Influenza Weekly Report

2013 Week 13 (March 24 – 30) through 2014 Week 13 (March 23 – 29)

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

April 2014
Edition 1.0

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

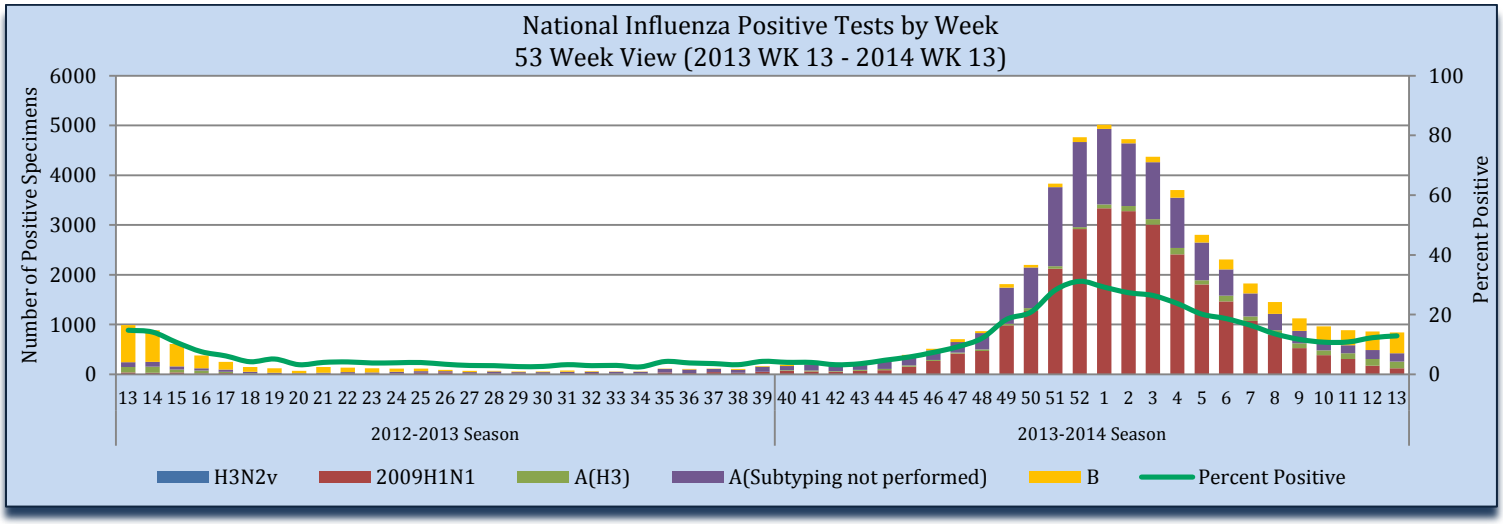
Purpose

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 6,548 specimens collected nationally during week 13 that were tested for influenza; of these 844 tested positive or the percent positive was 12.5%.

