

# Influenza Weekly Report

2013 Week 03 (January 13 – 19) through 2014 Week 03 (January 12 - 18)

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.**

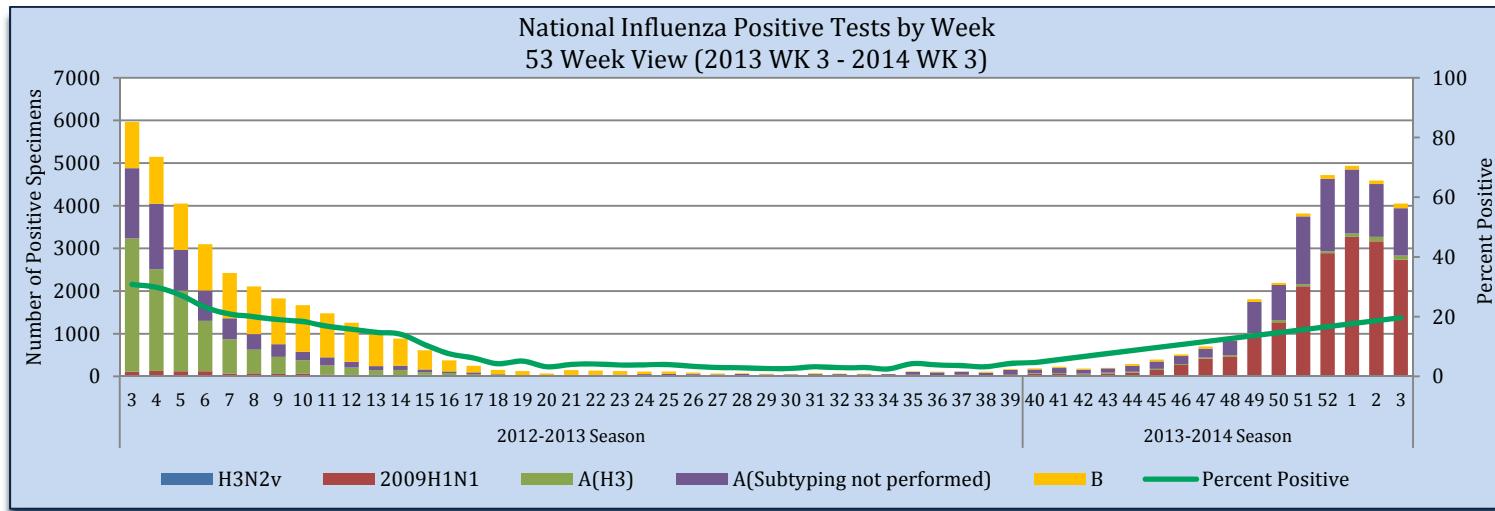
## Purpose

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 (NREVSS) collaborating laboratories by sub-type. There were 15,673 specimens collected nationally during week 3 that were tested for influenza; of these 4,050 tested positive for influenza or the percent positive was 19.7%.

