

2016-2017 Influenza Season Report

2016 Week 40 (October 2 – October 8) through 2017 Week 20 (May 13 – May 20)

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.

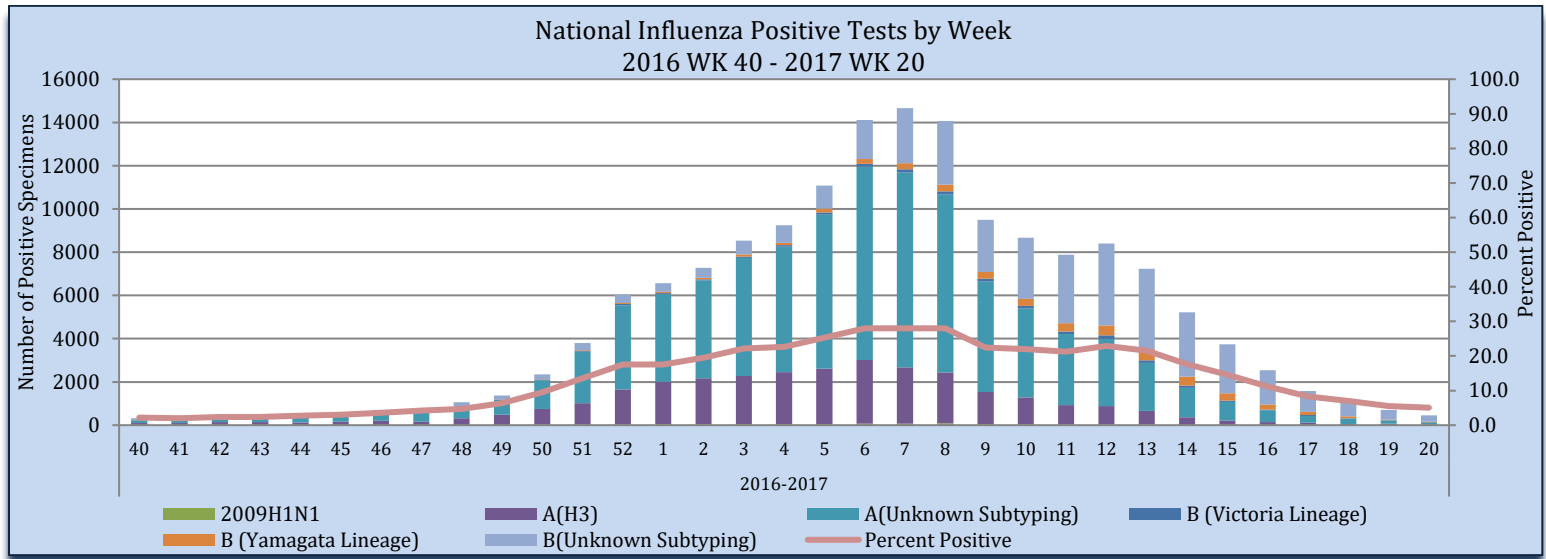
Purpose

The purpose of this report is to provide an overview of and statistics for the 2016-2017 influenza season in Nevada for the local public health authorities, sentinel providers and the public.

Influenza-Like Illness Network Surveillance (ILINet)

Respiratory specimens are tested for influenza by the World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NRVESS) collaborating laboratories by sub-type. During the influenza season, there were 940,791 specimens collected nationally and tested for influenza, of those 161,094 were positive with influenza (17.1%). The season peak was week 7 with 28% positive for influenza.

