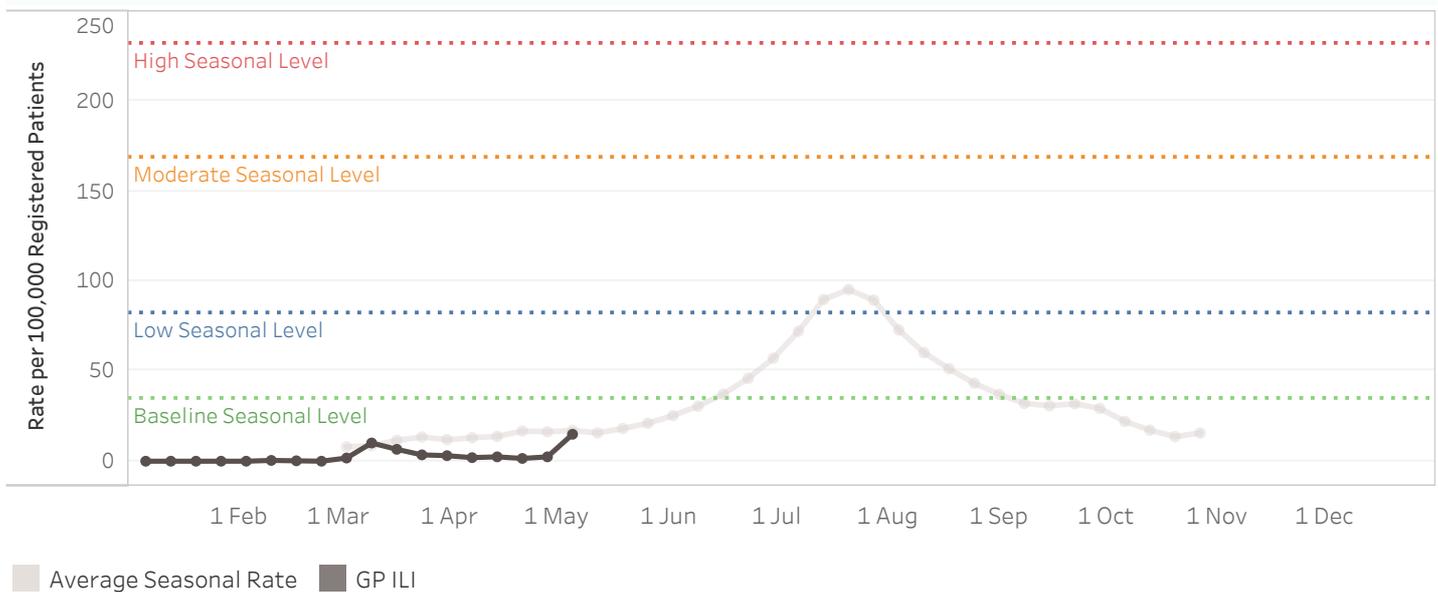


Week Ending 5 May 2019

National Overview

This is the first weekly respiratory virus surveillance report for 2019. After localised interseasonal influenza clusters earlier in 2019 (flu A(H3N2) and A(H1N1)pdm09 viruses), the first week of General Practice (GP) surveillance has shown low levels of community influenza-like illness activity (ILI) at expected rates for this time of year. However, a higher proportion of illness is due to influenza viruses than usual for this early in the season (flu B and A(H3N2) circulating currently). Nearly 30% of samples tested in GPs and hospitals so far are influenza positive, which is one of the highest positivity rates by week 18 in recent years.

Weekly General Practice Influenza-like Illness (ILI) Rates To 05 May 19

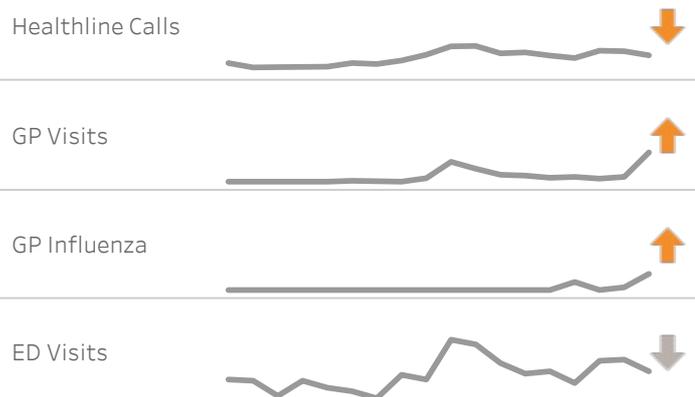


Influenza-like illness (ILI) activity is currently at expected levels for this time of year, but higher than at the same time last year. Seasonal GP surveillance activities for the 2019 winter season started this week (week 18) so the increase in ILI from the previous week is expected due to increased surveillance activities.

