Influenza Weekly Report

2012 Week 52 (December 23 – 29) through 2013 Week 52 (December 22-28)

Department of Health and Human Services
Division of Public and Behavioral Health
Office of Public Health Informatics and Epidemiology

Brian Sandoval
Governor
State of Nevada

Michael J Willden
Director
Department of Health and Human Services

Richard Whitley, MS
Administrator
Division of Public and Behavioral Health

Tracey D Green, MD
Chief Medical Officer
Division of Public and Behavioral Health

December 2013
Edition 1.1

Data for the graphs and tables on the following pages are provisional and may be updated as additional information becomes available.

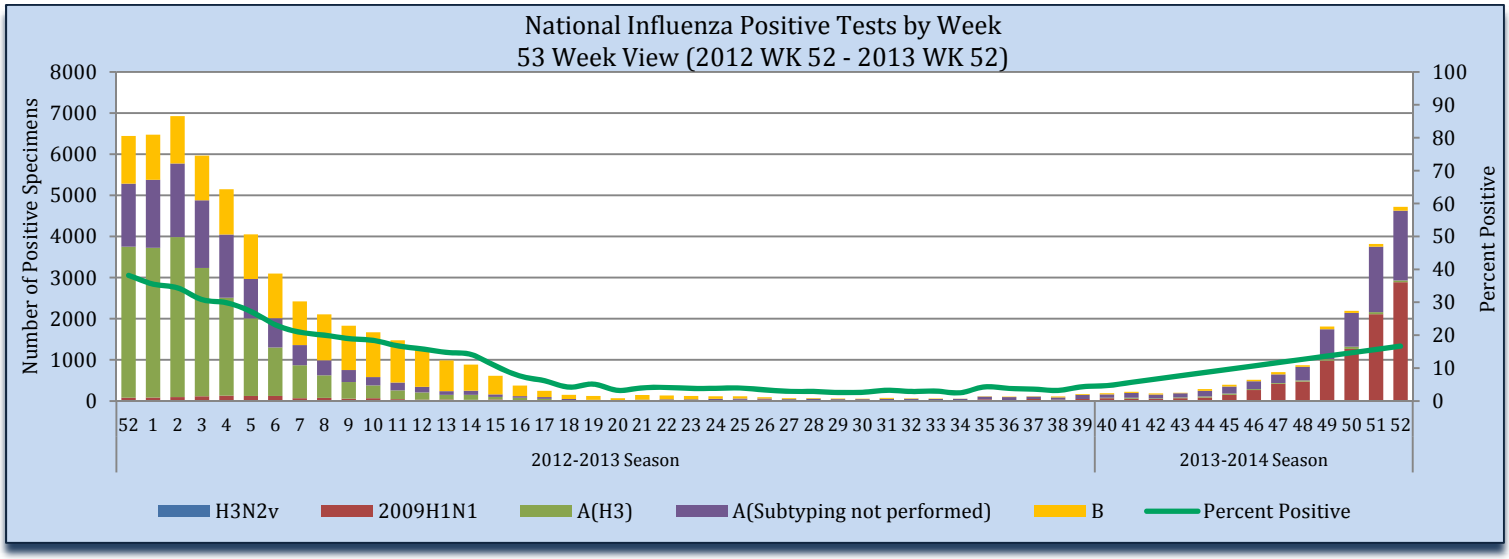
Purpose

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 15,047 specimens collected nationally during week 52 that were tested for influenza; of these 4,719 tested positive or the percent positive was 16.7%.

