



## Week 29: July 13 – July 19, 2014

Washington State Department of Health, Communicable Disease Epidemiology

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

### State Summary: Flu activity continued to be low in Washington during weeks 26-29.

- The proportion of outpatient 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 26-29 (June 22-July 19).
- During weeks 26-29, 12 out of 474 specimens tested by the World Health Organization/National Respiratory and Enteric Virus Surveillance System (WHO/NREVSS) collaborating laboratories in Washington were positive for influenza. Of the 12 positive specimens, six were influenza B viruses.
- This Influenza Update will be published monthly during the summer.

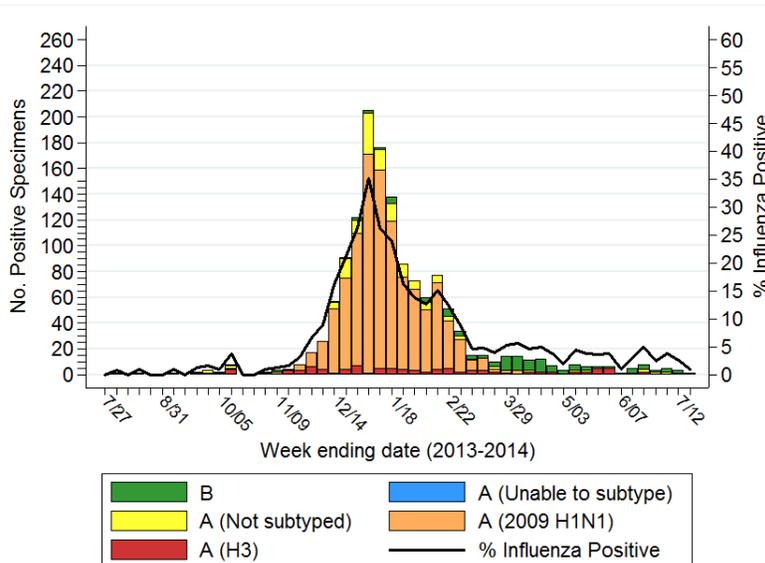
### Laboratory Data

World Health Organization (WHO) & 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
28-Jun	5	0	0	0	0	2	1	3	120	2.5
5-Jul	5	0	0	0	0	2	3	5	135	3.7
12-Jul	5	0	0	1	0	0	2	3	114	2.6
19-Jul	5	0	0	0	0	1	0	1	105	1.0
Cumulative since Jun 22	5	0	0	1	0	5	6	12	474	2.5

**Figure 1: WHO/NREVSS Laboratory Data, Washington, 2013–2014**



## **Antigenic Characterization**

Antigenic characterization has been performed on 81 influenza viruses from Washington State this season.

**Influenza A(2009 H1N1) (n=47):** All 47 influenza A(2009 H1N1) viruses were characterized as A/California/07/2009-like, the influenza A(H1N1) component of the 2013–2014 vaccine.

**Influenza A(H3N2) (n=19):** All 19 influenza A(H3N2) viruses were characterized as A/Texas/50/2012-like, the influenza A(H3N2) component of the 2013–2014 vaccine.

**Influenza B (n=15):** 10 influenza B viruses were characterized as B/Massachusetts/02/2012-like, the influenza B component of the trivalent 2013–2014 vaccine. Five influenza B viruses were characterized as B/Brisbane/60/2008-like, an additional influenza B component of the quadrivalent 2013–2014 vaccine.

## **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 pyrosequencing protocols to identify a mutation in the neuraminidase of the influenza A(2009 H1N1) virus that confers oseltamivir resistance (H275Y). Of more than 140 influenza A(2009 H1N1) viruses tested at PHL or CDC this season, one had the H275Y mutation.

## **Novel Influenza A Viruses**

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

## **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, two western Washington facilities reported one positive influenza specimen out of six influenza tests (Figure 2). No data are available from eastern Washington facilities.

