Clark County Influenza Surveillance Update

CDC Week 18 (April 30—May 6)

NOTE: All data are preliminary and may change as more reports are received. As influenza season begins and ends, the number of tests conducted will be smaller than at times of peak activity; therefore, the reliability of positivity figures may decrease as a result. **Due to the low number of influenza tests and positive results, surveillance will be discontinued for Cowlitz County after Week 15 and Clark County after Week 18, to prevent misrepresentation of flu activity in the county.**

**Summary**

- In Week 18, influenza positivity in Clark County rose to 13.6%.
- Washington State reported 5.0% of influenza tests as positive in Week 18, while national positivity levels were at 6.7%.
- Reported ILI at the state and national level during Week 18 was at 0.3% and 1.6%, respectively.
- In Week 18, Washington state and Oregon reported “local” influenza activity. Most states across the U.S. reported “local” or “sporadic” influenza activity.

**Laboratory Data from Reporting Laboratories**

The positivity rate is the percent of influenza tests done by reporting laboratories for this influenza season that are positive. Historically, the CDC has used ≥10% positivity to define flu seasons for modeling studies and for calculating influenza-like-illness baselines.

<table>
<thead>
<tr>
<th>CDC Week</th>
<th>Date Range</th>
<th>A (H1)</th>
<th>A (2009 H1N1)</th>
<th>A (H3)</th>
<th>A (not sub-typed)</th>
<th>Type B</th>
<th>Total influenza</th>
<th>No. Tested</th>
<th>Positivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>4/16—4/22</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>97</td>
<td>8.2%</td>
</tr>
<tr>
<td>17</td>
<td>4/23—4/29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>96</td>
<td>5.2%</td>
</tr>
<tr>
<td>18</td>
<td>4/30—5/6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>14</td>
<td>103</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

**Positivity Rate of Influenza Tests by Week from Reporting Laboratories in Cark County**
Reporting laboratories also report what strain of influenza came back positive. The colored bars represent how much of each strain of influenza is being reported while the black line is the percent of reported lab tests being positive. During Week 18, CDC reported 6.7% of influenza tests as positive, while Washington State reported a 5.0% positivity rate. These influenza positivity rates were both lower than Clark County’s positivity rate of 13.6%
2016-2017 influenza vaccines include either 3 or 4 strains of influenza. The trivalent vaccines cover the influenza A (H1N1), influenza A (H3N2 Hong Kong), and influenza B (Victoria lineage) strains, while the quadrivalent vaccines include an additional influenza B (Yamagata lineage) strain.

As influenza season continues, CDC antigenically characterizes a portion of influenza viruses it receives to see how well they match the vaccine strains. For the more details, visit CDC’s FluView website. From October 1, 2016 to May 6, 2017, CDC has characterized 1,652 influenza viruses. Of those, 1,583 (96%) were virus strains antigenically similar to those included in either the trivalent or quadrivalent 2016-2017 seasonal influenza vaccine. Below is a figure illustrating viruses characterized by CDC and those included in the seasonal vaccine (hatched).

Starting in mid-February, the CDC also begins releasing the results of vaccine-effectiveness trials that are conducted throughout the current influenza season. While these numbers will change over the coming weeks, the initial report indicates an overall vaccine effectiveness of 48%. The most recent report, including more detailed information on the CDC’s vaccine effectiveness study, can be found here.

Influenza-like-Illness (ILI)

Sentinel Provider Data are the percent of patient visits to a clinic that meet the case definition for influenza-like illness (ILI). ILI is defined as fever ≥ 100° F or 37.8° C (oral or equivalent) AND cough and/or sore throat (in the absence of a known cause other than influenza). During Week 18, National ILI patient visits remained elevated at 1.6%, while Washington influenza-like-illness was at 0.3%, below the baseline of 1.1%
Avian Influenza

Since August 2016, avian influenza in birds/poultry has been reported in India, China, Europe, Japan and Europe. In humans, the majority of avian influenza H5N1 cases have been reported out of Egypt, while China has reported H7N9 human cases since the spring of 2013. In February 2017, a low-pathogenic strain of avian influenza H7N2 was identified in over 450 cats housed in several New York City shelters, with one human case identified as a result. Also within the United States, a highly pathogenic, H7 strain of avian influenza was identified in a large-scale chicken facility in Tennessee in early March 2017, resulting in the destruction of 73,300 birds as a result. Similarly, H7N9 avian influenza outbreaks in commercial poultry flocks have been identified in Kentucky, Alabama, and Georgia this spring.

H7N9 in China

Chinese health authorities and the World Health Organization have confirmed 1393 reports of lab-diagnosed cases since the disease was first identified in humans in March 2013. Since then, human H7N9 activity has generally followed the seasonal influenza cycle, and can cause considerable mortality among infected persons (~40%). On January 27, the CDC issued a travel warning in response to the unusually active H7N9 avian influenza strain in China, and on February 20, the WHO confirmed that an additional 304 cases were identified between January 19 and February 14, 2017, making this season the most prolific for the disease to date.

MERS-CoV

December and January have shown increases in MERS-CoV activity in the Arabian peninsula. Since the start of surveillance in 2012, there have been 1579 laboratory confirmed cases and 660 deaths, for a fatality rate of nearly 42%. Thus far in 2017, 71 new cases have been identified in Saudi Arabia alone.

Measles

A report published by the World Health Organization indicated that nearly 400 children still die from measles every day, many of which have fallen through the cracks in vaccination efforts. A majority of these deaths originate in African and Asian nations such as Ethiopia, India, the Democratic Republic of Congo, and Pakistan. Despite these statistics, the report also noted the progress made in combatting the disease, with increases in routine measles vaccination resulting in a 79% decrease in measles deaths worldwide, saving an estimated 20.3 million lives since 2000.
Influenza in Local News

Severe flu season winding down: More flu-associated deaths in Clark County than in past years

With 207 deaths so far, one of Washington’s worst flu seasons may be subsiding

Current Flu Season Washington’s Deadliest Since 2010, Officials Say

Clark County flu levels remain elevated

Flu hospitalizations set new record in Portland area

Resources on Influenza Activity in Washington and Nationwide

National influenza surveillance data are available at:
http://www.cdc.gov/flu/weekly/

Washington influenza surveillance data are available at:
http://www.doh.wa.gov/Portals/1/Documents/5100/420-100-FluUpdate.pdf

Oregon influenza surveillance data available at:

Recommendations of the Advisory Committee on Immunization Practices – ACIP – Influenza 2016-2017:
http://www.cdc.gov/flu/professionals/acip/index.htm

Disease outbreak news from the World Health Organization (WHO):
http://www.who.int/csr/don/en/

CDC Seasonal Influenza doses distributed:
http://www.cdc.gov/flu/professionals/vaccination/vaccinesupply.htm

CDC Interim Estimates of 2016–17 Seasonal Influenza Vaccine Effectiveness — United States, February 2017
https://www.cdc.gov/mmwr/volumes/66/wr/mm6606a3.htm

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