

**Weekly Influenza Summary:**

As of 5/6/2009, a total of 2,464 laboratory-confirmed cases of influenza were reported to ADHS for the 2008-09 season, and Arizona is reporting widespread influenza activity to CDC for the week ending 5/2/2009. The recent increase in the number of laboratory-confirmed cases and overall rise in influenza activity can be attributed to the enhanced surveillance activities due to the emergence of a novel influenza A(H1N1) strain. The initial cases of the novel virus in the U.S. were announced approximately April 23<sup>rd</sup>. For specific information regarding this new influenza A(H1N1) strain, please visit <http://www.azdhs.gov/phs/oids/epi/flu/swine/index.htm> or <http://www.cdc.gov/swineflu/>.

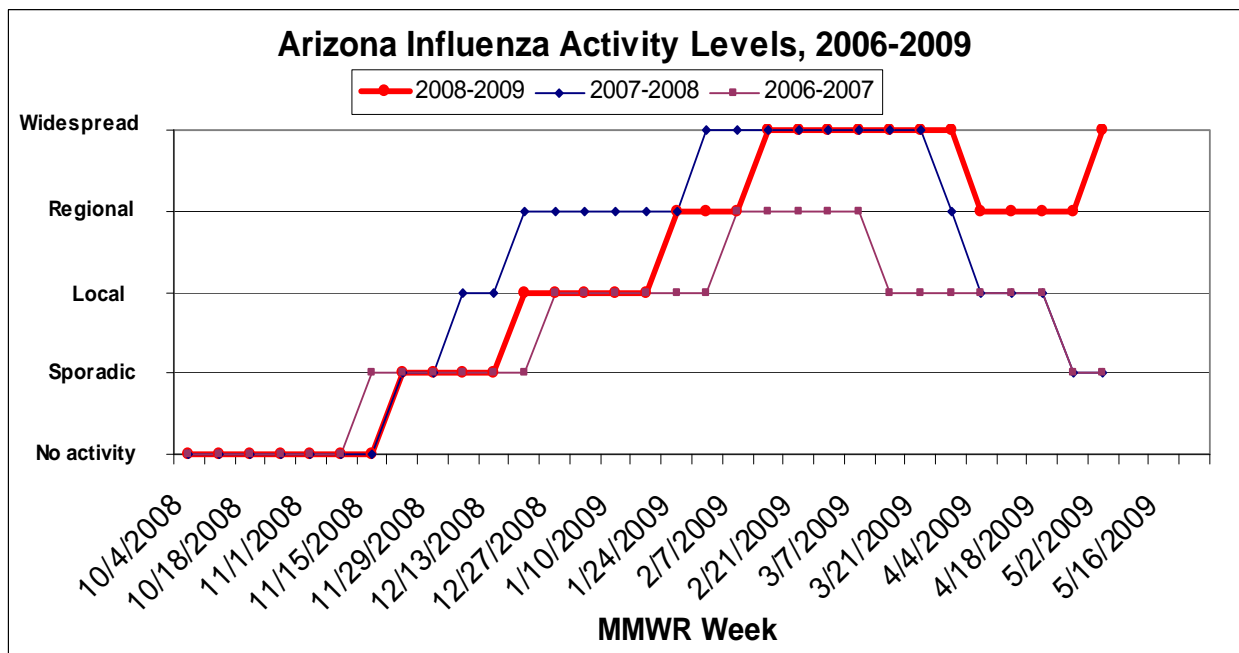
The seasonal influenza strains continue to circulate along with the novel H1N1. Cases of seasonal influenza have been reported from all fifteen Arizona counties over the course of the season. The influenza-like-illness rate is higher than the state baseline for week 16. Two influenza-associated pediatric deaths were reported to ADHS for the current season.

Data in this report are provisional and may change as more reports are received.

National influenza surveillance data are available at the CDC’s Influenza Surveillance site (<http://www.cdc.gov/flu/weekly/fluactivity.htm>).

