

2014-2015 Season (9/28/2014 – 10/3/2015)

Arizona is in the period of summer influenza and RSV surveillance. See the week 24 report for more complete data and additional surveillance indicators for the 2014-2015 influenza season.

**Synopsis:**

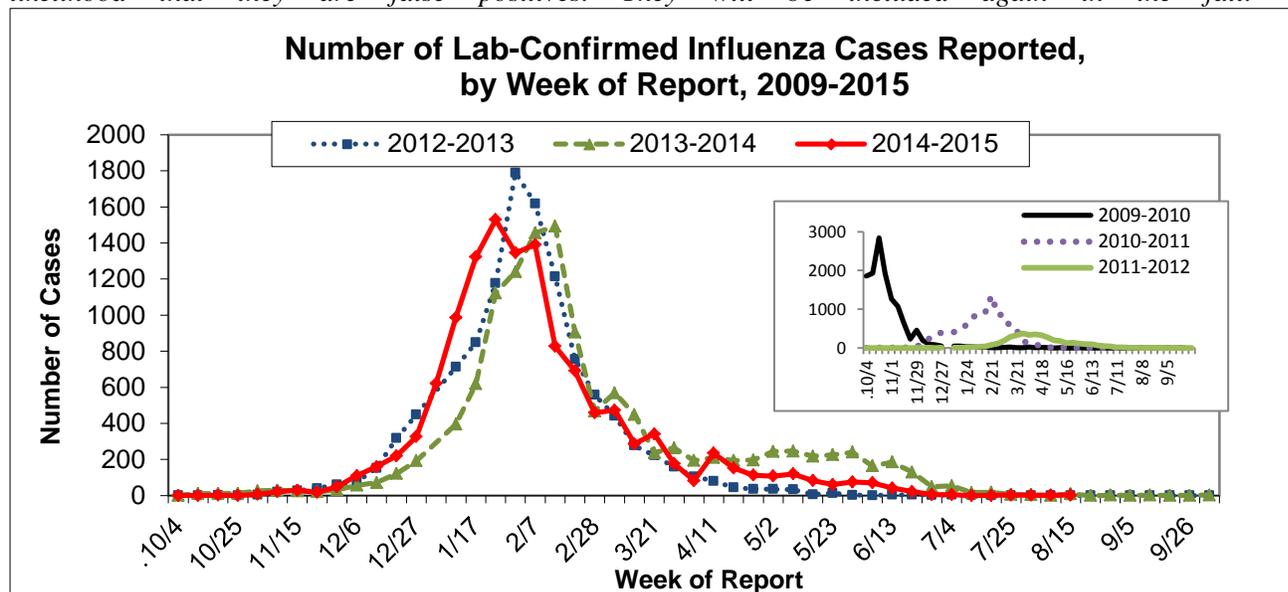
During the past two weeks, influenza activity continued to be low. Arizona reported Sporadic Activity for week 31 and week 32.

**Influenza activity highlights:**

- 5 laboratory-confirmed cases of influenza were reported in the past two weeks, from one county.
- 32 laboratory-confirmed cases of influenza have been reported since the beginning of summer surveillance on 6/16/2015. 25% of cases reported since 6/16/2015 were influenza A and 75% were influenza B.
- 4 of 8 (50%) specimens tested positive for influenza at the state public health laboratory in the past two weeks: 3 influenza A (H3) viruses and 1 influenza B virus.
- No laboratory-confirmed influenza-associated pediatric deaths have been reported during the period of summer influenza surveillance. Three influenza-associated pediatric deaths have been reported for the 2014-2015 season.
- The cases included in this report represent a small proportion of the true number of cases of influenza. Many people do not visit the doctor when ill and doctors should not be expected to run tests on all patients exhibiting influenza-like symptoms.

