

Influenza Weekly Report

2012 Week 48 (November 25 – December 1) through 2013 Week 48 (November 24-30)

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.

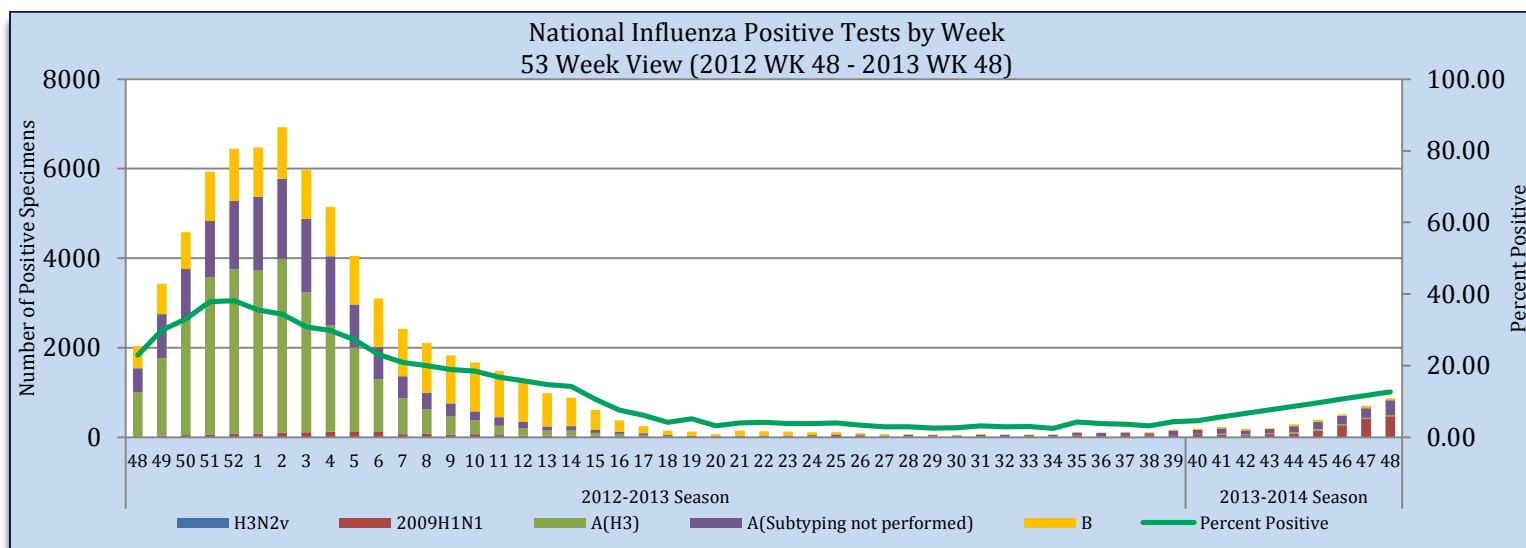
Purpose

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 7,179 specimens collected nationally during week 48 that were tested for influenza; of these 870 tested positive or the percent positive was 12.7%.