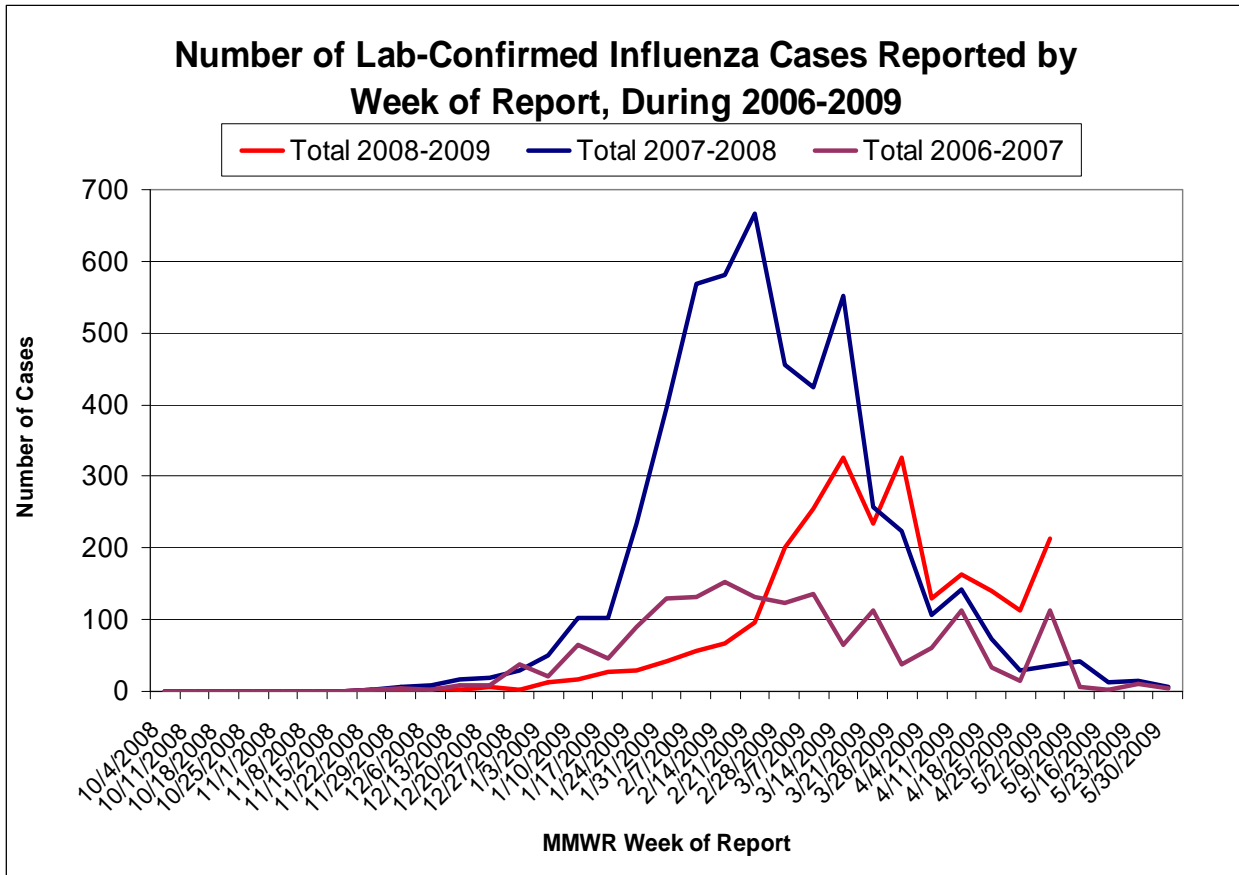
**Arizona Influenza Activity Levels:**

The graph below shows the influenza activity levels reported to the CDC for this season only. For week 17, Arizona reported widespread activity. Definitions of these reporting categories can be found at Definitions: <http://www.cdc.gov/flu/weekly/fluactivity.htm>.



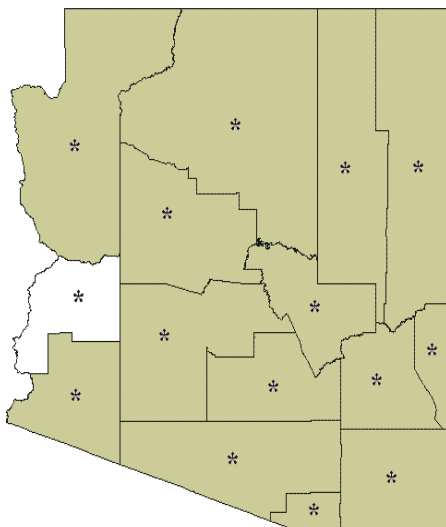
**Laboratory-Confirmed Influenza Activity by Season [2006-2009]:**

Arizona laboratories report positive influenza tests to ADHS. The positive cases are counted by the date of report to ADHS.



**Laboratory-Confirmed Influenza Activity by County:**

Arizona laboratories report positive influenza tests to ADHS. The positive cases are counted by the county of residence.



