

Weekly Influenza Summary:

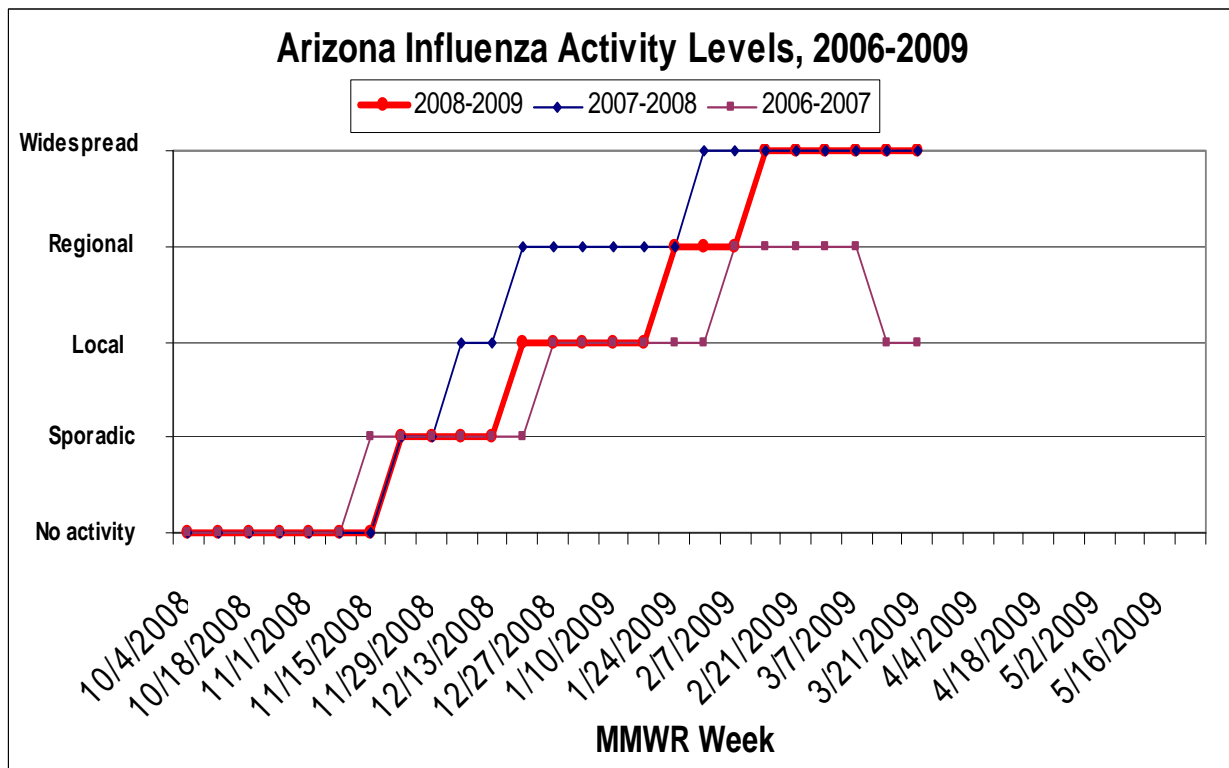
As of 3/24/2009, a total of 1,371 laboratory-confirmed cases of influenza were reported to ADHS for the 2008-09 season, and Arizona is reporting widespread influenza activity to CDC for the week ending 3/21/2009. Cases have been reported from all fifteen Arizonan counties. The influenza-like-illness rate is higher than the state baseline for week 10. One influenza-associated pediatric death was 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>).

