

INFLUENZA WEEKLY UPDATE

2013/38: 16–22 September 2013

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 38 (16–22 September 2013).

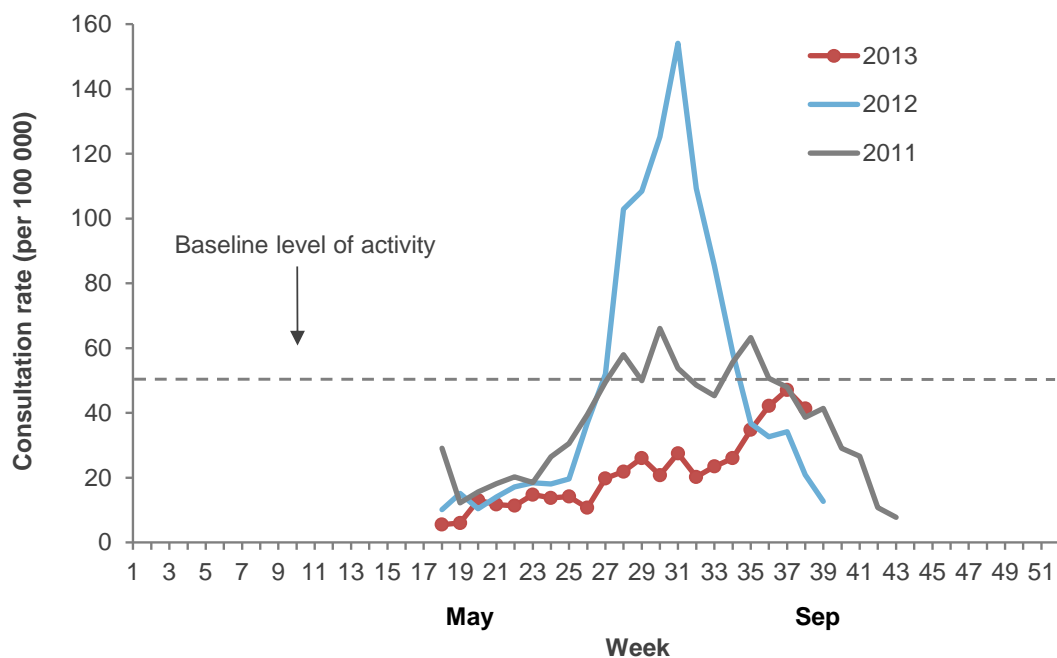
Summary

- ILI through sentinel surveillance was reported from 17 out of 20 District Health Boards (DHB) with a national consultation rate of 41.4 per 100 000 (142 ILI consultations).
- A total of 361 swabs were received from sentinel (41) and non-sentinel (320) surveillance.
- 219 influenza viruses were identified: B (73) including five B/Wisconsin/1/2010-like viruses, A (not sub-typed) (76), A(H3N2) (47) including eight A/Victoria/361/2011 (H3N2), A(H1N1)pdm09 (23) including three A/California/7/2009 (H1N1)-like viruses.

INFLUENZA-LIKE ILLNESS SURVEILLANCE

In the past week, a total of 142 consultations for influenza-like illness were reported from 64 general practices in 17 out of 20 DHBs. This gives a weekly consultation rate of 41.4 per 100 000 patient population. Figure 1 shows the weekly national consultation rates for 2011, 2012 seasons, and 2013 so far. The current rate of influenza-like illness is below the baseline level.