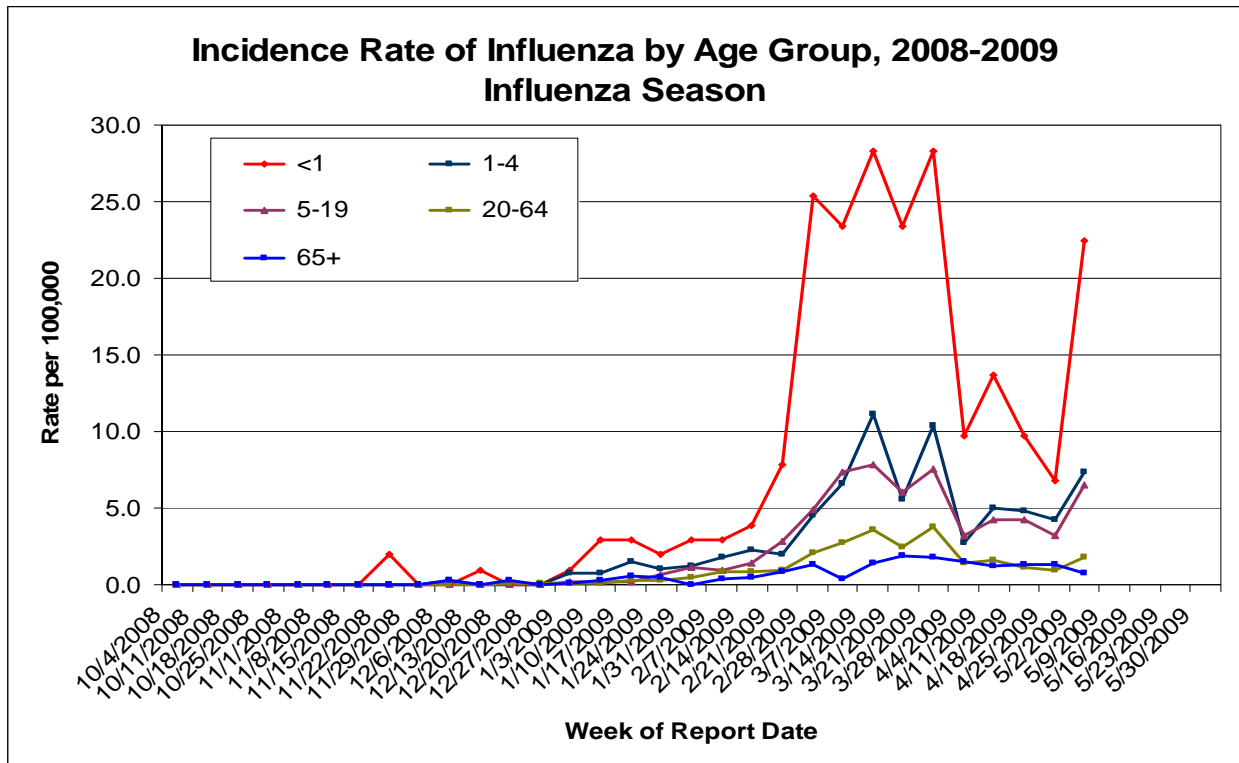
**Key:**

- \* = Any activity reported this season
- Green = Activity reported in the previous three weeks
- White = No activity reported in the previous three weeks

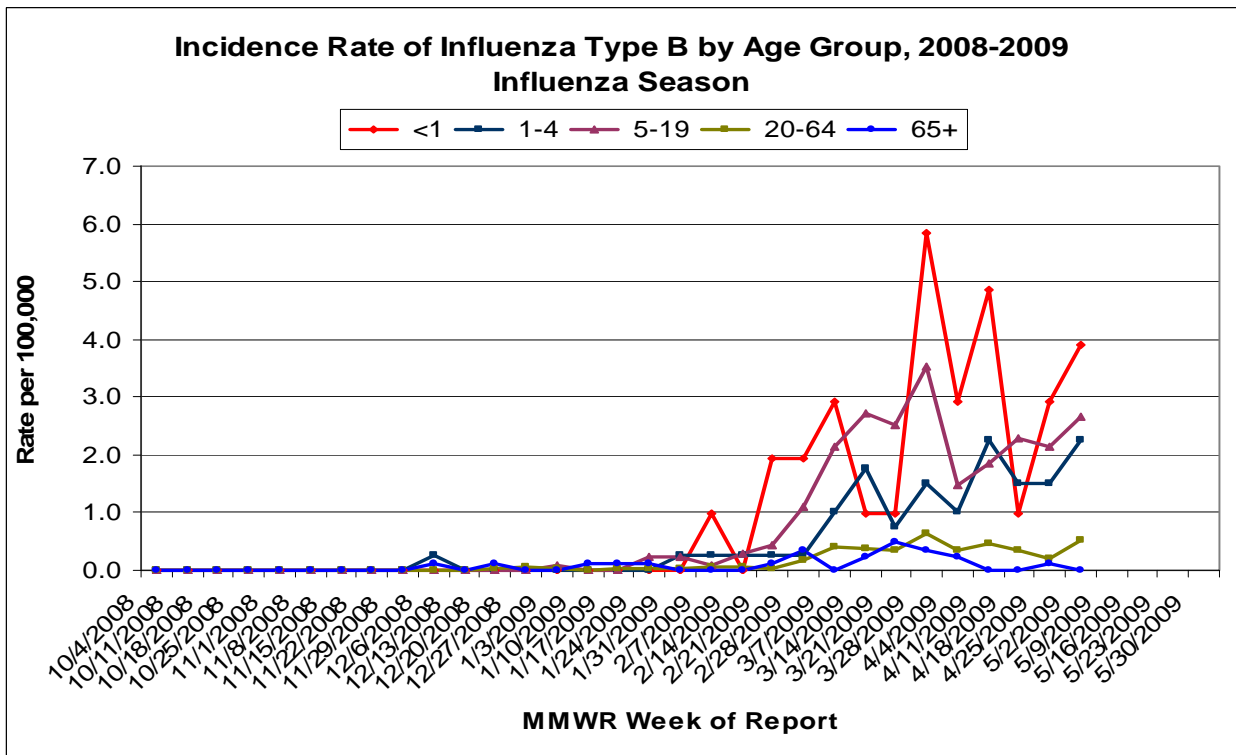
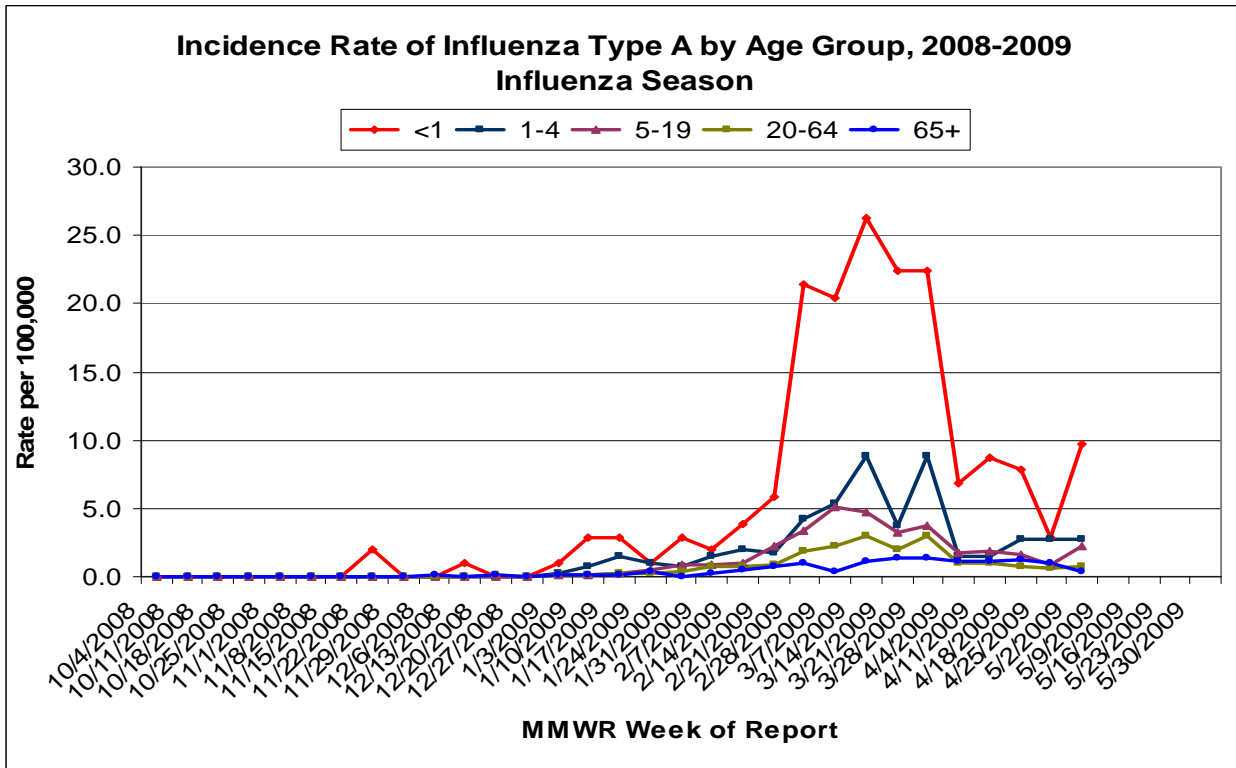
County	Number of Laboratory-Confirmed Cases		
	2008-2009 Season	Last Week	Last 3 Weeks
Apache	57	5	9
Cochise	59	15	21
Coconino	170	0	10
Gila	16	5	8
Graham	55	31	34
Greenlee	29	0	11
La Paz	6	0	0
Maricopa	1,533	81	252
Mohave	16	3	7
Navajo	33	0	2
Pima	409	60	92
Pinal	41	0	2
Santa Cruz	17	11	11
Yavapai	12	0	2
Yuma	10	1	4
Unknown	1	1	1
<b>Total</b>	<b>2,464</b>	<b>213</b>	<b>465</b>