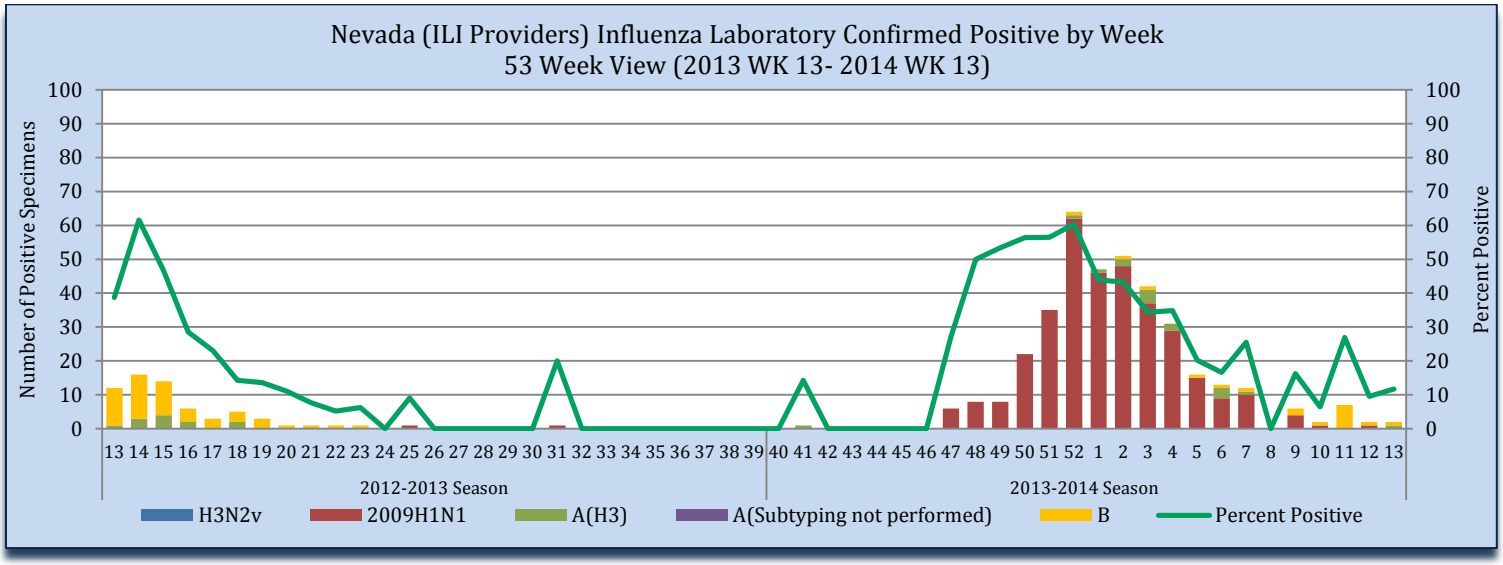
Figure 1



Source of Data: CDC: FluView Weekly Report.

Of the 17 specimens tested for influenza at both the Nevada State Public Health Laboratory and Southern Nevada Public Health Laboratory for sentinel providers, 2 tested positive for influenza during week 13 or 11.8%.

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 778 specimens this season with 319 positive from sentinel providers (41.0% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 55 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 260,745 specimens sent to the WHO and NERVSS laboratories with 47,058 positive or 18.0%. 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

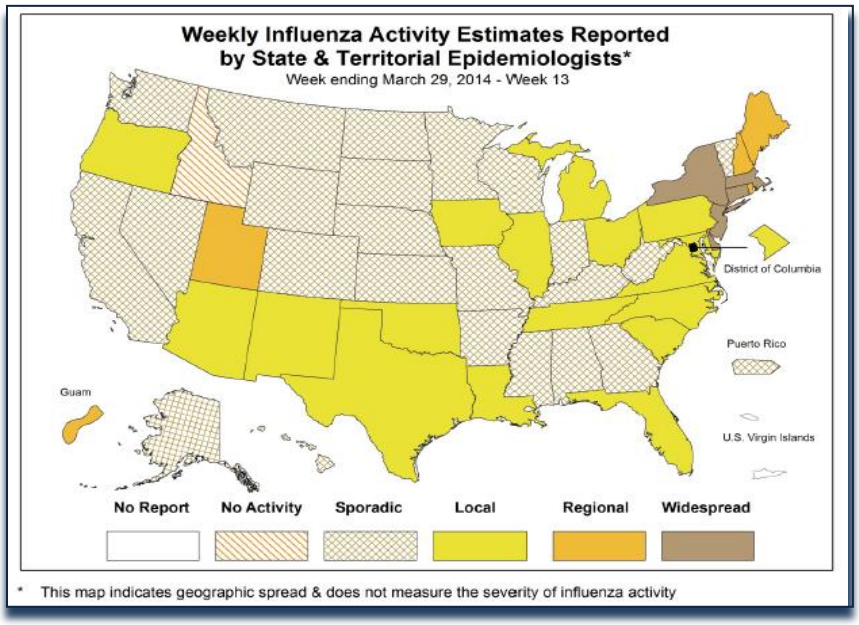
ILINet Surveillance: Influenza Specimens Tested State and Nationally