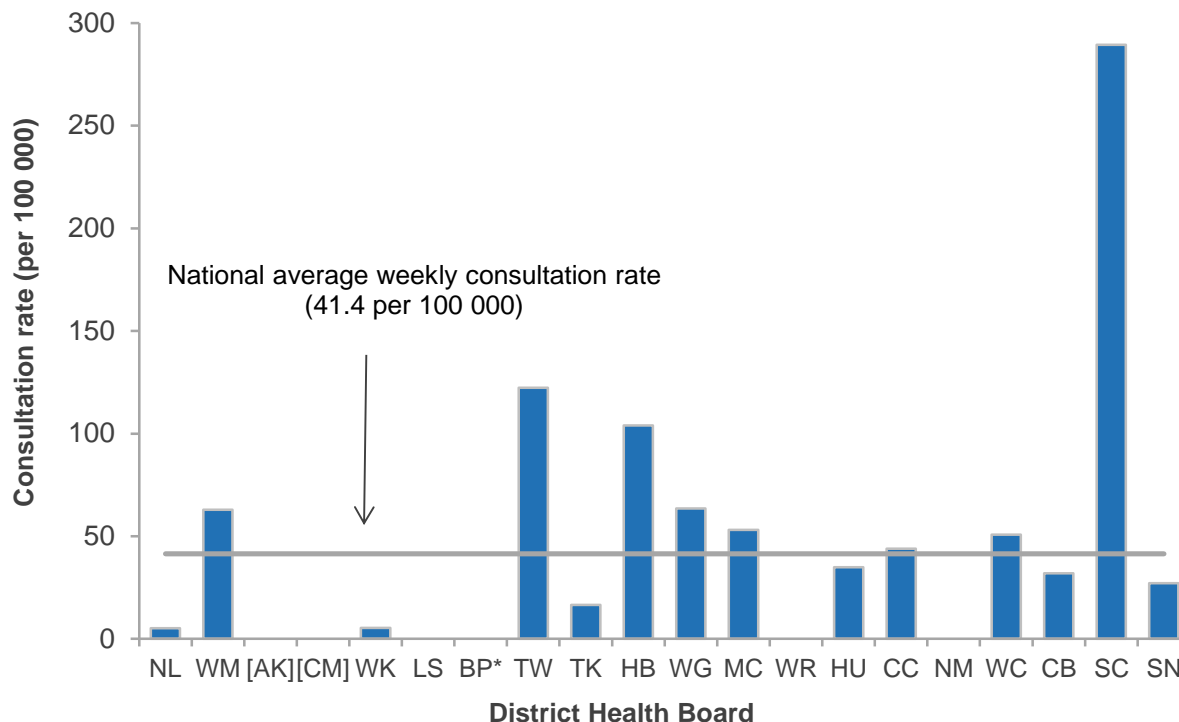
Figure 1. Weekly consultation rates for influenza-like illness in New Zealand, 2011, 2012 and 2013



* A weekly rate <50 ILI consultations per 100 000 patient population is considered baseline activity. A rate of 50–249 is considered indicative of normal seasonal influenza activity, and a rate of 250–399 indicative of higher than expected influenza activity. A rate >400 ILI consultations per 100 000 patient population indicates an epidemic level of influenza activity.

Figure 2 compares the consultation rates for influenza-like illness for each DHB over the past week. South Canterbury DHB had the highest consultation rate (289.5 per 100 000, 20 cases), followed by Tairāwhiti (122.3 per 100 000, 2 cases), and Hawke’s Bay (103.9 per 100 000, 20 cases).

Figure 2. Weekly consultation rates for influenza-like illness by DHB week ending 22 September 2013



