

2012 CDC Week 19 (5/6/12–5/12/12)

Please note that all data are preliminary and may change as more reports are received.

Summary:

- Influenza viruses continued to circulate in Washington during week 19. Overall, flu activity continued to decrease in Western Washington and remained fairly low in Eastern Washington.
- The proportion of emergency room visits for influenza-like illness (ILI) was below baseline in both Western and Eastern Washington, however, the proportion of outpatient visits for ILI statewide was above baseline.
- Detections of influenza B viruses in sentinel laboratories exceeded detections of influenza A viruses in both Western and Eastern Washington.
- During week 19, 44 (14.2%) of 309 specimens tested by the World Health Organization (WHO) Collaborating Laboratories in Washington were positive for influenza. Of these specimens, 32 (73%) were influenza B viruses and 12 (27%) were influenza A viruses.

Laboratory Data

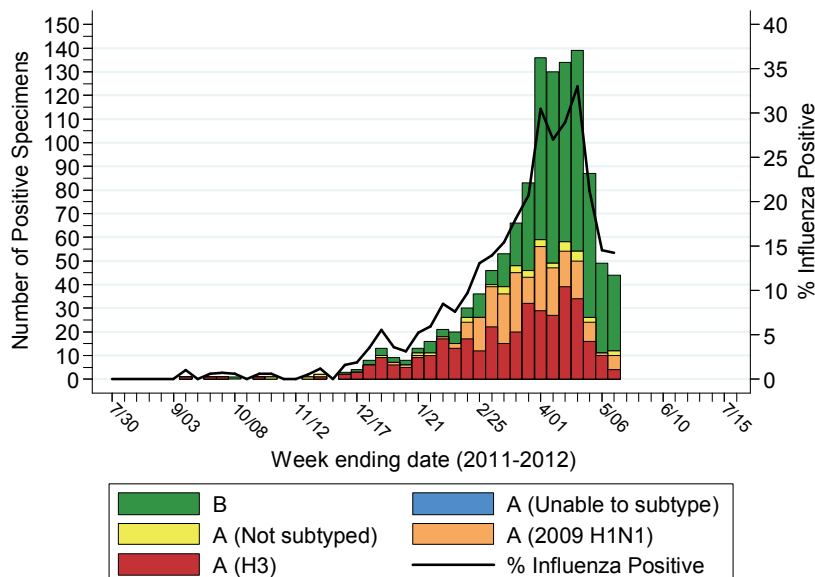
World Health Organization (WHO) Collaborating Laboratories

Five laboratories in Washington participate in the WHO surveillance network. These laboratories include the Washington State Public Health Laboratories, the Seattle & King County Public Health Laboratory, the Spokane Regional Health District Laboratory, the University of Washington Virology Laboratory, and Seattle Children's Hospital Laboratory. WHO laboratory data from Washington are shown in the following table and figure.

Washington Influenza Specimens — Weekly & Cumulative

Week Ending	No. Labs Reporting	A(H1)	A (2009 H1N1)	A (H3)	A (Unable to subtype)	A (Subtyping not performed)	B	Total Influenza	Total # Tested	% Influenza Positive
4/21	5	0	16	34	0	4	85	139	421	33
4/28	4	0	8	16	0	2	61	87	411	21.2
5/5	5	0	1	10	0	0	38	49	337	14.5
5/12	4	0	6	4	0	2	32	44	309	14.2
Cumulative since 4/15/12	—	0	31	64	0	8	216	319	1478	21.6

WHO Laboratory Data, Washington, 2011–2012



Antigenic Characterization

To date for the 2011–12 influenza season, antigenic characterization has been performed on 87 influenza viruses from Washington State.

Influenza A (H3N2) (n=27)

Thirteen (48%) influenza A (H3N2) viruses were characterized as A/Perth/16/2009-like, the influenza A (H3N2) component of the 2011–12 vaccine. Fourteen (52%) viruses showed reduced titers with antiserum produced against A/Perth/16/2009.

Influenza A (2009 H1N1) (n=3)

All 3 influenza A (2009 H1N1) viruses were characterized as A/California/07/2009-like, the influenza A (H1N1) component of the 2011–12 vaccine.