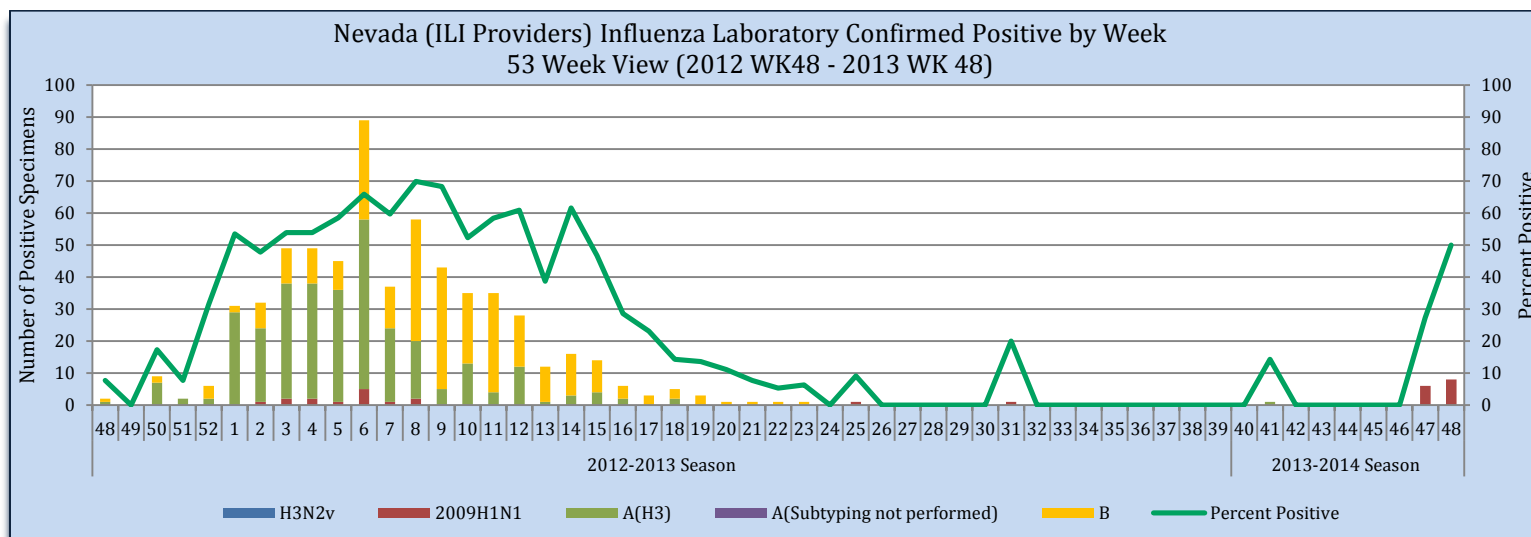
Figure 1



Source of Data: CDC: FluView Weekly Report.

Of the 16 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 48, at 50.0% of tested specimens.

Figure 2



Source of Data: CDC: ILINet.

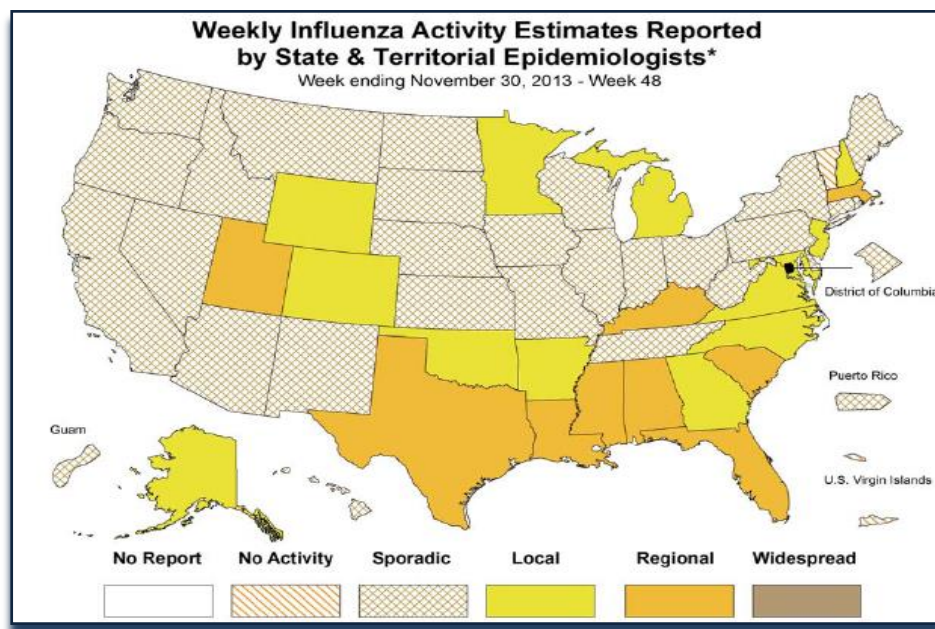
Nevada State Public Health Laboratory (NSPHL) has tested 22 specimens this season with 14 positive from sentinel providers (63.6% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 1 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 56,511 specimens sent to the WHO and NERVSS laboratories with 3,575 positive or 6.3%. 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 48)		State of Nevada (Season)		National (Week 48)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	22	74	16		96		7,179		56,511	
Positives to Influenza	14	1	8	50.0	15	15.6	870	12.1	3,574	6.3
Influenza A:	14	1	8	100.0	15	100.0	830	95.4	3,260	91.2
A(2009 H1N1)	13	1	8	100.0	14	93.3	471	56.7	1,635	50.2
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	331	39.9	1,434	44.0
A(H3)	1	0	0	0.0	1	6.7	28	3.4	191	5.9
Influenza B:	0	0	0	0.0	0	0.0	40	4.6	313	8.8

