Influenza Surveillance Summary
Week 40, 2011 to week 30, 2012 (October 2, 2011 through August 4, 2012)

Public Health
Seattle & King County

The 2011-12 influenza season was later in onset and milder than recent seasons, with the exception of 2009-10 H1N1 pandemic season. Strains of influenza A (H3N2) and influenza B emerged that were not well matched to the vaccine antigens, and the 2012-13 vaccine has been modified to include the new strains that are anticipated to circulate next season.

- Syndromic surveillance: The onset of the 2011-12 influenza season was delayed relative to the previous five years. The percent of emergency department (ED) visits for influenza-like illness (ILI) began to gradually increase in week 8 (ending Feb 25), reached a peak in week 15 (ending Apr 14), and steadily declined through week 23 (ending Jun 9). Overall, the peak volume of ED visits for ILI (approximately 3%) was comparable to trends observed in the previous 5 years, excluding the 2009 H1N1 pandemic period; volume was highest among pediatric age groups, where peak levels were approximately 10% among children under 2 years, 2-4 years, and 5-17 years.

- Lab-confirmed flu deaths: Seven lab-confirmed deaths were reported during the 2011-2012 season: 2 influenza A (H1N1), 2 influenza A (H3N2), two influenza B and one who tested positive for both influenza A and influenza B. Three of the fatal cases occurred in adults between age 45 and 64, and the remaining deaths occurred in adults over age 65. All cases occurred in persons with chronic medical conditions that put them at higher risk for influenza complications, such as chronic heart disease and diabetes. Previously, nine deaths were reporting during the 2010-2011 influenza season and 21 were reported during the 2009-2010 season (considered part of the 2009 H1N1 pandemic period). Prior to the 2009 H1N1 pandemic, only pediatric deaths from influenza were reportable. Reported deaths underestimate flu mortality, which varies from season to season. Based on CDC national mortality estimates, influenza may cause roughly 175 deaths in King County in an average season (range 27-322).

- LTCF outbreaks: Public Health investigated influenza-like illness outbreaks in 7 long-term care facilities during the 2011-2012 season; influenza was confirmed in 5 facilities (2 flu A, 2 flu B and one facility that reported both influenza A and B). During the previous season, 24 outbreaks were reported, 18 of which were confirmed as influenza.

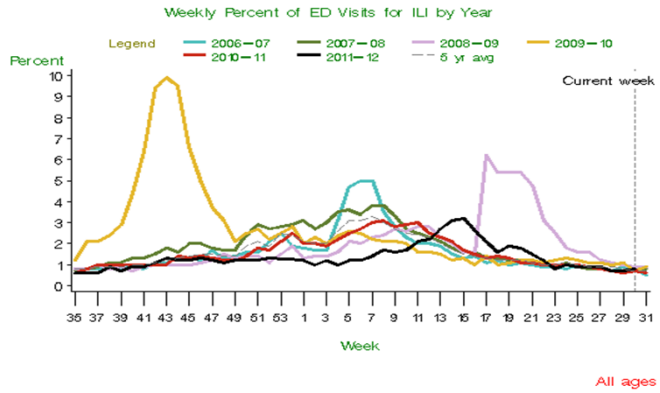
- Sentinel surveillance: Outpatient sentinel provider submissions and number that tested positive for influenza peaked during week 13 (ending Mar 31); this was 4-8 weeks later than peaks observed over the last five flu seasons (excluding the 2009 H1N1 pandemic period). Influenza A (H1N1) was the predominant subtype identified early in the season (peak week 11), while influenza B and influenza A (H3N2) both increased later (peaks week 13 and 15, respectively). Influenza B accounted for the largest proportion of positive specimens (44%), followed by influenza A (H3) (30%) and influenza A (2009 H1N1) (24%); 2 specimens were unable to be subtyped.