Influenza B (n=57)

38 (67%) influenza B viruses tested belong to the B/Victoria lineage of viruses and 19 (33%) belong to the B/Yamagata lineage of viruses. Of 17 influenza B/Victoria lineage viruses characterized, all 17 have been characterized as B/Brisbane/60/2008-like, the influenza B component of the 2011-12 vaccine.

Antiviral Resistance Testing

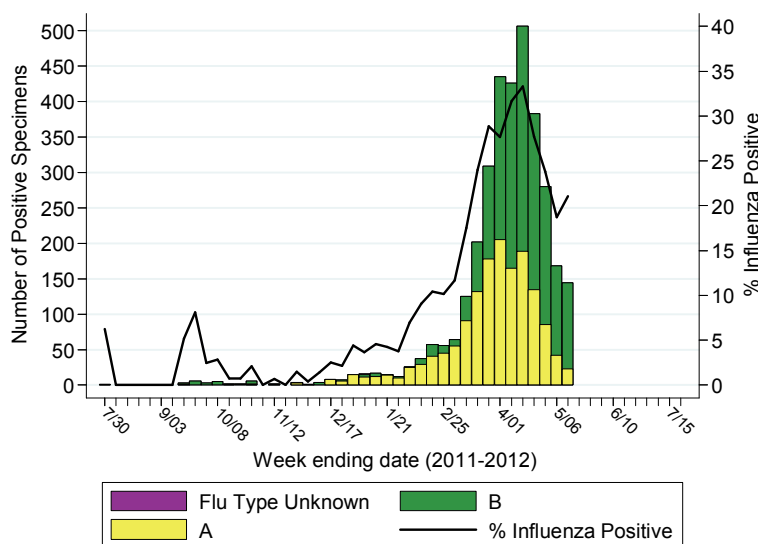
The Washington State Public Health Laboratories perform antiviral resistance testing on selected influenza A (2009 H1N1) specimens for surveillance purposes. PHL uses CDC protocols to identify a single known mutation in the neuraminidase of the influenza A (2009 H1N1) virus that confers oseltamivir resistance (H275Y). Since July 24, 2011, no resistant influenza A (2009 H1N1) viruses have been detected in Washington.

Public Health Reporting of Aggregate Influenza Data (PHRAID)

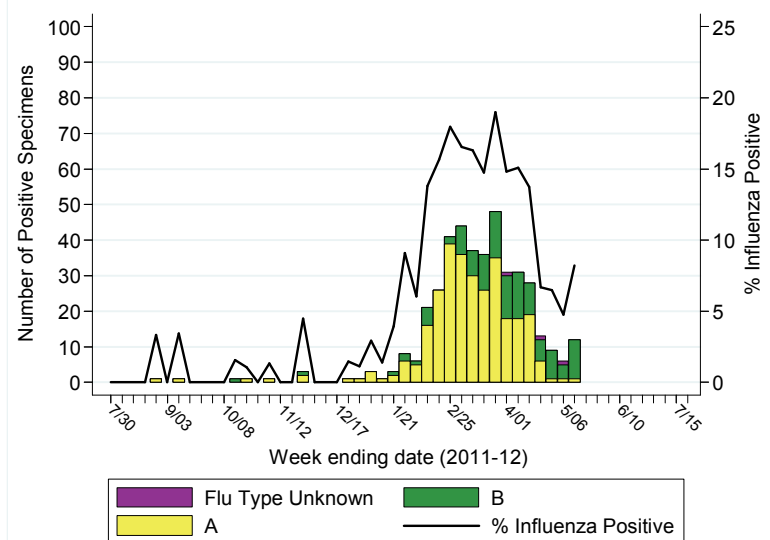
Select laboratories in Washington report the total number of influenza tests performed and the total number positive for influenza A and B each week through PHRAID. During CDC Week 19 (5/6–5/12), 14 Western Washington facilities reported 144 (21%) positive influenza specimens out of 684 influenza tests conducted (23 influenza A, 121 influenza B). In Eastern Washington, 10 facilities reported 11 (8.2%) positive specimens out of 134 influenza tests conducted (1 influenza A+B, 10 influenza B).