**Laboratory-Confirmed Influenza Activity by Age Group:**

The graph below shows the incidence rate of all lab-confirmed cases of influenza by age group for the season.

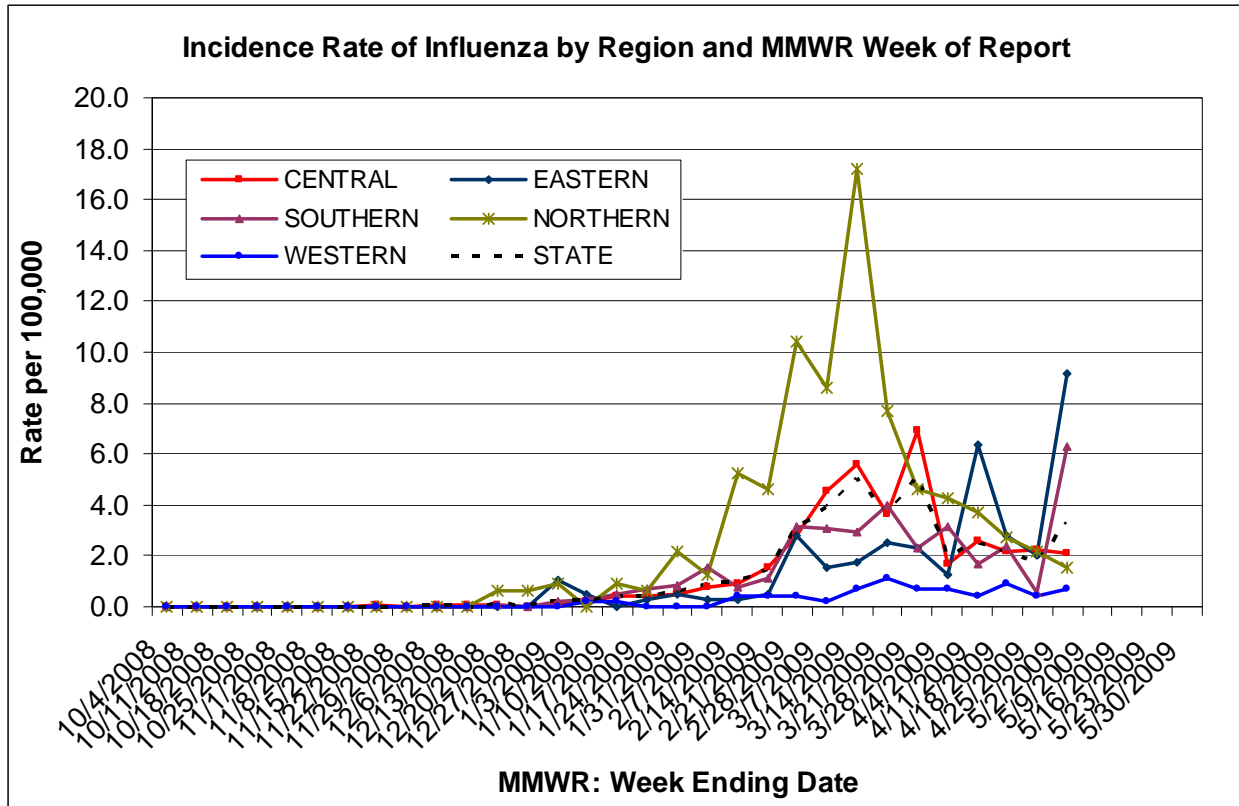


Prior influenza exposure, vaccination, or other factors may affect which age groups are affected by circulating influenza viruses. The graphs below show the rate of reported influenza, by viral type.

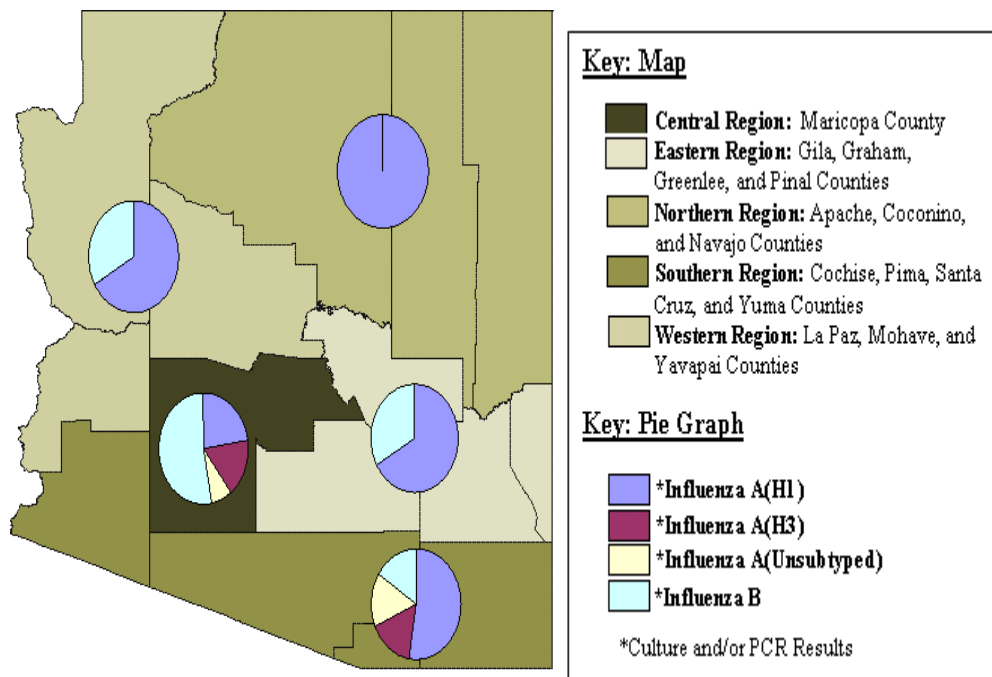


**Laboratory Surveillance:**

The graph below shows the incidence rate of all lab-confirmed cases of influenza by region for the season.



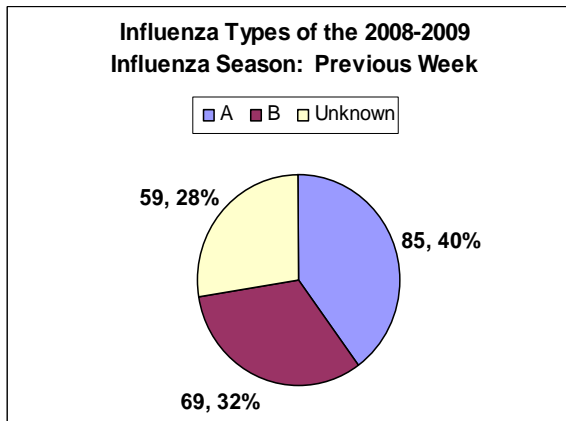
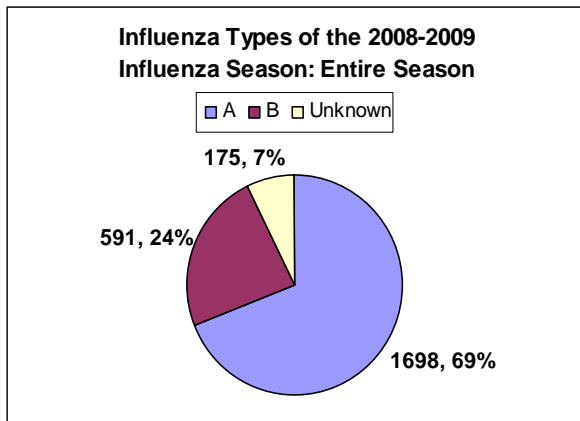
The results below show only culture and/or PCR results reported to ADHS from the Arizona State Laboratory or other laboratories across the state during the previous three weeks or from April 4<sup>th</sup> through the 25<sup>th</sup>.



