

Influenza Weekly Report

2013 Week 43 (October 20 - 26) through 2014 Week 43 (October 19 - 25)

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.

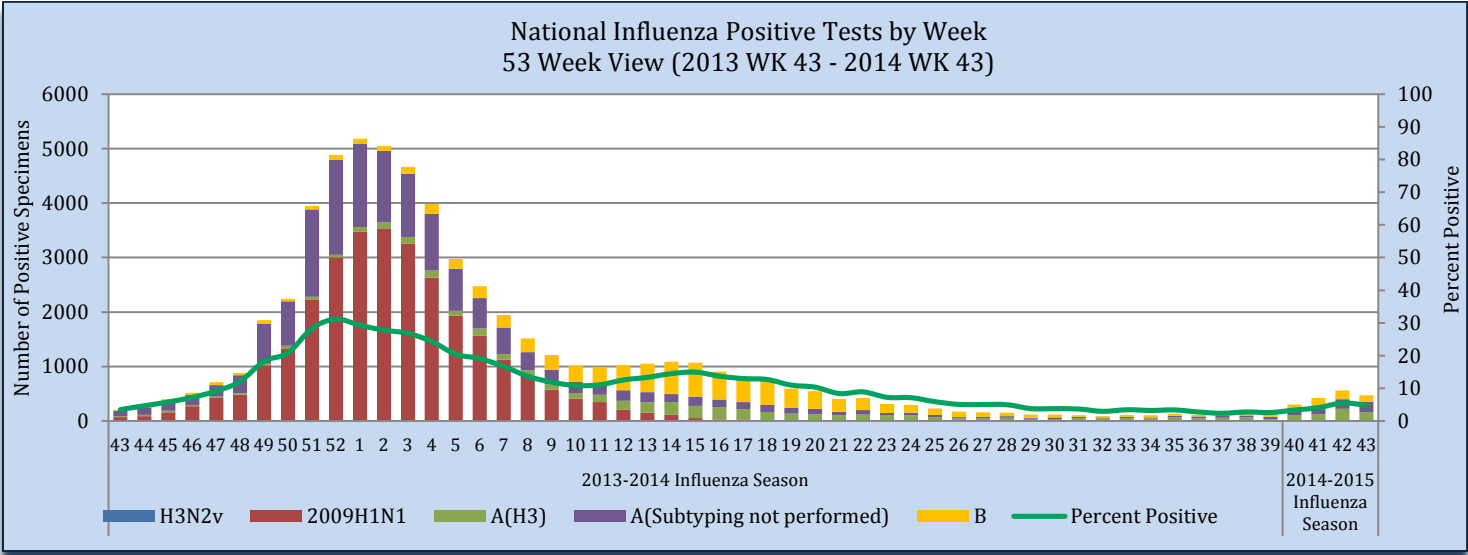
Purpose

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 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 43, there were 9,690 specimens collected and tested for influenza, of those 471 were positive (4.9%).

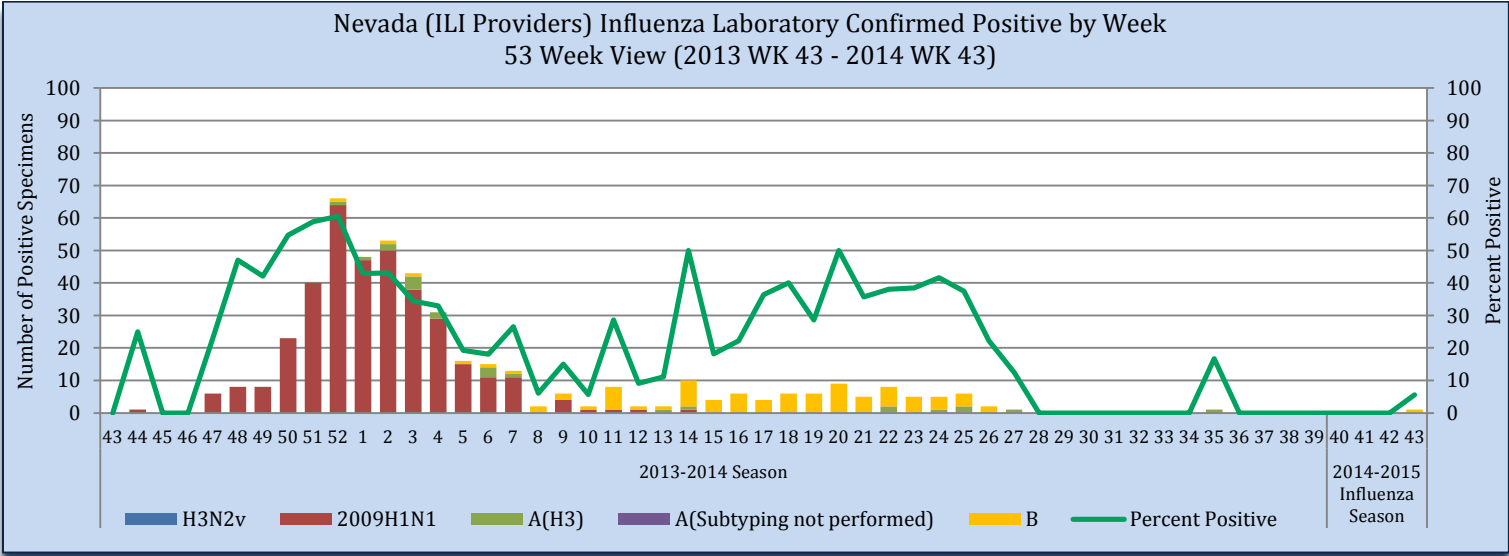
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During week 43, there were 18 specimens collected and tested for influenza, of those 1 test positive for Influenza B.

