

Influenza Weekly Report

2012 Week 49 (December 2 – 8) through 2013 Week 49 (December 1-7)

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.

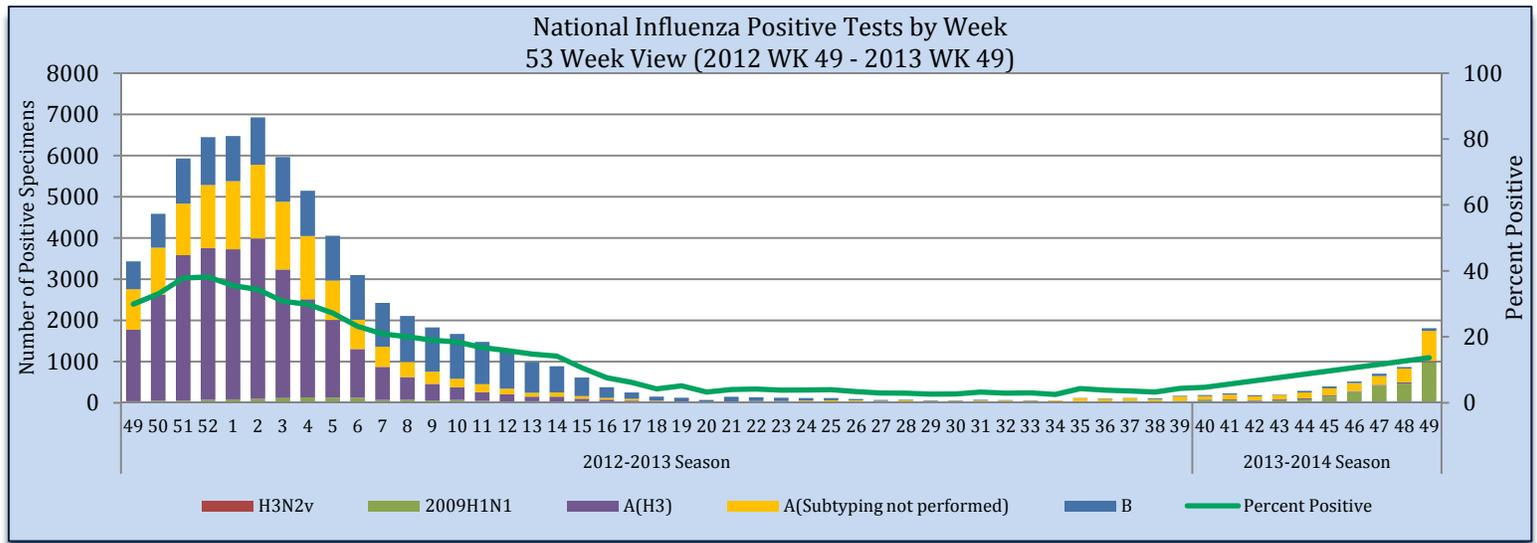
Purpose

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. There were 9,848 specimens collected nationally during week 49 that were tested for influenza; of these 1,810 tested positive or the percent positive was 13.7%.

