

Influenza Weekly Report

2013 Week 40 (September 29 – October 5) through 2014 Week 39 (September 21- 27)

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.

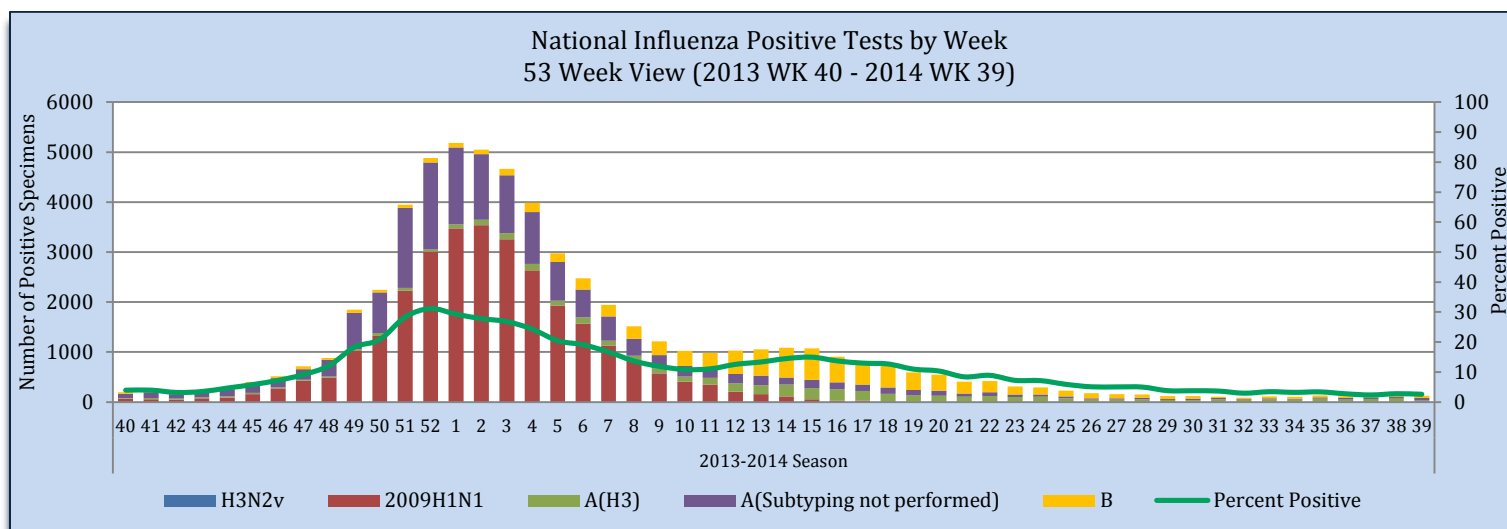
Purpose

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 the non-influenza season there were 79,828 specimens collected and tested for influenza, of those 3,638 were positive (4.6%).