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

For week 48, Nevada reported sporadic activity to CDC, along with 29 states and territories (The District of Columbia, Guam, Puerto Rico, Arizona, California, Connecticut, Delaware, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Missouri, Montana, Nebraska, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Washington, West Virginia, and Wisconsin). 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

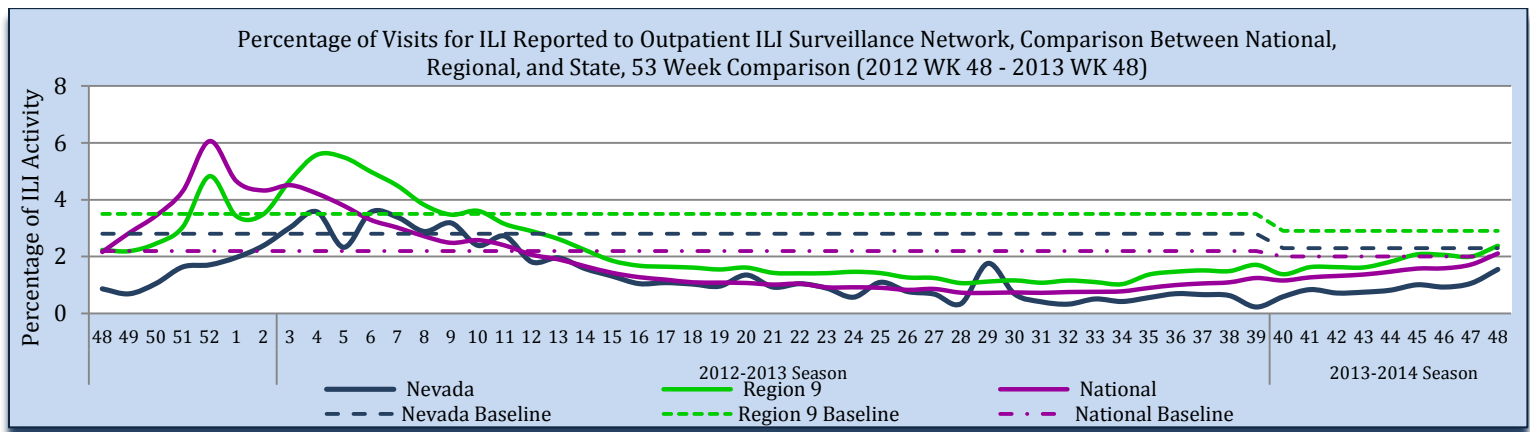
Source of Maps: CDC: FluView Report.

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 decreased from 17,696 (week 47) to 13,605 (week 48). 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 increased to 1.6% during week 48, and is below the state baseline of 2.3%. Region 9 increased in ILI to 2.4% from 2.0%, and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The nation increased to 2.1% from 1.7% during week 48.

1: Activity level: Appendix Table 4.

2: ILI case definition: Technical Notes.