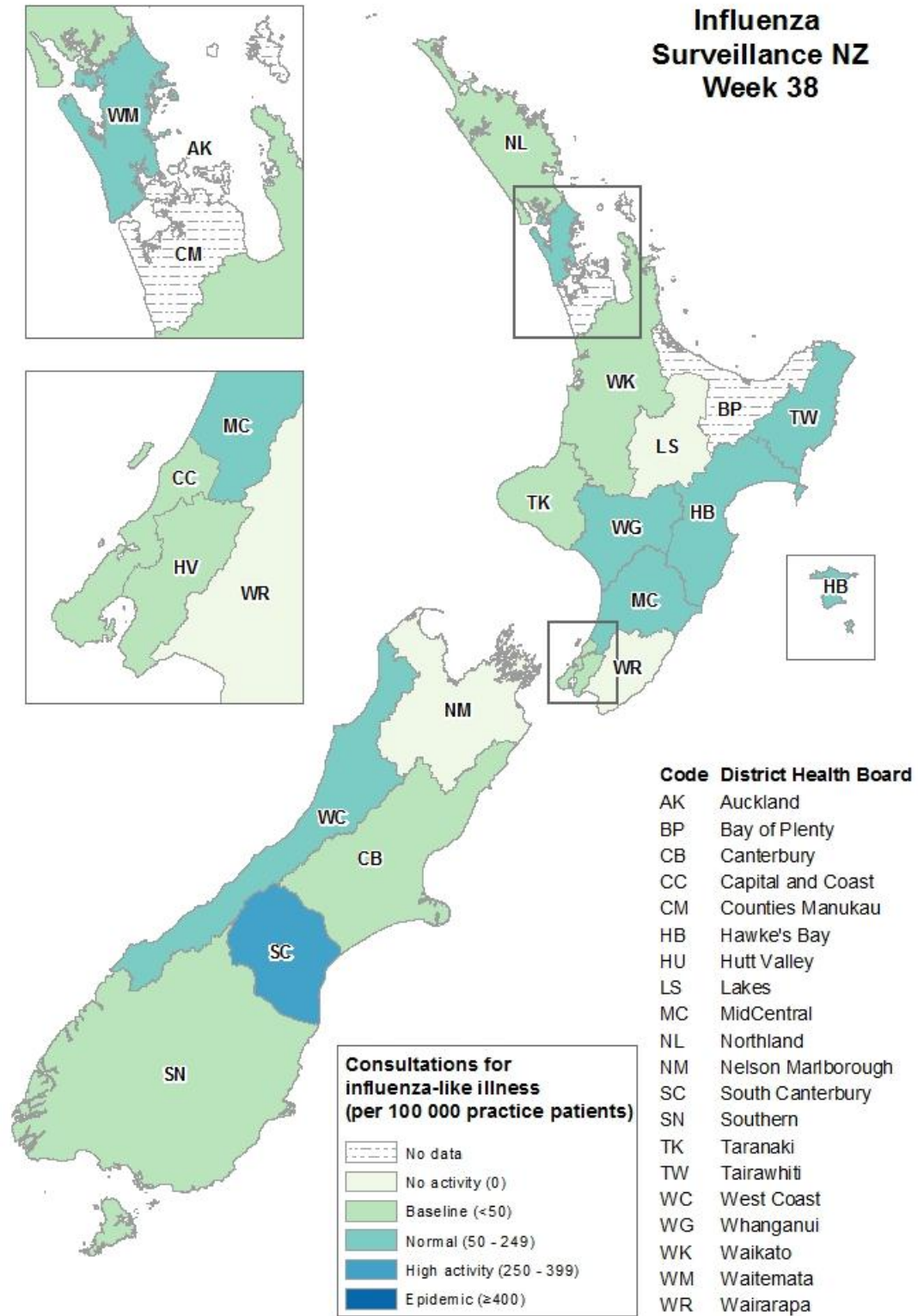
*Did not participate for the week.

[] Not participating in the influenza sentinel surveillance.

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. Based on the SHIVERS weekly report, the ILI incidence for Auckland and Counties Manukau DHBs for week 38 were 168.1 per 100 000 and 22.9 per 100 000 patient populations, respectively. For more details, please refer to the website:

<http://www.esr.cri.nz/competencies/shivers/Pages/SHIVERSReports.aspx>

Figure 3. Consultation rates for influenza-like illness mapped by DHB for week 38, 2013



VIROLOGICAL SURVEILLANCE

A total of 41 swabs were received by virology laboratories from sentinel surveillance. From these 28 viruses were identified (Figure 4): B (lineage not determined) (14), A (not sub-typed) (10), A(H1N1)pdm09 (3), and A(H3N2) (1). The distribution by DHB is shown in Table 1.

