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 25 (20 - 26 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 30.5 per 100 000 (116 ILI consultations). One hundred and eighty-one swabs were received from sentinel (29) and non-sentinel surveillance (152). Twenty-eight viruses were identified from sentinel (7) and non-sentinel surveillance (21): B (19), A (H3N2) (6) and A (not sub-typed) (3).

**INFLUENZA-LIKE ILLNESS SURVEILLANCE**

In the past week, a total of 116 consultations for influenza-like illness were reported from 84 general practices in all 20 DHBs. This gives a weekly consultation rate of 30.5 per 100 000 patient population.

The graph below compares the consultation rates for influenza-like illness for each DHB over the past week. MidCentral DHB (92.6 per 100 000, 27 cases) had the highest consultation rate, followed by Capital and Coast (54.5 per 100 000, 12 cases) and Hutt Valley (40.5 per 100 000, 14 cases).

**Figure 1: Weekly consultation rates for influenza-like illness by DHB week ending 26 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 25, 2011**

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**
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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
VIROLOGICAL SURVEILLANCE

A total of 29 swabs were received by virology laboratories from sentinel surveillance. Of these, seven viruses were identified: B (5), A (H3N2) (1) and A (not sub-typed) (1) (Figure 4). The distribution by DHB is shown in Table 1.

Table 1: Influenza viruses from sentinel surveillance for week 25 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>AK</th>
<th>HB</th>
<th>MC</th>
<th>CC</th>
<th>SN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (H3N2)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>A (not sub-typed)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 4: Total influenza viruses from sentinel surveillance by type and week reported, weeks 18–25 and the total percentage positive from the swabs received

In addition, 152 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 21 viruses were identified: B (14), A (H3N2) (5) and A (not sub-typed) (2) (Figure 5). The distribution by DHB is shown in Table 2.

Table 2: Influenza viruses from non-sentinel surveillance for week 25 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>WM</th>
<th>AK</th>
<th>CM</th>
<th>WK</th>
<th>MC</th>
<th>CC</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>4</td>
<td>5</td>
</tr>
<tr>
<td>A (not sub-typed)</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>
Figure 5: Total influenza viruses from non-sentinel surveillance by type and week reported, weeks 18–25 and the total percentage positive from the swabs received.

<table>
<thead>
<tr>
<th>Type</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
</tr>
</thead>
<tbody>
<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>0</td>
<td>2</td>
</tr>
<tr>
<td>A (H3N2)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Pandemic A (H1N1) 09</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>
</tr>
</tbody>
</table>

Proportion positive for influenza

Figure 6 shows the cumulative total of influenza viruses confirmed (sentinel and non-sentinel surveillance) from week 1 to the end of week 25 (26 June 2011). A total of 117 influenza viruses were identified: influenza B (58) including nine of B/Brisbane/60/2008 - like viruses, pandemic (H1N1) 09 (26) including four A/California/7/2009 (H1N1) - like virus, A (H3N2) (24) including five A/Perth/16/2009 (H3N2) - like virus, and A (not sub-typed) (9). 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 25, 26 June 2011

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