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 (laboratory-based) for week 28 (12-18 July 2010).

SUMMARY OF THIS REPORT:

- Influenza-like illness (ILI) through sentinel surveillance was reported from 19 out of 20 District Health Boards (DHB) with a national consultation rate of 35.3 per 100,000 (119 ILI consultations).

- Three hundred and eighty-six swabs were received from sentinel (38) and non-sentinel surveillance (348). One hundred and four viruses were identified, 25 from sentinel: A (not sub-typed) (13) and pandemic (H1N1) 09 (12), and 79 from non-sentinel surveillance: pandemic (H1N1) 09 (52), A (not sub-typed) (26) and B (not typed) (1).

- Since January 2010, 150\(^1\) cases of pandemic (H1N1) 09 have been recorded in EpiSurv\(^3\), 61 of which were reported in week 28.

In the past week, a total of 119 consultations for influenza-like illness were reported from 80 general practices in 19 out of 20 DHBs. This gives a weekly consultation rate of 35.3 per 100,000 patient population.

The graph below compares the consultation rates for influenza-like illness for each DHB over the past week. Bay of Plenty DHB had the highest consultation rate (103.3 per 100,000, 4 cases), followed by South Canterbury (92.8 per 100,000, 9 cases) and Waikato (83.0 per 100,000, 15 cases) DHBs.

---

\(^1\) Otago and Southland DHBs now combined as Southern DHB.

\(^2\) Includes confirmed (137), probable (7), and under investigation (6) cases.

\(^3\) Data source: EpiSurv as of 22 July 2010.
Figure 1: Weekly consultation rates for influenza-like illness by DHB week ending 18 July 2010

[ ] No GP/practice participating in the sentinel surveillance.

Figure 2 shows the weekly national consultation rates for 2008, 2009 seasons, and 2010 to date. The current rate of influenza-like illness is below the baseline.

Figure 2: Weekly consultation rates for influenza-like illness in New Zealand, 2008, 2009 and 2010

* 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 3 illustrates consultation rates for influenza-like illness mapped by DHB for week 28, 2010.

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
Thirty-eight swabs were received by virology laboratories from sentinel surveillance. Of these, 25 influenza viruses were identified: A (not sub-typed) (13) and pandemic (H1N1) 09 (12). The distribution by DHB is shown in Table 1.

Table 1: Influenza viruses from sentinel surveillance for week 28 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>WM</th>
<th>AK</th>
<th>LS</th>
<th>BP</th>
<th>TK</th>
<th>CC</th>
<th>CB</th>
<th>SC</th>
<th>OT</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (not sub-typed)</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Pandemic (H1N1) 09</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

In addition, 348 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 79 influenza viruses were identified: pandemic (H1N1) 09 (52), A (not sub-typed) (26) and B (not typed) (1). The distribution by DHB is shown in Table 2.

Table 2: Influenza viruses from non-sentinel surveillance for week 28 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>AK</th>
<th>CM</th>
<th>WK</th>
<th>LS</th>
<th>BP</th>
<th>TK</th>
<th>CC</th>
<th>CB</th>
<th>SC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (not sub-typed)</td>
<td>18</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>B (not typed)</td>
<td>0</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>
<td>1</td>
</tr>
<tr>
<td>Pandemic (H1N1) 09</td>
<td>21</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>39</td>
<td>11</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>79</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 28 (18 July 2010). A total of 198 influenza viruses were identified: pandemic (H1N1) 09 (130), A (not sub-typed) (65), B (not typed) (2) and seasonal A (H3N2) (1).

**Figure 4: Cumulative laboratory-confirmed viruses by DHB from week 1 to week 28, 18 July 2010**

*Note: Viruses from Auckland without DHB codes have been temporarily assigned to Auckland (AK).*

Compiled by:
Liza Lopez
Population and Environmental Health
ESR Kenepuru Science Centre
PO Box 50 348, PORIRUA
Tel: 04 914 0647 Fax: 04 978 6690 Email:liza.lopez@esr.cri.nz

Dr. Sue Huang
WHO National Influenza Centre
ESR Wallaceville Science Centre
PO Box 40158, Upper Hutt