**Laboratory-Confirmed Influenza Activity by Season [2009-2015]**

Positive influenza tests are reported to ADHS. Many types of tests are included in the numbers below: rapid antigen tests, direct fluorescent antigen tests, viral culture, and molecular testing. *\*Note: Rapid antigen tests with collection dates after 6/16/2015 are not counted as confirmed cases because of the high likelihood that they are false positives. They will be included again in the fall.*

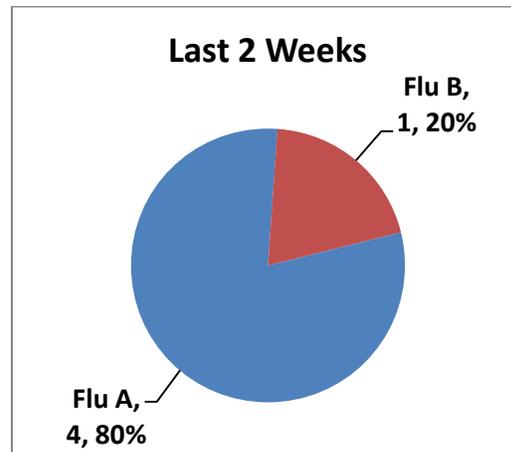
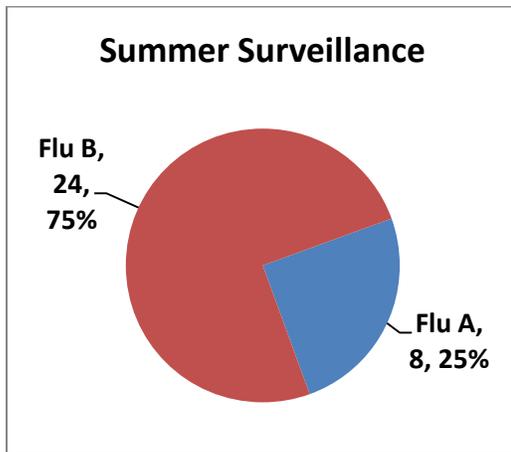


**Laboratory-Confirmed Cases Reported, by County, 2014-2015 Influenza Season**  
 (Includes ALL reported lab-confirmed flu reports, regardless of subtype)

<b>County</b>	<b>2014-2015 Season</b>	<b>Summer Surveillance Period (starting June 16th)</b>	<b>Last Two Weeks</b>
Apache	122	0	0
Cochise	407	1	0
Coconino	396	3	0
Gila	121	1	0
Graham	150	0	0
Greenlee	56	1	0
La Paz	13	0	0
Maricopa	6,600	13	5
Mohave	775	1	0
Navajo	209	0	0
Pima	2,030	11	0
Pinal	912	0	0
Santa Cruz	74	0	0
Yavapai	437	1	0
Yuma	279	0	0
<b>Total</b>	<b>12,581</b>	<b>32</b>	<b>5</b>

**Influenza Types and Subtypes**

There are two main types of influenza – Type A and Type B – that cause illness in people. Influenza A viruses can be further divided into subtypes such as A (H1), or A (H3). While most tests can distinguish between influenza A and B, only specialized testing such as that done at the State Public Health Laboratory and a few other labs around the state can differentiate subtypes. Viral culture or molecular testing (reverse transcriptase polymerase chain reaction or RT-PCR) are the methods used to identify subtypes; knowing the type and subtype of the influenza viruses circulating can help health professionals make the best treatment and vaccination decisions.



**Data from the Arizona State Public Health Laboratory (ASPHL)**

- In the past two weeks, 4 of 8 (50%) specimens tested positive for influenza at ASPHL.
- 3 influenza A (H3) viruses and 1 influenza B virus.

