Influenza Weekly Report

2013 Week 52 (December 22 - 28) through 2014 Week 53 (December 28 - January 3)

Department of Health and Human Services
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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.

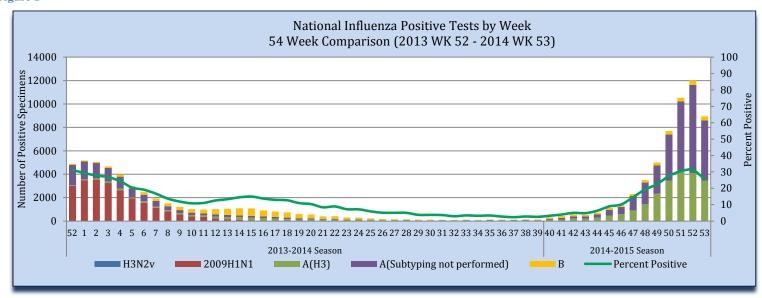
Purpose

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 53, there were 35,125 specimens collected and tested for influenza, of those 8,949 were positive (25.5%).

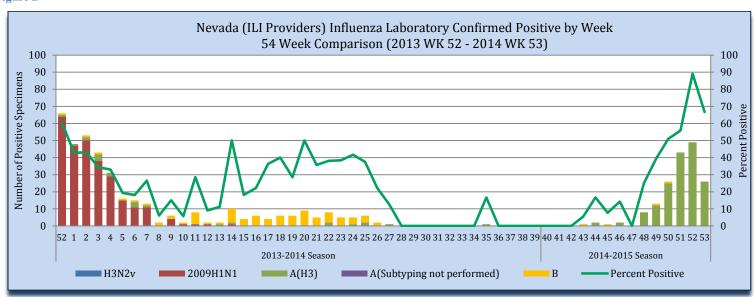
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During week 53, there were 39 specimens collected and tested for influenza of which 26 were positive (66.7%).

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 166 specimens for influenza from sentinel providers, of which 124 have been positive (74.7%). Southern Nevada Public Health Laboratory (SNPHL) has test 257 specimens this season of which 41 were positive. Nationally, there have been 261,603 specimens sent to the WHO and NERVSS laboratories of which 55,024 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.

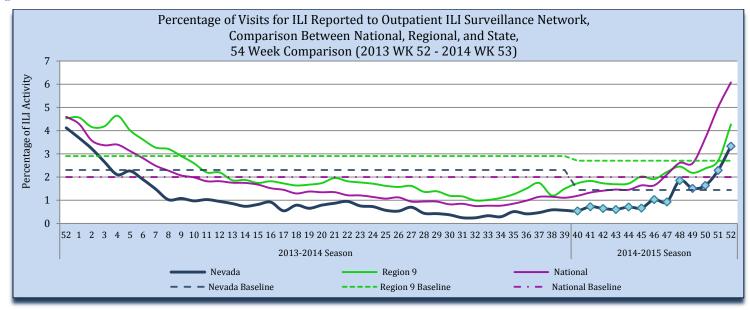
Table 1

ILINet Surveillance: Influenza Specimens Tested State and Nationally										
	NSPHL	L SNPHL	State of Nevada (Week 53)		State of Nevada (Season)		National (Week 53)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	166	257	39		435		35,125		272,399	
Positives to Influenza	124	41	26	66.7	171	39.3	8,949	25.5	55,024	20.2
<u>Influenza A:</u>	122	39	26	100	167	97.7	8,602	96.1	52,103	94.7
A(2009 H1N1)	0	0	0	0.0	0	0.0	8	0.1	107	0.2
A(H3)	122	39	26	100	167	100	3,427	39.8	30,120	57.8
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	5,167	60.1	21,876	42.0
<u>Influenza B:</u>	2	2	0	0.0	4	2.3	347	3.9	2,920	5.3

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 53 is 3.8% and is above the state baseline 1.4, the 6th consecutive week. Region 9 ILI percentage for week 53 is 4.7% and is above the region baseline 2.7% for the 2nd consecutive week. Region 9 includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 53 is 5.6% and is above the national baseline 2.0, for the 7th consecutive week.

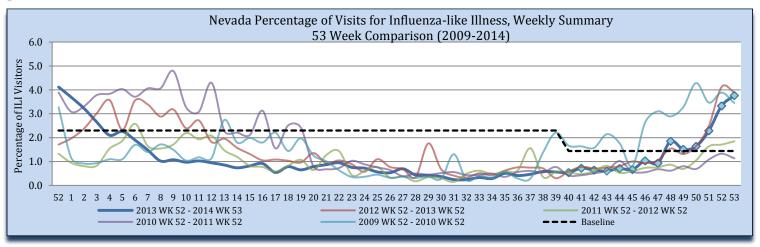
Figure 3



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

During week 53, 3.8% of visits to sentinel providers were due to ILI; this is the below the 2013-2014 influenza season (for week 52) ILI percent by 0.3%. There were 16,181 patients seen by ILI providers during week 53, of which 609 patients presented with ILI, similar to week 52 of last 2013 there were 658 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.