During the peak of the 2010-2011 season, approximately 300 positive influenza results were reported per week through this surveillance system from Western Washington.

**Aggregate Influenza Testing Results,
Western Washington, 2011–2012**



**Aggregate Influenza Testing Results,
Eastern Washington, 2011–2012**



For additional information on respiratory virus testing in Washington, please refer to the following websites:
PAML Virology Respiratory Reports: <http://www.paml.com/Pages/Respiratory%20Report.aspx>
University of Washington Clinical Virology Laboratory: <http://depts.washington.edu/rspvirus/documents/VD2011-12.pdf>

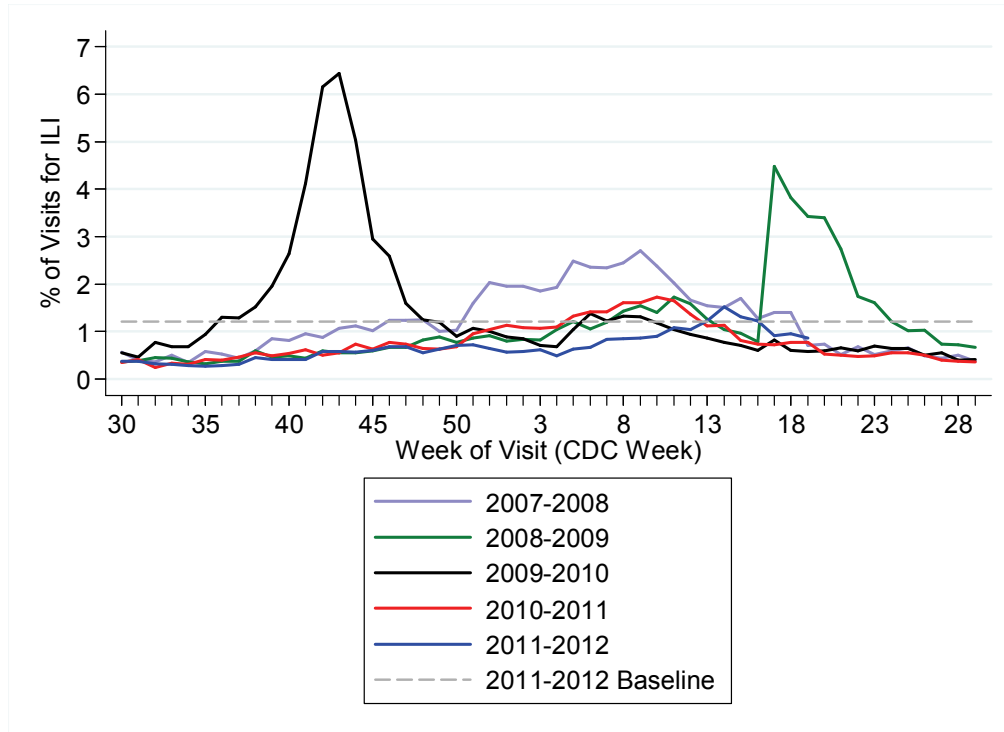
Influenza-like Illness Data

Syndromic Surveillance Data

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics) WA: The following graphs show the proportion of emergency department visits, by CDC week, for a syndrome of influenza-like illness (ILI). A syndrome of ILI is derived from the chief complaint and is defined as “influenza” OR fever with cough or sore throat.