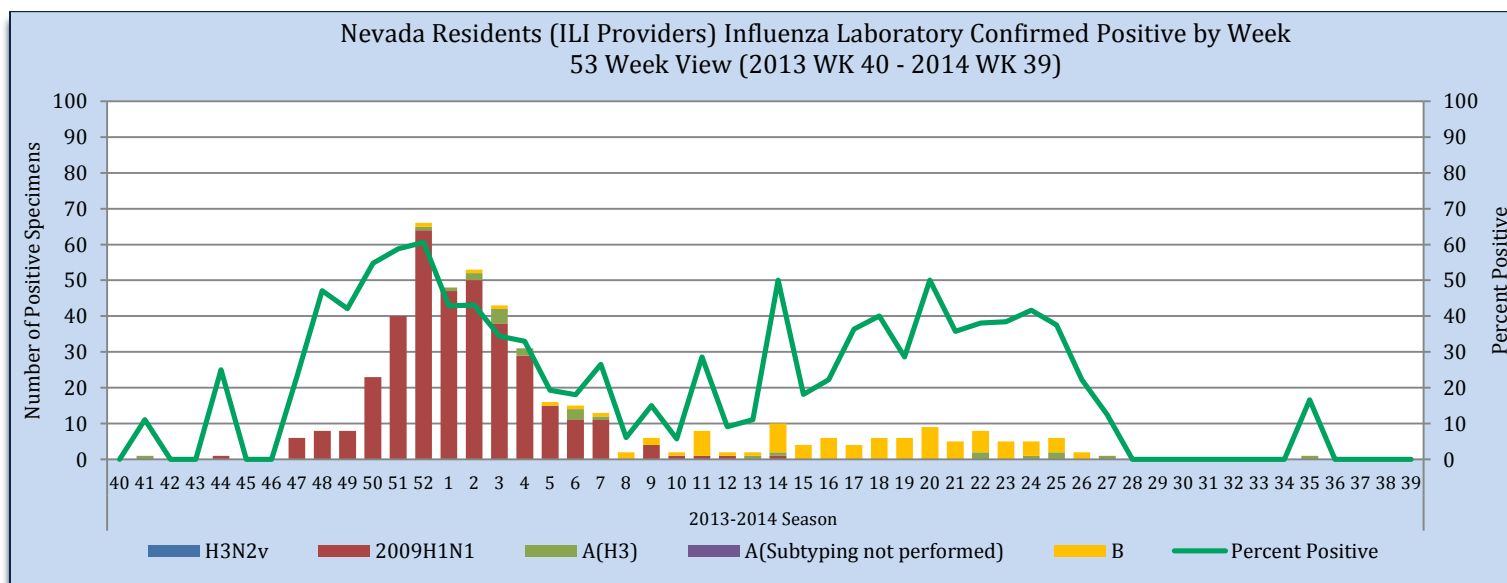
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory test for all Nevada residents including out of state laboratories. During the non-influenza season there were 176 specimens collected and tested for influenza, of those 33 were positive (18.8%).

Figure 2



Source of Data: CDC: ILINet.

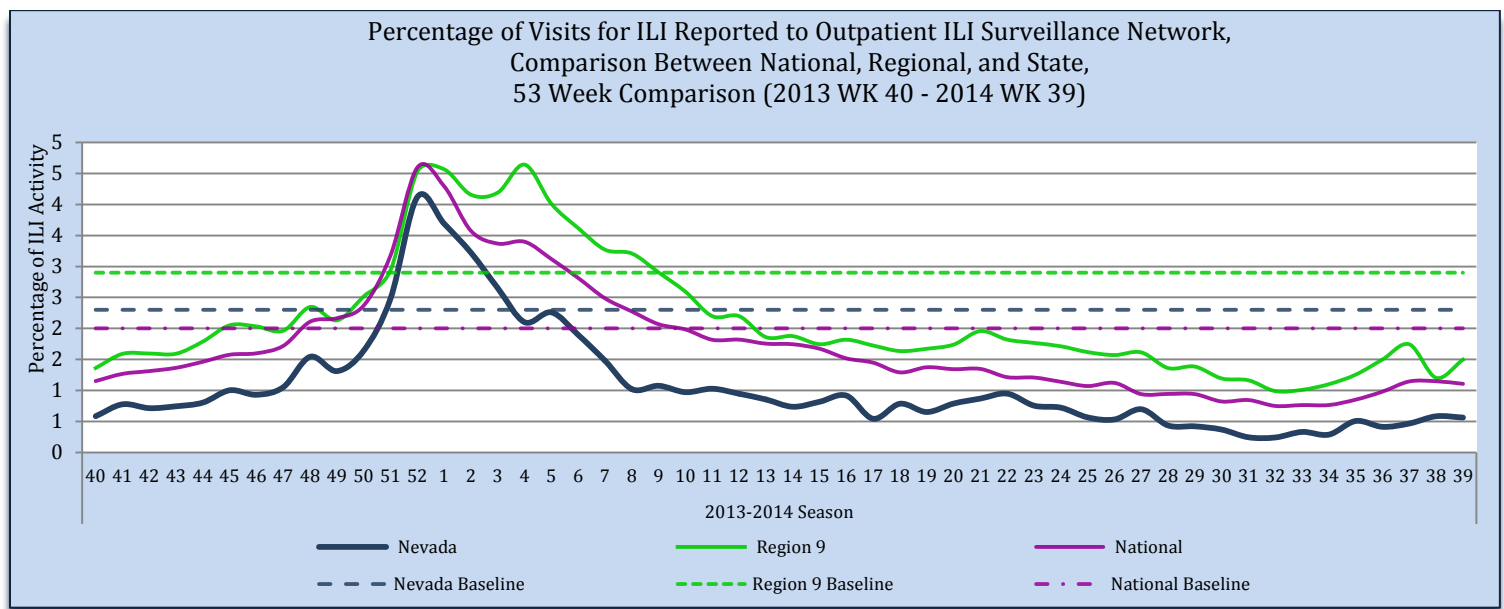
Nevada State Public Health Laboratory (NSPHL) has tested 869 specimens during the 2013-2014 influenza season with 359 positive from sentinel providers (41.3% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 94 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 390,348 specimens sent to the WHO and NERVSS laboratories with 58,836 positive or 15.1%. 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 (2013-2014 Season)		Nationally (2013-2014 Season)	
			#	%	#	%
Specimens Tested	869	542	1,500		390,348	
Positives to Influenza	359	94	472	31.4	58,836	15.1
Influenza A:						
A(2009 H1N1)	320	46	383	81.1	50,093	85.1
A(H3)	301	41	359	93.7	29,615	59.1
A(Sub-typing not performed)	0	0	24	0.0	4,379	8.7
A(Sub-typing not performed)	19	5	0	6.3	16,099	32.1
Influenza B:						
	39	48	89	18.9	8,741	14.9