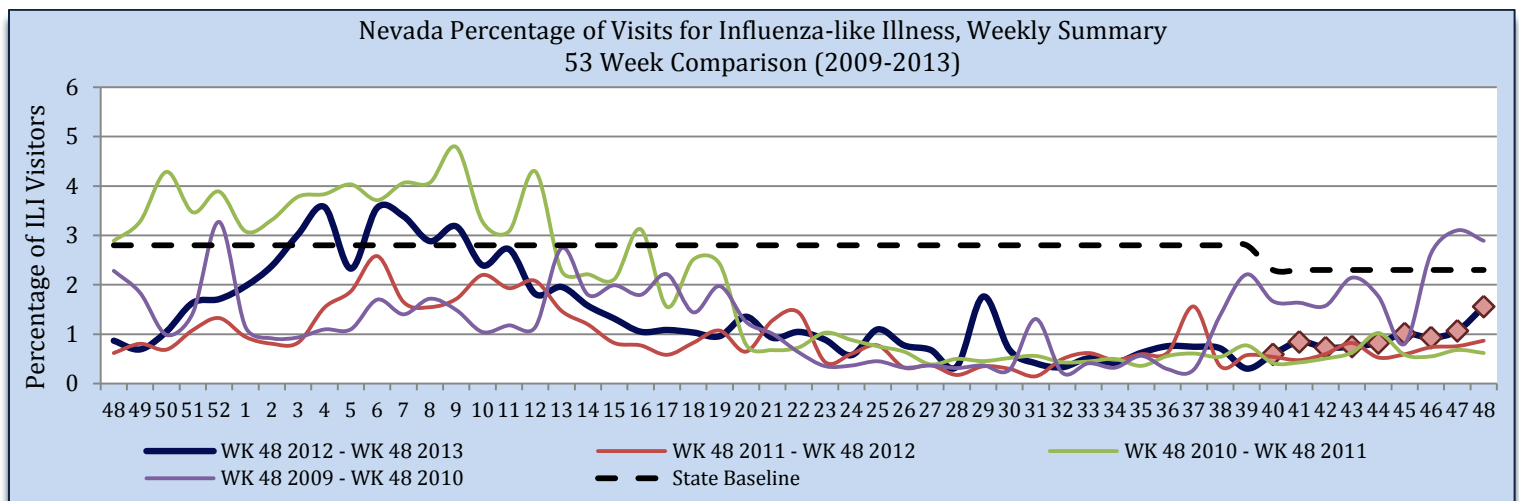
Figure 4



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

During week 48, 1.6% of visits to sentinel providers were due to ILI. This is a 0.7% point increase from week 48 of the 2012-2013 influenza season.

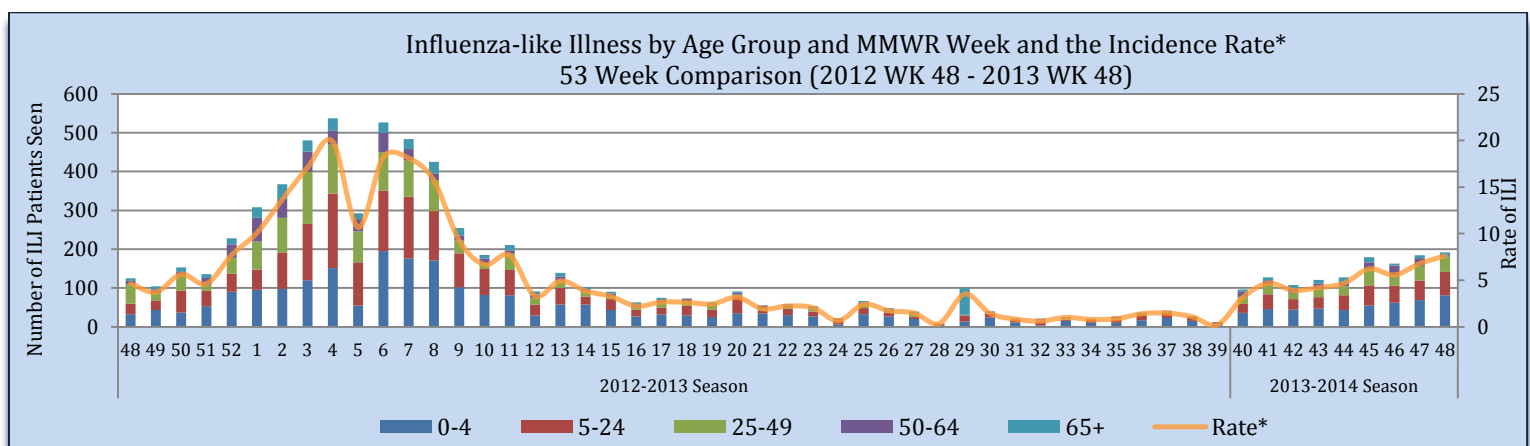
Figure 5



Source of Data: CDC: ILINet.

