FluBites

Oregon's Weekly Surveillance Report
Influenza & Respiratory Viruses

Oregon Health Authority

Oregon Public Health Division — Published Dec. 20 2013

Current Week's Data at a Glance: Dec 8—Dec 14, 2013 (Week 50)

Oregon Influenza-Like Illness (ILI) Activity Level[1]	**Minimal**
Oregon Influenza Activity Geographic Spread[2]	**Local**
Percent of outpatient visits for ILI	**0.74%**
Positive influenza tests[3]	**16**
Influenza-associated hospitalizations[4]	**18**
Reported ILI/Influenza outbreaks	**0**
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.

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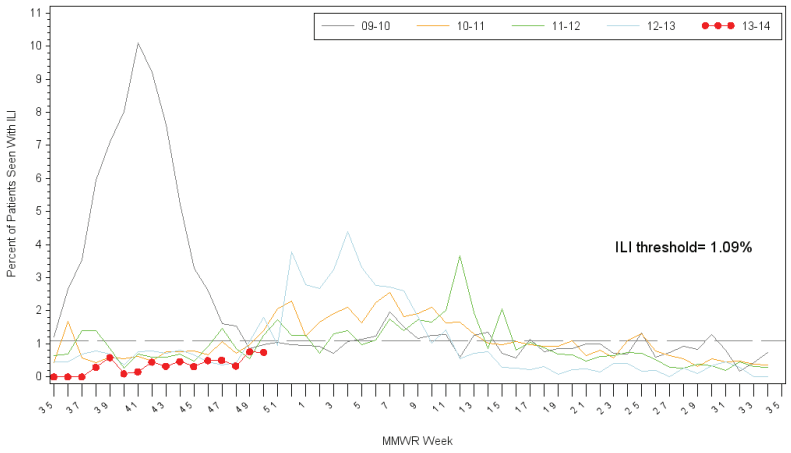
Oregon Outpatient Influenza-Like Illness Surveillance Network (ILINet)

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 50 of 2013 was 0.74% 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.

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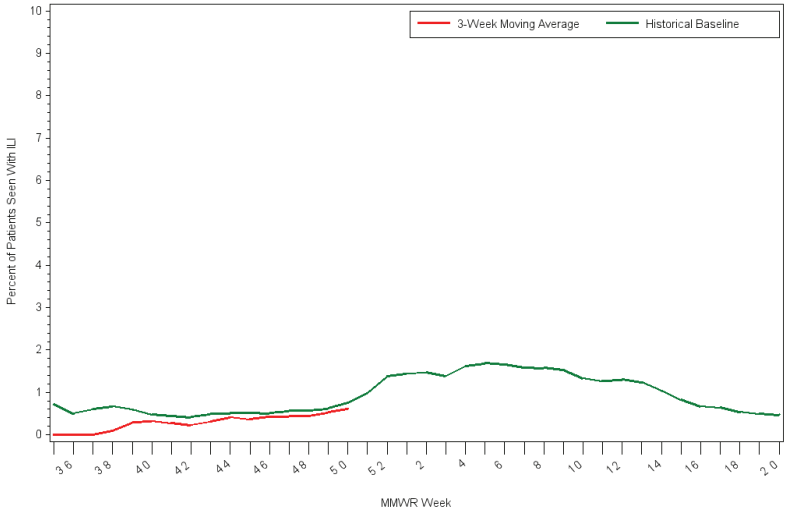
Oregon Outpatient Influenza-Like Illness Surveillance Network (ILINet)
3-Week Moving Average of Percent of Outpatients with Influenza-like Illness (ILI)



The 3-week moving average for percent of outpatients seen with ILI in week 50 was 0.61%, which is below the historical moving average baseline for this week.