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

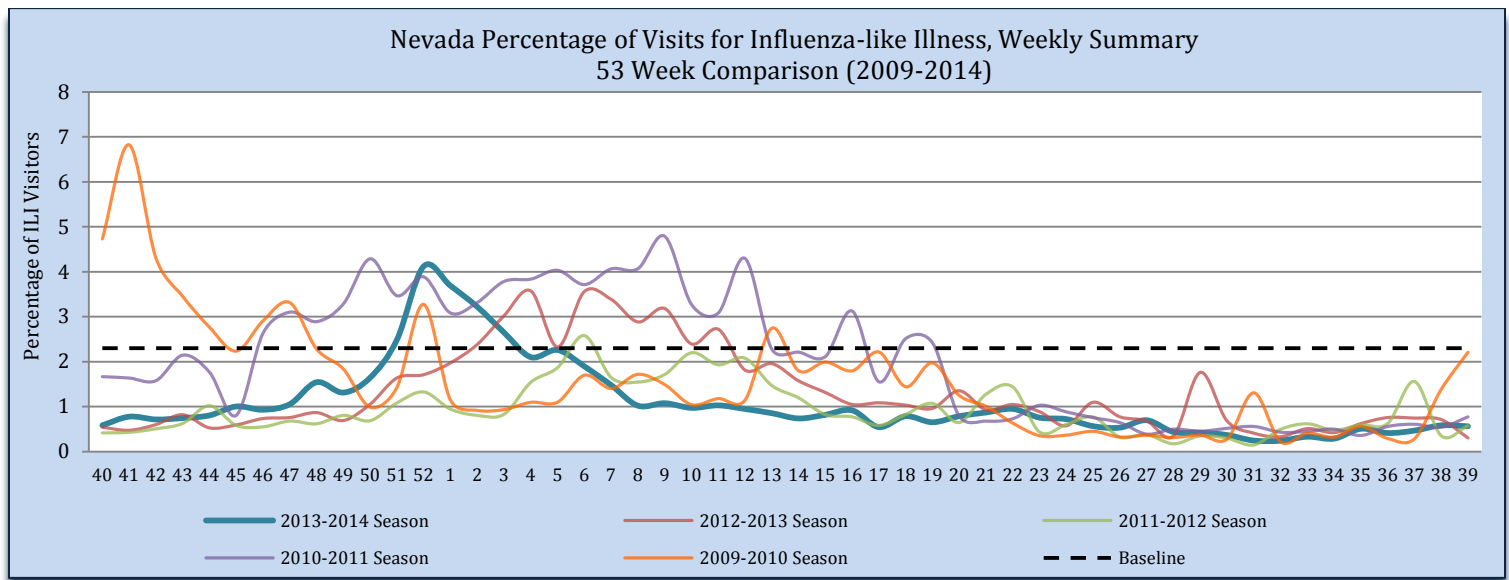
Influenza-like illness (ILI) Surveillance Network has each sentinel providers report the number of patients that meet the ILI case definition and number of patients that visit the provider weekly. The "percentage of visits" is the number of ILI patients divided by the total number of patients visit per week. The ILI season peaked for Nevada during week 52 with 658 cases reported that met the ILI criteria (4.1%). For region 9, the peak occurred during week 1, with 2,536 ILI cases (4.6%). The nation's ILI peak occurred during week 52 with 26,884 ILI cases reported (4.6%).