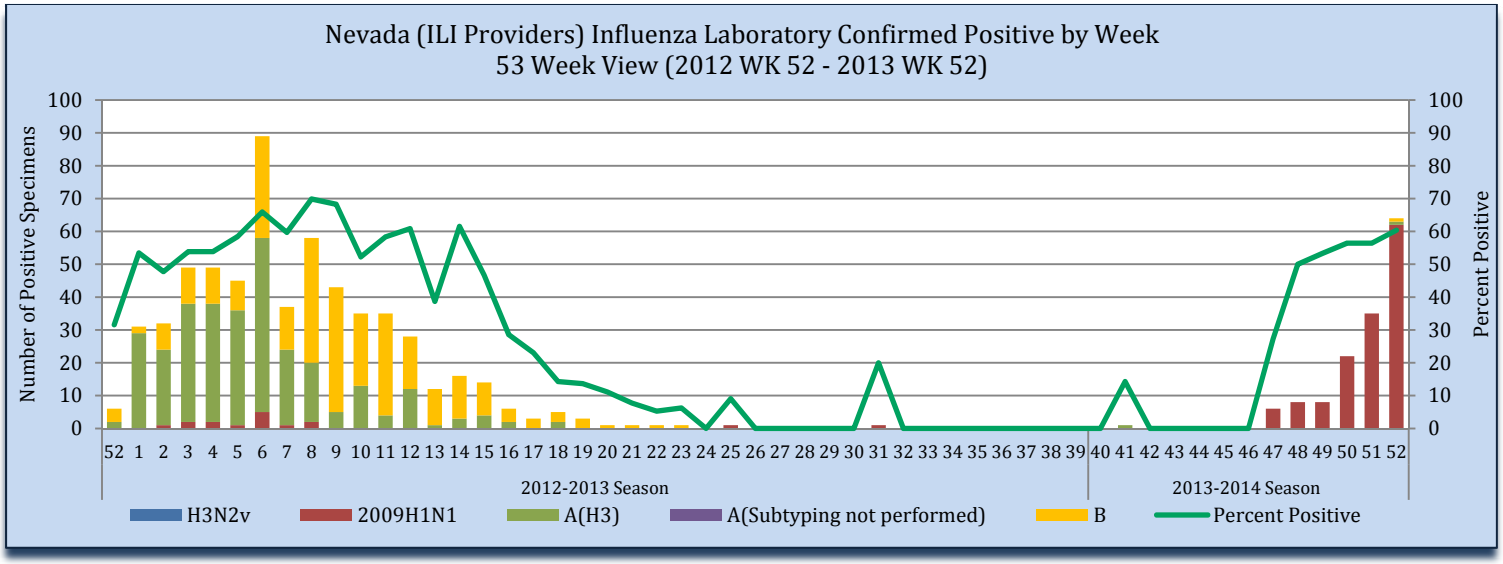
Figure 1



Source of Data: CDC: FluView Weekly Report.

Of the 106 specimens tested for influenza at both the Nevada State Public Health Laboratory and Southern Nevada Public Health Laboratory for sentinel providers, 64 were positive for influenza during week 52 or 60.4%.

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 188 specimens this season with 132 positive from sentinel providers (70.2% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 12 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 105,475 specimens sent to the WHO and NERVSS laboratories with 16,110 positive or 15.3%. 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

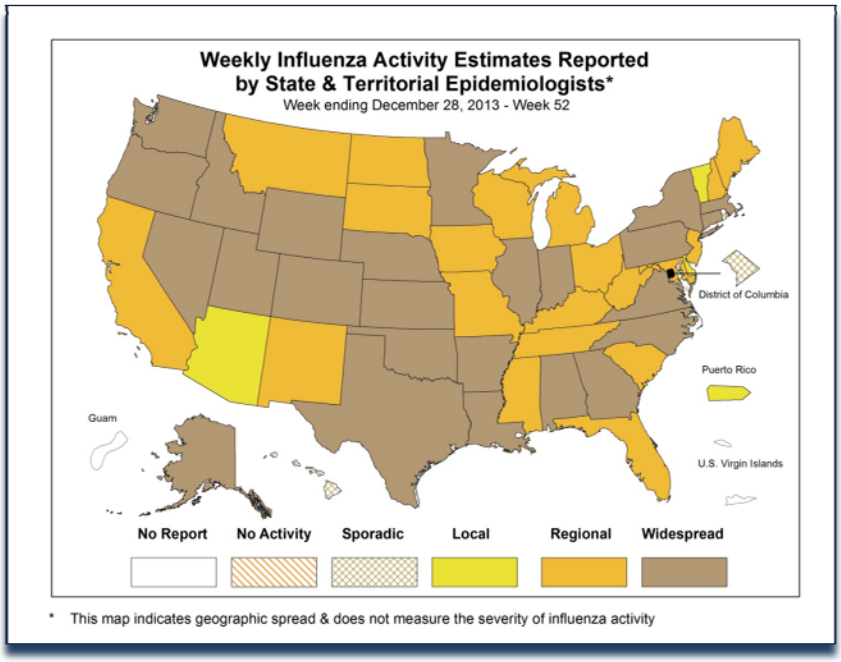
ILINet Surveillance: Influenza Specimens Tested State and Nationally

