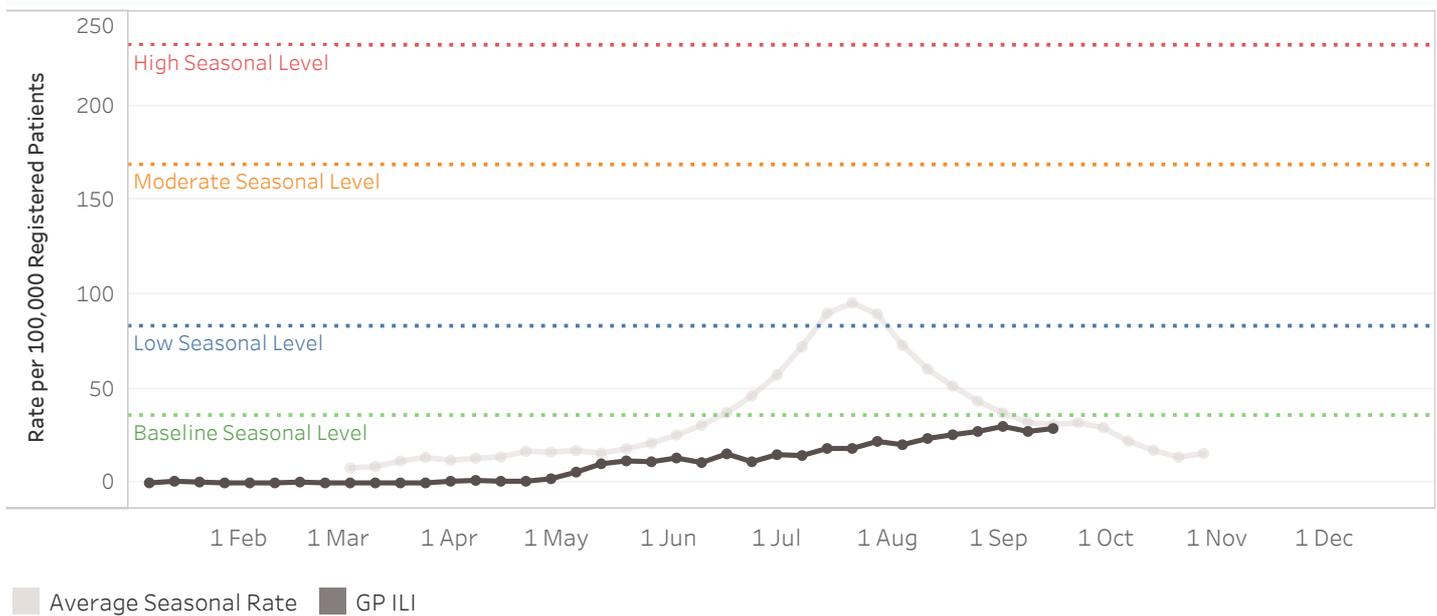


Week Ending 16 September 2018

National Overview

In the past week, indicators of respiratory virus activity and severity remained very stable compared to the prior week. Flu A(H1N1) still predominates this season. We have not seen much Influenza B activity, which can increase later in the season. In the past week, no institutional respiratory virus outbreak were reported.

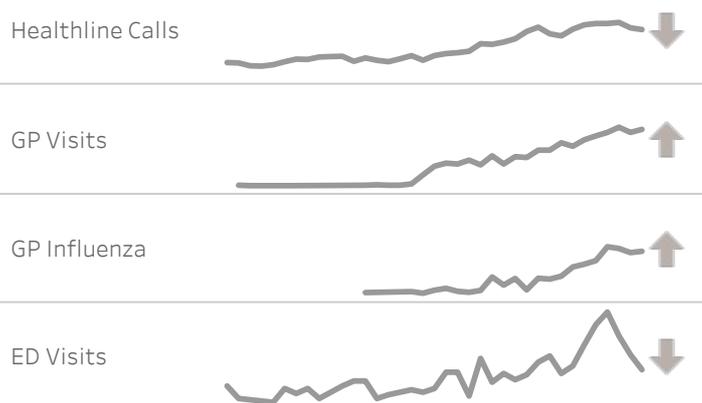
Weekly General Practice Influenza-like Illness (ILI) Rates To 16 Sep 18



Last week, community indicators for influenza-like illness (ILI) and influenza positive ILI remained very similar to the previous week and at near peak levels for this season. The rate of GP visits for ILI still has not crossed the threshold that defines the influenza season in New Zealand, which is quite unusual compared to recent years. The proportion of GP ILI samples testing positive for influenza this year are also low compared to previous years.

Influenza-like Illness (ILI) Activity to 16 Sep 18

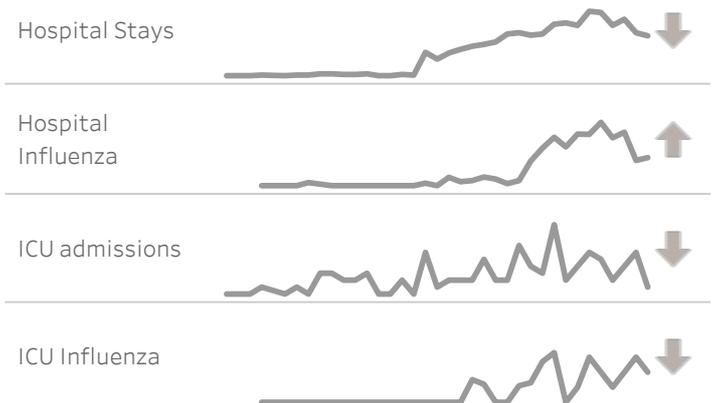
Arrow colour indicates whether the current weekly change is statistically significant.



