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 29 (19-25 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 44.5 per 100 000 (156 ILI consultations).

- A total of 455 swabs were received from sentinel (62) and non-sentinel surveillance (393). Of these, 117 influenza viruses have been reported through sentinel (15, 13%) and non-sentinel surveillance (102, 87%). The majority of the viruses were pandemic (H1N1) 09 (83, 71%).

- Since January 2010, 241 cases of pandemic (H1N1) 09 have been recorded in EpiSurv, 91 of which were reported in week 29.

In the past week, a total of 156 consultations for influenza-like illness were reported from 82 general practices in 19 out of 20 DHBs. This gives a weekly consultation rate of 44.5 per 100 000 patient population.

The graph below compares the consultation rates for influenza-like illness for each DHB over the past week. Lakes DHB had the highest consultation rate (198.6 per 100 000, 7 cases), followed by Counties Manukau (168.6 per 100 000, 2 cases) and Whanganui (81.7 per 100 000, 7 cases) DHBs.

---

1 Otago and Southland DHBs now combined as Southern DHB.
2 Includes confirmed (226), probable (8), and under investigation (7) cases.
3 Data source: EpiSurv as of 29 July 2010.
Figure 1: Weekly consultation rates for influenza-like illness by DHB week ending 25 July 2010

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 29, 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
A total of 62 swabs were received by virology laboratories from sentinel surveillance. Of these, 15 influenza viruses were identified: A (not sub-typed) (8), pandemic (H1N1) 09 (6) and A/California/7/2009 (H1N1)v\(^4\) (1). The distribution by DHB is shown in Table 1.

### Table 1: Influenza viruses from sentinel surveillance for week 29 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>NL</th>
<th>AK</th>
<th>WK</th>
<th>LS</th>
<th>CB</th>
<th>CC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (not sub-typed)</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>A/California/7/2009 (H1N1)v</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>Pandemic (H1N1) 09</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>15</td>
</tr>
</tbody>
</table>

In addition, 393 swabs were received by virology laboratories from non-sentinel surveillance. Of these, 102 influenza viruses were identified: pandemic (H1N1) 09 (75), A (not sub-typed) (24), A/California/7/2009 (H1N1)v (2) and B (not typed) (1). The distribution by DHB is shown in Table 2.

### Table 2: Influenza viruses from non-sentinel surveillance for week 29 by DHB

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>NL</th>
<th>WM</th>
<th>AK</th>
<th>CM</th>
<th>WK</th>
<th>LS</th>
<th>TK</th>
<th>BP</th>
<th>HB</th>
<th>MC</th>
<th>HU</th>
<th>CC</th>
<th>CB</th>
<th>SC</th>
<th>SN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (not sub-typed)</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A/California/7/2009 (H1N1)v</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</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>0</td>
<td>0</td>
<td>0</td>
<td>2</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>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>0</td>
<td>1</td>
<td>23</td>
<td>0</td>
<td>19</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>1</td>
<td>35</td>
<td>2</td>
<td>25</td>
<td>2</td>
<td>2</td>
<td>14</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>102</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 29 (25 July 2010). A total of 315 influenza viruses were identified: pandemic (H1N1) 09 (225) including 23 of pandemic influenza A/California/7/2009 (H1N1)v - like strains, A (not sub-typed) (86), B (not typed) (3) and seasonal A (H3N2) (1).

---

\(^4\) A/California/7/2009 (H1N1)v -like strain is a pandemic (H1N1) 2009 virus. Representative pandemic influenza (H1N1) 09 PCR positive samples were further antigenically typed by hemagglutination inhibition assay using ferret antisera against A/California/7/2009 (H1N1)v.
Figure 4: Cumulative laboratory-confirmed viruses by DHB from week 1 to week 29, 25 July 2010

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

Compiled by:
Liza Lopez      Dr. Sue Huang
Population and Environmental Health    WHO National Influenza Centre
ESR Kenepuru Science Centre    ESR Wallaceville Science Centre
PO Box 50 348, PORIRUA     PO Box 40158, Upper Hutt
Tel : 04 914 0647  Fax: 04 978 6690  Email:liza.lopez@esr.cri.nz