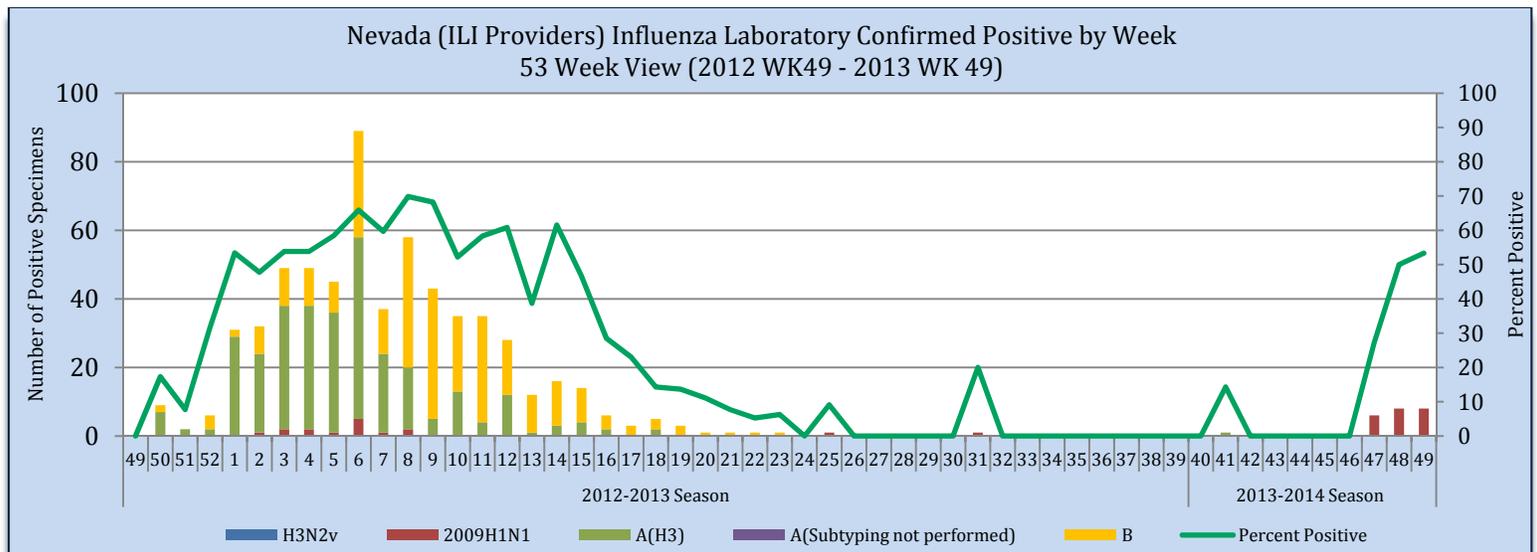
Figure 1



Source of Data: CDC: FluView Weekly Report.

Of the Nevada 15 specimens tested for influenza at both the Nevada State Public Health Laboratory and Southern Nevada Public Health Laboratory for sentinel providers, 8 were positive with influenza during week 49 or 53.3%.

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 32 specimens this season with 22 positive from sentinel providers (68.8% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 1 positive influenza specimen through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 66,359 specimens sent to the WHO and NERVSS laboratories with 5,384 positive or 8.1%. The national data in table 1 are reflected in figure 1. The state of Nevada data in table 1 is reflected in figure 2.

Table 1

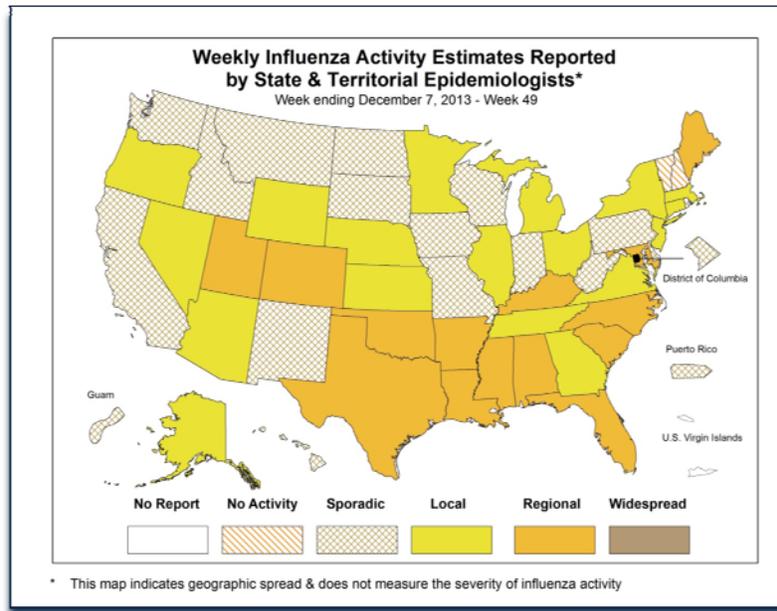
ILINet Surveillance: Influenza Specimens Tested State and Nationally

	NSPHL	SNPHL	State of Nevada (Week 49)		State of Nevada (Season)		National (Week 49)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	32	79	15		111		9,848		66,359	
Positives to Influenza	22	1	8	53.3	23	20.7	1,180	18.4	5,384	8.1
Influenza A:	22	1	8	100	23	100	1,743	96.3	5,003	92.9
A(2009 H1N1)	21	1	8	100	22	95.7	984	56.5	2,619	52.3
A(Sub-typing not performed)	0	0	0	0.0	0	0	727	41.7	2,161	43.2
A(H3)	1	0	0	0.0	1	4.3	32	1.8	223	4.5
Influenza B:	0	0	0	0.0	0	0.0	67	3.7	380	7.1

