FluBites

Oregon's Weekly Surveillance Report
Influenza & Respiratory Viruses

Oregon Health Authority

Oregon Public Health Division

Published Dec. 13 2013

Current Week's Data at a Glance: Dec 1—Dec 7, 2013 (Week 49)

Oregon Influenza-Like Illness (ILI) Activity Level[1]	**Minimal**
Oregon Influenza Activity Geographic Spread[2]	**Local**
Percent of outpatient visits for ILI	**0.80%**
Positive influenza tests[3]	**4**
Influenza-associated hospitalizations[4]	**10**
Reported ILI/Influenza outbreaks	**2**
Influenza-associated pediatric mortality	**0**
Respiratory Syncytial Virus (RSV) activity[5]	**5%**

[1]Levels are determined by CDC. Based on proportion of outpatient visits– levels include minimal, low, moderate, and high.

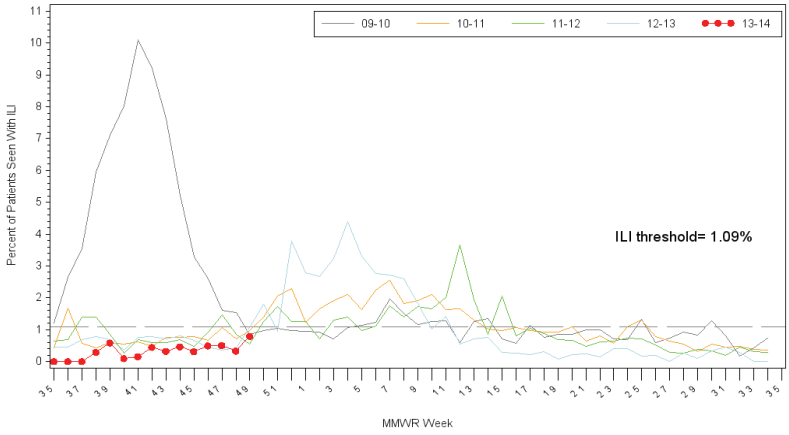
[2]Levels for geographic spread include no activity, sporadic, local, regional, and widespread.

[3]Reported by state public health lab (OSPHL) from outbreaks, tri-county hospitalizations, and sentinel ILI surveillance; includes only current week positive tests.

[4]Based on hospitalization surveillance in Clackamas, Multnomah, and Washington counties only.

[5]Percent positivity based on data from Oregon's RSV Laboratory Surveillance System.

Oregon Outpatient Influenza-Like Illness Surveillance Network (ILINet) 13DEC13
Percent of Outpatients with Influenza-like Illness (ILI)
2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014

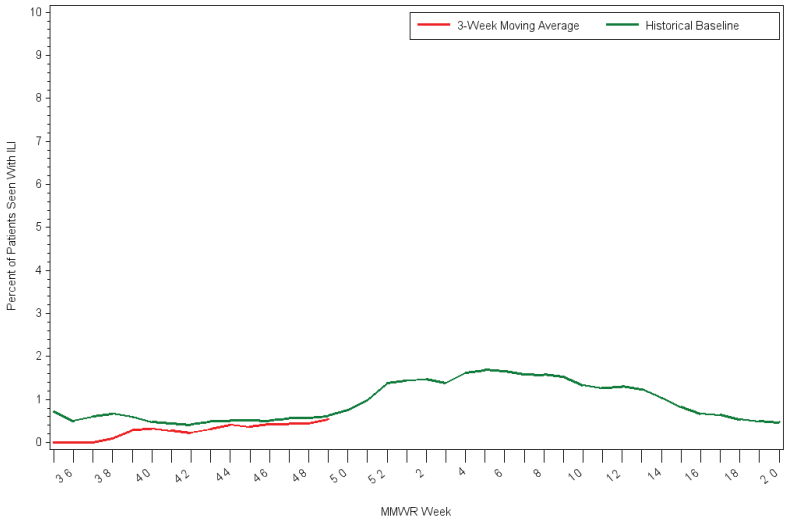


Surveillance weeks run from Sunday through Saturday
Sentinel providers report the number of patients seen with influenza-like illness as well as total patients seen each week.