Figure 2



Source of Data: CDC: ILINet.

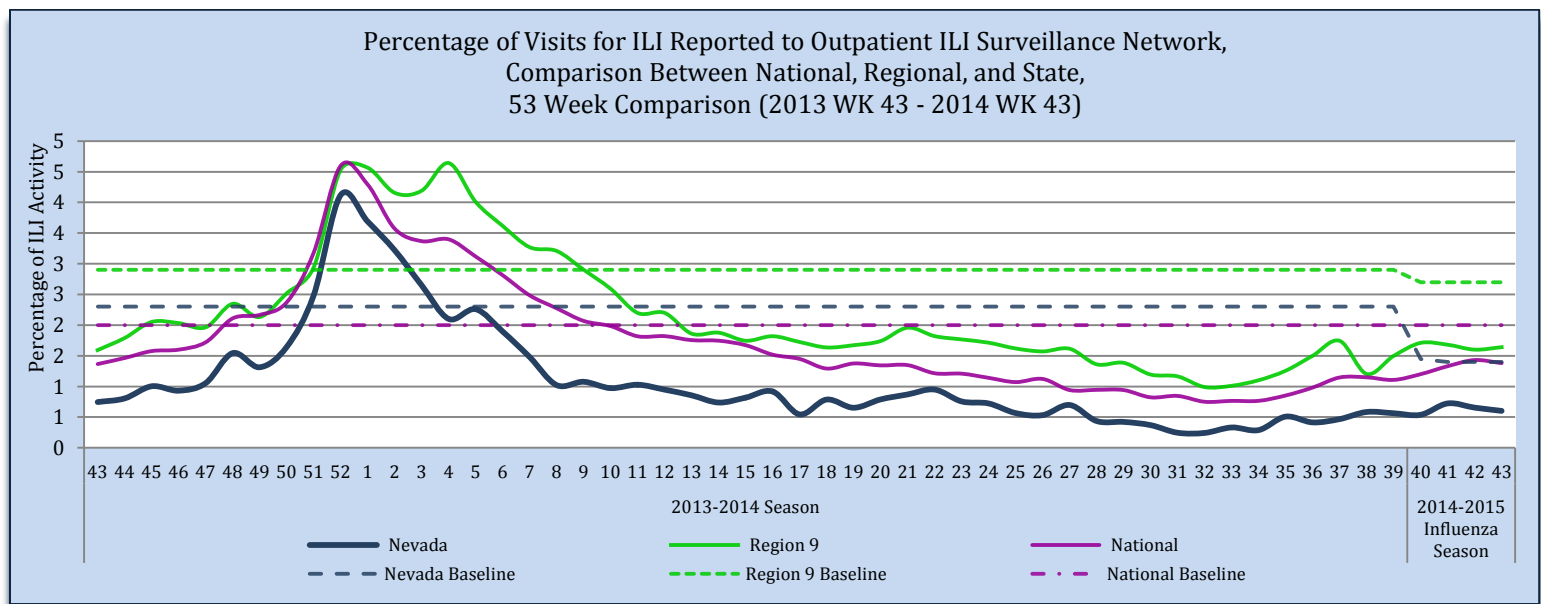
Nevada State Public Health Laboratory (NSPHL) and Southern Nevada Public Health Laboratory (SNPHL) have had 1 positive influenza specimens this season. Nationally, there have been 39,203 specimens sent to the WHO and NERVSS laboratories with 1,754 positive or 4.5%. The national numbers in Table 1 are 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 43)		State of Nevada (Season)		National (Week 43)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	9	74	18		86		9,690		39,203	
Positives to Influenza	1	0	1	5.6	1	1.2	471	4.3	1,754	4.5
Influenza A:	0	0	0	0.0	0	0.0	356	74.1	1,218	69.4
A(2009 H1N1)	0	0	0	0.0	0	0.0	4	1.3	19	1.6
A(H3)	0	0	0	0.0	0	0.0	154	33.3	617	50.7
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	158	65.4	582	47.8
Influenza B:	1	0	1	100	1	100	115	25.9	535	30.5