Figure 3

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

The 2013-2014 influenza season peak occurred earlier than previous influenza seasons, such as the 2012-2013 season the peak occurred during week 4. Even though the 2013-2014 peak percent is at 4.1%, this does not indicate a higher of influenza but increased reporting for ILI providers. In previous seasons, there were only 20-25 ILI providers reporting, whereas during the current 2013-2014 season 35-40 ILI providers reported regularly increasing the percent positive numbers.

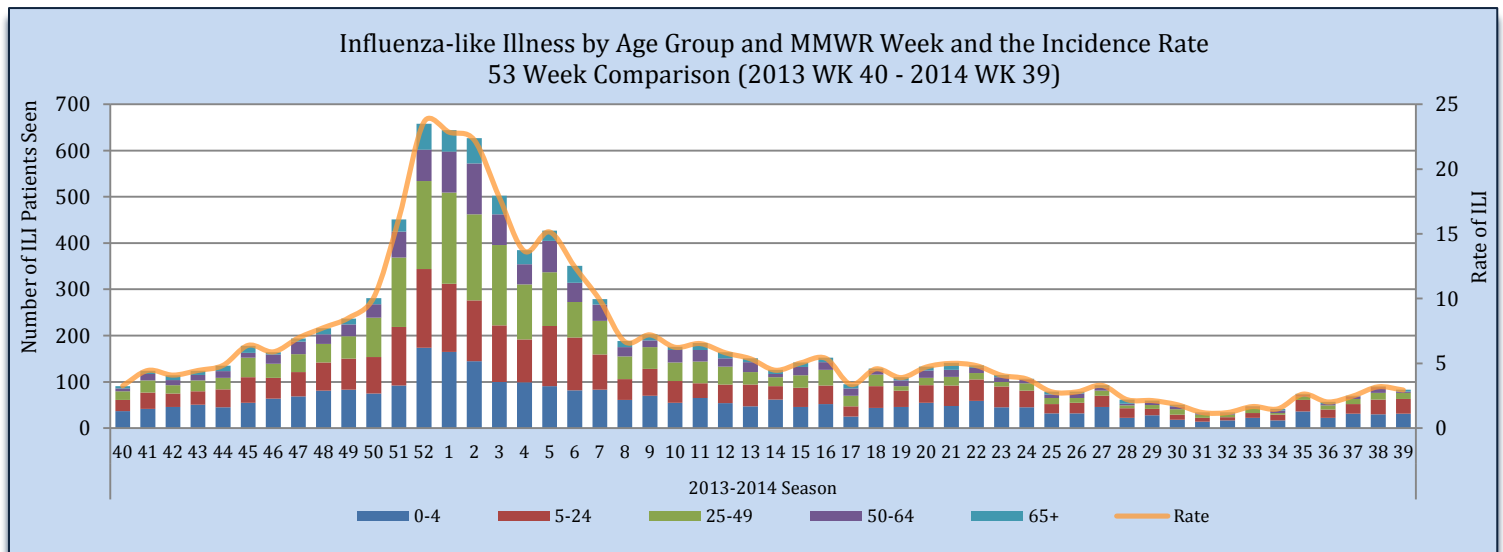
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during the 2013-2014 season, the highest age group reported to have ILI was age zero to four at 2,956 cases reported. The smallest number of ILI cases was the elderly age 65 and older, at 644 ILI cases reported for the season. 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

