Influenza Weekly Report

2013 Week 41 (October 6 - 12) through 2014 Week 41 (October 5 - 11)

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October 2014
Edition 1.0
Data for the graphs and tables on the following pages are provisional and may be updated as additional information becomes available.

**Purpose**

The purpose of this report is to provide an overview of and statistics for the influenza season in Nevada for the local public health authorities, sentinel providers and the public.

**Influenza-Like Illness Network Surveillance (ILINet)**

Respiratory specimens tested for influenza by the World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NRVESS) collaborating laboratories by sub-type. During week 41 there were 7,655 specimens collected and tested for influenza, of those 282 were positive (3.7%).

**Figure 1**

![National Influenza Positive Tests by Week](image_url)


The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During week 41, there was 1 specimen collected and tested for influenza, which was negative.

**Figure 2**

![Nevada (ILI Providers) Influenza Laboratory Confirmed Positive by Week](image_url)

*Source of Data: CDC: ILINet.*
Nevada State Public Health Laboratory (NSPHL) and Southern Nevada Public Health Laboratory (SNPHL) have not had positive influenza specimens this season. Nationally, there have been 15,597 specimens sent to the WHO and NERVSS laboratories with 522 positive or 3.3%. The national numbers in Table 1 are reflected in Figure 1. The state of Nevada data in Table 1 is reflected in Figure 2. The Nevada total includes laboratory test for all Nevada residents including out of state laboratories.

### Table 1

<table>
<thead>
<tr>
<th>NSPHL</th>
<th>SNPHL</th>
<th>State of Nevada (Week 41) # %</th>
<th>State of Nevada (Season) # %</th>
<th>National (Week 41) # %</th>
<th>National (Season) # %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specimens Tested</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>7,655</td>
</tr>
<tr>
<td>Positives to Influenza</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>282</td>
</tr>
</tbody>
</table>

Influenza A:
- 0 | 0 | 0 | 0 | 0 | 164 | 58.2 | 312 |
- A(2009 H1N1) | 0 | 0 | 0 | 0 | 2 | 12 | 2 |
- A(H3) | 0 | 0 | 0 | 0 | 28 | 17.1 | 227 |
- A(Sub-typing not performed) | 0 | 0 | 0 | 0 | 134 | 81.7 | 83 |

Influenza B:
- 0 | 0 | 0 | 0 | 0 | 118 | 41.8 | 210 |

Source of Data: CDC: FluView Report and CDC: ILINet.

Influenza-like Illness (ILI) Surveillance Network has each sentinel providers report the number of patients that meet the ILI case definition and number of patients that visit the provider weekly. The “percentage of visits” is the number of ILI patients divided by the total number of patients visit per week. Nevada’s ILI percentage of visits to providers for week 41 is 0.7% and is below the state baseline 1.4. Region 9 ILI percentage for week 41 is 1.9% and includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 41 is 1.3% and is below the national baseline 2.0.

### Figure 3

Percentage of Visits for ILI Reported to Outpatient ILI Surveillance Network, Comparison Between National, Regional, and State, 53 Week Comparison (2013 WK 41 - 2014 WK 41)

Source of Data: CDC: Flu View Report and CDC: ILINet.

During week 41, 0.7% of visits to sentinel providers were due to ILI. This is below the mean percent for of the past 5 influenza seasons.
Influenza-like Illness is reported by age groups, during week 41, children aged 0-4 were the greatest number of patients seen with ILI. The rate for week 41 is 3.3 per 100,000. The rate is calculated by the number of patients presented with ILI divided by the state population multiplied by 100,000. The estimated state population for 2014 is 2,819,321.

Influenza Positive Surveillance (NBS and NETSS)

Positive cases of influenza are reported to the state health division for surveillance purposes. Figure 6 and Table 2 reflects all positive influenza cases reported to the state. Types of influenza testing include commercial rapid diagnostic test (rapid), viral culture, fluorescent antibody, enzyme immunoassay, RT-PCR (PCR), and Immunohistochemistry. The two most common test types in Nevada are Rapid and PCR tests. During week 41, there were no reported influenza cases to the state.
Figure 6

Weekly Reported Influenza by Subtype as Compared with Respiratory Syncytial Virus Infections (RSV)
53 Week Comparison (2013 WK 41 - 2014 WK 41)