ILINet: Oregon's Outpatient Influenza-like Illness Surveillance Network: Oregon's outpatient influenza-like illness (ILI) network comprises 22 voluntary healthcare providers from across Oregon who report the number of patients with influenza-like illness as well as total number of patient visits for each week during the surveillance season. The percent of outpatients seen with ILI for week 49 of 2013 was 0.80% which is below Oregon's seasonal threshold of 1.09%.*

Note: ILI is defined as fever (≥100°F) and cough or sore throat. *The ILI baseline (threshold) is calculated as the mean percentage of visits for ILI during non-influenza weeks (weeks 21-39) with two standard deviations, and is based on the three previous years of data.

Oregon Health Authority, Acute and Communicable Disease Prevention 13DEC13
Oregon Outpatient Influenza-Like Illness Surveillance Network (ILINet)
3-Week Moving Average of Percent of Outpatients with Influenza-like Illness (ILI)



The 3-week moving average for percent of outpatients seen with ILI in week 49 was 0.54%, which is below the historical moving average baseline for this week.

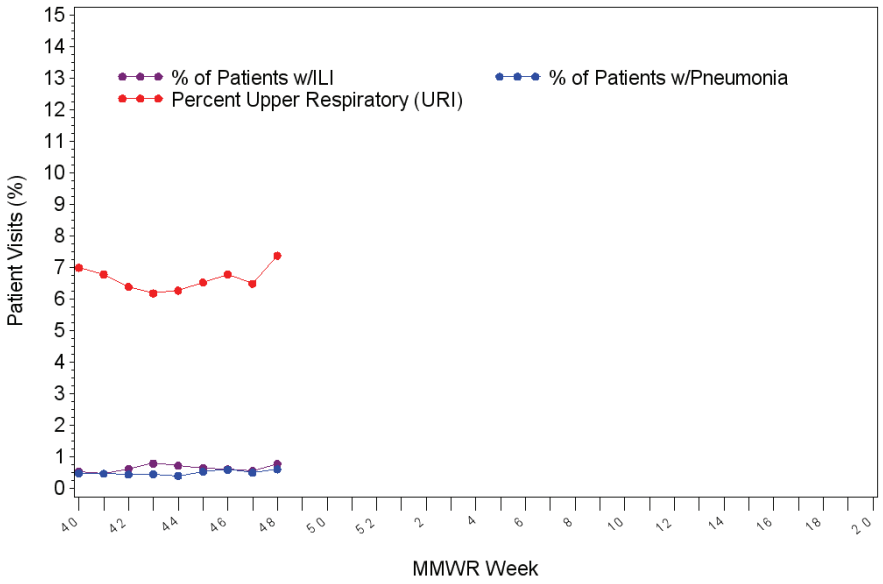
The 3-week moving average does not show actual weekly % ILI, but an average that includes the current week and preceding 2 weeks, and is used to smooth out fluctuations in the data. The historical baseline is the average 3-week moving averages over the preceding four flu seasons.

All FluBites data provided are preliminary, and may change as additional reports are received.

OCHIN Influenza-like Illness Surveillance: Oregon Public Health Division also receives discharge diagnoses data from OCHIN Inc., a collaborative comprising 22 member organizations of federally qualified health centers (FQHC) and rural health centers in Oregon, representing 103 clinics throughout the state. The percent of outpatient visits for ILI was 0.80% during week 48.

Note: OCHIN reports of ILI are one week *behind* ILINet reports. Respiratory illness categories for OCHIN data are based on ICD-9 diagnostic codes and reason for visit.

Oregon Outpatient ILI/URI/Pneumonia Surveillance, OCHIN 2013-2014



Categories are based on ICD-9 diagnosis codes, combinations of codes, and reason for visit.

Laboratory Surveillance. The Oregon State Public Health Laboratory (OSPHL) is performing influenza typing and sub-typing by PCR on specimens from the following groups of patients:

- Patients seen by Oregon Sentinel providers from ILINet.
- Patients hospitalized with influenza-like illness in the Portland Tri-County area (Multnomah, Clackamas and Washington counties) as part of the CDC-funded study, The Influenza Hospitalization Network (FluSurv-NET).
- Patients identified as part of an outbreak of respiratory illness. Please report clusters of respiratory illness to the on-call ACDP epidemiologist at (971-673-1111), who will then make decisions about the need for testing at the OSPHL.

