New Zealand Influenza Intelligence Report

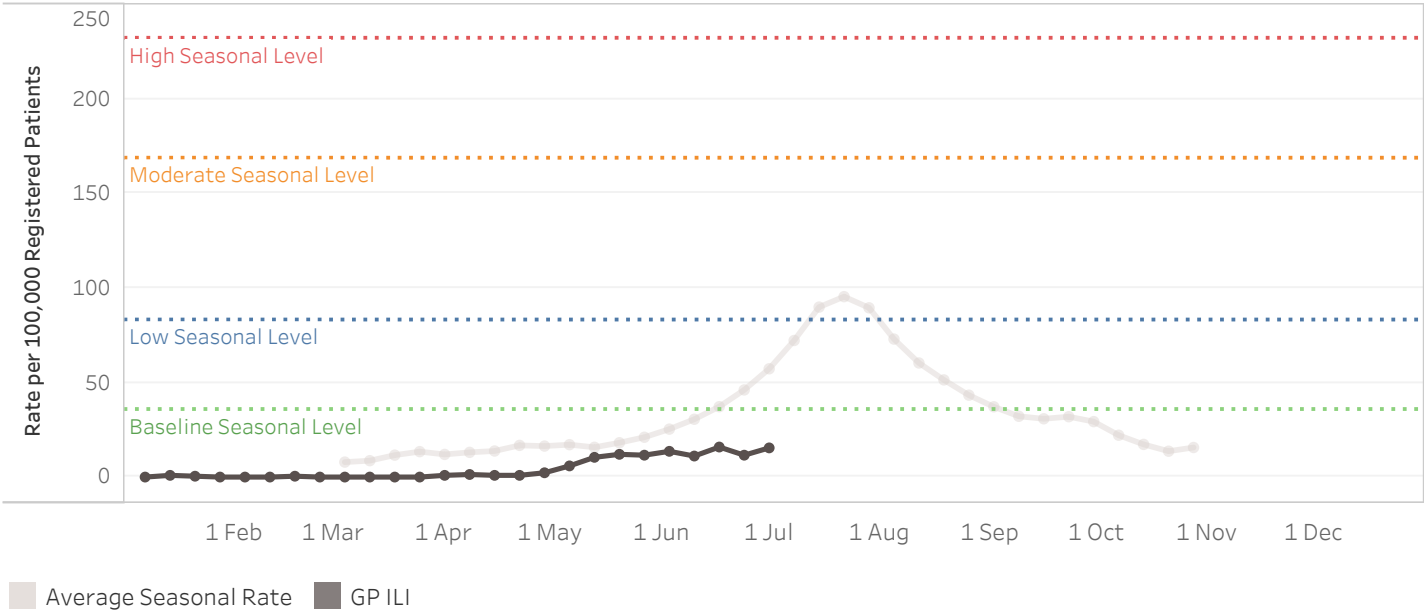
Week Ending 1 July 2018

National Overview

Flu and other respiratory virus activity is still unseasonably low in NZ, but is increasing in parts of the Southern Hemisphere (see 'Overseas acute respiratory disease surveillance' below). We would expect influenza virus circulation to increase in New Zealand in the next few weeks. Rhinovirus is still the most commonly detected respiratory virus in the community and Adenovirus in the hospital.

Weekly General Practice Influenza-like Illness (ILI) Rates

To 01 Jul 18

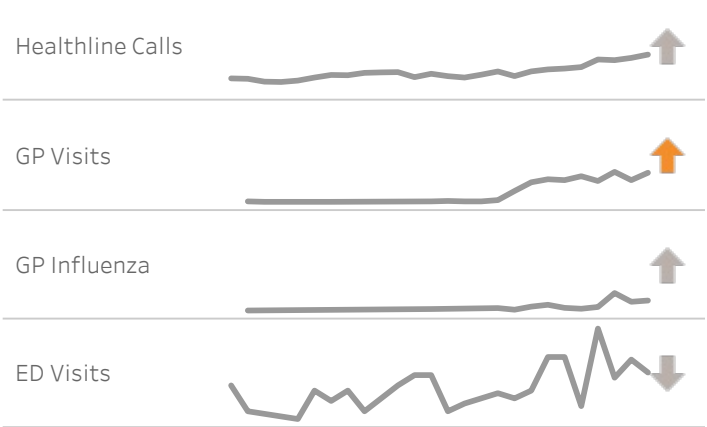


Indicators of community respiratory virus activity were still at low levels last week. Healthline calls for ILI, which tend to represent younger ages, have steadily increasing over recent weeks. This fits with increasing virus detection including the flu and other respiratory viruses in GP visits.

Severe acute respiratory illness (SARI) admissions to sentinel hospitals in Auckland and Counties Manukau DHBs are low but are starting to increase. Mainly, non-influenza respiratory viruses are being detected in SARI surveillance.

