Influenza

The 2015-2016 influenza season has arrived, officially beginning October 4, 2015 (week 40 on the Centers for Disease Control and Prevention [CDC] calendar). This article reviews influenza surveillance and reporting with a focus on the response of local health jurisdictions. See Resources for more details on a topic.

The Disease

Influenza (flu) is a viral respiratory infection characterized by fever with other symptoms such as cough and sore throat. There can be body aches, weakness, and respiratory tract congestion. Complications including pneumonia can be severe.

Influenza A and influenza B viruses infecting humans change constantly. Influenza A viruses can undergo major variations; in 2009 there was an unexpected pandemic of a new A H1N1 virus identified toward the end of the normal winter influenza season. The Washington State Public Health Laboratories (PHL) conduct influenza virus testing, subtyping, and antiviral resistance screening primarily for surveillance purposes. Local health jurisdictions can call the Office of Communicable Disease Epidemiology to arrange testing of specimens from patients associated with outbreaks, deceased patients suspected to have influenza, patients with suspected novel influenza virus infection, or ill persons with exposure to avian influenza-infected birds.

The best way to prevent influenza is through vaccination. Yearly vaccination is recommended for all persons ages 6 months and older; a variety of vaccine products are available. Promote vaccination as soon as
vaccine is available, particularly among those at higher risk for influenza complications (including the very young, the elderly, those with pre-existing health conditions, pregnant women, and those interacting with infants under 6 months). Vaccinating those around an infant under 6 months of age can provide a “cocoon” of protection. Similarly, it is crucial that healthcare providers and staff in long term care facilities are vaccinated to protect populations at high risk for complications.

CDC recommends that decisions about antiviral treatment should not wait for laboratory confirmation of influenza. A negative rapid influenza diagnostic test (RIDT) does not rule out influenza. Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who is hospitalized, has severe, complicated, or progressive illness or is at higher risk for influenza complications. Three influenza antivirals are recommended for use in the United States during the 2015-2016 influenza season: oral oseltamivir (Tamiflu®), inhaled zanamivir (Relenza®), and intravenous peramivir (Rapivab®).

Influenza Surveillance in Washington

Currently, only the following are conditions notifiable to Washington’s local health jurisdictions for eventual reporting to the Office of Communicable Disease Epidemiology:

- Suspected novel or unsubtypable influenza;
- Death in a person with laboratory-confirmed influenza;
- Single confirmed cases or clusters of suspected influenza in long term care facilities;
- Suspected or confirmed influenza outbreaks in healthcare facilities, schools, or other community settings.

Local health jurisdictions can give facilities recommendations for controlling the spread of influenza. Jurisdictions also have the authority to require additional reporting. For example, in Spokane and Snohomish counties, laboratory-confirmed hospitalized influenza cases are reportable.

Year-round influenza surveillance is needed to identify influenza viruses in circulation, assist with vaccine development, and detect changes in antiviral resistance patterns. Surveillance data also inform providers when influenza is present in their community so any appropriate antiviral medications can be started. Using multiple sources of data, Department of Health provides weekly surveillance updates during influenza season and monthly updates in the summer.
Outpatient Influenza-like Illness Surveillance Network (ILINet)
ILINet is a CDC-supported program for sentinel health care providers to record the total number of patients seen weekly as well as the number with influenza-like illness.

World Health Organization/National Respiratory and Enteric Virus Surveillance System (NREVSS)
Sentinel laboratories report to NREVSS the total number of specimens tested for influenza each week as well as the number of positive tests by influenza subtype.

Public Health Reporting of Aggregate Influenza Data (PHRAID)
Laboratories and clinics around the state are encouraged to report the total number of influenza tests performed and the number of positive results for influenza A and B each week through PHRAID (accessible through SAW).

Early Notification of Community-Based Epidemics (ESSENCE)
ESSENCE is a Washington syndromic surveillance system that reports daily syndromic data, including ILI data, from a selection of Washington hospital emergency departments. These aggregate data are based on presenting complaint, not discharge diagnosis. ESSENCE data will be returned to the influenza surveillance update starting fall, 2015.

Pneumonia and Influenza Mortality
Total weekly deaths in the state due to pneumonia and influenza (P&I) per the death certificate are tallied. Death certificates can include influenza as a cause even in the absence of confirmatory testing.

Avian Influenza
Avian influenza strains have the potential to result in severe illnesses if transmitted to humans. In late 2014 and early 2015, avian influenza H5N2, H5N8 and H5N1 strains were identified in birds in Washington and several other states. No human cases have been associated. No positive birds have been identified in Washington since February 2015, and no positive birds identified in the United States since June 2015. While there have been no human cases, CDC has
recommended that people with known exposure to infected birds be monitored for influenza-like illness for 10 days following their last exposure. DOH continues to monitor the avian flu situation in our state and will work with affected local health jurisdictions as needed regarding monitoring of any exposed persons.

As the 2015-2016 influenza season continues, remember to check the DOH influenza page for updates and always feel free to call Office of Communicable Disease Epidemiology (206-418-5500 or 877-539-4344) to discuss any influenza situation.

**Influenza Resources**


Influenza vaccination recommendations for 2015-2016: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm)

Healthcare worker vaccination: [http://www.cdc.gov/flu/healthcareworkers.htm](http://www.cdc.gov/flu/healthcareworkers.htm)


Antiviral summary: [http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm](http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm)

USDA avian data including maps (under Animal Disease Information and then Avian Influenza): https://www.aphis.usda.gov/wps/portal/aphis/ourfocus/animalhealth

Communicable Disease Annual Report

The annual Communicable Disease Report will be available in late October or early November. As in previous years, the largest burden of communicable diseases in Washington for 2014 comes from sexually transmitted diseases, particularly chlamydia (26,246 cases) and gonorrhea (6,136 cases). The number of tuberculosis cases continued a slow decline, with 196 reports for the year.

Other communicable diseases were of interest in 2014. Reflecting international spread of chikungunya virus there was an increase in imported cases in Washington residents, with 13 reports. The state had the highest number ever reported for brucellosis cases, all four with international travel (India, Mexico, Uzbekistan, Kenya) and for legionellosis, with 63 cases. Washington had continued low numbers of cases for hepatitis A and acute hepatitis B, but an increase in acute hepatitis C to 83 cases, the highest since 1995. There were 33 measles cases resulting from three separate outbreaks plus three non-outbreak cases. Two large norovirus outbreaks were associated with restaurants, one with 60 cases and the other with 50 cases. A large waterborne norovirus outbreak associated with a lake likely involved several hundred cases.

Providers, laboratories, healthcare facilities, veterinarians, and local health jurisdictions are essential for maintaining communicable disease reporting, and their contributions are appreciated.

Individual disease incidence tables for 2014 are now available on each condition’s page: http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/ListofNotifiableConditions

The full annual report will be posted at: http://www.doh.wa.gov/DataandStatisticalReports/DiseasesandChronicConditions/CommunicableDiseaseSurveillanceData

Current notifiable conditions reporting posters are available: http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/ReportingPosters