Region	Influenza A(H1)	Influenza A(H3)	Influenza A(Type unknown)	Influenza B
Central	27 (22.7%)	20 (16.8%)	9 (7.6%)	63 (52.9%)
Eastern	2 (66.7%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
Southern	10 (52.6%)	3 (15.8%)	3 (15.8%)	3 (15.8%)
Northern	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Western	2 (66.7%)	0 (0.0%)	0 (0.0%)	1 (33.3%)

Laboratories report positive influenza tests to ADHS. Data are then compiled based on influenza type from all positive laboratory tests.

The pie charts below show all lab-confirmed cases of influenza in the noted time periods.



	Season (2008-2009)	Percent Total (2008-2009)	Season (2007-2008)	Percent Total (2007-2008)	Season (2006-2007)	Percent Total (2006-2007)
<b>Total*</b>	2,464	100%	5,168	100%	1,663	100%
<b>Influenza A*</b>	1,698	69%	2,898	56%	1,116	67%
A/H1 †	328	13%	184	4%	235	14%
A/H3 †	84	3%	234	5%	31	2%
A/Type unknown †	31	1%	257	5%	185	11%
<b>Influenza B*</b>	591	24%	1,900	37%	355	21%
B/Victoria lineage †	96	4%	0	0%	38	2%
B/Yamagata lineage †	0	0%	181	4%	5	1%
B/Unsubtyped †	130	5%	325	6%	120	7%
<b>Unknown*</b>	175	7%	370	7%	192	12%

\* Data for the bolded categories include all tests.

† Data for the subcategories include only culture and PCR tests conducted at the Arizona State Laboratory or other reporting laboratories.

	Arizona † (2008-2009)	Percent Total (2008-2009)	Mountain Region* (2008-2009)	Percent Total (2008-2009)	Nationwide* (2008-2009)	Percent Total (2008-2009)
<b>Total</b>	669	100%	2145	100%	25925	100%
<b>Influenza A</b>	443	66%	1718	80%	17239	66%
A/H1	328	74%	679	40%	6223	36%
A/H3	84	19%	201	12%	750	4%
A/Unsubtyped	31	7%	838	49%	10266	60%
<b>Influenza B</b>	226	34%	427	20%	8686	34%

† Data represents the cumulative results for all culture and PCR tests conducted at the Arizona State Laboratory or other reporting laboratories within the state of Arizona through MMWR 17 or week ending 5/2/2009.

\* Data represents the cumulative results for all identified influenza isolates within the respective category through MMWR 15 or week ending 4/21/2009.

**Mortality Surveillance:**

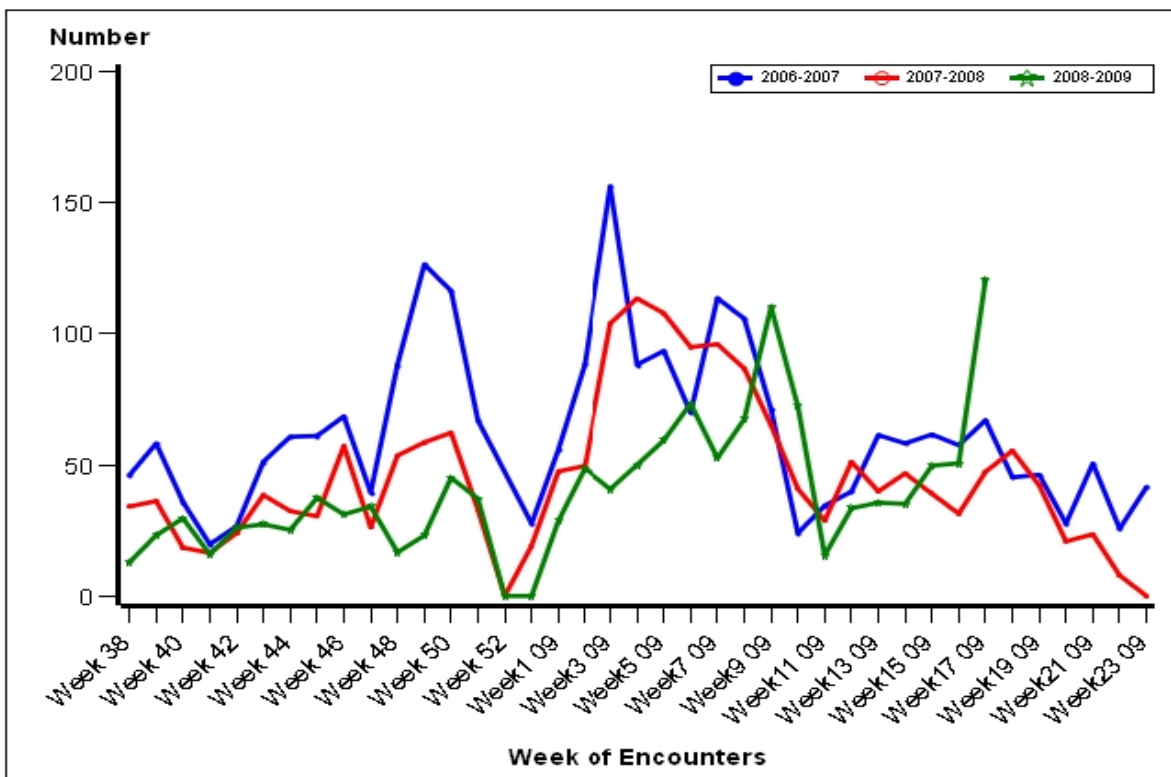
Four influenza-associated pediatric deaths have been reported to ADHS during the 2008-2009 influenza season. Two individuals were infected with influenza A and two with influenza B. One case died in February, two in April, and one in May. One case was co-infected with *Staphylococcus aureus*; the other three are still under investigation.