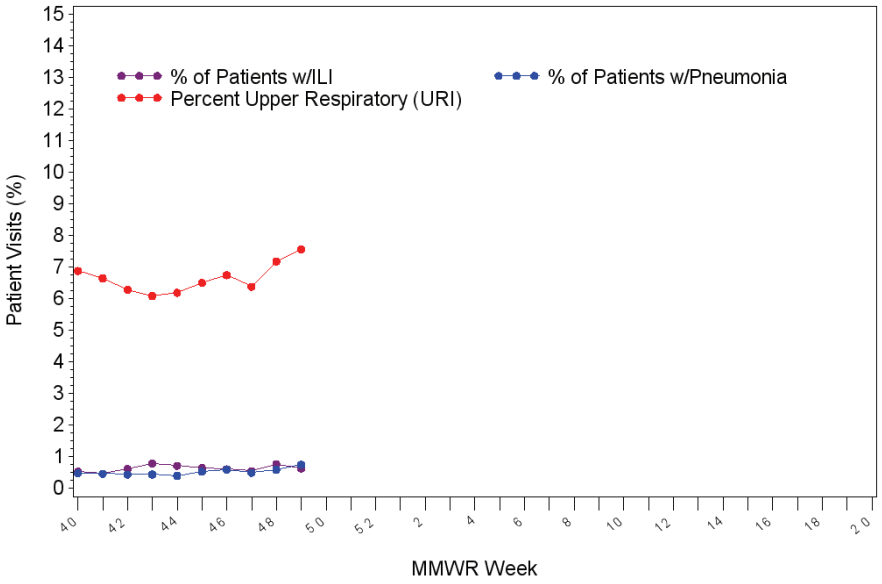
The 3-week moving average does not show actual weekly % ILI, but an average that includes the current week and preceding 2 weeks, and is used to smooth out fluctuations in the data. The historical baseline is the average 3-week moving averages over the preceding four flu seasons.

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 0.64% during week 49.

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.

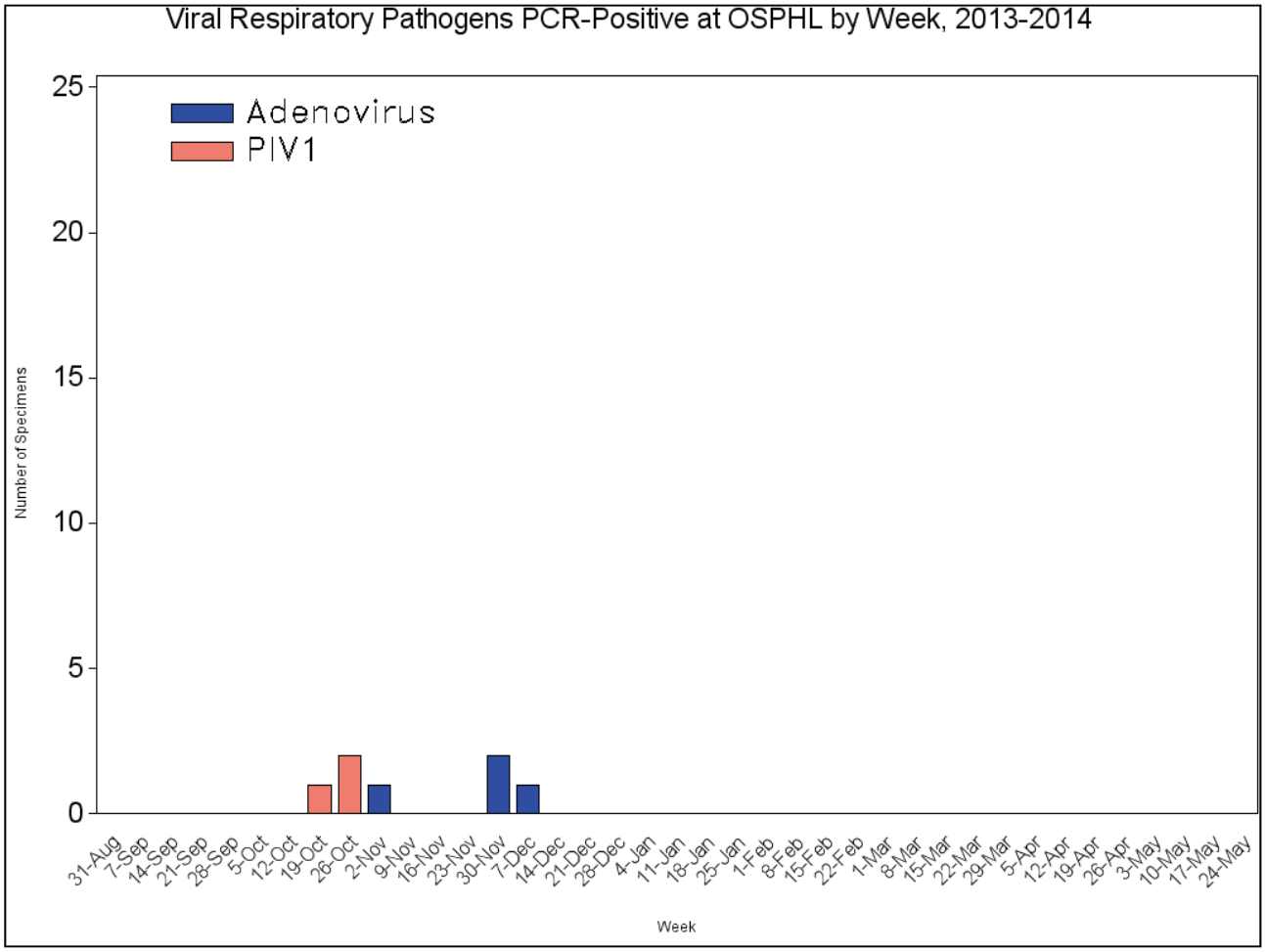
Tables 1 and 2 show the current week and cumulative totals (**since Oct. 1, 2013**) for influenza and other respiratory virus specimens tested at OSPHL.

