



Please note all data are preliminary and may change as data is updated.

State Summary: Influenza was rarely detected in Washington during weeks 26-29.

- The proportion of outpatient and emergency room visits for influenza-like illness (ILI) was very low, consistent with historical inter-seasonal data.
- No novel viruses were detected in Washington State during weeks 26-26.
- This Influenza Update will be published monthly during the summer.

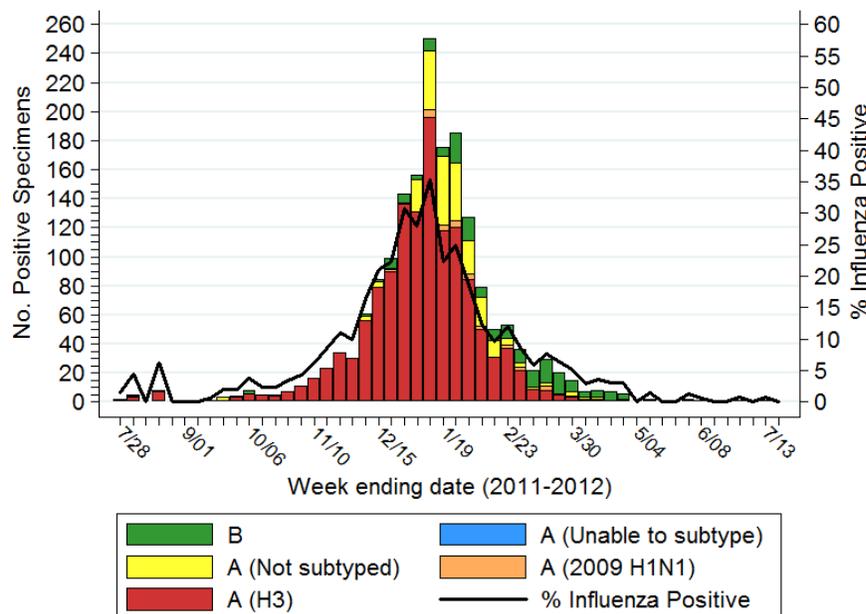
Laboratory Data

World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) Five laboratories in Washington participate in the WHO/NREVSS surveillance network: The Washington State Public Health Laboratories, Seattle & King County Public Health Laboratory, Spokane Regional Health District Laboratory, University of Washington Virology Laboratory, and Seattle Children’s Hospital Laboratory. WHO/NREVSS laboratory data from Washington are shown in the following table and figure.

Table 1: 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 Flu | Total # Tested | % Flu Positive |
|-------------------------|--------------------|-------|---------------|--------|-----------------------|-----------------------------|---|-----------|----------------|----------------|
| 29-Jun | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 134 | 0.7 |
| 6-Jul | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 0 |
| 13-Jul | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 118 | 0.8 |
| 20-Jul | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 | 0 |
| Cumulative since Jun 23 | | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 463 | 0.4 |

Figure 1: WHO/NREVSS Laboratory Data, Washington, 2012–2013



Antigenic Characterization

Antigenic characterization has been performed on 33 influenza viruses from WA State since 9/30/12 (week 40).

Influenza A (H3N2) (n=29): All influenza A (H3N2) viruses were characterized as A/Victoria/361/2011-like, the influenza A (H3N2) component of the 2012–2013 vaccine.

Influenza B (n=4): Three influenza B viruses were characterized as B/Wisconsin/01/2010-like, the influenza B component of the 2012–2013 vaccine. One influenza B virus was characterized as B/Brisbane/60/2008-like.

Antiviral Resistance Testing

The WA State Public Health Laboratories (PHL) 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 22, 2012, no oseltamivir-resistant influenza A (2009 H1N1) viruses have been detected in WA.

Novel Influenza A Viruses

No influenza A (H3N2v) or avian influenza A (H7N9) virus infections have been detected in WA this season.

Respiratory Syncytial Virus (RSV) Surveillance

Select commercial laboratories in Washington report the weekly number of total and positive RSV antigen tests performed. The three week average RSV test positivity in these laboratories for week 29 was 0.0%.