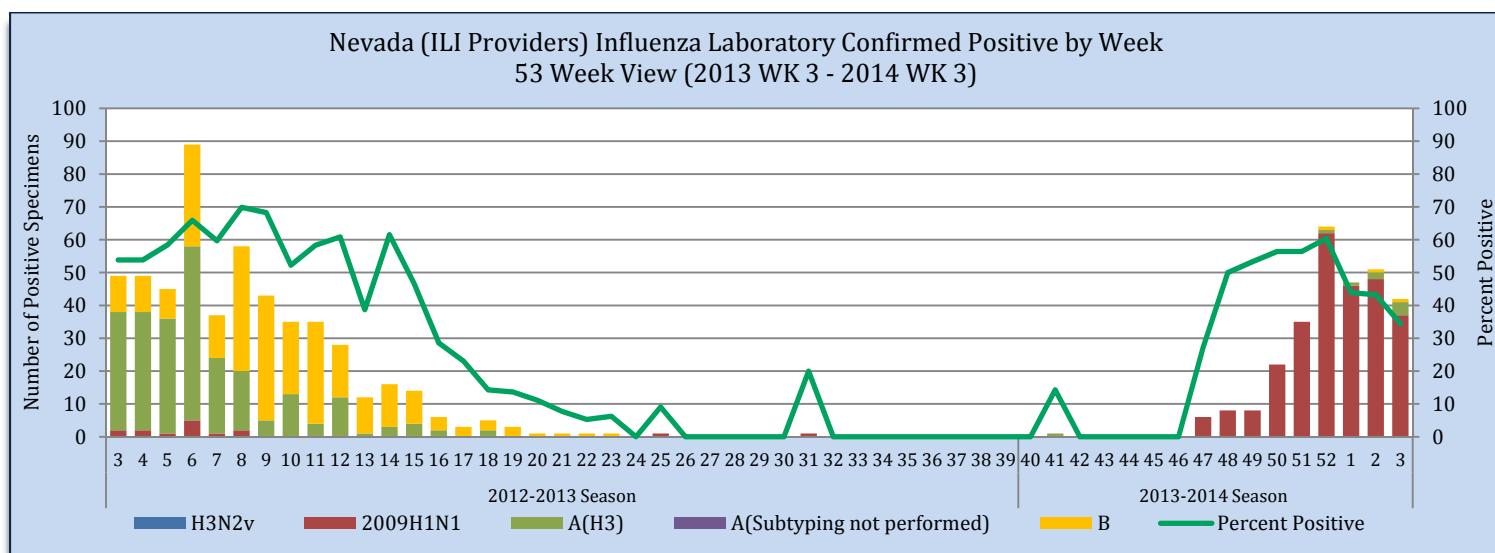
**Figure 1**



Source of Data: CDC: FluView Weekly Report.

Of the 122 specimens tested for influenza at both the Nevada State Public Health Laboratory and Southern Nevada Public Health Laboratory for sentinel providers, 42 were positive during week 3 or 34.4%.

**Figure 2**



Source of Data: CDC: ILINet.

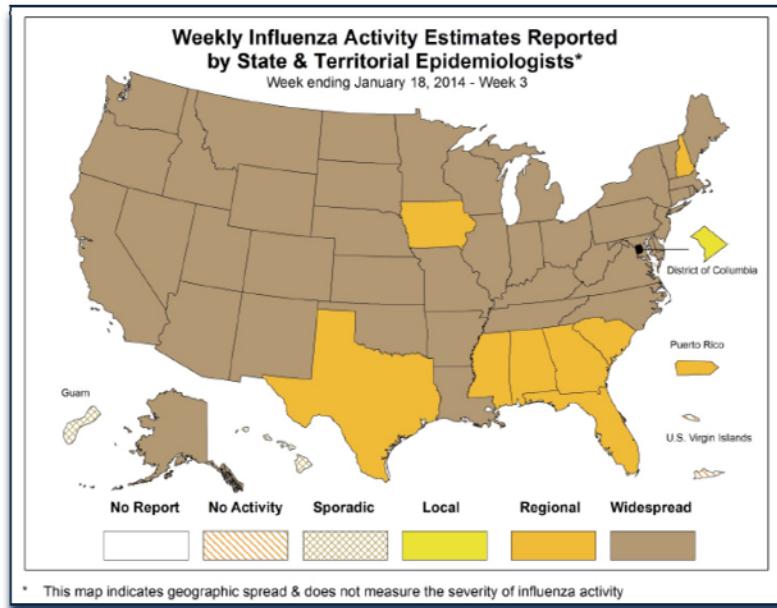
Nevada State Public Health Laboratory (NSPHL) has tested 486 specimens this season with 256 positive from sentinel providers (52.7% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 28 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 154,628 specimens sent to the WHO and NERVSS laboratories with 29,687 positive or 19.2%. The national numbers in table 1 are reflected in figure 1. The state of Nevada data in table 1 is reflected in figure 2.