**Figure 2. Aggregate Influenza Testing Results, Western Washington, 2013–2014**

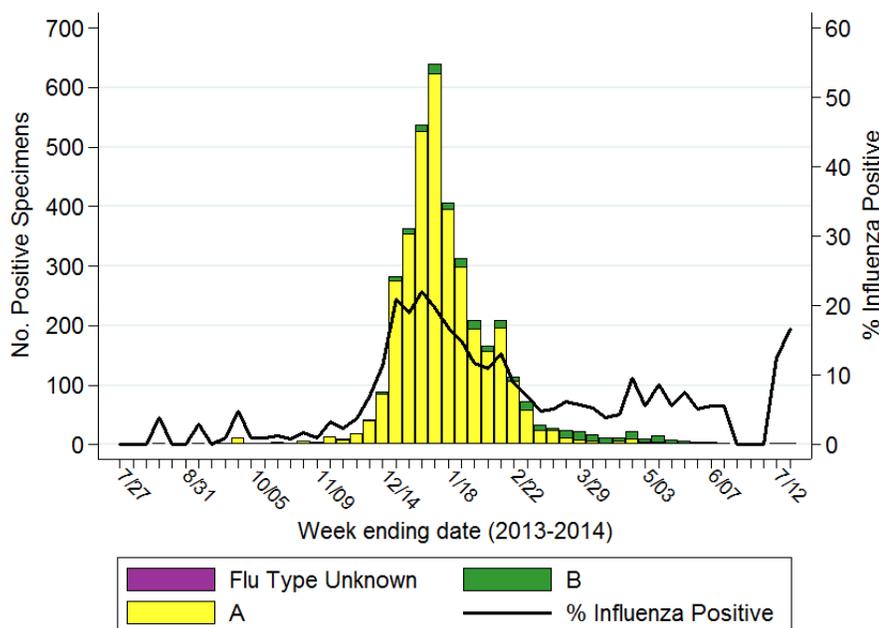


Figure 2 note: During the 2012-2013 season, the number of positive specimens reported (left axis/bars) per week peaked at 650 and the % positive (right axis/line) peaked at 25%.

**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>

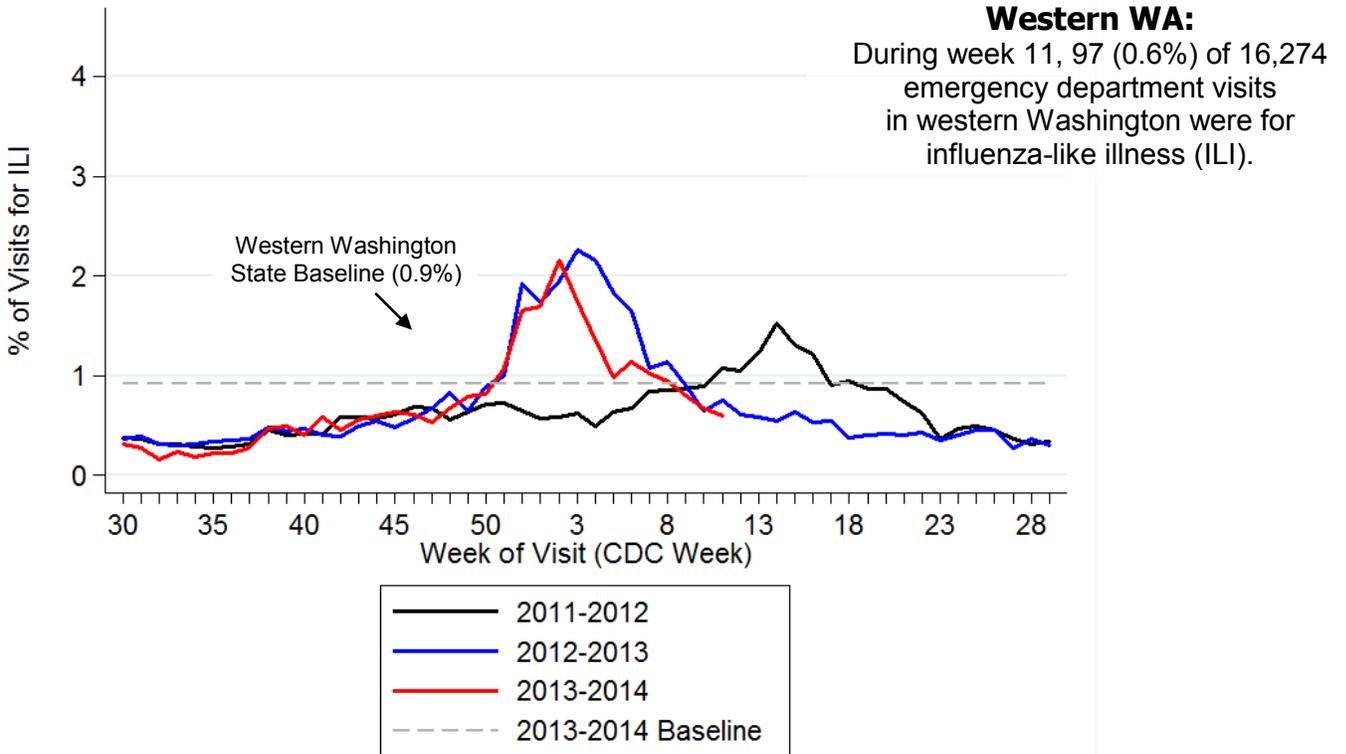
University of Washington Clinical Virology Laboratory: <http://depts.washington.edu/rspvirus/documents/VD2013-14.pdf>

