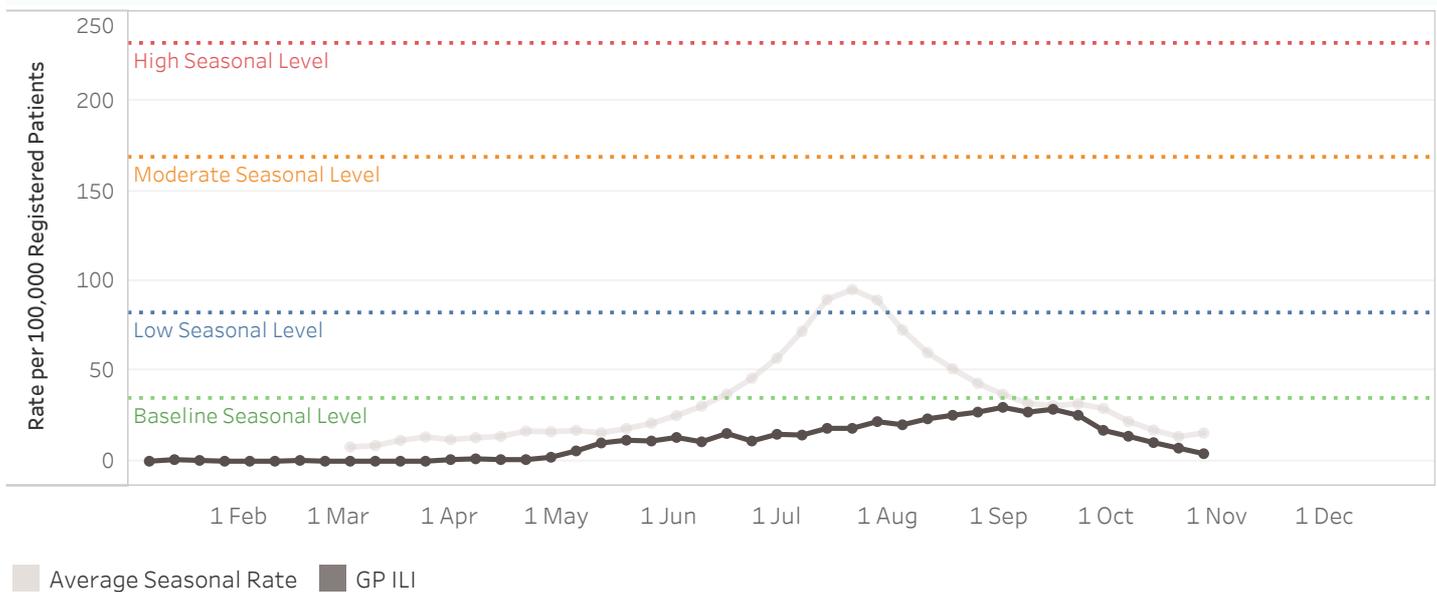


Week Ending 28 October 2018

National Overview

This last weekly respiratory virus surveillance update for 2018 confirms that the annual season has ended. This dashboard and the intelligence report will be updated monthly until next year's seasonal monitoring starts in May 2019 unless the out of season surveillance in sentinel GPs and ICUs identifies concerns.

Weekly General Practice Influenza-like Illness (ILI) Rates To 28 Oct 18



In the past week, indicators of community influenza-like illness (ILI) activity remained similar to the previous week except for a significant but small increase in Healthline ILI calls.

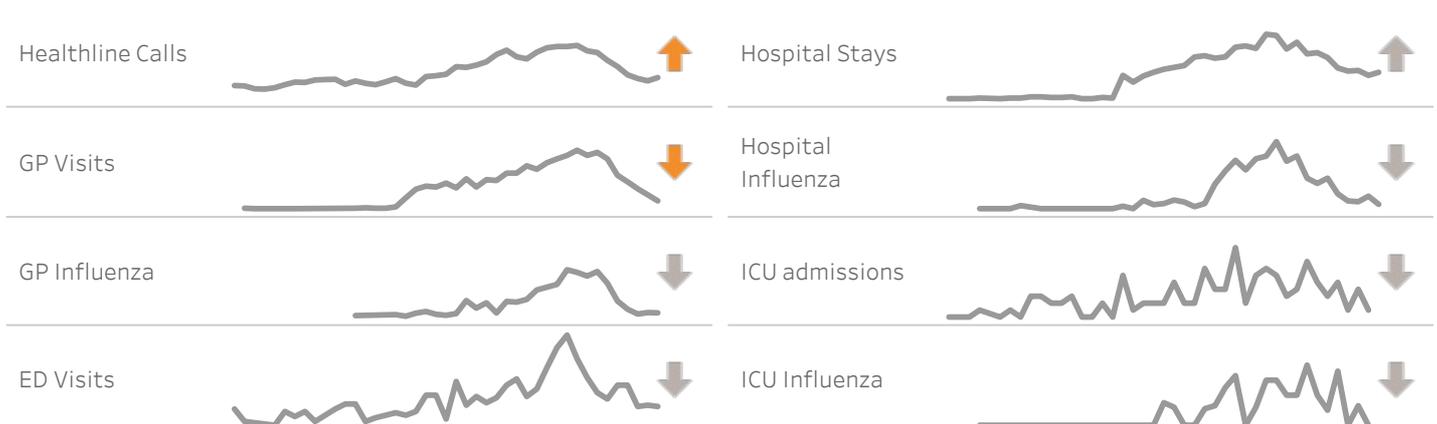
Severe acute respiratory illness (SARI) admissions to sentinel hospitals in Auckland and Counties Manukau DHBs decreased slightly compared to the prior week after peaking weeks ago. Although SARI hospitalisations are low compared to previous years, influenza-positive SARI hospital and ICU admission rates this season are comparable to those from other Flu A(H1N1) predominant seasons.