**Table 1**

ILINet Surveillance: Influenza Specimens Tested State and Nationally										
	NSPHL	SNPHL	State of Nevada (Week 3)		State of Nevada (Season)		National (Week 3)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	486	179	122		665		15,673		154,628	
Positives to Influenza	256	28	42	34.4	284	42.7	4,050	25.8	29,687	19.2
<b>Influenza A:</b>	254	27	41	97.6	281	98.9	3,941	97.3	28,826	97.1
A(2009 H1N1)	246	26	37	90.2	272	96.8	2,736	69.4	18,062	62.7
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	1,108	28.1	10,116	35.1
A(H3)	8	1	4	9.8	9	3.2	97	2.5	648	2.2
<b>Influenza B:</b>	2	1	1	2.4	3	1.1	109	2.7	860	2.9

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

For week 3, Nevada reported widespread activity to the CDC, along with 40 states (Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming). Activity level<sup>1</sup> is derived from data analyzed from Influenza-like Illness (ILI) surveillance (laboratory and sentinel data), and data reported to the state through NBS/NETSS.

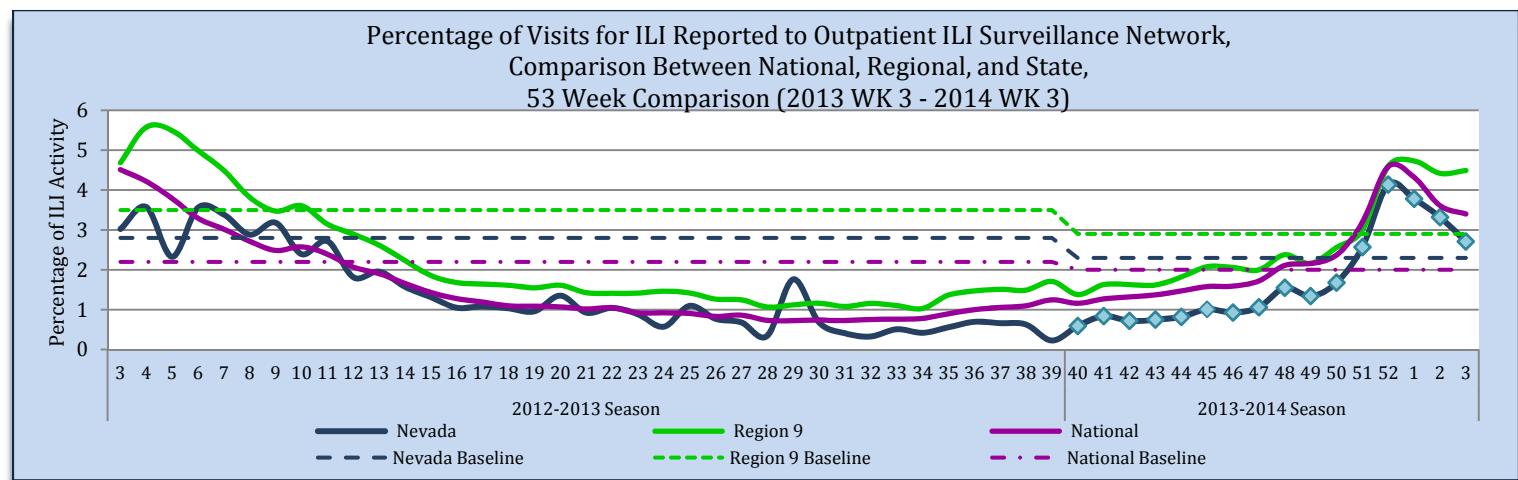
**Figure 3**

Source of Maps: CDC: FluView Report.

Influenza-like Illness (ILI) Network Surveillance has each sentinel providers report the number of patients that meet the ILI case definition<sup>2</sup> and number of patients that visit the provider weekly, which decreased from 18,758 (week 2) to 18,241 (week 3). The “percentage of visits” is the number of ILI patients divided by the total number of patient visit per week. Nevada's ILI percentage of visits to providers decreased to 2.7% during week 3, and is below the state baseline of 2.3%. Region 9 increased in ILI to 4.5% from 4.4%, and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The nation decreased to 3.4% from 3.6% during week 3.

