Flu Activity

What sort of flu season is expected this year?

It's not possible to predict what this flu season will be like. While flu spreads every year, the timing, severity, and length of the season varies from one year to another.

Will new flu viruses circulate this season?

Flu viruses are constantly changing so it's not unusual for new flu viruses to appear each year. For more information about how flu viruses change, visit How the Flu Virus Can Change.

Will the United States have a flu epidemic?

The United States experiences epidemics of seasonal flu each year. This time of year is called "flu season." In the United States, flu viruses are most common during the fall and winter months. Influenza activity often begins to increase in October and November. Most of the time flu activity peaks between December and March and can last as late as May. CDC monitors certain key flu indicators (for example, outpatient visits of influenza-like illness (ILI), the results of laboratory testing and flu hospitalization and deaths). When these indicators rise and remain elevated for a number of consecutive weeks, flu season is said to have begun. Usually ILI increases first, followed by an increase in flu-associated hospitalizations, which is then followed by increases in flu-associated deaths.

For the most current influenza surveillance information, please see FluView at Weekly U.S. Influenza Surveillance Report.

When will flu activity begin and when will it peak?
The timing of flu is very unpredictable and can vary in different parts of the country and from season to season. Seasonal flu viruses can be detected year-round, however, seasonal flu activity can begin as early as October and continue to occur as late as May. Flu activity most commonly peaks in the United States between December and March.

How many people die from flu each year?

CDC does not count how many people die from flu each year. Unlike flu deaths in children, flu deaths in adults are not nationally reportable. However, CDC uses mortality data collected by the National Center for Health Statistics to monitor relative levels of flu-associated deaths. This system tracks the proportion of death certificates processed that list pneumonia or influenza as the underlying or contributing cause of death of the total deaths reported. This system provides an overall indication of whether flu-associated deaths are elevated, but does not provide an exact number of how many people died from flu. For more information, see Overview of Influenza Surveillance in the United States, “Mortality Surveillance.”

CDC also uses modeling studies to estimate numbers of flu-related deaths, but these studies apply only to past seasons and are not done each year. For more information, see Estimating Seasonal Influenza-Associated Deaths in the United States.

Why is it difficult to know how many people die from flu?

There are several factors that make it difficult to determine accurate numbers of deaths caused by flu regardless of reporting. Some of the challenges in counting influenza-associated deaths include the following: the sheer volume of deaths to be counted; the lack of testing (not everyone that dies with an influenza-like illness is tested for influenza); and the different coding of deaths (influenza-associated deaths are often a result of complications secondary to underlying medical problems, and this may be difficult to sort out). For more information, see Estimating Seasonal Influenza-Associated Deaths in the United States: CDC Study Confirms Variability of Flu.

Protective Actions

What should I do to protect myself from flu this season?

CDC recommends a yearly flu vaccine for everyone 6 months of age and older as the first and most important step in protecting against this serious disease.

In addition to getting a seasonal flu vaccine, you can take everyday preventive actions like staying away from sick people and washing your hands to reduce the spread of germs. If you are sick with flu, stay home from work or school to prevent spreading flu to others. In addition, there are prescription medications called antiviral drugs that can be used to treat influenza illness. Visit What you Should Know About Flu Antiviral Drugs for more information.

What should I do to protect my loved ones from flu this season?

Encourage your loved ones to get vaccinated. Vaccination is especially important for people at high risk for developing flu-related complications, and their close contacts. Also, if you have a loved one who is at high risk of flu complications and they develop flu symptoms, encourage them to get a medical evaluation for possible treatment with influenza antiviral drugs. CDC recommends that people who are at high risk for serious flu complications who get
flu symptoms during flu season be treated with influenza antiviral drugs as quickly as possible. People who are not at high risk for serious flu complications may also be treated with influenza antiviral drugs, especially if treatment can begin within 48 hours.

Some children 6 months through 8 years of age will require two doses of flu vaccine for adequate protection from flu. Children in this age group who are getting vaccinated for the first time will need two doses of flu vaccine, spaced at least 28 days apart. Some children who have received flu vaccine previously and children who have only received one dose in their lifetime also may need two doses. Your child’s doctor or other health care professional can tell you if your child needs two doses. Visit Children, the Flu, and the Flu Vaccine for more information.

Children younger than 6 months are at higher risk of serious flu complications, but are too young to get a flu vaccine. Because of this, safeguarding them from flu is especially important. If you live with or care for an infant younger than 6 months of age, you should get a flu vaccine to help protect them from flu. See Advice for Caregivers of Young Children for more information. Also, studies have shown that getting the flu vaccine during pregnancy can protect the baby after birth for several months.