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

For week 49, Nevada reported local activity to the CDC along with 17 states (Alaska, Arizona, Connecticut, Georgia, Illinois, Kansas, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Ohio, Oregon, Tennessee, Virginia, and Wyoming). Activity level¹ 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



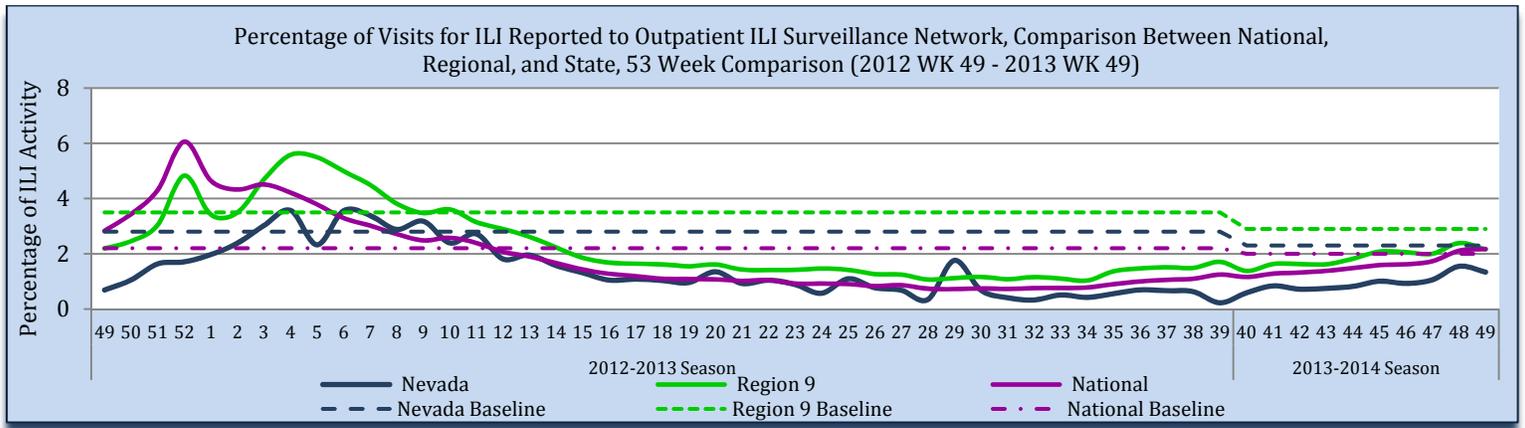
Source of Maps: CDC: FluView Report.

Influenza-like Illness (ILI) Network Surveillance has each sentinel providers report the number of patients that meet the ILI case definition² and number of patients that visit the provider weekly, which increased from 13,605 (week 48) to 17,444 (week 49). 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 1.3% during week 49, and is below the state baseline of 2.3%. Region 9 decreased in ILI to 2.2% from 2.4%, and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The nation increased to 2.2% from 2.1% during week 49.

1: Activity level: Appendix Table 4.

2: ILI case definition: Technical Notes.

