



Public Health Update
June 25, 2019
2018 – 2019 Influenza Season Wrap-Up

Overview: In the United States, influenza viruses are most common during the fall and winter months. Influenza activity often begins to increase in October and November. Most of the time flu activity peaks between December and February and can last as late as May. This annually recurring time is called “flu season.” Influenza surveillance for the 2018-2019 flu season officially began on October 1, 2018. Throughout the flu season, based on a variety of data sources, the Southern Nevada Health District (SNHD) provided weekly influenza snapshots to give the community the most complete and up to date view of influenza activity in Clark County, Nevada. The 2018-2019 flu season ended on May 18, 2019. This is a summary report for the season.

Summary of Influenza Activity in Clark County: Influenza activity increased in mid-December 2018 and peaked in the first week of January 2019. During the flu season, there were a total of 968 hospitalizations and 39 deaths attributed to influenza, including 3 deaths of children under age 18.

Laboratory Surveillance: The Southern Nevada Public Health Laboratory (SNPHL), commercial laboratories, and healthcare providers reported hospitalizations and deaths among patients who tested positive for influenza by Rapid Influenza Diagnostic Tests (RIDTs) and confirmative laboratory tests such as Reverse-Transcriptase Polymerase Chain Reaction (RT-PCR). In addition, positive results of influenza virus type and influenza A virus subtype were also reported. The most common virus type identified during this season was Influenza A (95.6%). Table 1 represents testing data, including the type and subtypes identified in the 2018-2019 season.

Table 1: Positive Influenza Types Reported by SNPHL and Partners*, Clark County, NV (2018- 2019 Season)

Influenza Type		Test Type		Total	Percentage
	Subtype	RIDT	Non-RIDT		
Influenza A	A (Seasonal H3)		7	7	0.7%
	A (H1N1 pdm09)		44	44	4.5%
	A (not subtyped)	173	707	880	90.4 %
Influenza B		11	30	41	4.2 %
Undifferentiated influenza A/B		2	0	2	0.2 %
Total		186	788	974	100%

Influenza Hospitalizations: During the 2018-2019 season, 968 hospitalizations and 39 deaths, including three pediatric (aged 0-17 years) deaths, attributed to influenza were reported to SNHD. Of those hospitalized for influenza, 158 (16.3%) were admitted to intensive care units (ICU) and 86 (8.9%) received respiratory treatment via ventilator. The highest percentage of hospitalization and death was among adults aged ≥65 years (Table 2).

Table 2: Influenza Hospitalizations and Deaths, Clark County, NV (2018 – 2019 Season)

Age Group	# of Deaths (Percentage)	# of Hospitalizations (Percentage)
0-4	1 (2.6%)	79 (8.2%)
5-17	2 (5.1%)	70 (7.2%)
18-24	0	28 (2.9%)
25-49	6 (15.4%)	170 (17.6%)
50-64	8 (20.5%)	255 (26.3%)
65+	22 (56.4%)	366 (37.8%)
Total	39 (100%)	968(100%)