	NSPHL	SNPHL	State of Nevada (Week 52)		State of Nevada (Season)		National (Week 52)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	188	130	106		318		15,047		105,475	
Positives to Influenza	132	12	64	60.4	144	45.3	4,719	31.4	16,110	15.3
Influenza A:	131	12	63	98.4	143	99.3	4,628	98.1	15,524	96.4
A(2009 H1N1)	129	12	62	98.4	141	98.6	2,888	52.4	8,886	57.2
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	1,696	36.6	6,268	40.4
A(H3)	2	0	1	1.6	2	1.4	44	1.0	370	2.4
Influenza B:	1	0	1	1.6	1	0.7	91	1.9	585	3.6

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

For week 52, Nevada reported widespread activity to CDC, along with 24 states (Alabama, Alaska, Arkansas, Colorado, Connecticut, Georgia, Idaho, Illinois, Indiana, Kansas, Louisiana, Massachusetts, Minnesota, Nebraska, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, Texas, Utah, Virginia, Washington, and Wyoming). Activity level[1] 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



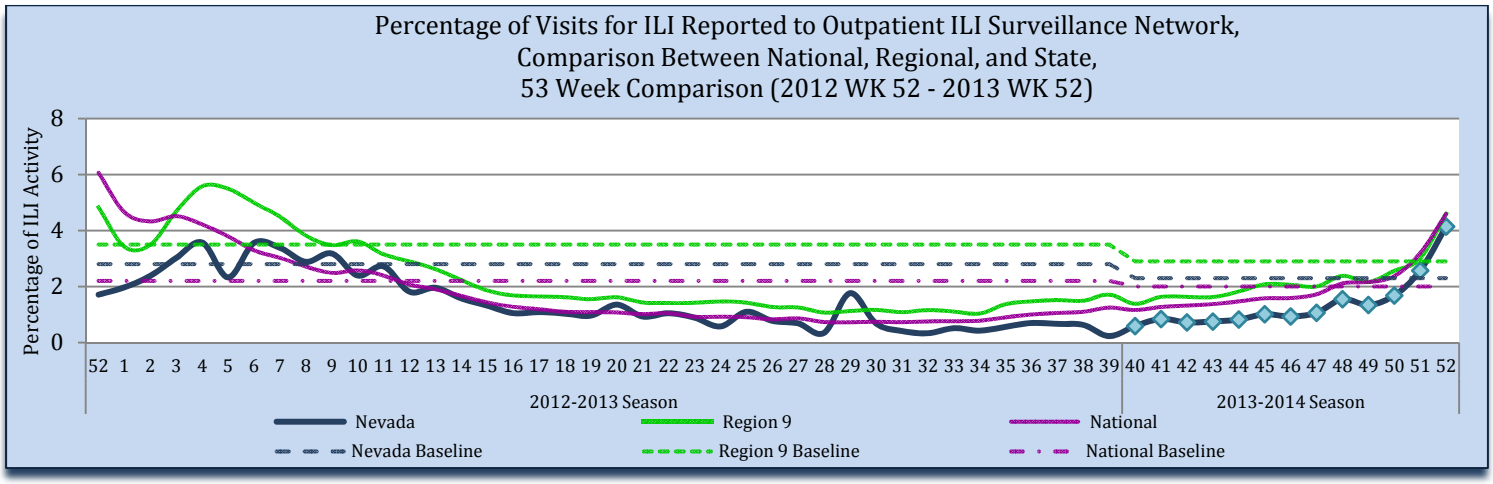
Source of Maps: CDC: FluView Report.

Influenza-like Illness (ILI) Network Surveillance has each sentinel providers report the number of patients that meet the ILI case definition[2] and number of patients that visit the provider weekly, which decreased from 17,453 (week 51) to 15,190 (week 52). 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 4.1% during week 52, and is above the state baseline of 2.3%. Region 9 increased in ILI to 4.6% from 3.0%, and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The nation increased to 4.6% from 3.2% during week 52.

1: Activity level: Appendix Table 4.

2: ILI case definition: Technical Notes.