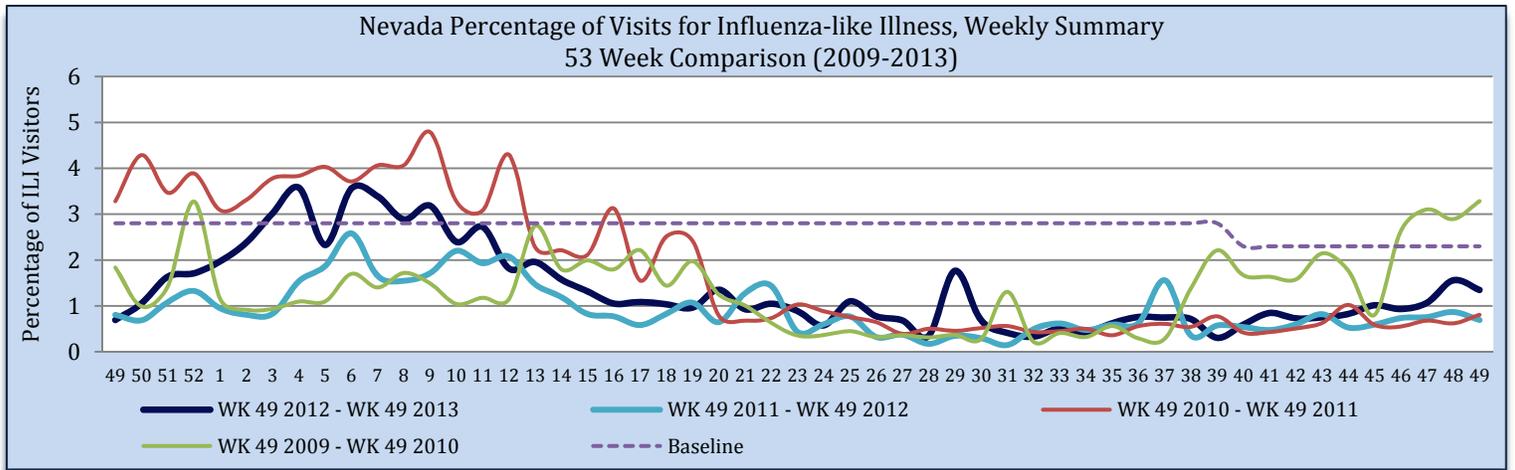
Figure 4



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

During week 49, 1.3% of visits to sentinel providers were due to ILI. This is a 0.7% point increase from week 49 of the 2012-2013 influenza season.

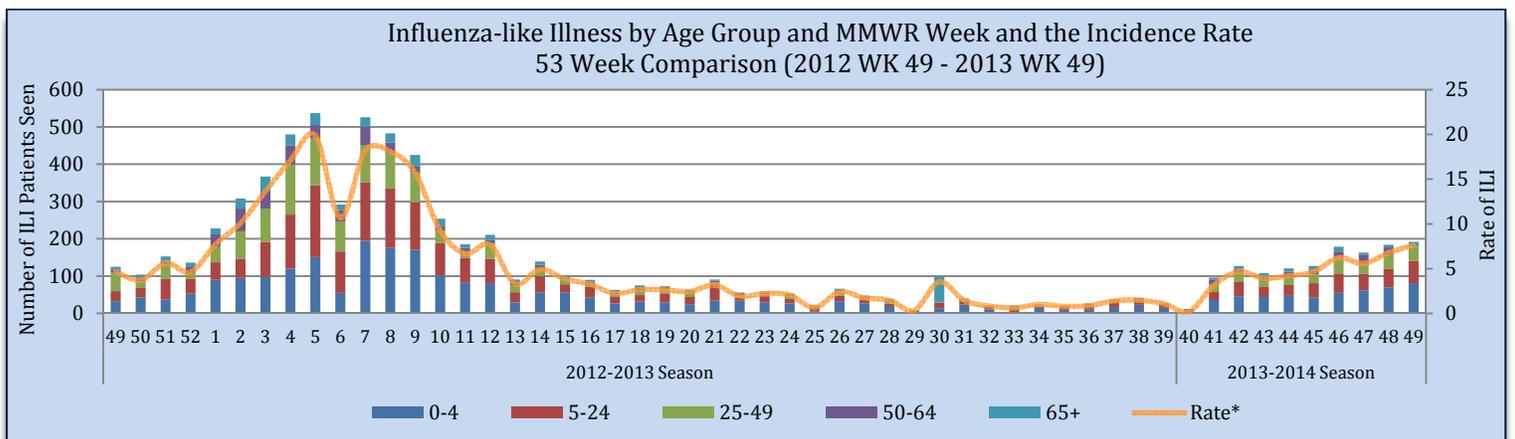
Figure 5



Source of Data: CDC: ILINet.

The number of ILI patients and rate increased from week 48 to week 49, from 212 to 235, and 7.6 to 8.4 per 100,000 population. The rate is calculated by the number of patients presented with ILI divided by the state population per 100,000. The estimated state population for 2013 is 2,783,948.