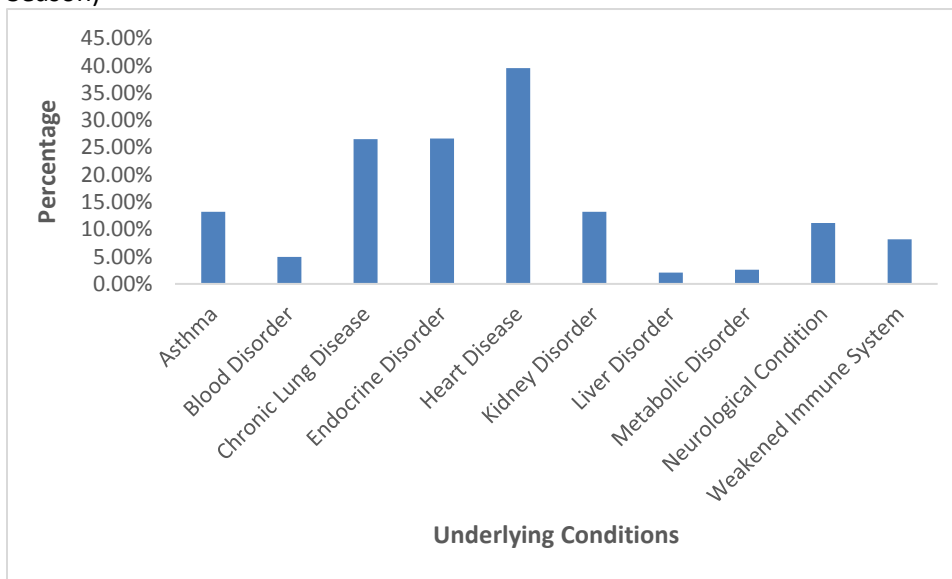
Although case’s immunization history of influenza vaccine is very important, most hospitalized cases did not have documented immunization history in the medical records or in the Nevada’s Statewide Immunization Information System (Nevada Web IZ). There were only 241 cases (24.9%) with documented influenza vaccine history for the 2018 - 2019 season (Table 3).

Table 3: Influenza Vaccination Coverage Among Hospitalized Cases (n = 968), Clark County, NV (2018 – 2019 Season)

Immunization Status for Influenza	Number of Cases	Percentage
Previously Vaccinated	191	19.7%
Not Vaccinated	50	5.2%
Unknown	727	75.1%
Total	968	100%

Hospitalized patients were also assessed for underlying conditions on admission. Of those with documented status of underlying conditions (n=968), 774 (80%) had one or more underlying conditions at the time of hospitalization. Heart disease was the most common documented underlying condition (39.6%) (Figure 1).

Figure 1: Selected Underlying Medical Conditions of Hospitalized Cases, Clark County, NV (2018-2019 Season)



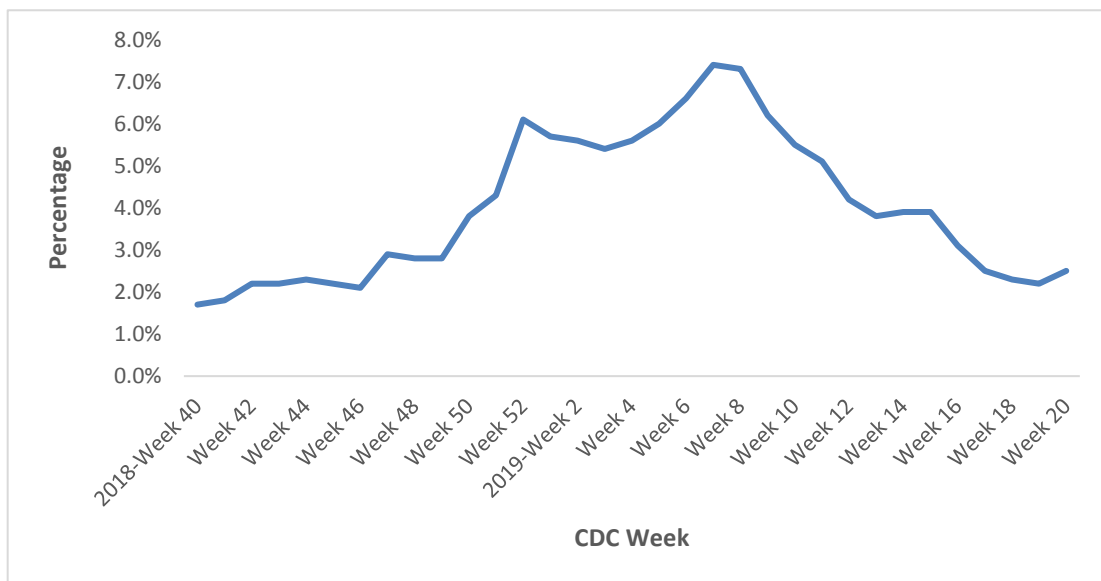
Influenza Vaccine for Healthcare Providers: In Nevada, no statute or regulation requires any hospital or medical facility to ensure that employees are vaccinated with influenza vaccine. However, the state does mandate hospitals, skilled nursing facilities, and other medical facilities to submit data to the Centers for Disease Control and Prevention’s (CDC) National Healthcare Safety Network (NHSN) concerning the influenza vaccination rate of the healthcare personnel (HP) of the facility. According to CDC, 2017–2018 season influenza vaccination coverage among HP was 78.4% nationwide, similar to coverage during the 2016–17 season (78.6%). In Clark County, Nevada, per NHSN, the 2018 – 2019 season influenza vaccination rate of HP was highest among HP who were working in Inpatient Psychiatric Facilities (82%) and lowest among those working in ambulatory Surgery Centers (50%) (Table 4).