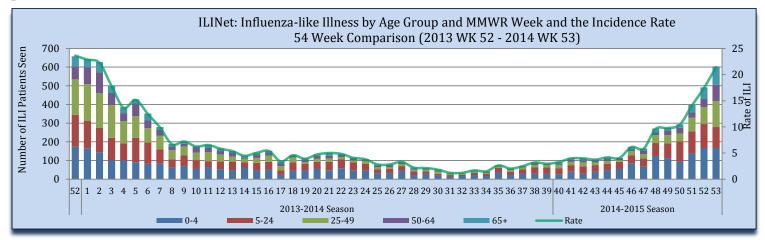
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during week 53, patients age 0-4 were the greatest number of patients seen with ILI, at 172 patients seen. The rate for week 53 is 21.6 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 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 53, 416 patients were seen with ILI through BioSense, 2.6% of the total patients seen.

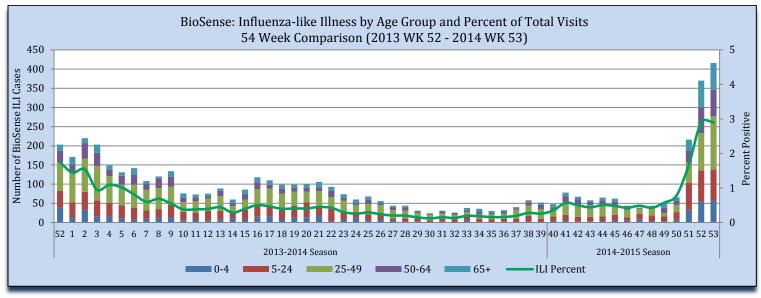
Table 2

BioSense: Influenza-like Illness Monitoring by County Jurisdiction								
		Current W	Cumulative Influenza Season					
Reporting Jurisdiction	#	%	% of Facilities Reporting	#	%			
Carson City Health and Human Services	88	21.2	66.7	357	22.0			
Rural Community Health Services	25	6.0	10.0	82	5.0			
Southern Nevada Health District	186	44.7	50.0	694	42.7			
Washoe County Health District	117	28.1	40.0	492	30.3			
State of Nevada	416	100	38.2	1,625	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 139 patients, which is different from the ILINet surveillance (age group 0-4). The total patient seen with ILI increased from week 52 to week 53, from 370 patients to 416 patients.

Figure 6

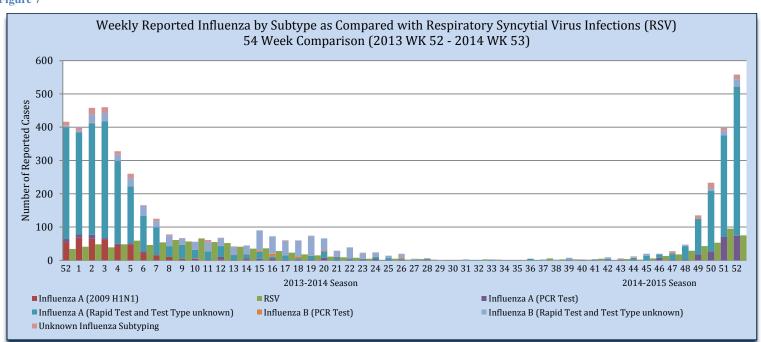


Source of Data: BioSense.

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 53, there were 656 influenza cases reported to the state, 598 influenza A cases, 23 influenza B cases and 35 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		Curre	ent Weel	k (Week 53)		Cumulative Influenza Season				
	H1N1	A	В	Unknown	Total	H1N1	A	В	Unknown	Total
Carson City Health and Human Services	0	68	4	0	72	0	190	21	2	213
Rural Community Health Services	0	37	0	5	42	0	269	6	34	309
Southern Nevada Health District	0	365	5	28	398	0	1,098	38	42	1,178
Washoe County Health District	0	128	14	2	144	0	383	38	12	433
State of Nevada	0	598	23	35	656	0	1,940	103	86	2,129

Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 57 hospitalizations associated with influenza reported to the state health authority during week 53.

Table 4

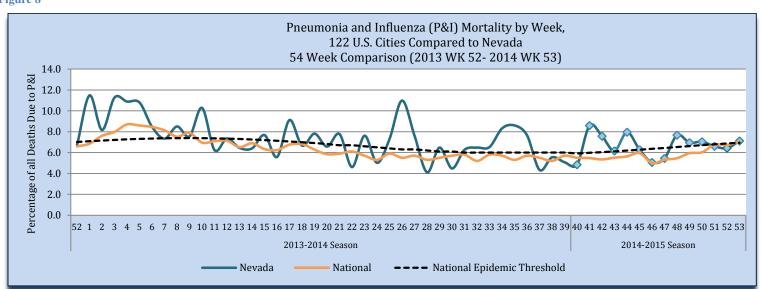
Influenza Hospitalizations							
Reporting Jurisdiction	Current Wee	ek (Week 53)	Cumulative Influenza Season				
	#	%	#	%			
Carson City Health and Human Services	5	8.8	12	7.8			
Rural Community Health Services	0	0.0	11	7.2			
Southern Nevada Health District	22	38.6	68	44.4			
Washoe County Health District	30	52.6	62	40.5			
State of Nevada	57	100	153	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 32 P&I deaths and 450 total deaths for week 53. The P&I mortality percent is above the threshold at 7.1% (threshold 7.0%). Nationally, the P&I mortality is above the national epidemic threshold at 7.1%.

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.

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

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