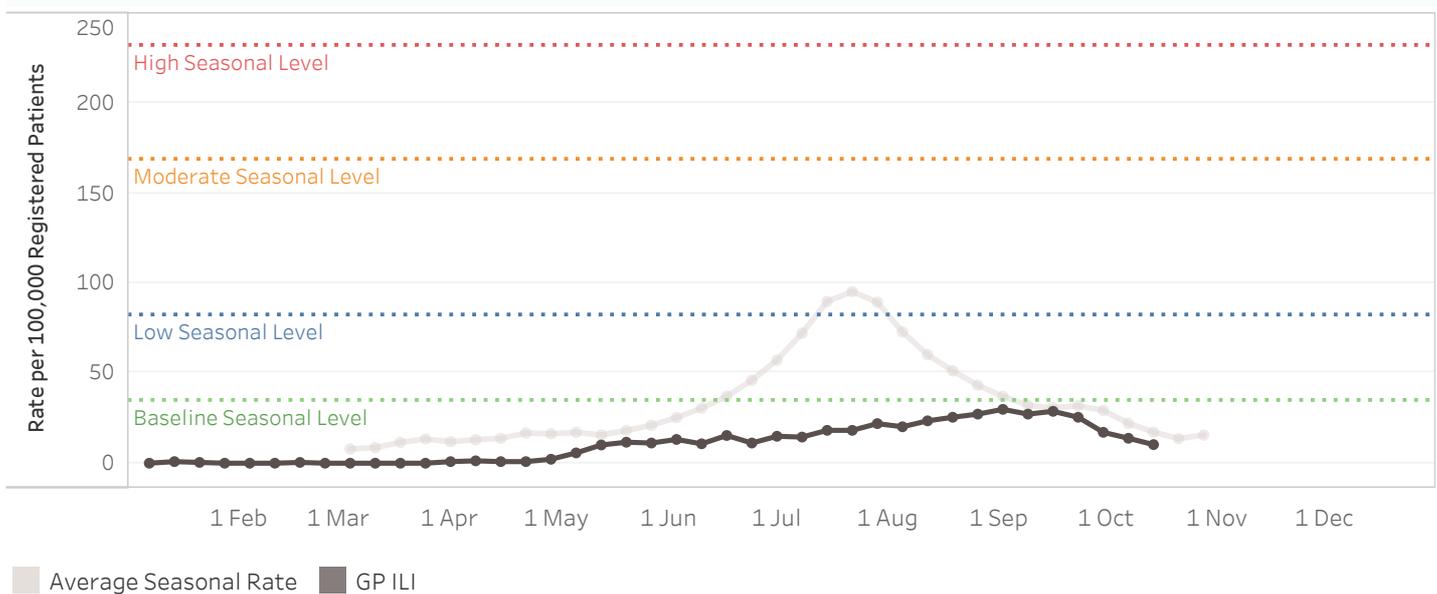


Week Ending 14 October 2018

National Overview

Flu and other respiratory virus activity has been very low this season, with a late peak in September. In the past week, calls to Healthline for influenza-like illness (ILI), GP ILI visits, and the percentage of flu viruses being detected in GP ILI samples dropped again. Hospital activity peaked several weeks ago and continues to decline. Influenza A(H1N1) has been the predominant flu virus circulating this season. Respiratory virus surveillance has been extended into October this year due to the late increase in community ILI and flu activity.

Weekly General Practice Influenza-like Illness (ILI) Rates To 14 Oct 18



Last week, all community indicators for influenza-like illness (ILI) and influenza-positive ILI decreased significantly compared to the prior week. The rate of GP visits for ILI never crossed the threshold that defines the influenza season in New Zealand, which is quite unusual compared to recent years.

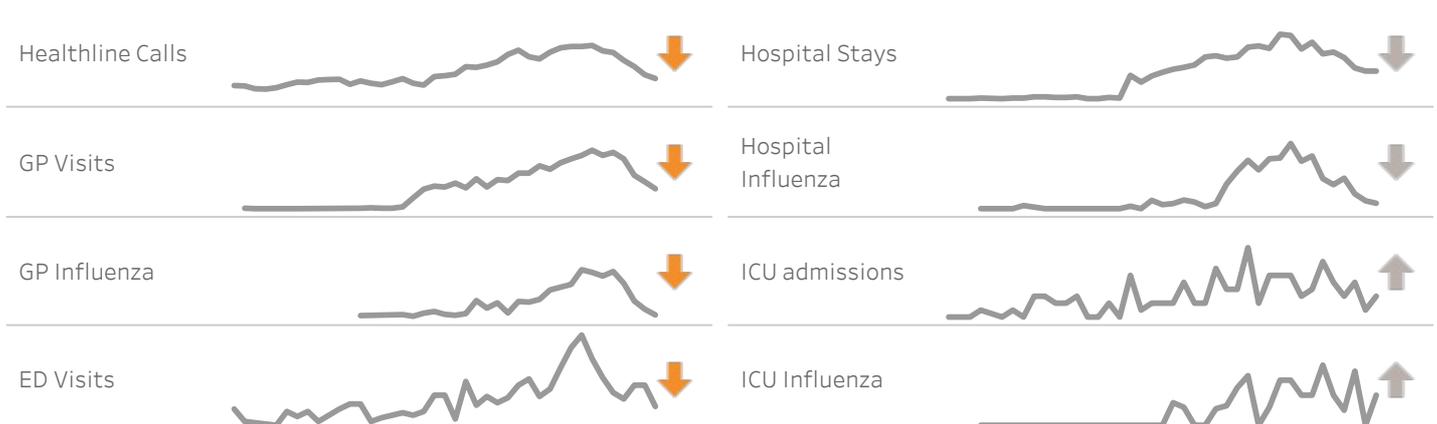
Severe acute respiratory illness (SARI) admissions to sentinel hospitals in Auckland and Counties Manukau DHBs, including those tested positive for influenza, declined several weeks ago. Although severe acute respiratory hospitalisations are low compared to previous years, influenza-positive hospital and ICU admission rates this season are comparable to those from other Flu A(H1N1) predominant seasons.