# Influenza-Like Illness (ILI) Data

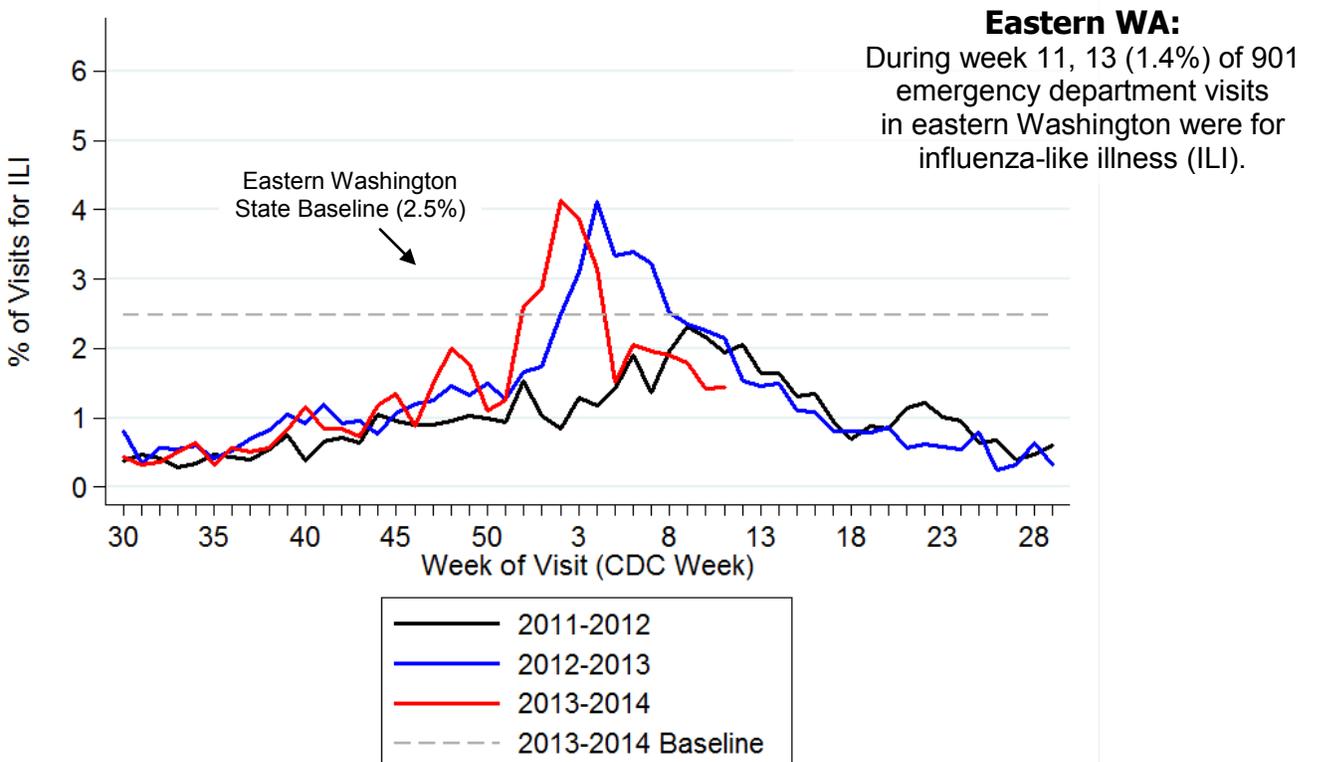
## ESSENCE Syndromic Surveillance Data

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. **Data are not yet available for weeks 12-29.**