	NSPHL	SNPHL	State of Nevada (Week 13)		State of Nevada (Season)		National (Week 13)		National (Season)	
			#	%	#	%	#	%	#	%
Specimens Tested	780	339	17		1,119		6,548		260,745	
Positives to Influenza	320	55	2	11.8	375	33.5	844	12.9	47,058	18.0
Influenza A:	314	43	1	50.0	357	95.2	422	50.0	43,622	92.7
A(2009 H1N1)	300	41	0	0.0	341	95.5	119	28.2	27,620	63.3
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	162	38.4	14,235	32.6
A(H3)	14	2	1	100	16	4.5	141	33.4	1,767	4.1
Influenza B:	6	12	1	50.0	18	4.8	442	50.0	3,435	7.3

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

For week 13, Nevada reported sporadic activity to the CDC, along with 24 states/territories (Alabama, Alaska, Arkansas, California, Colorado, Georgia, Hawaii, Indiana, Kansas, Kentucky, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Dakota, Puerto Rico, South Dakota, Vermont, Washington, West Virginia, Wisconsin, 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



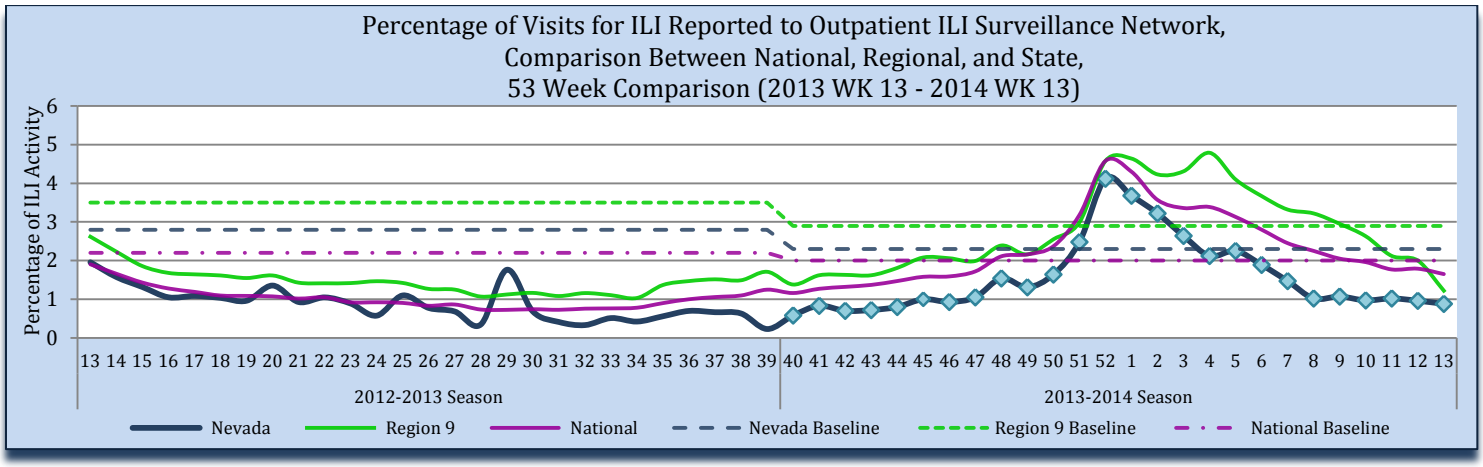
Source of Maps: CDC: FluView Report.

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 17,060 (week 12) to 17,098 (week 13). 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 0.9% from 1.0% during week 13, and is below the state baseline of 2.3%. Region 9 decreased in ILI to 1.2% from 2.0%, and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The nation decreased to 1.7% from 1.8% during week 13 and is below the national baseline of 2.0%.

