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 on influenza-like illness (ILI) from sentinel general practice (GP) surveillance and non-sentinel surveillance for week 27 (2–8 July 2012).

**Summary**
ILI through sentinel surveillance was reported from 19 out of 20 District Health Boards (DHB) with a national consultation rate of 51.9 per 100,000 (193 ILI consultations). A total of 609 swabs were received from sentinel (59) and non-sentinel (550) surveillance. Two hundred and thirty-five influenza viruses were identified: A(H3N2) (167), A(H1N1)pdm09 (30), A (Not subtyped) (22), B (Lineage not determined) (12), and A/Perth/16/2009 (H3N2)-like (4).

**INFLUENZA-LIKE ILLNESS SURVEILLANCE**
In the past week, a total of 193 consultations for ILI were reported from 80 general practices in 19 out of 20 DHBs. This gives a weekly consultation rate of 51.9 per 100,000 patient population. Figure 1 shows the weekly national consultation rates for 2010, 2011 seasons, and 2012 to date. For the first time this year the current rate of ILI is above the baseline and follows the same trend as in 2011.

* 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 ILI for each DHB over the past week. Waitemata DHB had the highest consultation rate (206.4 per 100 000, 20 cases), followed by South Canterbury (103.7 per 100 000, 8 cases) and Canterbury (102.9 per 100 000, 73 cases). The following DHBs also had rates above the national average of 51.9 per 100 000: Auckland, Taranaki and Capital and Coast.

[ ] Not participating in the influenza surveillance
Figure 3: Consultation rates for ILI mapped by DHB for week 27, 2012

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 | Waitemata
WR | Wairarapa
A total of 59 swabs were received by virology laboratories from sentinel surveillance. Of these, 20 viruses were identified (Figure 4): A(H3N2) (15), A/Perth/16/2009 (H3N2)-like (3), A (Not subtyped) (1) and A(H1N1)pdm09 (1). The distribution by DHB is shown in Table 1.

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>AK</th>
<th>TK</th>
<th>CC</th>
<th>CB</th>
<th>SC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Not subtyped)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>A(H1N1)pdm09</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>A(H3N2)</td>
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<td>0</td>
<td>0</td>
<td>14</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>A/Perth/16/2009 (H3N2)-like</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Figure 4: Total influenza viruses from sentinel surveillance by type and week reported, week 18–27 and the total percentage positive from the swabs received

In addition, 550 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 215 viruses were identified (Figure 5): A(H3N2) (152), A(H1N1)pdm09 (29), A (Not subtyped) (21), B (Lineage not determined) (12) and A/Perth/16/2009 (H3N2)-like (1). The distribution by DHB is shown in Table 2.
Table 2: Influenza viruses from non-sentinel surveillance for week 27 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>AK</th>
<th>CM</th>
<th>WK</th>
<th>BP</th>
<th>HB</th>
<th>CC</th>
<th>NM</th>
<th>CB</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Not subtyped)</td>
<td>13</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>A(H1N1)pdm09</td>
<td>6</td>
<td>22</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>A(H3N2)</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>138</td>
<td>152</td>
</tr>
<tr>
<td>A/Perth/16/2009 (H3N2)-like</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>B (Lineage not determined)</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>37</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>141</td>
<td>215</td>
</tr>
</tbody>
</table>

Figure 5: Total influenza viruses from non-sentinel surveillance by type and week reported, week 18–27 and the total percentage positive from the swabs received.

Figure 6 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 27 (8 July 2012) in each DHB. A total of 460 influenza viruses were identified: influenza A(H3N2) (286) including 21 A/Perth/16/2009 (H3N2)-like viruses, B (53) including four of B/Brisbane/60/2008-like (belonging to the B/Victoria lineage) and 12 B/Wisconsin/1/2010-like viruses (belonging to the B/Yamagata lineage), A(H1N1)pdm09 (71) including eight A/California/7/2009 (H1N1)-like virus, and A (Not subtyped) (50). The highest numbers were from the Canterbury DHB, followed by Counties Manukau and Auckland DHBs.

The 2012 southern hemisphere winter influenza vaccine has the following composition: A/California/7/2009(H1N1)-like, A/Perth/16/2009(H3N2)-like and B/Brisbane/60/2008-like strains.
Figure 6: Cumulative laboratory-confirmed viruses by DHB from week 1 to week 27, 8 July 2012