Influenza Weekly Report

2013 Week 51 (December 15 - 21) through 2014 Week 51 (December 14 - 20)

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.

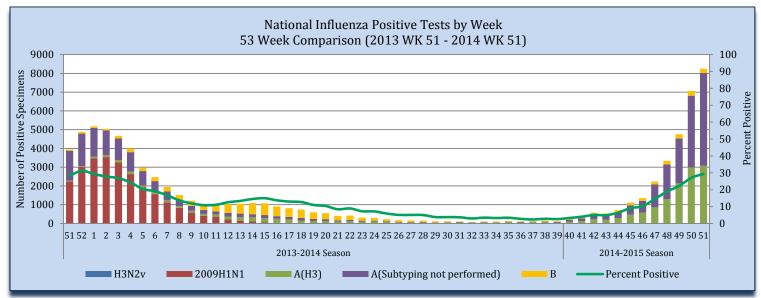
Purpose

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 51, there were 28,066 specimens collected and tested for influenza, of those 8,246 were positive (29.4%).

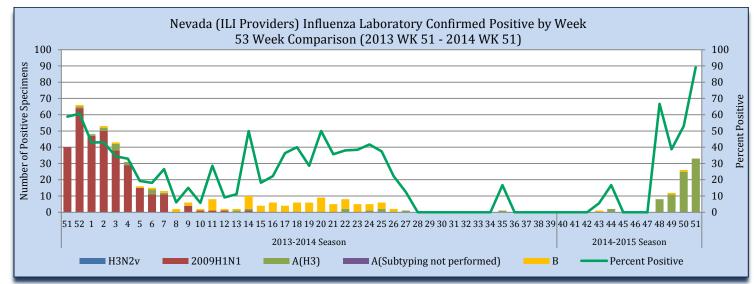




Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During week 51, there were 37 specimens collected and tested for influenza of which 33 were positive (89.2%).

Figure 2



Source of Data: CDC: ILINet.

Influenza Weekly Report

Nevada State Public Health Laboratory (NSPHL) has tested 103 specimens for influenza from sentinel providers, of which 71 have been positive (68.9%). Southern Nevada Public Health Laboratory (SNPHL) has test 191 specimens this season of which 14 were positive. Nationally, there have been 187,358 specimens sent to the WHO and NERVSS laboratories of which 30,649 were positive or 16.4%. 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.

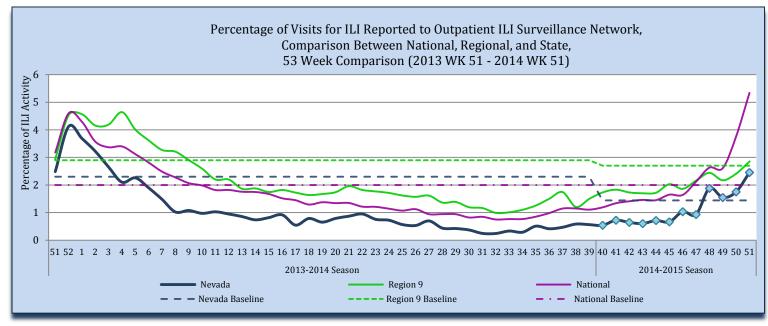
Table 1

ILINet Surveillance: Influenza Specimens Tested State and Nationally											
	NSPHL	SNPHL	State of Nevada (Week 51)		State of Nevada (Season)		National (Week 51)		National (Season)		
			#	%	#	%	#	%	#	%	
Specimens Tested	103	191	37		297		28,066		187,358		
Positives to Influenza	71	14	33	89.2	85	28.6	8,246	29.4	30,649	16.4	
Influenza A:	69	12	33	100	81	95.3	8,024	97.3	28,612	93.4	
A(2009 H1N1)	0	0	0	0.0	0	0.0	3	0.0	66	0.2	
A(H3)	69	12	33	100	81	100	3,074	38.3	16,247	56.8	
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	4,947	61.7	12,299	43.0	
<u>Influenza B:</u>	2	2	0	0.0	4	4.8	222	2.7	2,036	6.6	

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 51 is 2.5% and is above the state baseline 1.4. Region 9 ILI percentage for week 51 is 2.9% and is above the region baseline 2.7. Region 9 includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 51 is 5.3% and is above the national baseline 2.0.

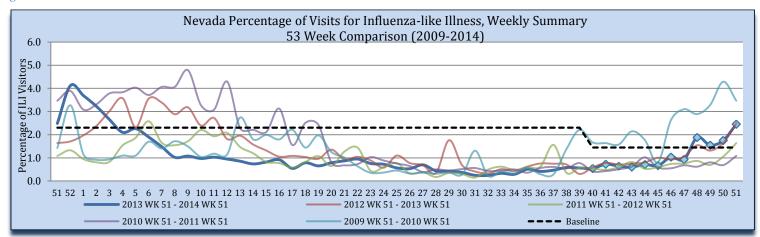
Figure 3



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

During week 51, 2.5% of visits to sentinel providers were due to ILI; this is the same percent as the 2013-2014 influenza season.