1: Activity level: Appendix Table 4.

2: ILI case definition: Technical Notes.

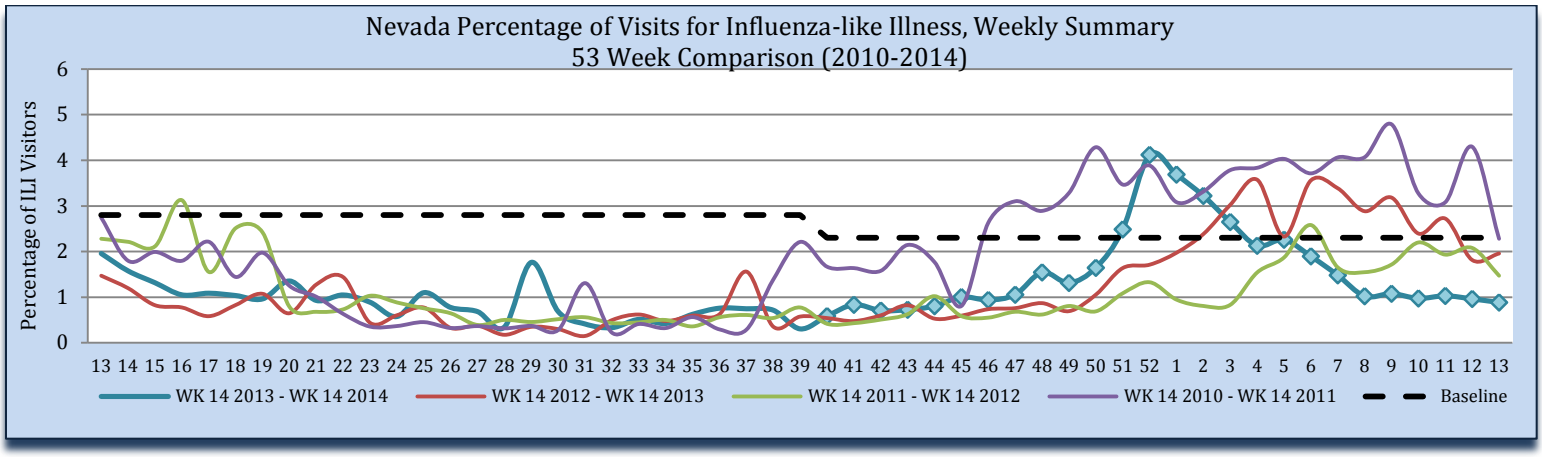
Figure 4



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

During week 13, 0.9% of visits to sentinel providers were due to ILI. This is a 1.1% point decrease from week 13 of the 2012-2013 influenza season, an influenza season is from week 40 through week 39.