**Influenza-Like Illness (ILI) Surveillance from Participating Arizona Schools:**

The software program Child Health Indicator Program (CHIP) assists school nurses in electronic management of student health records. Currently, nurses in more than 300 Arizona schools use CHIP to collect information on student health conditions for 266 nursing diagnosis codes, including influenza-like illness (ILI), rash, and gastrointestinal illness (GI).

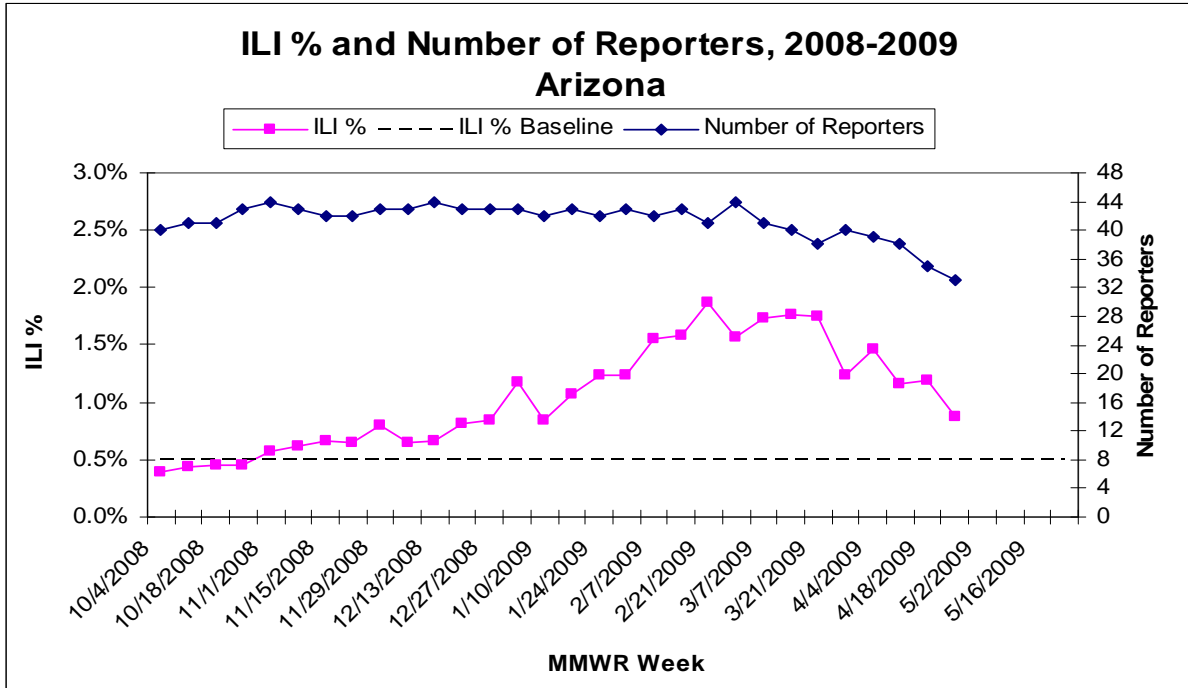
The graph presents the weekly trend of ILI reported among students during the school years of 2006-2007, 2007-2008, and 2008-2009. School nurse encounters are not diagnosed cases of communicable diseases but are based on the nursing codes that school nurses enter to track student conditions. Also, the numbers in the graph are only from schools that used CHIP during the school year.

**Influenza-Like Illness Per School Enrollment in Arizona (per 100,000)**



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

The proportion of patient visits to sentinel providers for ILI in the state was 0.9% for the week ending 4/25/2009 (week 16). This value is much higher than the state baseline of 0.5%. As of 5/6/2009, 33 sentinel providers reported by the end of week 16. ILI is defined as a fever of at least 100°F plus either a cough or a sore throat.



