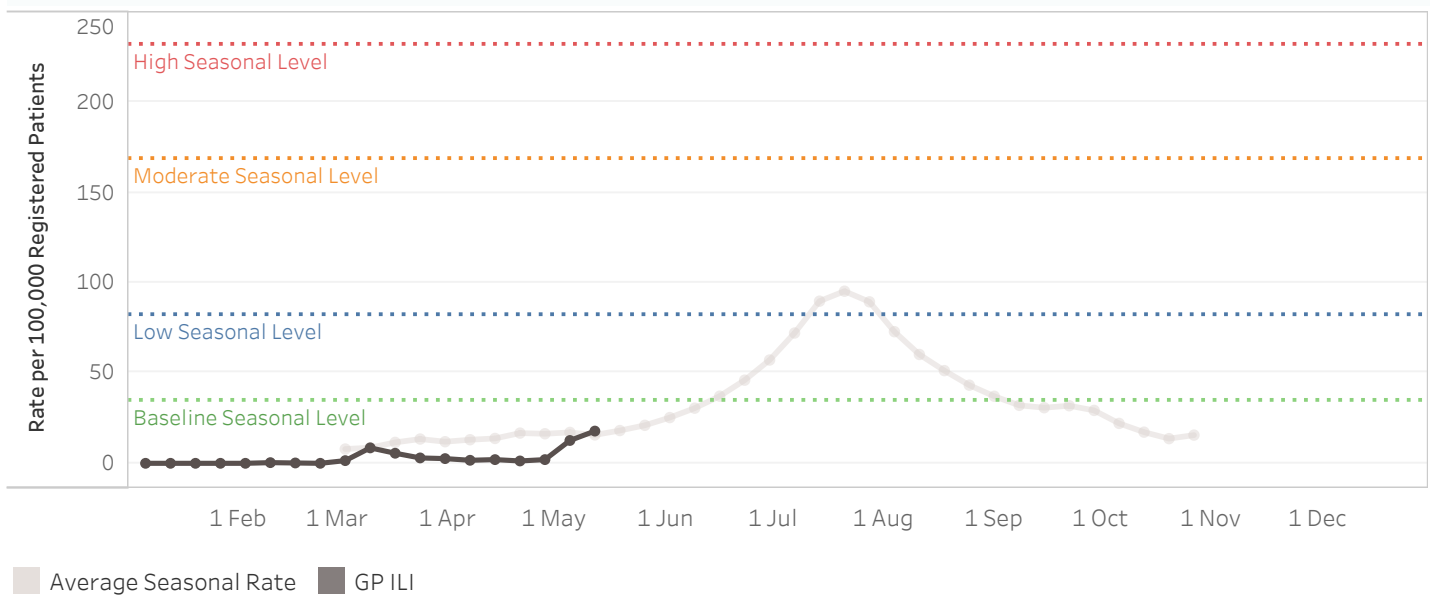


Week Ending 12 May 2019

National Overview

After localised interseasonal influenza clusters earlier in 2019 (flu A(H3N2) and A(H1N1)pdm09 viruses), the first two weeks of General Practice (GP) surveillance have 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 is usual at this time of year (A(H3N2) and a lesser number of B/Victoria circulating currently). Nearly 35% of samples tested in GPs and hospitals so far are influenza positive, which is one of the highest positivity rates for this period in recent years.

Weekly General Practice Influenza-like Illness (ILI) Rates To 12 May 19



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

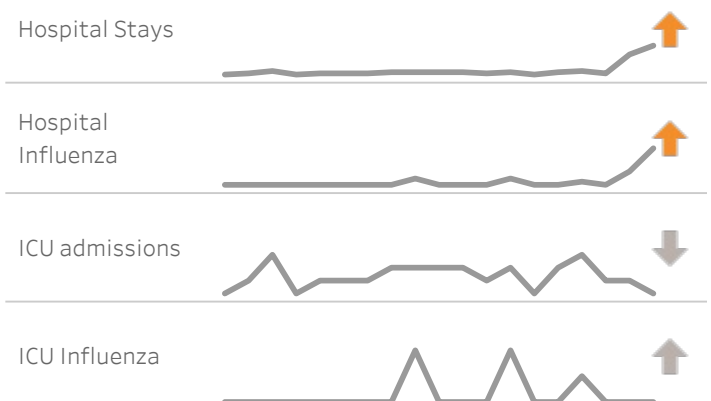
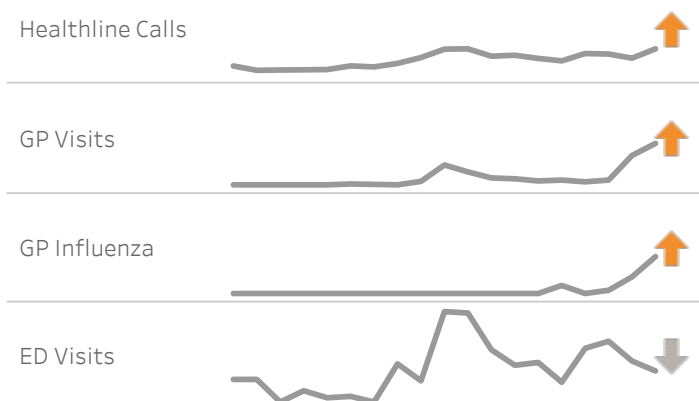
Indicators of respiratory illness severity are currently low. Rates of severe acute respiratory infection (SARI) in hospitalised patients is slightly above the historical average (see hospitalisation tab for more detail). SARI surveillance started in week 18, but surveillance in intensive care units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