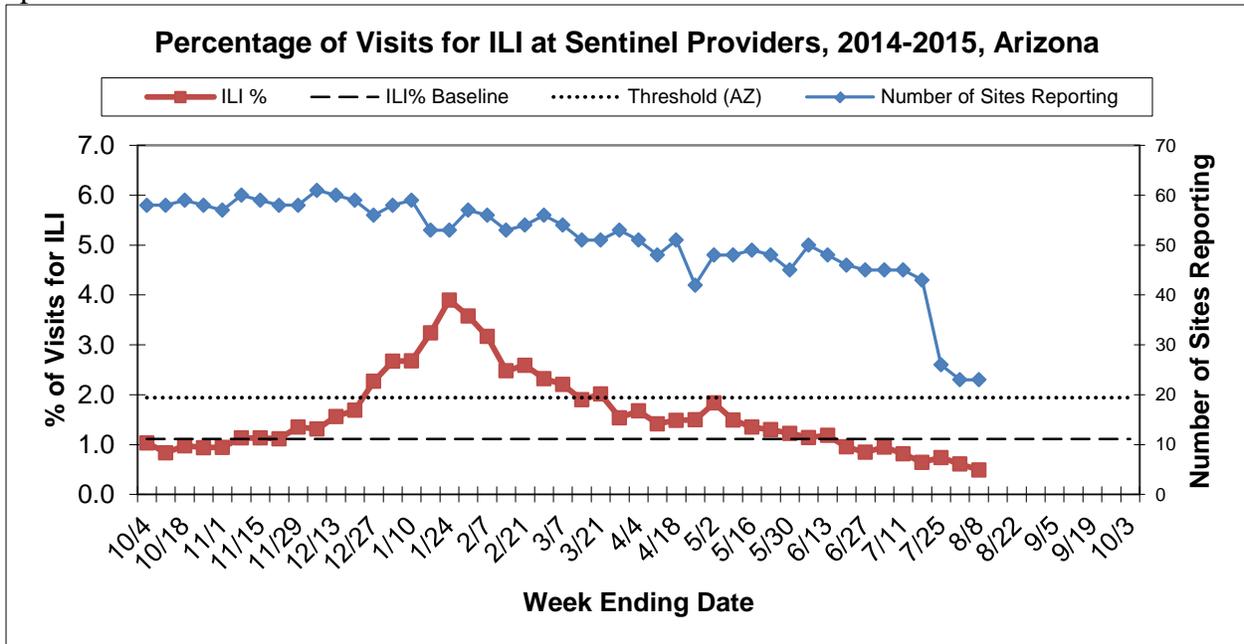
**Age of Reported Influenza Cases**

The age groups most affected by influenza vary somewhat season-to-season, depending in part on the circulating influenza types and subtypes and any existing immunity in the community. Variations in age groups of reported influenza cases can also be caused by differences in laboratory testing and reporting practices year-to-year.

Age Group	2014-2015 Season (N=12,581)	Summer Surveillance Period (N=32)
0 to 4 years	2,153 (17%)	2 (6%)
5 to 18 years	3,365 (27%)	7 (22%)
19 to 49 years	3,038 (24%)	7 (22%)
50 to 64 years	1,225 (10%)	7 (22%)
65 years or older	2,659 (21%)	8 (25%)
Unknown age	141 (1%)	1 (3%)

**Influenza-Like Illness (ILI) Surveillance from Sentinel Outpatient Providers**

ILI is defined as a fever of at least 100°F plus either a cough or a sore throat. In weeks when a relatively low number of enrolled facilities report data, the ILI proportion may not be as representative of Arizona activity as for other weeks. The state ILI baseline is 1.1% and the epidemic threshold is 1.9%\*.



\*Note: The baseline is defined as the mean of the state ILI% in weeks in the 2011-2014 flu seasons in which two or more consecutive weeks each accounted for less than 2% of the season’s total number of specimens testing positive for influenza at the Arizona State Public Health Laboratory. The epidemic threshold is defined as the mean plus two standard deviations.

