

Influenza Weekly Report

2014 Week 4 (January 19 – 25) through 2015 Week 4 (January 25 – 31)

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



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

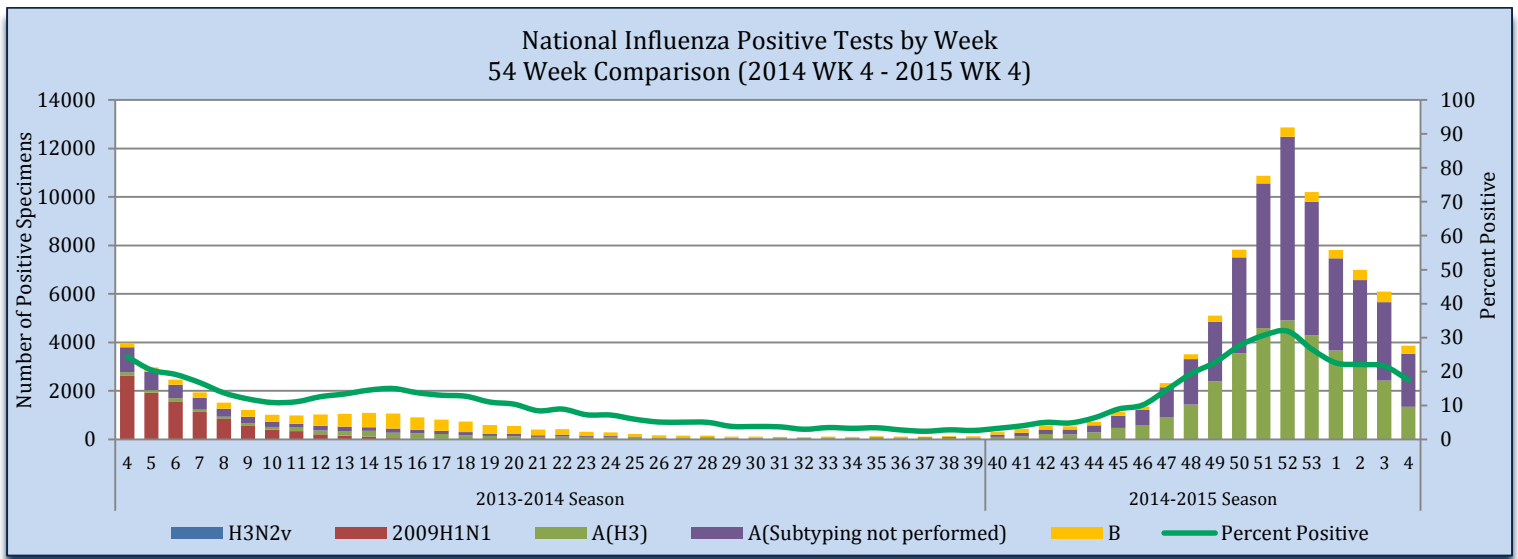
Purpose

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 are 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 4, there were 22,122 specimens collected and tested for influenza, of those 3,869 were positive (17.5%).

