

INFLUENZA WEEKLY UPDATE

2014/20: 12–18 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 20 (12–18 May 2014).

Summary

- ILI through sentinel surveillance was reported from 17 out of 20 District Health Boards (DHB) with a national consultation rate of 12.3 per 100 000 (37 ILI consultations).
- A total of 205 swabs were received from sentinel (15) and non-sentinel (190) surveillance.
- 32 viruses were identified: A(H1N1)pdm09 (14) including nine A/California/7/2009 (H1N1)-like viruses, B (13) including nine B/Wisconsin/1/2010-like and one B/Brisbane/60/2008-like, A(H3N2) (3) including one /Victoria/361/2011 (H3N2)-like virus, and A(not sub-typed) (2).

INFLUENZA-LIKE ILLNESS SURVEILLANCE

In the past week, a total of 37 consultations for influenza-like illness (ILI) were reported from 58 general practices in 17 out of 20 DHBs. This gives a weekly consultation rate of 12.3 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)

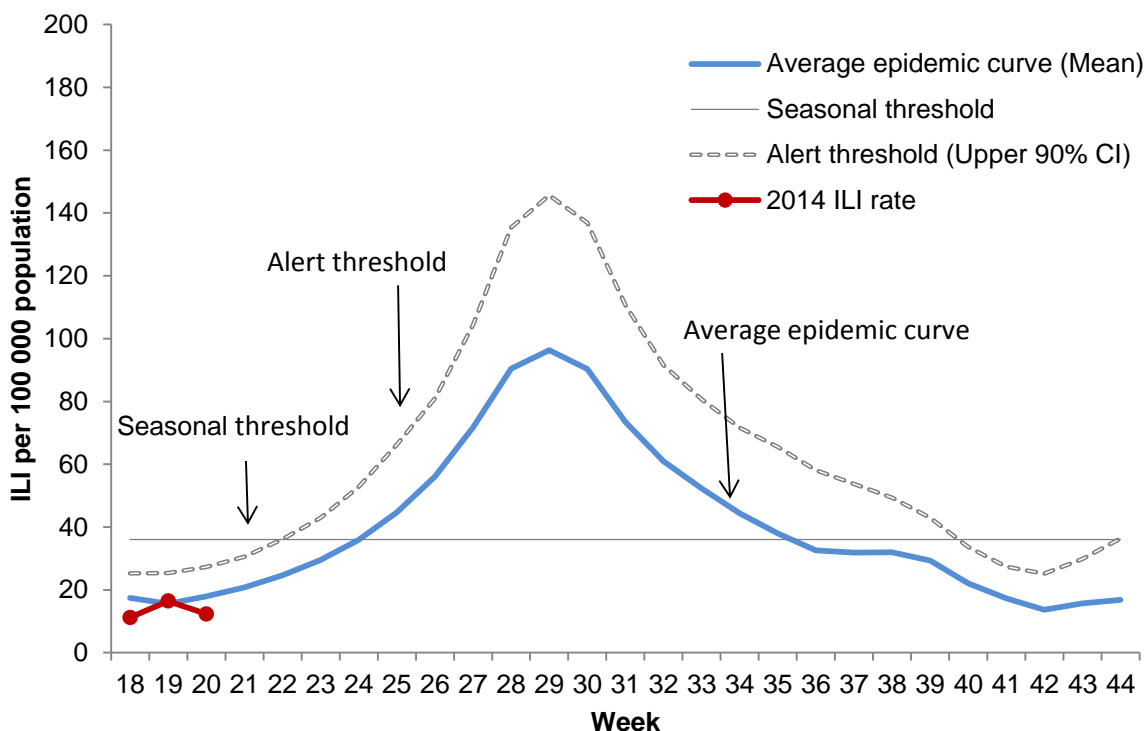


Figure 2 shows the weekly national consultation rate for 2014 in comparison to the previous years 2010–2013.