Table 2

<table>
<thead>
<tr>
<th>Reporting Jurisdiction</th>
<th>Reported Influenza Cases by County Jurisdiction and Influenza Type</th>
<th>Cumulative Influenza Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carson City Health and Human Services</td>
<td>Current Week (Week 41)</td>
<td>Total</td>
</tr>
<tr>
<td>Rural Health Services</td>
<td>H1N1 A B Unknown Total</td>
<td>H1N1 A B Unknown Total</td>
</tr>
<tr>
<td>Southern Nevada Health District</td>
<td>0 0 0 0 0 0 0 0</td>
<td>0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Washoe County Health District</td>
<td>0 0 0 0 0 0 0 0</td>
<td>0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>State of Nevada</td>
<td>0 0 0 0 0 0 0 0</td>
<td>0 0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 0 hospitalizations associated with influenza reported to the state health division for the 2014-2015 influenza season.

Table 3

<table>
<thead>
<tr>
<th>Reporting Jurisdiction</th>
<th>Cumulative Influenza Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carson City Health and Human Services</td>
<td># 0.0</td>
</tr>
<tr>
<td>Rural Health Services</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Southern Nevada Health District</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Washoe County Health District</td>
<td>0 0.0</td>
</tr>
<tr>
<td>State of Nevada</td>
<td>0 0.0</td>
</tr>
</tbody>
</table>

Source: Reported to Office of Public Health Informatics and Epidemiology from each Jurisdiction.

Pneumonia and Influenza (P&I) Mortality Surveillance

The Pneumonia and Influenza (P&I) mortality percentage is the deaths, where Pneumonia and Influenza is listed as the underlying or contributing cause of death, divided by the total deaths in Nevada for each week. During week 41, there are 14 associated with P&I and is below the national epidemic threshold at 5.4% (threshold at 5.9%). Nationally, the P&I mortality is below the national epidemic threshold at 5.5%.
Figure 4

Pneumonia and Influenza (P&I) Mortality by Week,
122 U.S. Cities Compared to Nevada
53 Week Comparison (2013 WK 4- 2014 WK 41)

Source: OVR: WEVRRS and CDC: FluView.
Appendix

Activity level in figure 3 is based on the following information.

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>ILI Activity*/Outbreaks</th>
<th>Laboratory Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Activity</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Sporadic</td>
<td>Not Increased</td>
<td>And Isolated lab-confirmed cases †</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or Lab confirmed outbreak in one institution ‡</td>
</tr>
<tr>
<td>Local</td>
<td>Increased ILI in 1 region**, ILI activity in other regions is not increased</td>
<td>And Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or Recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions</td>
</tr>
<tr>
<td>Regional</td>
<td>Recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions</td>
<td>And Recent (within the past 3 weeks) lab confirmed influenza in the affected regions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or Recent (within the past 3 weeks) lab confirmed influenza in the affected regions</td>
</tr>
<tr>
<td>Widespread</td>
<td>Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions</td>
<td>And Recent (within the past 3 weeks) lab confirmed influenza in the state</td>
</tr>
</tbody>
</table>

*ILI activity can be assessed using a variety of data sources including ILINet providers, school/workplace absenteeism and other syndromic surveillance systems that monitor influenza-like illness.
† Lab confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR.
‡ Institution includes nursing home, hospital, prison, school, etc.
**Region: population under surveillance in a defined geographical subdivision of a state. Nevada has 5 regions.

Technical Notes

- Influenza-like illness (ILI): a fever greater than or equal 100°F with cough and/or sore throat
- Percent positive: The number of positive influenza laboratory tests divided by the total number of tests performed.
- Incidence rate is per 100,000 population as estimated by the state demographer.

This report contains information from national and state-level data sources. Influenza surveillance data is collected by a various systems, including:

- Influenza-like Illness Network (ILINet): a sentinel surveillance system in collaboration with the Centers for the Disease Control and Prevention (CDC) where outpatient providers report ILI information weekly.
- National Electronic Telecommunication System for Surveillance (NETSS): a system whereby data is transmits to CDC. Influenza data collected through NETSS does not provide influenza sub-typing information.
- National Electronic Disease Surveillance System (NEDSS): a system for collecting data and monitoring disease trends and outbreaks.
- NEDSS Based System (NBS): an implementation of the NEDSS standards. It provides a secure, accurate, and efficient means of collecting, transmitting, and analyzing public health data.

Citations
