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 31 (29 July–4 August 2013).

**Summary**
- ILI through sentinel surveillance was reported from 18 out of 20 District Health Boards (DHB) with a national consultation rate of 27.5 per 100,000 (104 ILI consultations).
- A total of 236 swabs were received from sentinel (32) and non-sentinel (204) surveillance.
- 63 influenza viruses were identified: B (40) including 10 B/Wisconsin/1/2010-like viruses, A(H3N2) (10) including one A/Victoria/361/2011 (H3N2)-like virus, A(H1N1)pdm09 (9), and A (not subtype) (4).

**INFLUENZA-LIKE ILLNESS SURVEILLANCE**

In the past week, a total of 104 consultations for influenza-like illness were reported from 67 general practices in 18 out of 20 DHBs. This gives a weekly consultation rate of 27.5 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.

* 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 (86.8 per 100 000, 6 cases), followed by Taranaki (59.8 per 100 000, 11 cases), and MidCentral (53.1 per 100 000, 11 cases).

Figure 2. Weekly consultation rates for influenza-like illness by DHB
week ending 4 August 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 31 were 151.5 per 100 000 and 38.9 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 31, 2013

Influenza Surveillance NZ
Week 31

Consultations for influenza-like illness (per 100,000 practice patients)

- No data
- No activity (0)
- Baseline (<50)
- Normal (50-249)
- High activity (250-399)
- Epidemic (>400)

Code  District Health Board
AK  Auckland
BP  Bay of Plenty
CB  Canterbury
CC  Capital and Coast
CM  Counties Manukau
HB  Hawke’s Bay
HU  Hutt Valley
LS  Lakes
MC  MidCentral
NL  Northland
NM  Nelson Marlborough
SC  South Canterbury
SN  Southern
TK  Taranaki
TW  Tairawhiti
WC  West Coast
WG  Whanganui
WK  Waikato
WM  Waiheke
WR  Wairarapa
VIROLOGICAL SURVEILLANCE

A total of 32 swabs were received by virology laboratories from sentinel surveillance. Of these five viruses were identified: A(H3N2) (2), B (lineage not determined) (2), and A(H1N1)pdm09 (1). The distribution by DHB is shown in Table 1.

Table 1. Influenza viruses from sentinel surveillance for week 31 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>DHB</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NL</td>
<td>WK</td>
</tr>
<tr>
<td>A(H1N1)pdm09</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A(H3N2)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B (lineage not determined)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition, 204 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 58 influenza viruses were identified: B (lineage not determined) (28), B/Wisconsin/1/2010-like (10), A(H1N1)pdm09 (8), A(H3N2) (7), A (not sub-typed) (4), and A/Victoria/361/2011 (H3N2) (1). The distribution by DHB is shown in Table 2.

Table 2. Influenza viruses from non-sentinel surveillance for week 31 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>DHB</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WM</td>
<td>AK</td>
</tr>
<tr>
<td>A (not sub-typed)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>A(H1N1)pdm09</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>A(H3N2)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>A/Victoria/361/2011 (H3N2)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B (lineage not determined)</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>B/Wisconsin/1/2010-like</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

Figure 4 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 31 (4 August 2013). A total of 455 influenza viruses were identified: B (252) including 64 B/Wisconsin/1/2010-like viruses and three of B/Brisbane/60/2008-like, A(H3N2) (88) including 15 A/Victoria/361/2011 (H3N2)-like viruses, A (not sub-typed) (69), and A(H1N1)pdm09 (46) including 15 A/California/7/2009 (H1N1)-like viruses.
Figure 4. Cumulative laboratory-confirmed viruses by DHB from week 1 to week 31, 4 August 2013

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

From 1 January–30 July 2013, antiviral susceptibility testing were conducted: 149 influenza viruses (22 A(H1N1)pdm09, 27 A(H3N2) and 100 influenza B) were tested for the neuraminidase inhibitor oseltamivir (Tamiflu) and none of them showed resistance to oseltamivir. In addition, 148 influenza viruses (22 A(H1N1)pdm09, 27 A(H3N2) and 99 influenza B) for the neuraminidase inhibitor zanamivir (Relenza) and none of them showed resistance to zanamivir.