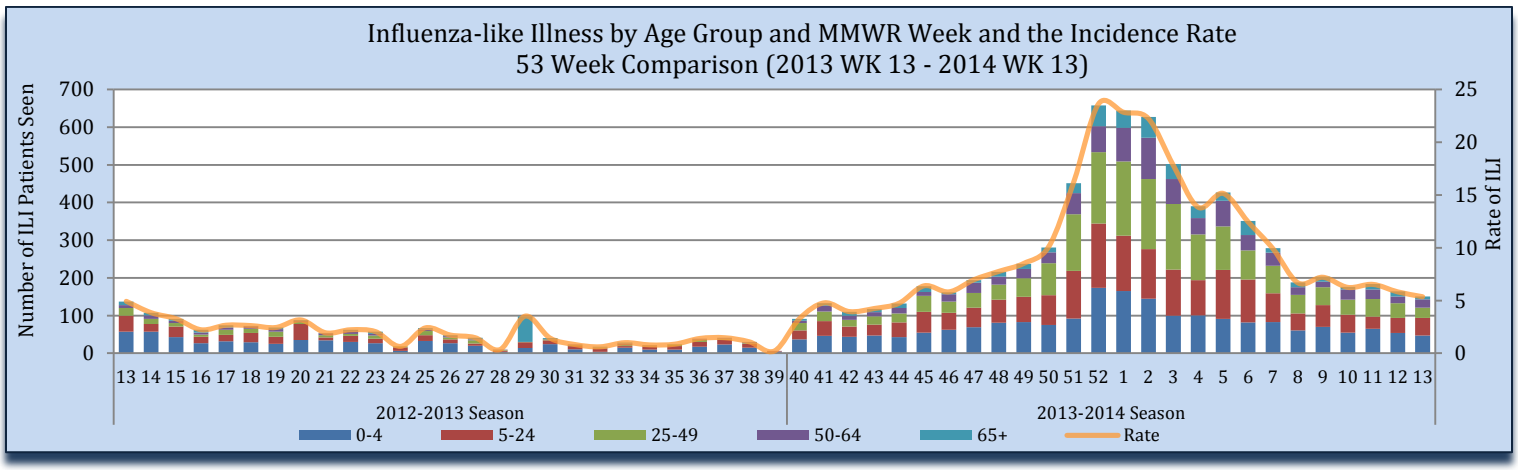
Figure 5



Source of Data: CDC: ILINet.

The number of ILI patients and rate decreased from week 12 to week 13, from 157 to 141, and 5.6 to 5.0 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.

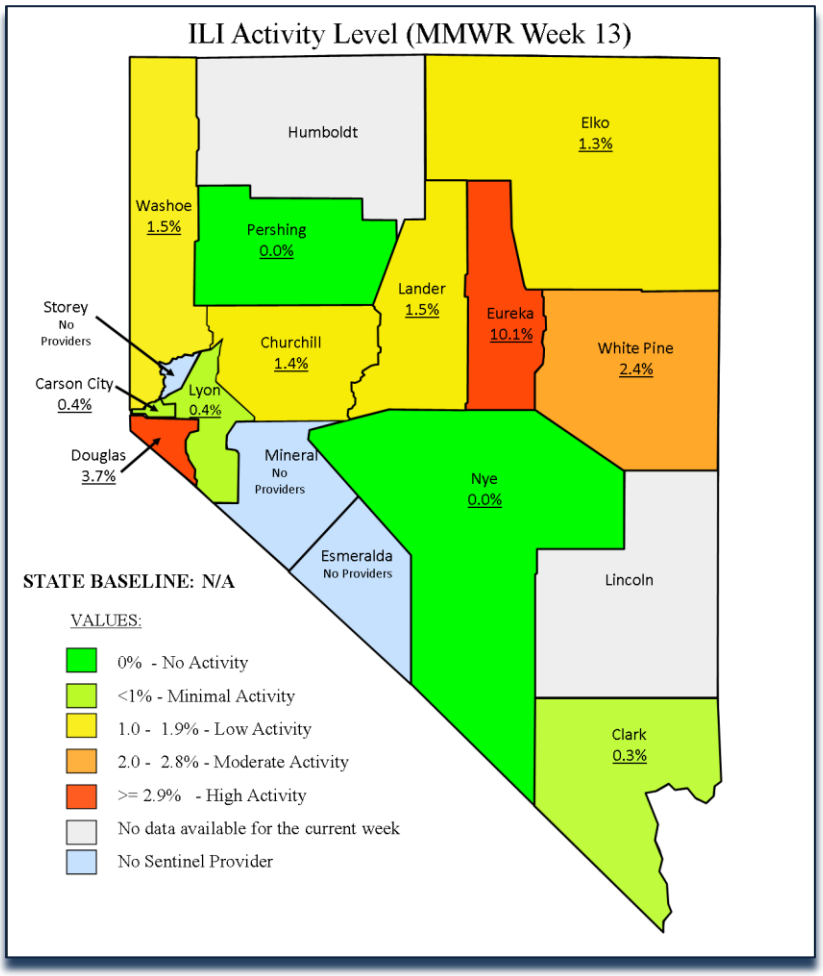
Figure 6



Source of Data: CDC: ILINet.