The number of ILI patients and rate increased from week 47 to week 48 from 189 to 212 and 6.8 to 7.6 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 2013 is 2,783,948.

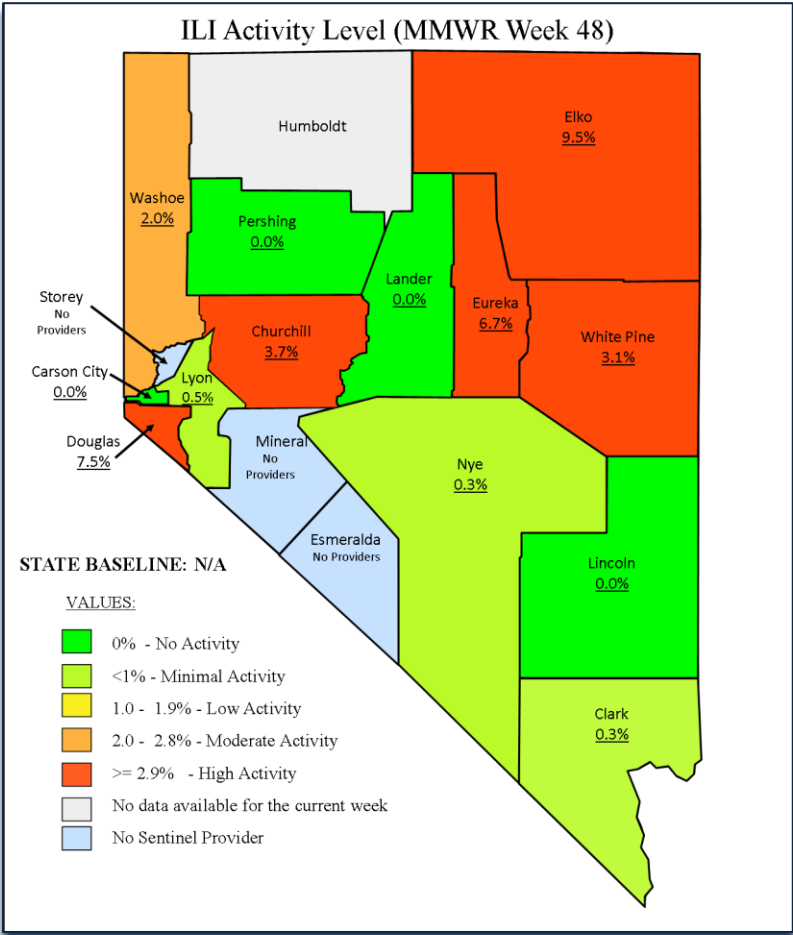
Figure 6



Source of Data: CDC: ILINet.

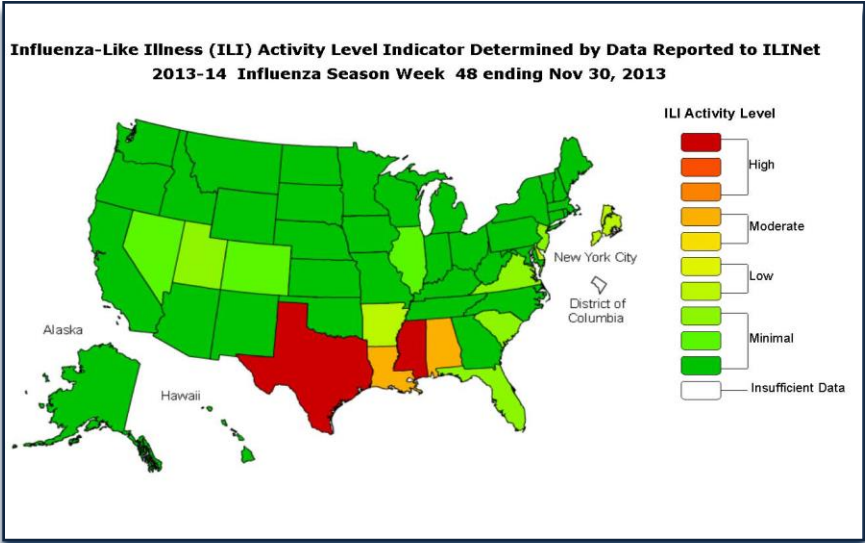
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 48, Churchill, Douglas, Elko, Eureka, and White Pine counties had high activity; Washoe County had moderate activity; Humboldt county did not report for week 48 (Figure 7). Overall, Nevada had minimal activity monitored through ILINet (Figure 8).

