

Influenza Weekly Report

2014 Week 1 (December 29 – January 4) through 2015 Week 1 (January 4 – 10)

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



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*January 2015
Edition 1.0*

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

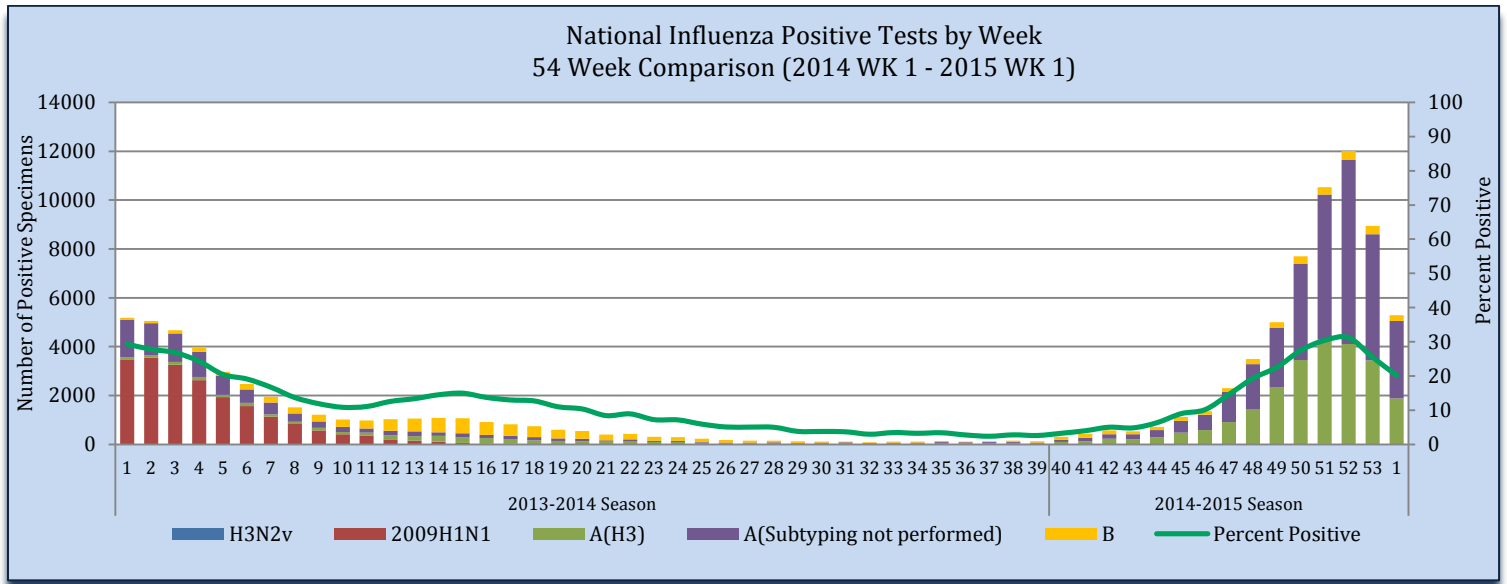
Purpose

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 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 1, there were 26,204 specimens collected and tested for influenza, of those 5,284 were positive (20.2%).