Influenza-like Illness (ILI) Activity to 12 May 19

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

Acute Hospital Activity (SARI) to 12 May 19

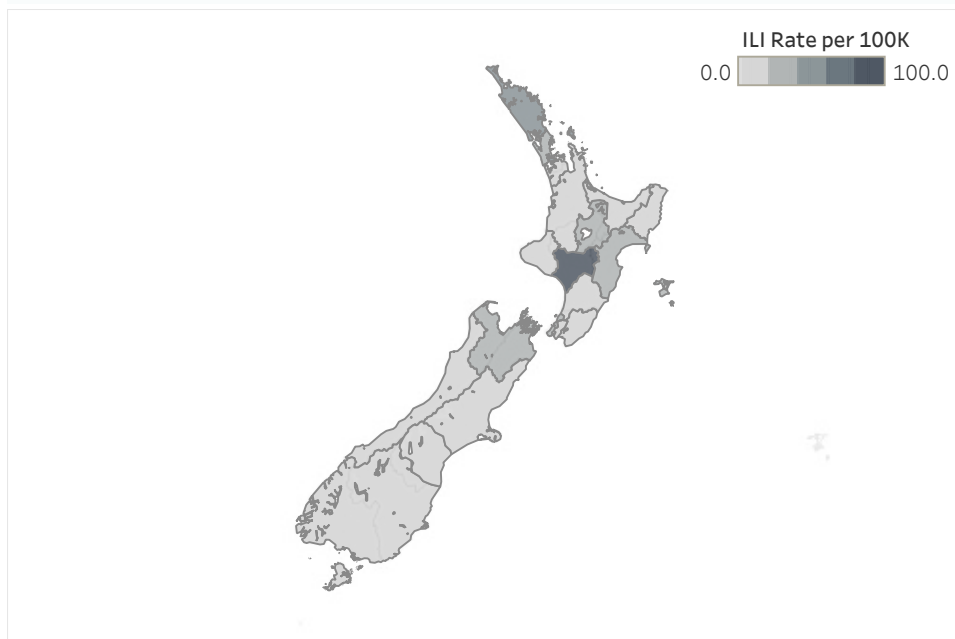
Arrow colour indicates whether the current weekly change is statistically significant.



Activity by DHB

General Practice (GP) visits for influenza-like illness (ILI) have been at low expected levels this week. Auckland, Northland and Nelson Marlborough DHBs have recorded the highest ILI rates this week. 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 the viruses detected in these early clusters. Healthline calls for ILI remain at the expected levels for this time of year, though have increased significantly this week. Rates of Healthline calls for ILI are similar across DHBs.

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 continues to be above expected levels in most states and territories following high activity during the inter-seasonal months (Jan-Apr) this year.² Compared to the previous fortnight, activity increased in the Australian Capital Territory, South Australia, and Northern Territory (based on data reported to 13 May).² Nationally, influenza A(H3N2) virus predominates. Several Pacific Island Countries and Territories have reported increasing influenza activity.³ Influenza A outbreaks are reported in Fiji, French Polynesia and New Caledonia. Influenza B outbreaks are reported in the Federated States of Micronesia, Guam, and Northern Mariana Islands. Influenza-like illness has also been reported in Vanuatu.
- Asia: Influenza activity continues to decrease in most East Asian countries, including in the Republic of Korea.¹ In Southern Asia, influenza activity was low overall with predominantly A(H1N1)pdm09 virus detected there. In South East Asia, influenza activity was low overall except increasing activity in Thailand (influenza B predominating). Influenza activity has been low in most of West Asia, except for elevated influenza positivity 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, except for Ethiopia and Kenya reporting increased ILI and SARI activity. ¹
- Northern Hemisphere: Currently low influenza activity overall. A(H1N1) predominated at the start of the season, followed by A(H3N2) predominance later.¹
- 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).^{4,5} 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.⁷ Outbreaks of highly pathogenic avian influenza A(H5N1) in poultry have been reported in Nepal in 2019 and in previous years.⁷ A case of human infection with avian influenza A(H9N2) was also reported in Oman in a child with illness onset in March. Low pathogenic avian influenza A(H9N2) virus has previously been detected in birds in Oman.⁸ 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.⁴ Recent clusters of MERS-CoV cases have also been reported in Alkhafi and Riyadh cities in Saudi Arabia.⁴ 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.⁵

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 15/05/19)
2. Australia: Report communicated directly by the Australian Government Department of Health on 13/05/19, www.health.gov.au/flureport publication pending
3. Pacific: www.spc.int/phd/epidemics/ (accessed 15/05/19)
4. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2019/en/ (accessed 15/05/19)
5. WHO Avian and other zoonotic influenza: www.who.int/influenza/human_animal_interface/en/ (accessed 15/05/19)
6. WHO Nepal: http://www.searo.who.int/nepal/documents/emergencies/Avian_Influenza_A_In_Human/en/ (accessed 15/05/19)
7. OIE Nepal: http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=30047 (accessed 15/05/19)
8. Body et al. 2015: <https://www.ncbi.nlm.nih.gov/pubmed/26473686> (accessed 15/05/19)