Figure 7



Source of Data: CDC: ILINet.

Figure 8

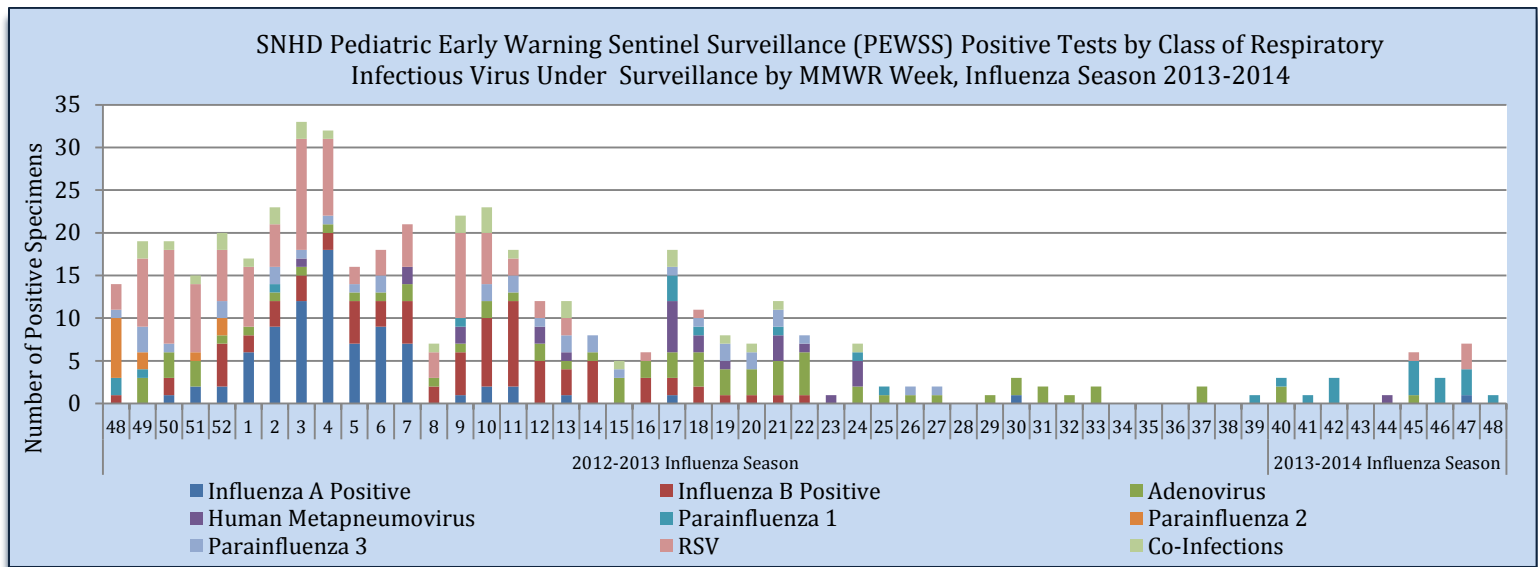


Source of Map: CDC: FluView Report.

Pediatric Early Warning Sentinel Surveillance (PEWSS)

Parainfluenza1 has remained at sporadic level over the past 5 weeks.