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

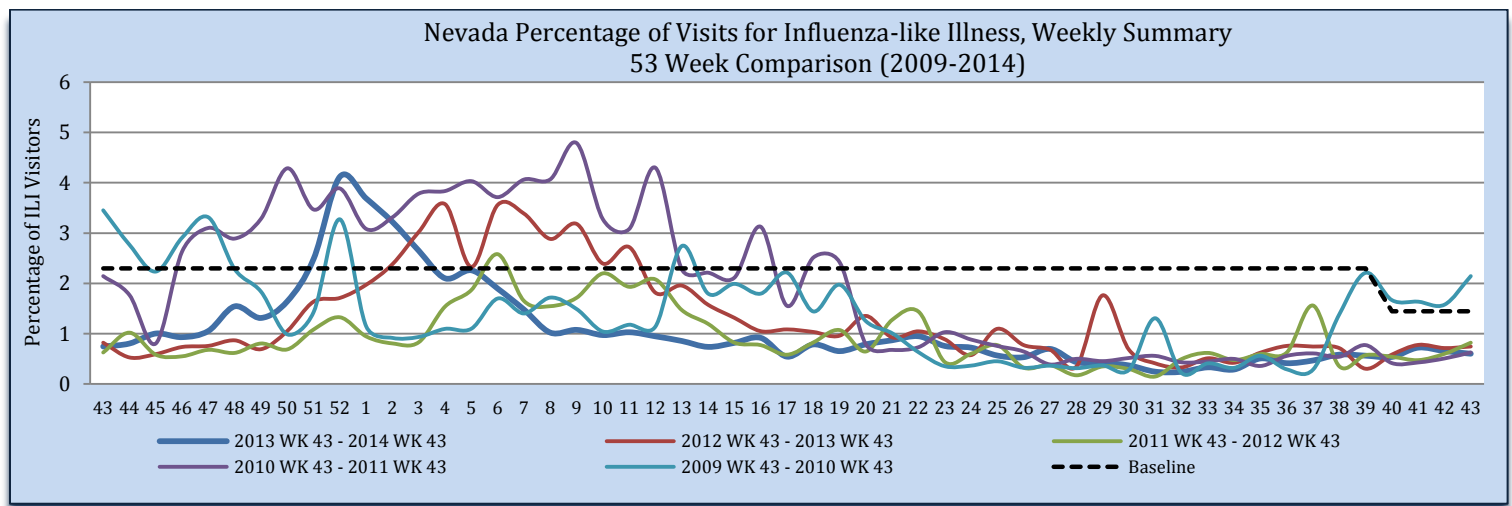
Influenza-like Illness (ILI) Surveillance Network has each sentinel providers report the number of patients that meet the ILI case definition and number of patients that visit the provider weekly. The "percentage of visits" is the number of ILI patients divided by the total number of patients visit per week. Nevada's ILI percentage of visits to providers for week 43 is 0.6% and is below the state baseline 1.4. Region 9 ILI percentage for week 43 is 1.7% and includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 43 is 1.4% and is below the national baseline 2.0.

Figure 3

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

During week 43, 0.6% of visits to sentinel providers were due to ILI; this is a decrease of 0.14% from the 2013-2014 influenza season.