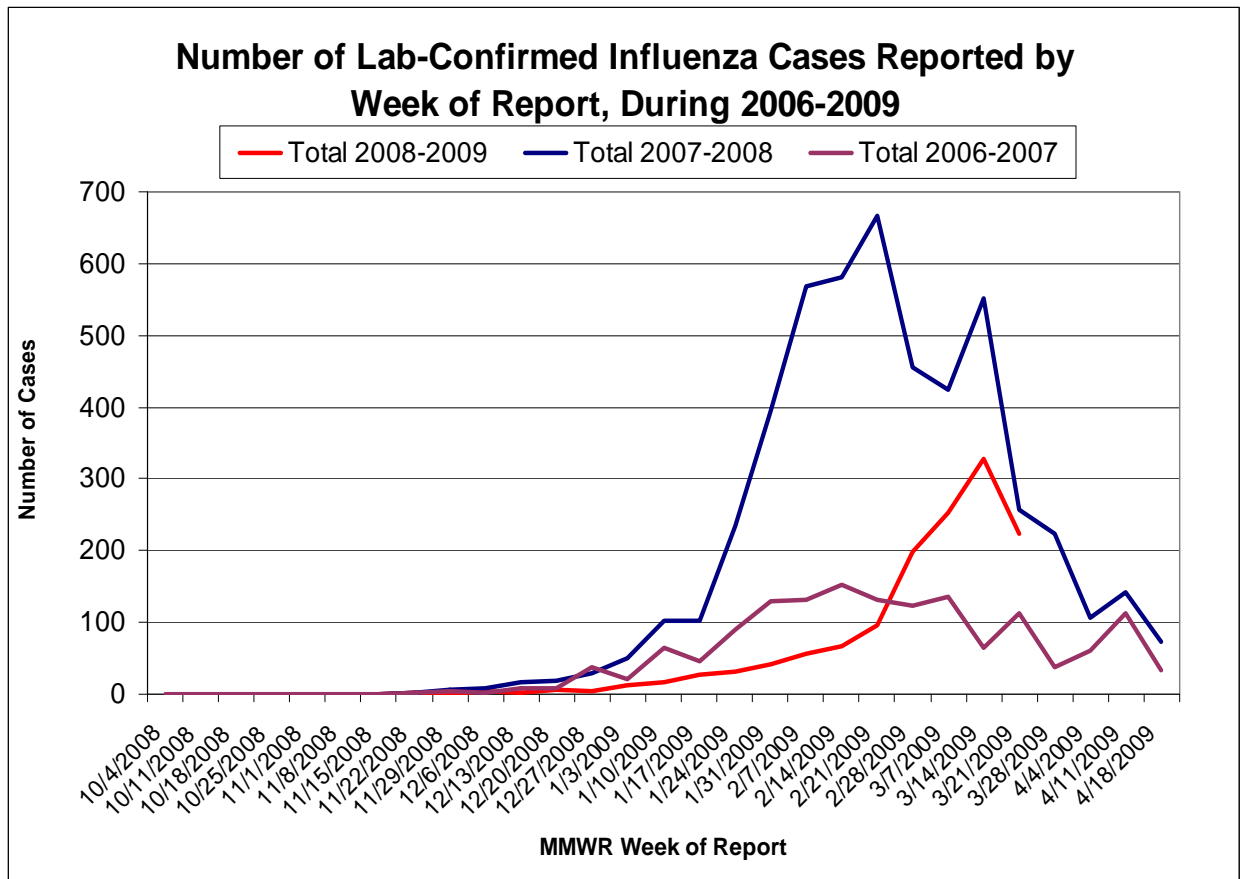
Arizona Influenza Activity Levels:

The graph below shows the influenza activity levels reported to the CDC for this season only. For week 11, Arizona reported widespread activity. Definitions of these reporting categories can be found at Definitions: <http://www.cdc.gov/flu/weekly/fluactivity.htm>.



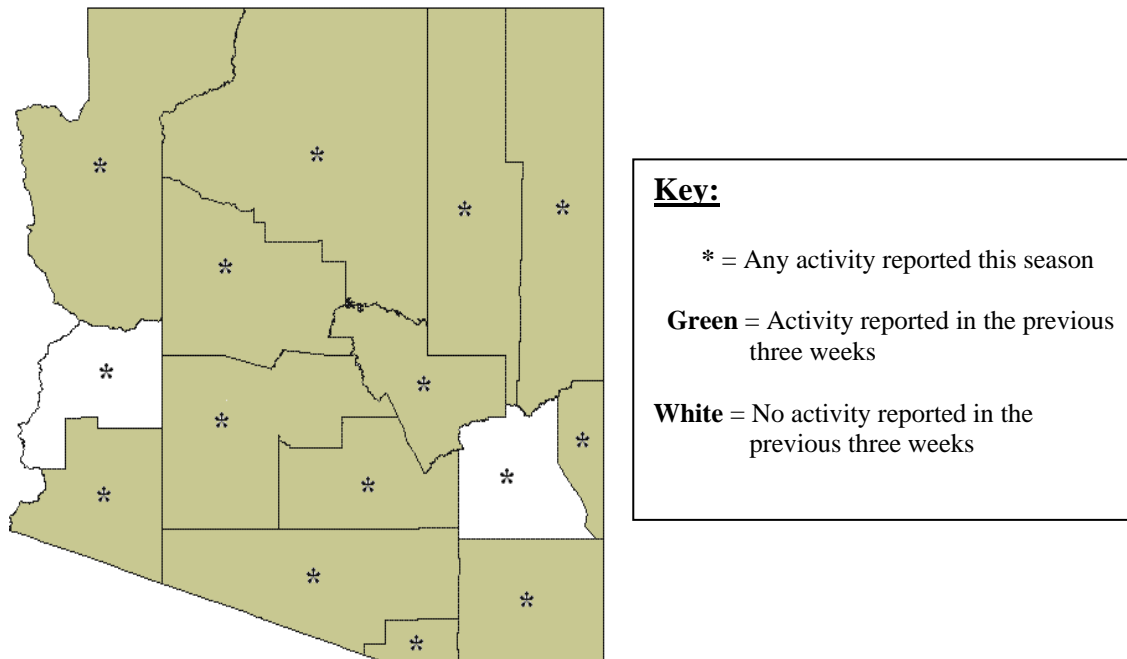
Laboratory-Confirmed Influenza Activity by Season [2006-2009]:

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:

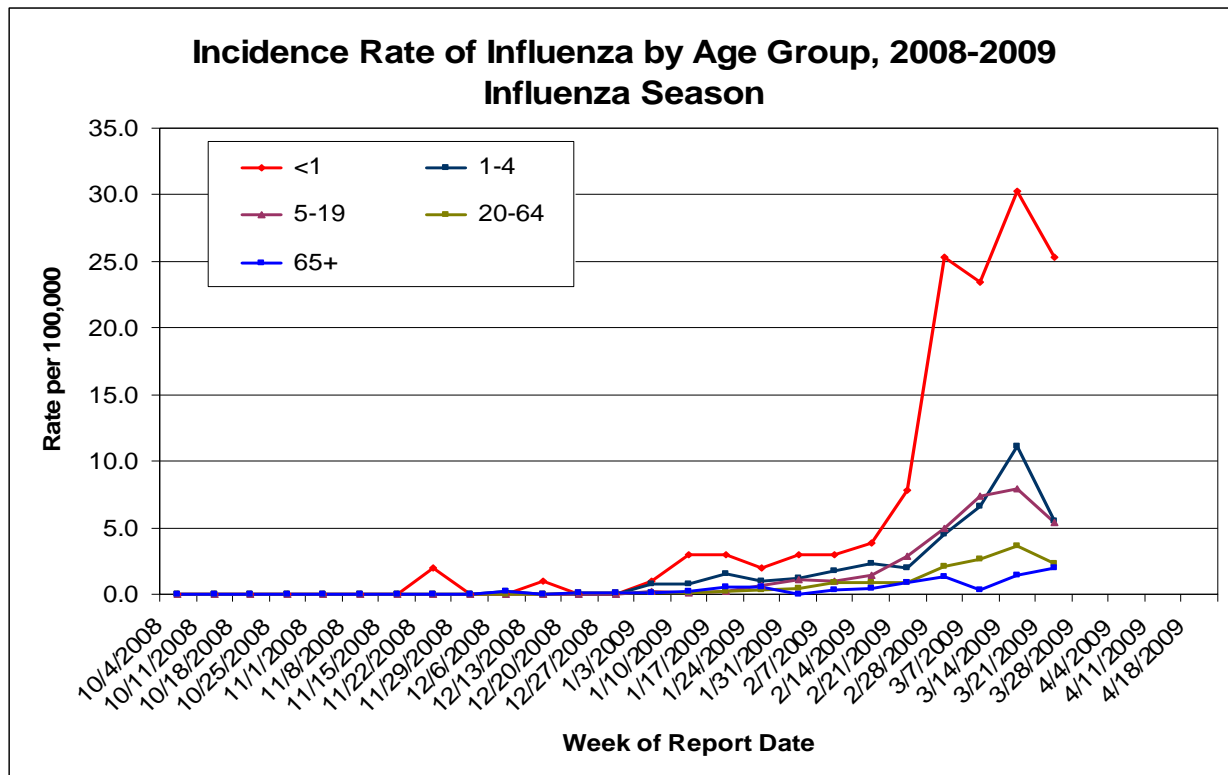
Arizona laboratories report positive influenza tests to ADHS. The positive cases are counted by the county of residence.



