

New Zealand National Influenza Centre

Intelligence Report: Week 38 (18–24 September 2017)

ACTIVITY

National overview

- Although increased compared to last year, influenza-like illness (ILI) activity remains low and below the seasonal average (Figure 1). Indicators suggest the season has peaked and is in decline.
- ILI and influenza in the community is similar to last week (Figure 1 and Table 1).
- Hospitalisations due to acute respiratory illness are at a low seasonal level and have decreased since last week (Table 1).
- Influenza-associated severe acute respiratory illness (SARI) hospitalisations were high this year but slightly lower than known high years (2012 and 2014). However, Intensive Care Unit (ICU) admissions were low or comparable to these years.

Notable local ILI activity

- None noted during this reporting period.

Figure 1. New Zealand influenza-like illness activity by week, 2017

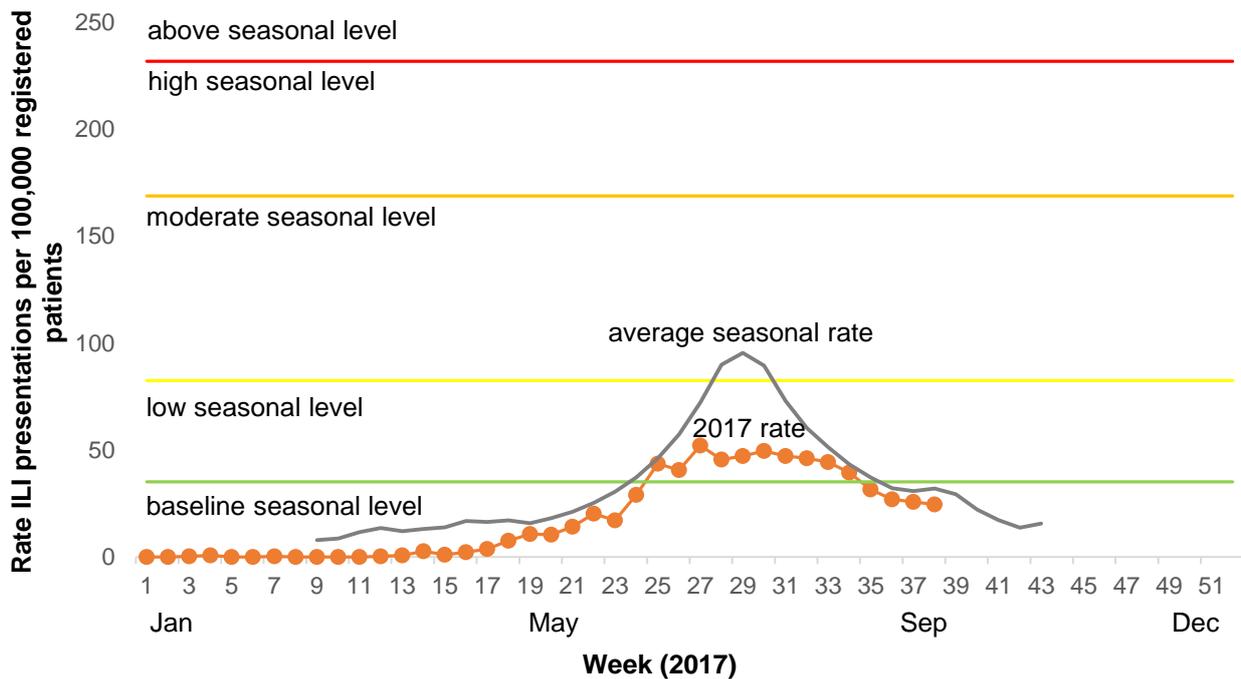


Table 1. Summary of community and hospital acute respiratory activity

Activity in the community	Weekly change	
	Acute respiratory	Influenza
ILI calls to Healthline	↓	
ESR eILI visits to general practices	↓	↑
HealthStat visits to general practices	↑	
Activity in hospitals		
Severe Acute Respiratory Infections (SARI) admissions to hospital	↓	↓

Note: Bold arrow (↓ or ↑) represents a statistically significant change. SARI data is from Auckland and Counties Manukau DHBs only.

SEVERITY

- ICU admissions among respiratory patients have not changed significantly, and remain at a low level (Table 2).

Table 2. Severity of SARI hospitalisations

Severity	Weekly change	
	Acute respiratory	Influenza
SARI admissions to Intensive Care Units (ICU)	↑	↓
SARI associated deaths	-	↓

Note: Bold arrow (↓ or ↑) represents a statistically significant change. SARI data is from Auckland and Counties Manukau DHBs only.

CIRCULATING INFLUENZA STRAIN(S)

Predominant influenza strains currently circulating

- A(H3N2) Typically highest burden in elderly
- B(Yamagata) Typically highest burden in school aged children

- An increase in ILI cases among those aged 65+ years has been noted and is expected when A(H3N2) is the predominant circulating strain.
- A(H3N2) viruses can change more quickly over time than the other human influenza viruses. The A(H3N2) viruses have recently changed genetically. This could account for the high influenza-associated SARI hospitalisation rates this season.
- Influenza B(Victoria) lineage viruses have also co-circulated with B(Yamagata) lineage viruses this season. The seasonal quadrivalent vaccine covered both B lineages; whereas, the trivalent vaccine (more widely used) only covers one lineage (B/Victoria). However, studies show cross-protection between the two B lineages can occur.

ANTIVIRAL RESISTANCE

- Between 1 January 2017 and 1 September 2017, 100 influenza viruses were tested for resistance to neuraminidase inhibitors. No resistance to oseltamivir or zanamivir was detected.

OVERSEAS RESPIRATORY ILLNESS SURVEILLANCE MONITORING

Influenza

- Australia:** Influenza activity at the national level decreased, however high levels of activity continue to be reported across the country. Influenza A(H3N2) is currently the predominant circulating influenza A virus. To date the seasonal influenza vaccines appear to be a moderate to good match for circulating virus strains.¹
- Europe and North America:** Low ILI activity at non-seasonal levels. The 2016–17 influenza season had predominantly influenza A(H3N2) virus circulation, with indicators of more severe illness as is expected with this seasonal strain.^{2–4}
- Elsewhere:** In Western Asia, influenza activity increased slightly in Oman and Qatar in recent weeks, with influenza A(H1N1)pdm09 and A(H3N2) viruses co-circulating. In South East Asia, high levels of influenza activity were reported, with all seasonal influenza subtypes present.²

Other emerging respiratory diseases

- Middle East Respiratory Syndrome coronavirus (MERS-CoV):** Reported in the United Arab Emirates.⁵
- Avian influenza A(H7N9):** Four human cases were reported in China (18 August–4 September 2017). As of 13 September 2017, 1562 laboratory-confirmed human cases have been reported to WHO since early 2013. No sustained human-to-human transmission has been reported.⁶

For further information on overseas acute respiratory disease activity see:

1. Australia: www.health.gov.au/flureport
2. WHO Global Influenza Update: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/
3. Europe: www.flunewseurope.org/
4. United States: www.cdc.gov/flu/weekly/
5. WHO Emergency Preparedness, response: www.who.int/csr/don/archive/year/2017/en/
6. WHO Avian and other zoonotic influenza http://who.int/influenza/human_animal_interface/en/