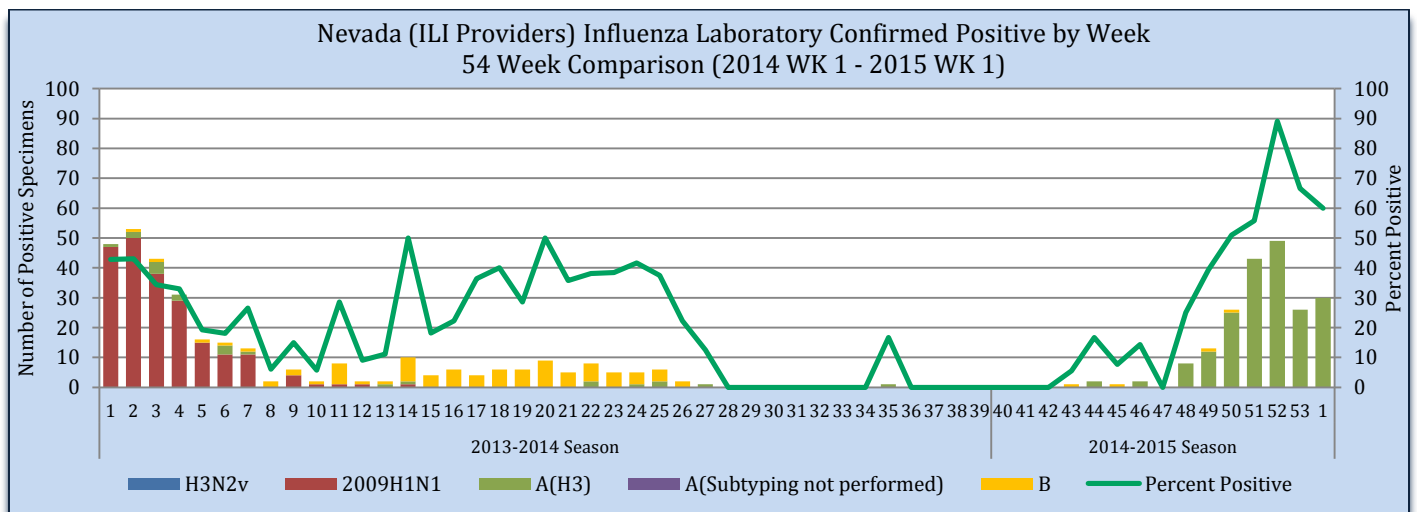
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During week 1, there were 50 specimens collected and tested for influenza of which 30 were positive (60.0%).

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 194 specimens for influenza from sentinel providers, of which 141 have been positive (72.7%). Southern Nevada Public Health Laboratory (SNPHL) has test 278 specimens this season of which 54 were positive. Nationally, there have been 298,603 specimens sent to the WHO and NERVSS laboratories of which 60,308 were positive or 20.2%. 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

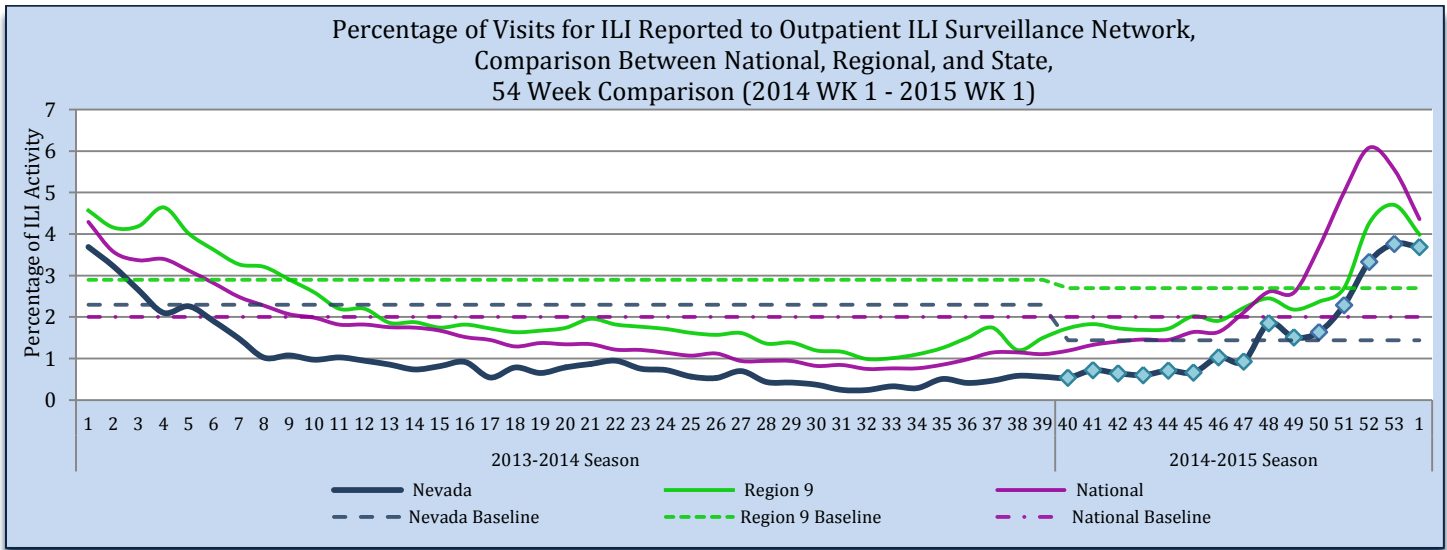
ILINet Surveillance: Influenza Specimens Tested State and Nationally