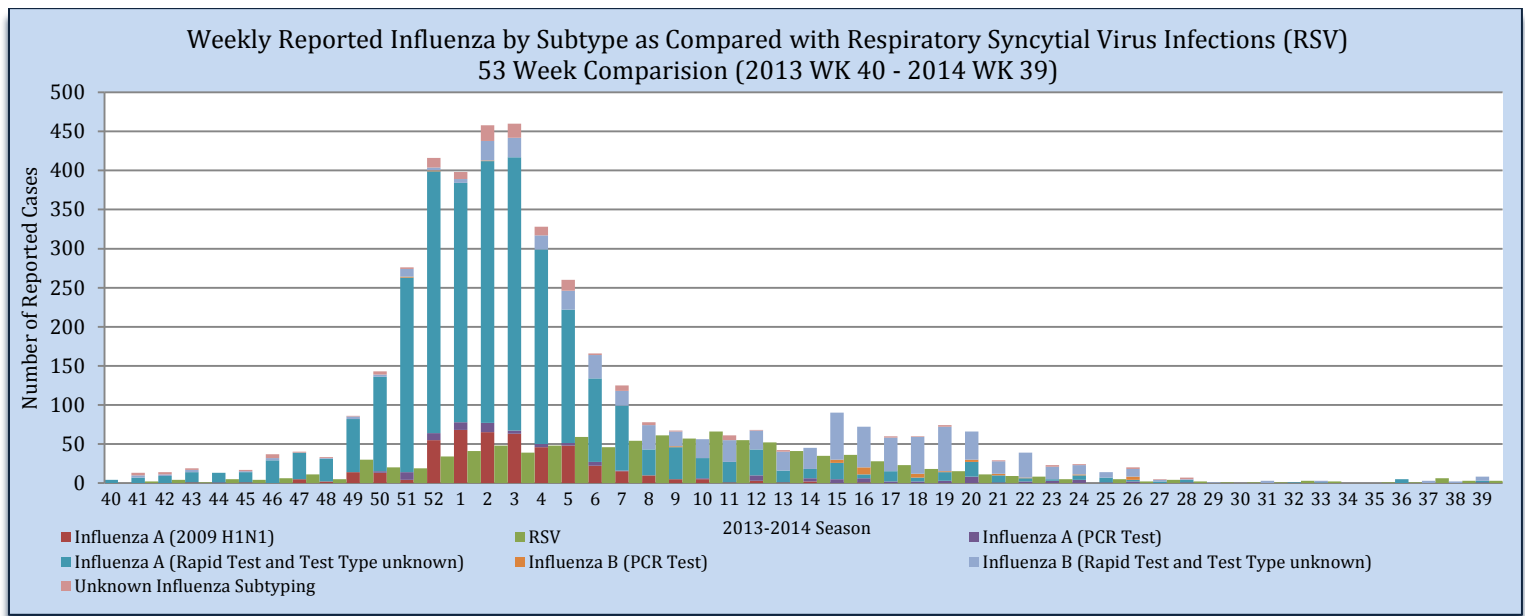


Source of Data: CDC: ILINet.

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 the 2013-2014 season there was an increase in the 2009 H1N1 from previous season, with 480 cases (11% of the total cases). Nevada's reported influenza cases peaked during week 3, this is 3 weeks after the ILI peak and the national ILI peak.