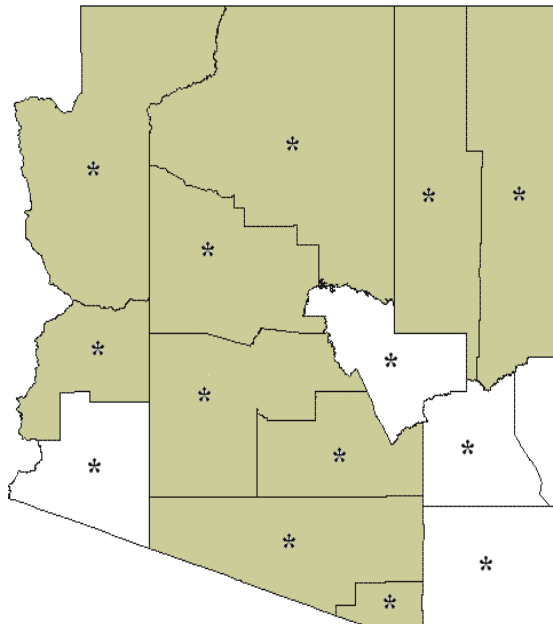
*Please see the following pages for the weekly RSV summary.*

**Weekly RSV Summary:**

As of 5/6/2009, a total of 2,879 lab-confirmed cases were reported to ADHS during the 2008-2009 season.

**Lab-Confirmed RSV Cases Reported by County:**

Since October 2004, laboratories have been required to report positive RSV tests to ADHS.



**Key:**

\* = Any activity reported this season

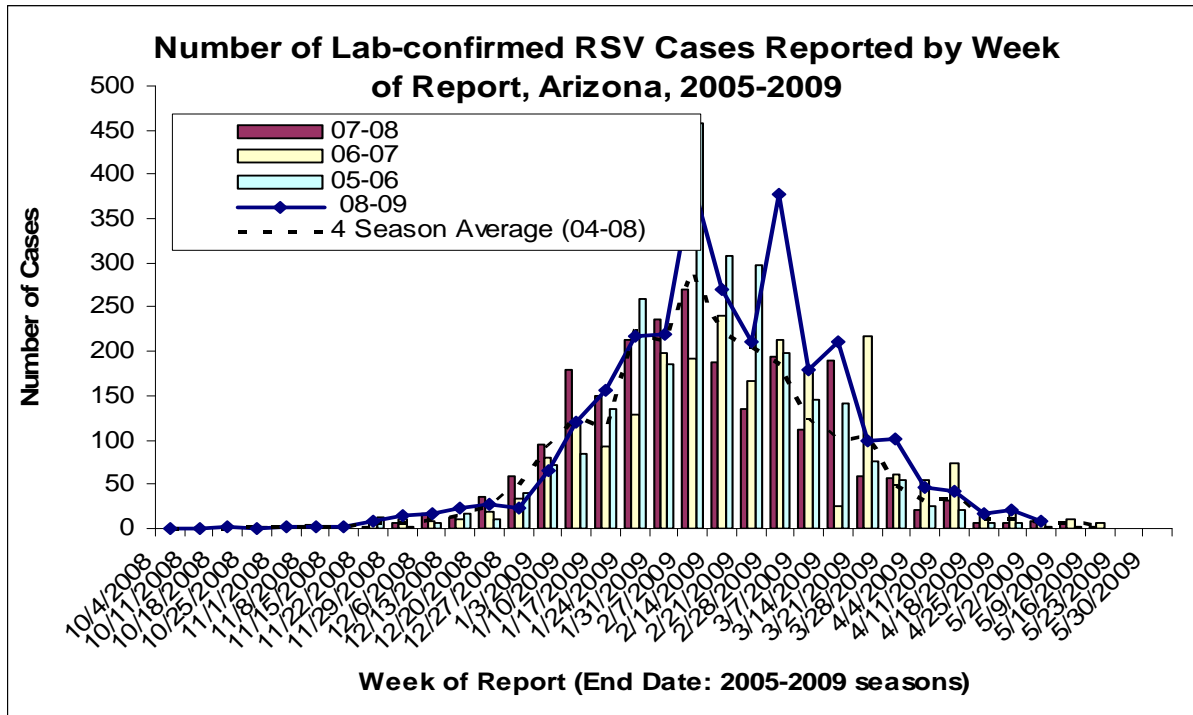
**Green** = Activity reported in the previous three weeks

**White** = No activity reported in the previous three weeks

County	Number of Laboratory-Confirmed Cases		
	2008-2009 Season	Last Week	Last 3 Weeks
Apache	84	0	2
Cochise	53	0	0
Coconino	97	0	4
Gila	28	0	0
Graham	5	0	0
Greenlee	0	0	0
La Paz	9	0	1
Maricopa	1909	2	24
Mohave	82	5	9
Navajo	95	0	1
Pima	267	1	2
Pinal	200	0	1
Santa Cruz	11	0	1
Yavapai	17	0	1
Yuma	22	0	0
Unknown	0	0	0
<b>Total</b>	2879	8	46

**Laboratory Surveillance:**

Laboratories report positive RSV tests to ADHS.



**Laboratory-Confirmed RSV Activity by Age and Gender:**

Laboratories report positive RSV tests to ADHS.