**Figure 3a. Percentage of ER Visits for ILI by CDC Week, Western Washington, 2011–2014**



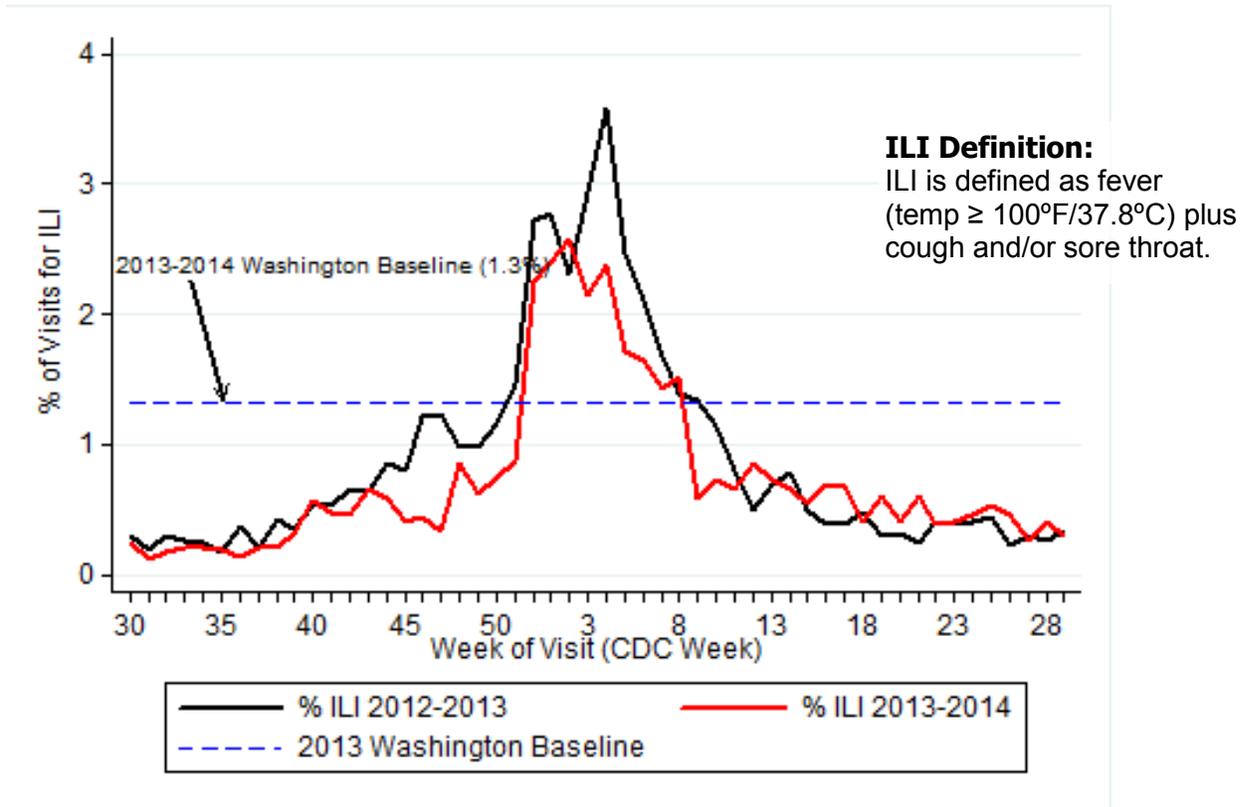
**Figure 3b. Percentage of ER Visits for ILI by CDC Week, Eastern Washington, 2011–2014**