Influenza-like Illness (ILI) Activity to 28 Oct 18

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

Acute Hospital Activity (SARI) to 28 Oct 18

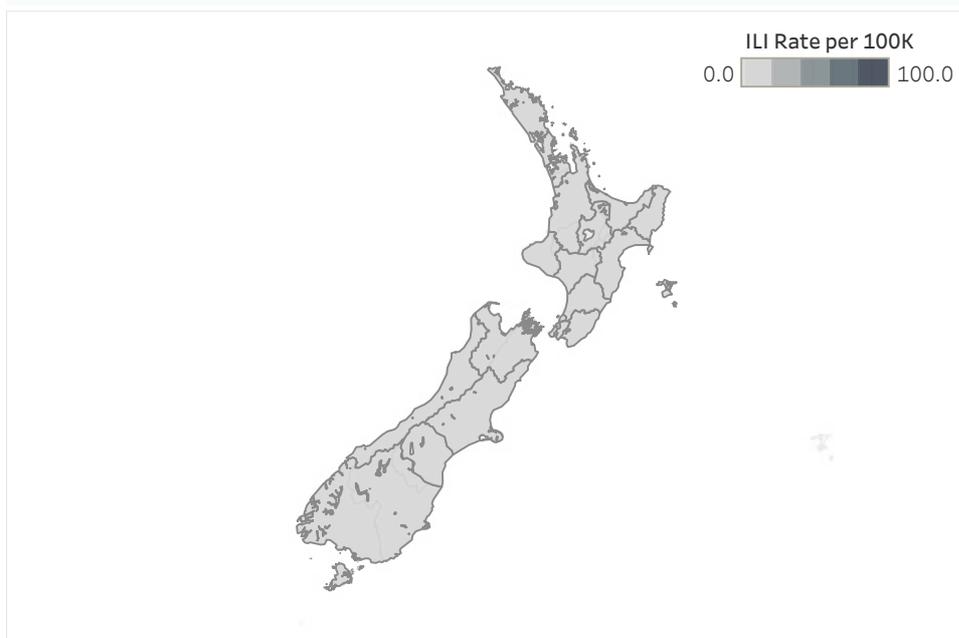
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

Across nearly all District Health Boards, rates of GP visits for ILI decreased last week. Auckland, Northland, Hutt Valley and Wairarapa DHBs had increases in Healthline ILI call rates, which drove the national ILI call rate to increase significantly but not reaching seasonal levels. 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. Some DHBs have sparse ILI GP surveillance coverage. Cumulative rates for Healthline ILI calls in 2018 do not vary greatly across DHBs.

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 has been low this season and is continuing to decline to baseline after a late peak in September (based on data reported to 21 Oct 2018). Flu A viruses continue to predominate, particularly A(H1N1)pdm09, and children less than 10 years old are the age group most commonly affected. Overall, the Australian season has been of moderate severity (measured by proportion of direct admissions to ICU, and deaths).¹
- Southern and South East Asia: Influenza activity has increased in some countries - Lao (A(H1N1) predominance) and Myanmar (A(H3N2) and B virus predominance) - and remained elevated in Thailand (A(H1N1) predominance). Activity has remained elevated in India, with A(H1N1) predominance, and has increased in Nepal, with A(H3N2) and B viruses circulating.²
- Elsewhere in the tropical zone of the Southern Hemisphere: Influenza activity is low in most tropical countries in South America, where influenza A(H1N1)pdm09 virus predominated this season. Influenza activity has increased in parts of tropical Africa - Guinea, Mali, Nigeria and Senegal - where influenza A(H1N1)pdm09 and B viruses predominate. Activity has been low in Central America, except in Haiti where A(H1N1)pdm09 continues to circulate.²
- Elsewhere in the temperate zone of the Southern Hemisphere: Influenza activity has declined again following a second wave in South Africa, with B viruses (both lineages) predominating following on from A(H1N1). Activity has been decreasing in South America, including Chile and Paraguay where activity peaked late, with A(H3N2) and B viruses predominating.²
- Northern Hemisphere: Low influenza activity at inter-seasonal levels.² The CDC is investigating an increase in Acute Flaccid Myelitis (AFM), associated with enterovirus infection, in the USA. There have been 72 cases of this potentially debilitating neurological condition, mostly affecting children, in 24 states in 2018 (to 26 Oct). AFM may commence with acute respiratory or gastrointestinal symptoms, and has previously been associated with enterovirus D68 infections.⁴
- Emerging diseases: In 2018, ongoing detections of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in the Middle East, with sporadic cases imported elsewhere (1 case each to England and South Korea), have been reported associated with exposure to camels in the Middle East.⁵ In China, further sporadic cases of human infection with avian influenzas A(H9N2), A(H7N9), A(H5N6) have been reported, associated with exposures to birds.^{5,6} In February, the world's first reported case of human avian influenza A(H7N4) infection was detected in China.⁴ These five viruses (MERS-CoV, avian influenza A(H9N2), A(H7N9), A(H5N6) 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.^{5,6}

Further information on overseas acute respiratory disease activity:

1. Australia: www.health.gov.au/flureport (accessed 31/10/18)
2. WHO Global Flu Update (data to 14 Oct 2018): www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ (accessed 31/10/18)
3. Pacific: www.spc.int/phd/epidemics/ (accessed 31/10/18)
4. CDC USA: www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html (accessed 31/10/18)
5. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2018/en/ (accessed 31/10/18)
6. WHO Avian and other zoonotic influenza: www.who.int/influenza/human_animal_interface/en/ (accessed 31/10/18)