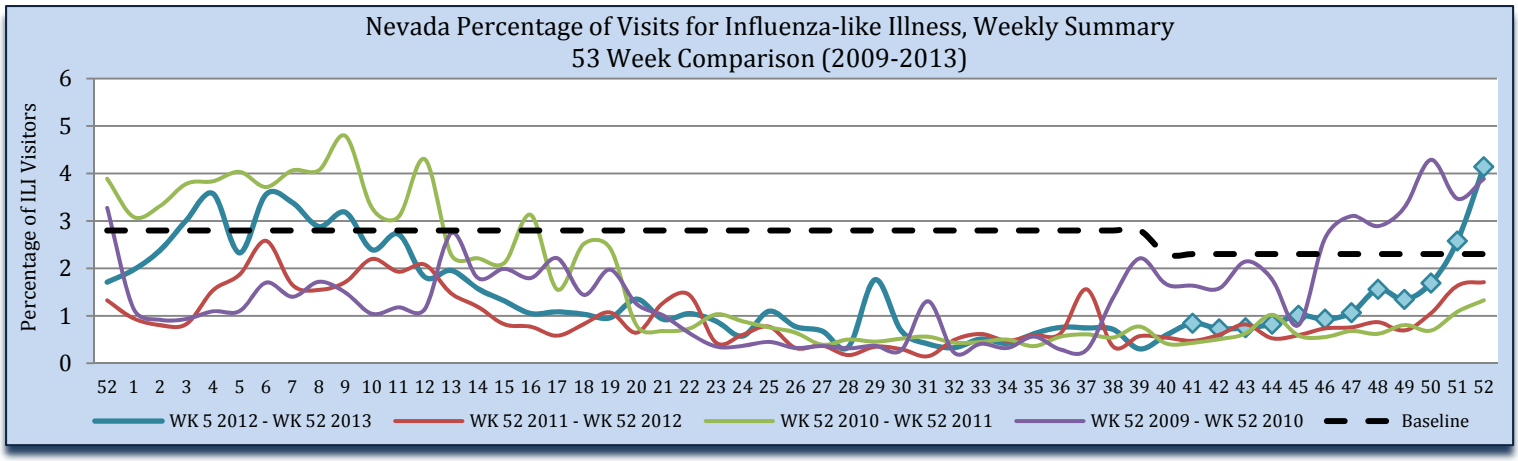
Figure 4



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

During week 52, 4.1% of visits to sentinel providers were due to ILI. This is a 2.4% point increase from week 52 of the 2012-2013 influenza season.

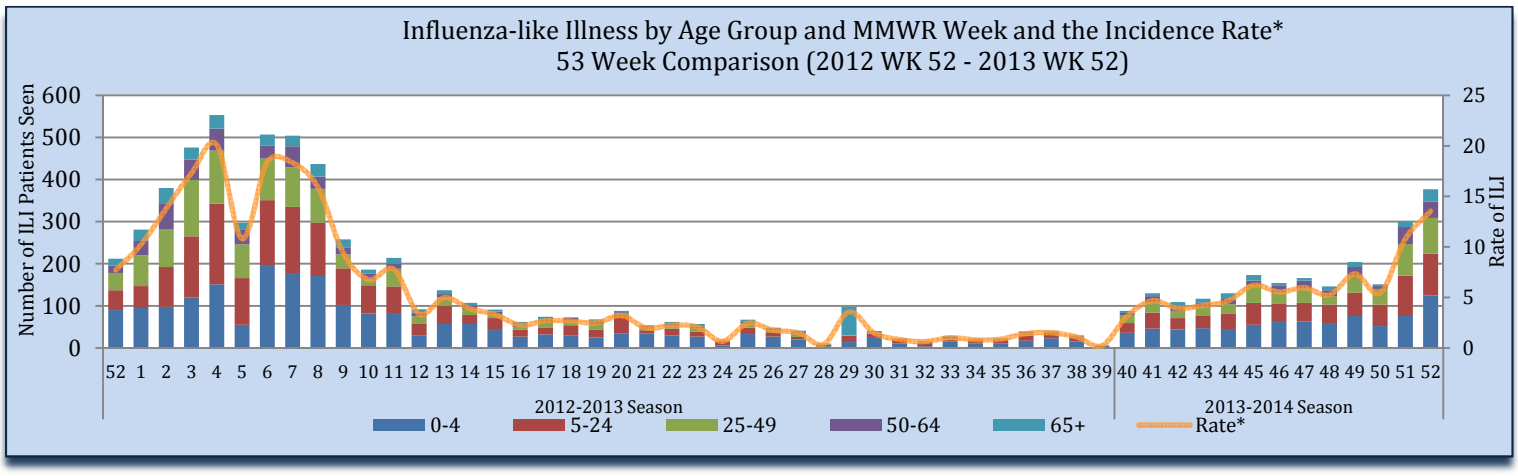
Figure 5



Source of Data: CDC: ILINet.

The number of ILI patients and rate increased from week 51 to week 52, from 450 to 629, and 16.2 to 22.6 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.