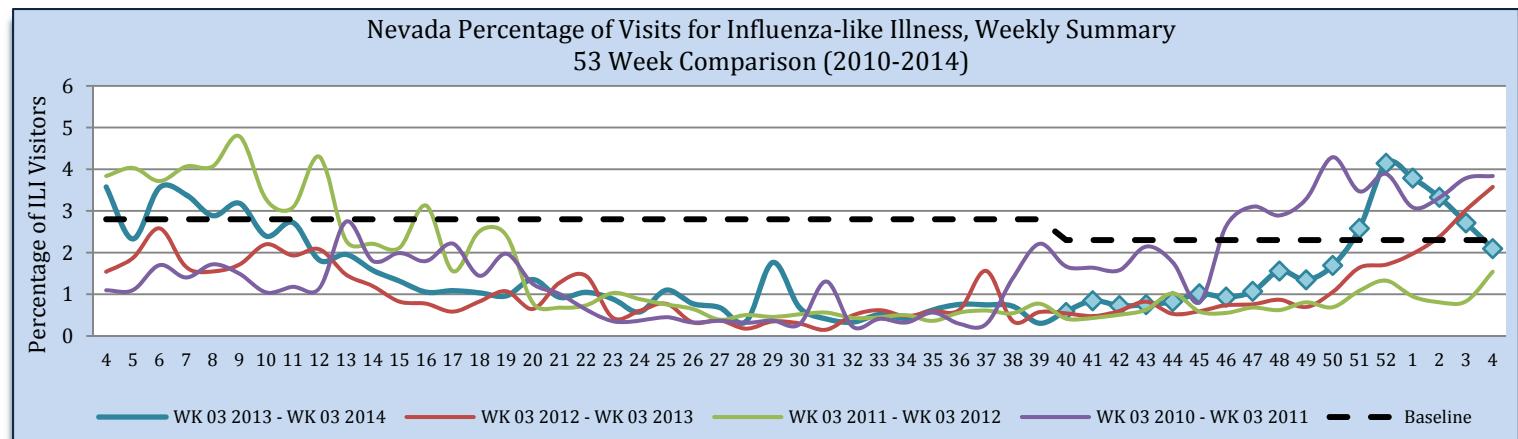
1: Activity level: Appendix Table 4.

2: ILI case definition: Technical Notes.

**Figure 4**

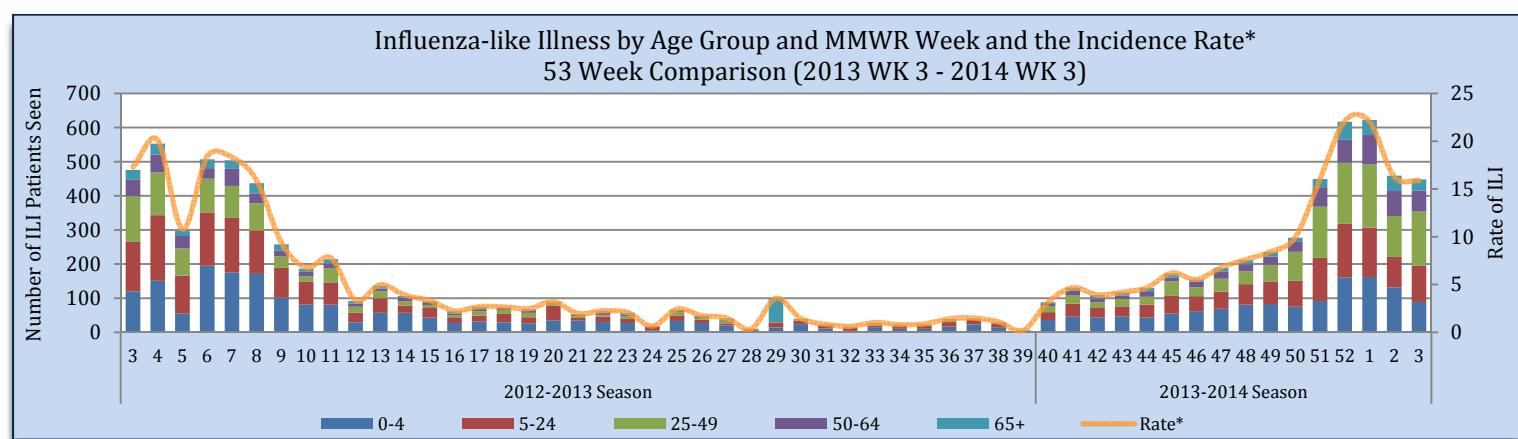
Source of Data: CDC: Flu View Report and CDC: ILINet.