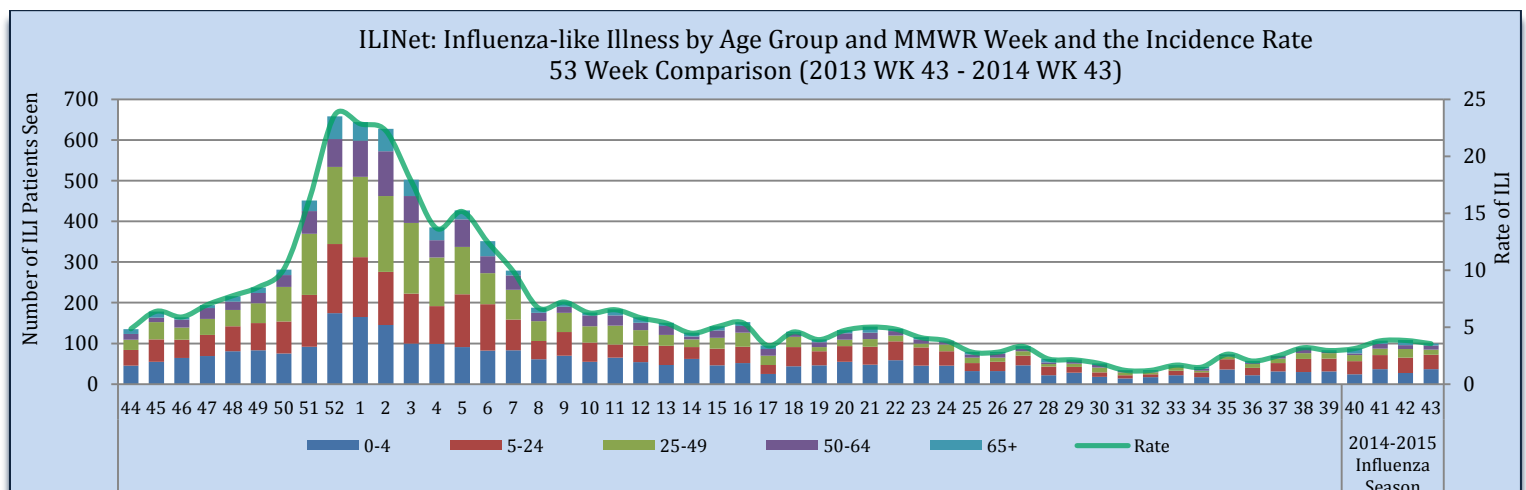
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during week 43, patients age 0-4 were the greatest number of patients seen with ILI. The rate for week 43 is 3.5 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.

Figure 5



Source of Data: CDC: ILINet.

BioSense

The BioSense application is monitor system of the CDC's National Syndromic Surveillance Program that increases the ability of the state health authorities to monitor and responds to harmful health efforts of exposure to disease or hazardous conditions. During week 43, 58 patients were seen with ILI through BioSense, at 0.3% of the total patients seen.

