

Washoe County Health District 2019-2020 Influenza Surveillance Program Weekly Report 2019-2020 Season Summary

2019-2020 Season Summary (September 29, 2019 – May 16, 2020)

Nationally, the 2019-2020 influenza season was classified as having overall moderate severity by the Centers for Disease Control and Prevention (CDC).¹ Influenza-like illness (ILI) activity in the United States increased in week 44 (2.4%) and peaked at week 52 (6.9%). At the local level, Washoe County ILI activity also increased in week 44 (1.8%), however, peaked during weeks 46 (4.2%) and 48 (4.2%) [Figure 2].

Nationwide, influenza A (2009 H1N1) was the most reported influenza virus during the 2019-2020 season.¹ There were two consecutive waves of activity, starting with influenza B viruses, followed by influenza A (2009 H1N1) viruses.¹ In Washoe County, specimens collected by sentinel providers from patients exhibiting ILI symptoms are submitted to the Nevada State Public Health Laboratory (NSPHL) for subtyping. Among the samples submitted, influenza A (2009 H1N1) (30%) and influenza B (Victoria) (30%) were the most frequently identified subtypes in Washoe County [Figure 4].

A total of 266 influenza hospitalizations were reported during the 2019-2020 season in Washoe County [Table 2]. Among hospitalized flu cases, 69.2% were not vaccinated with the seasonal flu vaccine [Table 2]. Among those hospitalized, 134 were influenza A (not subtyped) and 35.8% of the 134 cases were vaccinated. Among the 69 influenza B cases hospitalized, 17.4% were vaccinated [Table 2].

The 2019-2020 season concluded with a total of 238 pneumonia and influenza (P&I) deaths. During week 18, a higher than normal percentage of deaths were attributed to pneumonia and influenza (21.7%) [Figure 7]. A review of death certificates reported for week 18 indicated 50% of the registered deaths listed COVID-19 as the cause of death. The first COVID-19 deaths in Washoe County were registered in week 14. National data for P&I and epidemic threshold percentages for weeks 14 and 43 were not available.

Surveillance is conducted for respiratory syncytial virus (RSV) and data are included in weekly reports. The total number of RSV cases reported during the 2019-2020 influenza season was 771. The highest number of cases were reported during week 6 (n=103) [Figure 8].

The national COVID-19 emergency was declared during week 10 of the ILI surveillance season and states began implementing mitigation measures in late February. Following the COVID-19 emergency declaration in week 10, the 2019-2020 ILI season echoed trends observed in previous seasons.

References

¹Centers for Disease Control and Prevention. (2020, October 6). Estimated Influenza Illnesses, Medical visits, Hospitalizations, and Deaths in the United States - 2019-2020 Influenza Season. Accessed January 8,2021 from https://www.cdc.gov/flu/about/burden/2019-

2020.html#:~:text=CDC%20estimates%20that%20the%20burden,flu%20deaths%20(Table%201

²Lasry A, Kidder D, Hast M, et al.; CDC Public Health Law Program; New York City Department of Health and Mental Hygiene; Louisiana Department of Health; Public Health – Seattle & King County; San Francisco COVID-19 Response Team; Alameda County Public Health Department; San Mateo County Health Department; Marin County Division of Public Health. Timing of community mitigation and changes in reported COVID-19 and community mobility—four U.S. metropolitan areas, February 26–April 1, 2020. MMWR Morb Mortal Wkly Rep 2020;69:451–7. Accessed May 17, 2021 from https://www.cdc.gov/mmwr/volumes/69/wr/mm6937a6.htm

Figure 1. ILI Activity Reported by Sentinel Providers by Age Group, Washoe County Influenza Surveillance, 2019-2020

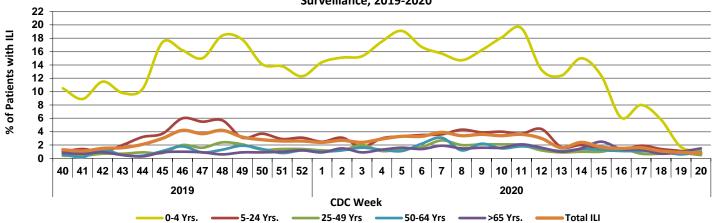
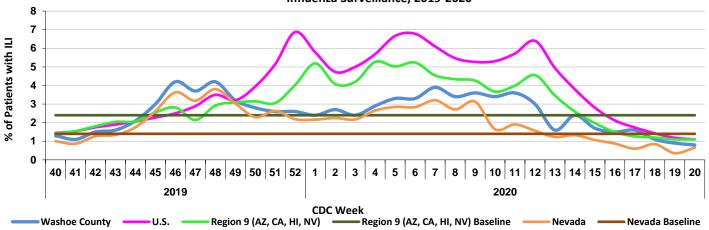


Figure 2. Comparison of ILI Activity at the Local, State, Regional, and National Level, Washoe County Influenza Surveillance, 2019-2020



Data source for U.S., Region 9, and Nevada ILI activity and baselines: CDC Flu View Interactive, https://www.cdc.gov/flu/weekly/fluviewinteractive.htm.