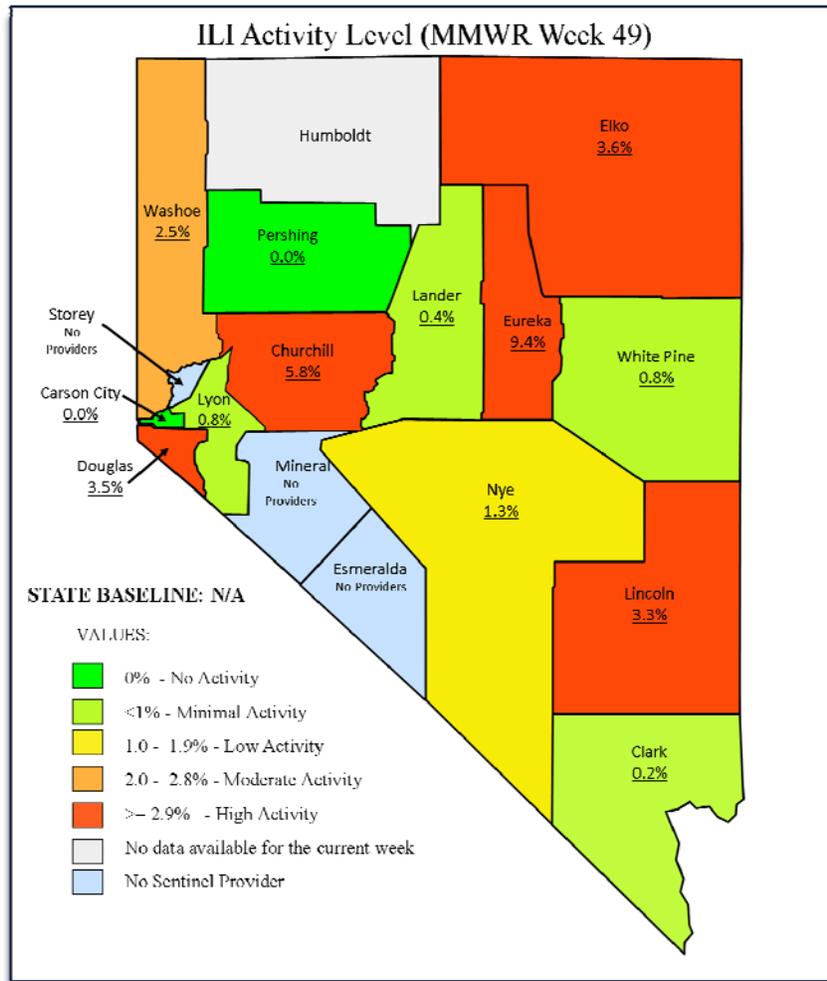
Figure 6



Source of Data: CDC: ILINet.

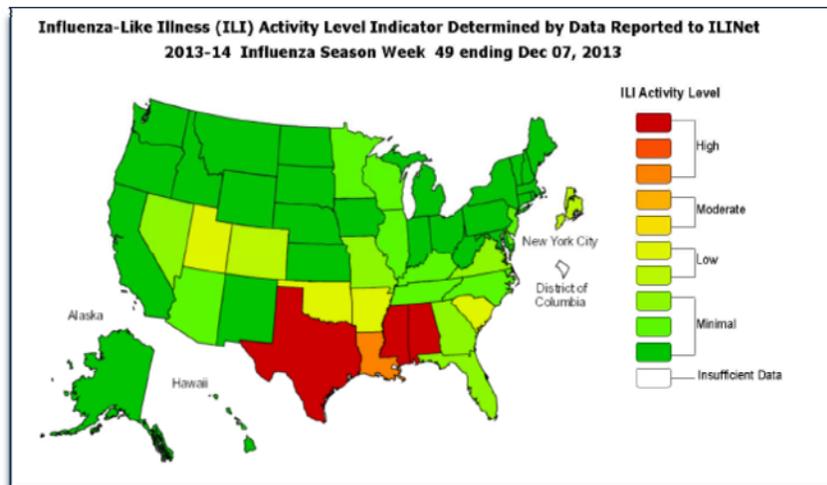
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 49, Churchill, Douglas, Elko, Eureka and Lincoln counties had high activity; Washoe County had moderate activity; Humboldt County did not report for week 49 (Figure 7). Overall, Nevada had minimal activity monitored through ILINet (Figure 8).