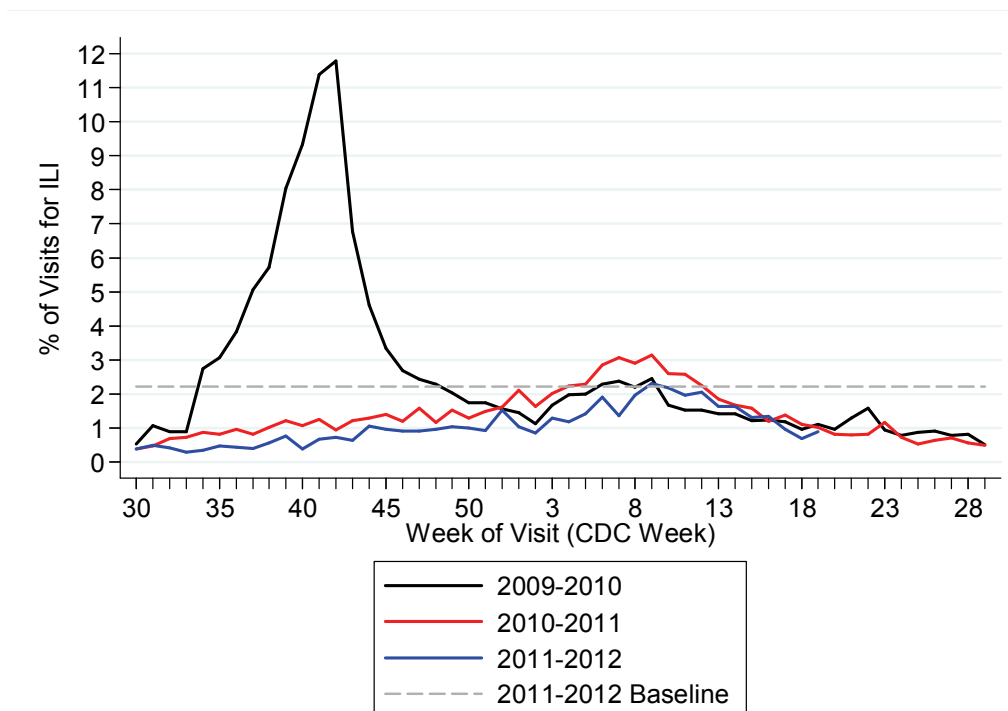
Western Washington: During week 19, 171 (0.87%) of 19,652 visits to emergency rooms in Western Washington were for influenza-like illness.

Percentage of ER Visits for ILI by CDC Week, Western Washington, 2007–2012



Eastern Washington: During week 19, 50 (0.88%) of 5685 visits to emergency departments in Eastern Washington were for influenza-like illness. No data are available prior to 2009.

Percentage of ER Visits for ILI by CDC Week, Eastern Washington, 2009–2012



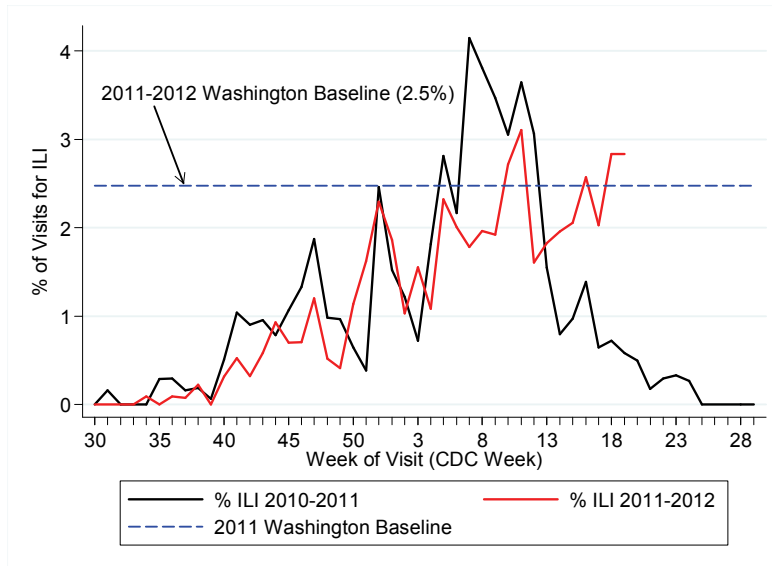
Outpatient Influenza-like Illness Surveillance Network (ILINet) Data

During CDC week 19, 7 sentinel providers in Washington reported data to CDC. Of 1342 patient visits, 38 patients (2.8%) met the case definition for influenza-like illness (ILI; defined as fever $\geq 100^{\circ}$ F or 37.8° C [oral or equivalent] AND cough and/or sore throat [in the absence of a known cause other than influenza]).