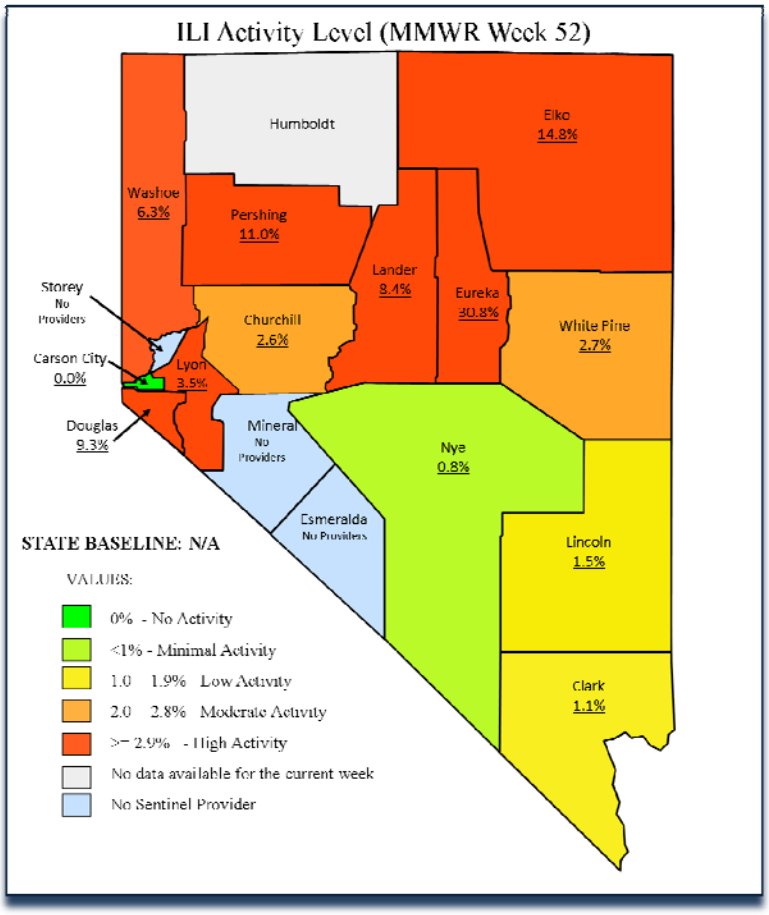
Figure 6



Source of Data: CDC: ILINet.

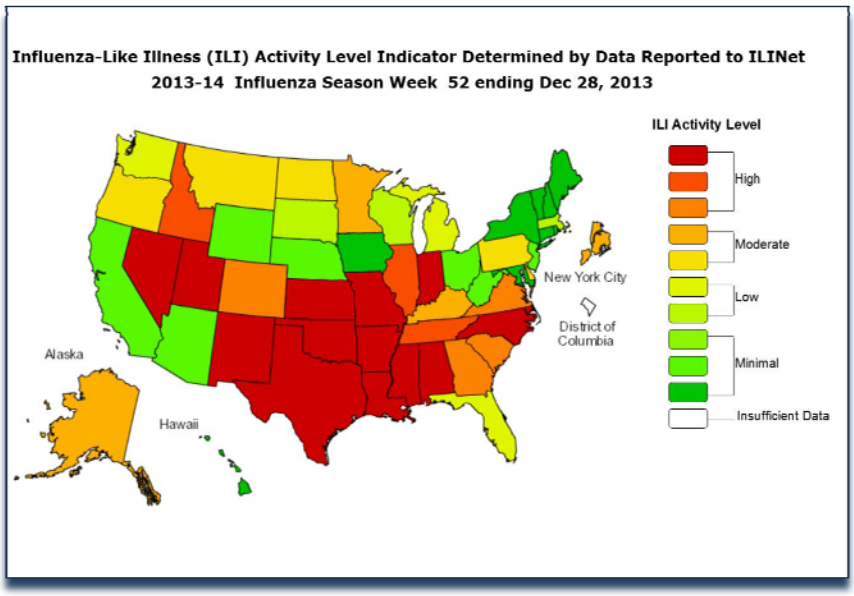
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 52, Douglas, Elko, Eureka, Lander, Lyon, Pershing, and Washoe counties had high activity; Churchill and White Pine counties had moderate activity; Humboldt County did not report for week 52 (Figure 7). Overall, Nevada had high activity monitored through ILINet (Figure 8).