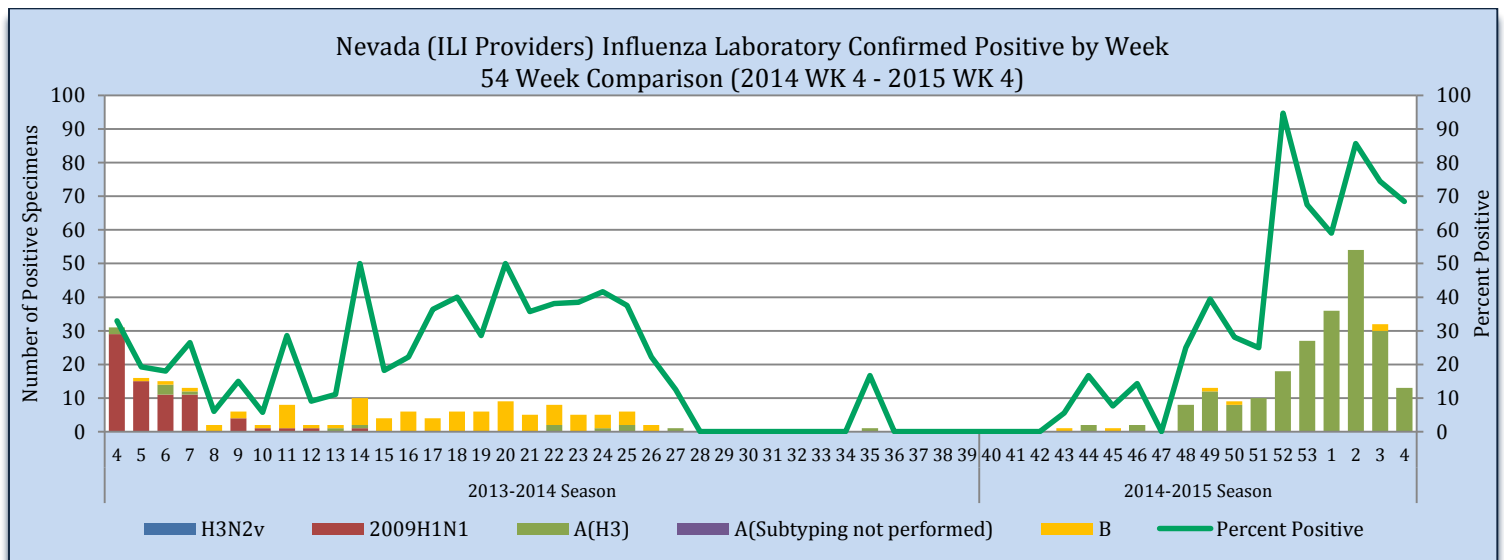
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During week 4, there were 19 specimens collected and tested for influenza of which 13 were positive (68.4%).

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 302 specimens for influenza from sentinel providers, of which 226 have been positive (74.8%). Southern Nevada Public Health Laboratory (SNPHL) has test 299 specimens this season of which 69 were positive. Nationally, there have been 396,596 specimens sent to the WHO and NERVSS laboratories of which 82,508 were positive or 20.8%. 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

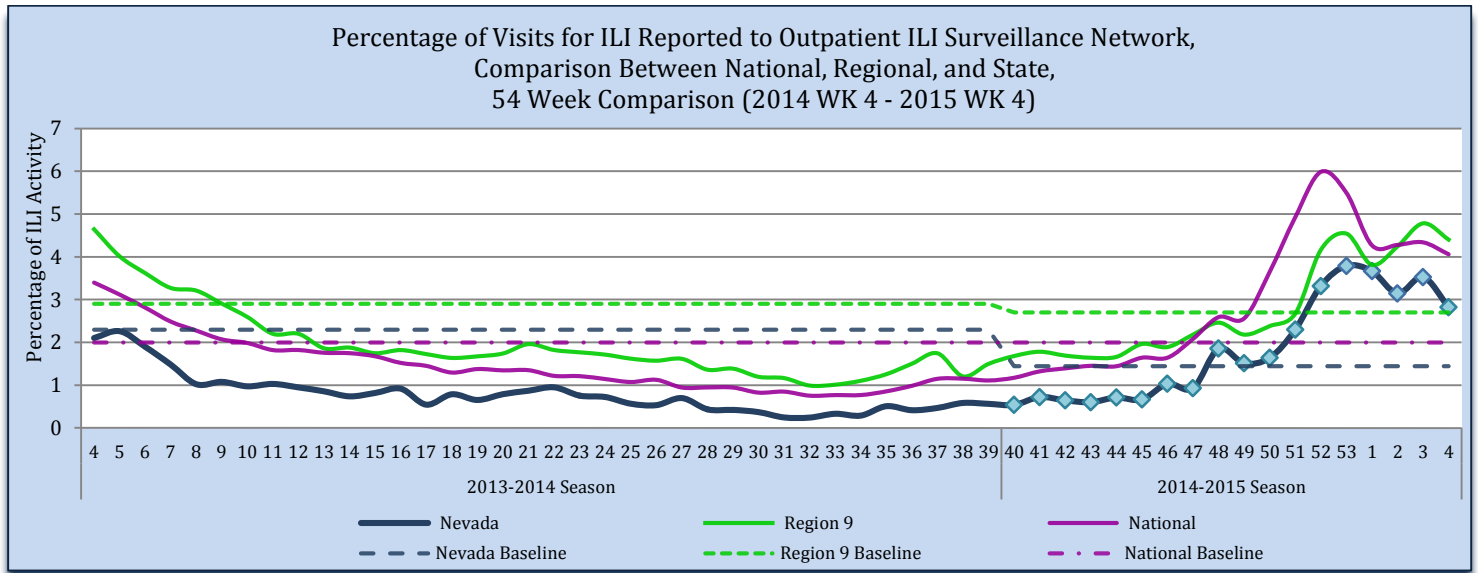
ILINet Surveillance: Influenza Specimens Tested State and Nationally