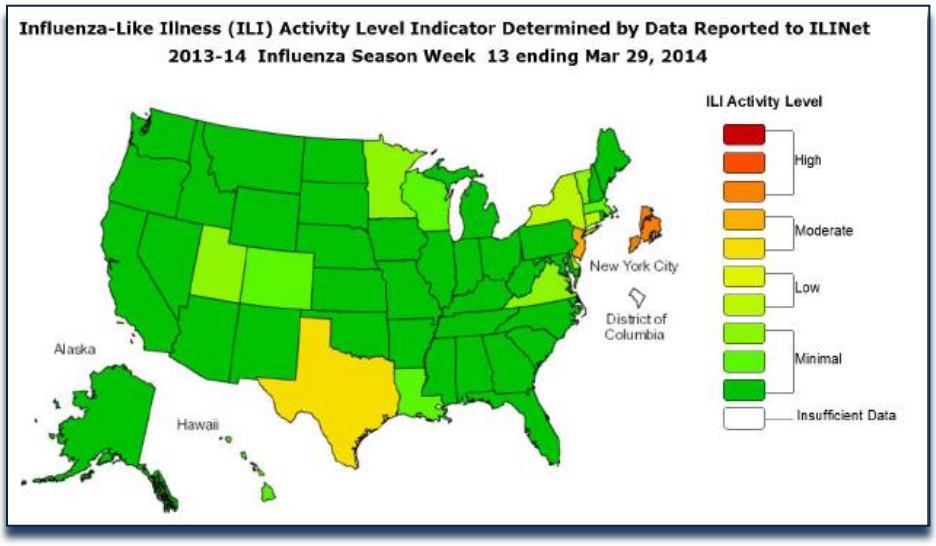
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 13, Douglas and Eureka County had high activity; Humboldt, and Lincoln counties did not report (Figure 7). Overall, Nevada had minimal activity monitored through ILINet (Figure 8).

Figure 7



Source of Data: CDC: ILINet.