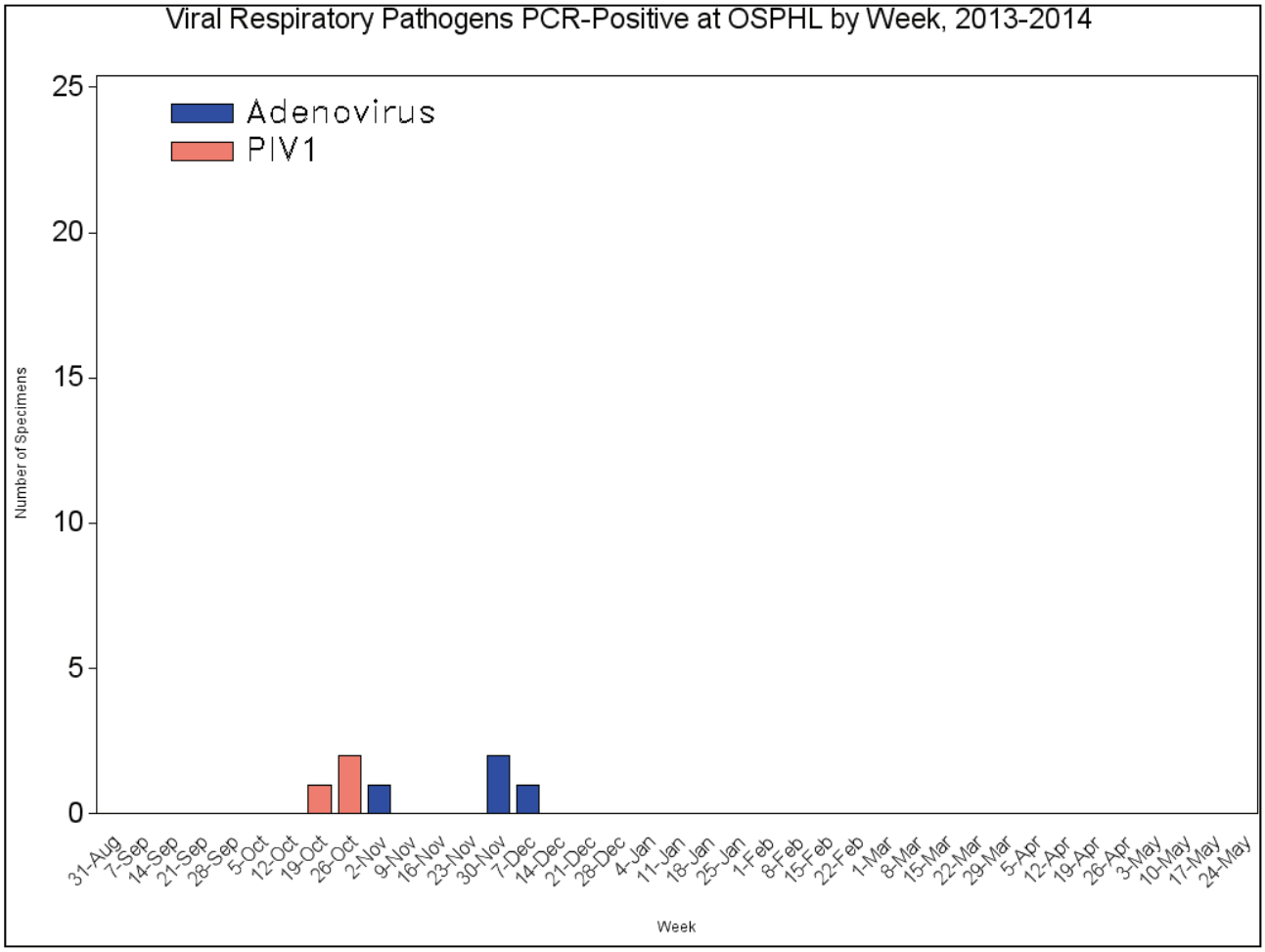
Tables 1 and 2 show the current week and cumulative totals (**since Oct. 1, 2013**) for influenza and other respiratory virus specimens tested at OSPHL.