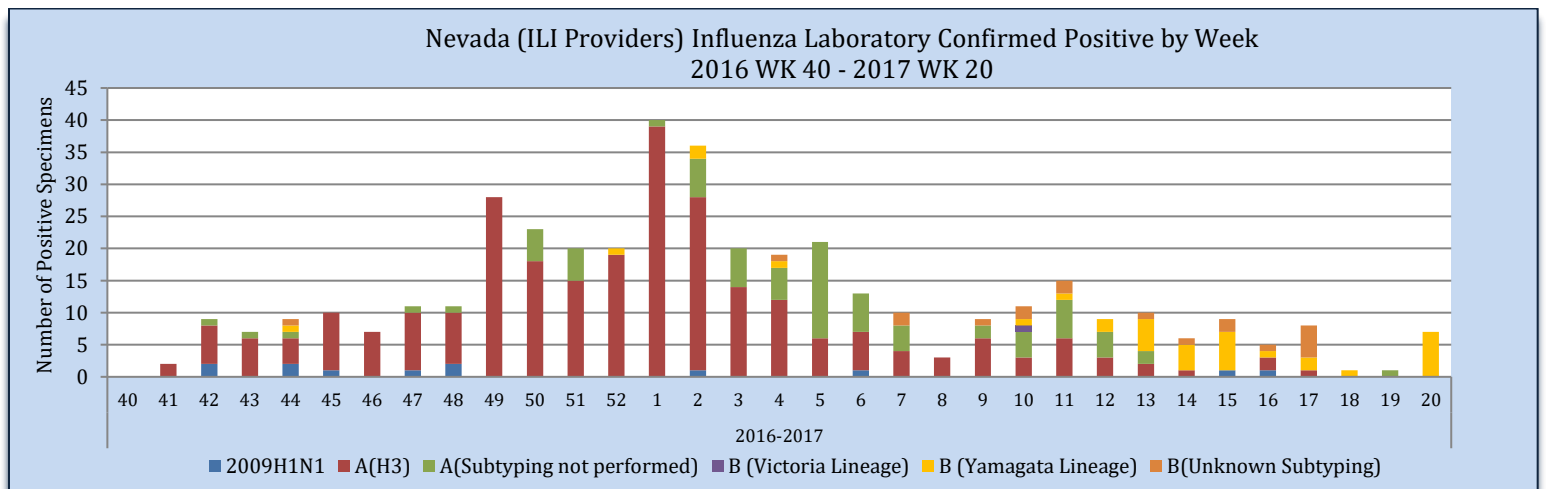
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents including out of state laboratories. During the 2016-2017 season 1,072 specimens were tested for influenza, of which 410 were positive (38.2%). Nevada’s peak for positives test was week 1 (57.1%).

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) tested 353 specimens for influenza from sentinel providers, of which 299 were positive (84.7%). Southern Nevada Public Health Laboratory (SNPHL) tested 75 specimens this season of which 7 were positive (9.3%). The national numbers in Table 1 are reflected in Figure 1. The state of Nevada data in Table 1 is reflected in Figure 2. The Nevada total includes laboratory test for all Nevada residents including out of state laboratories.

