Influenza Weekly Report

2013 Week 19 (May 5 - 11) through 2014 Week 19 (May 4 - 10)

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.

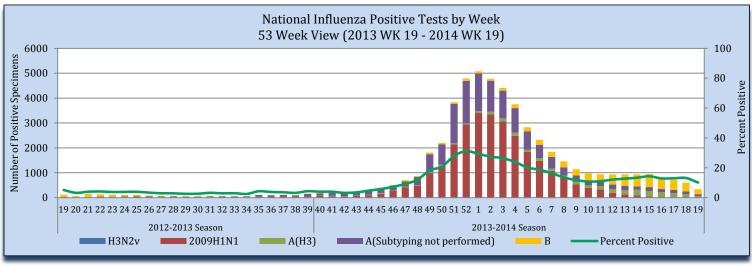
Purpose

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 3,381 specimens collected nationally during week 19 that were tested for influenza; of these 342 tested positive or the percent positive was 10.1%.

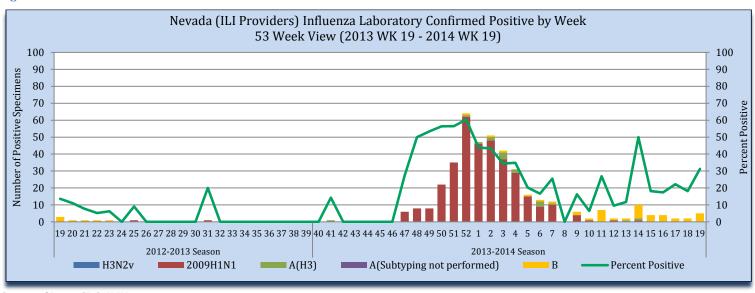
Figure 1



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, 5 tested positive for influenza during week 19 or 31.3%.

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 806 specimens this season with 328 positive from sentinel providers (40.7% positive). Southern Nevada Public Health Laboratory (SNPHL) has reported 74 positive influenza specimens through the Pediatric Early Warning Sentinel Surveillance (PEWSS). Nationally, there have been 297,392 specimens sent to the WHO and NERVSS laboratories with 51,973 positive or 17.5%. The national numbers in Table 1 are reflected in Figure 1. The state of Nevada data in Table 1 is reflected in Figure 2.

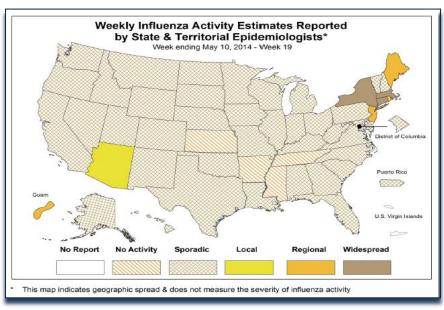
Table 1

ILINet Surveillance: Influenza Specimens Tested State and Nationally										
	NSPHL	SNPHL	State of Nevada (Week 19)		State of Nevada (Season)		National (Week 19)		National (Season)	
				%	#	%	#	%	#	%
Specimens Tested	806	414	16		1,220		3,381		297,392	
Positives to Influenza	328	74	5	31.3	397	33.1	342	10.1	51,973	17.5
<u>Influenza A:</u>	316	43	0	0.0	359	90.4	142	41.5	46,012	88.5
A(2009 H1N1)	301	41	0	0.0	342	95.3	0	0.0	28,272	61.4
A(Sub-typing not performed)	0	0	0	0.0	0	0.0	83	58.5	14,9217	32.4
A(H3)	15	2	0	0.0	17	4.7	59	41.5	2,823	6.1
<u>Influenza B:</u>	12	31	5	100	38	9.6	200	58.5	5,960	11.5

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

For week 19, Nevada reported sporadic activity to the CDC, along with 39 states/territories and the District of Columbia (Alabama, Alaska, California, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, 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



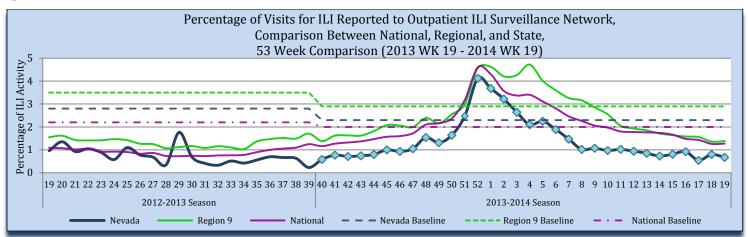
Source of Maps: CDC: FluView Report.