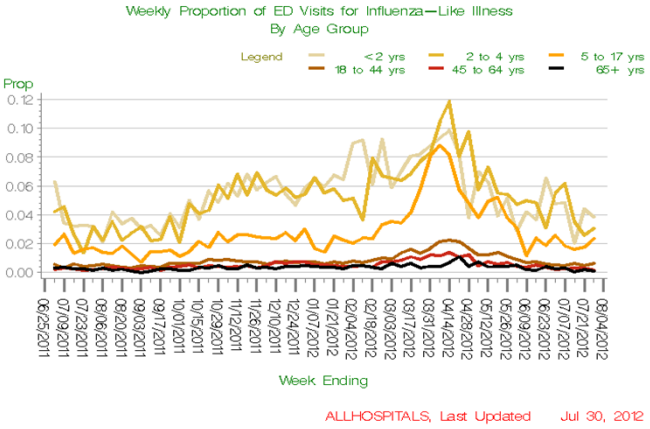
- Rapid antigen test surveillance: The number of influenza rapid antigen tests performed and proportion positive for influenza both peaked during week 15 (ending Apr 14). Sporadic positive test results continue to be reported as of the end of July for both influenza A and influenza B. As observed with outpatient test surveillance, this year's pattern of rapid antigen testing suggested a peak of influenza activity several weeks later than observed during the last five flu seasons (excluding the 2009 H1N1 pandemic period).

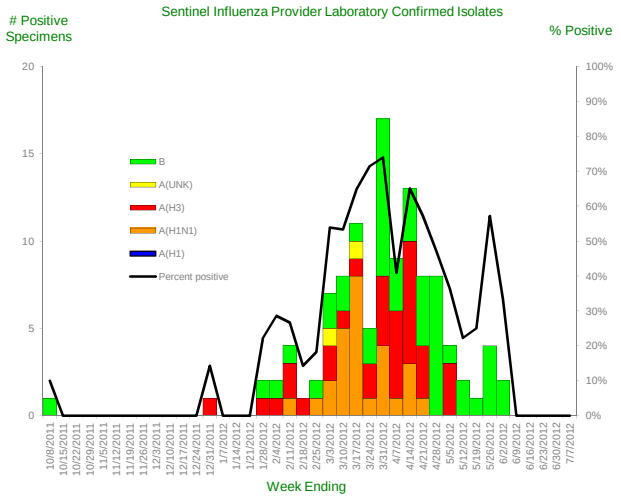
- The UW Virology Laboratory reported peak flu activity during week 16 (ending Apr 21). RSV activity peaked in early March, human metapneumovirus peaked the last week of March, and rhinovirus followed influenza, with a peak in mid-May.

- Pneumonia and influenza deaths: The proportion of deaths due to pneumonia and influenza exceeded the national epidemic threshold 3 times during the current season, each time decreasing below the threshold the subsequent week.

- Nationally, flu activity peaked during week 11 (ending Mar 17) though regional variation was observed. Among all isolates submitted to the national laboratories, 49% were identified as influenza A (H3), followed by influenza A 2009 H1N1 (18%) and influenza B (14%); 19% of isolates were unsubtyped influenza A. Since July 12, 2012, 145 cases of variant H3N2 infections have been reported, all in persons who have had contact with swine, the reservoir for the virus. There have been a few reports of limited person-to-person transmission but no sustained person-to-person transmission. For more information, see: http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm.







Resources

Additional Flu Information, Resources and Surveillance:
www.kingcounty.gov/health/flu

UW Virology Laboratory Respiratory Virus Surveillance:
http://depts.washington.edu/rspvirus/documents/VD2011-12.pdf

Washington State Influenza Surveillance Update:
www.doh.wa.gov/EHSPHL/Epidemiology/CD/fluupdate.pdf

National Influenza Update:
www.cdc.gov/flu/weekly/

Global Influenza Update:
www.who.int/csr/disease/influenza/en/

^Influenza-like illness is defined as fever and cough *or* sore throat, or specific mention of influenza in chief complaint or discharge diagnosis