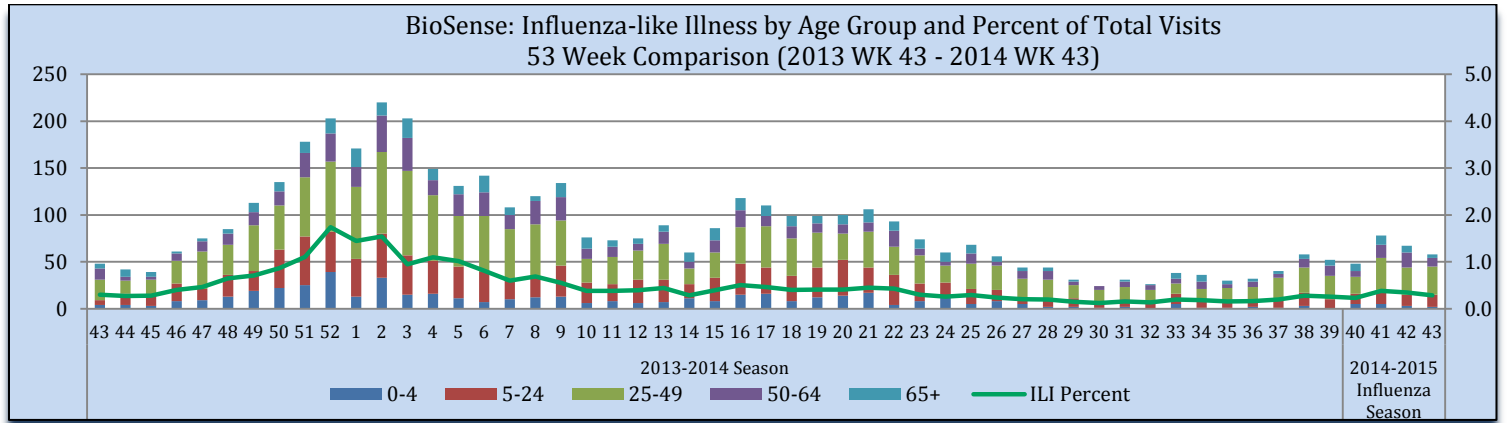
Table 2

BioSense Influenza-like Illness Monitoring by County Jurisdiction		
Reporting Jurisdiction	Current Week (Week 43)	Cumulative Influenza Season
Carson City Health and Human Services	6	39
Community Health Nursing	2	2
Southern Nevada Health District	42	155
Washoe County Health District	8	55
State of Nevada	58	251

Source of Data: BioSense.

Influenza-like Illness monitored through BioSense had the highest patient visits with ILI in the 25-49 age groups, which is different from the ILINet surveillance (age group 0-4). The total patient seen with ILI decreased from week 42, with 67 patients to 58 patients during week 43.

Figure 6

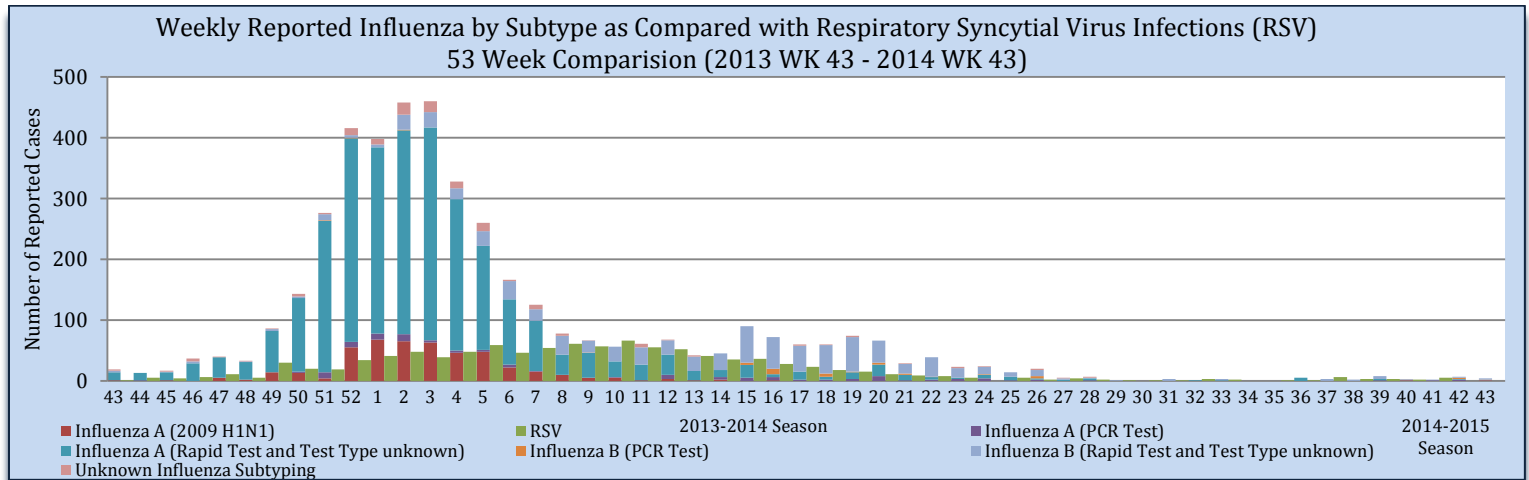


Source of Data: BioSense.

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 43, there were 4 influenza cases reported to the state, 1 Influenza A and 3 Influenza B cases.

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 43)					Cumulative Influenza Season				
	H1N1	A	B	Unknown	Total	H1N1	A	B	Unknown	Total
Carson City Health and Human Services	0	0	0	0	0	0	1	0	0	1
Community Health Nursing	0	0	0	0	0	0	1	1	0	2
Southern Nevada Health District	0	1	1	0	2	0	4	3	0	7
Washoe County Health District	0	0	2	0	2	0	0	6	0	6
State of Nevada	0	1	3	0	4	0	6	10	0	16

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 7 hospitalizations associated with influenza reported to the state health authorities for the 2014-2015 influenza season.