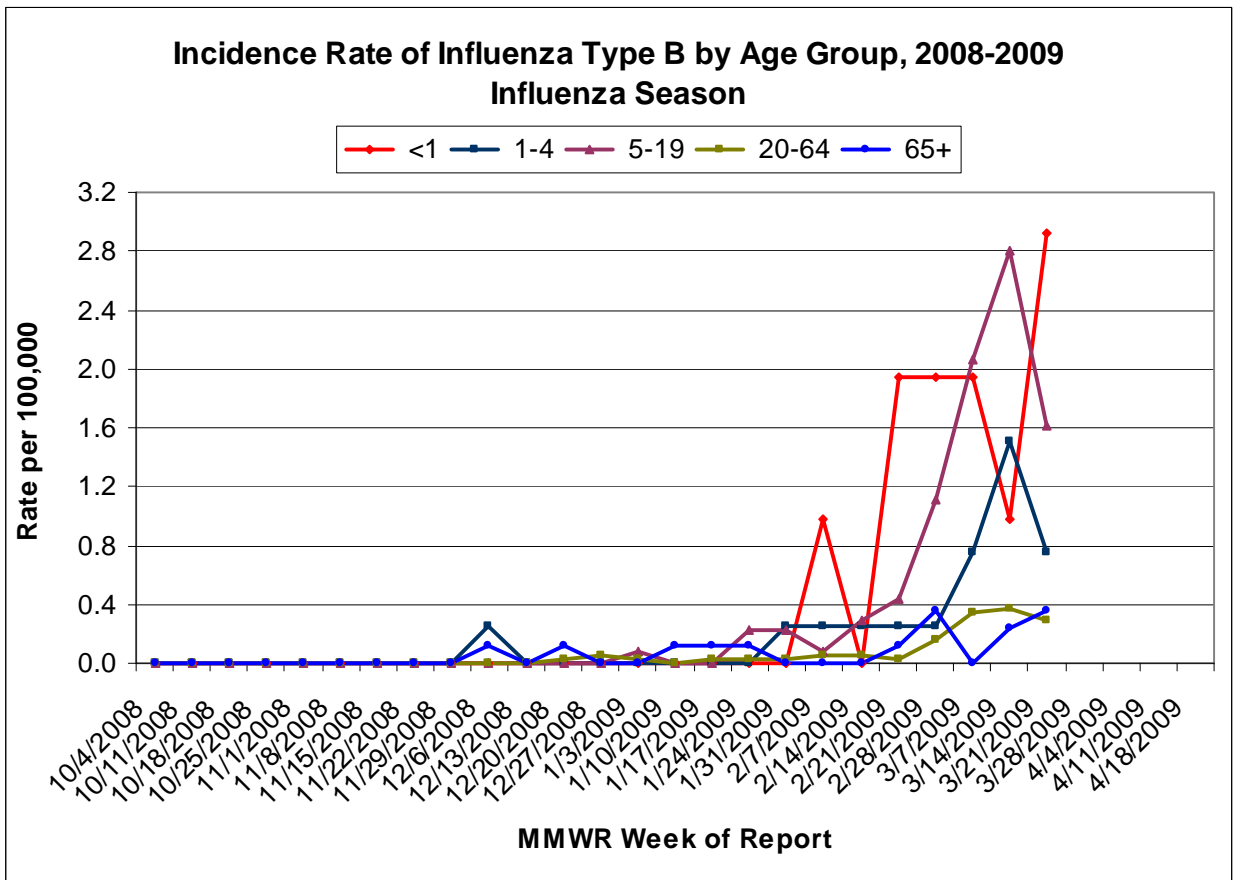
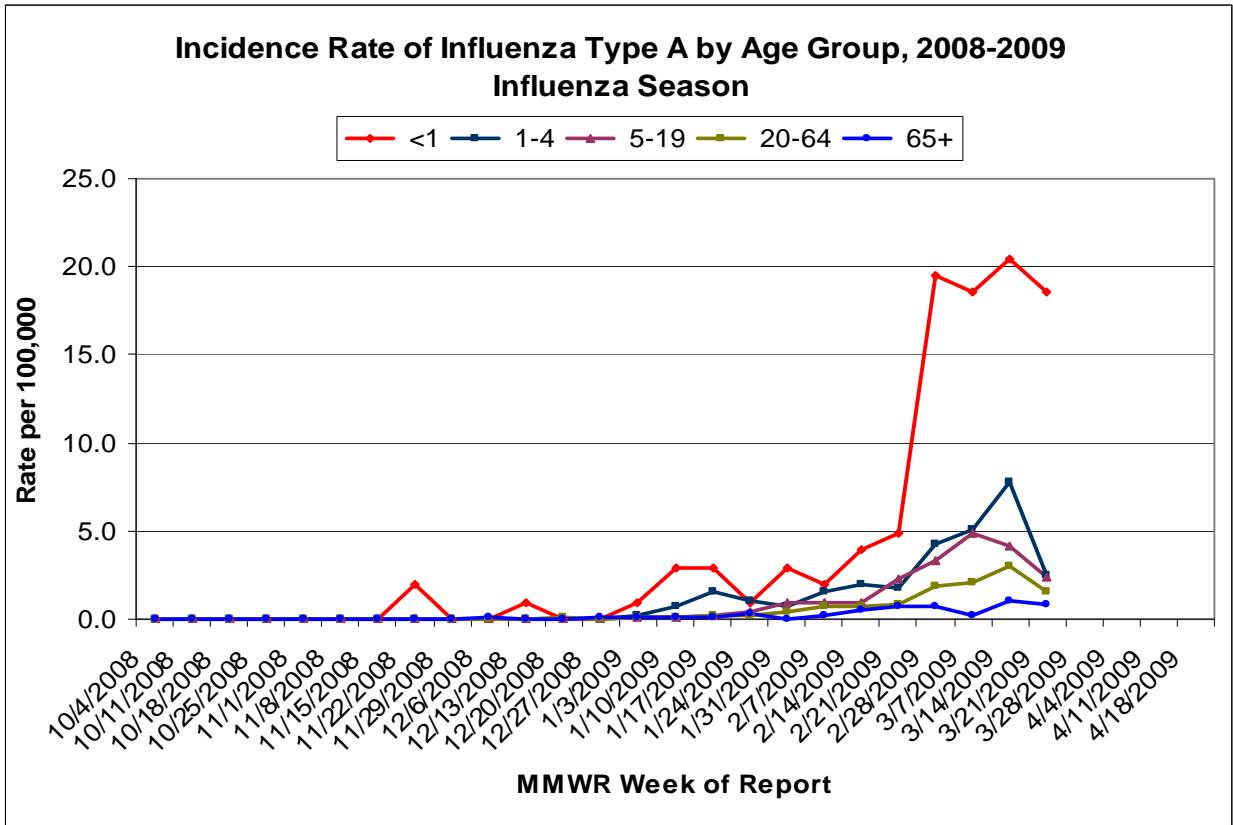
| County | Number of Laboratory-Confirmed Cases | | |
|--------------|--------------------------------------|------------|--------------|
| | 2008-2009 Season | Last Week | Last 3 Weeks |
| Apache | 48 | 4 | 27 |
| Cochise | 24 | 3 | 5 |
| Coconino | 123 | 16 | 71 |
| Gila | 7 | 1 | 5 |
| Graham | 9 | 0 | 0 |
| Greenlee | 2 | 0 | 2 |
| La Paz | 4 | 0 | 0 |
| Maricopa | 853 | 138 | 536 |
| Mohave | 4 | 3 | 3 |
| Navajo | 26 | 4 | 10 |
| Pima | 233 | 45 | 128 |
| Pinal | 21 | 4 | 9 |
| Santa Cruz | 3 | 2 | 2 |
| Yavapai | 8 | 1 | 5 |
| Yuma | 4 | 1 | 1 |
| Unknown | 2 | 2 | 2 |
| Total | 1,371 | 224 | 806 |

