WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

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EPI-NEWS

Public Health

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INFLUENZA SURVEILLANCE UPDATE IN WASHOE COUNTY

INTRODUCTION

Washoe County Health District (WCHD) has participated in national influenza surveillance conducted by the Centers for Disease Control and Prevention (CDC) since 1984. The objectives of surveillance and the methods applied have been described in detail in a previously published Epi-News (http://www.washoecounty.us/repository/files/4/Vol-32-No-14-07-20-12-Overview-of-Influenza-Surveillance.pdf).

The 2016-2017 influenza season began on October 2, 2016 and will end on May 20, 2017. During this season, Washoe County Health District (WCHD) has been fortunate to have seven urgent care facilities, four emergency departments, and one outpatient office as the sentinel sites to monitor influenza like illness (ILI) activity in the community. This brings the total to12 sentinel sites covering three types of healthcare facilities in Washoe County. This coverage greatly exceeds the CDC goal of one sentinel provider per 250,000 population for influenza surveillance. However, WCHD is still looking for an outpatient office in a family practice setting to volunteer as a sentinel site this season. Please contact WCHD at 775-328-2447 should your office have an interest.

Influenza-like illness (ILI) is defined as fever [temperature of 100 ºF (37.8 ºC) or greater] and a cough and/or a sore throat in the absence of a known cause other than influenza. The number of reported laboratory confirmed cases is insufficient to measure the true level of flu activity in the community. Table 1 summarizes the influenza surveillance systems used in the United States and Washoe County. The system in Washoe County provides a comprehensive view of flu activity. The weekly surveillance report is available on WCHD's website available at http://tinyurl.com/WashoeFlu.

Table 1. Influenza Surveillance Systems in Washoe County and in the United States, 2016-2017

Method	Use	National	Washoe
Viral surveillance	Measures the positivity rate of influenza, type and subtype of influenza virus, gene sequencing, antiviral resistance testing, and antigenic characterization, and human infection with novel influenza A virus	Yes	Yes[1]
Outpatient ILI	Monitors weekly outpatient visits to health care providers (HCP) for ILI	Yes	Yes[2]
Mortality	Rapid tracking of influenza-associated deaths & influenza-associated pediatric deaths	Yes	Yes[3]
Hospitalizations	Monitors laboratory confirmed influenza-associated hospitalizations in children and adults	Yes	Yes
Summary of geographic spread	Weekly influenza activity levels shown on the map by different states	Yes	NA
Reporting	Laboratory confirmed influenza is reportable to the health authority in Nevada	No[5]	Yes
Syndromic Surveillance	Utilizes existing pre-diagnosis data for other purposes to monitor ILI	No	Yes[4]

[1] Through State Lab for testing the type and subtype of influenza virus, submit selected isolates to CDC for further testing; [2] Twelve sentinel sites; [3] Washoe County's death certificate registry system; [4] Systems including monitoring over-the-counter sales for cough and/or cold remedies (NRDM); Chief complaints due to ILI (National Syndromic Surveillance Program, CDC); [5] Reportable for novel influenza A only.

HIGHLIGHTS OF FINDINGS IN THE SEASON UP TO DATE

Since the beginning of the season, influenza activity has been low but not zero, which is consistent with national findings. The proportion of outpatient visits for ILI was 0.9% in week 41 ending October 15, 2016. The national average was 1.1% in week 40 ending October 8, 2016. The national baseline is 2.2%. During the first two weeks of this season, a total of 13 laboratory-confirmed influenza cases have been reported, 11 of them were influenza A and 2 were influenza B. Beginning the week of October 17, several reported cases have been hospitalized and one influenza-associated death has been reported. The deceased case was hospitalized and had influenza A infection. Southern Nevada Health District

also reported its first influenza-associated death on October 19. Several other states (internal communication, not published data) also reported early flu activity including influenza outbreaks and influenza-associated deaths.

RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

Influenza surveillance in Washoe County during the past decades could not have been successful without the support and contribution of local healthcare provider. However, in an effort to continue improving the surveillance system, we still have the following recommendations for HCPs in Washoe County.

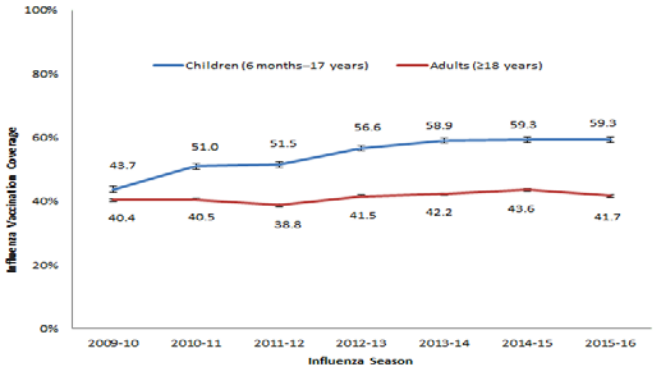
- **Be responsible for reporting** – Per Nevada law NAC441A, influenza is a reportable disease. A suspected outbreak of influenza is also reportable. Any laboratory confirmed case or suspected outbreaks should be reported to the WCHD by fax at **775-328-3764** or call at **775-328-2447.**

- **Be a sentinel site** – WCHD would encourage any healthcare providers in the family practice setting or pediatric setting who may be interested in participating in sentinel influenza surveillance to contact our office at 328-2447. At that point we can provide testing supplies, so that further PCR testing can be performed.

- **Be proactive in prevention** – the Advisory committee on Immunization Practices (ACIP) recommends vaccination of all persons aged ≥6 months who do not have contraindications. In the 2016-17 season, CDC recommends use of the flu shot (inactivated influenza vaccine or IIV) and the recombinant influenza vaccine (RIV). The nasal spray flu vaccine (live attenuated influenza vaccine or LAIV) should not be used during 2016-2017. CDC estimates that during the 2015-2016 season, almost half (45.6%) of the U.S. population 6 months and older were vaccinated against flu (Figure 1). The state-specific flu vaccination coverage among all people age 6 months and older ranged from **36.8% (Nevada)** to 56.6% (South Dakota). The details are available at http://www.cdc.gov/flu/fluvaxview/reportshtml/reporti1516/reporti/index.html.

- **Be specific in filling out the death certificate form –** Death certificates have been playing an extremely important role in influenza surveillance. Immediate causes of death and underlying causes of death provide valuable information to the influenza surveillance system allowing the capture of pneumonia and influenza associated deaths.

Figure 1. Seasonal Flu Vaccination Coverage by Age Group and Season, United States, 2009–2016



Error bars represent 95% confidence intervals around the estimates.
The 2009-10 estimates do not include the influenza A (H1N1) pdm09 monovalent vaccine.
Starting with the 2011-12 season, adult estimates reflect changes in BRFSS survey methods: the addition of cellular telephone samples and a new weighting method.

- **Be aware of the most appropriate diagnostic test and know its interpretation –** Although confirmation of influenza virus infection by diagnostics testing is not required for clinical decisions to prescribe antiviral medications at an individual level, it is important to know what type and strain is circulating in the community. Having laboratory confirmation is also helpful in an outbreak investigation. Check here for the updated guidelines for laboratory diagnosis of influenza. http://www.cdc.gov/flu/professionals/diagnosis/index.htm

- **Be familiar with the most current treatment guideline -** Checking frequently with CDC's website here http://www.cdc.gov/flu/professionals/antivirals/index.htm. WCHD will also provide an issue of Epi-News if the guidelines for treatment and chemoprophylaxis of influenza are changed.

- **Be a good educator to your patient –** Educate your patients about the transmission of influenza and emphasize the important of personal hygiene including hand washing, cough etiquette, and social distancing to prevent the spread of the disease.

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