Figure 6



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

Table 2

Reporting Jurisdiction	Reported Influenza Cases by County Jurisdiction and Influenza Type				
	Cumulative Influenza Season				
	H1N1	A	B	Unknown	Total
Carson City Health and Human Services	18	386	55	17	476
Rural Health Services	98	254	81	46	479
Southern Nevada Health District	181	1,739	534	41	2,495
Washoe County Health District	183	535	130	35	883
State of Nevada	480	2,914	800	139	4,333

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 443 hospitalizations associated with influenza reported to the state health division for the 2013-2014 influenza season.

Table 3

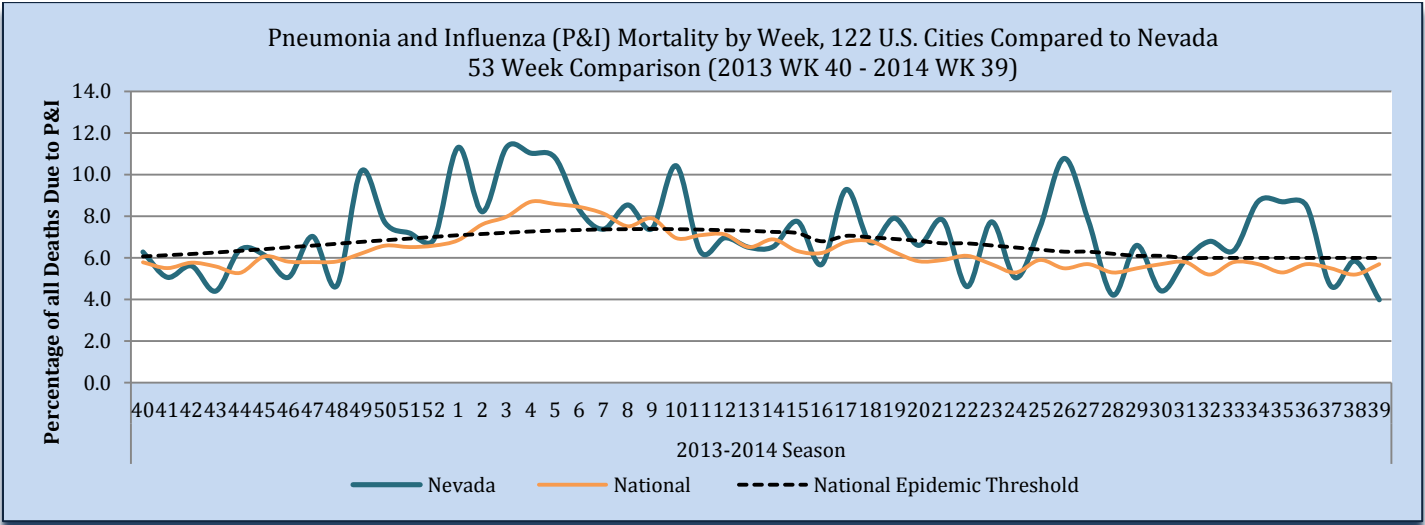
Influenza Hospitalizations		
Reporting Jurisdiction	Cumulative Influenza Season	
	#	%
Carson City Health and Human Services	22	5.0
Rural Health Services	7	1.6
Southern Nevada Health District	313	70.7
Washoe County Health District	101	22.8
State of Nevada	443	100

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 and Influenza is listed as a cause of death, divided by the total deaths in Nevada for each week. During the non-influenza season there were 463 P&I deaths (6.6%). The national P&I remained under the epidemic threshold throughout the non-influenza season.

Figure 4



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	
Sporadic	Not Increased	And	Isolated lab-confirmed cases †
			Or
Local	Not Increased	And	Lab confirmed outbreak in one institution ‡
	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
			Or
Regional	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
	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
			Or
Widespread	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
	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. DPBH. NBS. 2010-2014. Accessed October 2014.
4. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2012-2014. Accessed October 2014.
5. Southern Nevada Health District (SNHD). NETSS/Trisano. 2010-2014. Accessed October 2014.

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

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