Influenza-like Illness (ILI) Activity to 14 Oct 18

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

Acute Hospital Activity (SARI) to 14 Oct 18

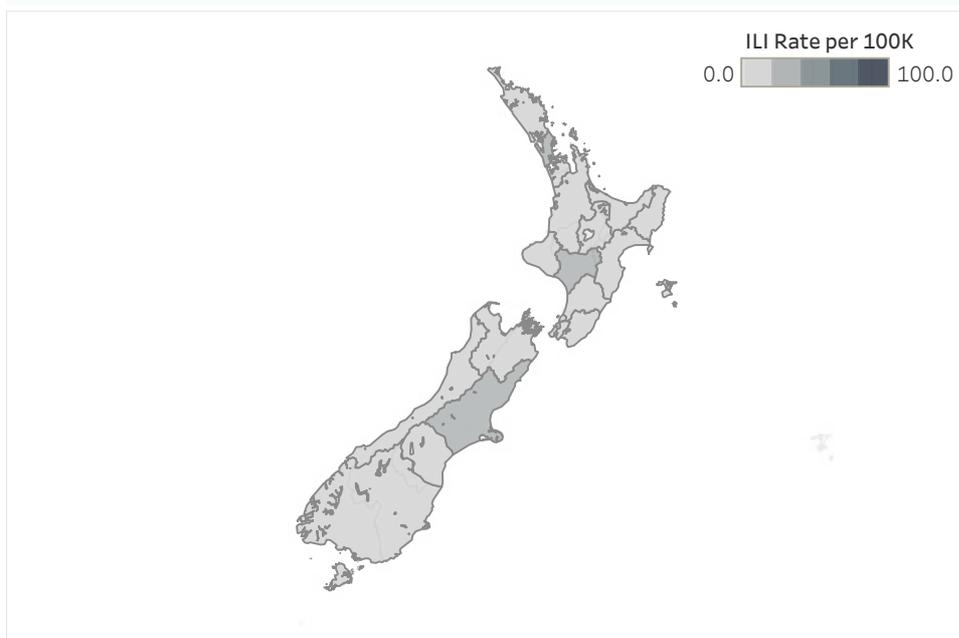
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

Across nearly all District Health Boards, rates of GP visits and Healthline calls for ILI decreased last week. 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/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 has been low this season and is continuing to decline after a late peak in September (based on data reported to 07 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 is still being reported in some countries - Cambodia (A(H1N1) and B/Yamagata), Lao (A(H1N1) predominance) and Thailand (A(H1N1) predominance). Activity has been increasing in India, with A(H1N1) predominance.²
- Elsewhere in the tropical zone of the Southern Hemisphere: Influenza activity has been decreasing in most countries in South America, where influenza A(H1N1)pdm09 virus has predominated. Influenza activity is generally low in most reporting countries in tropical Africa. Activity has been low in Central America, but increased in Cuba and Haiti and remained high in El Salvador and Nicaragua, with A(H1N1) predominating in all.²
- Elsewhere in the temperate zone of the Southern Hemisphere: Influenza activity has resurged with a second wave in South Africa, with predominantly B viruses (both lineages) following on from A(H1N1). Activity has been decreasing in South America, including Chile and Paraguay where activity recently peaked with A(H3N2) and B viruses predominating, but activity remains high in Uruguay with all seasonal flu viruses circulating.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 62 cases of this potentially debilitating neurological condition, mostly affecting children, in 22 states in 2018 (to Sept 30th). 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(H7N9) and 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 four viruses (MERS-CoV, avian influenza 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 17/10/18)
2. WHO Global Flu Update (data to 15 Oct 2018): www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ (accessed 17/10/18)
3. Pacific: www.spc.int/phd/epidemics/ (accessed 17/10/18)
4. CDC USA: www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html (accessed 17/10/18)
5. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2018/en/ (accessed 17/10/18)..