	NSPHL	SNPHL	State of Nevada (Week 4)		State of Nevada (Season)		National (Week 4)		National (Season)	
			#	%	#	%	#	%	#	%
			Specimens Tested	302	299	19		622		22,122
Positives to Influenza	226	69	13	68.4	307	49.4	3869	17.5	82,508	20.8
Influenza A:	223	67	13	100	301	98.0	3,535	91.4	77,996	94.5
A(2009 H1N1)	0	0	0	0.0	0	0.0	5	0.1	137	0
A(H3)	223	67	13	100	301	100	1,345	38.0	43,270	55.5
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	2,185	61.8	34,589	44.3
Influenza B:	3	2	0	0.0	6	2.0	334	8.6	4,511	5.5

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 4 is 2.8% and is above the state baseline 1.4%, the 10th consecutive week. Region 9 ILI percentage for week 4 is 4.4% and is above the region baseline 2.7% for the 6th consecutive week. Region 9 includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 4 is 4.1% and is above the national baseline 2.0, for the 11th consecutive week.

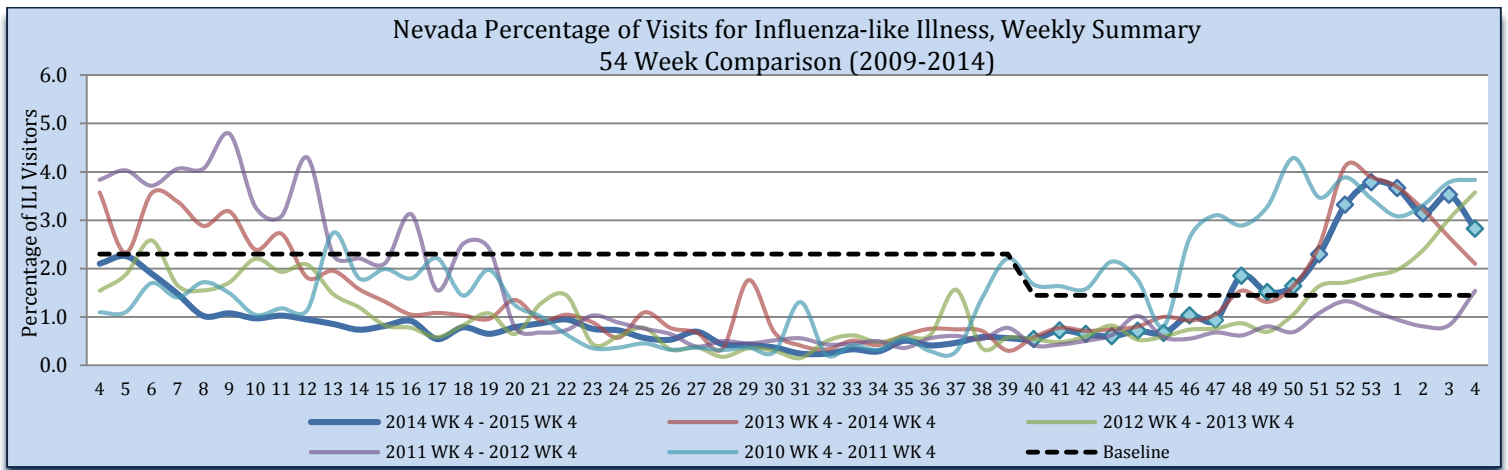
Figure 3



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

During week 4, 2.8% of visits to sentinel providers were due to ILI; this is 0.7% greater than the 2013-2014 influenza season. There were 19,354 patients seen by ILI providers during week 4, of which 546 patients presented with ILI, more than week 4 of 2014, of which there were 385 patients seen with ILI. There was no week 53 in the previous influenza season displayed below; therefore the week 53 data point for those seasons is an average of week 52 and 1.