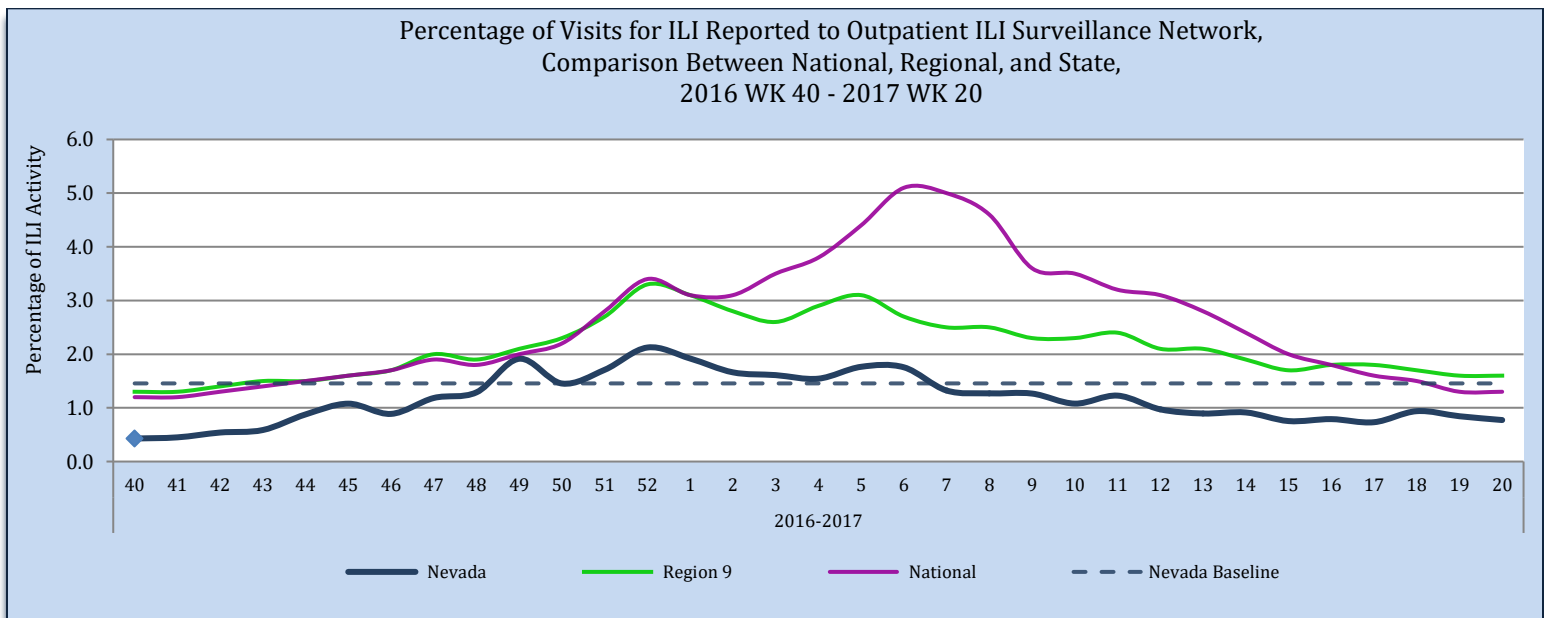
Table 1

ILINet Surveillance: Influenza Specimens Tested State and Nationally						
	NSPHL	SNPHL	State of Nevada		National	
			#	%	#	%
Specimens Tested	353	75	1,072		940,791	
Positives to Influenza	299	7	410	38.2	161,094	17.1
Influenza A:	264	5	355	86.6	116,362	72.2
A(2009 H1N1)	11	0	12	3.4	886	0.8
A(H3)	253	5	266	74.9	30,391	26.1
A(Sub-typing not performed)	0	0	77	21.7	85,085	73.1
Influenza B:	35	2	55	13.4	44,732	27.8

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

Influenza-like Illness (ILI) Surveillance Network has each sentinel providers report the number of patients that meet the ILI case definition and number of patients that visit the provider weekly. The “percentage of visits” is the number of ILI patients divided by the total number of patients visit per week. Nevada’s ILI percentage peaked during week 52 at 2.12%. Nevada remained at or above the state baseline for 10 weeks, weeks 49 – 6. Region 9 ILI percentage peaked during week 52 at 3.3%, and remained above the regional baseline for 10 weeks, weeks 51-8. Region 9 includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage peaked during week 6 at 5.1%, and remained above the national baseline for 17 weeks (weeks 50-14).