Figure 7



Source of Data: CDC: ILINet.

Figure 8

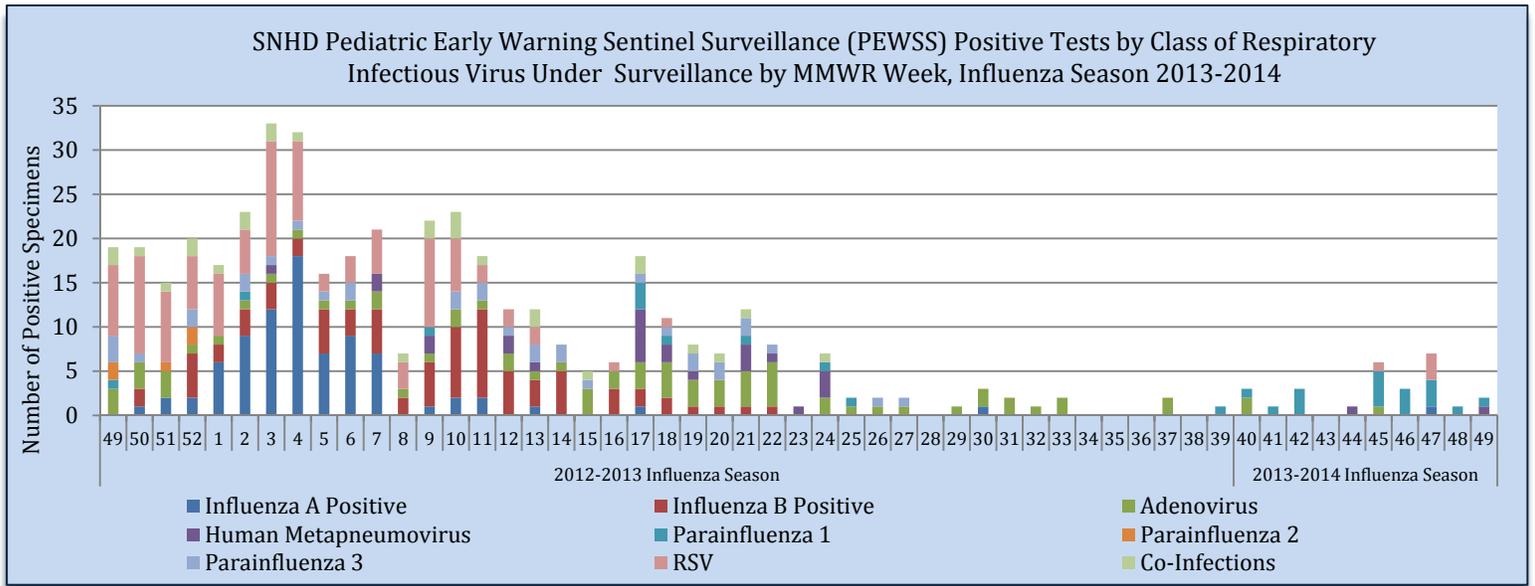


Source of Map: CDC: FluView Report.

Pediatric Early Warning Sentinel Surveillance (PEWSS)

Parainfluenza1 is at a low for week 49 and Human Metapneumovirus has been at a sporadic level over the past 5 weeks.