Source: http://www.cdc.gov/surveillance/nrevss/images/RSVstate/tables/RSV_WA.htm

Note: As defined by NREVSS, RSV season ends when the last 2 consecutive weeks during which mean percentage of positive specimens is $\leq 10\%$. (<http://www.cdc.gov/features/dsrsv/>)

Public Health Reporting of Aggregate Influenza Data (PHRAID)

Select commercial laboratories in Washington report the number of influenza tests performed and the number positive for influenza A and B each week through PHRAID. During CDC Week 29, 2 western Washington facilities reported 0 (0%) positive influenza specimens out of 10 influenza tests (Figure 2a) and 5 eastern Washington facilities reported 0 (0%) positive influenza specimens out of 18 tests (Figure 2b).

Figure 2a. Aggregate Influenza Testing Results, Western Washington, 2012–2013

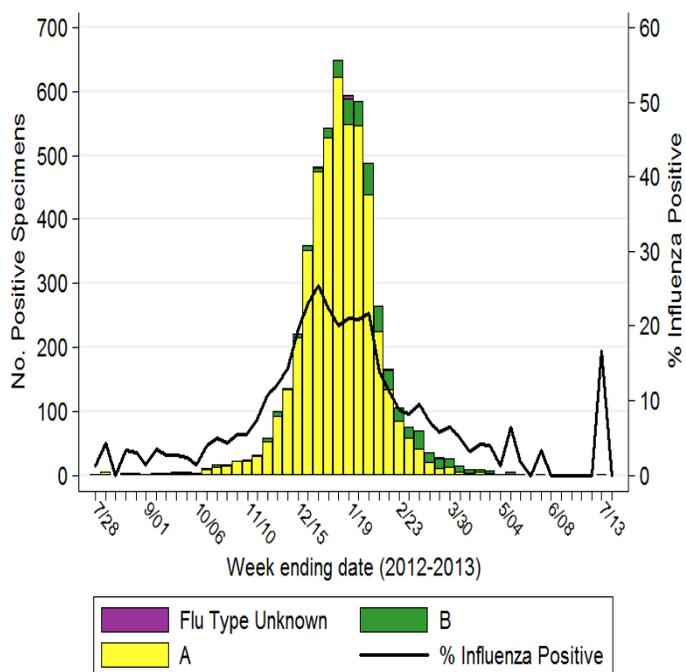


Figure 2a note: During the 2011-2012 season, the number of positive specimens reported (left axis/bars) peaked at roughly 500 and the % positive (right axis/line) peaked at roughly 35%.

Figure 2b. Aggregate Influenza Testing Results, Eastern Washington, 2012–2013

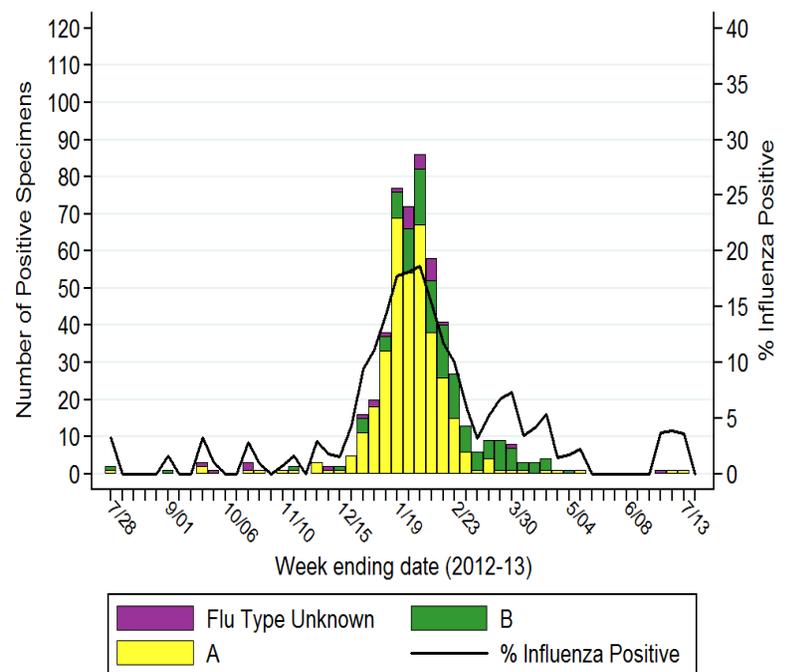


Figure 2b note: During the 2011-2012 season, the number of positive specimens reported (left axis/bars) peaked at roughly 50 and the % positive (right axis/line) peaked at roughly 25%.