Figure 7



Source of Data: CDC: ILINet.

Figure 8

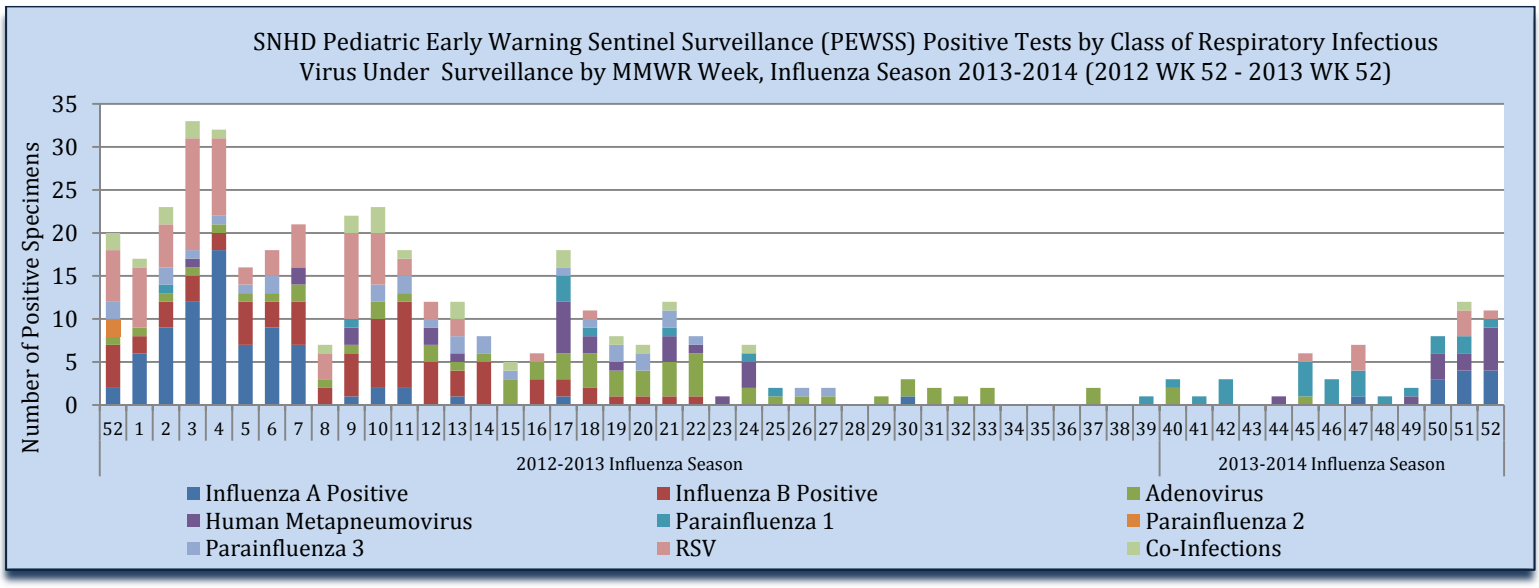


Source of Map: CDC: FluView Report.

Pediatric Early Warning Sentinel Surveillance (PEWSS)

Influenza A 2009 H1N1 and Respiratory Syncytial Virus (RSV) have been detected at sporadic levels; Human Metapneumovirus and Parainfluenza1 is at low levels for week 52.

