

INFLUENZA WEEKLY UPDATE

2013/37: 9–15 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 37 (9–15 September 2013).

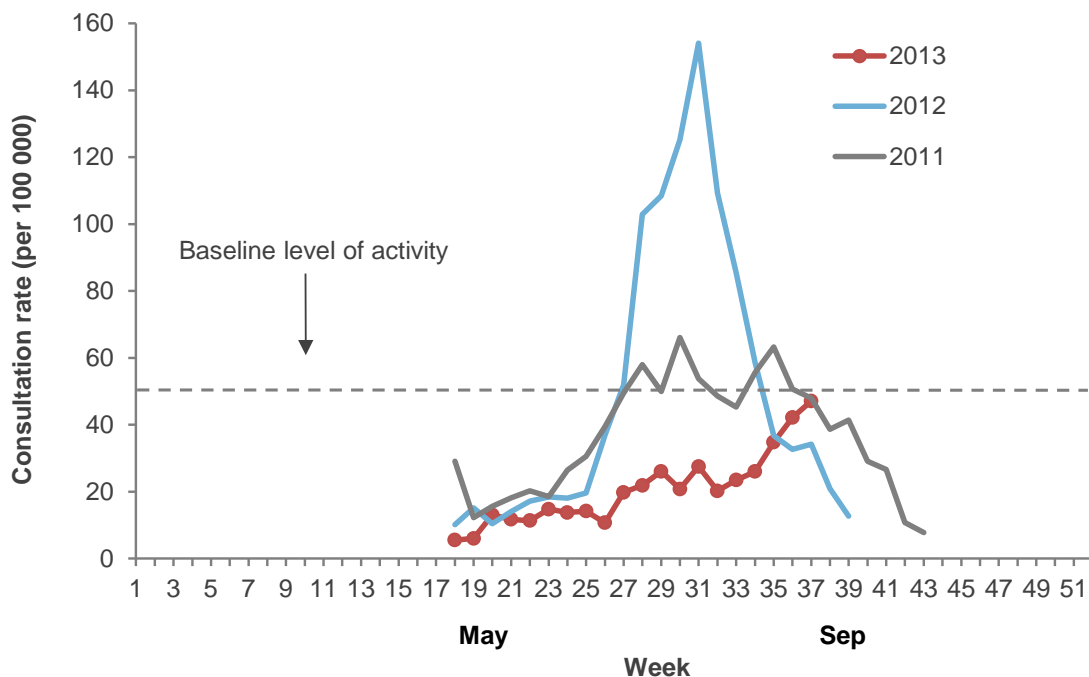
Summary

- ILI through sentinel surveillance was reported from 18 out of 20 District Health Boards (DHB) with a national consultation rate of 47.1 per 100 000 (172 ILI consultations).
- A total of 410 swabs were received from sentinel (40) and non-sentinel (370) surveillance.
- 194 influenza viruses were identified: B (69) including two B/Wisconsin/1/2010-like viruses, A(H3N2) (65), A (not sub-typed) (37), and A(H1N1)pdm09 (23) viruses.

INFLUENZA-LIKE ILLNESS SURVEILLANCE

In the past week, a total of 172 consultations for influenza-like illness were reported from 65 general practices in 18 out of 20 DHBs. This gives a weekly consultation rate of 47.1 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 almost at baseline level.