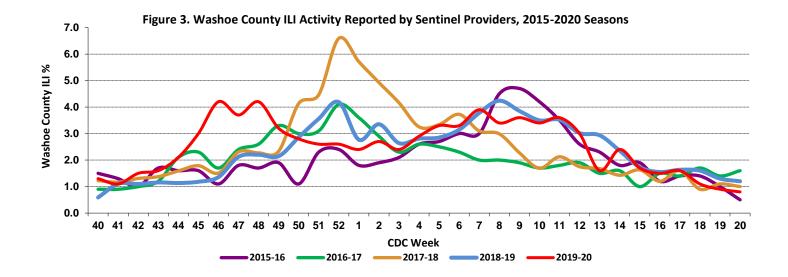


Table 1. Specimens Submitted to NSPHL for Subtyping to Date

| Influenza Subtype | # of Specimens | % of Total Specimens |
|----------------------|----------------|----------------------|
| A (H3N2) | 3 | 3% |
| A (2009 H1N1) | 35 | 30% |
| B (Yamagata) | 0 | 0% |
| B (Victoria) | 35 | 30% |
| Negative | 43 | 37% |
| Total (All Subtypes) | 116 | |

Figure 4. Percentage of Influenza Subtypes to Date

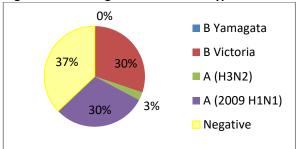


Table 2. Number of Hospitalized Cases, ICU Cases and Fatalities with Laboratory-Confirmed Influenza, Washoe County Influenza Surveillance, 2019-2020

| | 3ul Veillance, 2013-2020 | | | | | | | | | | | | | | | | |
|---|--------------------------|-----------------------------|-----------|---------|---------------------|---------|--------------|---------|---|------|--------------|------|----|------|---|------|--|
| #DIV/0! Denominator is zero formula unable to calculate | | Current Week (Week 20) | | | | | | | Cumulative for 2019-2020 Influenza Season | | | | | | | | |
| | | May 10, 2020 - May 16, 2020 | | | | | | | September 29, 2019 - May 16, 2020 | | | | | | | | |
| | Hospitalized Vax§ | | ICU Death | | <u>Hospitalized</u> | | <u>Vax</u> § | | <u>ICU</u> | | <u>Death</u> | | | | | | |
| | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % | |
| Total # of cases reported | 0 | N/A | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 266 | 100 | 82 | 30.8 | 57 | 21.4 | 7 | 2.6 | |
| Influenza A (2009 H1N1) | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 13 | 4.9 | 6 | 7.3 | 4 | 7.0 | 0 | 0.0 | |
| Influenza A (seasonal H3) | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | |
| Influenza A (not subtyped) | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 134 | 50.4 | 48 | 58.5 | 31 | 54.4 | 4 | 57.1 | |
| Influenza A (RIDT*) | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 49 | 18.4 | 16 | 19.5 | 5 | 8.8 | 2 | 28.6 | |
| Influenza B (RIDT*) | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 8 | 3.0 | 3 | 3.7 | 1 | 1.8 | 0 | 0.0 | |
| Influenza B (non-RIDT**) Influenza (unknown type, | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 61 | 22.9 | 9 | 11.0 | 16 | 28.1 | 1 | 14.3 | |
| RIDT*) | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | #DIV/0! | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | |

^{*}RIDT: *Rapid Influenza Diagnostic Test

§Vaccination status determined among hospitalized cases only. Patient is considered vaccinated if they received a flu vaccine ≥ 2 weeks prior to illness onset.

No hospitalizations were reported for week 20.

^{**}Confirmatory tests other than RIDT may include culture, PCR, immunofluorescence, DFA/IFRA antibody staining, or rapid molecular assay.

Figure 5. Washoe County Hospitalization Rate per 100,000 Population, 2016-2020 Seasons

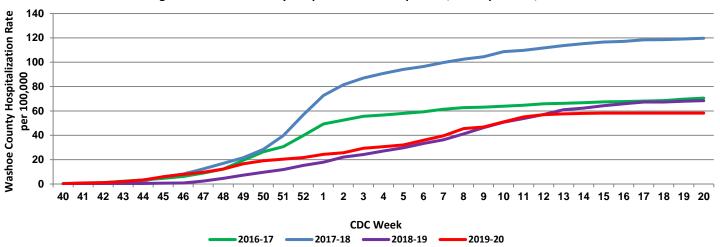


Figure 6. Influenza Positive Tests Among Hospitalized Cases by Week of Report, Washoe County