Severe acute respiratory illness (SARI) admissions to sentinel hospitals in Auckland and Counties Manukau DHBs, including those tested positive for influenza, decrease a few weeks ago and have remained near this lower level last week. Although severe acute respiratory hospitalisations are low compared to previous years, influenza-positive hospital and ICU admission rates are comparable to those from other Flu A(H1N1) predominant seasons.

Acute Hospital Activity (SARI) to 16 Sep 18

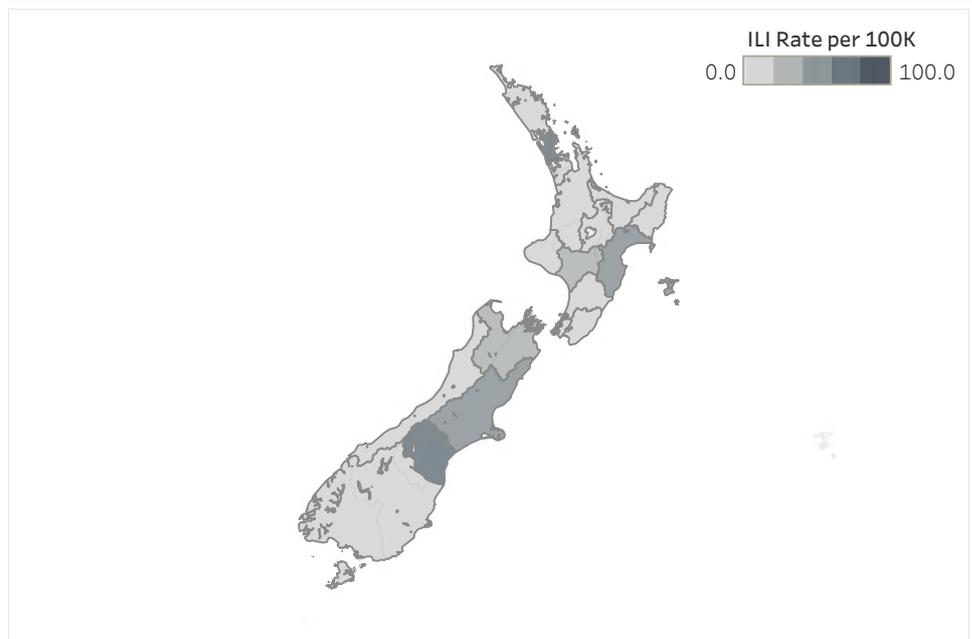
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

Across most District Health Boards, rates of GP visits and Healthline calls for ILI remained stable last week. Only Capital and Coast had an appreciable increase in GP ILI visits and South Canterbury in Healthline calls compared to the previous 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/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 slowly increasing but was still reportedly low, with regional variation including widespread activity in New South Wales (based on data reported to 09 Sept 2018).^{1,2} Indicators of severity have remained low. Flu A viruses predominate, particularly A(H1N1)pdm09, but rhinovirus has been the most commonly detected respiratory virus in the community.¹
- Southern and South East Asia: Influenza activity has been generally low among reporting countries but increased in the Philippines (predominantly A(H3N2) virus) and Lao, recently. Influenza A(H1N1)pdm09 has been predominant in India, Bangladesh and Cambodia, and A(H1N1)pdm09 in Thailand.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 predominates. Influenza activity is generally low in most reporting countries in tropical Africa, except Kenya. Activity has been reportedly low in Central America except Guatemala where influenza A(H1N1)pdm09 virus predominates.²
- Elsewhere in the temperate zone of the Southern Hemisphere: Influenza activity has been decreasing in South Africa, with predominantly B/Victoria virus detections later in the season following on from A(H1N1). Activity remains elevated in Chile and Paraguay where A(H3N2) and B viruses predominate, and decreasing flu virus detection is reported in Brazil. Influenza activity has been increasing in Uruguay with influenza A(H1N1)pdm09 predominating.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, with sporadic cases imported elsewhere (1 case each to England and South Korea), and human infection with avian influenza A(H7N9) in China have been reported (associated with exposures to camels and birds, respectively).^{4,5} In February, the world's first reported case of human avian influenza A(H7N4) infection was detected in China.⁴ 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}

Further information on overseas acute respiratory disease activity:

1. Australia: www.health.gov.au/flureport (accessed 18/09/18)
2. WHO Global Flu Update: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ (accessed 18/09/18)
3. Pacific: www.spc.int/phd/epidemics/ (accessed 18/09/18)
4. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2018/en/ (accessed 18/09/18)
5. WHO Avian and other zoonotic influenza: www.who.int/influenza/human_animal_interface/en/ (accessed 18/09/18)