	NSPHL	SNPHL	State of Nevada (Week 1)		State of Nevada (Season)		National (Week 1)		National (Season)	
			#	%	#	%	#	%	#	%
			Specimens Tested	194	278	50		485		26,204
Positives to Influenza	141	54	30	60.0	201	41.4	5,284	20.2	60,308	20.2
Influenza A:	139	52	30	100	197	98.0	5,051	95.6	57,154	94.8
A(2009 H1N1)	0	0	0	0.0	0	0.0	7	0.1	114	0.2
A(H3)	139	52	30	100	197	100	1,868	37.0	33,296	58.3
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	3,176	62.9	23,744	41.5
Influenza B:	2	2	0	0.0	4	2.0	233	4.4	3,153	5.2

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 1 is 3.7% and is above the state baseline 1.4, the 7th consecutive week. Region 9 ILI percentage for week 1 is 4.0% and is above the region baseline 2.7% for the 3rd consecutive week. Region 9 includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 1 is 4.4% and is above the national baseline 2.0, for the 8th consecutive week.

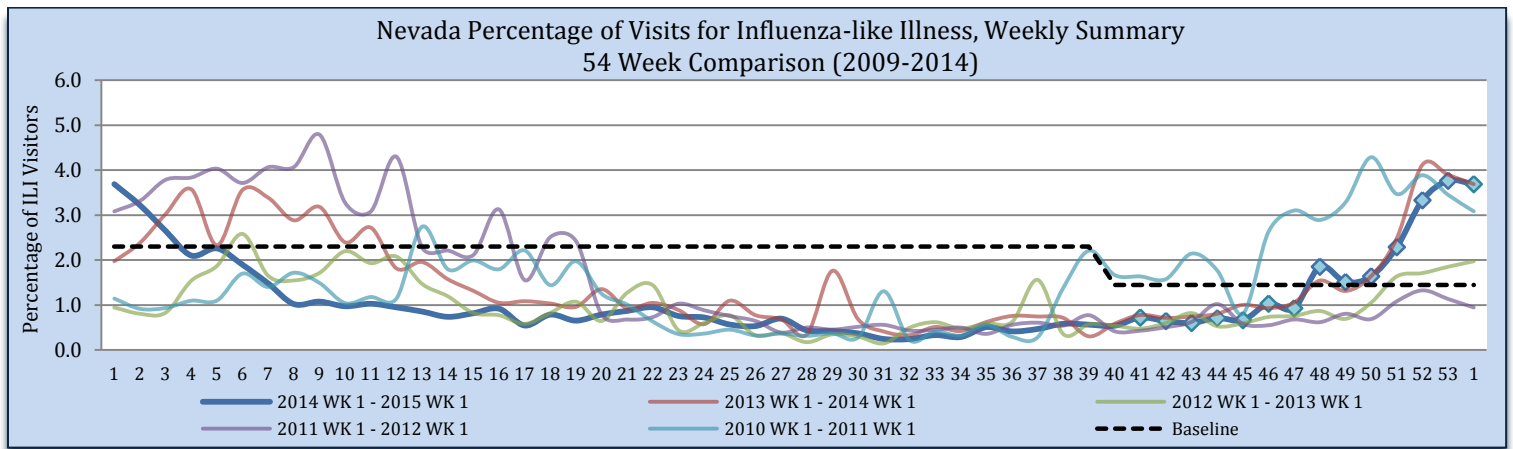
Figure 3



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

During week 1, 3.7% of visits to sentinel providers were due to ILL; this is the same as the 2013-2014 influenza season. There were 16,841 patients seen by ILI providers during week 1, of which 621 patients presented with ILI, less then week 1 of 2014, of which there were 644 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.

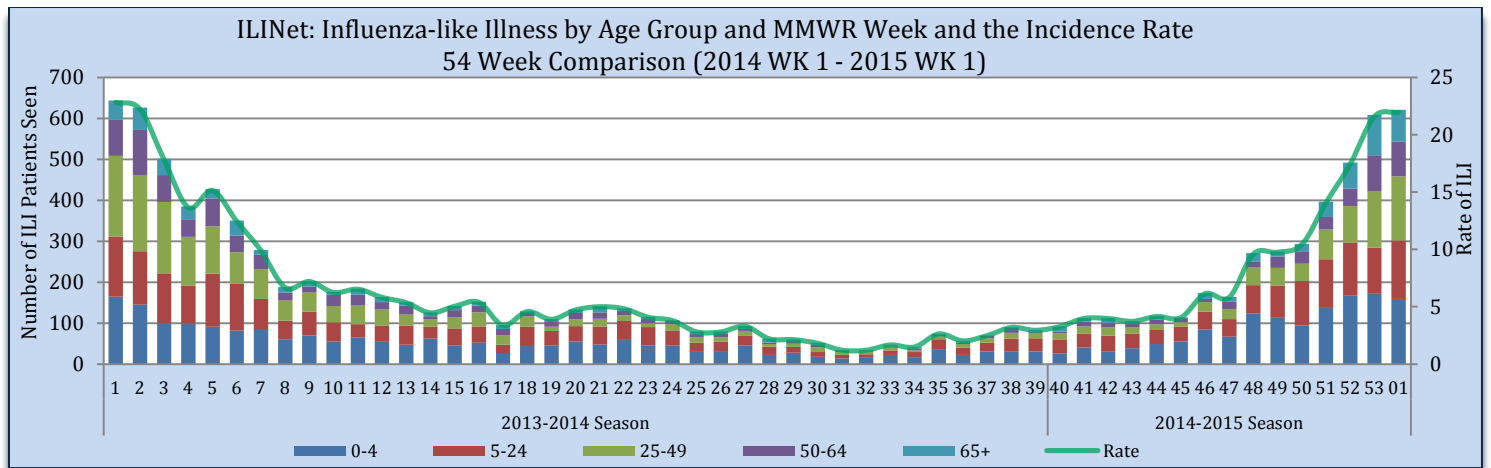
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during week 1, patients age 0-4 were the greatest number of patients seen with ILI, at 159 patients seen. The rate for week 1 is 22.0 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 2,828,028.

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 1, 416 patients were seen with ILI through BioSense, 2.8% of the total patients seen.