During week 3, 2.7% of visits to sentinel providers were due to ILI. This is a 0.3% point decrease from week 3 of the 2012-2013 influenza season.

**Figure 5**

Source of Data: CDC: ILINet.

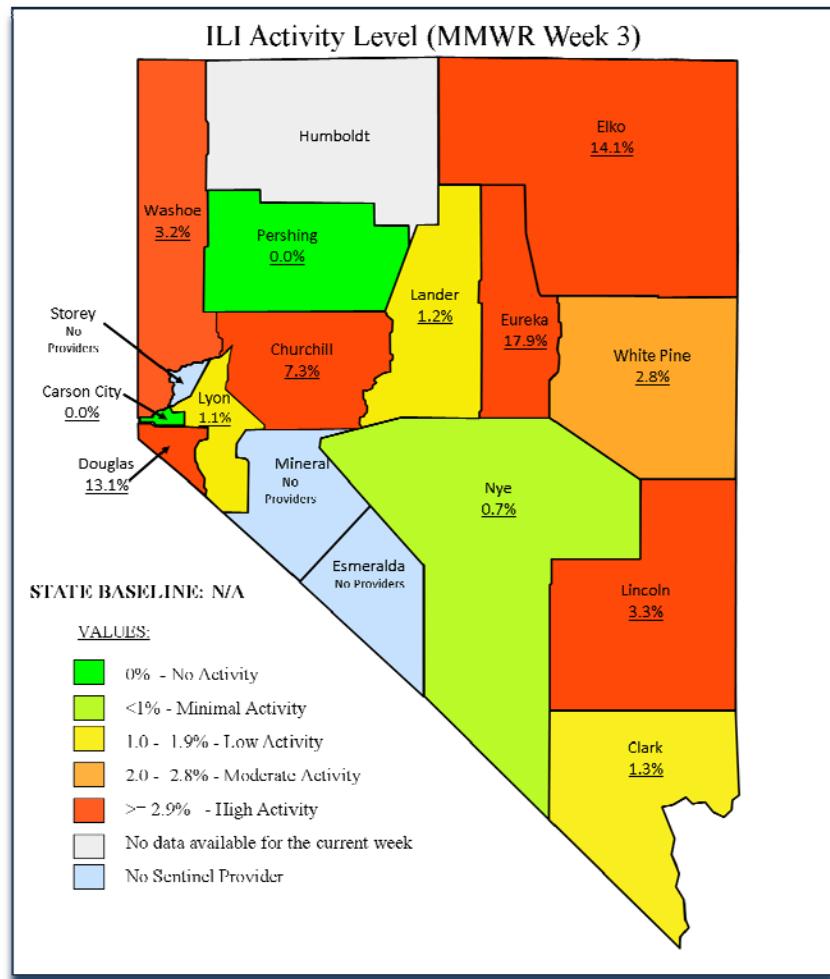
The number of ILI patients and rate decreased from week 2 to week 3, from 624 to 495, and 22.1 to 17.6 per 100,000 population. The rate is calculated by the number of patients presented with ILI divided by the state population multiplied by 100,000. The estimated state population for 2014 is 2,819,321.

**Figure 6**

Source of Data: CDC: ILINet.