Figure 4. Total influenza viruses from sentinel surveillance by type and week reported, week 18–38

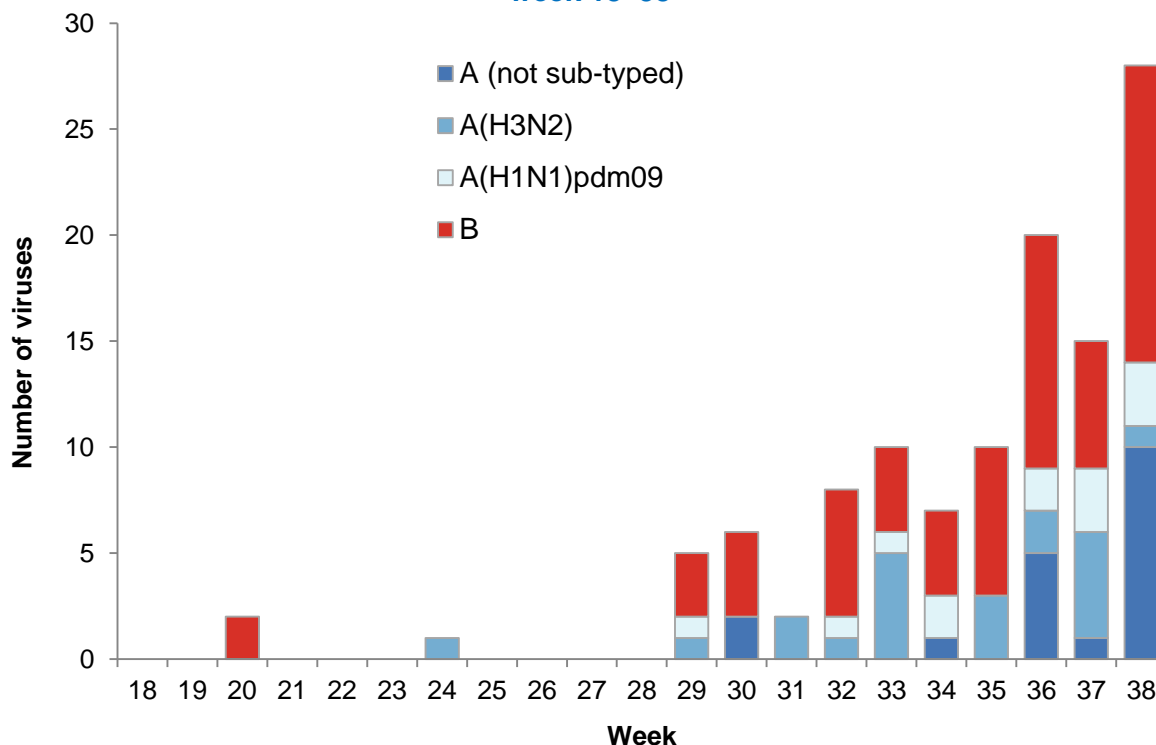


Table 1. Influenza viruses from sentinel surveillance for week 38 by DHB

Influenza virus	DHB													Total
	NL	WM	WK	LS	TK	HB	WG	MC	HU	CC	NM	CB	SN	
A (not sub-typed)	0	1	0	1	0	0	0	0	2	2	2	0	2	10
A(H1N1)pdm09	0	0	0	0	0	0	0	0	0	0	0	3	0	3
A(H3N2)	0	0	0	0	0	0	0	0	0	0	0	1	0	1
B (lineage not determined)	1	0	2	0	1	4	1	1	0	0	0	3	1	14
Total	1	1	2	1	1	4	1	1	2	2	2	7	3	28

In addition, 320 swabs were received by virology laboratories from non-sentinel surveillance. From these, 191 influenza viruses were identified (Figure 5): A (not sub-typed) (66), B (lineage not determined) (54), A(H3N2) (38), A(H1N1)pdm09 (17), A/Victoria/361/2011 (H3N2) (8), B/Wisconsin/1/2010-like (5), and A/California/7/2009 (H1N1)-like (3). The distribution by DHB is shown in Table 2.