Figure 9

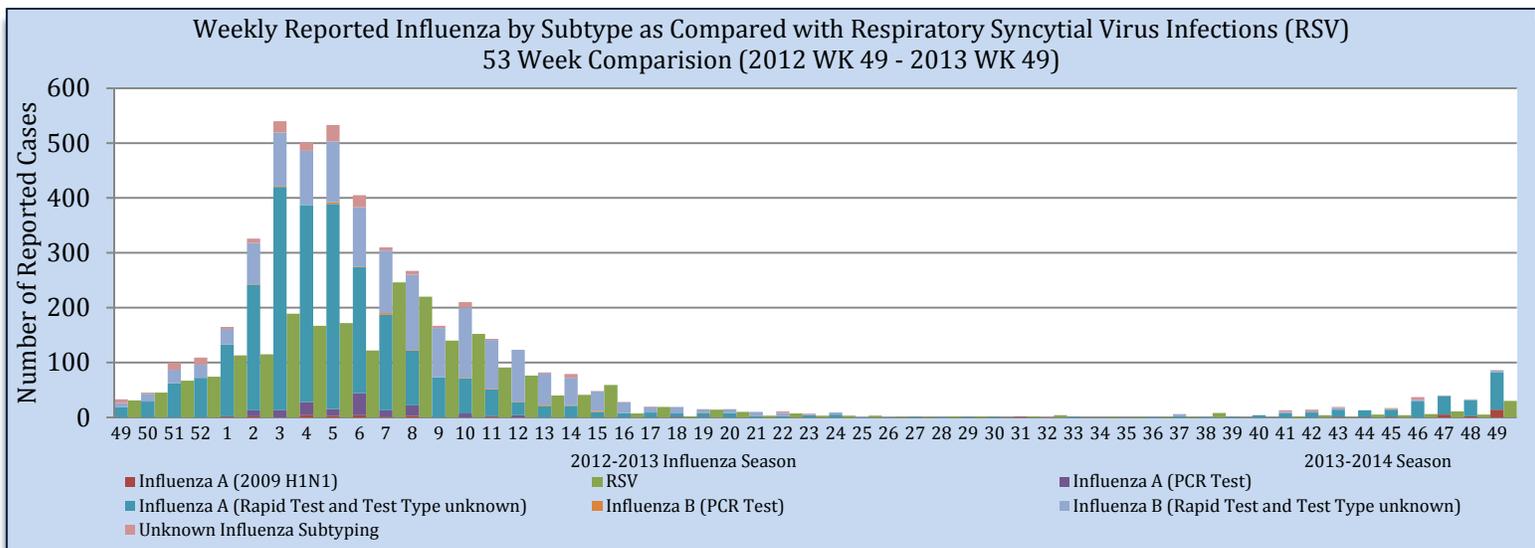


Source of Data: Southern Nevada Health District: PEWSS.

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 49, there were 14 H1N1 cases and 68 Influenza A cases. There were 3 positive Influenza B cases. Overall, there were 86 influenza positive tests in Nevada, whereas during the previous season for week 49, there were 33 cases.