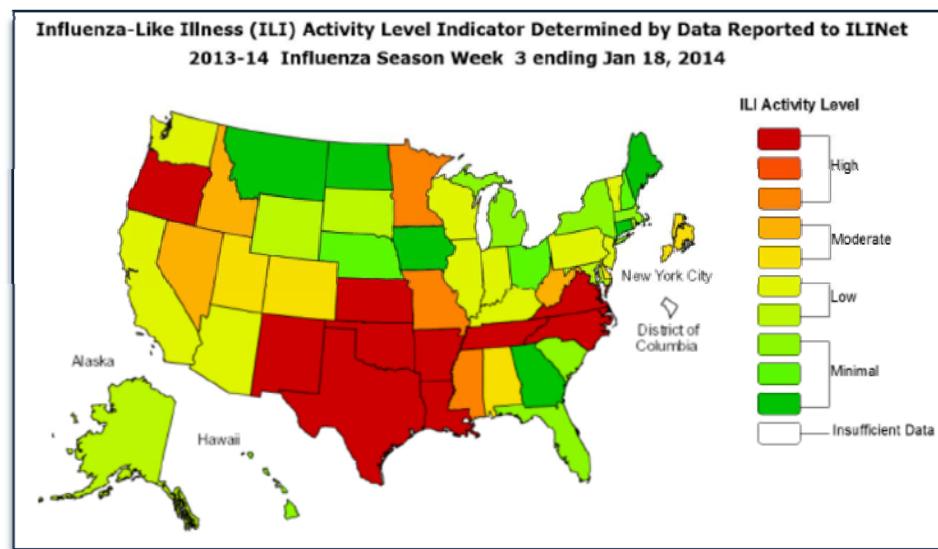
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 3, Churchill, Douglas, Elko, Eureka, Lincoln, and Washoe counties had high activity; White Pine had moderate activity; Humboldt County did not report for week 3 (Figure 7). Overall, Nevada had moderate activity monitored through ILINet (Figure 8).

**Figure 7**



Source of Data: CDC: ILINet.

**Figure 8**

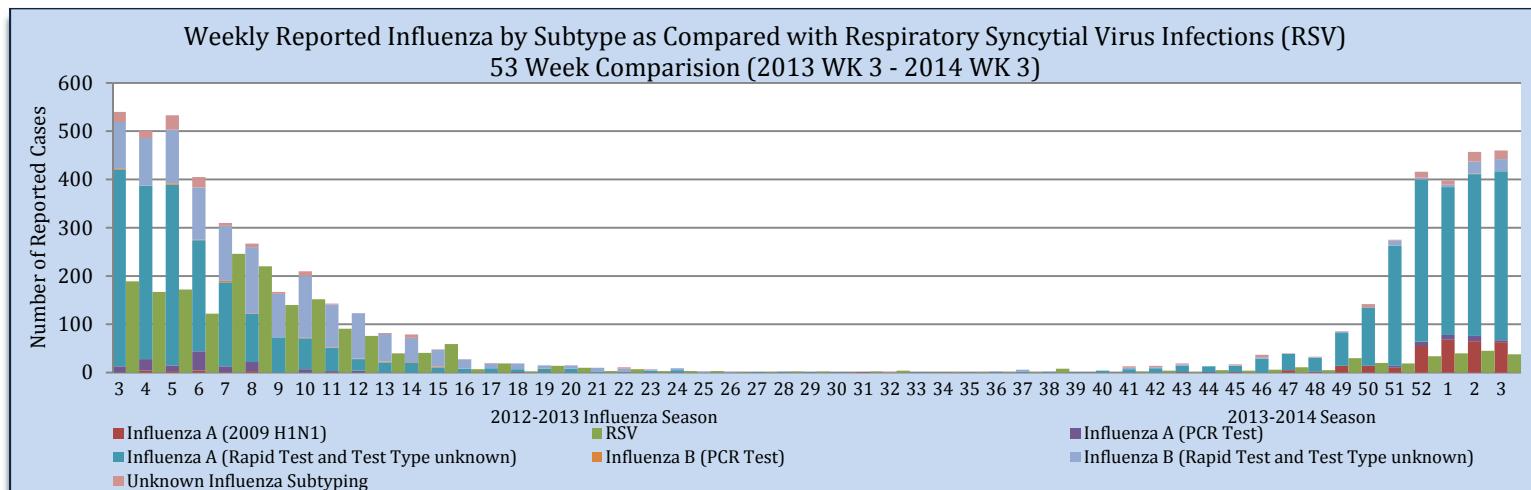


Source of Map: CDC: FluView Report.