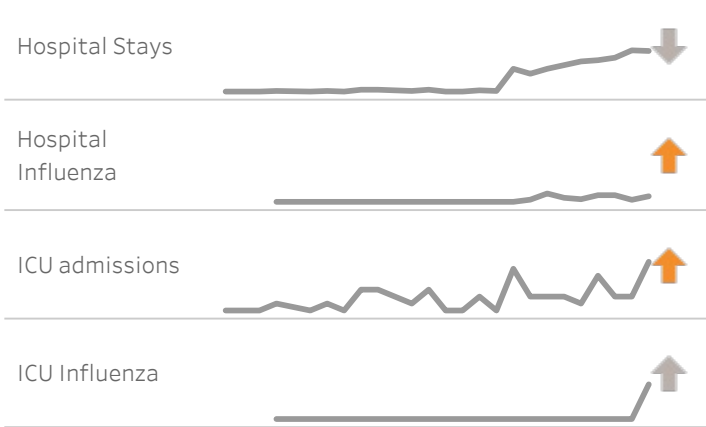
Influenza-like Illness (ILI) Activity to 01 Jul 18

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



Acute Hospital Activity (SARI) to 01 Jul 18

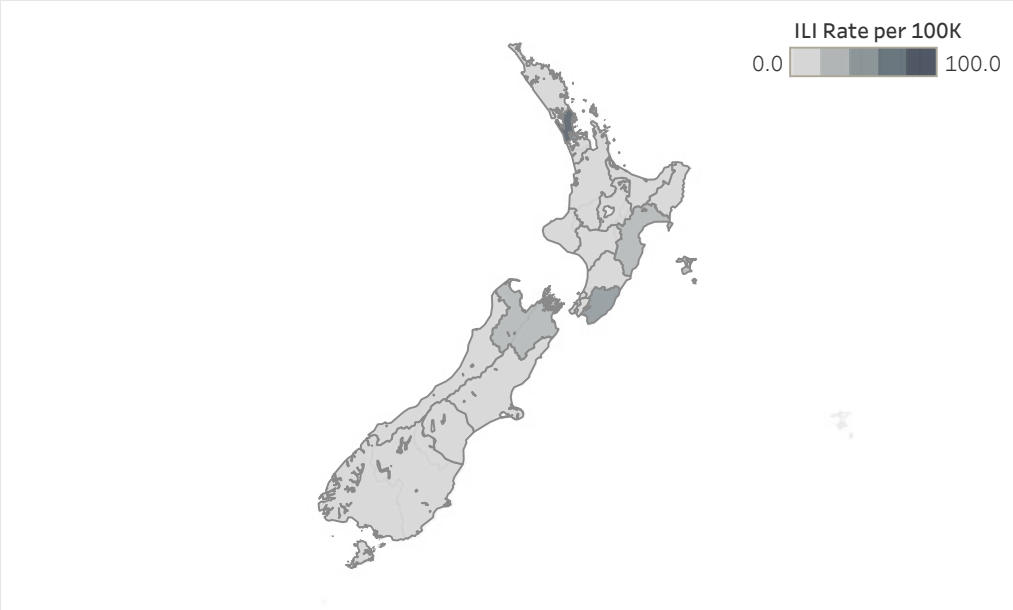
Arrow colour indicates whether the current weekly change is statistically significant.



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, although Healhline calls are increasing overall. Healthline calls and GP visits are monitored year round for ILI. Nationally, 79 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

•Pacific region: Australian ILI activity is still reportedly low at inter-seasonal levels. 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 reported in French Polynesia.3 New Caledonia has reported predominantly influenza B (Yamagata lineage) virus detection.1
• South East Asia: Influenza activity has been low among reporting countries.1
• Elsewhere in the temperature zone of the Southern Hemisphere: Low influenza activity except South Africa where influenza A(H1N1)pdm09 has been predominantly detected.1
• Europe: Influenza activity low at inter-seasonal levels.1,4,5
• North America: Current low influenza activity at inter-seasonal levels.1,6,7
• 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.8,9 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.8 There are recent media reports from Indiana, USA, of a human case of influenza swine origin A(H3N2) variant virus infection associated with exposure to pigs at a county fair.10 Swine influenza viruses circulate in swine populations in various parts of the world and sporadic detections of this virus in humans are reported, usually causing a mild illness. The most recent WHO risk assessment of swine influenza viruses reports a low risk of international spread.11

Further information on overseas acute respiratory disease activity:
1. WHO Global Flu Update: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ (accessed 04/07/18)
2. Australia: www.health.gov.au/flureport (accessed 04/07/18)
3. Pacific: www.spc.int/phd/epidemics/ (accessed 04/07/18)
4. Europe: www.flunewseurope.org/ (accessed 04/07/18)
5. UK: www.gov.uk/government/statistics/weekly-national-flu-reports (accessed 04/07/18)
6. Canada: www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-reports-2017-2018-season.html (accessed 04/07/18)
7. United States: www.cdc.gov/flu/weekly/ (accessed 04/07/18)
8. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2018/en/ (accessed 04/07/18)
9. WHO Avian and other zoonotic influenza: www.who.int/influenza/human_animal_interface/en/ (accessed 04/07/18)
10. Promedmail: www.promedmail.org/post/20180701.5884141
11. WHO Influenza at the human-animal interface, 25 January 2018 report: www.who.int/influenza/human_animal_interface/Influenza_Summary_IRA_HA_interface_25_01_2018_FINAL.pdf?ua=1 (accessed 04/07/18)