Figure 5. Total influenza viruses from non-sentinel surveillance by type and week reported, week 18–38

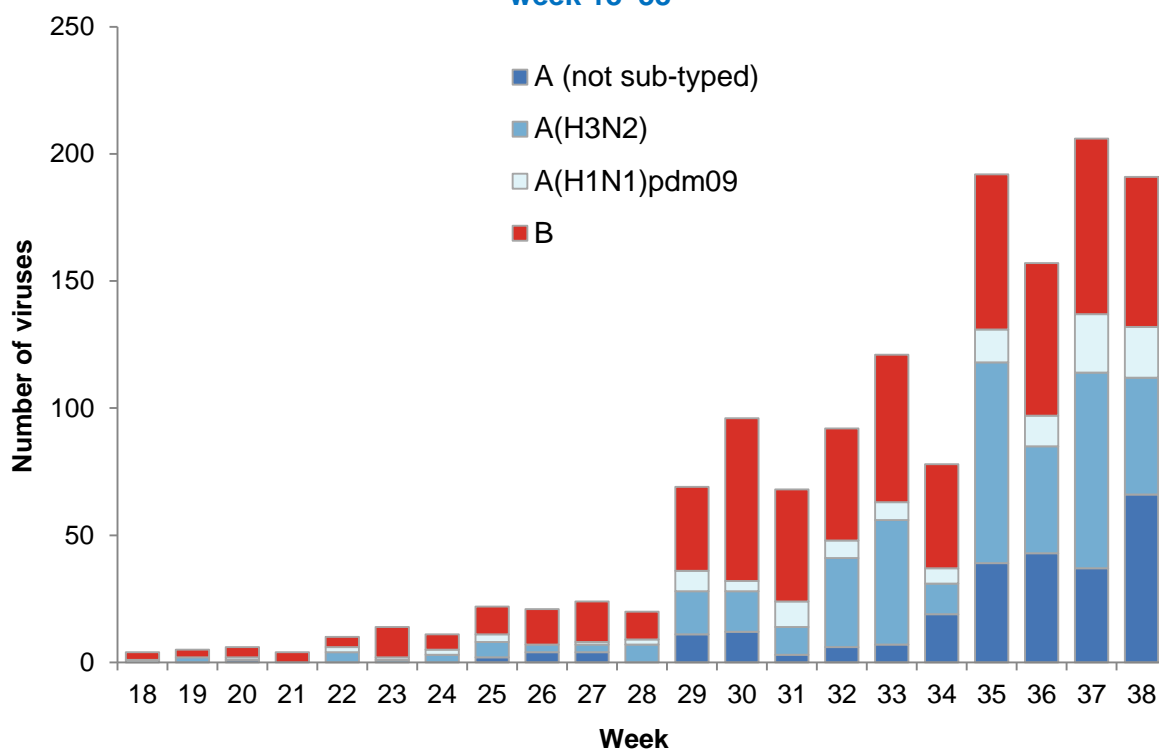
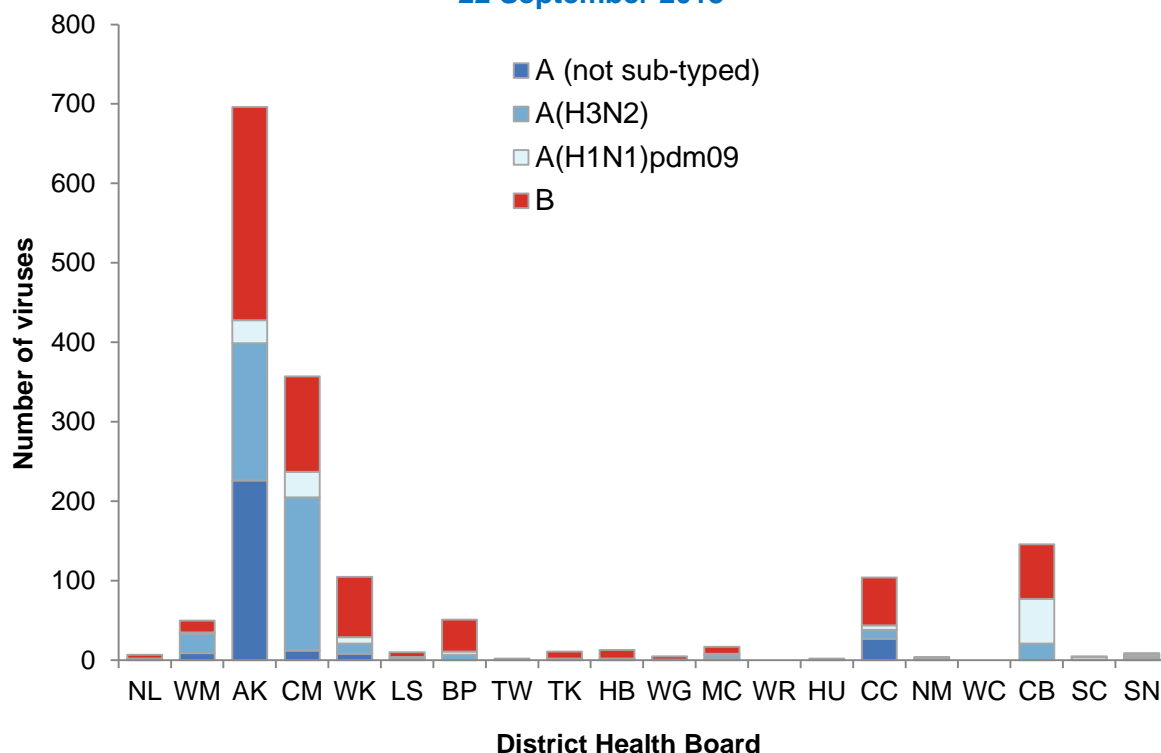