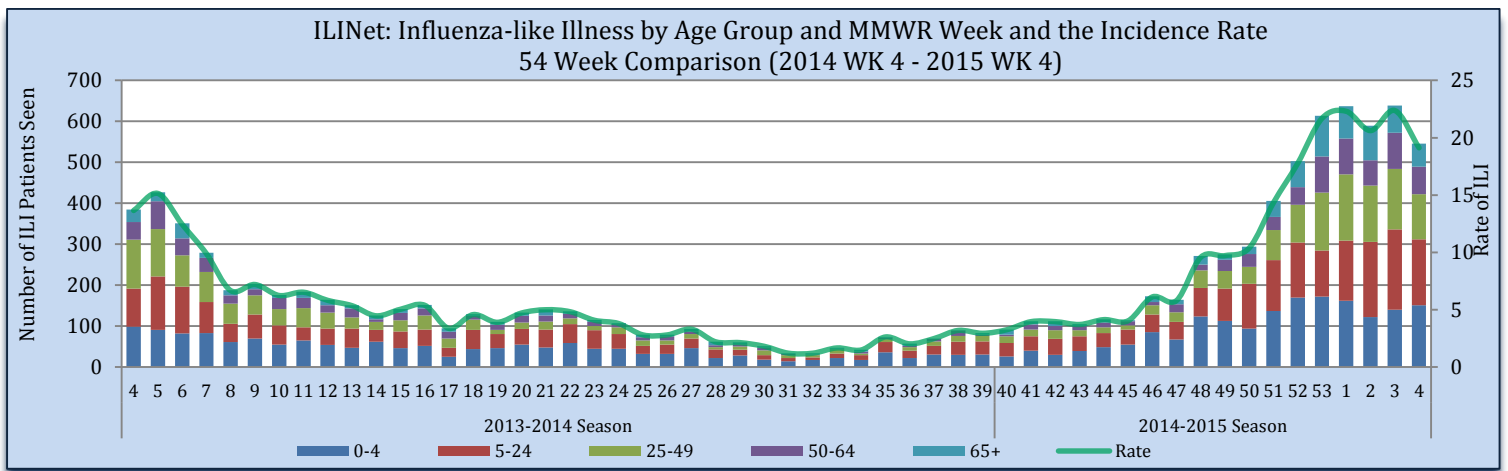
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during week 4, patients age 5-24 were the greatest number of patients seen with ILI, at 161 patients seen. The rate for week 4 is 19.1 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 2015 is 2,855,061.

Figure 5



Source of Data: CDC: ILINet.

BioSense

The BioSense application is a monitoring system of the CDC's National Syndromic Surveillance Program that aims to increase the ability of state health authorities to track and respond to harmful health efforts of exposure to disease or hazardous conditions. The information extracted from BioSense for this report is only reflective of data where the patient's age was provided. Therefore, the numbers don't reflect all patients seen through BioSense for ILI, as data with missing age value is not included. During week 4, 559 patients were seen with ILI through BioSense, 3.0% of the total patients seen.