In addition to getting vaccinated, you and your loved ones can take everyday preventive actions like staying away from sick people and washing your hands to reduce the spread of germs. If you are sick with flu, stay home from work or school to prevent spreading flu to others.

Vaccine and Vaccination

How much flu vaccine will be available this season?

Flu vaccine is produced by private manufacturers, so supply depends on manufacturers. For the 2016-2017 season, manufacturers projected they would provide between 171 million and 176 million doses of vaccine for the U.S. market. (Projections may change as the season progresses.)

Where can I find information about vaccine supply?

Information about flu vaccine supply will be provided as it becomes available at: Seasonal Influenza Vaccine & Total Doses Distributed.

When will flu vaccine become available?

Flu vaccine is produced by private manufacturers, so the timing of vaccine availability depends on when production is completed. If everything goes as indicated by manufacturers, shipments may begin as early as July or August and continue throughout September and October until all of the vaccine is distributed.

When should I get vaccinated?

Getting vaccinated before flu activity begins helps protect you once the flu season starts in your community. It takes about two weeks after vaccination for the body's immune response to fully respond and for you to be protected so make plans to get vaccinated. CDC recommends that people get a flu vaccine by the end of October, if possible. However, getting vaccinated later can still be beneficial. CDC recommends ongoing flu vaccination as long as influenza viruses are circulating, even into January or later. Children aged 6 months through 8 years who need two...
doses of vaccine should get the first dose as soon as possible to allow time to get the second dose before the start of flu season. The two doses should be given at least 28 days apart.

Where can I get a flu vaccine?

Flu vaccines are offered by many doctor’s offices, clinics, health departments, pharmacies and college health centers, as well as by many employers, and even by some schools.

Even if you don’t have a regular doctor or nurse, you can get a flu vaccine somewhere else, like a health department, pharmacy, urgent care clinic, and often your school, college health center, or work.

Visit the HealthMap Vaccine Finder to locate where you can get a flu vaccine.

Are there new recommendations for the 2016-2017 influenza season?

On June 22, 2016, CDC’s Advisory Committee on Immunization Practices (ACIP) voted that the live attenuated influenza vaccine (LAI/V) should not be used during the 2016-2017 flu season. ACIP continues to recommend annual flu vaccination for everyone 6 months and older. The ACIP recommendation must be reviewed and approved by CDC’s director before it becomes CDC policy. The final annual recommendations on the prevention and control of influenza with vaccines will be published in a CDC Morbidity and Mortality Weekly Report (MMWR) in late summer or early fall.

What flu viruses do this season’s Northern Hemisphere and Southern Hemisphere vaccines protect against?

There are many flu viruses and they are constantly changing. The composition of flu vaccines for the United States is reviewed annually and updated to match circulating flu viruses.

For the 2016-2017 season (Northern Hemisphere winter), trivalent vaccines are recommended to contain:

- an A/California/7/2009 (H1N1)pdm09-like virus,
- an A/Hong Kong/4801/2014 (H3N2)-like virus
- a B/Brisbane/60/2008-like virus (B/Victoria lineage).

Quadrivalent vaccines will include the same viruses plus an additional flu B virus called B/Phuket/3073/2013-like virus (B/Yamagata lineage).

What is flu vaccination using a jet injector?

On August 14, 2014, the U.S. Food and Drug Administration (FDA) approved use of one jet injector device (the PharmaJet Stratis 0.5ml Needle-free Jet Injector) for delivery of one particular flu vaccine (AFLURIA® by bioCSL Inc.) in people 18 through 64 years of age. A jet injector is a medical device used for vaccination that uses a high-pressure, narrow stream of fluid to penetrate the skin instead of a hypodermic needle. For more information, see Flu Vaccination by Jet Injector.

What is adjuvanted flu vaccine?
The U.S. Food and Drug Administration (FDA) licensed a new seasonal influenza (flu) vaccine containing adjuvant for adults 65 years of age and older. An adjuvant is an ingredient added to a vaccine to create a stronger immune response to vaccination. FLUAD™ was licensed in November 2015 and will be available during the 2016-2017 flu season. It contains the MF59 adjuvant, an oil-in-water emulsion of squalene oil. FLUAD™ is the first adjuvanted seasonal flu vaccine marketed in the United States. For more information visit: FLUAD™ Flu Vaccine With Adjuvant.

How well will flu vaccines work this season?