Figure 8

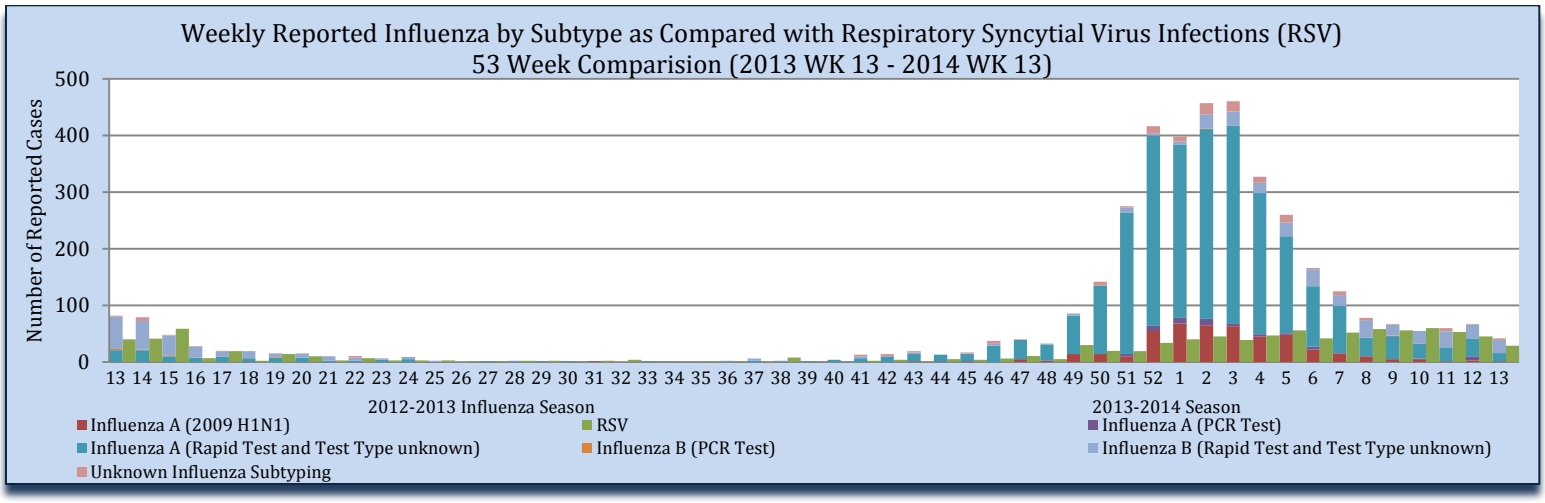


Source of Map: CDC: FluView Report.

Influenza Positive Surveillance (NBS and NETSS)

Positive cases of influenza are reported to the state health division for surveillance purposes. Figure 10 and 11 as well as 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 13, there was 1 H1N1 case and 15 Influenza A cases. There were 23 positive Influenza B cases. Overall, there were 42 influenza positive tests in Nevada, whereas during the previous season for week 13, there were 82 cases.

Figure 9



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

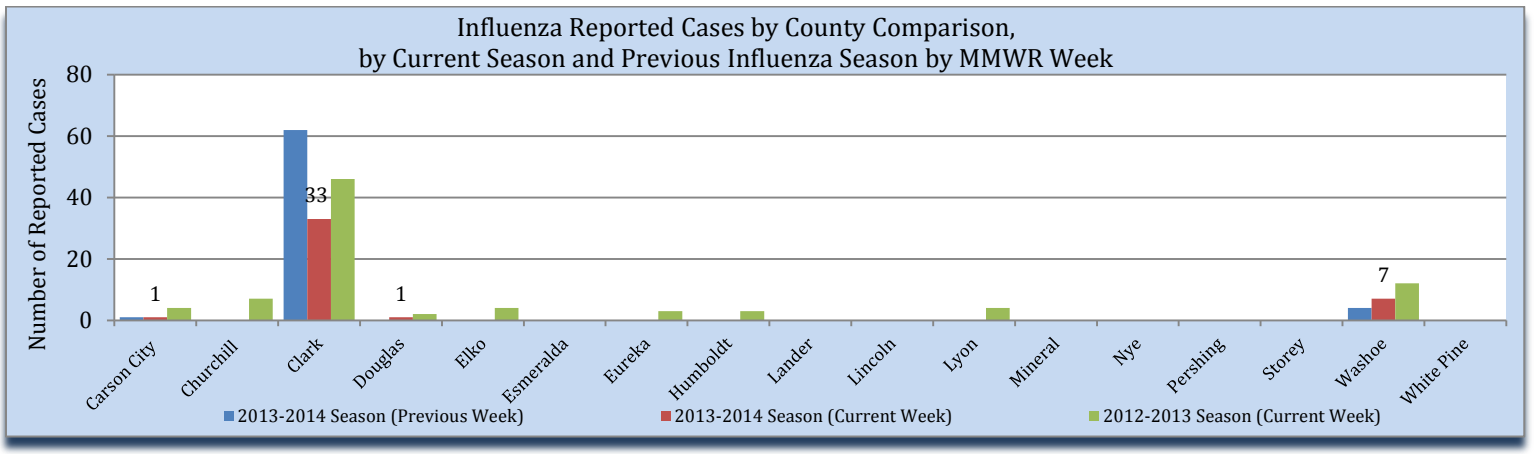
Table 2

Reporting Jurisdiction	Reported Influenza Cases by County Jurisdiction and Influenza Type									
	Current Week (Week 13)					Cumulative Influenza Season				
	H1N1	A	B	Unknown	Total	H1N1	A	B	Unknown	Total
Carson City Health and Human Services	0	1	1	0	2	18	372	25	16	431
Rural Health Services	0	0	0	0	0	97	241	33	46	417
Southern Nevada Health District	1	11	19	2	33	175	1,575	239	82	2,071
Washoe County Health District	0	3	3	1	7	183	506	32	31	752
State of Nevada	1	15	23	3	42	473	2,694	329	175	3,671

Source: OPHIE: NBS and SNHD: NETSS.