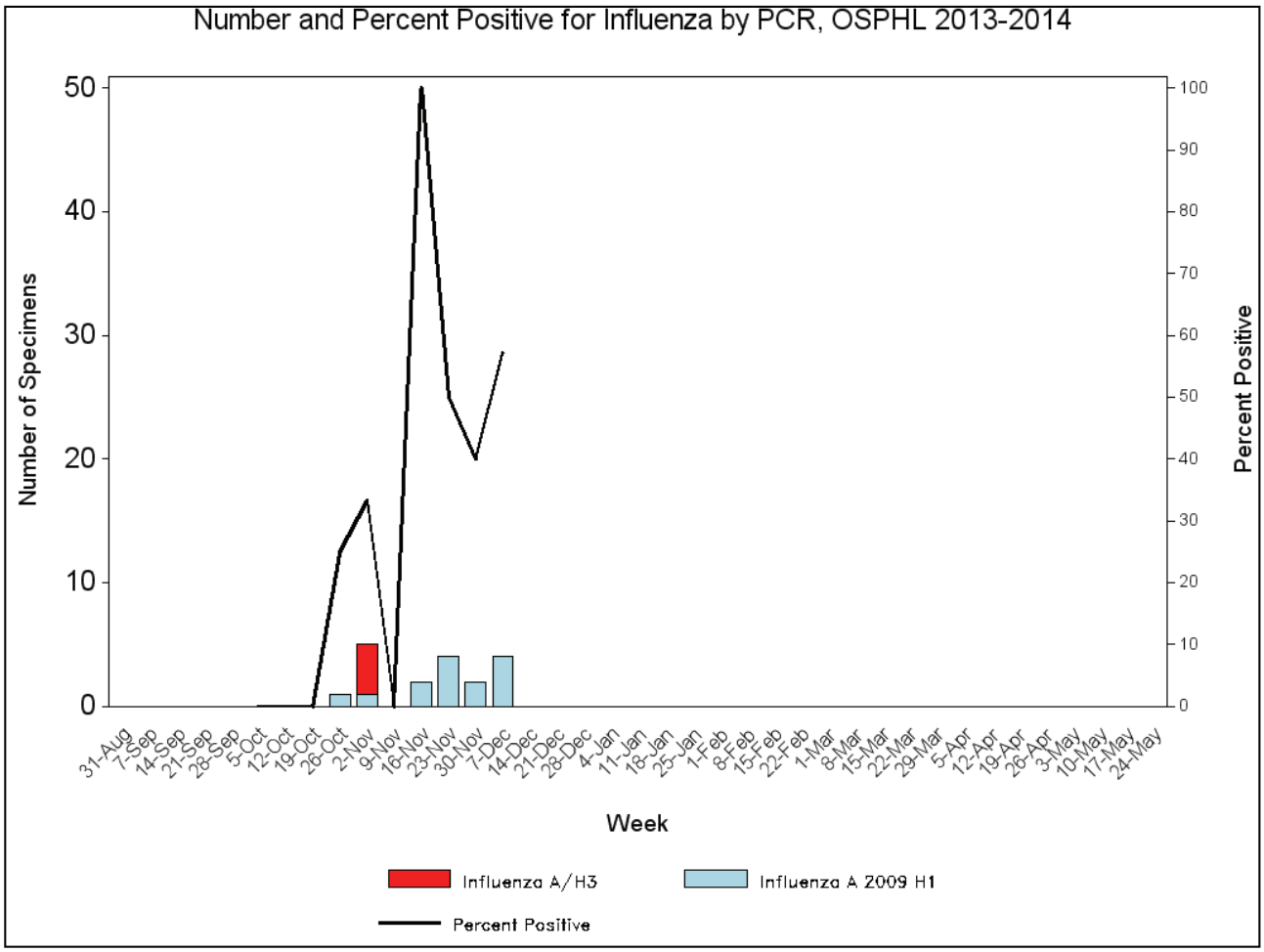
Table 1. Oregon State Public Health Laboratory Influenza Specimen Type and Subtype, 2013-14.

	Current Week	Cumulative
Influenza A	4 (57%)	18 (34%)
2009 pH1N1	4 (57%)	14 (26%)
Seasonal A H3	0	4 (8%)
Not subtyped	0	0
Influenza B	0	0
Undetected	3 (43%)	35 (66%)
Total Tested	**7**	**53**

Table 2. Oregon State Public Health Laboratory *Non-Influenza Respiratory* Viruses, 2013-14 .