## Influenza Positive Surveillance (NBS and NETSS)

Positive cases of influenza are reported to the state health division for surveillance purposes. Figure 10 and 11 reflect 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 3, there were 63 H1N1 cases and 354 Influenza A cases. There were 25 positive Influenza B cases. Overall, there were 460 influenza positive tests in Nevada, whereas during the previous season for week 3, there were 540 cases.

**Figure 9**



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

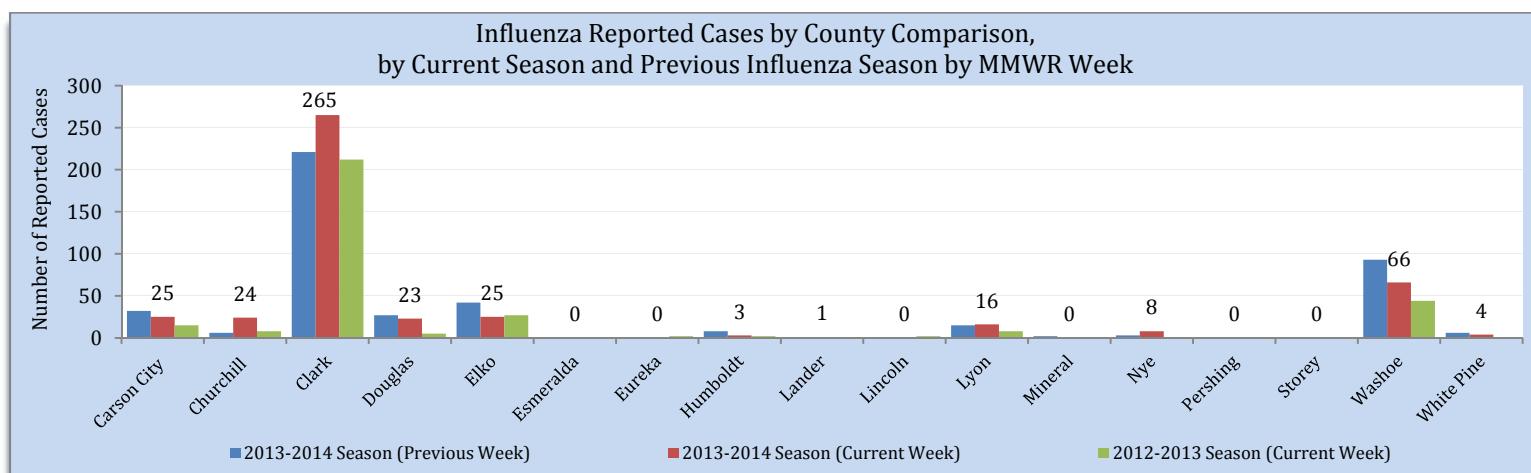
**Table 2**

Reporting Jurisdiction	Reported Influenza Cases by County Jurisdiction and Influenza Type									
	Current Week (Week 3)				Total	Cumulative Influenza Season				
	H1N1	A	B	Unknown		H1N1	A	B	Unknown	Total
Carson City Health and Human Services	3	55	2	4	64	10	295	6	8	319
Rural Health Services	19	36	2	8	65	62	178	19	33	292
Southern Nevada Health District	24	219	21	1	265	90	1,036	48	16	1,190
Washoe County Health District	17	44	0	5	66	149	432	17	25	623
State of Nevada	63	354	25	18	460	311	1,941	90	82	2,424

Source: OPHIE: NBS and SNHD: NETSS.

Clark County had an increase in influenza from week 2 with 221 to 265 cases during week 3. Washoe County had a decrease in influenza from week 2, from 93 to 66 cases. Carson City, Churchill, Douglas, Elko, Humboldt, Lander, Lyon, Nye, and White Pine counties all had influenza activity for week 3.