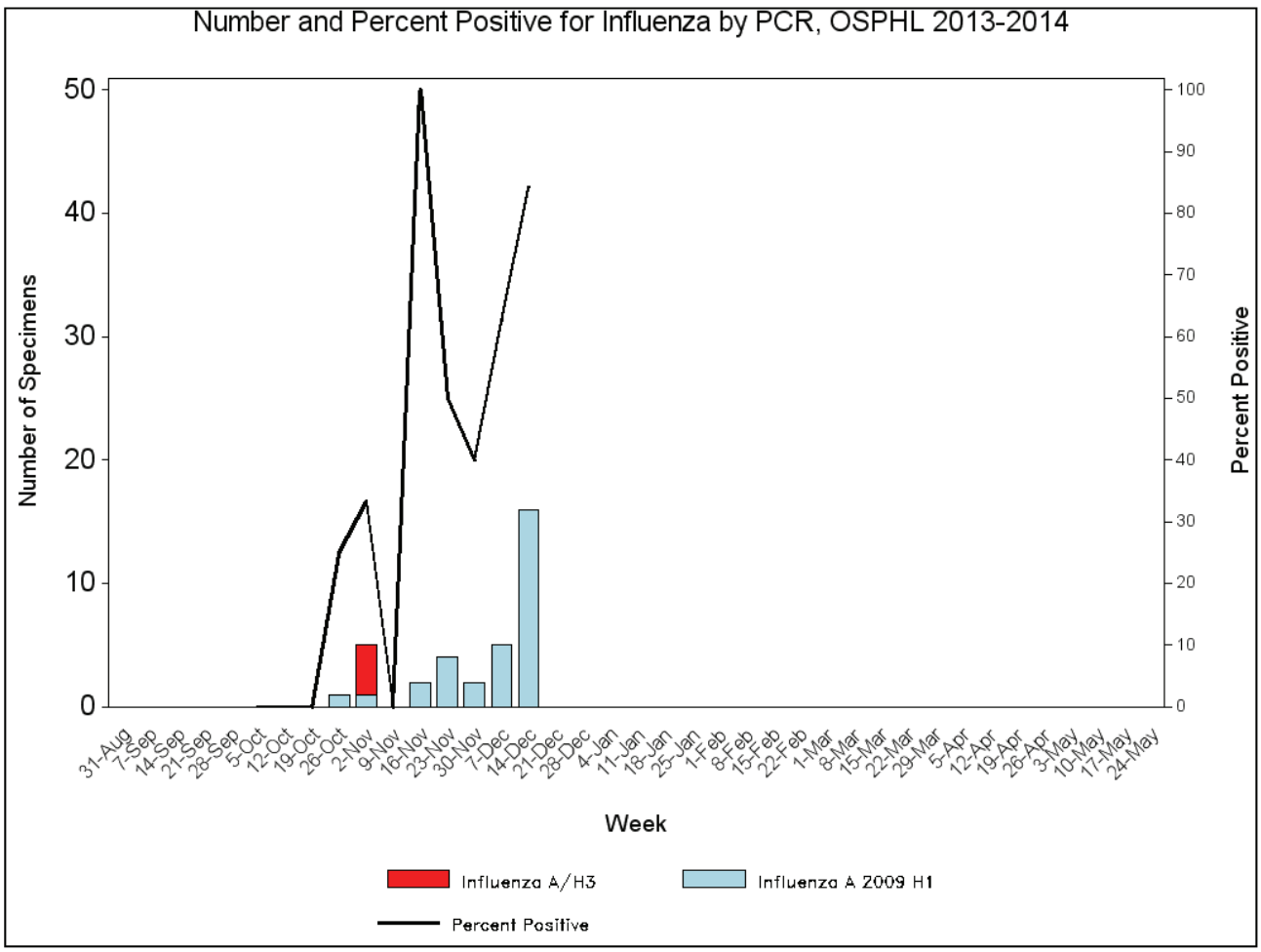
Table 1. Oregon State Public Health Laboratory Influenza Specimen Type and Subtype, 2013-14.