Table 4

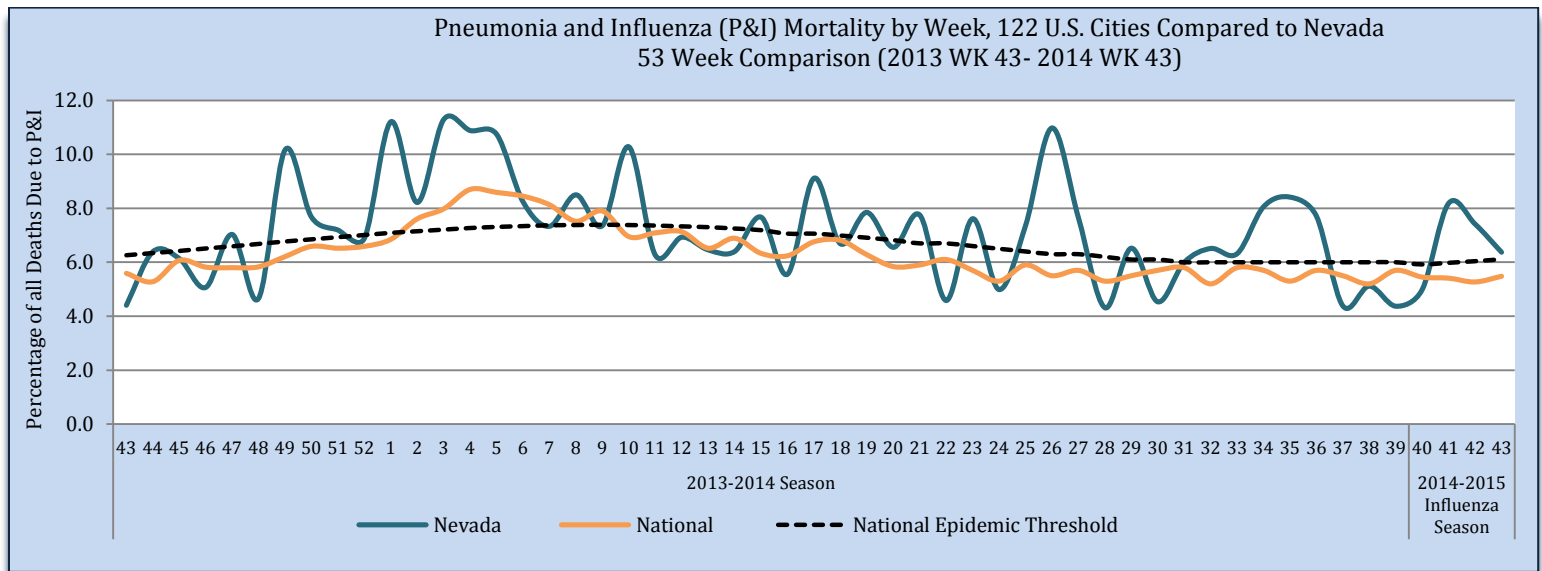
Reporting Jurisdiction	Influenza Hospitalizations			
	Current Week (Week 43)		Cumulative Influenza Season	
	#	%	#	%
Carson City Health and Human Services	0	0.0	0	0.0
Community Health Nursing	0	0.0	0	0.0
Southern Nevada Health District	2	100	7	100
Washoe County Health District	0	0.0	0	0.0
State of Nevada	2	100	7	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. During week 43, there are 26 deaths associated with P&I and is above the national epidemic threshold at 3.3% (threshold at 6.1%). Nationally, the P&I mortality is below the national epidemic threshold at 5.8%.

Figure 8



Source: OVR: WEVRRS and CDC: FluView.

Appendix

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

Activity Level	ILI Activity*/Outbreaks		Laboratory Data
No Activity	Low	And	No lab confirmed cases
Sporadic	Not Increased	And	Isolated lab-confirmed cases †
	Not Increased	And	Or Lab confirmed outbreak in one institution ‡
Local	Increased ILI in 1 region**. ILI activity in other regions is not increased	And	Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI
	2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased	And	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
Regional	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	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	Institutional outbreaks (ILI or lab confirmed) in ≥2 and less than half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the state

*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

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 November 2014.
4. OPHIE. DPBH. NBS. 2010-2014. Accessed November 2014.
5. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2012-2014. Accessed November 2014.
6. Southern Nevada Health District (SNHD). NETSS/Trisano. 2010-2014. Accessed November 2014.

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

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