Table 4. Influenza Vaccination Coverage Among Healthcare Personnel – Clark County, NV (2018-2019 Season)

Type of Healthcare Facilities	Percent of HP Received Flu Vaccines
Acute Care Hospitals (n = 21)	81%
Ambulatory Surgery Centers (n = 14)	50%
Inpatient Psychiatric Facilities (n = 8)	82%
Inpatient Rehabilitation Facilities (n = 11)	70%
Long Term Acute Care Hospitals (n = 7)	59%

Syndromic Surveillance: SNHD utilizes Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) to conduct syndromic surveillance in Clark County, NV. Emergency department (ED) visits in 26 local hospitals and urgent care centers** for influenza like illness (ILI)*** through 2018- 2019 season were captured by ESSENCE (Figure 2).

Figure 2: Weekly Percentage of Emergency Department Visits for Influenza-Like Illness, Clark County, NV (2018- 2019 Season)



Recommendations: CDC says “Take 3” actions to fight the flu.

1. Take time to get a flu vaccine. CDC recommends a yearly flu vaccine as the first and most important step in protecting against flu viruses.
2. Take everyday preventive actions to stop the spread of germs, e.g. avoid close contact with sick people, cover nose and mouth when coughing, and wash hands with soap and water.
3. Take flu antiviral drugs if your doctor prescribes them.

2018-2019 flu season has ended, however, all healthcare providers are encouraged to continue reporting influenza cases online at <https://www.southernnevadahealthdistrict.org/diseasereports/forms/disease-reporting>. If you have any questions on influenza or influenza surveillance, please contact the Office of Epidemiology and Disease Surveillance (OEDS) at (702) 759-1300.



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*Partners include: commercial laboratories, hospital laboratories and local healthcare providers.

**Local hospital emergency departments and urgent care centers include: Boulder City Hospital, Centennial Hills Hospital, Desert Springs Hospital Medical Center, Henderson Hospital, Mesa View Regional Hospital, Mountain View Hospital, Mountain’s Edge Hospital, North Vista Hospital, Southern Hills Hospital and Medical Center, Spring Valley Hospital and Medical Center, St. Rose Dominican Hospital – Rose de Lima Campus, St. Rose Dominican Hospital – Siena Campus, St. Rose Dominican Hospital – San Martin Campus, Summerlin Hospital Medical Center, Sunrise Hospital and Medical Center, University Medical Center of Southern Nevada (UMCSN), Valley Hospital Medical Center, and nine UMCSN urgent care centers.

***Syndromic Influenza like illness (ILI) definition in ESSENCE: Influenza or fever with cough or fever with sore throat.

Health Alert: conveys the highest level of importance; warrants immediate action or attention

Health Advisory: provides important information for a specific incident or situation; may not require immediate action

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action

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Resources: <https://www.cdc.gov/flu/professionals/healthcareworkers.htm> (How many HCP got vaccinated last season?)