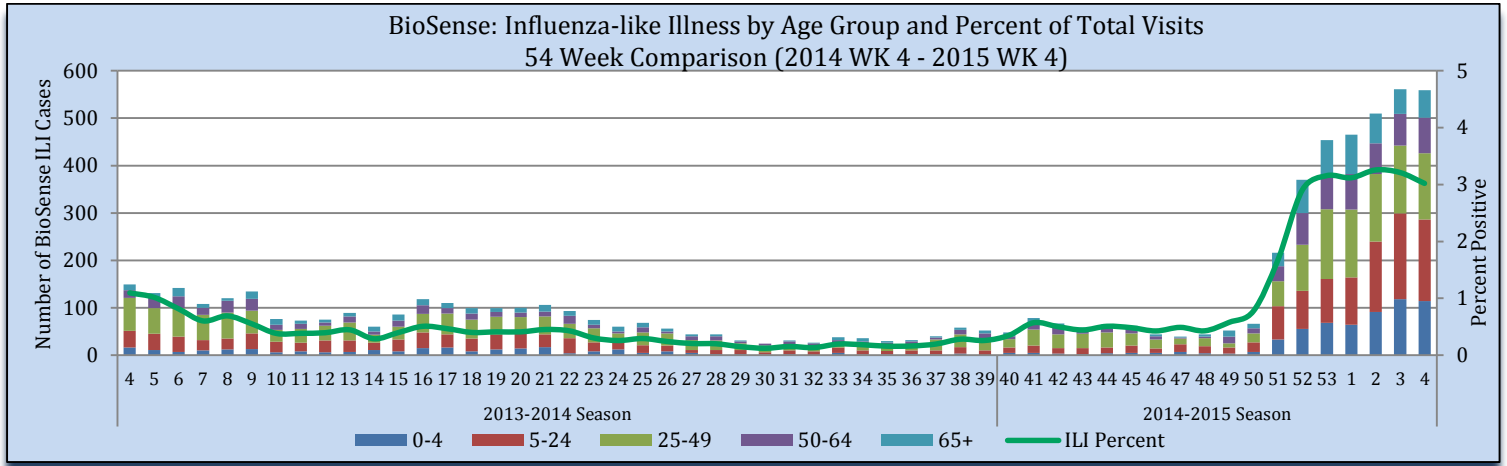
Table 2

BioSense: Influenza-like Illness Monitoring by County Jurisdiction					
Reporting Jurisdiction	Current Week (Week 4)			Cumulative Influenza Season	
	#	%	% of Facilities Reporting	#	%
Carson City Health and Human Services	121	21.6	66.7	794	21.1
Rural Community Health Services	7	1.3	10.0	118	3.1
Southern Nevada Health District	337	60.3	68.8	1,946	51.8
Washoe County Health District	94	16.8	40.0	900	23.9
State of Nevada	559	100	47.1	3,758	100

Source of Data: BioSense.

Influenza-like Illness monitored through BioSense had the highest patient visits with ILI in the 5-24 age groups at 172 patients, which is the same age group as the ILINet surveillance. The total patient seen with ILI remained relatively the same from week 3 to week 4, from 560 patients to 559 patients.

Figure 6

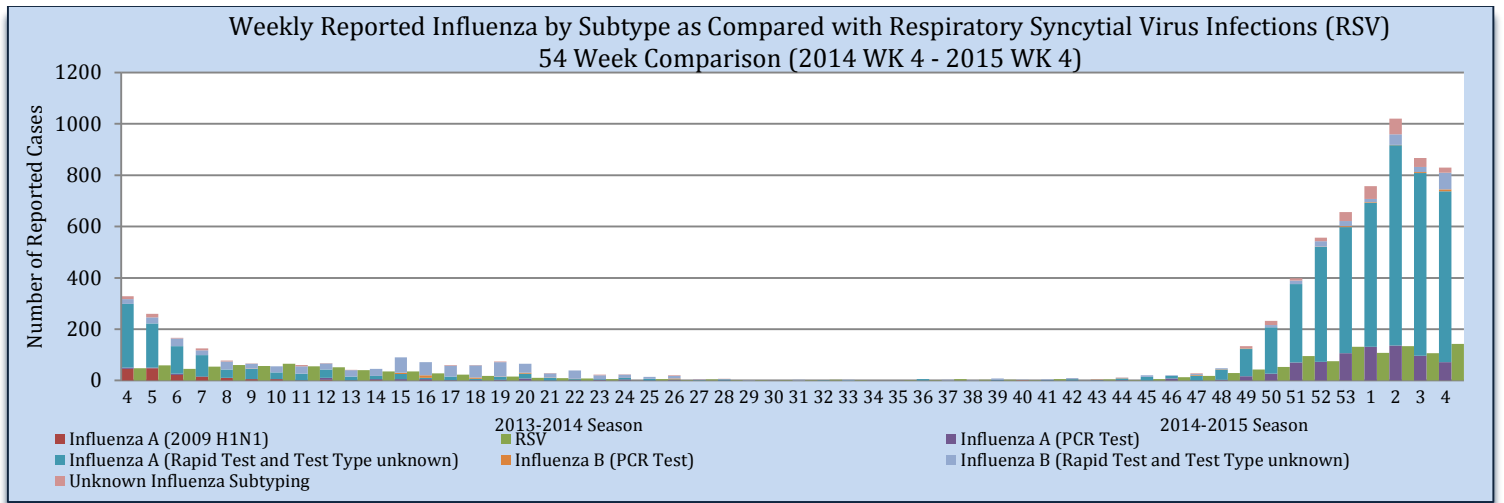


Source of Data: BioSense.

Influenza Positive Surveillance (NBS and NETSS)

Positive cases of influenza are reported to the state health authority 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 4, there were 830 influenza cases reported to the state, 738 influenza A cases, 72 influenza B cases and 20 unknown subtyping.

Figure 7



Source of Data: OPHIE: NBS and SNHD: NETSS.