Indicators of respiratory illness severity are currently low. Rates of severe acute respiratory infection (SARI) in hospitalised patients is slightly below the historical average (see hospitalisation tab for more detail). SARI surveillance starts this week (week 18) annually, but surveillance in intensive care units (ICU) for very severe or unusual presentations is year round. This surveillance occurs in four participating Auckland hospitals.

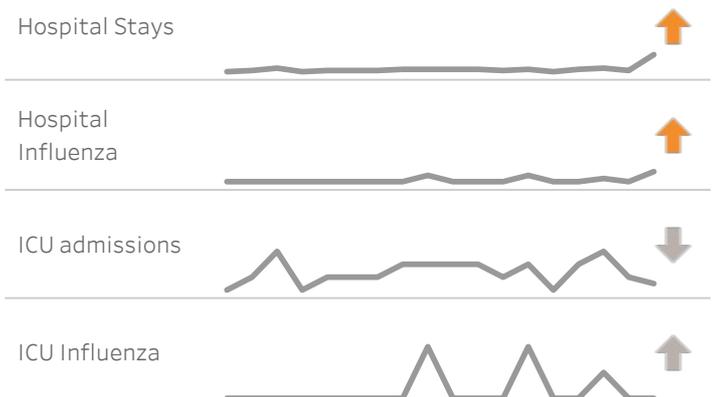
Influenza-like Illness (ILI) Activity to 05 May 19

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



Acute Hospital Activity (SARI) to 05 May 19

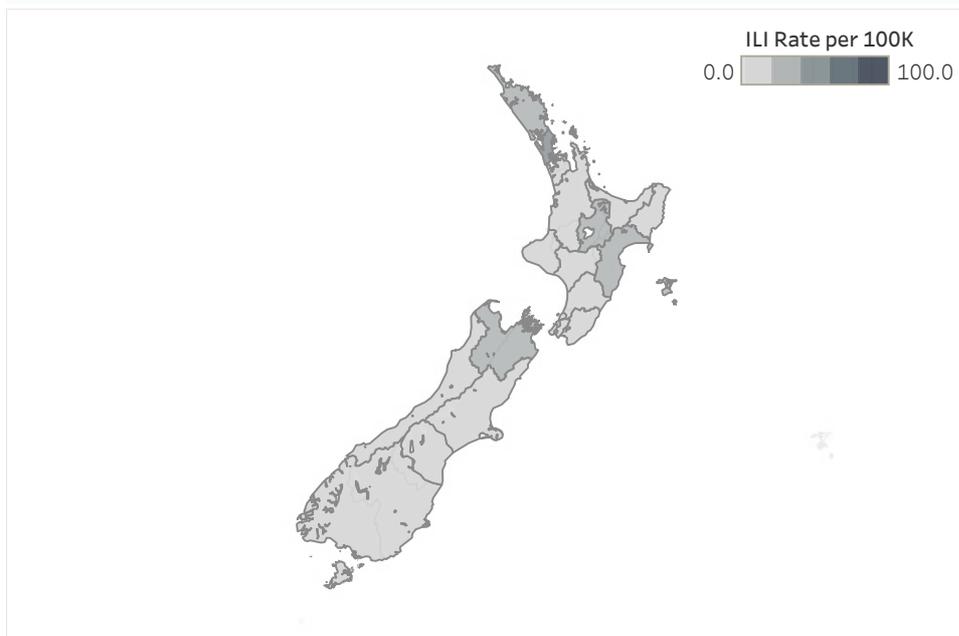
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

General Practice (GP) visits for influenza-like illness (ILI) have been at low expected levels this week. Auckland, Waitemata, and Hawkes Bay DHBs have recorded the highest ILI rates. A spike in activity in March was due to localised ILI outbreaks in some South Island DHBs, and Hawkes Bay and Capital and Coast DHBs, where influenza A(H1N1pdm09) or influenza A(H3N2) viruses were detected. The 2019 influenza vaccine strains are a good match to those detected in these early clusters. Healthline calls for ILI also increased this year in March when there were localised clusters of ILI and influenza activity. These calls have decreased slightly since March which tells us there has been ongoing low level ILI activity within expected levels.

