INFLUENZA WEEKLY UPDATE

2014/18: 28 April - 4 May 2014

The national influenza surveillance system in New Zealand is an essential public health component for assessing and implementing strategies to control influenza. This report summarises the data collected from sentinel general practice (GP) surveillance and non-sentinel surveillance for week 18 (28 April – 4 May 2014).

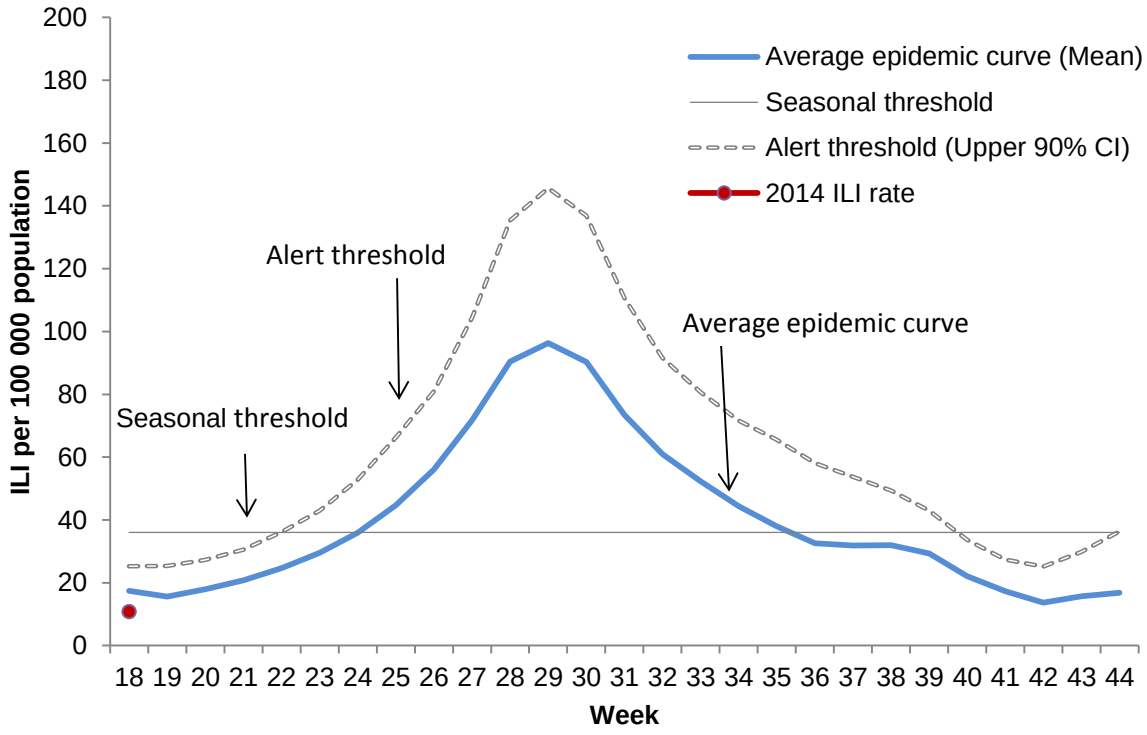
Summary

- ILI through sentinel surveillance was reported from 14 out of 20 District Health Boards (DHB) with a national consultation rate of 10.8 per 100 000 (31 ILI consultations).
- A total of 145 swabs were received from sentinel (17) and non-sentinel (128) surveillance.
- 23 viruses were identified: A(H1N1)pdm09 (10), A(H3N2) (5) including one A/Victoria/361/2011 (H3N2), B (4) including three B/Wisconsin/1/2010-like virus and one B/Brisbane/60/2008-like virus, and A (not sub-typed) (4).

INFLUENZA-LIKE ILLNESS SURVEILLANCE

In the past week, a total of 31 consultations for influenza-like illness were reported from 51 general practices in 14 out of 20 DHBs. This gives a weekly consultation rate of 10.8 per 100 000 patient population. Figure 1 shows the weekly national consultation rate for 2014 in comparison to the average epidemic curve in 2000–2013 (excluding 2009). For more details on threshold definitions, see Appendix. The current rate of influenza-like illness is below the seasonal threshold.