For additional information on respiratory virus testing in Washington, 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/VD2012-13.pdf>

Influenza-Like Illness (ILI) Data

ESSENCE Syndromic Surveillance Data

The below graphs show the proportion of visits at a sample of emergency departments in Washington for a syndrome of ILI by CDC week. ILI, derived from the chief complaint, is defined as “influenza” OR fever with cough or fever with sore throat.

Figure 3a. Percentage of ER Visits for ILI by CDC Week, Western Washington, 2010–2013

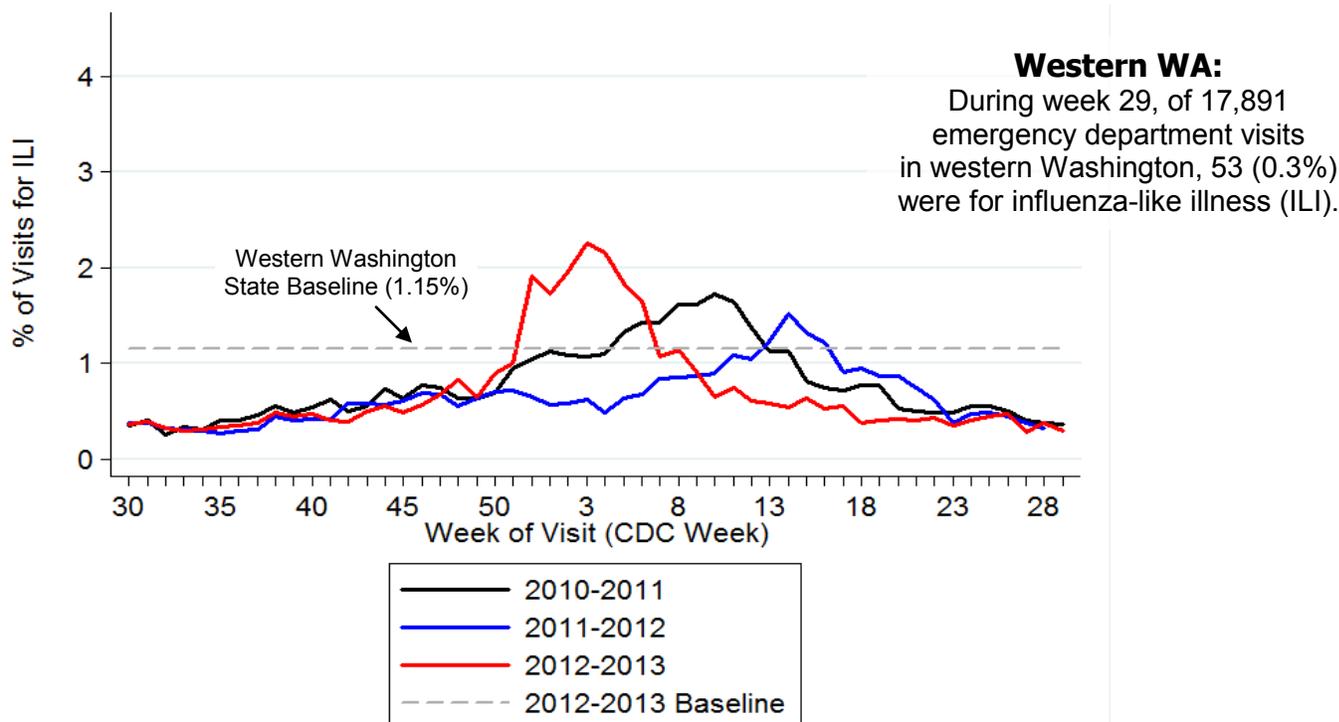
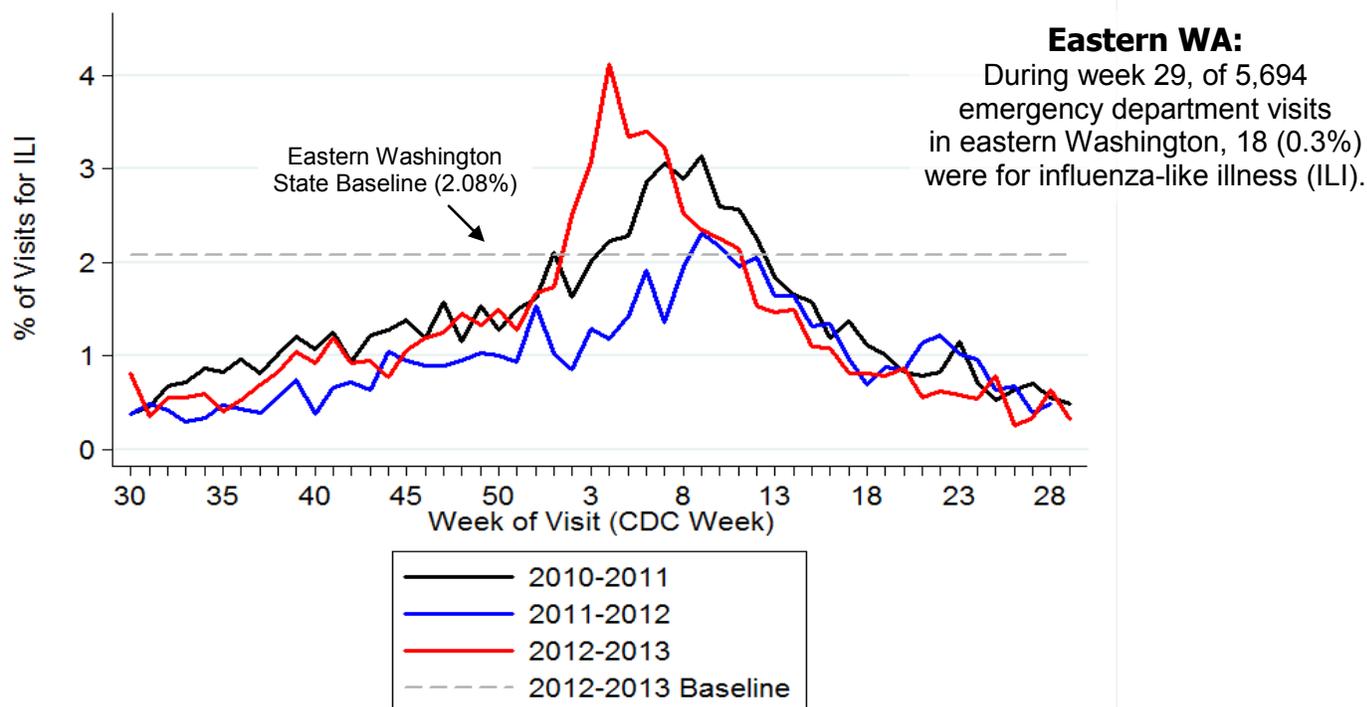


Figure 3b. Percentage of ER Visits for ILI by CDC Week, Eastern Washington, 2010–2013



Influenza-like illness (ILI) outbreaks in long term care and nursing home facilities (LTCF/NH)

Defined as a sudden increase in acute febrile respiratory illness over normal background rate and/or if resident tests positive for influenza. ILI outbreaks in LTCF/NH are reportable to the Department of Health; 112 ILI outbreaks have been reported since December 2012.

Outpatient Influenza-like Illness Surveillance Network (ILINet) Data

During CDC week 29, 2 sentinel providers in Washington reported data through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet). Of 193 visits reported, 0 (0%) were due to ILI.