**Outpatient Influenza-like Illness Surveillance Network (ILINet) Data**

During CDC week 29, five sentinel clinics in Washington reported data through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet). Of 2,385 visits reported, 7 (0.3%) were due to ILI.

**Figure 4. Percentage of ILI Visits Reported by Sentinel Providers, Washington, 2012–2014**



**Table 2: Number of ILI Visits Reported by Sentinel Providers by Age Group, Washington, 2014**

CDC Week	# Sentinel Clinics	Age					Total ILI	Total Patients	% ILI
		0–4	5–24	25–49	50–64	Over 64			
26 (2014)	7	2	5	3	1	1	12	2,617	0.5
27 (2014)	6	2	3	0	0	0	5	1,898	0.3
28 (2014)	6	1	2	2	2	2	9	2,208	0.4
29 (2014)	5	1	3	1	1	1	7	2,385	0.3

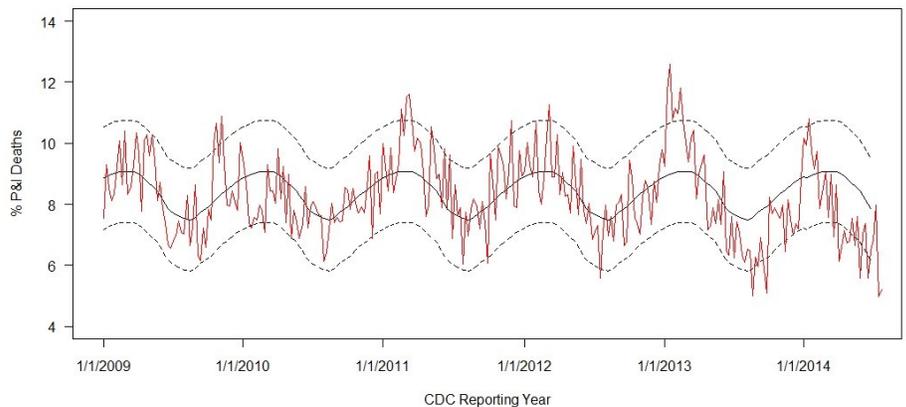
**Influenza Mortality Data**

**Pneumonia and Influenza (P&I) 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, 6 (5.2%) of 115 reported deaths were due to P&I.

**Figure 5. Percentage of Deaths Due to Pneumonia or Influenza by CDC Week, Washington, 2009-2014**



\* P&I Mortality Graph: Weekly data is superimposed on a normative curve (based on 2009 - 2012 flu seasons) and 90% confidence. Pg. 4

## Reported Laboratory-Confirmed Influenza-Associated Deaths

During 7/21/13 through 7/19/14, 79 laboratory-confirmed influenza-associated deaths were reported to the Department of Health.