Clark County experienced a decrease in influenza to 33 from 62 influenza cases during week 13. Washoe County experienced an increased for week 13, to 7 from 4 influenza cases. Carson City and Douglas County had influenza activity during the week.

Figure 10



Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 401 hospitalizations associated with influenza this season (week 40 2013 through week 13).

Table 3

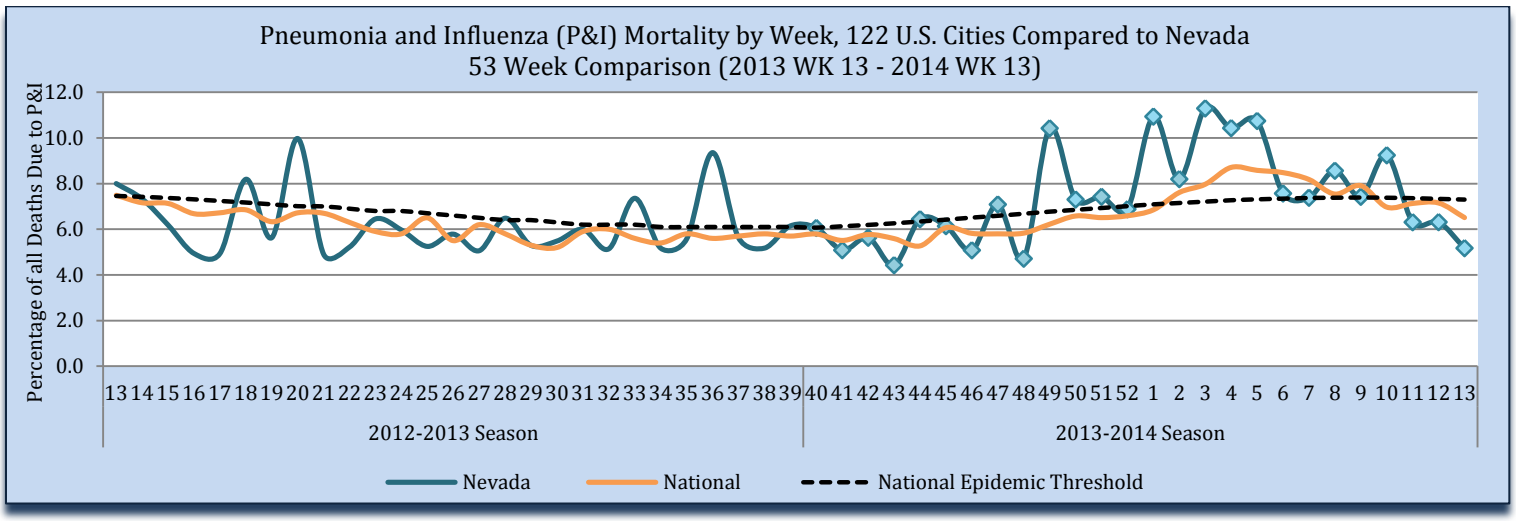
Influenza Hospitalizations				
Reporting Jurisdiction	Current Week (Week 13)		Cumulative Influenza Season	
	#	%	#	%
Carson City Health and Human Services	0	0.0	22	5.5
Rural Health Services	0	0.0	7	1.7
Southern Nevada Health District	4	100	274	68.3
Washoe County Health District	0	0.0	98	24.4
State of Nevada	4	100	401	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 21 P&I deaths and 396 total deaths for week 13, as of April 15. The P&I mortality percentage is below the national epidemic threshold at 5.2%, (threshold at 7.3%). Nationally, the P&I mortality is below the national epidemic threshold at 6.5%.

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

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, 2013 Week 13 (March 24) through 2014 Week 13 (March 29), Nevada. March 2014 i 13 edition 1.0.

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.