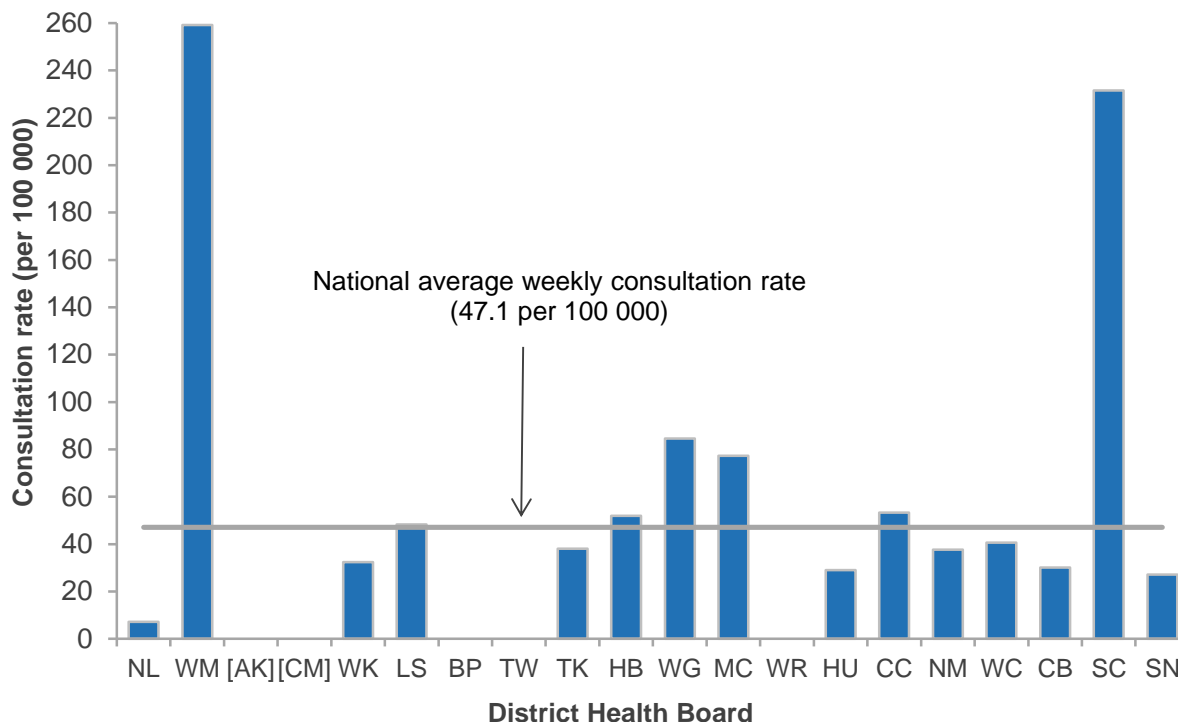
Figure 1. Weekly consultation rates for influenza-like illness in New Zealand, 2011, 2012 and 2013



* 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. Waitemata DHB had the highest consultation rate (259.2 per 100 000, 33 cases), followed by South Canterbury (231.6 per 100 000, 22 cases), and Whanganui (84.6 per 100 000, 4 cases).

Figure 2. Weekly consultation rates for influenza-like illness by DHB week ending 15 September 2013

