Influenza Weekly Report

2013 Week 14 (March 31 – April 6) through 2014 Week 14 (March 30 – April 5)

Department of Health and Human Services
Division of Public and Behavioral Health
Office of Public Health Informatics and Epidemiology

April 2014
Edition 1.0
Influenza Weekly Report

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. There were 5,127 specimens collected nationally during week 14 that were tested for influenza; of these 685 tested positive or the percent positive was 13.4%.

**Figure 1**

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


Of the 14 specimens tested for influenza at both the Nevada State Public Health Laboratory and Southern Nevada Public Health Laboratory for sentinel providers, 3 tested positive for influenza during week 14 or 21.4%.

**Figure 2**

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

*Source of Data: CDC: ILINet.*
Nevada State Public Health Laboratory (NSPHL) has tested 781 specimens this season with 321 positive from sentinel providers (41.1% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 57 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 268,872 specimens sent to the WHO and NERVSS laboratories with 47,743 positive or 18.0%. The national numbers in Table 1 are reflected in Figure 1. The state of Nevada data in Table 1 is reflected in Figure 2.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>NSPHL</th>
<th>SNPHL</th>
<th>State of Nevada (Week 14)</th>
<th>State of Nevada (Season)</th>
<th>National (Week 14)</th>
<th>National (Season)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specimens Tested</td>
<td>781</td>
<td>352</td>
<td>14</td>
<td>1,133</td>
<td>5,127</td>
<td>265,872</td>
</tr>
<tr>
<td>Positives to Influenza</td>
<td>321</td>
<td>57</td>
<td>3</td>
<td>21.4</td>
<td>378</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Influenza A:

- A(2009 H1N1): 315, 43, 1, 33.3, 358, 94.7, 302, 44.1, 43,924, 92.0
- A(2009 H1N1) subtyping not performed: 0, 0, 0, 0.0, 0, 0.0, 121, 40.1, 14,356, 32.7
- A(H3): 14, 2, 0, 0.0, 16, 4.5, 124, 41.1, 1,891, 4.3

Influenza B:

- 6, 14, 2, 66.7, 20, 5.3, 383, 55.9, 3,818, 8.0

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

For week 14 Nevada reported sporadic activity to the CDC, along with 25 states/territories (Alabama, Alaska, Arkansas, California, Colorado, Georgia, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Puerto Rico, Oregon, South Dakota, Vermont, Washington, West Virginia, Wisconsin, and Wyoming). Activity level1 is derived from data analyzed from Influenza-like Illness (ILI) surveillance (laboratory and sentinel data), and data reported to the state through NBS/NETSS.

Figure 3

Influenza-like Illness (ILI) Network Surveillance has each sentinel providers report the number of patients that meet the ILI case definition2 and number of patients that visit the provider weekly, which decreased to 15,839 (week 14) from 17,098 (week 13). The “percentage of visits” is the number of ILI patients divided by the total number of patient visit per week. Nevada’s ILI percentage of visits to providers decreased to 0.7% from 0.9% during week 14, and is below the state baseline of 2.3%. Region 9 decreased in ILI to 0.9% from 1.2%, and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The nation decreased to 1.6% from 1.7% during week 14 and below the national baseline of 2.0%.

1: Activity level: Appendix Table 4.
Influenza Weekly Report
v 2014 i 14 (March 30 – April 5, 2014)

Figure 4

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

During week 14, 0.7% of visits to sentinel providers were due to ILI. This is a 0.8% point decrease from week 14 of the 2012-2013 influenza season, an influenza season is from week 40 through week 39.

Figure 5

Source of Data: CDC: ILINet.

The number of ILI patients and rate decreased from week 13 to week 14, from 151 to 117, and 5.4 to 4.1 per 100,000 population. 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.

Figure 6

Source of Data: CDC: ILINet.
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 14, Douglas, and Eureka County had high activity; Humboldt, and Lincoln counties did not report (Figure 7). Overall, Nevada had minimal activity monitored through ILINet (Figure 8).