	Current Week	Cumulative
Influenza A	16 (84%)	35 (48%)
2009 pH1N1	16 (84%)	31 (42%)
Seasonal A H3	0	4 (6%)
Not subtyped	0	0
Influenza B	0	0
Undetected	3 (16%)	38 (52%)
Total Tested	**19**	**73**

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

	Current Week	Cumulative
Adenovirus	0	4 (11%)
Parainfluenza type 1	0	3 (8%)
Parainfluenza type 2	0	0
Parainfluenza type 3	0	0
Human Metapneumovirus	0	0
RSV	0	0
Total Tested	**5**	**37**

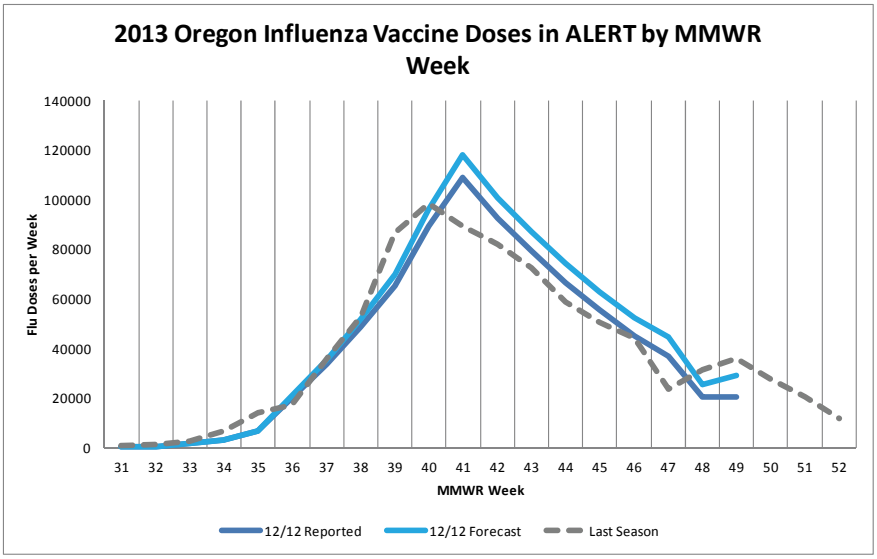

Viral Respiratory Pathogens PCR-Positive at OSPHL by Week, 2013-2014
Adenovirus
PIV1
Number of Specimens
0
5
10
15
20
25
31-Aug
7-Sep
14-Sep
21-Sep
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
28-Dec
4-Jan
11-Jan
18-Jan
25-Jan
1-Feb
8-Feb
15-Feb
22-Feb
1-Mar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