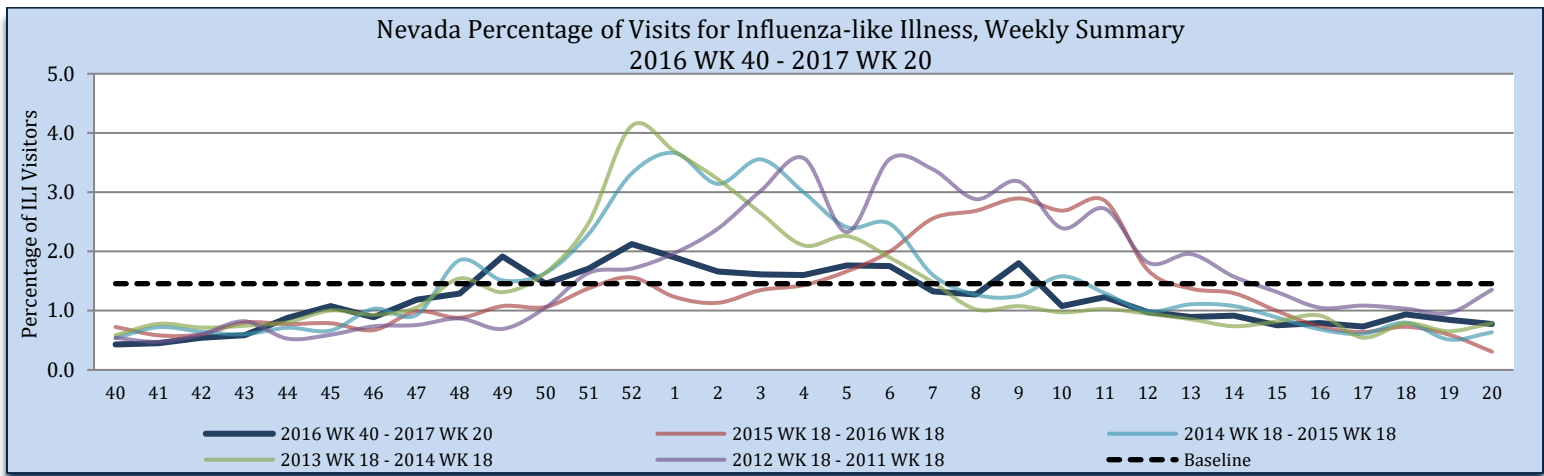
Figure 3



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

The percentage of visits for ILI peaked at week 52 for the 2016-2017 season whereas in the previous season (2015-2016) the peak occurred during week 9.

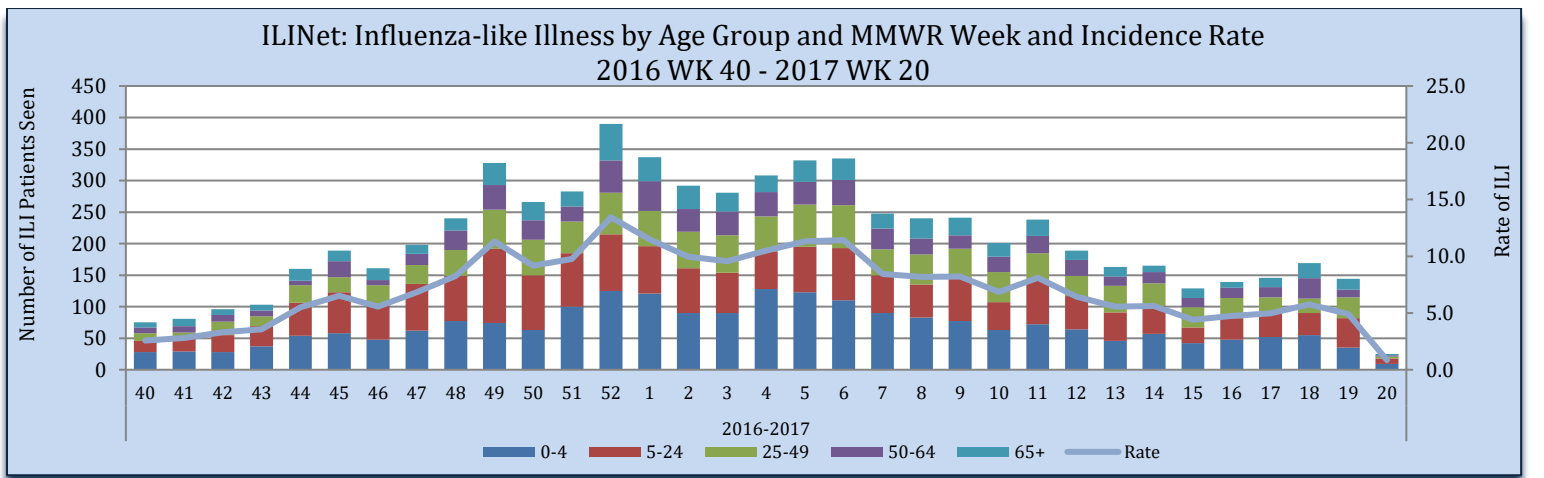
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups, during the 2016-2017 season the 0-4 age group had the highest amount of patients seen with ILI. The highest number of patients were seen during week 52 at a rate of 13.4 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 2017 is 2,935,490.