Table 2. Influenza viruses from non-sentinel surveillance for week 38 by DHB

Influenza virus	DHB												Total
	WM	AK	CM	WK	BP	TK	HB	CC	NM	CB	SC	SN	
A (not sub-typed)	1	59	0	0	0	0	0	6	0	0	0	0	66
A(H1N1)pdm09	0	1	3	0	0	0	0	1	0	10	1	1	17
A/California/7/2009 (H1N1)-like	0	1	0	0	0	0	0	2	0	0	0	0	3
A(H3N2)	1	3	29	1	0	0	0	0	1	2	0	1	38
A/Victoria/361/2011 (H3N2)	0	3	5	0	0	0	0	0	0	0	0	0	8
B (lineage not determined)	0	22	3	9	1	1	2	8	0	7	1	0	54
B/Wisconsin/1/2010-like	0	2	2	0	1	0	0	0	0	0	0	0	5
Total	2	91	42	10	2	1	2	17	1	19	2	2	191

Figure 6 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 38 (22 September 2013). A total of 1594 influenza viruses were identified: B (698) including 178 B/Wisconsin/1/2010-like and five of B/Brisbane/60/2008-like viruses, A(H3N2) (453) including 118 A/Victoria/361/2011 (H3N2)-like viruses, A (not sub-typed) (296), and A(H1N1)pdm09 (147) including 31 A/California/7/2009 (H1N1)-like viruses.

Figure 6. Cumulative laboratory-confirmed viruses by DHB from week 1 to week 38, 22 September 2013



The 2013 southern hemisphere influenza vaccine has the following composition: A/California/7/2009(H1N1)-like, A/Victoria/361/2011(H3N2)-like and B/Wisconsin/1/2010-like strains.

*Note: A/California/7/2009 is an influenza A(H1N1)pdm09 strain.

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