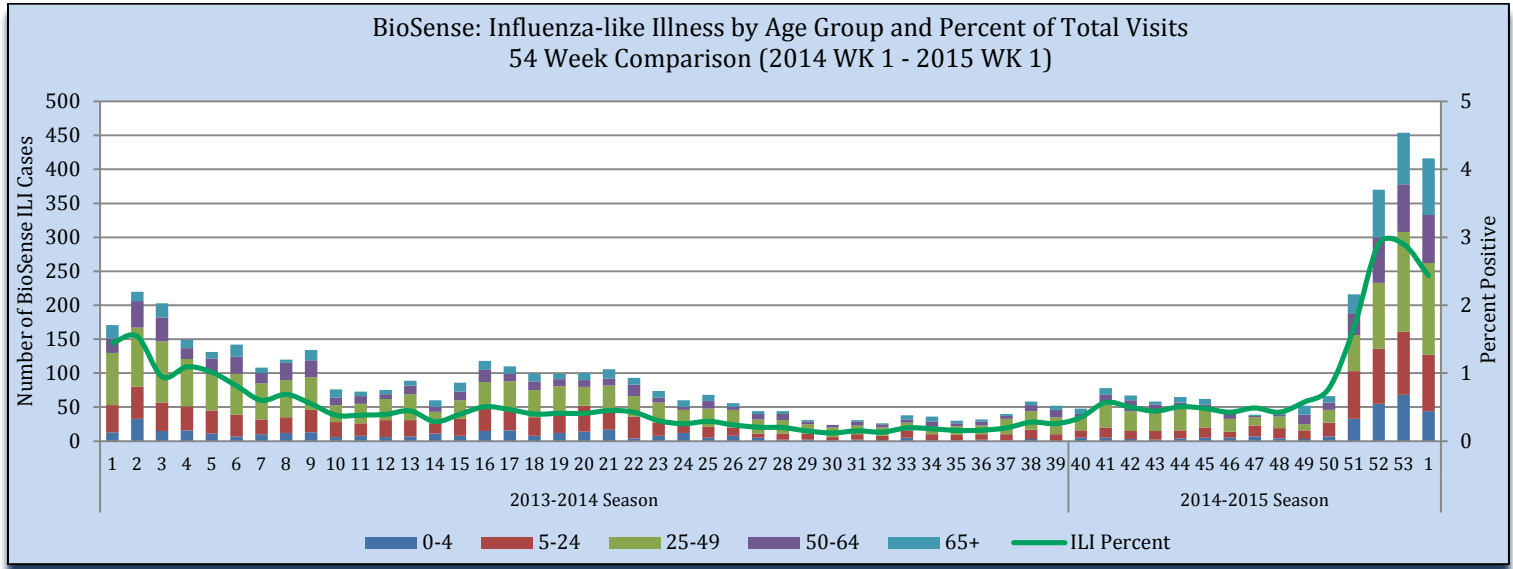
Table 2

BioSense: Influenza-like Illness Monitoring by County Jurisdiction					
Reporting Jurisdiction	Current Week (Week 1)			Cumulative Influenza Season	
	#	%	% of Facilities Reporting	#	%
Carson City Health and Human Services	98	23.6	66.7	456	21.9
Rural Community Health Services	7	1.7	10.0	91	4.4
Southern Nevada Health District	205	49.3	50.0	929	44.7
Washoe County Health District	106	25.5	40.0	603	29.0
State of Nevada	416	100	38.2	2,079	100

Source of Data: BioSense.

Influenza-like Illness monitored through BioSense had the highest patient visits with ILI in the 25-49 age groups at 135 patients, which is different from the ILINet surveillance (age group 0-4). The total patient seen with ILI decreased slightly from week 53 to week 1, from 454 patients to 416 patients.