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

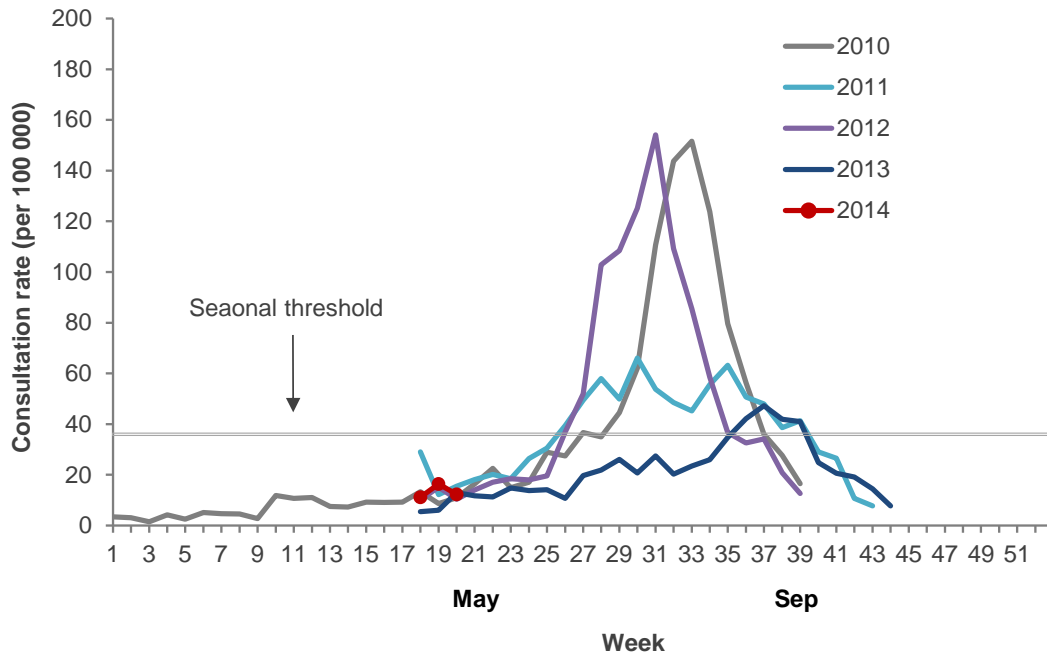
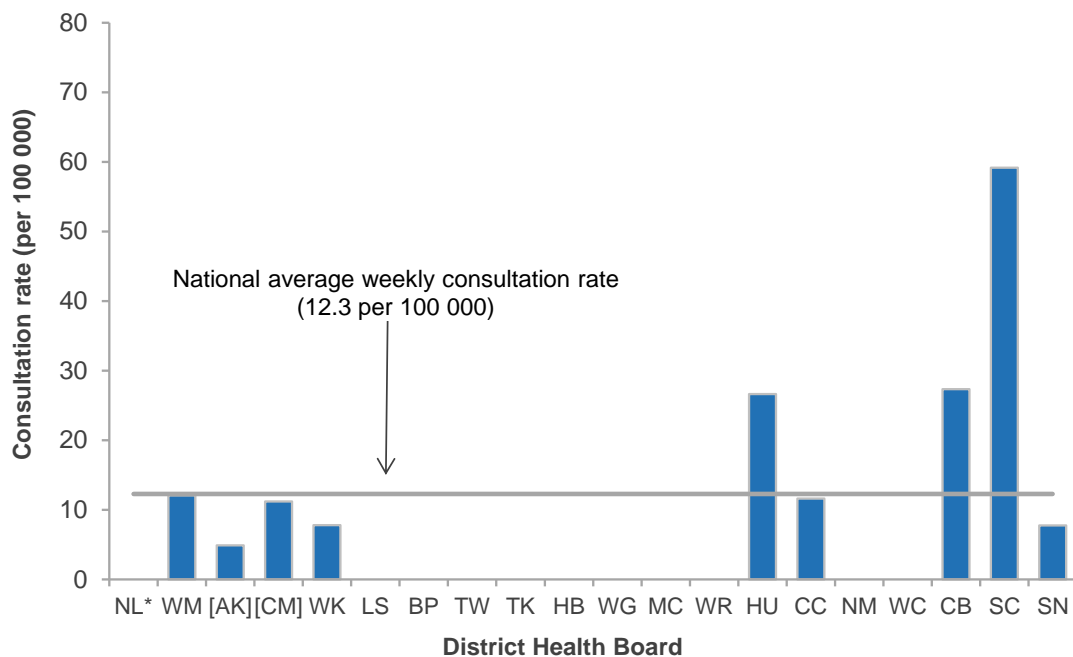


Figure 3 compares the consultation rates for influenza-like illness for each DHB over the past week. South Canterbury DHB had the highest consultation rate (59.2 per 100 000, 4 cases) followed by and Canterbury (27.3 per 100 000, 18 cases).