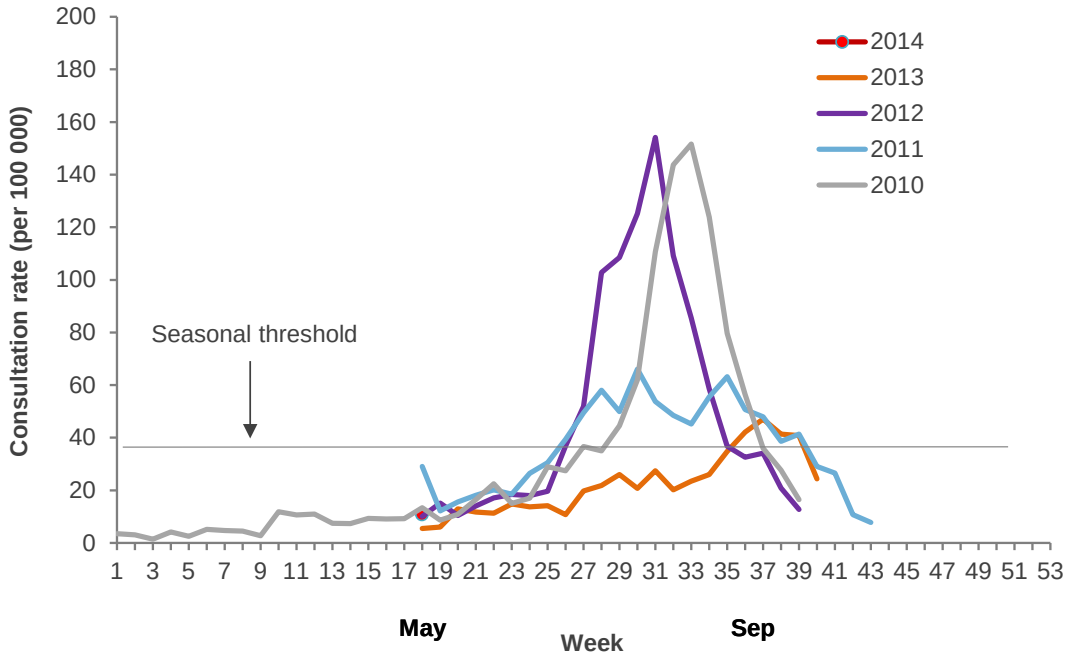
Figure 1: Weekly consultation rates for influenza-like illness in New Zealand in 2014 in comparison to the average epidemic curve in 2000–2013 (excluding 2009)



Note: There is only one value for 2014 (10.8 per 100 000).

Figure 2 shows the weekly national consultation rate for 2014 in comparison to the previous years 2010–2013.

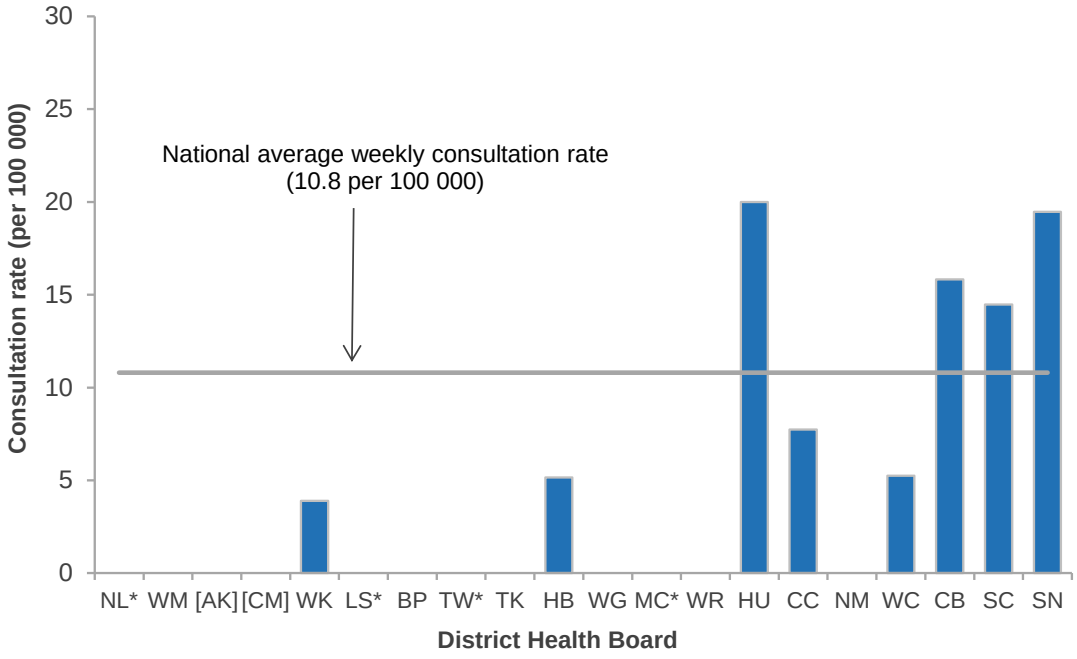
Figure 2. Weekly consultation rates for influenza-like illness in New Zealand, 2010–2014



Note: There is only one value for 2014 (10.8 per 100 000).