Figure 9

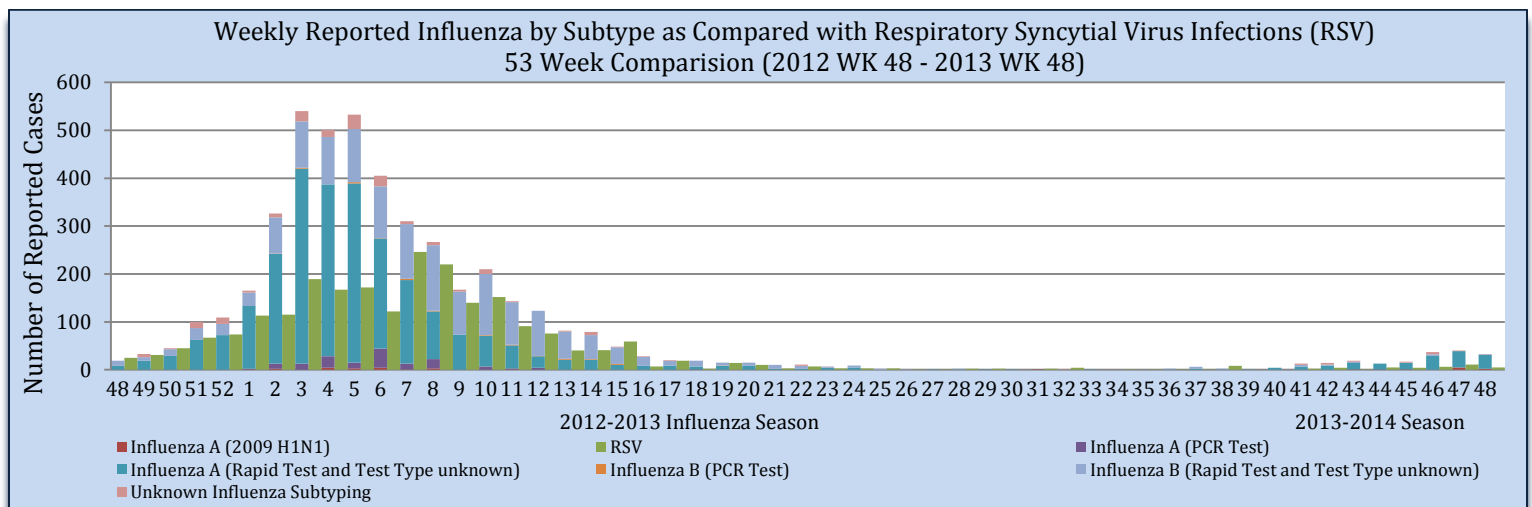


Source of Data: Southern Nevada Health District: PEWSS.

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 48, there were 2 H1N1 cases and 29 Influenza A cases. There were 1 positive Influenza B cases. Overall, there were 33 influenza positive tests in Nevada, whereas during the previous season for week 48, there were 19 cases.