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 to 16,315 (week 19) from 16,124 (week 18). 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 0.7% from 0.8% during week 19, and is below the state baseline of 2.3%. Region 9 ILI remained at 1.4% and includes the following states/territories: Arizona, California, Guam, Hawaii, and Nevada. The national ILI remained at 1.3% during week 19 and is below the national baseline of 2.0%.

^{1:} Activity level: Appendix Table 4.

^{2:} ILI case definition: Technical Notes.

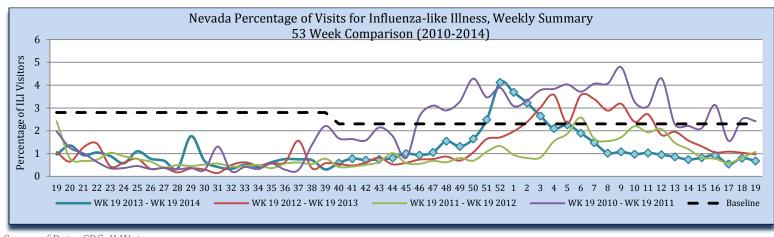
Figure 4



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

During week 19, 0.7% of visits to sentinel providers were due to ILI. This is a 0.3% point decrease from week 19 of the 2012-2013 influenza season, an influenza season is from week 40 through week 39.

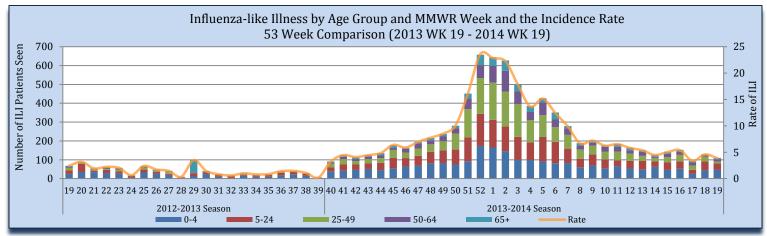
Figure 5



Source of Data: CDC: ILINet.

The number of ILI patients and rate decreased from week 18 to week 19, from 129 to 110, and the rate from 4.6 to 3.9 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.

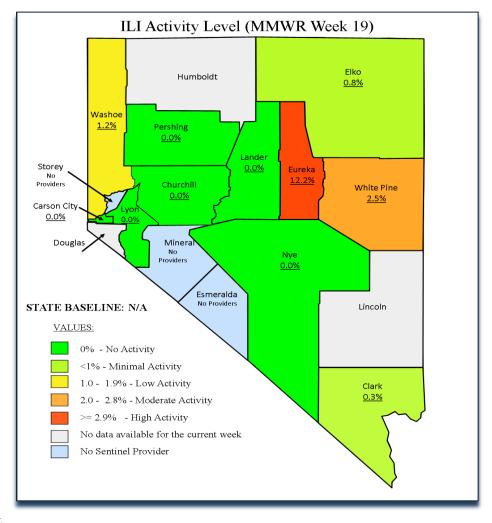
Figure 6



Source of Data: CDC: ILINet.

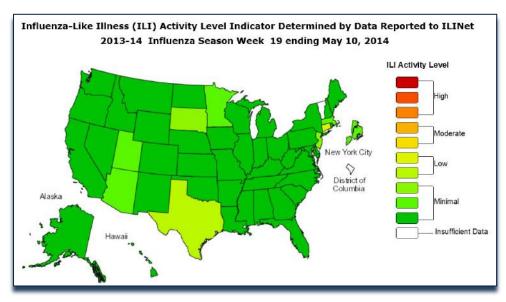
Providers for the sentinel surveillance are grouped by county, then the percent is calculated by ILI visits and total patient visits. During week 19, Eureka County had high activity; Douglas, Humboldt and Lincoln counties did not report (Figure 7). Overall, Nevada had minimal activity monitored through ILINet (Figure 8).

Figure 7



Source of Data: CDC: ILINet.