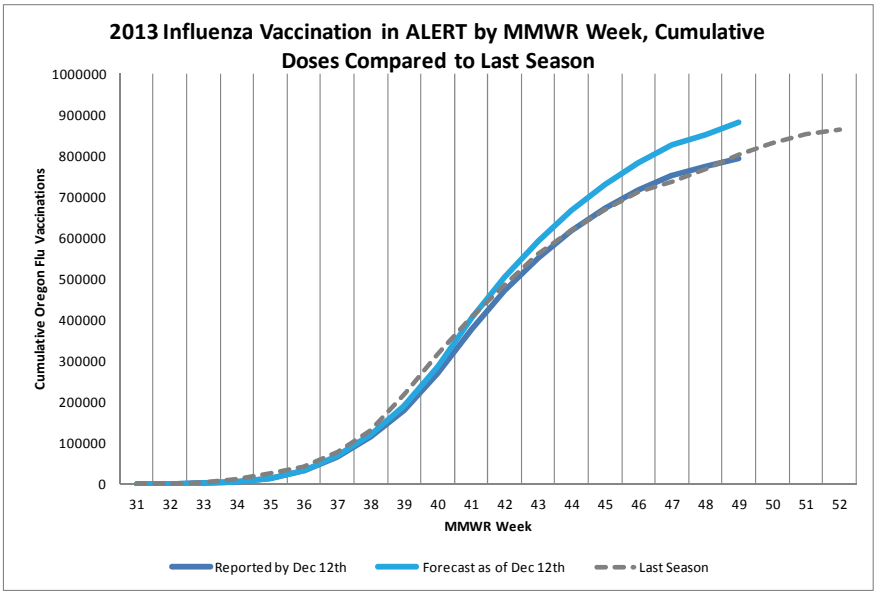

Number and Percent Positive for Influenza by PCR, OSPHL 2013-2014
Number of Specimens
Percent Positive
0
10
20
30
40
50
0
10
20
30
40
50
60
70
80
90
100
31-Aug
7-Sep
14-Sep
21-Sep
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
28-Dec
4-Jan
11-Jan
18-Jan
25-Jan
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