Figure 9

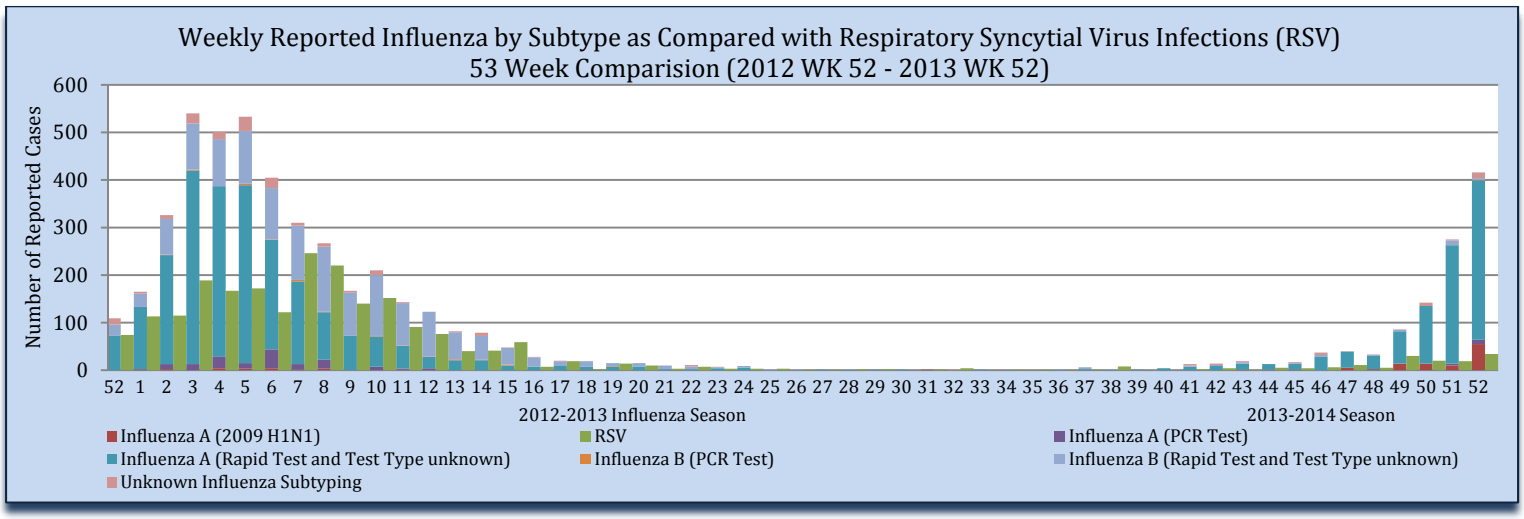


Source of Data: Southern Nevada Health District: PEWSS.

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 52, there were 55 H1N1 cases and 344 Influenza A cases. There were 5 positive Influenza B cases. Overall, there were 416 influenza positive tests in Nevada, whereas during the previous season for week 52, there were 109 cases.

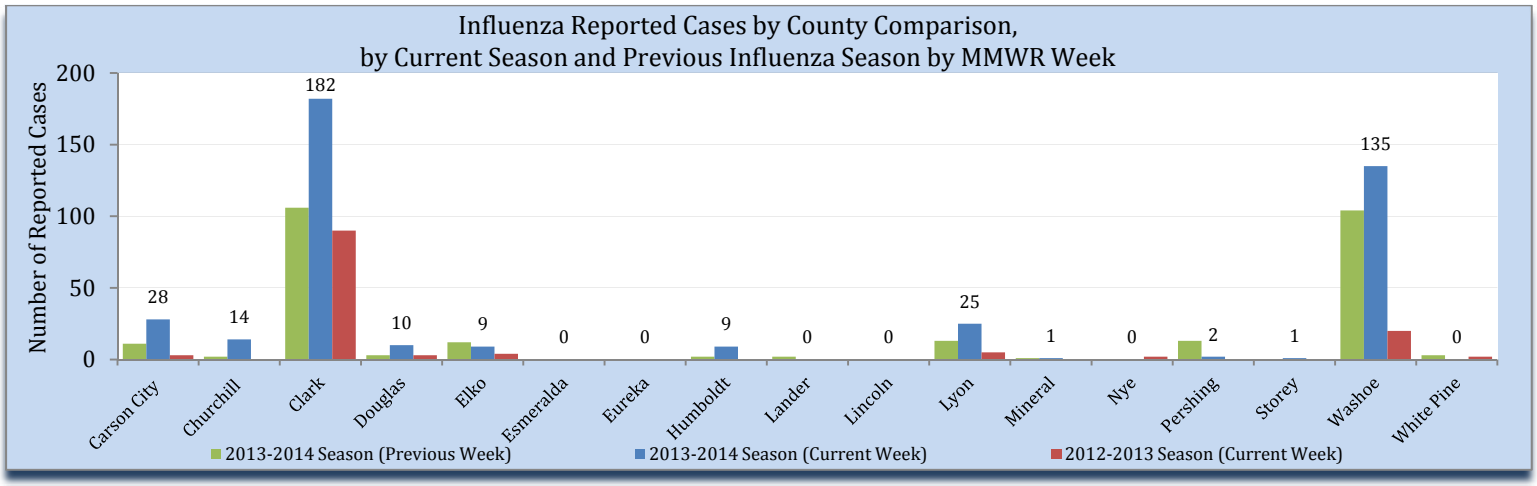
Figure 10



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

Clark County experienced an increase in influenza from week 51with 106 to 182 influenza cases during week 52. Washoe County experienced an increase in influenza from week 51, from 104 to 135 influenza cases. Carson City, Churchill, Douglas, Elko, Humboldt, Lyon, Mineral, Pershing and Storey counties all had influenza activity during week 52.

