(H1N1)pdm09 predominates. Increasing activity has been reported in Chile where A(H3N2) predominates, and decreasing flu virus detection is reported in Brazil where A(H1N1)pdm09 then A(H3N2) predominate. Influenza activity has been increasing in Paraguay.²
- Northern Hemisphere: Low influenza activity at inter-seasonal levels.²
- Emerging diseases: In 2018, ongoing detections of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in the Middle East and human infection with avian influenza A(H7N9) in China have been reported (associated with exposures to camels and birds, respectively). In February, the world's first reported case of human avian influenza A(H7N4) infection was detected in China. These three viruses (MERS-CoV, A(H7N9) and A(H7N4)) are not known to spread easily from person to person at present and are classified by the WHO as being of low risk of international spread.^{4,5} 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 was assessed by the WHO as comparable to other seasonal flu viruses currently circulating.⁴ Four infections with novel influenza A(H1N2) variant have been recently reported in children (in California and Michigan) exposed to pigs at an agricultural fair in the USA.⁶ All cases are recovering and no human-to-human transmission has occurred. This variant is rarely detected in humans and the risk of international spread remains low.⁵

Further information on overseas acute respiratory disease activity:

1. Australia: www.health.gov.au/flureport (accessed 15/08/18)
2. WHO Global Flu Update: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ (accessed 15/08/18)
3. Pacific: www.spc.int/phd/epidemics/ (accessed 15/08/18)
4. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2018/en/ (accessed 15/08/18)
5. WHO Avian and other zoonotic influenza: www.who.int/influenza/human_animal_interface/en/ (accessed 15/08/18)
6. United States: www.cdc.gov/flu/weekly/ (accessed 15/08/18)