Influenza vaccine effectiveness (VE) can vary from year-to-year among different age and risk groups and even by vaccine type. How well the vaccine works can depend in part on the match between the vaccine virus used to produce the vaccine and the circulating viruses that season. It’s not possible to predict what viruses will be most predominant during the upcoming season. CDC monitors circulating viruses throughout the year and provides new and updated information about the vaccine match as it becomes available. Information is published weekly in FluView and summarized at intervals in the Morbidity and Mortality Weekly Report (MMWR). Vaccine effectiveness estimates are also provided when they become available. For more information about vaccine effectiveness, visit How Well Does the Seasonal Flu Vaccine Work?.

Will this season’s flu vaccine be a good match for circulating viruses?

It’s not possible to predict with certainty if the vaccine will be a good match for circulating viruses. The vaccine is made to protect against the flu viruses that research and surveillance indicate will likely be most common during the season. However, experts must pick which viruses to include in the vaccine many months in advance in order for vaccine to be produced and delivered on time. Also flu viruses change constantly (called drift) – they can change from one season to the next or they can even change within the course of one flu season. Because of these factors, there is always the possibility of a less than optimal match between circulating viruses and the viruses in the vaccine.

Over the course of the flu season, CDC studies samples of circulating flu viruses to evaluate how close a match there is between viruses used to make the vaccine and circulating viruses.

One of the ways that helps CDC evaluate the match between vaccine viruses and circulating viruses is with a lab process called ‘genetic and antigenic characterization’. Results of genetic and antigenic characterization testing are published weekly in CDC’s FluView.

How long does a flu vaccine protect me from getting the flu?

Multiple studies conducted over different seasons and across vaccine types and influenza virus subtypes have shown that the body’s immunity to influenza viruses (acquired either through natural infection or vaccination) declines over time. The decline in antibodies is influenced by several factors, including the antigen used in the vaccine, the age of the person being vaccinated, and the person’s general health (for example, certain chronic health conditions may have an impact on immunity). When most healthy people with regular immune systems are vaccinated, their bodies produce antibodies and they are protected throughout the flu season, even as antibody levels decline over time. Older people and others with weakened immune systems may not generate the same amount of antibodies after vaccination; further, their antibody levels may drop more quickly when compared to young, healthy people.
For everyone, getting vaccinated each year provides the best protection against influenza throughout flu season. It’s important to get a flu vaccine every season, even if you got vaccinated the season before and the viruses in the vaccine have not changed for the current season.

Can the vaccine provide protection even if the vaccine is not a "good" match?

Yes, antibodies made in response to vaccination with one flu virus can sometimes provide protection against different but related viruses. A less than ideal match may result in reduced vaccine effectiveness against the virus that is different from what is in the vaccine, but it can still provide some protection against influenza illness.

In addition, it’s important to remember that the flu vaccine contains three or four flu viruses (depending on the type of vaccine you receive) so that even when there is a less than ideal match or lower effectiveness against one virus, the vaccine may protect against the other viruses.

For these reasons, even during seasons when there is a less than ideal match, CDC continues to recommend flu vaccination for everyone 6 months and older. Vaccination is particularly important for people at high risk for serious flu complications, and their close contacts.

Can I get vaccinated and still get the flu?

Yes. It’s possible to get sick with the flu even if you have been vaccinated (although you won’t know for sure unless you get a flu test). This is possible for the following reasons:

You may be exposed to a flu virus shortly before getting vaccinated or during the period that it takes the body to gain protection after getting vaccinated. This exposure may result in you becoming ill with flu before the vaccine begins to protect you. (About 2 weeks after vaccination, antibodies that provide protection develop in the body.)

You may be exposed to a flu virus that is not included in the seasonal flu vaccine. There are many different flu viruses that circulate every year. The flu vaccine is made to protect against the three or four flu viruses that research suggests will be most common.

Unfortunately, some people can become infected with a flu virus the flu vaccine is designed to protect against, despite getting vaccinated. Protection provided by flu vaccination can vary widely, based in part on health and age factors of the person getting vaccinated. In general, the flu vaccine works best among healthy younger adults and older children. Some older people and people with certain chronic illnesses may develop less immunity after vaccination. Flu vaccination is not a perfect tool, but it is the best way to protect against flu infection.

If You Get Sick

What should I do if I get sick with the flu?