Washington Sentinel Provider ILI Net Data

CDC Week	No. of Sentinel	Age					Total ILI	Total Patients	% ILI
		0-4	5-24	25-49	50-64	Over 64			
16 (2012)	12	4	44	16	8	2	74	2879	2.6
17 (2012)	10	1	43	3	1	0	48	2365	2.0
18 (2012)	8	1	26	11	2	5	45	1590	2.8
19 (2012)	7	4	13	12	6	3	38	1342	2.8

Percentage of Patient Visits for Influenza-Like Illness (ILI) Reported by Sentinel Providers in Washington, 2009-2012



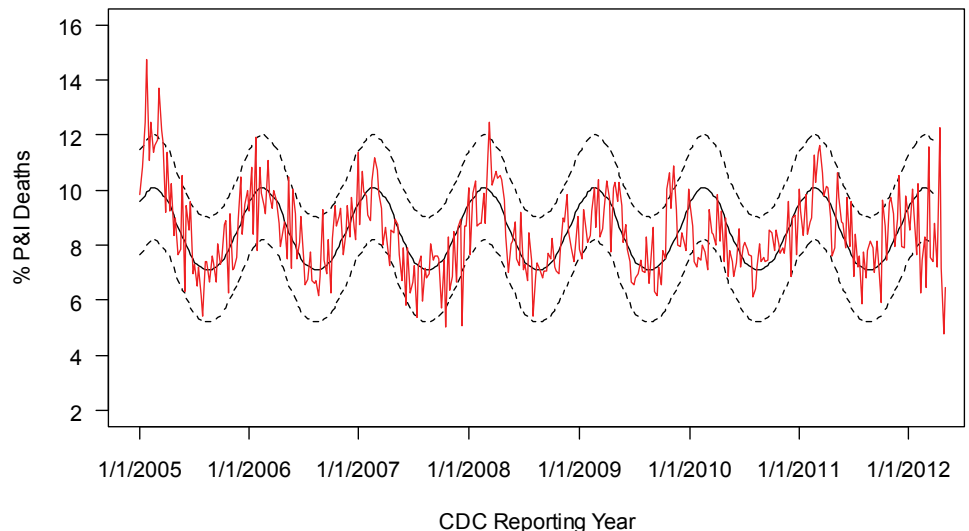
Mortality Data

Pneumonia and Influenza (P&I) Mortality

DOH analyzes death records to determine the weekly proportion of deaths due to pneumonia and influenza (P&I). The below graph indicates the weekly proportion of deaths due to P&I during 2005 – present. **Data points for the most recent 8-12 weeks do not represent all deaths in the state since there is a delay in submitting death records to DOH.**

During week 19, 16 (6.5%) of 247 deaths reported to DOH were due to P&I.

Percentage of Deaths Due to Pneumonia and Influenza (P&I) by CDC Week, Washington, 2005-2012



Reported Laboratory-confirmed Influenza Deaths

Since July 24, 2011, the Washington State Department of Health (DOH) has received 14 reports of laboratory-confirmed influenza deaths. Six deaths were due to influenza B viruses and 7 deaths were due to influenza A virus. One was due to influenza of unknown type. Of the 13 fatal cases with known underlying conditions, 11 had one or more risk factors known to increase complications from influenza.

Number and Rate of Reported Fatal Laboratory-Confirmed Influenza Cases by Age Group, Washington, July 24, 2011 – May 12, 2012