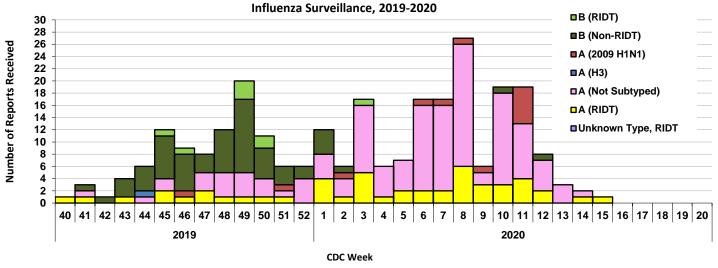


Figure 7. Pneumonia and Influenza Mortality, Washoe County Influenza Surveillance, 2019 – 2020.

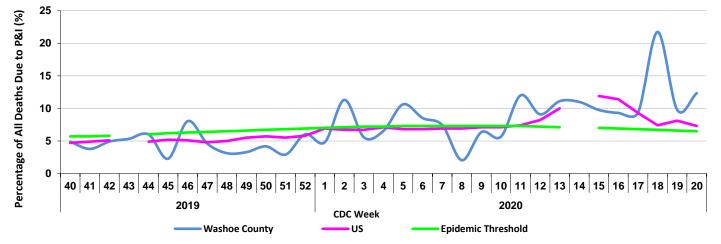


Figure 8. Number of RSV Cases, Washoe County Communicable Disease Surveillance, 2019-2020 110 **Number of RSV Reports Received** 100 90 80 70 60 50 40 30 20 10 49 50 51 52 2 3 5 6 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 2019 **CDC Week**

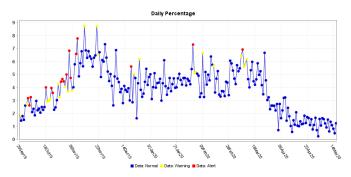
Syndromic Surveillance

Emergency Department (ED) Visits and Renown Urgent Care (UC) Visits

Percentage of patients seen for an Influenza-like Illness (ILI). ILI is defined as influenza or fever and a cough and/or a sore throat. Non-ILI fevers are excluded. Yellow dots indicate data warnings and red dots indicate data alerts. These warnings and alerts indicate an unusually high percentage of ILI visits according to ESSENCE algorithms.

(Data source: ESSENCE)

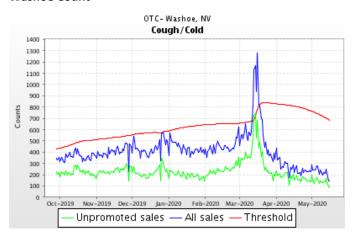
Figure 9. Percentage of ED and UC Visits for Influenza-Like Illness, Washoe County



<u>Over-the-Counter (OTC) sales for cough and/or cold remedies.</u>

This includes: Cold Relief Adult/Pediatric Liquid/Tablet (plain cold liquids or tablets, antihistamines, decongestants, night-time liquid cold relief products, and allergy relief products); Cough Syrup Adult Liquid/Tablet (Any cough whip products, cough syrups, cough tablets, capsules, squares for relief of cough in adults); Cough Syrup Pediatric Liquid (Any cough whip products, cough syrups for relief of cough in children). (Data source: National Retail Data Monitor Data coverage in Washoe County: ~40%)

Figure 10. OTC sales for cough and/or cold remedies, Washoe Count

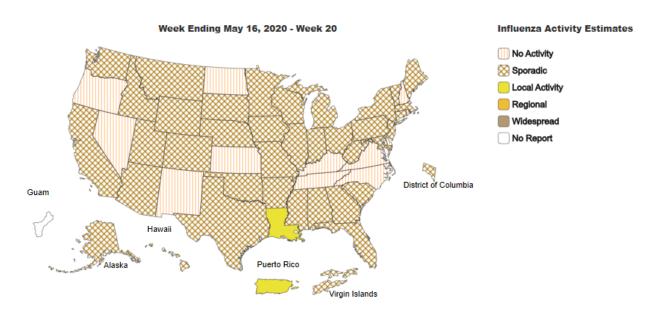


Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists

The following influenza activity was reported:

- Local Puerto Rico and one state (Louisiana)
- Sporadic the District of Columbia, the U.S. Virgin Islands and 37 states (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming)
- No Activity 12 states (Delaware, Kansas, Kentucky, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Oregon, Rhode Island, Tennessee, and Virginia)
- Guam did not report.

Figure 11. Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



Washoe County Influenza Resoures

Weekly Washoe County influenza surveillance reports are available at http://tinyurl.com/WashoeFlu. These weekly reports are also emailed to physicians, public health practitioners, infection preventionists, daycare operators, and others in the community. If you would like to be added to the email listserv, please email the following information to epicenter@washoecounty.us: your name (first and last), title, organization, and email address and request to be added.