Figure 5



Source of Data: CDC: ILINet.

Influenza Positive Surveillance (NBS and NETSS)

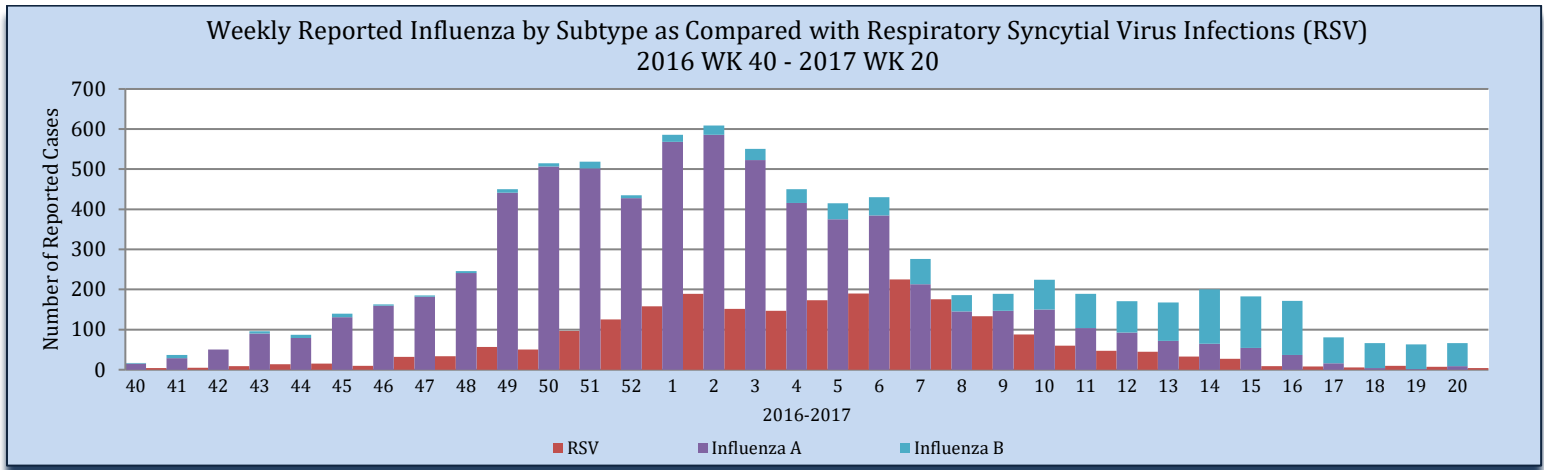
Laboratory confirmed cases of influenza are reported to the state health authority for surveillance purposes. Table 2 and Figure 6 reflect all positive influenza cases reported to the state. Types of influenza testing include commercial rapid diagnostic test (rapid), viral culture, fluorescent antibody, enzyme immunoassay, RT-PCR (PCR), and Immunohistochemistry. The two most common test types in Nevada are Rapid and PCR tests. During 2016-2017 season, there were 8,578 positive influenza cases reported to the state, 6,819 influenza A cases, 1,336 influenza B cases and 423 unknown subtyping.