## **Mortality Surveillance**

### **Influenza-associated Pediatric Deaths**

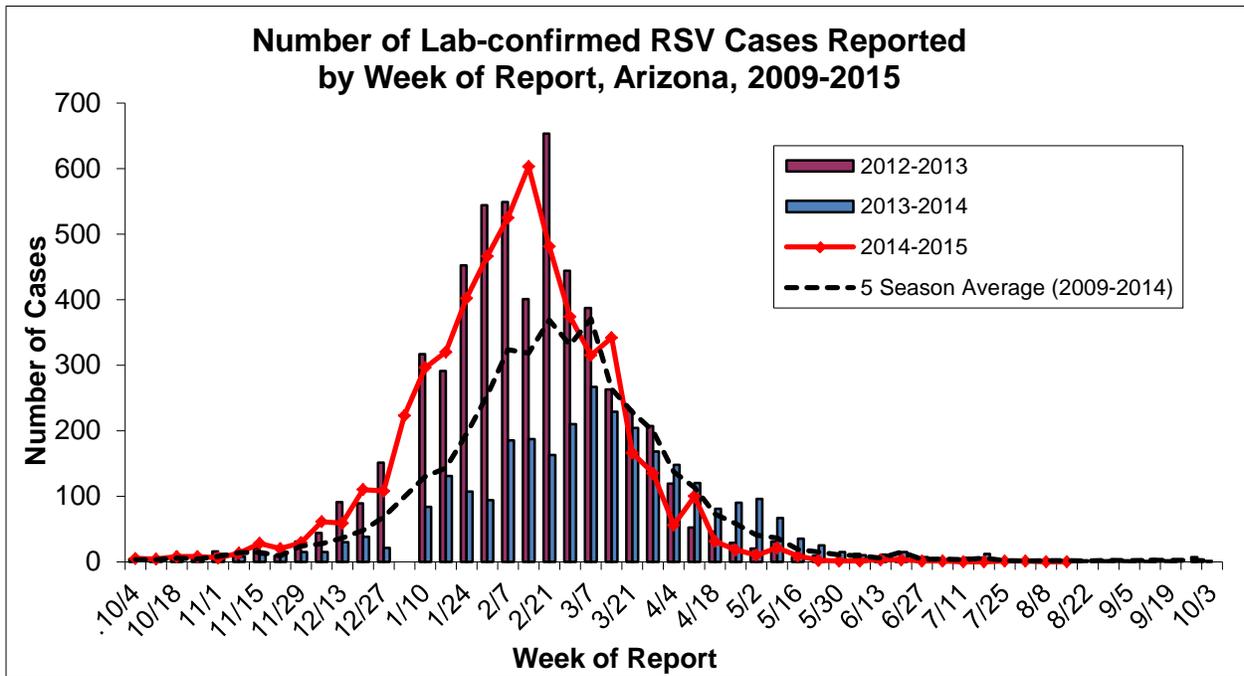
Influenza-associated pediatric deaths are reportable to the public health departments in Arizona. Three influenza-associated pediatric deaths have been identified in the 2014-2015 season. No pediatric influenza-associated deaths have been identified during the summer surveillance period (beginning June 16<sup>th</sup>).

**RSV activity highlights:**

- No laboratory-confirmed cases of RSV were reported in the past two weeks.
- The cases included here reflect only laboratory-confirmed cases that have been reported to the health department. There may be additional cases in the community that have not been tested.
- Data in this report are provisional and may change as more reports are received.

**Laboratory-Confirmed RSV Activity by Season [2009-2015]:**

Positive RSV tests are reported to ADHS. These include many types of tests, including rapid diagnostic tests, direct florescent antigen tests, viral culture.



## Lab-Confirmed RSV Cases Reported by County

<b>County</b>	<b>2014-2015 Season</b>	<b>Summer Surveillance Period (starting June 16th)</b>	<b>Last Two Weeks</b>
Apache	105	0	0
Cochise	207	0	0
Coconino	224	0	0
Gila	60	0	0
Graham	16	0	0
Greenlee	4	0	0
La Paz	4	0	0
Maricopa	2,948	3	0
Mohave	42	0	0
Navajo	182	0	0
Pima	856	2	0
Pinal	445	0	0
Santa Cruz	39	0	0
Yavapai	117	1	0
Yuma	117	0	0
<b>Total</b>	<b>5,366</b>	<b>6</b>	<b>0</b>

### Glossary of Key Terms:

**2014-2015 Influenza Season** – The season is defined by surveillance weeks. The first day of the 2014-2015 influenza season was September 28<sup>th</sup>, 2014, or week 40 and the 2014-2015 surveillance season will continue through October 3<sup>rd</sup>, 2015, or week 39.

**Regions** – Regions in Arizona are defined by county: Central (Gila, Maricopa, Pinal); Northern (Apache, Coconino, Navajo, Yavapai); Southern (Cochise, Graham, Greenlee, Pima, Santa Cruz); Western (La Paz, Mohave, Yuma)

**Activity Levels:** Indicator of the geographic spread of influenza activity, reported to CDC by all states each week.

**Widespread:** Increased influenza-like illness from sentinel providers (ILI) in three or more regions and large numbers of laboratory-confirmed influenza cases in those regions.

**Regional:** Increased ILI in two regions and elevated numbers of laboratory-confirmed influenza cases in those regions.

**Local:** Increased ILI in one region and elevated numbers of laboratory-confirmed influenza cases in that region.

**Sporadic:** No increase in ILI activity and only isolated laboratory-confirmed influenza cases.

**No Activity:** No increase in ILI activity and no laboratory-confirmed influenza cases.

**Intensity Levels:** Intensity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation. Intensity levels range from minimal, corresponding to ILI activity from outpatient clinics being below the average, to intense, which would correspond to ILI activity from outpatient clinics being much higher than average.