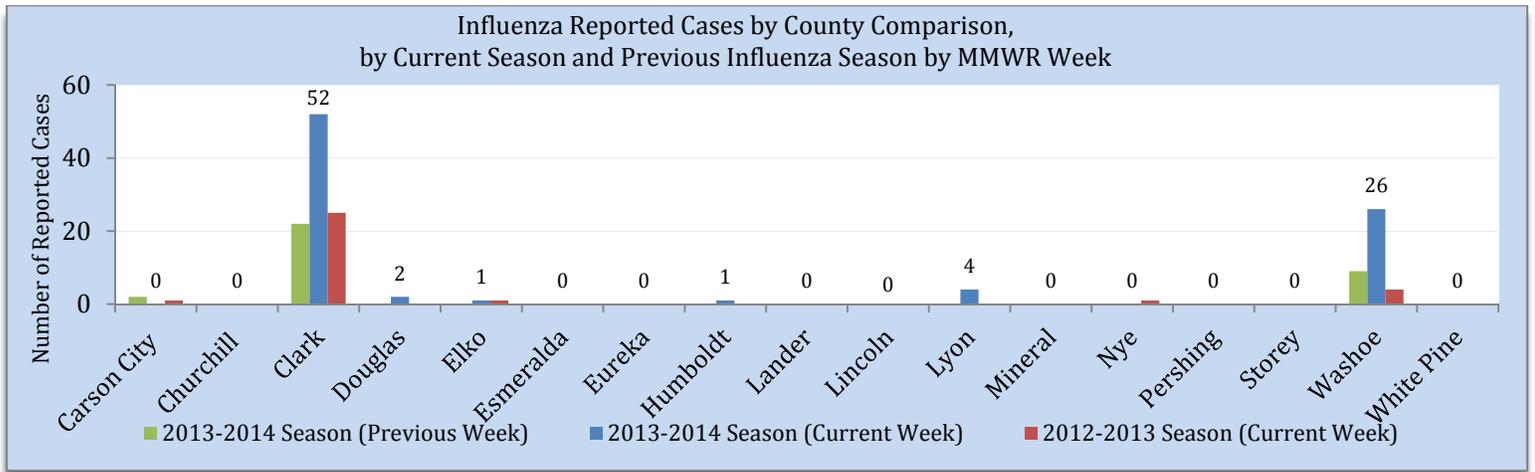
Figure 10



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

Clark County experienced an increase in influenza from week 48 with 22 to 52 influenza cases during week 49. Washoe County experienced an increase in influenza from week 48, from 9 to 26 influenza cases. Douglas, Elko and Lyon counties also had influenza activity.

Figure 11



Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 36 hospitalizations associated with influenza this season.

Table 2

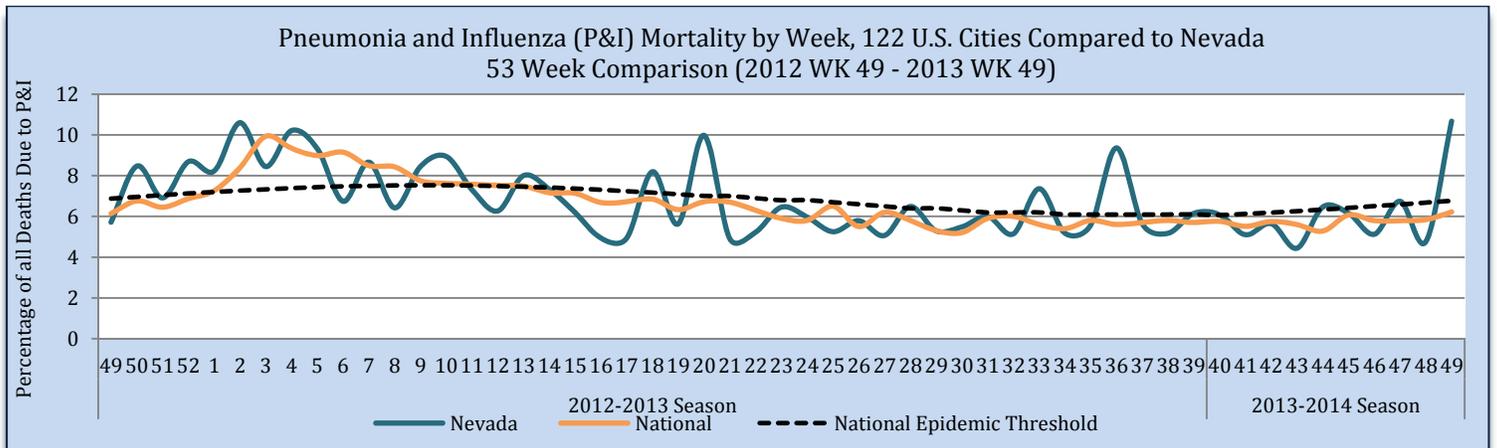
Reporting Jurisdiction	Influenza Hospitalizations			
	Current Week (Week 49)		Cumulative Influenza Season	
	#	%	#	%
Carson City Health and Human Services	0	6.3	0	0.0
Rural Health Services	0	0.0	0	0.0
Southern Nevada Health District	4	80.0	33	91.7
Washoe County Health District	1	20.0	3	8.3
State of Nevada	5	100	36	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 37 P&I deaths and 348 total deaths for week 49, as of February 18, 2014. The P&I mortality percentage is above the national epidemic threshold at 10.6% (threshold 6.8%). Nationally, the P&I mortality is below the national epidemic threshold at 6.2%.

Figure 12



Source: OVR: WEVRRS and CDC: FluView.

Appendix

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

Table 3

Activity Level	ILI Activity*/Outbreaks		Laboratory Data
No Activity	Low	And	
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	Or 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	Or 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 99°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 February 2014.
4. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2012-2013. Accessed February 2014.
5. Southern Nevada Health District (SNHD). NETSS/Trisano. 2010-2013. Accessed February 2014.

6. SNHD. Pediatric Early Warning Sentinel Surveillance (PEWSS). 2013 PEWSS Reports. Accessed January 2014.
<http://www.southernnevadahealthdistrict.org/stats-reports/influenza.php>.

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

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