WEEK ENDING 23RD JUNE 2019

KEY POINTS

INFLUENZA AND INFLUENZA-LIKE ILLNESSES (ILI)

Summary: Indicators of influenza activity decreased this week following sharp increases since early May, but remain well above levels usually reported at the peak of the influenza season in WA.

- ILI activity at sentinel GPs and EDs remains well above levels normally reported during influenza season.
- PathWest influenza detections and test percent positivity continue to be above levels usually seen at this time of year.
- Influenza A/H3N2 comprised the largest proportion of influenza detections at Pathwest this week (44%) followed by influenza A/unsubtyped (38%), and influenza B (17%).
- Overall non-influenza activity decreased this week, mostly due to a decrease in RSV detections.

GASTROENTERITIS

- The number of gastroenteritis presentations to sentinel EDs is in the higher range of values normally reported at this time of year.
- PathWest laboratory detections of norovirus and rotavirus remain at low levels.

OTHER VACCINE-PREVENTABLE DISEASES

- Shingles and chickenpox: Chickenpox and shingles activity at sentinel EDs was above baseline levels this week.
- Measles: No measles cases confirmed this week.
- Mumps: No mumps cases notified this week.
- Rubella: No rubella cases notified this week.
- Invasive meningococcal disease (IMD): No IMD cases notified this week.

Virus WAtch is a weekly electronic publication by the Communicable Disease Control Directorate (CDCD) and key collaborators. It provides a brief summary of General Practice and Hospital Emergency Department sentinel surveillance data on influenza-like illness, gastroenteritis and varicella-zoster disease, together with relevant laboratory information, to alert health care workers in WA to important circulating viruses. All figures and data were accurate at time of publication, but subject to change. The data collections used to create this publication include:

- Sentinel General Practice data collected by WA members of the Australian Sentinel Practices Research Network (ASPREN)
- Emergency Department data provided by the Emergency Department Information System (EDIS), which currently incorporates data from the following hospitals: Fiona Stanley Hospital, Sir Charles Gardiner Hospital, Royal Perth Hospital, Perth Children’s Hospital, King Edward Memorial Hospital, St John of God Midland, Bunbury Hospital, Armadale Hospital, Joondalup Health Campus, and Rockingham General Hospital.
- Notification data derived from disease notifications received by CDCD, WA Department of Health from medical providers and public or private laboratories in WA. These data are updated routinely to include admission status for all public and public/private hospitals in WA and hospitalisation data are included in the report during the influenza season.
- Viral laboratory data obtained from PathWest laboratories at QEII Medical Centre, as well as via notification data sent by all WA laboratories to CDCD, WA Department of Health.
The number of routine PathWest influenza detections continued to decline this week. Twelve of the 21 samples (57%) submitted for influenza testing by sentinel GPs tested positive.

Australian Sentinel Practices Research Network WA - GP surveillance
Rate of ILI per 1000 consultations, 2015-2019

The rate of ILI presentations remains above levels usually reported during this time of year.
The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for respiratory viral presentations.

Respiratory presentations to sentinel EDs remain high.

The number of respiratory viral presentations to sentinel EDs remains well above levels normally reported during influenza season.

This graph is a summary of presentations at Emergency Department sentinel surveillance (EDSS) sites. This data may differ from hospital attendance and admission data prepared by the Information and Performance Governance Unit using different ICD codes.
The number of influenza hospitalisations declined again this week, following previous early high activity this season.

The graph is a summary of influenza notifications received by the DoH who were recorded as having a hospital admission to the end of the current reporting week, for which cases had a specimen collection date between 17/06/2019 and 23/06/2019. Paediatric notifications were defined as individuals less than 18 years of age.

Influenza notifications in Western Australia by week, 2015 to 2019

Influenza notifications reported to the Department of Health decreased this week, but remain much higher than peaks of previous seasons.

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 17/06/2019 and 23/06/2019. The seasonal threshold defines a value above which may indicate epidemic seasonal influenza activity. The threshold value is calculated based on analysis of seasonal influenza data from the past four years.
The percentage of specimens positive for influenza virus at PathWest remains above levels typically reported at this time of year. Of 842 specimens, 298 (35%) tested positive in the past week. The graph is a summary of all WA samples reported by PathWest as of Wednesday 26th of June 2019, excluding samples referred by other private laboratories for influenza subtyping.

Influenza Types and Subtypes, 2018-2019

Two hundred and ninety-eight samples were subtyped by PathWest during this reporting week; 2 (<1%) influenza A/H1N1; 132 (44%) influenza A/H3N2; 112 (38%) influenza A/unsubtyped; 52 (17%) influenza B.

The graph is a summary of all WA samples positive for influenza reported at PathWest as of Wednesday 26th of June 2019, excluding samples referred by other private laboratories for influenza subtyping.
Overall non-influenza activity fell again this week, mostly due to a decrease in RSV detections. The graph is a summary of all WA samples positive for a common respiratory virus other than influenza reported at PathWest as of Wednesday 26th of June 2019.

Gastroenteritis

Australian Sentinel Practices Research Network - GP surveillance
Rate of gastroenteritis per 1000 consultations, 2015-2019

The number of gastroenteritis presentations to sentinel GPs is in the mid-range of values normally reported at this time of year.
The following is a summary of current Emergency Department Sentinel Surveillance (EDSS) data for gastroenteritis presentations. Baseline levels for gastroenteritis presentations and admissions were calculated using the mean of weekly EDIS data from week 1, 2015 to week 52, 2018.

Gastroenteritis presentations to sentinel EDs decreased this week, however admissions remained above baseline level.

The number of gastroenteritis presentations to sentinel EDs remains in the upper range of values normally reported at this time of year.
Shingles activity reported by WA ASPREN GPs was above baseline 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, 2015 to week 52, 2018.

The following is a summary of current Emergency Department sentinel surveillance (EDSS) data for varicella-zoster virus presentations.

### Varicella-Zoster Virus GP Presentations

<table>
<thead>
<tr>
<th>Week ending</th>
<th>No. of chickenpox/1000 consults</th>
<th>No. of shingles/1000 consults</th>
</tr>
</thead>
<tbody>
<tr>
<td>28/04/19</td>
<td>0.7</td>
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<tr>
<td>12/05/19</td>
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<td>0.0</td>
</tr>
<tr>
<td>19/05/19</td>
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<td>0.0</td>
</tr>
<tr>
<td>26/05/19</td>
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<td>0.0</td>
</tr>
<tr>
<td>02/06/19</td>
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<tr>
<td>09/06/19</td>
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### Varicella-Zoster virus ED Presentations

<table>
<thead>
<tr>
<th>Week ending</th>
<th>No. of chickenpox presentations</th>
<th>No. of shingles presentations</th>
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<tr>
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<tr>
<td>16/06/19</td>
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</tr>
<tr>
<td>23/06/19</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Chickenpox and shingles presentations at sentinel EDs were above baseline levels this week. Baseline levels for varicella-zoster virus presentations were calculated using the mean of weekly EDIS data from week 1, 2015 to week 52, 2018.