**Figure 10**



Source: OPHIE: NBS and SNHD: NETSS.

## Hospitalizations

There have been 233 hospitalizations associated with influenza this season.

**Table 3**

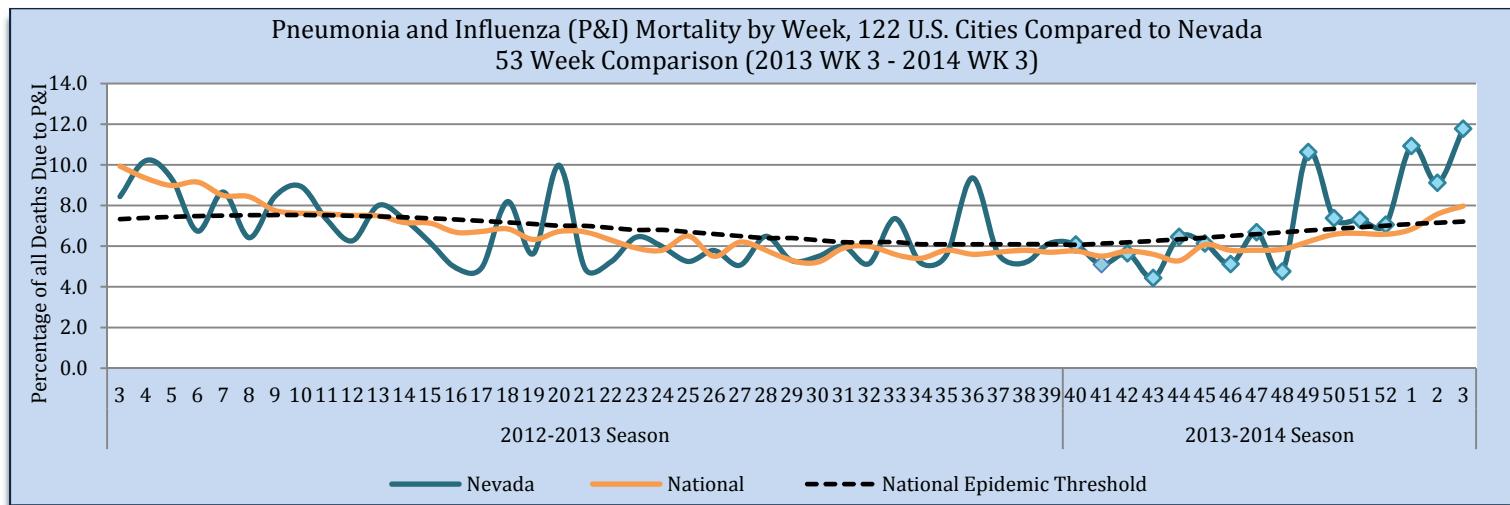
Reporting Jurisdiction	Influenza Hospitalizations		Cumulative Influenza Season	
	Current Week (Week 3) #	Current Week (Week 3) %	Cumulative Influenza Season #	Cumulative Influenza Season %
Carson City Health and Human Services	1	2.8	19	8.2
Rural Health Services	1	2.8	5	2.1
Southern Nevada Health District	27	75.0	141	60.5
Washoe County Health District	7	19.4	68	29.2
State of Nevada	36	100	233	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. There were 34 P&I deaths and 399 total deaths for week 3, as of February 18. The P&I mortality percentage is above the national epidemic threshold at 11.8%, (threshold 7.2%). Nationally, the P&I mortality has surpassed the threshold at 8.0%.

**Figure 11**



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
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
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.
- NEDDS 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. 2003-2012 ASRHO Estimates and Projections. Division of Public and Behavioral Health edition. Vintage 2012.
3. OPHIE. DPBH. NBS. 2010-2013. Accessed January 2014.
4. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2012-2013. Accessed January 2014.
5. Southern Nevada Health District (SNHD). NETSS/Trisano. 2010-2013. Accessed January 2014.

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