Antiviral drugs are prescription drugs that can be used to treat flu illness. People at high risk of serious flu complications (such as children younger than 5 years, adults 65 years of age and older, pregnant women, people with certain medical conditions, and residents of nursing homes and other long-term care facilities) and people who are very sick with flu (such as those hospitalized because of flu) should get antiviral drugs. Some other people can be treated with antivirals at their health care professional’s discretion. Treating high risk people or people who are very
sick with flu with antiviral drugs is very important. Studies show that prompt treatment with antiviral drugs can prevent serious flu complications. Prompt treatment can mean the difference between having a milder illness versus very serious illness that could result in a hospital stay.

Treatment with antivirals works best when begun within 48 hours of getting sick, but can still be beneficial when given later in the course of illness. Antiviral drugs are effective across all age and risk groups. Studies show that antiviral drugs are under-prescribed for people who are at high risk of complications who get flu. Three FDA-approved antiviral medications are recommended for use during the 2016-2017 flu season: oseltamivir (Tamiflu®), zanamivir (Relenza®), and peramivir (Rapivab®). More information about antiviral drugs can be found at Treatment - Antiviral Drugs.

See “The Flu: What To Do If You Get Sick” for more information.

Surveillance

How does CDC track influenza activity?

The Epidemiology and Prevention Branch in the Influenza Division at CDC collects, compiles and analyzes information on influenza activity year round in the United States and produces FluView, a weekly influenza surveillance report, and FluView Interactive, which allows for more in-depth exploration of influenza surveillance data. The U.S. influenza surveillance system is a collaborative effort between CDC and its many partners in state, local, and territorial health departments, public health and clinical laboratories, vital statistics offices, healthcare providers, clinics, and emergency departments. Information in five categories is collected from eight different data sources that allow CDC to:

- Find out when and where influenza activity is occurring
- Track influenza-related illness
- Determine what influenza viruses are circulating
- Detect changes in influenza viruses
- Measure the impact influenza is having on hospitalizations and deaths in the United States

For more information, visit “Overview of Influenza Surveillance in the United States”.

Will there be any changes in the FluView surveillance information this season?

Yes. Last season, CDC used both the 122 Cities Mortality Reporting System and the National Center for Health Statistics (NCHS) mortality data to track flu associated deaths. Beginning during the 2016-2017 season, mortality data from the National Center for Health Statistics (NCHS) will be the principal component of the U.S. mortality surveillance system. The 122 Cities Mortality Reporting System will retired.

An important advantage of using the NCHS mortality data is that these data are presented by date of death while 122 CMRS data are presented by the date the death certificate was registered. The length of time between when a death occurs and when the death is registered in the vital statistics office can vary considerably. When deaths are presented by date of occurrence, rather than date the death certificate was filed, it provides a more accurate picture
of the timing of pneumonia and influenza (P&I) on overall mortality. Another advantage is that since the NCHS mortality system covers all deaths in the United States, it will report out almost twice the number of total deaths in a given week compared to the 122 CMRS. Additionally, over time, data from NCHS will include 100% of all deaths that occur in the United States. (Users will be able to download weekly NCHS mortality data by region and/or state on CDC’s website at National Center for Health Statistics Mortality Surveillance Data.

Are there any new FluView interactive applications?

Yes. A new FluView interactive application was introduced over the summer that shows the distribution by age group of influenza-positive tests by influenza virus type and subtype or lineage. This application allows users to view laboratory data from multiple seasons and different age groups. Users also can view the chart data by week or cumulatively for the season. The new FluView application shows the distribution by age group of influenza-positive specimens from the 1997-1998 flu season through the current week of reporting. Influenza B lineage information is available starting from the 2015-16 season. It’s important to note, however, that because testing practices and the number of participating public health laboratories can change from year to year; it is not always appropriate to determine the relative severity of influenza seasons by comparing the number of positive specimens across seasons.

What will CDC do to monitor vaccine effectiveness for the 2016-2017 season?

CDC collaborates with other partners each season to assess how well the seasonal vaccines are working. During the 2016-2017 season, CDC is planning multiple studies on the effectiveness of flu shots. These studies measure vaccine effectiveness in preventing laboratory-confirmed influenza among persons 6 months of age and older. A summary of CDC’s latest vaccine effectiveness estimates is available at Seasonal Influenza Vaccine Effectiveness, 2005-2016.

What is CDC doing to monitor antiviral resistance in the United States during the 2016-2017 season?

CDC will continue to collect and monitor flu viruses for changes through an established network of domestic and global surveillance systems. CDC also is working with the state public health departments and the World Health Organization to collect additional information on antiviral resistance in the United States and worldwide. The information collected will assist in making informed recommendations regarding use of antiviral drugs to treat influenza.

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