Figure 6

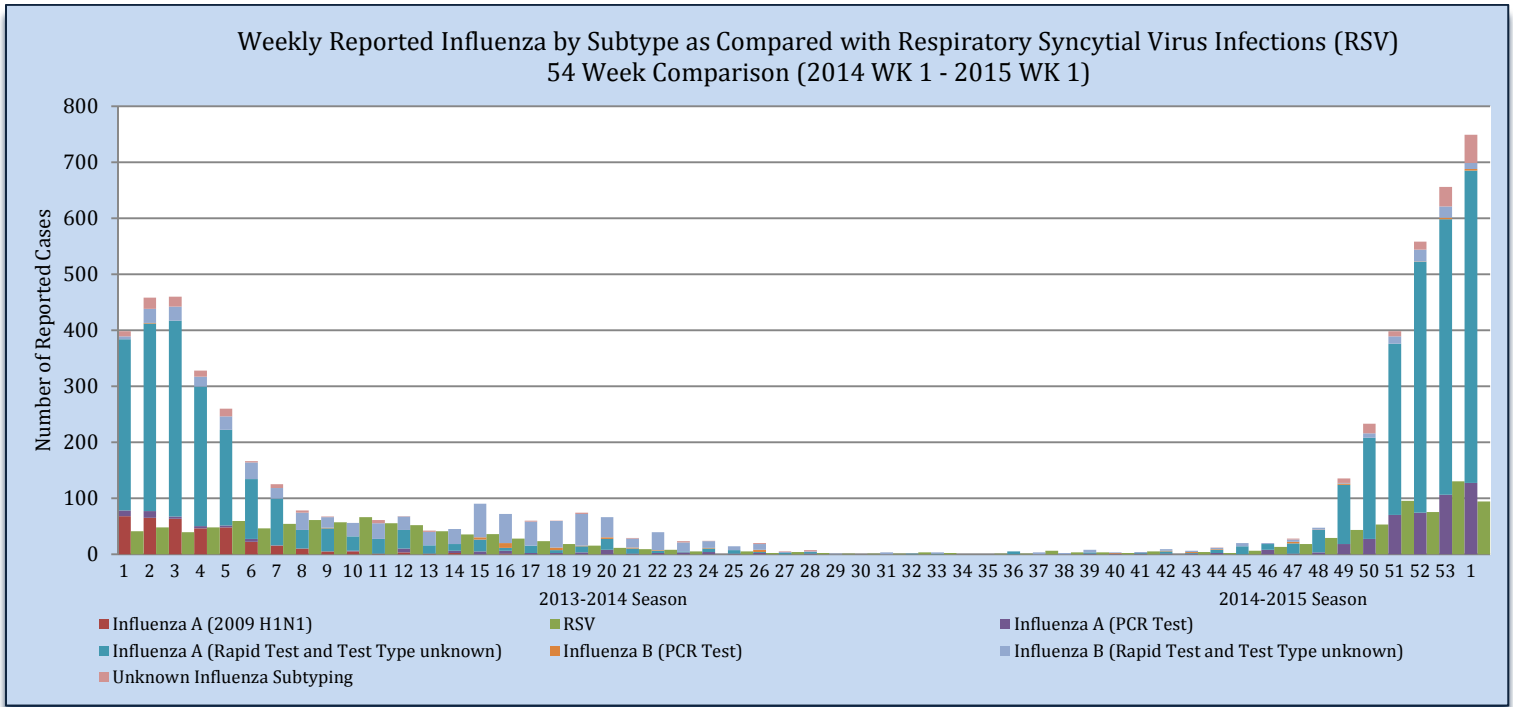


Source of Data: BioSense.

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 1, there were 749 influenza cases reported to the state, 685 influenza A cases, 14 influenza B cases and 50 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 1)					Cumulative Influenza Season				
	H1N1	A	B	Unknown	Total	H1N1	A	B	Unknown	Total
Carson City Health and Human Services	0	102	1	0	103	0	292	22	2	316
Rural Community Health Services	0	55	0	1	56	0	324	6	31	361
Southern Nevada Health District	0	358	7	44	409	0	1,456	45	86	1,587
Washoe County Health District	0	170	6	5	181	0	553	44	17	614
State of Nevada	0	685	14	50	749	0	2,625	117	136	2,878

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 82 hospitalizations associated with influenza reported to the state health authority during week 1.