	Current Week	Cumulative
Adenovirus	1 (25%)	4 (12%)
Parainfluenza type 1	0	3 (19%)
Parainfluenza type 2	0	0
Parainfluenza type 3	0	0
Human Metapneumovirus	0	0
RSV	0	0
Total Tested	**4**	**33**

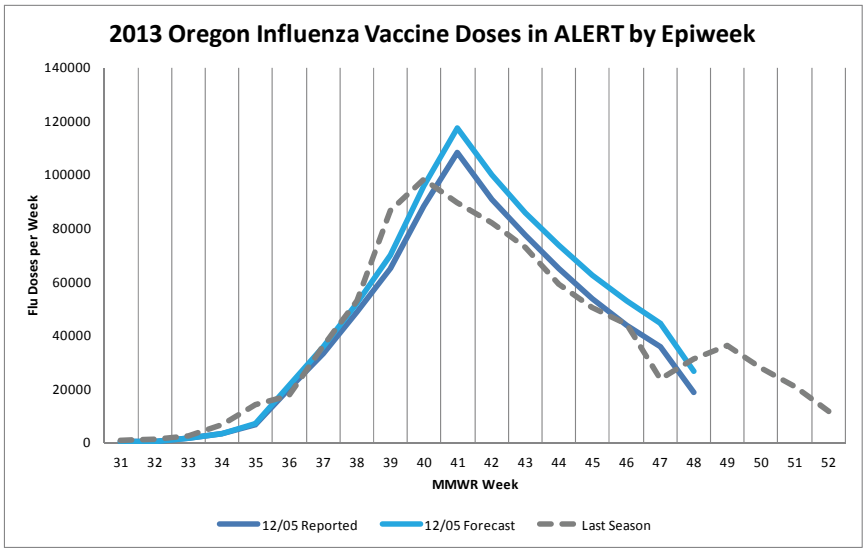

Viral Respiratory Pathogens PCR-Positive at OSPHL by Week, 2013-2014
Adenovirus
PIV1
Number of Specimens
0
5
10
15
20
25
31-Aug
7-Sep
14-Sep
21-Sep
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
28-Dec
4-Jan
11-Jan
18-Jan
25-Jan
1-Feb
8-Feb
15-Feb
22-Feb
1-Mar
8-Mar
15-Mar
22-Mar
29-Mar
5-Apr
12-Apr
19-Apr
26-Apr
3-May
10-May
17-May
24-May
Week

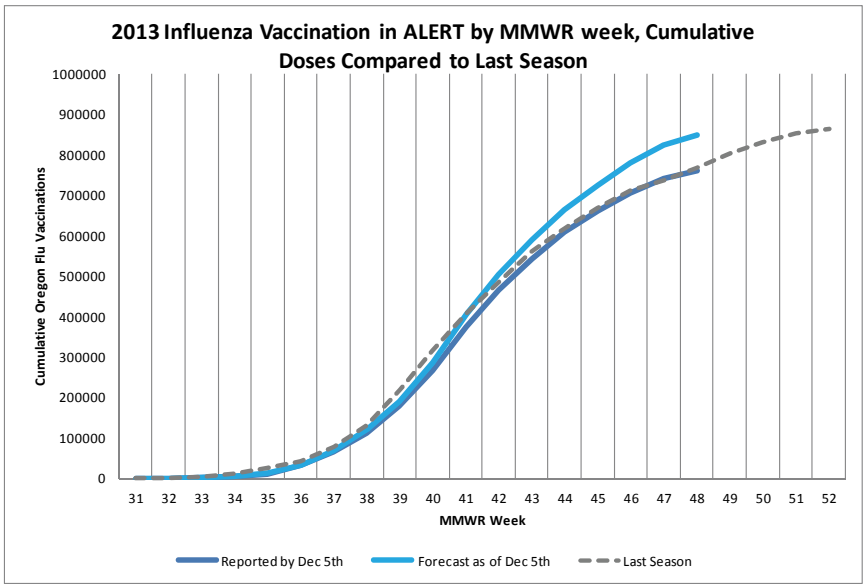

Number and Percent Positive for Influenza by PCR, OSPHL 2013-2014
Number of Specimens
Percent Positive
0
10
20
30
40
50
0
10
20
30
40
50
60
70
80
90
100
31-Aug
7-Sep
14-Sep
21-Sep
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
28-Dec
4-Jan
11-Jan
18-Jan
25-Jan
1-Feb
8-Feb
15-Feb
22-Feb
1-Mar
8-Mar
15-Mar
22-Mar
29-Mar
5-Apr
12-Apr
19-Apr
26-Apr
3-May
10-May
17-May
24-May
Week
Influenza A/H3
Influenza A 2009 H1
Percent Positive