Laboratory-Confirmed Influenza Activity by Age Group:

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

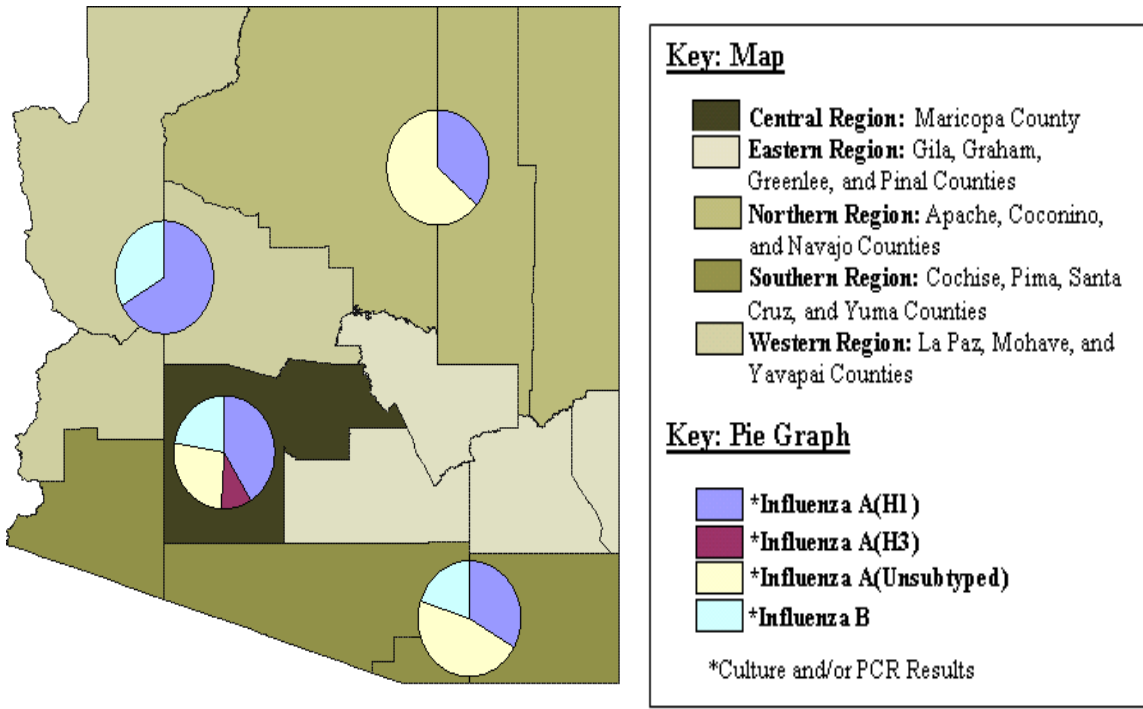


Prior influenza exposure, vaccination, or other factors may affect which age groups are affected by circulating influenza viruses. The graphs below show the rate of reported influenza, by viral type.



Laboratory Surveillance:

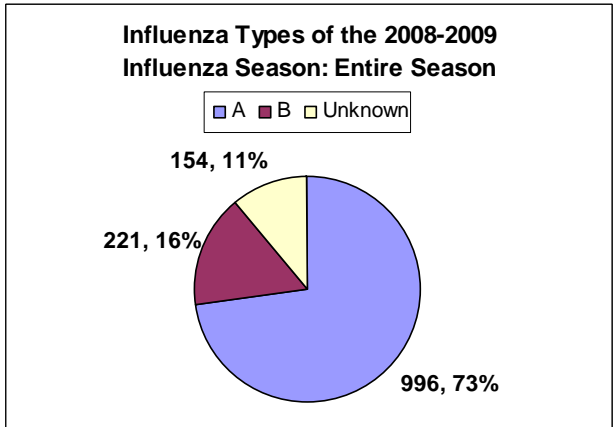
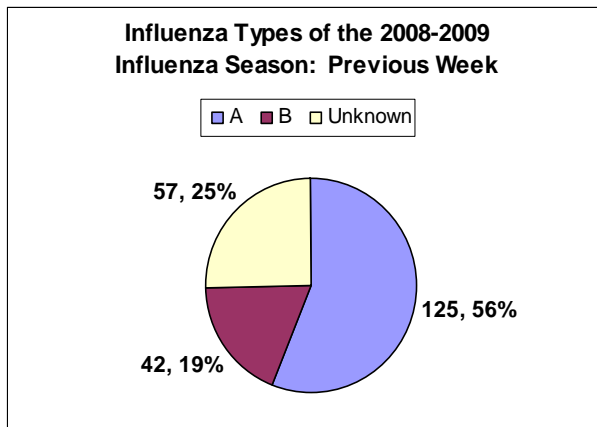
The results below show only culture and/or PCR results reported to ADHS from the Arizona State Laboratory or other laboratories across the state during the previous three weeks or from March 1st through the 21st.



| Region | Influenza A(H1) | Influenza A(H3) | Influenza A(Unsubtyped) | Influenza B |
|----------|-----------------|-----------------|-------------------------|-------------|
| Central | 113 (41.2%) | 26 (9.5%) | 73 (26.6%) | 62 (22.6%) |
| Eastern | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| Southern | 5 (33.3%) | 0 (0.0%) | 7 (46.7%) | 3 (20.0%) |
| Northern | 4 (36.4%) | 0 (0.0%) | 7 (63.6%) | 0 (0.0%) |
| Western | 2 (66.7%) | 0 (0.0%) | 0 (0.0%) | 1 (33.03%) |

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) |
|----------------------|-----------------------|---------------------------------|-----------------------|---------------------------------|-----------------------|---------------------------------|
| Total* | 1,371 | 100% | 5,168 | 100% | 1,663 | 100% |
| Influenza A* | 996 | 73% | 2,898 | 56% | 1,116 | 67% |
| A/H1 † | 223 | 16% | 184 | 4% | 235 | 14% |
| A/H3 † | 48 | 4% | 234 | 5% | 31 | 2% |
| A/Unsubtyped † | 28 | 2% | 257 | 5% | 185 | 11% |
| Influenza B* | 221 | 16% | 1,900 | 37% | 355 | 21% |
| B/Victoria lineage † | 18 | 1% | 0 | 0% | 38 | 2% |
| B/Yamagata lineage † | 0 | 0% | 181 | 4% | 5 | 1% |
| B/Unsubtyped † | 50 | 4% | 325 | 6% | 120 | 7% |
| Unknown* | 154 | 11% | 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) |
|--------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------|---------------------------------|
| Total | 367 | 100% | 1,366 | 100% | 19,825 | 100% |
| Influenza A | 299 | 81% | 1,202 | 88% | 14,028 | 71% |
| A/H1 | 223 | 75% | 444 | 37% | 4,895 | 35% |
| A/H3 | 48 | 16% | 124 | 10% | 492 | 4% |
| A/Unsubtyped | 28 | 9% | 634 | 53% | 8,641 | 62% |
| Influenza B | 68 | 19% | 164 | 12% | 5,797 | 29% |

† 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 11 or week ending 3/21/2009.

* Data represents the cumulative results for all identified influenza isolates within the respective category through MMWR 10 or week ending 3/14/2009.

Mortality Surveillance:

The first influenza-associated pediatric death was reported to ADHS during the 2008-2009 influenza season and was reported to CDC for the week ending 2/21/2009. The case was co-infected with the influenza B virus and *Staphylococcus aureus*.