Figure 8

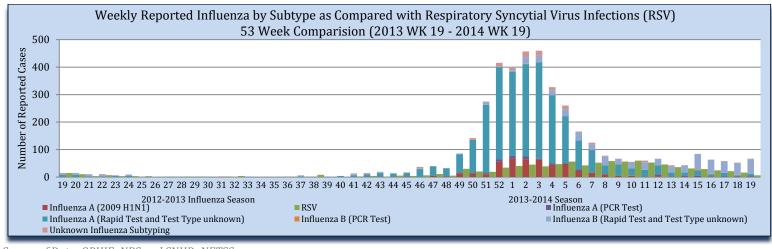


Source of Map: CDC: FluView Report.

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 19, there were 11 Influenza A cases. There were 54 positive Influenza B cases. Overall, there were 67 influenza positive tests in Nevada, whereas during the previous season for week 19, there were 15 cases.

Figure 9



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

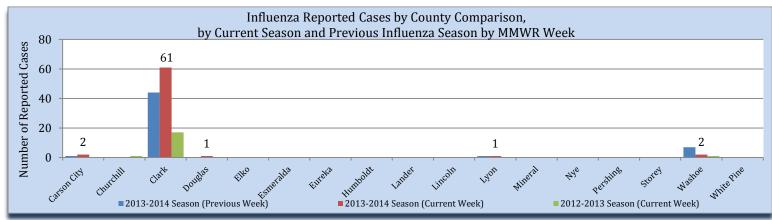
Table 2

	Reported Influenza Cases by County Jurisdiction and Influenza Type										
Reporting Jurisdiction	Current Week (Week 19)					Cumulative Influenza Season					
	H1N1	A	В	Unknown	Total	H1N1	A	В	Unknown	Total	
Carson City Health and Human Services	0	1	3	0	4	18	376	33	16	443	
Rural Health Services	0	0	0	0	0	97	242	33	46	418	
Southern Nevada Health District	0	9	50	2	61	177	1,677	446	39	2,336	
Washoe County Health District	0	1	1	0	2	183	512	56	31	782	
State of Nevada	0	11	54	2	67	475	2,807	565	132	3,979	

Source: OPHIE: NBS and SNHD: NETSS.

Clark County experienced an increase in influenza to 61 from 44 influenza cases during week 19. Washoe County experienced a decrease for week 19, to 2 from 7 influenza cases. Carson City, Douglas, and Lyon County had influenza activity during the week.

Figure 10



Source: OPHIE: NBS and SNHD: NETSS.

Hospitalizations

There have been 435 hospitalizations associated with influenza this season (week 40 2013 through week 19).

Table 3

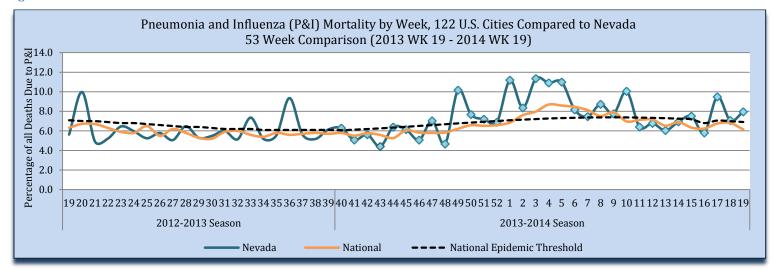
Influenza Hospitalizations						
Reporting Jurisdiction	Current Week (Week 19)		Cumulative Influenza Season			
	#	%	#	%		
Carson City Health and Human Services	0	0.0	22	5.1		
Rural Health Services	0	0.0	7	1.6		
Southern Nevada Health District	8	100	305	70.1		
Washoe County Health District	0	0.0	101	23.2		
State of Nevada	6	100	435	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 19 P&I deaths and 239 total deaths for week 19, as of May 19th. The P&I mortality percentage is above the national epidemic threshold at 7.9%, (threshold at 6.9%). Nationally, the P&I mortality is below the national epidemic threshold at 6.2%.

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		
	Not Increased		Isolated lab-confirmed cases †
Sporadic			Or
	Not Increased	And	Lab confirmed outbreak in one institution ‡
	Increased ILI in 1 region**, ILI activity in other regions is not increased		Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI
Local			Or
Bocar	2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased		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
Dagianal	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 confirmed influenza in the affected regions
Regional			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	ead Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions		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-

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

[†] 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.

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

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