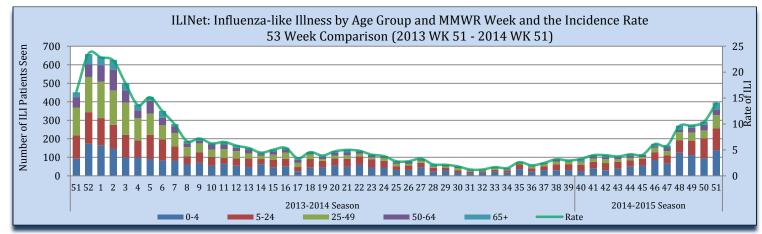
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during week 51, patients age 0-4 were the greatest number of patients seen with ILI, at 137 patients seen. The rate for week 51 is 13.8 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.





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 51, 216 patients were seen with ILI through BioSense, 1.7% of the total patients seen.

Table 2

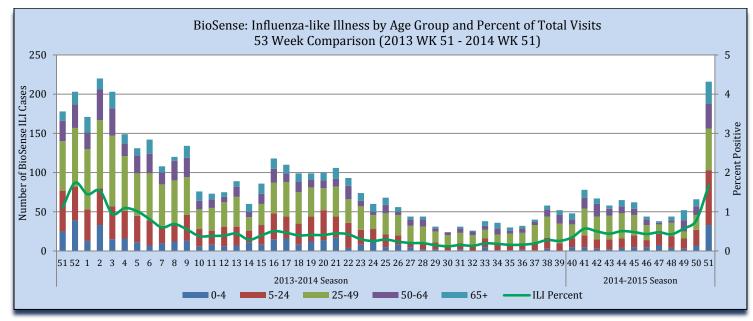
BioSense: Influenza-like Illness Monitoring by County Jurisdiction								
Domenting Invialistics		Current We	Cumulative Influenza Season					
Reporting Jurisdiction	#	%	% of Facilities Reporting	#	%			
Carson City Health and Human Services	54	25.0	66.7	193	23.0			
Rural Community Health Services	20	9.3	10.0	27	3.2			
Southern Nevada Health District	80	37.0	50.0	332	39.6			
Washoe County Health District	62	28.7	50.0	286	34.1			
State of Nevada	216	100	38.2	838	100			

Source of Data: BioSense.

Influenza Weekly Report

Influenza-like Illness monitored through BioSense had the highest patient visits with ILI in the 5-24 age groups at 70 patients, which is different from the ILINet surveillance (age group 0-4). The total patient seen with ILI increased from week 50 to week 51, from 66 patients to 216 patients.

Figure 6

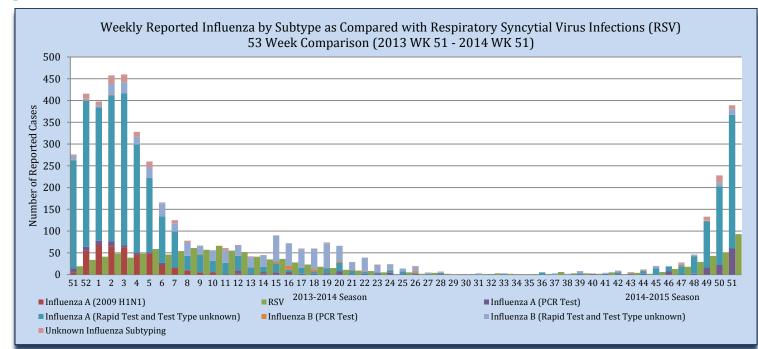


Source of Data: BioSense.

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 51, there were 389 influenza cases reported to the state, 367 influenza A cases, 13 influenza B cases and 9 unknown subtyping.

Figure 7



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

Table 3

	Reported Influenza Cases by County Jurisdiction and Influenza Type									
Reporting Jurisdiction	Current Week (Week 51)					Cumulative Influenza Season				
	H1N1	А	В	Unknown	Total	H1N1	А	В	Unknown	Total
Carson City Health and Human Services	0	34	4	1	39	0	59	7	1	67
Rural Community Health Services	0	46	1	4	51	0	165	5	24	194
Southern Nevada Health District	0	203	5	2	210	0	453	25	10	488
Washoe County Health District	0	84	3	2	89	0	128	21	2	151
State of Nevada	0	367	13	9	389	0	805	58	37	900

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 6 hospitalizations associated with influenza reported to the state health authority during week 51.

Table 4

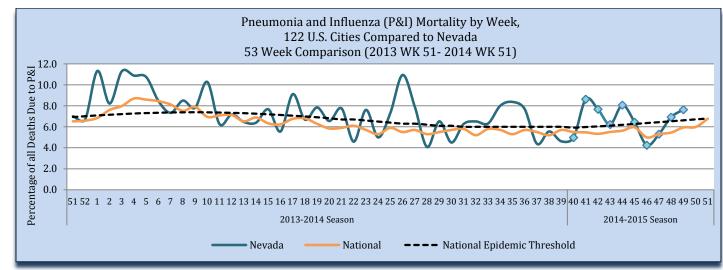
Influenza Hospitalizations							
Reporting Jurisdiction	Current We	ek (Week 51)	Cumulative Influenza Season				
	#	%	#	%			
Carson City Health and Human Services	0	0.0	0	0.0			
Rural Community Health Services	0	0.0	10	15.9			
Southern Nevada Health District	2	33.3	36	57.1			
Washoe County Health District	4	66.7	17	27.0			
State of Nevada	6	100	63	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. Mortality data is currently unavailable at the state level. Nationally, the P&I mortality is at the national epidemic threshold at 6.8%.

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. 2010-2014. Accessed January 2015.
- 5. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2012-2014. Accessed January 2015.
- 6. Southern Nevada Health District (SNHD). NETSS/Trisano. 2010-2014. Accessed January 2015.

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

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