**Figure 7**

![ILI Activity Level (MMWR Week 14)](image)

**Source of Data:** CDC: ILINet.

**Figure 8**

![Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet: 2013-14 Influenza Season Week 14 ending Apr 05, 2014](image)

**Source of Map:** CDC: FluView Report.
Influenza Positive Surveillance (NBS and NETSS)

Positive cases of influenza are reported to the state health division for surveillance purposes. Figure 10 and 11 as well as 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 14, there were 14 Influenza A cases and 22 positive Influenza B cases. Overall, there were 36 influenza positive tests in Nevada, whereas during the previous season for week 14, there were 79 cases.

Table 2

<table>
<thead>
<tr>
<th>Reporting Jurisdiction</th>
<th>Reported Influenza Cases by County Jurisdiction and Influenza Type</th>
<th>Reported Influenza Cases by County Jurisdiction and Influenza Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Week (Week 14)</td>
<td>Cumulative Influenza Season</td>
</tr>
<tr>
<td></td>
<td>H1N1       A  B  Unknown  Total</td>
<td>H1N1       A  B  Unknown  Total</td>
</tr>
<tr>
<td>Carson City Health and Human Services</td>
<td>0          0     0     0     0</td>
<td>18         372    25        16    431</td>
</tr>
<tr>
<td>Rural Health Services</td>
<td>0          0     0     0     0</td>
<td>97         241    33        46    417</td>
</tr>
<tr>
<td>Southern Nevada Health District</td>
<td>0          14    20    0     34</td>
<td>175        1,589   259       82    2,105</td>
</tr>
<tr>
<td>Washoe County Health District</td>
<td>0          0     2     0     2</td>
<td>183        506    34        31    754</td>
</tr>
<tr>
<td>State of Nevada</td>
<td>0          14    22    0     36</td>
<td>473        2,708  351       175  3,707</td>
</tr>
</tbody>
</table>

Source: OPHIE: NBS and SNHD: NETSS.

Clark County experienced an increase in influenza to 33 from 34 influenza cases during week 14. Washoe County experienced a decreased for week 14, to 7 from 2 influenza cases.
**Hospitalizations**

There have been 401 hospitalizations associated with influenza this season (week 40 2013 through week 14).

<table>
<thead>
<tr>
<th>Reporting Jurisdiction</th>
<th>Influenza Hospitalizations</th>
<th>Cumulative Influenza Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carson City Health and Human Services</td>
<td># 0</td>
<td>% 0.0</td>
</tr>
<tr>
<td>Rural Health Services</td>
<td># 0</td>
<td>% 0.0</td>
</tr>
<tr>
<td>Southern Nevada Health District</td>
<td># 4</td>
<td>% 100</td>
</tr>
<tr>
<td>Washoe County Health District</td>
<td># 0</td>
<td>% 0.0</td>
</tr>
<tr>
<td>State of Nevada</td>
<td># 4</td>
<td>% 100</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 a cause of death, divided by the total deaths in Nevada for each week. There were 17 P&I deaths and 392 total deaths for week 14, as of April 15. The P&I mortality percentage is below the national epidemic threshold at 4.3% (threshold at 7.3%). Nationally, the P&I mortality is below the national epidemic threshold at 6.8%.

*Figure 11*

*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>And</td>
</tr>
<tr>
<td>Sporadic</td>
<td>Not Increased</td>
<td>Isolated lab-confirmed cases †</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or</td>
</tr>
<tr>
<td></td>
<td>Not Increased</td>
<td>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>Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or</td>
</tr>
<tr>
<td></td>
<td>2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased</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>
</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>Recent (within the past 3 weeks) lab confirmed influenza in the affected regions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or</td>
</tr>
<tr>
<td></td>
<td>Institutional outbreaks (ILI or lab confirmed) in ≥2 and less than half of the regions</td>
<td>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>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.
- NEDDS 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

Comments, suggestions, and requests for further information may be addressed to:

Nevada Influenza Surveillance Program
Office of Public Health Informatics and Epidemiology
4126 Technology Way, Ste 200
Carson City NV 89706
Tel: (775) 684-5897
Fax: (775) 684-5999

Compiled and Written by:

Jen Thompson

Recommended Citation:


This publication was supported by Cooperative Agreement Number TP000534-02 from the Centers for Disease Control and Prevention and/or Assistant Secretary for Preparedness and Response. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention and/or Assistant Secretary for Preparedness and Response.