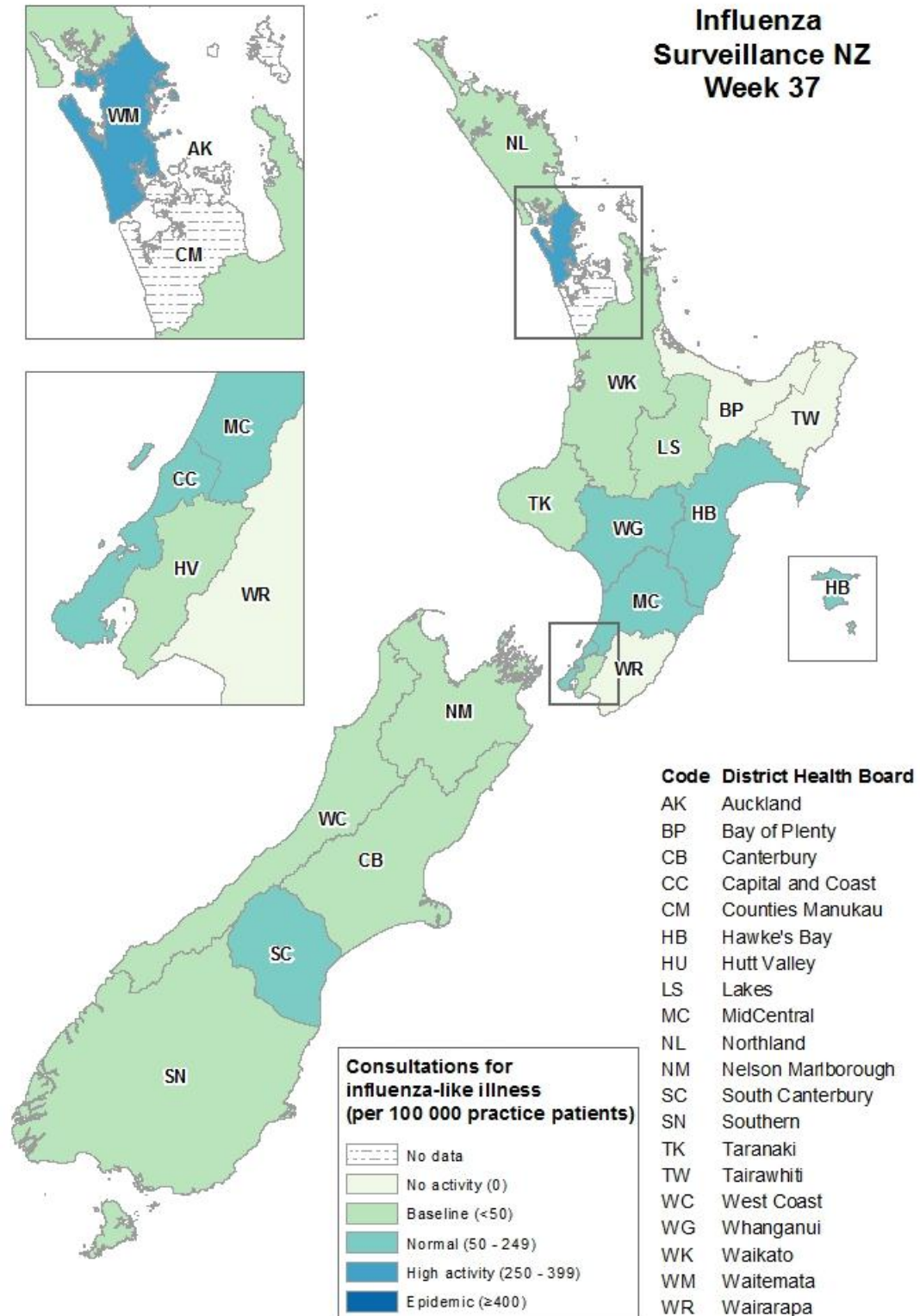


[] Not participating in the influenza sentinel surveillance.

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 37 were 193.1 per 100 000 and 25.2 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 37, 2013



VIROLOGICAL SURVEILLANCE

A total of 40 swabs were received by virology laboratories from sentinel surveillance. From these 14 viruses were identified (Figure 4): B (lineage not determined) (6), A(H3N2) (5), A(H1N1)pdm09 (2), and A (not sub-typed) (1). The distribution by DHB is shown in Table 1.

Figure 4. Total influenza viruses from sentinel surveillance by type and week reported, week 18–37