Table 3

Reporting Jurisdiction	Reported Influenza Cases by County Jurisdiction and Influenza Type									
	Current Week (Week 4)					Cumulative Influenza Season				
	H1N1	A	B	Unknown	Total	H1N1	A	B	Unknown	Total
Carson City Health and Human Services	0	138	10	0	148	0	816	44	2	862
Rural Community Health Services	0	31	1	2	34	0	483	14	39	536
Southern Nevada Health District	0	400	50	15	465	0	2,707	137	178	3,022
Washoe County Health District	0	169	11	3	183	0	1,087	64	33	1,184
State of Nevada	0	738	72	20	830	0	5,093	259	252	5,604

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 20 hospitalizations associated with influenza reported to the state health authority during week 4.

Table 4

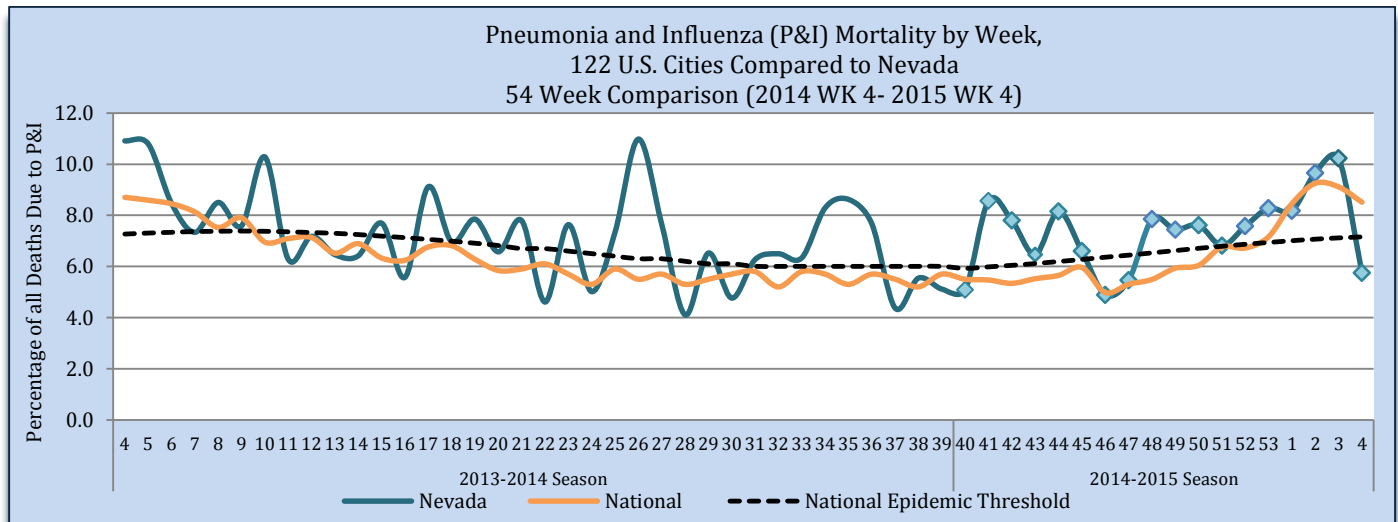
Reporting Jurisdiction	Influenza Hospitalizations		Cumulative Influenza Season	
	Current Week (Week 4)			
	#	%	#	%
Carson City Health and Human Services	2	10.0	41	9.7
Rural Community Health Services	1	5.0	18	4.2
Southern Nevada Health District	7	35.0	202	47.6
Washoe County Health District	10	50.0	163	38.4
State of Nevada	20	100	424	100

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 or Influenza is listed as the underlying or contributing cause of death, divided by the total deaths in Nevada for each week. As of February 10, there were 26 P&I deaths and 452 total deaths for week 4. The P&I mortality percent is below the threshold at 5.7% (threshold 7.2%). Nationally, the P&I mortality is above the national epidemic threshold at 8.5% for week 4.

Figure 8



Source: OVR: WEVRRS and CDC: FluView.

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

1. CDC. FluView: A Weekly Influenza Surveillance Report. <http://www.cdc.gov/flu/weekly/pastreports.htm>.
2. Nevada State Demographer's Office. 2003-2014 ASRHO Estimates and Projections. Division of Public and Behavioral Health edition. Vintage 2014.
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4. OPHIE. DPBH. NBS. 2013-2014. Accessed February 2015.
5. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2013-2014. Accessed February 2015.
6. Southern Nevada Health District (SNHD). NETSS/Trisano. 2013-2014. Accessed February 2015.

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

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