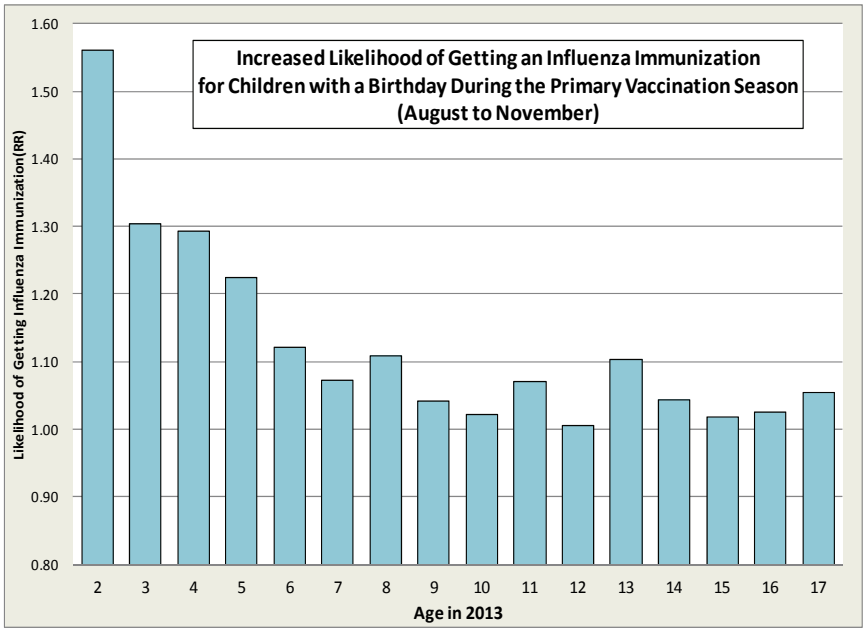
Vaccine Uptake in Oregon

For the last week in November we saw a steep drop in seasonal influenza immunization. This was expected, and a drop in immunizations around Thanksgiving is usual. During the 2012-13 influenza season, the rate of immunizations sharply picked up again in December and January, possibly spurred on by national and international news stories about influenza. Whether we see a strong increase again in December is difficult to predict at this time. To date, the level of immunization for seasonal influenza in Oregon remains at or above the levels observed last year.

The third chart included this week for immunizations illustrates how birth seasonality for children affects their rate of influenza vaccination. It is recommended that children have a yearly, routine visit to their provider. The yearly visit is a good opportunity to give immunizations, and for healthy children may be the only time they see their provider. Young children whose birthdays fall in the primary period for yearly influenza immunization have higher rates than those whose birthdays are outside of this period. That is, those with their second birthday between August and November are 1.56 times more likely to get an influenza immunization. This effect declines with age as the chart shows, and from age nine onward is small. It is possible that this decline with age reflects how children, after school entry, are no longer having yearly routine visits based on their age. Although it is not currently recommended, a routine Fall visit for all children would likely provide a boost to influenza immunization rates.