GP Visits (ILI) Rate by DHB - Current Week



Control Measures

The 2019 publically funded seasonal Influenza vaccine contains the following four components (i.e. a quadrivalent vaccine):

an A/Michigan/45/2015 (H1N1)pdm09-like virus;
an A/Switzerland/8060/2017 (H3N2)-like virus;
a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage); and
a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage).

Overseas acute respiratory disease surveillance

- Pacific region: Australian Influenza activity has been higher than expected in most states and territories during the inter-seasonal months (Jan-Apr) this year.^{1,2} Although activity has still been low in most areas, it has been recently increasing in some states – particularly South Australia and Victoria (based on data reported to 4 May and 20 April 2019, respectively).² Nationally, Influenza A(H3N2) and A(H1N1) viruses predominate. National Australian seasonal flu surveillance reporting is expected to start next week. Several Pacific Island Countries and Territories have reported increasing Influenza activity.³ Influenza A outbreaks are reported in Fiji, French Polynesia, New Caledonia and Wallis and Futuna. Influenza B outbreaks are reported in the Federated States of Micronesia, Guam, Northern Mariana Islands and Solomon Islands. Influenza-like illness has also been reported in Vanuatu.
- Asia: Influenza activity continues to decrease in most East Asian countries, except the Republic of Korea where recently Influenza B and A(H3N2) viruses have been detected most frequently.¹ In Southern Asia, Influenza activity has been decreasing with predominantly A(H1N1)pdm09 virus detected there. In South East Asia, Influenza activity has been decreasing overall (Influenza B predominating, recently) but increased detection of all seasonal flu viruses has been reported in Malaysia. Influenza activity has been low in most of West Asia, except increasing Influenza positivity was reported in Saudi Arabia.¹
- South and Central America: Low Influenza activity overall.¹
- Africa: Low Influenza activity in West and Middle Africa. Decreasing Influenza activity in Eastern Africa. Increasing Influenza activity was reported in South Africa.¹
- Northern Hemisphere: Currently low Influenza activity overall. A(H1N1) predominated at the start of the season, followed by A(H3N2) predominance later.^{1, 4-6}
- Emerging diseases: In 2019, ongoing detections of Middle East Respiratory Syndrome coronavirus (MERS-CoV) in the Middle East and human infection with avian Influenza A(H7N9) and A(H9N2) in China have been reported (associated with exposures to camels and birds, respectively).^{7,8} More recently, the first case of human infection with avian Influenza A(H5N1) ever detected in Nepal was reported in a case who presented in March and subsequently died.⁹ Outbreaks of highly pathogenic Influenza A(H5N1) in poultry have been reported in Nepal in 2019 as well as in previous years.¹⁰ An outbreak of MERS-CoV in the Kingdom of Saudi Arabia's Wadi Aldwasir city commenced in January, involving 61 cases (8 deaths) including 14 healthcare workers as of 31 March.⁷ All four viruses (MERS-CoV, A(H7N9), A(H9N2) and A(H5N1)) 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 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 08/05/19)
 2. Australia: www.health.gov.au/flureport (accessed 08/05/19)
 3. Pacific: www.spc.int/phd/epidemics/ (accessed 08/05/19)
 4. US CDC: www.cdc.gov/flu/weekly/ (accessed 08/05/19)
 5. Canada: www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-reports-2018-2019-season.html (accessed 08/05/19)
 6. UK: www.gov.uk/government/statistics/weekly-national-flu-reports-2018-to-2019-season (accessed 08/05/19)
 7. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2019/en/ (accessed 08/05/19)
 8. WHO Avian and other zoonotic influenza: www.who.int/influenza/human_animal_interface/en/ (accessed 08/05/19)
 9. WHO Nepal: http://www.searo.who.int/nepal/documents/emergencies/Avian_Influenza_A_In_Human/en/ (accessed 08/05/19)
 10. OIE Nepal: http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=30047 (accessed 08/05/19)