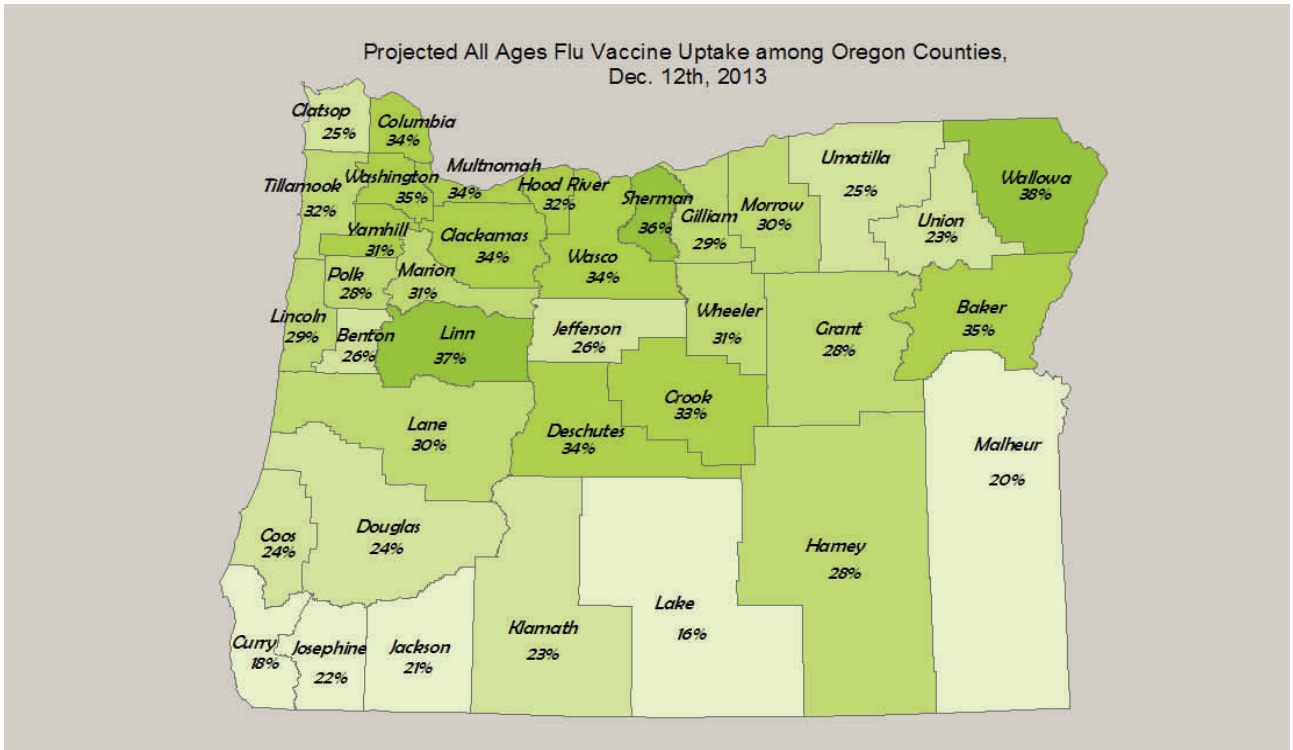
Vaccine Uptake in Oregon

For the beginning of December immunizations have slightly rebounded from the Thanksgiving slump. As of week 49 (Dec. 1st to Dec 7th) immunization totals remain at or above last year's totals, with over 800,000 influenza immunizations reported to ALERT. However the December surge that happened in the 2012-2013 season is not observable to date this year.

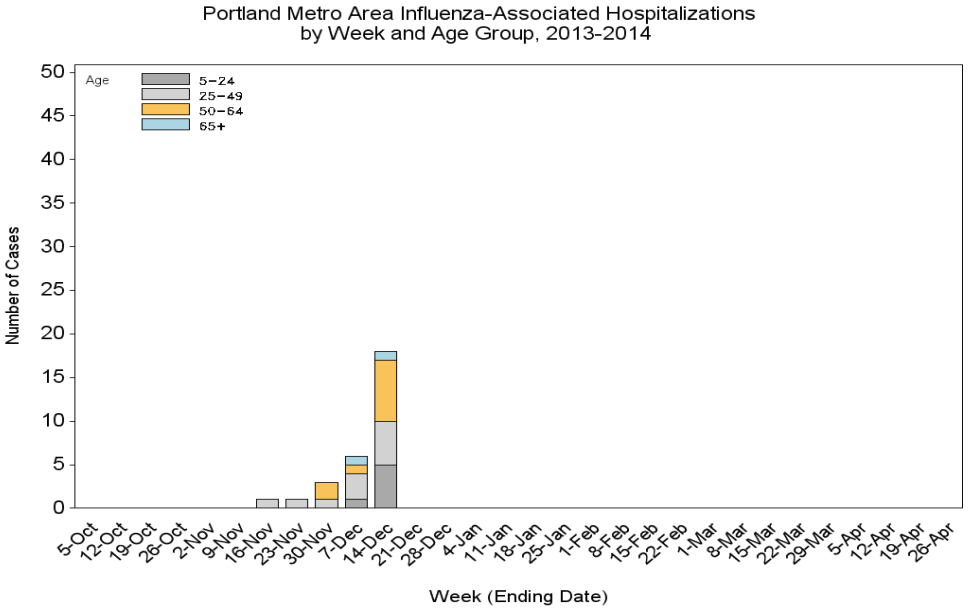
The map of projected influenza immunization rates across the state continues to show disparities between southern Oregon counties and the rest of state, with a few exceptions. As a caveat, for small counties it is difficult to assess whether low rates are due to lack of reporting or to lack of vaccination. However the broad swath of lower immunization rates across the southern counties may imply that a regional, rather than a local, problem exists with influenza immunization. An interesting feature in this map is the comparison of Linn & Benton Counties; while the two counties largely share health care systems, their populations are distinctly different with regard to influenza vaccination rates.