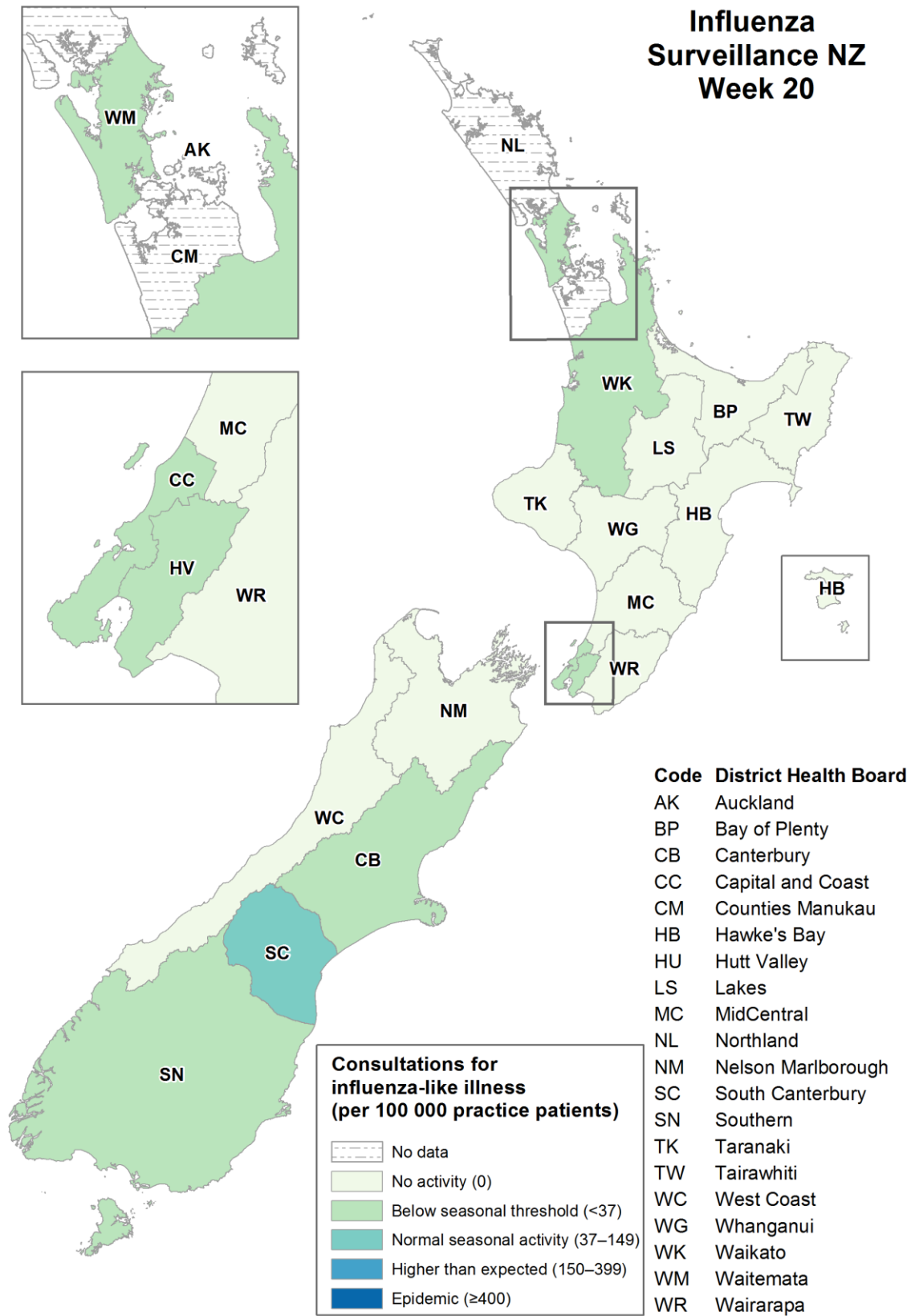
Figure 3. Weekly consultation rates for influenza-like illness by DHB week ending 18 May 2014



* No data for the week.

[] Participating in SHIVERS ILI surveillance. For more details, please refer to the website:
<http://www.esr.cri.nz/competencies/shivers/Pages/SHIVERSReports.aspx>

Figure 4. Consultation rates for influenza-like illness mapped by DHB for week 20, 2014



VIROLOGICAL SURVEILLANCE

A total of 15 swabs were received from sentinel surveillance. Of these, three influenza viruses were identified as A(H1N1)pdm09 (2) one each from Canterbury and Southern DHBs, and B (lineage not determined) (1) from Canterbury.