Figure 4. Percentage of ILI Visits Reported by Sentinel Providers, Washington, 2011–2013

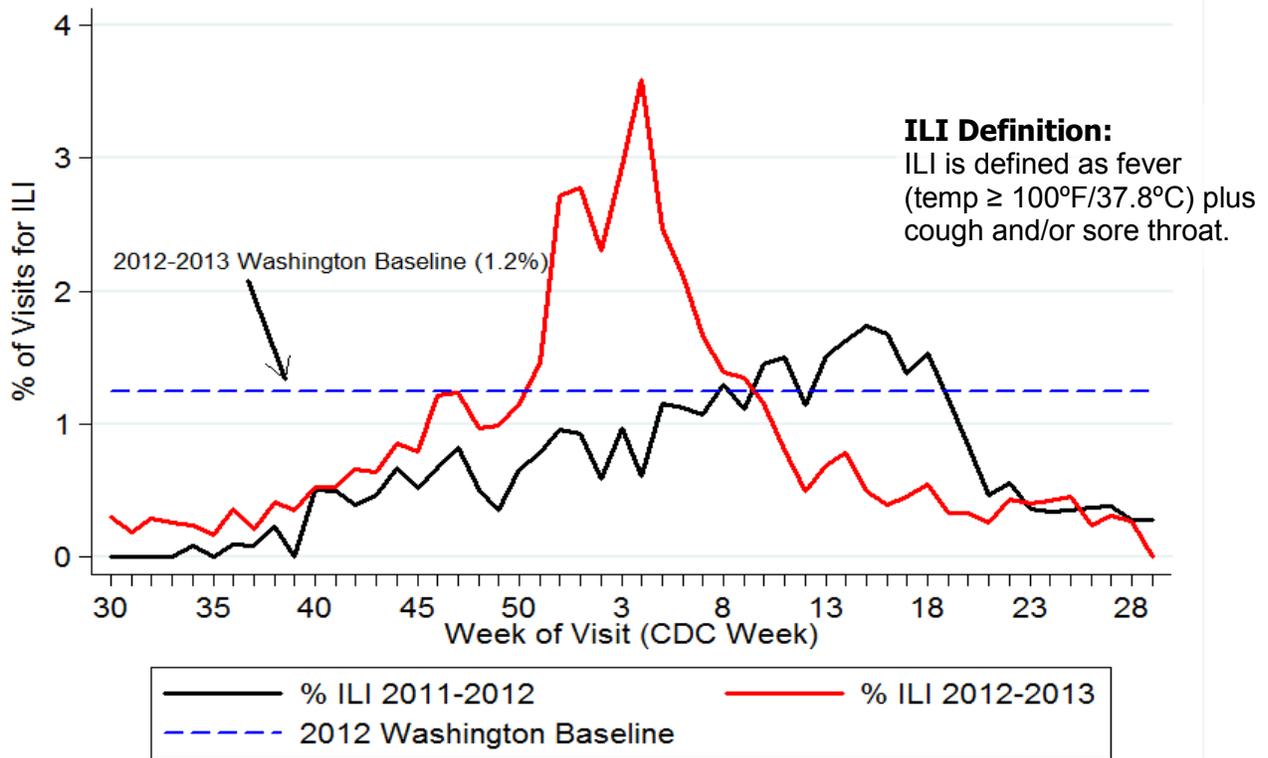


Table 2: Number of ILI Visits Reported by Sentinel Providers by Age Group, Washington, 2013

| CDC Week | # Sentinel Providers | Age | | | | | Total ILI | Total Patients | % ILI |
|------------------|----------------------|----------|----------|----------|----------|----------|-----------|----------------|----------|
| | | 0–4 | 5–24 | 25–49 | 50–64 | Over 64 | | | |
| 26 (2013) | 9 | 2 | 1 | 3 | 4 | 0 | 10 | 4292 | 0.2 |
| 27 (2013) | 8 | 3 | 1 | 3 | 1 | 2 | 10 | 3264 | 0.3 |
| 28 (2013) | 8 | 1 | 4 | 4 | 2 | 1 | 12 | 4526 | 0.3 |
| 29 (2013) | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 193 | 0 |