Hospitalizations: Twenty-nine total reported hospitalizations occurred up to MMWR week 50. To date, 93% of hospitalizations reported have been among persons younger than 65 years of age. This is likely due to the prevalence of 2009 H1N1, which to date, is the predominate strain circulating. Of hospitalized patients with subtyped lab results, only 2009 H1N1 has been detected thus far.



Outbreaks: No influenza outbreaks were reported for week 50. Five total ILI/influenza outbreaks have been reported since October 1.

US Data (from CDC FluView): During week 50 (December 8-14, 2013), influenza activity continued to increase in the United States.

o **Viral Surveillance**: Of 7,294 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 50, 1,301 (17.8%) were positive for influenza.

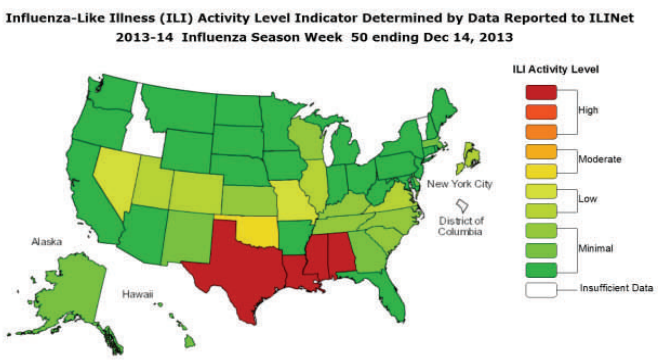
o **Pneumonia and Influenza Mortality**: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.

o **Influenza-associated Pediatric Deaths**: Two influenza-associated pediatric deaths were reported, one of which occurred during the 2012-13 season.

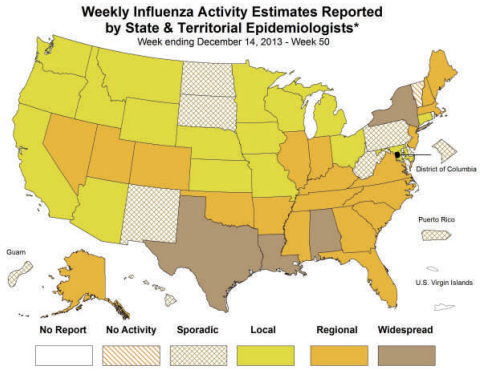
o **Influenza-associated Hospitalizations:** A cumulative rate for the season of 3.0 laboratory confirmed influenza-associated hospitalizations per 100,000 population was reported.

o **Outpatient Illness Surveillance**: The proportion of outpatient visits for influenza-like illness (ILI) was 2.3%, above the national baseline of 2.0%. Five regions reported ILI at or above region-specific baseline levels. Four states experienced high ILI activity, one state experienced moderate ILI activity; six states and New York City experienced low ILI activity, 37 states experienced minimal ILI activity and the District of Columbia and two states had insufficient data.

o **Geographic Spread of Influenza**: The geographic spread of influenza in 4 states was reported as widespread; 20 states reported regional influenza activity; 17 states reported local influenza activity; the District of Columbia, Guam, Puerto Rico, and 8 states reported sporadic influenza activity; one state reported no influenza activity, and the U.S. Virgin Islands did not report.



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