Table 2

Reporting Jurisdiction	Reported Influenza Cases by County Jurisdiction and Influenza Type			
	A	B	Unknown	Total
Carson City Health and Human Services	831	141	3	975
Rural Community Health Services	581	68	37	687
Southern Nevada Health District	3,404	899	228	4,603
Washoe County Health District	1,994	228	155	1,781
State of Nevada	6,819	1,336	423	8,578

Source: OPHIE: NBS and SNHD: NETSS.

Figure 6



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

Hospitalizations

There were a total of 535 hospitalizations associated with influenza reported to the state health authority during the 2016-2017 season.

Table 3

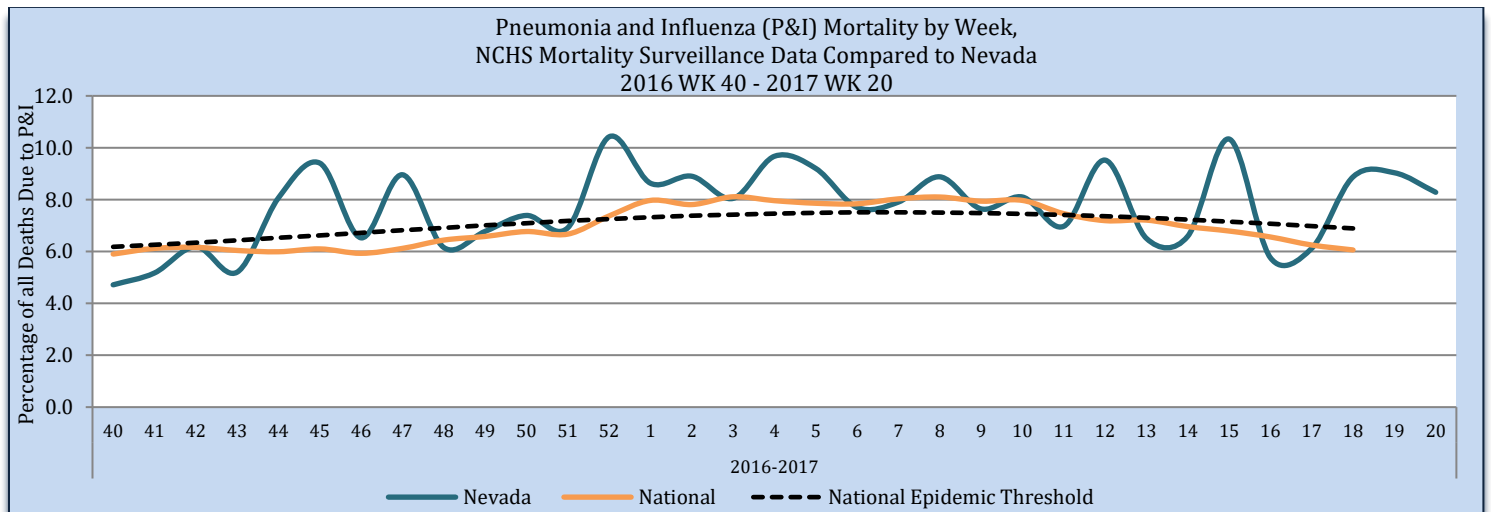
Influenza Hospitalizations		
Reporting Jurisdiction	Influenza Season	
	#	%
Carson City Health and Human Services	36	6.7
Rural Community Health Services	20	3.8
Southern Nevada Health District	181	33.8
Washoe County Health District	298	55.7
State of Nevada	535	100

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 the underlying or contributing cause of death, divided by the total deaths in Nevada for each week. The peak of P&I mortality was week 52, there were 42 P&I deaths out of 403 total deaths (10.4%). The CDC’s most up-to-date National Epidemic Threshold data was for week 18.

Figure 7



Source: OVR: WEVRRS and CDC: FluView.

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.
- NEDSS 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 2016.
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4. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2016-2017. Accessed May 2017.
5. Southern Nevada Health District (SNHD). NETSS/Trisano. 2016-2017. Accessed May 2017.

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

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