

# Pandemic Flu Key Points

## **Pandemic Flu**

- Pandemic influenza is a global outbreak of flu caused by a new influenza virus to which few people have any immunity.
  - No one knows when a pandemic will occur, how severe it will be or if it will be caused by avian flu (H5N1) or some other flu virus.
  - There typically are three pandemic flu outbreaks each century. In the last century, pandemic flu outbreaks happened in 1918, 1957 and 1968.
  - The 1918 pandemic killed tens of millions of people worldwide and affected one-third of the U.S. population. Deaths from the 1968 pandemic were about the same as with seasonal flu.
  - It is impossible to develop a perfect match vaccine until a new flu virus shifts to person-to-person transmission.
  - Until a vaccine can be produced against this new strain, effective vaccine protection will not be possible.
  - Vaccine manufacturing plants are large enough now to produce about 90 million doses a year to meet seasonal needs. That amount covers about one third of the U.S. population.
  - Current influenza vaccine production depends largely on chick embryos. A powerful avian influenza strain may be deadly for chick embryos and make current vaccine production methods ineffective.
- That's why scientists are looking for new methods to produce flu vaccine.
- Antivirals are used to treat flu viruses. Current manufacturing capacity for antivirals cannot produce enough to treat everyone, especially for worldwide demand.
  - Today's antivirals, including Tamiflu, may not be effective in treating a new flu strain.
  - The ability to detect and control infectious diseases has improved greatly since the last pandemic. We will know when a new and serious strain of flu emerges, and we are planning now how to reduce its effects.
  - Because international travel is so common and so fast, a new virus could reach the United States in hours or days.
  - Unlike many other disasters, a pandemic can happen in hundreds or thousands of places at the same time. A pandemic can continue to spread illnesses in waves that can last for a year or more.
  - A severe pandemic could change daily life for a long time, including limits on travel and public gatherings, work and school attendance.
  - Each locality experiencing a pandemic may have to depend mostly on its own resources to respond.
  - No one knows how many people may become ill or die in a pandemic flu outbreak. Estimates usually show what would be the worst to happen.

## Seasonal Flu

- There are several important differences between pandemic influenza and seasonal flu.
- Seasonal flu outbreaks are caused by viruses already circulating among people.
- Seasonal flu occurs every year, usually from October to March.
- Seasonal flu is caused by any combination of three viruses that are easily transmitted from person to person.
- By tracking the predominant circulating human flu strains in the southern hemisphere, scientists predict which strains will cause flu in the United States.
- Flu vaccine production begins six months before doses are shipped.
- Because the virus is known and usually changes only a little from year to year, production of an effective vaccine is possible.

## Avian Influenza (Bird Flu)

- Scientists are concerned that “bird flu” or “avian flu” could change and cause a flu pandemic.
- Bird flu is a disease of wild and farm birds.
- The new influenza virus currently circulating in birds is influenza A, known as H5N1.
- The H5N1 has not been shown to pass from person to person except in rare instances.
- Most human cases of bird flu probably came from direct contact with infected birds or their droppings.

## Pandemic Flu Planning

- Public health officials worldwide have been preparing for pandemic flu for several years.
- Most international, national, state and local plans are based on pandemic influenza periods

and phases as outlined by the World Health Organization.

- Texas has had a plan for responding to pandemic influenza for several years.
- The revised Texas Pandemic Influenza Plan is available on the Texas Department of State Health Services Web site at [www.dshs.state.tx.us](http://www.dshs.state.tx.us).
- The goal of the plan is to minimize sickness and death from pandemic flu.
- The Texas plan outlines what state and local public health personnel will do to respond as well as gives the public information on how to protect themselves and care for their families.
- The Texas plan includes:
  - Guidance to local health departments
  - Details on surveillance, investigation, laboratory identification and protective public health measures
  - Considerations for allocating and distributing vaccines and antivirals
  - Updated designs for mass vaccination clinics
  - Information for the public on how to protect themselves and care for their families.
- One of the biggest challenges in Texas is reaching all the people throughout the state quickly.
- Another challenge is preparing many different response scenarios based on a particular virus and the availability of vaccine and antivirals.
- The national pandemic flu plan talks about the specific roles on the federal, state and local level.
- The national plan looks at finding new ways to create vaccine and to produce vaccine and antivirals.
- The national plan looks at ways to improve pandemic flu preparedness and control around

the world, especially through expanded surveillance.

### **Information for the Public**

- People can do several things to help themselves and their families.

- Practice good health habits:

- Wash your hands regularly or use a hand sanitizer.
- Cover your mouth and nose with a tissue when you cough or sneeze, then wash your hands.
- Stay away from sick people.
- If you are sick, stay home from work.
- If your children are sick, keep them home from school and child care centers.

- Improve your health:

- The healthier you are, the better your body can resist germs.
- Get the seasonal flu shot.

- Quit smoking.
- Make better food choices.
- Exercise regularly.
- Get enough sleep.
- Get regular checkups.

- Be prepared for an emergency:

- Have a family plan if you have to be isolated for 10 days.
- Understand that you may have to change what you do or when you do it. You may need to:
  - \* Stop traveling
  - \* Shop for groceries when stores are not crowded (early or late)
  - \* Stop attending large gatherings such as sports or entertainment events
  - \* Work from home
  - \* Care for your children if school and child care centers are closed.