Fact Sheet

Influenza

Controlling Pandemic Flu

ST. CLAIR COUNTY HEALTH DEPARTMENT
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What can we do to prevent or contain a flu pandemic?

It is unlikely that global spread of a pandemic flu virus could be prevented once it emerges. The emphasis in pandemic flu control is on reducing its impact. Several tools help achieve this aim:

- Year round global surveillance
- Effective and accurate methods of diagnosis
- Vaccines (once they become available)
- Antiviral drugs
- Social interventions

Surveillance

Surveillance is a year round global activity. Its objective is to detect the emergence of 'unusual' viruses (that may have pandemic potential) as soon as they emerge. The sooner a potential pandemic virus is detected, the sooner scientists can begin developing an effective vaccine. Effective surveillance is vital, not only in detecting the first virus, but also for detecting the first signs of person to person transmission. The United States is part of a worldwide network of laboratories that work daily to detect and track influenza viruses.

Vaccination during a pandemic

Vaccines offer the best line of defense in reducing illness and deaths during a flu pandemic. However, influenza viruses are changing all the time. Currently available flu vaccines are likely to provide little or no immunity in a pandemic situation. A new vaccine must be developed to match the exact pandemic influenza virus.

How long will it take to make enough vaccine for everyone?

It is difficult to make large amounts of vaccine without knowing the exact pandemic influenza virus. It takes months to produce a batch of influenza vaccine once the virus strain is known. There are a limited number of companies that make influenza vaccine.

> Rapid detection, diagnosis, vaccination, antiviral drugs and 'social' interventions are the principle tools in controlling a pandemic.

Vaccines are unlikely to be available during the early stages of a pandemic. The U.S. is working to have more producers of vaccine. Research is underway on methods to make additional vaccine more quickly. When a vaccine is available, the aim will be to immunize the whole population as quickly as possible. This means that vaccines will be given to some high risk groups of people before others.

Who will be vaccinated first?

People who provide essential society services will likely be vaccinated first, such as health care workers who are likely to be at increased risk of infection through their contact with patients. Essential services workers, such as police officers, are likely to be vaccinated to prevent disruption to key services through absence due to illness. Other groups will be identified for vaccination based on the pandemic.

Who decides who will get vaccinated first?

Scientific and public groups make recommendations about who will get vaccine first in a pandemic. The recommendations will be provided to appropriate officials. Fairness in vaccine use during a pandemic is important. Protecting people at high risk is an important consideration. Protecting essential day-to-day services, such as electricity and water, is an important consideration. These decisions have been discussed by the public and medical experts.

How will vaccine be distributed quickly if a pandemic breaks out?

Most likely, the federal government will direct shipments of influenza vaccine to the states. The Michigan Department of Health and Human Services (MDHHS) and local health departments throughout Michigan have developed pandemic plans to distribute a vaccine rapidly. The Strategic National Stockpile(SNS) is designed to get medical supplies anywhere in the country, quickly. MDHHS has a plan for distributing medicines and vaccines from SNS. Informing the public of where to go for vaccine is part of each local health department's pandemic plan. An important part of this planning is to keep the public informed.

What is the treatment of choice for pandemic flu?

A vaccine for use against pandemic flu can only be produced once the pandemic strain has been identified. This means that vaccines will not be available immediately.

With flu, treatment options are limited. Vaccination is the preferred intervention. However, vaccines are unlikely to be available during early stages of the pandemic. Antiviral drugs are likely to have an important role in the prevention and treatment of pandemic flu. Antiviral drugs work by preventing the flu virus from reproducing if taken within 48 hours of the onset of symptoms. Early treatment may shorten illness by around a day and reduce hospitalizations. It is important to note that the effectiveness of antiviral drugs in reducing mortality in cases of severe disease is not known. Until the pandemic is underway, it is not known who will benefit most. A pandemic flu virus may develop resistance to antiviral drugs.

Are there enough antiviral drugs available for everyone during a pandemic?

Antiviral drugs are expensive, take time to manufacture, have a limited shelf life, and will be in high international demand at the time of a pandemic. The U.S. is building up a stockpile of antiviral drugs. As with other medicines, it will be necessary to use them in the most effective way.

Are there other ways of slowing down the spread of influenza?

Non-medical interventions like 'social distancing' may be important in delaying or slowing the spread of pandemic flu to allow time for a vaccine to be produced. People should anticipate that daily life could change for a while, such as school and business closings. Travel and public gatherings could be limited to prevent the spread of infection. Other emergency measures, such as voluntary isolation of ill individuals, or voluntary quarantine might be needed.

What can individuals do to prepare?

Some basic measures can be taken at the individual level to reduce the risk of infection:

- Covering the nose and mouth when coughing or sneezing, using a tissue
- Disposing of dirty tissues promptly and carefully – bag and bin them
- Avoiding nonessential travel and large crowds whenever possible
- Maintaining good basic hygiene, for example washing your hands frequently with soap and water to reduce the spread of the virus from hands to the face, or to other people

- Cleaning hard surfaces (e.g. kitchen worktops, door handles) frequently using normal cleaning product
- Making sure children follow this advice

Will wearing a mask be useful?

The widespread wearing of masks by the general public during a pandemic is unlikely to be effective in preventing people from becoming infected with the virus. However, they may have some limited use for those already infected with the virus in order to prevent them from spreading it.

What should people do to prepare for an outbreak?

If pandemic influenza starts, public health officials will provide more specific information through the media and websites. Now is the time to develop an emergency response plan. Prepare for any emergency that can affect large segments of society, such as blizzards. Keep a supply of essential supplies at home, such as food, water, medicine and a thermometer. Practice good health habits, including eating a balanced diet and getting sufficient rest. Get an annual flu shot.

For more sources of information on this topic visit:
ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co
MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES www.michigan.gov/mdhhs
CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov
OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION www.osha.gov