Figure 11



Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 87 hospitalizations associated with influenza this season.

Table 2

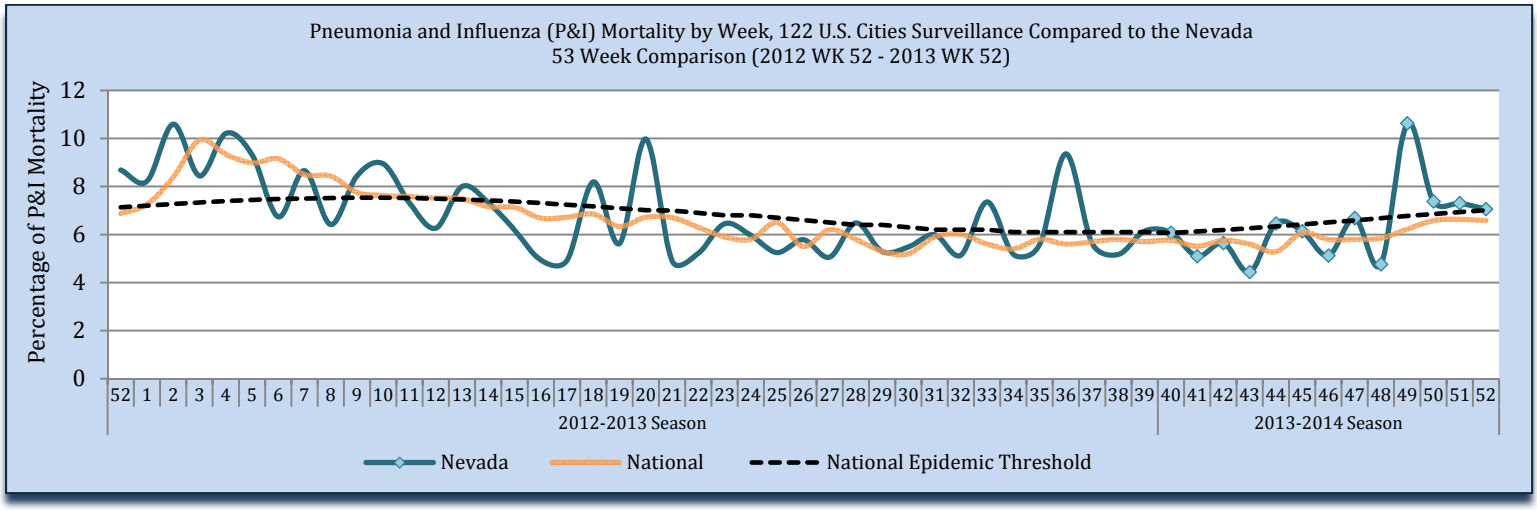
Influenza Hospitalizations				
Reporting Jurisdiction	Current Week (Week 52)		Cumulative Influenza Season	
	#	%	#	%
Carson City Health and Human Services	4	16.7	7	8.0
Rural Health Services	0	0.0	3	3.4
Southern Nevada Health District	9	37.5	51	58.6
Washoe County Health District	11	45.8	26	29.9
State of Nevada	24	100.0	87	100.0

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 30 P&I deaths and 425 total deaths for week 52, as of February 18. The P&I mortality percentage is above the national epidemic threshold at 7.1%, (threshold 7.0%). Nationally, the P&I mortality is below the threshold at 6.6%.

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 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 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. January 2014. http://www.southernnevadahealthdistrict.org/stats-reports/influenza.php.

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

NEVADA INFLUENZA SURVEILLANCE PROGRAM
OFFICE OF PUBLIC HEALTH INFORMATICS AND EPIDEMIOLOGY
4126 TECHNOLOGY WAY, STE 200
CARSON CITY NV 89706
TEL: (775) 684-5897
FAX: (775) 684-5999

Compiled and Written by:

JEN THOMPSON

Recommended Citation:

Division of Public and Behavioral Health. Office of Public Health Informatics and Epidemiology. Influenza Weekly Report, 2012 Week 52 (December 23) through 2013 Week 52 (December 28), Nevada. December 2013 i 52 edition 1.1.

This publication was supported by Cooperative Agreement Number TP000534-02 from the Centers for Disease Control and Prevention and/or Assistant Secretary for Preparedness and Response. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention and/or Assistant Secretary for Preparedness and Response.