**Table 3: Number and rate of reported laboratory-confirmed influenza-associated deaths by age group, Washington, 2013–2014**

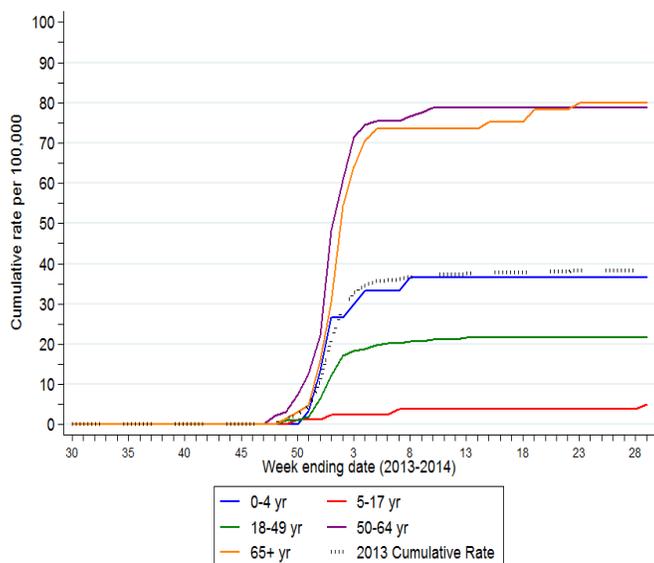
Age Group (in years)	Number of Deaths	Death Rate (per 100,000 population)
0–4	0	0.0
5–24	1	0.06
25–49	23	0.99
50–64	26	1.91
65+	29	3.40
<b>Total</b>	<b>79</b>	<b>1.17</b>

## Influenza Hospitalization Data—Spokane County Only

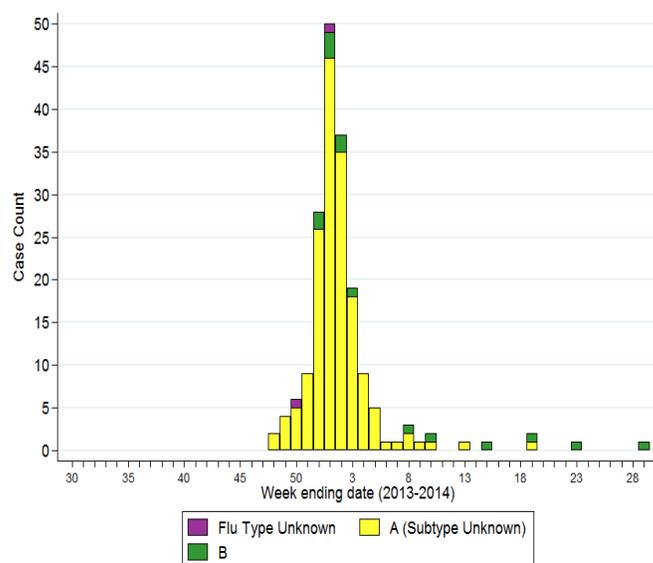
### Reported Laboratory-confirmed Influenza Hospitalizations (Spokane County Only)

Spokane Regional Health District requires hospitals and providers to report laboratory-confirmed influenza-associated hospitalizations. During 9/29/13–7/19/14, 185 hospitalizations have been reported among Spokane County residents. Of these 185 patients, 11 were 0-4 years old, 4 were 5-17 years old, 43 were 18-49 years old, 75 were 50-64 years old, and 52 were 65 years or older. More than twice as many adults 18-64 years old have been hospitalized this season compared to last season.

**Figure 6a: Laboratory-Confirmed Flu Hospitalization Rates by Age Group, Spokane County, WA 2013–2014**



**Figure 6b: Laboratory-Confirmed Flu Hospitalizations by Admission Week, Spokane County, WA 2013–2014**



## 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/>

Yakima County: [http://yakimacounty.us/yakimahealthdistrict/rsv\\_flu\\_stats.php](http://yakimacounty.us/yakimahealthdistrict/rsv_flu_stats.php)