Table 4

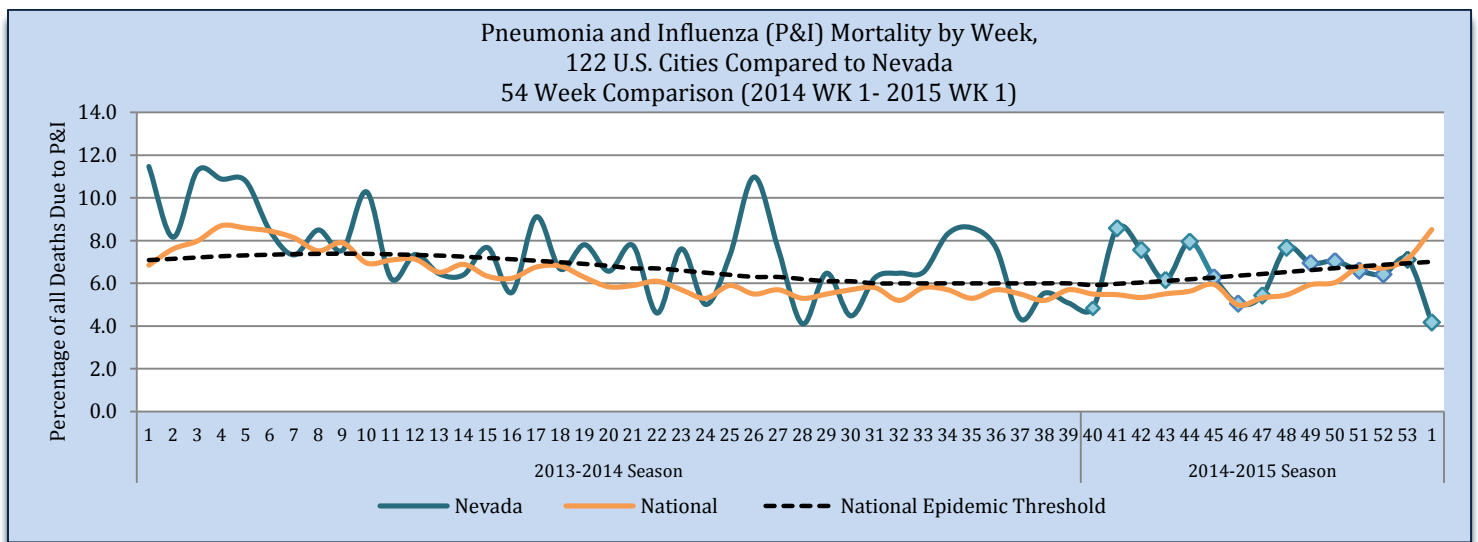
Reporting Jurisdiction	Influenza Hospitalizations			
	Current Week Week 1 (2015)		Cumulative Influenza Season 2014-2015	
	#	%	#	%
Carson City Health and Human Services	9	11.0	18	7.8
Rural Community Health Services	3	3.7	14	6.0
Southern Nevada Health District	30	36.6	98	42.2
Washoe County Health District	40	48.8	102	44.0
State of Nevada	82	100	232	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 January 7th, there were 19 P&I deaths and 455 total deaths for week 1. The P&I mortality percent is below the threshold at 4.2% (threshold 7.0%). Nationally, the P&I mortality is above the national epidemic threshold at 8.5% for week 1.

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 2013.
3. OPHIE. DPBS. BioSense. 2013-2014. Accessed January 2015.
4. OPHIE. DPBH. NBS. 2013-2014. Accessed January 2015.
5. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2013-2014. Accessed January 2015.
6. Southern Nevada Health District (SNHD). NETSS/Trisano. 2013-2014. Accessed January 2015.

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Recommended Citation:

Division of Public and Behavioral Health. Office of Public Health Informatics and Epidemiology. Influenza Weekly Report, 2014 Week 1 (December 29) through 2015 Week 1 (January 4), Nevada. January 2015 i 1 edition 1.0.

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.