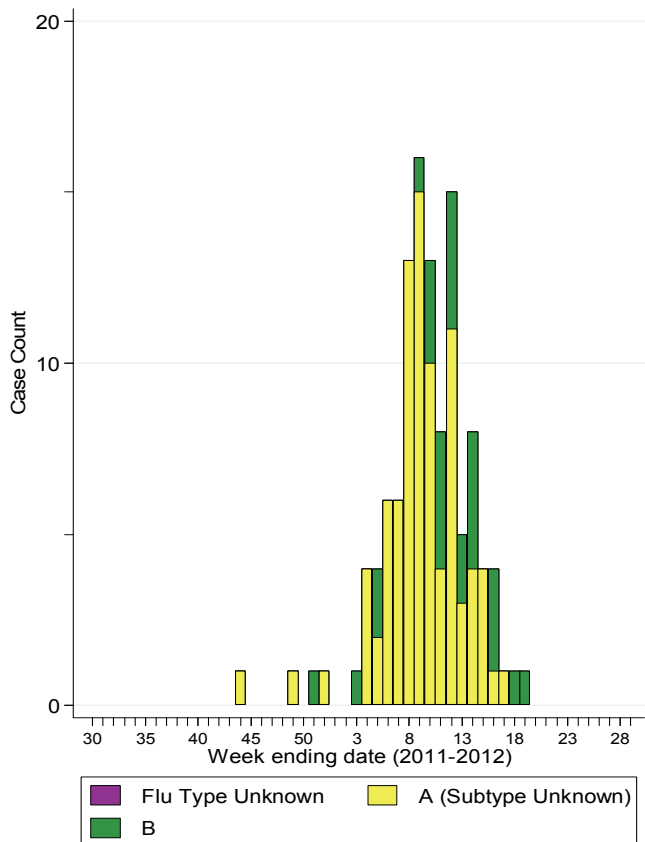
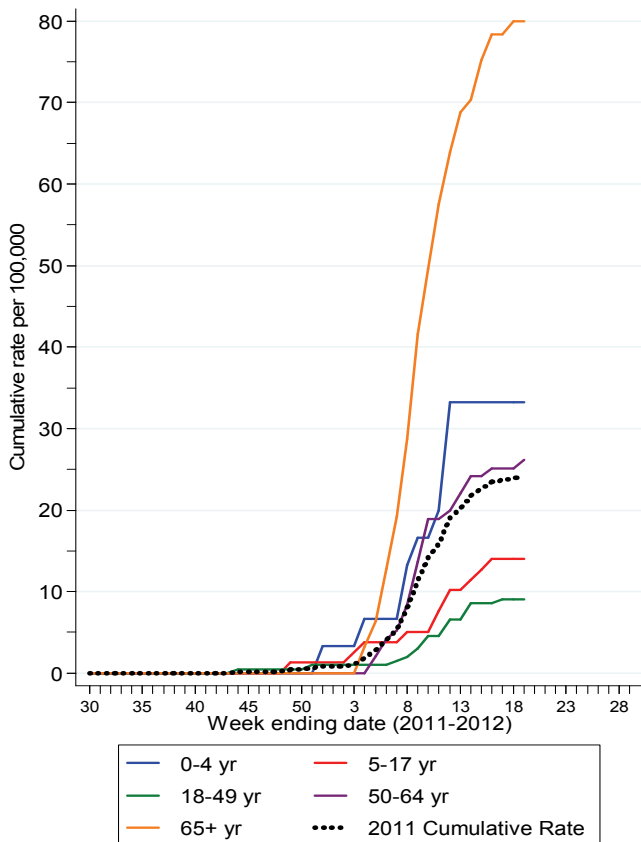
Age Group (years)	No. Deaths	Death Rate (per 100,000 population)
0–4	0	NA
5–24	2	0.11
25–49	3	0.13
50–64	2	0.15
65+	7	0.82
Total	14	0.21

Laboratory-confirmed Influenza Hospitalizations

Spokane Regional Health District requires that their hospitals and providers report patients hospitalized with laboratory-confirmed influenza. Since July 24, 2011, 93 adults and 21 children hospitalized with laboratory-confirmed influenza have been reported among Spokane County residents. Cumulative hospitalization rates by age group and hospitalized cases by week of hospital admission are shown on the below graphs.

Laboratory-Confirmed Cumulative Hospitalization Rates by Age Group (per 100,000), Spokane County, Washington 2011–2012

Hospitalized Laboratory-Confirmed Influenza Cases by Week of Hospital Admission, Spokane County, Washington 2011–2012



Additional Resources:

International Influenza Data:

World Health Organization surveillance data: <http://www.who.int/csr/don/archive/disease/influenza/en/index.html>

National Influenza Data

National influenza surveillance data are available at: <http://www.cdc.gov/flu/weekly/>
Distribute: <http://isdsdistribute.org/>

Local Influenza Surveillance Reports:

Clark County: <http://www.clark.wa.gov/public-health/diseases/flu.html>

King County: <http://www.kingcounty.gov/healthservices/health/communicable/immunization/fluactivity.aspx>

Whatcom County: <http://www.whatcomcounty.us/health/flu/>

Yakima County: <http://yakimahealthdistrict.org/w/home/community-health/rsv-flu-stats/>