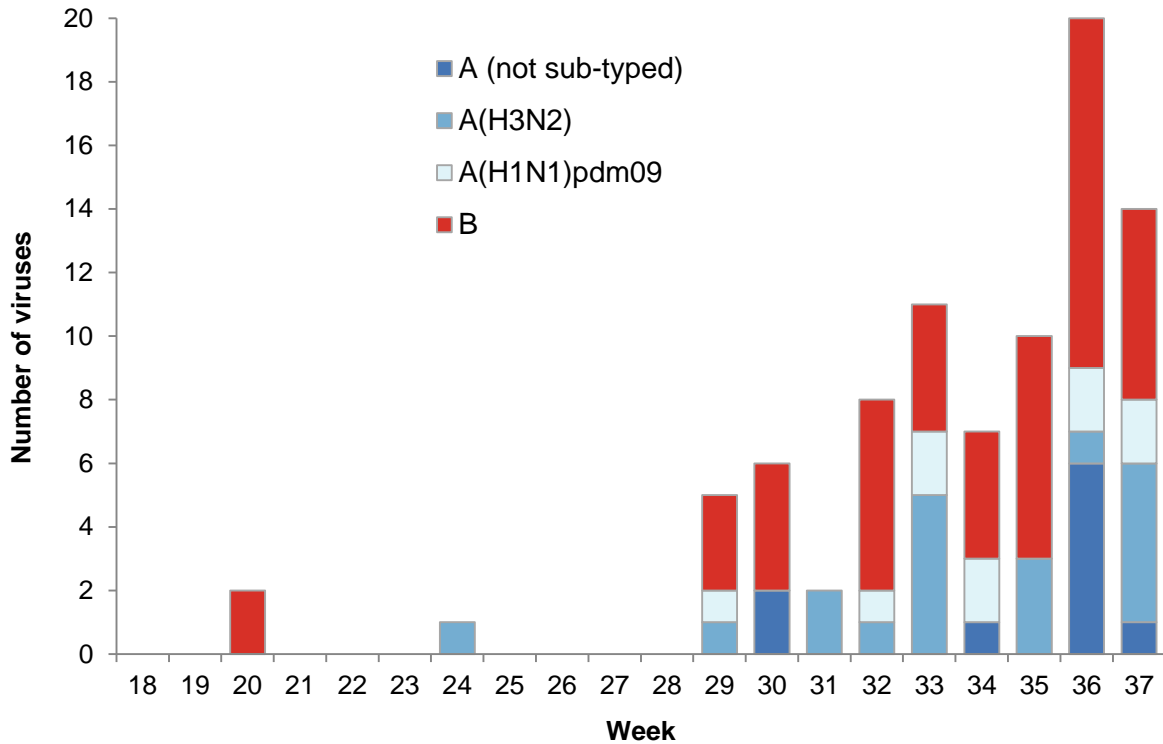


Table 1. Influenza viruses from sentinel surveillance for week 37 by DHB

Antigenic strain	DHB									Total
	WM	WK	TW	HB	WG	MC	CC	CB	SC	
A (not sub-typed)	0	0	0	0	0	0	1	0	0	1
A(H1N1)pdm09	0	0	0	0	0	0	1	0	1	2
A(H3N2)	1	1	0	1	1	0	0	1	0	5
B (lineage not determined)	0	0	1	1	0	1	1	2	0	6
Total	1	1	1	2	1	1	3	3	1	14

In addition, 370 swabs were received by virology laboratories from non-sentinel surveillance. From these, 180 influenza viruses were identified (Figure 5): B (lineage not determined) (61), A(H3N2) (60), A (not sub-typed) (36), A(H1N1)pdm09 (21), and B/Wisconsin/1/2010-like (2). The distribution by DHB is shown in Table 2.

Figure 5. Total influenza viruses from non-sentinel surveillance by type and week reported, week 18–37

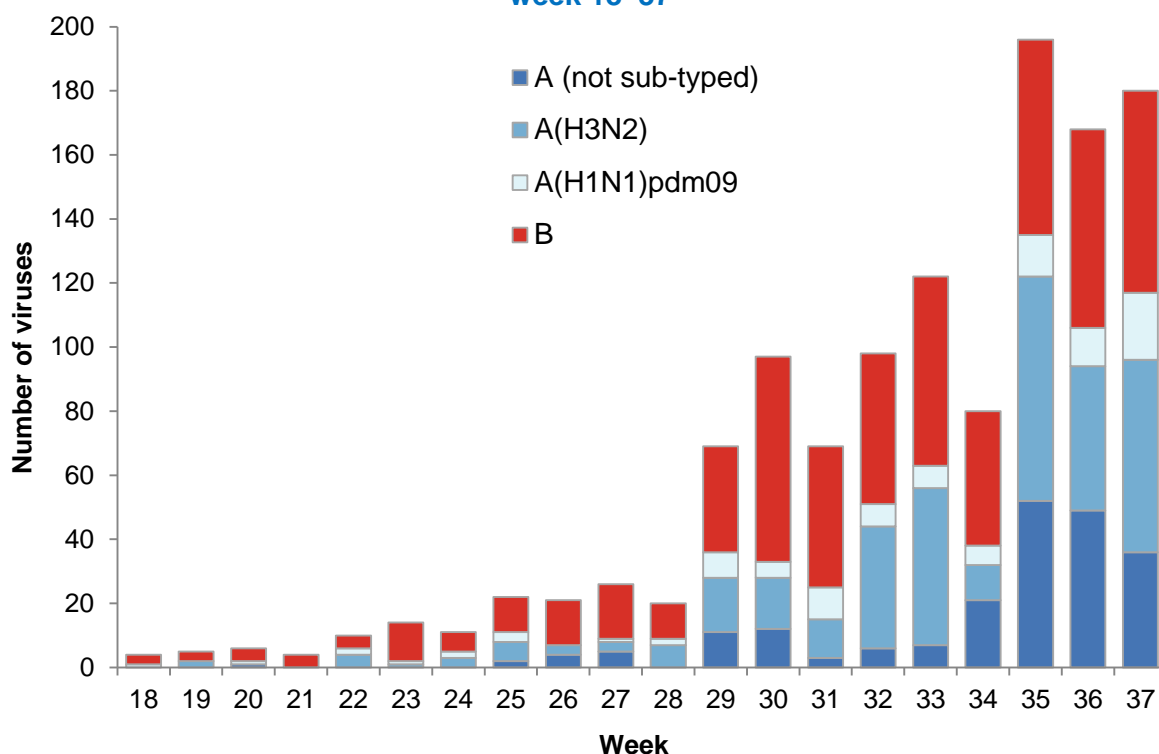
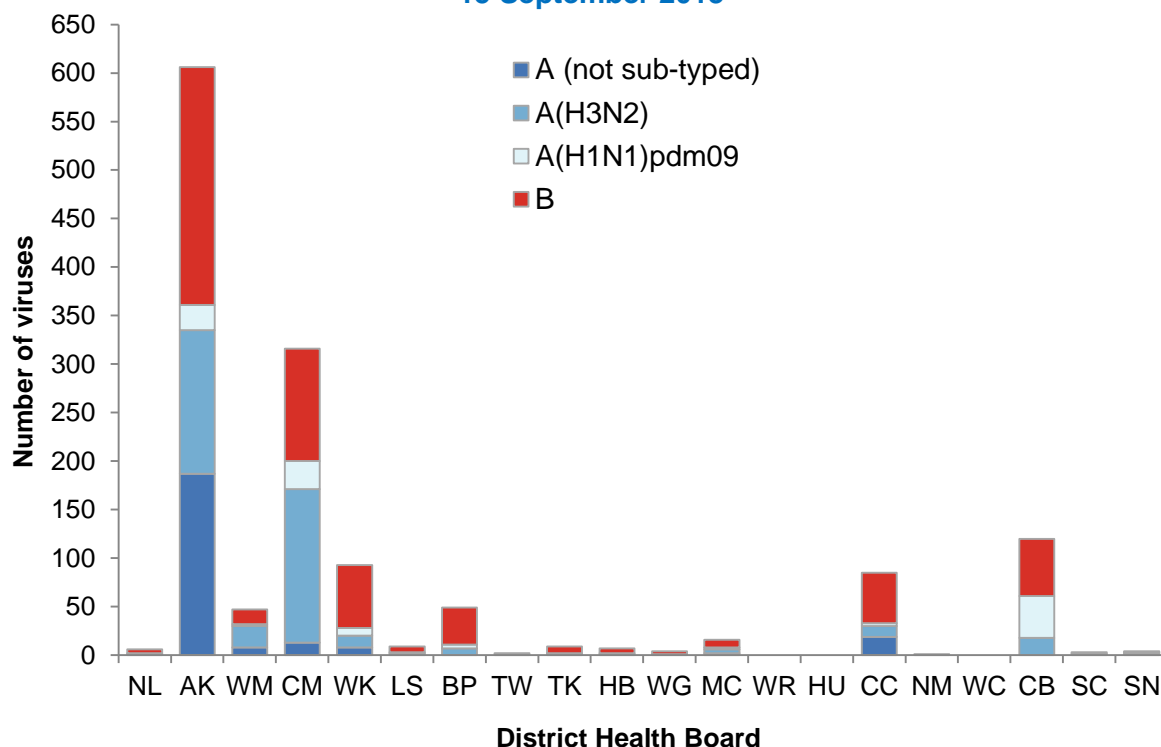