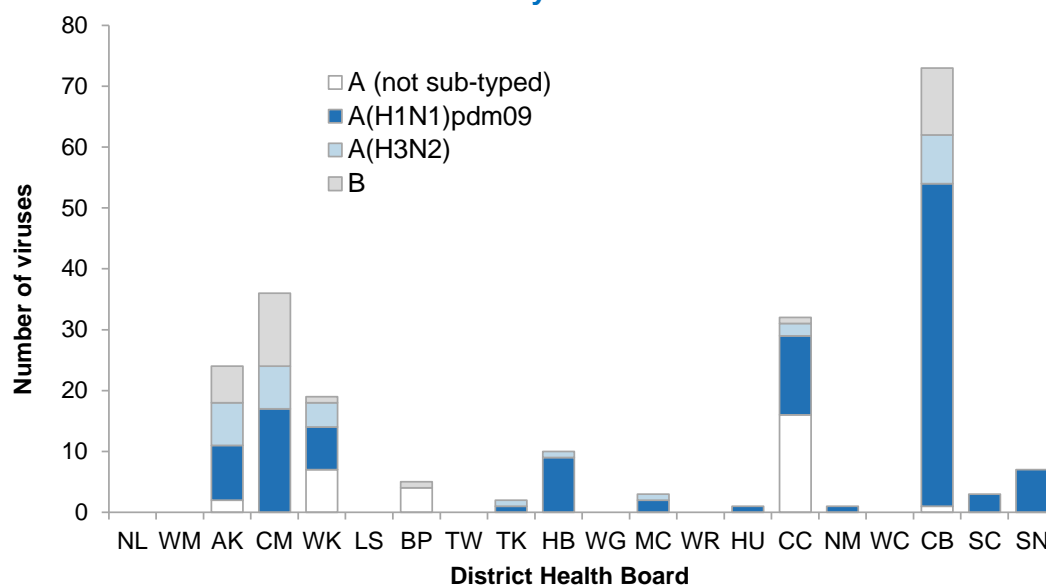
In addition, 190 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 29 influenza viruses were identified: A(H1N1)pdm09 (12) including nine A/California/7/2009 (H1N1)-like viruses, B (12) including nine B/Wisconsin/1/2010- like viruses, and one B/Brisbane/60/2008-like, A(H3N2) (3) including one A/Victoria/361/2011 (H3N2)-like virus, and A (not sub-typed) (2). The distribution by DHB is shown in Table 1.

Table 1. Influenza viruses from non-sentinel surveillance for week 20 by DHB

Antigenic Strain	DHB						Total
	AK	CM	WK	CC	CB	SN	
A (not sub-typed)	0	0	0	2	0	0	2
A(H1N1)pdm09	0	0	0	1	1	1	3
A/California/7/2009 (H1N1)-like	1	3	1	2	2	0	9
A(H3N2)	2	0	0	0	0	0	2
A/Victoria/361/2011 (H3N2)	0	1	0	0	0	0	1
B/Wisconsin/1/2010-like	1	5	1	1	1	0	9
B (lineage not determined)	0	1	0	0	1	0	2
B/Brisbane/60/2008-like	0	1	0	0	0	0	1
Total	4	11	2	6	5	1	29

Figure 5 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 20 (18 May 2014). A total of 216 influenza viruses were identified: A(H1N1)pdm09 (123) including 20 A/California/7/2009 (H1N1)-like viruses, B (32) including 11 B/Wisconsin/1/2010-like viruses and two of B/Brisbane/60/2008-like viruses, A(H3N2) (31) including 12 A/Victoria/361/2011 (H3N2)-like viruses, and A (not sub-typed) (30).

Figure 5. Cumulative laboratory-confirmed viruses by DHB from week 1 to week 20, 18 May 2014



APPENDIX

New Zealand's ILI data in recent years was reviewed and updated:

- The average epidemic curve (based on the 2000–2013 ILI data, excluding 2009) 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 is the level of influenza activity that signals the start and end of the annual influenza season and it was based on the 2000–2013 ILI data (excluding 2009) using 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 of the mean) is a level above which, varying by time of year, influenza activity is higher than most years.
- A rate of 37–149 per 100 000 is used to describe normal seasonal influenza activity based on the 25th and 75th percentiles of the ILI data (2000–2013 excluding 2009). A rate of 150–399 is used to describe higher than expected influenza activity (i.e. 2009 pandemic). A rate of ≥ 400 is used to describe an epidemic level of influenza activity (i.e. 1996 experience).

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