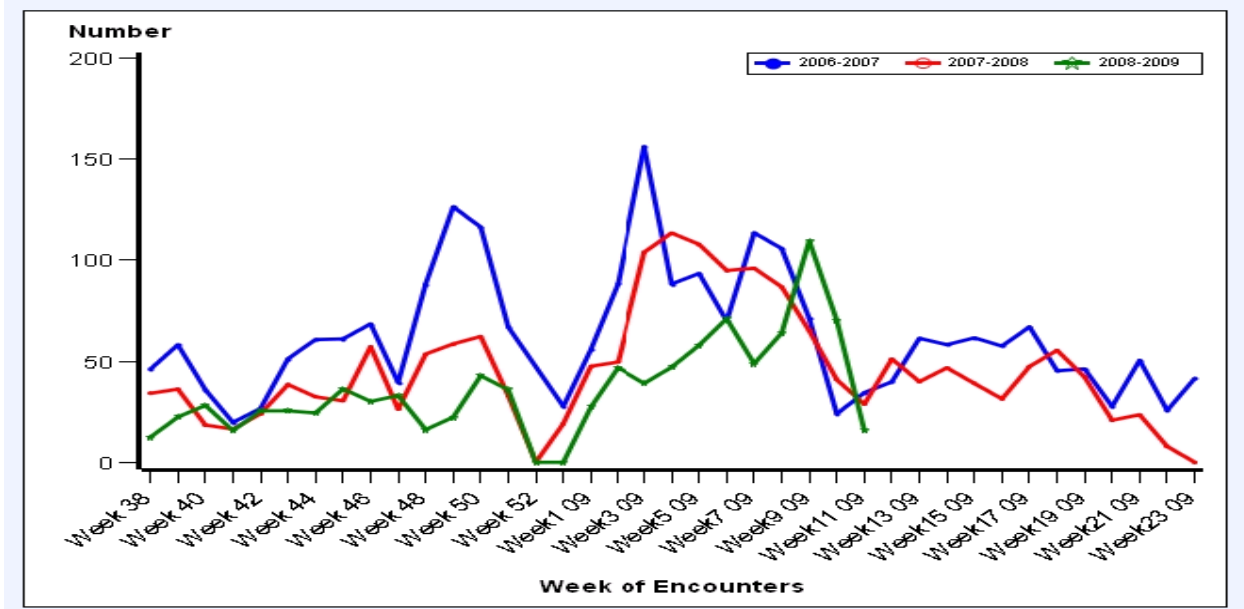
Influenza-Like Illness (ILI) Surveillance from Participating Arizona Schools:

ADHS and the Arizona School Nurse Consortium (AZSNC) developed and implemented a software program called Child Health Indicator Program (CHIP) to assist school nurses in electronic management of student health records. Currently, nurses in 331 Arizona schools use the software 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 syndromes reported among students during the school years of 2006-2007, 2007-2008, and 2008-2009. The number of 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

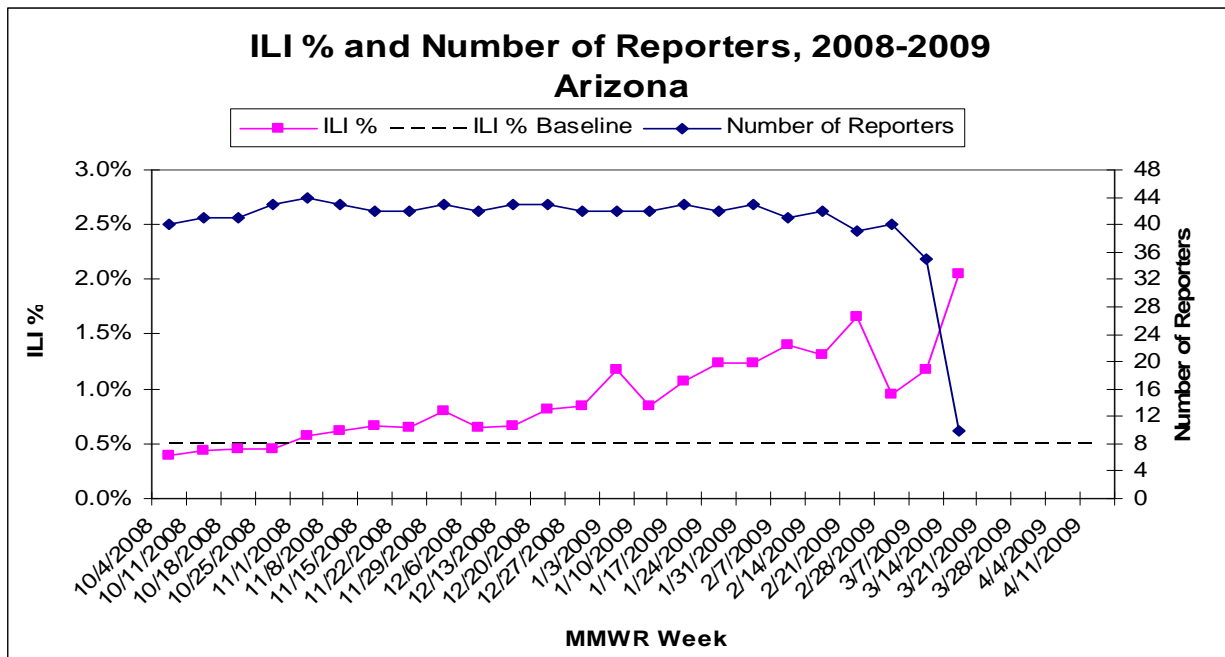
CHIP during the school year. *Please note schools may have been in spring break during the previous two weeks.

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 2.0% for the week ending 3/14/2009 (week 10). This value is much higher than the state baseline of 0.5%. As of 3/24/2009, 10 sentinel providers reported by the end of week 10. Due to the lower number of reporting providers, the noted ILI proportion may not be representative for the entire state of Arizona during week 10. ILI is defined as a fever of at least 100°F plus either a cough or a sore throat.

