**KEY POINTS**

**INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)**

**Summary:** Influenza notifications and percent positivity are gradually trending upwards, although levels remain relatively low for this time of year. Hospitalisations with influenza remain lower than the average of recent seasons.

- ILI presentations at sentinel GPs increased slightly this week, while presentations to sentinel EDs fell after experiencing a sharp increase last week.
- PathWest laboratory detections have increased gradually over recent weeks. Influenza A/H3N2 virus remains predominant, comprising 59% of PathWest detections, but influenza A/H1N1 detections increased this week (25%) and influenza B remains relatively steady (16%).
- Influenza-related hospitalisations are below average levels for this time of year; and are primarily attributable to influenza A/H3N2 virus.
- RSV and overall non-influenza respiratory virus activity continues to decrease.

**GASTROENTERITIS**

- Gastroenteritis activity at sentinel GPs and EDs remains low and is fluctuating around expected values for this time of year.
- Rotavirus and norovirus activity is low and decreasing.

**VARICELLA AND OTHER VACCINE-PREVENTABLE VIRAL DISEASES**

- Shingles and chickenpox activity at sentinel GPs and EDs continues to fluctuate around baseline levels.
- **Rubella:** no cases have been confirmed in WA since two imported cases in early April.
- **Measles:** a fourth case was confirmed this week in a student from the Perth Waldorf School. All four cases were unvaccinated. The index case was infected in Italy.
- **Mumps:** two cases were confirmed in the past week, including a traveller returned from Japan.

Routine influenza detections are gradually trending upwards, whilst ILI presentations to WA ASPREN sentinel GPs have been fluctuating at around 8 ILI/1000 consultations for several weeks. Of the 20 samples submitted for influenza testing by sentinel GPs this week, 9 (45%) tested positive for influenza.

The rate of ILI presentations to WA ASPREN sentinel GPs has been fluctuating at around 8 ILI/1000 consultations for several weeks.
The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for respiratory viral presentations.

**Viral Respiratory ED Presentations and Admissions**

Respiratory viral presentations to sentinel EDs decreased this week but remain moderately high, whilst admissions increased slightly.

**ED Respiratory Viral Presentations, 2013-2017**

The number of respiratory viral presentations to sentinel EDs fell slightly, but remains in the mid range of values typically observed during this time period in recent years.
The number of influenza notifications received by the Department of Health are gradually trending upwards; however the current levels are relatively low for this time of the year. The graph is a summary of all influenza notifications received by the DoH, Western Australia to the end of the current reporting week, for which cases had date of symptom onset or specimen collection between 14/08/2017 and 20/08/2017. The seasonal threshold defines a value above which indicates epidemic seasonal influenza activity. The threshold value is calculated based on analysis of seasonal influenza data from the past eight years (excluding the pandemic year in 2009).

The number of influenza cases hospitalised, subject to corrections for reporting lag, remains well below average levels for this period. Of the 62 hospitalised cases in the past week, there were 29 (47%) influenza A/H3N2; 13 (21%) influenza A/unsubtyped; 11 (18%) influenza A/H1N1; 5 (8%) influenza B; and 4 (6%) unsubtyped samples.
The hospital admission rate of laboratory-confirmed influenza has been relatively stable over recent weeks, and remains well below average levels for this period, subject to correction of the most recent week’s data due to a lag in reporting.

The graph is a summary of influenza notifications received by the DoH who were recorded as having a hospital admission, expressed per 1,000 admissions. Data for the current reporting week may be incomplete.

The percentage of specimens testing positive for influenza virus by PathWest increased, but remains in the lower range of values observed during this time period in recent years. Of 349 routinely collected specimens, 61 (17%) tested positive in the past week.
Seventy three specimens were subtyped by PathWest during this reporting week; 44 (59%) influenza A/H3N2; 18 (25%) influenza A/H1N1; and 12 (16%) influenza B.

The graph is a summary of all samples that have been recorded as subtyped at PathWest as of Wednesday 23rd August 2017. The number subtyped may not always correspond to the number of influenza detections.

Overall non-influenza respiratory virus activity continued to decrease, largely due to declining RSV levels.
The number of gastroenteritis presentations to sentinel GPs remained low this week.

The following is a summary of current Emergency Department Sentinel Surveillance (EDSS) data for gastroenteritis presentations. Baseline levels for gastroenteritis presentations were calculated using the mean of weekly EDIS data from week 1, 2011 to week 52, 2016.

**Gastroenteritis ED Presentations**

<table>
<thead>
<tr>
<th>Week ending</th>
<th>No. of gastro presentations</th>
<th>No. of presentations admitted</th>
<th>Baseline gastro presentations (2012-2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/07/17</td>
<td>168</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>9/07/17</td>
<td>182</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>16/07/17</td>
<td>163</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>23/07/17</td>
<td>165</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>30/07/17</td>
<td>152</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>6/08/17</td>
<td>133</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>13/08/17</td>
<td>132</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>20/08/17</td>
<td>142</td>
<td>28</td>
<td>28</td>
</tr>
</tbody>
</table>

Gastroenteritis presentations and admissions to sentinel EDs remain stable and below baseline level this week.
The number of gastroenteritis presentations to sentinel EDs remains around average levels for this time of year.

Rotavirus and norovirus activity remains low this week.
Viral Rashes

Shingles and chickenpox activity reported by WA ASPREN sentinel GPs remained below baseline levels this week.
Baseline levels for chickenpox and shingles presentations to WA ASPREN GPs per thousand consultations were calculated using the mean of weekly WA ASPREN data from week 1, 2012 to week 52, 2016.

The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for varicella-zoster virus presentations. Baseline levels for varicella-zoster virus presentations were calculated using the mean of weekly EDIS data from week 1, 2012 to week 52, 2016.

Varicella-Zoster virus ED Presentations

Shingles and chickenpox activity at sentinel EDs remain at baseline levels this week.