Table 2. Influenza viruses from non-sentinel surveillance for week 37 by DHB

Antigenic strain	DHB									Total
	WM	AK	CM	WK	LS	TK	CC	CB	SN	
A (not sub-typed)	0	27	2	2	1	0	4	0	0	36
A(H1N1)pdm09	0	0	4	1	0	0	0	16	0	21
A(H3N2)	3	14	34	6	0	0	0	3	0	60
B (lineage not determined)	1	20	8	13	0	2	5	11	1	61
B/Wisconsin/1/2010-like	0	2	0	0	0	0	0	0	0	2
Total	4	63	48	22	1	2	9	30	1	180

Figure 6 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 37 (15 September 2013). A total of 1377 influenza viruses were identified: B (627) including 156 B/Wisconsin/1/2010-like and five of B/Brisbane/60/2008-like viruses, A(H3N2) (385) including 88 A/Victoria/361/2011 (H3N2)-like viruses, A (not sub-typed) (242), and A(H1N1)pdm09 (123) including 32 A/California/7/2009 (H1N1)-like viruses.

Figure 6. Cumulative laboratory-confirmed viruses by DHB from week 1 to week 37, 15 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.

Antiviral susceptibility monitoring, WHO National Influenza Centre, Institute of Environmental Science and Research (ESR)

From 1 January–16 September 2013, antiviral susceptibility were tested for 355 influenza viruses: (37 A(H1N1)pdm09, 120 A(H3N2) and 198 influenza B) were tested for the neuraminidase inhibitor oseltamivir (Tamiflu) and none of them showed resistance to oseltamivir. In addition, 354 influenza viruses (37 A(H1N1)pdm09, 121 A(H3N2) and 196 influenza B) for the neuraminidase inhibitor zanamivir (Relenza) and none of them showed resistance to zanamivir.

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