

Summary of the 2006-2007 Influenza Season

Flu Season Summary (October 1, 2006 – May 19, 2007)*

When and where did the 2006-07 flu season start?

The first report of regional flu activity came from the southeastern United States during the first week of November. Regional flu activity is defined as increased flu-like activity or flu outbreaks in at least two (but fewer than half) of the regions in a state with recent laboratory evidence of flu in those regions.

How severe was the 2006-2007 flu season?

The 2006-07 flu season was generally mild compared to recent flu seasons. For example, the proportion of all deaths associated with influenza illness was lower this season than the previous three flu seasons. Hospitalization rates among children were also lower than the previous three flu seasons. However, more pediatric deaths related to influenza were reported during the 2006-07 season than the previous two seasons. Nationally, low levels of flu activity were reported during October through mid-December. Flu activity increased during late December, peaked in mid-February, and decreased through the end of the flu season on May 19.

What determines the severity of a flu season?

The overall health impact (e.g., infections, hospitalizations and deaths) of a flu season varies from year to year. The severity of a flu season can be judged according to a variety of criteria, such as the following:

- The geographic extent of influenza in the U.S. and within each state;
- The proportion of influenza laboratory tests that are positive;
- The proportion of visits to physicians for influenza-like illness;
- The proportion of all deaths that are caused by pneumonia and flu;
- The number of influenza-associated deaths among children; and
- The influenza-associated hospitalization rate among children.

A flu season's severity is determined by comparing these measures with previous seasons.

Where did the most flu activity occur in the United States this season?

Influenza viruses were identified in all states. From October 1, 2006 to May 19, 2007, widespread** flu activity was reported in a total of 41 states across all regions of the country.

When did the 2006-2007 flu season peak?

During the 2006-2007 season, flu activity in the United States peaked in mid-February. During the past 31 years, flu activity in the United States has peaked in February 45 percent of the time. Although the timing of peak activity varies from year to year, peak activity usually occurs sometime during December through March.

How many people died from flu during the 2006-07 season?

Exact numbers of how many people died from flu this season cannot be determined. Flu-associated deaths are only a nationally notifiable condition among children, and states are not required to report flu cases or to report adult deaths from influenza to CDC. In addition, many people who die of complications from flu infection are not tested for flu, or they seek medical care later in their illness when influenza can no longer be detected from respiratory samples. However, CDC tracks pneumonia and flu deaths through the 122 Cities Mortality Reporting System. This system collects information each week on the total number of death certificates filed in each of the 122 participating cities and the number of death certificates with pneumonia or influenza listed as a cause of death. This system helps gauge the severity of the flu season compared with other years, but does not specifically estimate the number of flu-associated deaths. Estimates of flu-associated deaths are made by modeling death certificate data from the National Center for Health Statistics and from CDC influenza virus surveillance data. For more information on influenza mortality modeling, see Mortality associated with influenza and respiratory syncytial virus in the United States 🖸 .

What influenza viruses circulated this season?

Influenza A viruses accounted for 79 percent of the specimens testing positive for flu and submitted to CDC. Influenza B viruses accounted for 21 percent. A particular subtype*** of influenza A called influenza A (H1) predominated during most of the season. However, beginning in early March and continuing through May, influenza A (H3) viruses were reported more frequently than influenza A (H1) viruses.

Was there a good match between the influenza strains selected for the vaccine and the strains that circulated during the 2006-07 season?

The influenza A (H1) component of the 2006-07 flu vaccine was well matched to circulating influenza A (H1) viruses, which accounted for the majority of influenza viruses tested by CDC. There are two groups of influenza B viruses currently circulating, which are known as the B/Yamagata lineage viruses and the B/Victoria lineage viruses. The 2006-07 vaccine contained a B virus from the B/Victoria lineage and 77% of the viruses tested by CDC were from the B/Victoria lineage. Fifty percent of the influenza B viruses characterized as belonging to the B/Victoria lineage were well matched to the influenza B component of the 2006-07 flu vaccine. In the early months of the season, the majority of influenza A (H3) viruses circulating in the country matched the influenza A (H3N2) component of the 2006-07 vaccine. However, the proportion of H3N2 viruses similar to the H3N2 vaccine component declined as the season progressed. Overall for the 2006-07 season, 24 percent of H3N2 viruses were well matched to the vaccine strain.

Flu Deaths in Children

Flu-associated deaths in children (defined as persons 18 years of age and younger) first became a nationally notifiable condition during the 2004-05 flu season and are reported through the National Notifiable Diseases Surveillance System (NNDSS). However, CDC first asked for flu deaths in children to be reported to CDC during the 2003-04 season. The number of flu-associated deaths among children reported during the 2006-07 flu season can be found in the final report of the 2006-07 season.

How many children have died from flu-associated complications during previous flu seasons?

- During the 2003-04 Season, 153 flu-associated deaths in children were reported to CDC.
- During the 2004-05 Season, 47 deaths in children were reported to CDC.
- During the 2005-06 Season, 46 deaths in children were reported to CDC.
- As of August 6, 2007, 68 deaths in children occurring during the 2006-07 season have been reported to CDC.

What can be done to protect children from flu-associated illness and death?

Vaccination remains the best method for preventing flu and its potentially severe complications in children. October or November is the best time to get vaccinated, but getting vaccinated in December or even later can still be beneficial, since most flu activity occurs in January or later in most years. Though it varies, the flu season can last as late as May and sporadic cases of flu occur year round.

All children 6 months of age to their 5th birthday are recommended for influenza vaccination. In addition, all children with chronic medical conditions such as asthma should get the flu vaccine. Household contacts and caregivers of these children are also recommended for annual vaccination.

Children younger than 6 months of age are at high risk of influenza complications, but are too young to get a flu vaccine. The best way to protect these children is to vaccinate their household members and out-of-home caregivers.

Children receiving flu vaccine for the first time need to receive two doses their first year, with the first dose ideally given in September. For inactivated vaccine (the flu shot), the second dose is given four or more weeks after the first dose. For live attenuated flu vaccine (nasal spray vaccine), the second dose can be administered six weeks after the first dose. The flu shot is approved for children 6 months of age and older. The nasal spray vaccine is approved for healthy children 5 years of age and older. Children with asthma or other conditions should get the flu shot instead of the nasal spray.

For more information, see Children and the Flu Vaccine.

New Practices for Tracking Novel (New) Influenza A Viruses

What is a novel influenza virus?

Novel influenza A viruses are viruses that are found in humans but are not ordinary human subtypes (many novel flu viruses originate from animals, such as birds or pigs), or those that cannot be subtyped by standard methods. In January 2007, the Council of State and Territorial Epidemiologists voted to add human infections with novel influenza A viruses to the list of nationally notifiable diseases and conditions reportable to the National Notifiable Disease Surveillance System.

Why is tracking novel viruses useful?

Because very few people have antibodies against novel influenza viruses, if a novel influenza virus infects a person and is then able to spread easily from one person to another person, a global epidemic, also know as a pandemic could begin. Early detection and timely reporting of human infections with novel influenza A viruses will allow for rapid assessment of the situation and early implementation of the appropriate public health responses.

* The most up-to-date influenza surveillance summaries can be found on the US Map of Flu Outbreaks and Activity .

** Widespread flu activity is defined as increased flu-like activity or flu outbreaks in at least half of the regions in a state with recent laboratory evidence of flu in the state.

*** Subtyping is the process of identifying the two main surface proteins of influenza A viruses (e.g., identifying H1N1 versus H3N2 influenza A viruses).

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