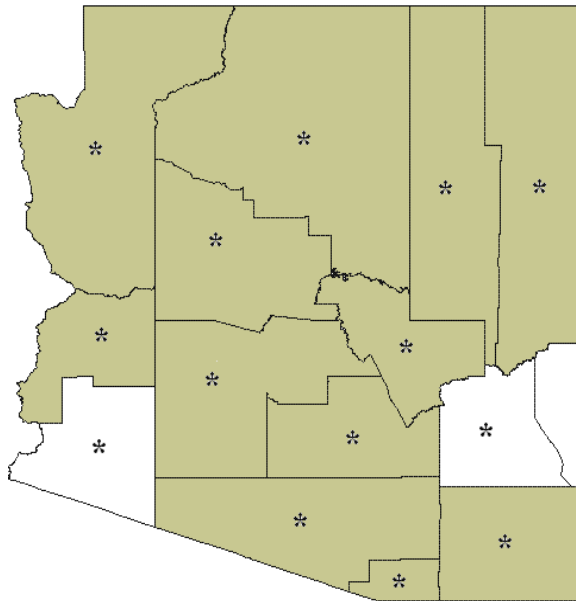


Weekly RSV Summary:

As of 3/24/2009, 2,650 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.



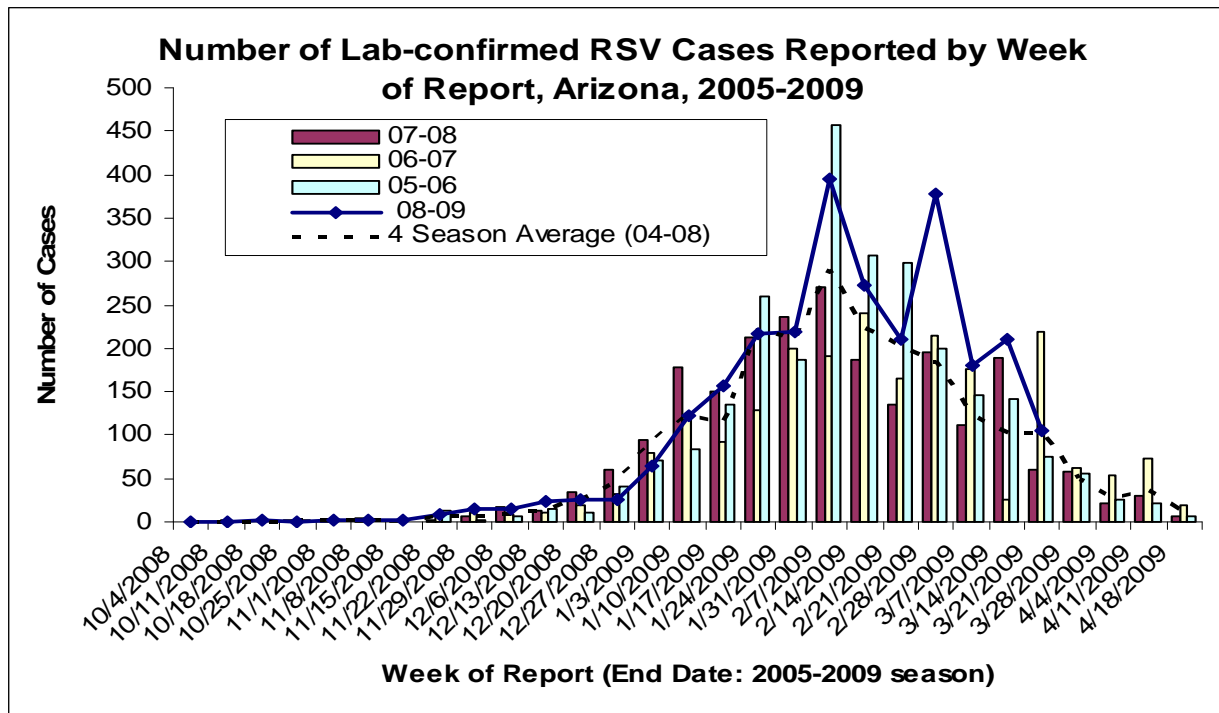
Key:

- * = 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 | 64 | 3 | 24 |
| Cochise | 49 | 1 | 2 |
| Coconino | 85 | 0 | 21 |
| Gila | 26 | 3 | 15 |
| Graham | 5 | 0 | 0 |
| Greenlee | 0 | 0 | 0 |
| La Paz | 8 | 1 | 1 |
| Maricopa | 1796 | 56 | 291 |
| Mohave | 66 | 1 | 10 |
| Navajo | 82 | 2 | 22 |
| Pima | 250 | 5 | 30 |
| Pinal | 177 | 30 | 72 |
| Santa Cruz | 10 | 1 | 3 |
| Yavapai | 13 | 2 | 5 |
| Yuma | 19 | 0 | 0 |
| Unknown | 0 | 0 | 0 |
| Total | 2650 | 105 | 496 |

Laboratory Surveillance:

Laboratories report positive RSV tests to ADHS.



Laboratory-Confirmed RSV Activity by Age and Gender:

Laboratories report positive RSV tests to ADHS.