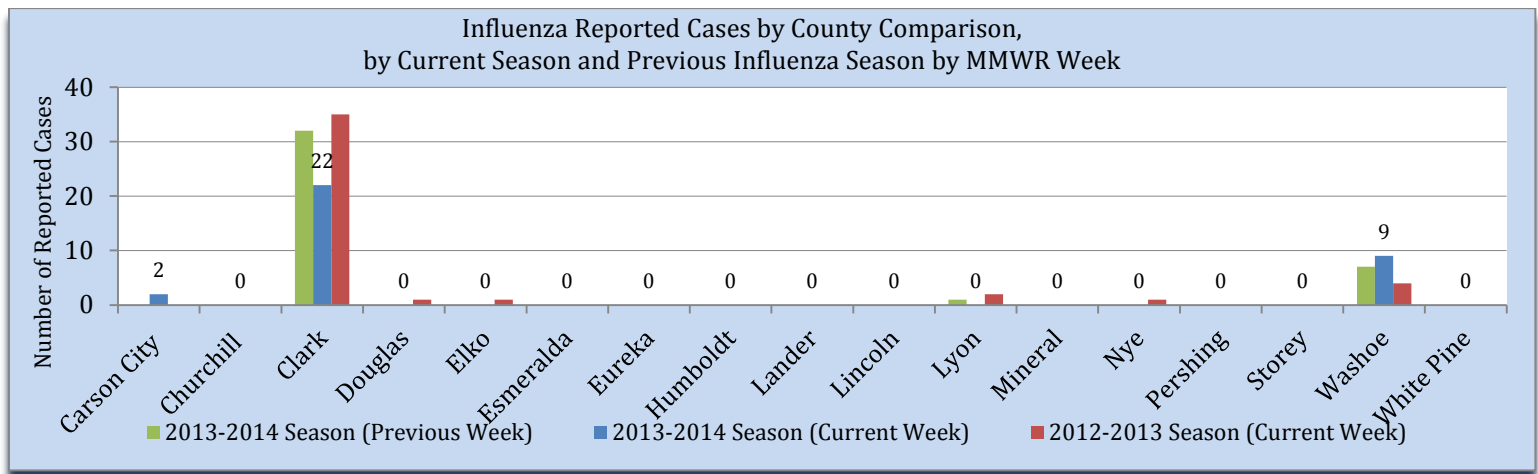
Figure 10



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

Clark County experienced a decrease in influenza from week 47 with 32 to 22 influenza cases during week 48. Washoe County experienced an increase in influenza from week 47, from 7 to 9 influenza cases. Carson City had influenza activity for week 48.

Figure 11



Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 31 hospitalizations associated with influenza this season.

Table 2

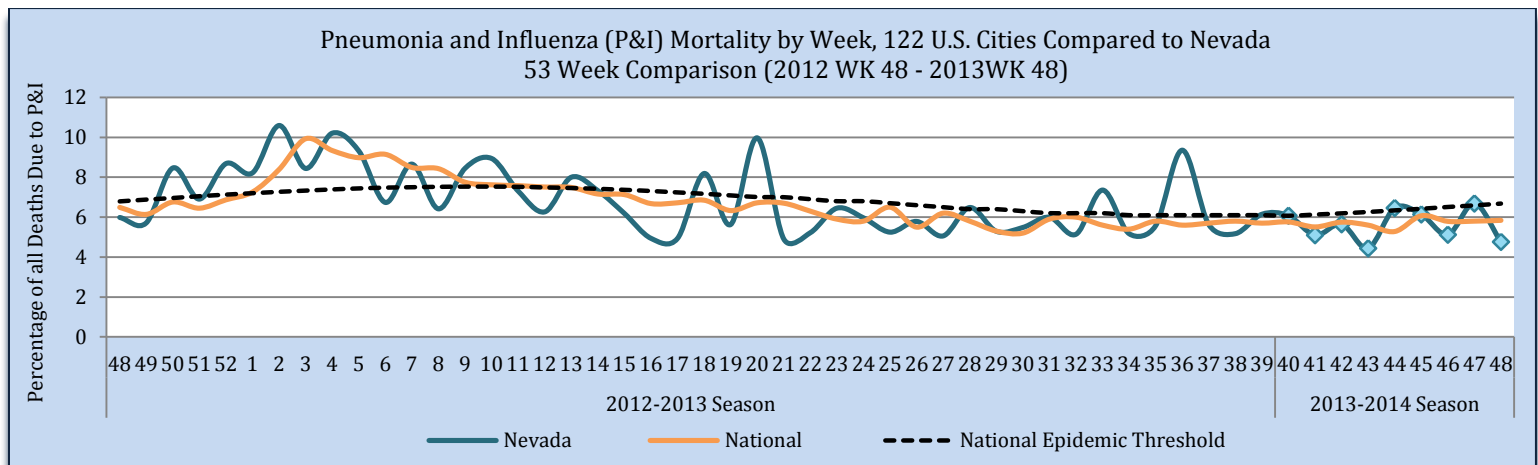
Reporting Jurisdiction	Influenza Hospitalizations			
	Current Week (Week 48)		Cumulative Influenza Season	
	#	%	#	%
Carson City Health and Human Services	0	0.0	0	0.0
Rural Health Services	0	0.0	0	2.2
Southern Nevada Health District	5	100	29	93.5
Washoe County Health District	0	0.0	2	6.5
State of Nevada	5	100	31	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 a cause of death divided by the total deaths in Nevada for each week. There were 18 P&I deaths and 378 total deaths for week 48 as of February 18. The P&I mortality percentage is below the national epidemic threshold at 4.8% (threshold 6.7%). Nationally, the P&I mortality has remained under the national epidemic threshold at 5.8%.

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 †
			Or
	Not Increased	And	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
			Or
	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
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
			Or
	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
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>.

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