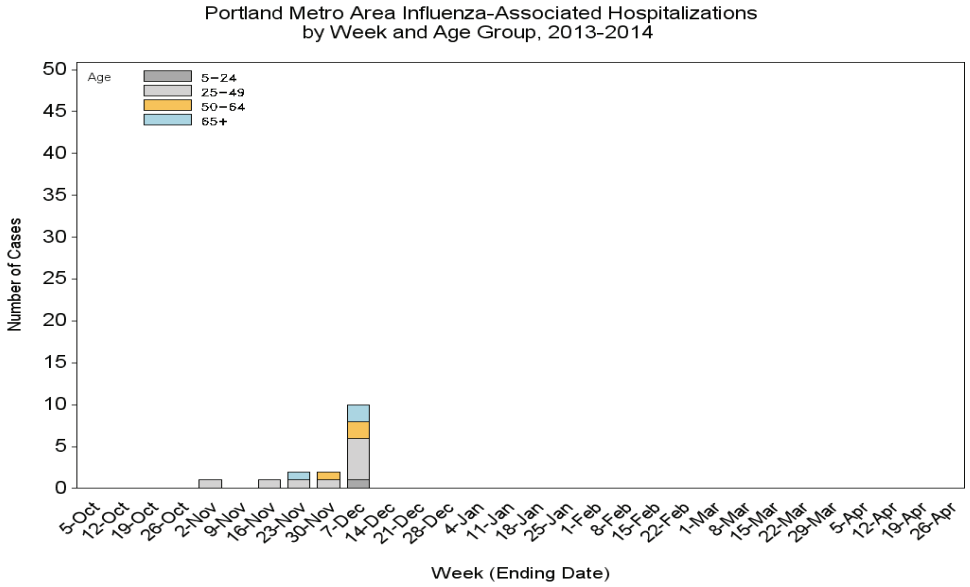






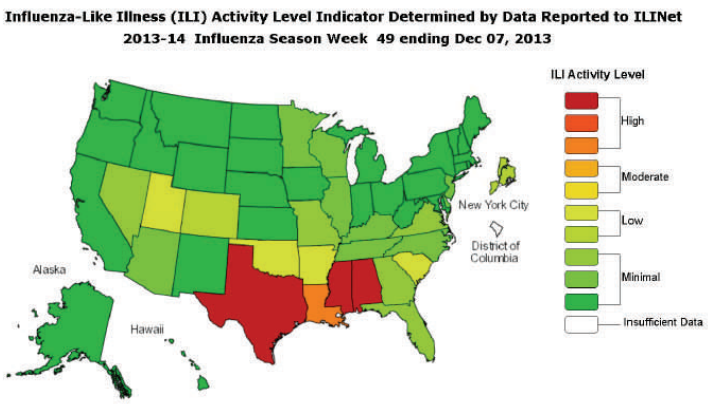
Hospitalizations: Sixteen total hospitalizations have been reported up to MMWR week 48. Ten hospitalizations occurred this week (week 48).

To date, >80% of hospitalizations reported have been among persons younger than 65 years of age. This is likely due to the prevalence of pandemic H1N1, which to date, is the predominate strain circulating.

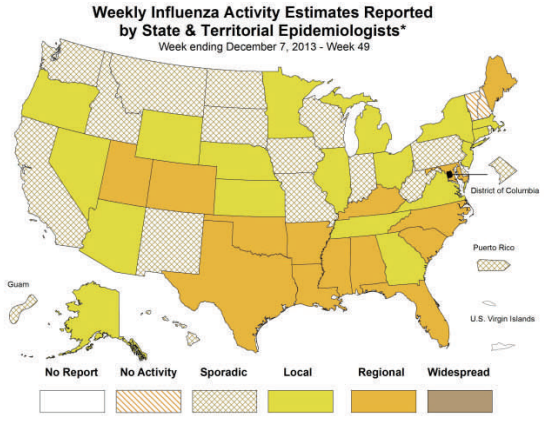


Outbreaks: Two influenza outbreaks were reported for week 49. Five total ILI/influenza outbreaks have been reported since October 1.

US Data (from CDC FluView): During week 49 (December 1-7, 2013), influenza activity continued to increase in the United States.
o **Viral Surveillance**: Of 6,219 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 49, 830 (13.3%) were positive for influenza.
o **Pneumonia and Influenza Mortality**: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
o **Influenza-associated Pediatric Deaths**: No influenza-associated pediatric deaths were reported.
o **Influenza-associated Hospitalizations:** A cumulative rate for the season of 2.0 laboratory confirmed influenza-associated hospitalizations per 100,000 population was reported.
o **Outpatient Illness Surveillance**: The proportion of outpatient visits for influenza-like illness (ILI) was 2.1%, above the national baseline of 2.0%. Three regions reported ILI above region-specific baseline levels. Four states experienced high ILI activity, five states and New York City experienced low ILI activity, 41 states experienced minimal ILI activity and the District of Columbia had insufficient data.
o **Geographic Spread of Influenza**: The geographic spread of influenza in 14 states was reported as regional; 18 states reported local influenza activity; the District of Columbia, Guam, Puerto Rico, and 16 states reported sporadic influenza activity; the U.S. Virgin Islands and two states reported no influenza activity.



Map above left: This map uses the proportion of outpatient visits to ILINet sentinel providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.



Map above Right: This map measures the geographic spread of influenza viruses, but does not measure the intensity of influenza activity.

Additional resources:

- CDC Weekly Surveillance Report: http://www.cdc.gov/flu/weekly
- New MMWR report on influenza illnesses and hospitalizations averted by influenza vaccination: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6249a2.htm?s_cid=mm6249a2_w