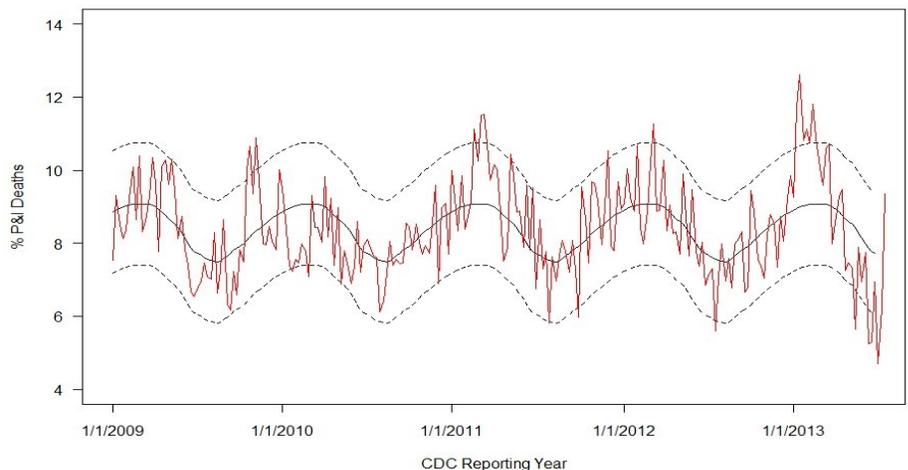
Influenza Mortality Data

Pneumonia and Influenza Mortality

Death records submitted to the Department are analyzed to determine the proportion of weekly deaths due to pneumonia or influenza. Data points for the most recent 8-12 weeks do not yet represent all deaths.

During week 29, 39 (9.4%) of 417 reported deaths were due to P&I.

Figure 5. Percentage of Deaths Due to Pneumonia or Influenza by CDC Week, Washington, 2009-2013



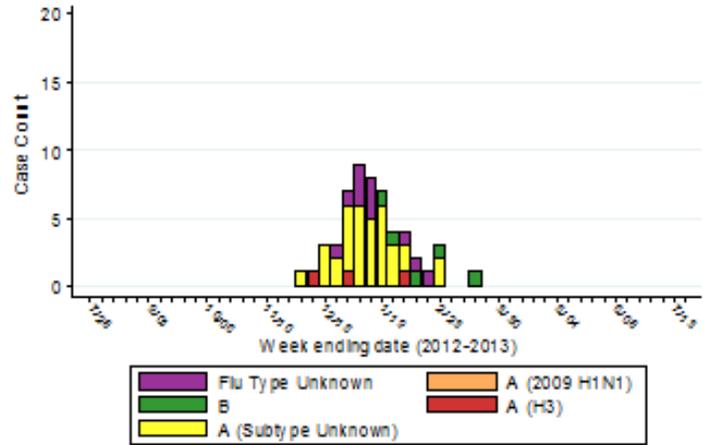
Reported Laboratory-Confirmed Influenza-Associated Deaths

Since week 40 (9/30/12), 54 laboratory-confirmed influenza-associated deaths have been reported to the Department of Health. The majority of deaths (85%) were in persons 65 years of age and older.

Table 3: Number and rate of reported laboratory-confirmed influenza-associated deaths by age group, Washington, 2012–2013

| Age Group (in years) | Number Deaths | Death Rate (per 100,000 population) |
|----------------------|---------------|-------------------------------------|
| 0–4 | 0 | 0.000 |
| 5–24 | 2 | 0.112 |
| 25–49 | 2 | 0.086 |
| 50–64 | 4 | 0.301 |
| 65+ | 46 | 5.558 |
| Total | 54 | 0.803 |

Figure 6: Influenza-associated deaths by subtype and week, Washington 2012–2013



Additional Resources

International Influenza Data: <http://www.who.int/topics/influenza/en/>

National Influenza Surveillance Report: <http://www.cdc.gov/flu/weekly/>

Washington Local Health Department 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>

Pierce County: <http://www.tpchd.org/providers-partners/influenza-medical-providers>

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