Figure 3 compares the consultation rates for influenza-like illness for each DHB over the past week. Hutt Valley DHB had the highest consultation rate (20.0 per 100 000, 3 cases) followed by and Southern (19.5 per 100 000, 10 cases).

Figure 3: Weekly consultation rates for influenza-like illness by DHB week ending 4 May 2014



* No data for the week.

Note: Auckland (AK) and Counties Manukau (CM) DHBs follow the Southern Hemisphere Influenza and Vaccine Effectiveness Research and Surveillance (SHIVERS) case definition which is different from this sentinel surveillance. For more details, please refer to the website: http://www.esr.cri.nz/competencies/shivers/Pages/SHIVERSReports.aspx

VIROLOGICAL SURVEILLANCE

A total of 17 swabs were received from sentinel surveillance. Of these two A(H1N1)pdm09 viruses were identified, one each from Hutt Valley and Canterbury DHBs.

In addition, 128 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 21 influenza viruses were identified: A(H1N1)pdm09 (8), A(H3N2) (5) including one A/Victoria/361/2011 (H3N2)-like virus, A (not sub-typed) (4), B/Wisconsin/1/2010-like virus (3), and B/Brisbane/60/2008-like virus (1). The distribution by DHB is shown in Table 1.

Table 1. Influenza viruses from non-sentinel surveillance for week 18 by DHB

Antigenic strain	DHB							Total
	AK	CM	WK	BP	CC	CB	SN	
A (not sub-typed)	1	0	2	1	0	0	0	4
A(H1N1)pdm09	0	2	1	0	1	3	1	8
A(H3N2)	0	2	2	0	0	0	0	4
A/Victoria/361/2011 (H3N2)	0	1	0	0	0	0	0	1
B/Brisbane/60/2008-like virus	0	1	0	0	0	0	0	1
B/Wisconsin/1/2010-like virus	0	2	0	0	0	1	0	3
Total	**1**	**8**	**5**	**1**	**1**	**4**	**1**	**21**

Table 2. DHB codes and descriptions

DHB code	DHB	DHB code	DHB
NL	Northland	WG	Whanganui
WM	Waitemata	MC	MidCentral
AK	Auckland	WR	Wairarapa
CM	Counties Manukau	HU	Hutt Valley
WK	Waikato	CC	Capital & Coast
LS	Lakes	NM	Nelson Marlborough
BP	Bay of Plenty	WC	West Coast
TW	Tairawhiti	CB	Canterbury
TK	Taranaki	SC	South Canterbury
HB	Hawke's Bay	SN	Southern

APPENDIX

* New Zealand's ILI data during 2000-2013 (excluding 2009) was reviewed and updated:

- The average epidemic curve indicated here is the usual level of influenza activity that may occur during a typical year using the method described in *"Global epidemiological surveillance standards for influenza" (http://www.who.int/influenza/resources/documents/WHO_Epidemiological_Influenza_Surveillance_Standards_2014.pdf).*
- The seasonal threshold indicated here is the level of influenza activity that signals the start and end of the annual influenza season and it was based on the Moving Epidemic Method (*Vega et al. Influenza and other respiratory viruses 2013;7(4):546-558*). A weekly rate of 36 ILI consultations per 100 000 patient population is considered the seasonal threshold.
- Alert threshold (defined as 90% upper confidence interval) indicated here is a level above which, varying by time of year, influenza activity is higher than most years.
- The ILI rates used here to describe different level of influenza activity is based on the 25th and 75th percentiles of the ILI data. A rate of 37–149 per 100 000 patient population is considered indicative of normal seasonal influenza activity; a rate of 150–399 indicative of higher than expected influenza activity; a rate of ≥400 indicative of a severe epidemic level of influenza activity.

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