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 24 (13 - 19 June 2011).

SUMMARY OF THIS REPORT:

Influenza-like illness (ILI) through sentinel surveillance was reported from all 20 District Health Boards (DHB) with a national consultation rate of 26.5 per 100 000 (100 ILI consultations). Fifty-seven swabs were received from sentinel (30) and non-sentinel surveillance (27). Nine viruses were identified from sentinel and 12 viruses from the non-sentinel surveillance: B (14), A (not sub-typed) (3), A (H3N2) (2) and pandemic A (H1N1) 09 (2).

INFLUENZA-LIKE ILLNESS SURVEILLANCE

In the past week, a total of 100 consultations for influenza-like illness were reported from 81 general practices in all 20 DHBs. This gives a weekly consultation rate of 26.5 per 100 000 patient population.

The graph below compares the consultation rates for influenza-like illness for each DHB over the past week. Wairarapa DHB (83.5 per 100 000, 2 cases) had the highest consultation rate, followed by Bay of Plenty (79.0 per 100 000, 3 cases) and Capital and Coast (54.5 per 100 000, 12 cases).

Figure 1: Weekly consultation rates for influenza-like illness by DHB week ending 19 June 2011
Figure 2 shows the weekly national consultation rates for 2009, 2010 seasons, and 2011 so far. The current rate of influenza-like illness is below the baseline.

* 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 maps the consultation rates for influenza-like illness by DHB.

**Figure 3: Consultation rates for influenza-like illness mapped by DHB for week 24, 2011**
VIROLOGICAL SURVEILLANCE

A total of 30 swabs were received by virology laboratories from sentinel surveillance. Of these, nine viruses were identified: B (5), A (not sub-typed) (2) and pandemic A (H1N1) 09 (2) (Figure 4). The distribution by DHB is shown in Table 1.

**Table 1: Influenza viruses from sentinel surveillance for week 24 by DHB**

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>AK</th>
<th>HB</th>
<th>MC</th>
<th>HU</th>
<th>CC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (not sub-typed)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Pandemic A (H1N1) 09</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

Figure 4: Total influenza viruses from sentinel surveillance by type and week reported, weeks 18–24 and the total percentage positive from the swabs received

In addition, 27\* swabs were received by virology laboratories from non-sentinel surveillance. Of these, 12 viruses were identified (Figure 5): B (9), A (H3N2) (2) and A (not sub-typed) (1). The distribution by DHB is shown in Table 2.

**Table 2: Influenza viruses from non-sentinel surveillance for week 24 by DHB**

<table>
<thead>
<tr>
<th>Strain</th>
<th>AK</th>
<th>CM</th>
<th>WK</th>
<th>BP</th>
<th>TW</th>
<th>WG</th>
<th>CC</th>
<th>CB</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (H3N2)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>A (not sub-typed)</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>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>12</td>
</tr>
</tbody>
</table>
Figure 5: Total influenza viruses from non-sentinel surveillance by type and week reported, weeks 18–24 and the total percentage positive from the swabs received.

*One virology laboratory did not report the number of swabs received for week 24 (affects the isolation rate).

Figure 6 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 24 (19 June 2011). A total of 89 influenza viruses were identified: influenza B (39) including five of B/Brisbane/60/2008 - like viruses, pandemic (H1N1) 09 (26) including four A/California/7/2009 (H1N1) - like virus, A (H3N2) (16) including one A/Perth/16/2009 (H3N2) – like virus, and A (not sub-typed) (8). The current circulating influenza strains are all covered by the 2011 influenza vaccine.

Figure 6: Cumulative laboratory-confirmed viruses by DHB from week 1 to week 24, 19 June 2011

Compiled by:
Liza Lopez
Health Intelligence Team
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