Influenza

Pandemic

Avian Flu Fact Sheet

Seasonal influenza vs. pandemic influenza – What's the difference?

Seasonal influenza outbreaks are caused by subtypes of influenza virus that have already circulated among people. Although these existing subtypes can cause serious illness in some people, fewer people are usually infected because of the effectiveness of the vaccines and some people will already have developed some immunity.

A pandemic means an epidemic of any disease over a wide geographic area affecting a large proportion of the population.

Pandemic influenza refers to emergence of a major **new** type of influenza A for which the entire population has little or no immunity. It spreads the same way that ordinary influenza does, but is more likely to cause severe disease or death. It occurs approximately every 30 to 40 years.

For planning purposes, it is estimated that 15% to 35% of the population in the province would become ill during the two to three month period it would take for influenza to spread through the province. In this scenario, it is estimated that the number of people in Saskatchewan who may require hospitalisation could range from 1,000 to 2,800, and 300 to 1,000 may die from influenza or complications of influenza.

Previous major shifts in influenza virus and the resulting pandemics (figures worldwide):

 1918/19: H1N1 emerges; 20 million deaths, possibly more; it is not clear why it was so lethal;

- 1957/58: H2N2 emerges; estimated at 1 million deaths;
- 1968/69: H3N2 emerges; <1 million deaths.

What is the real risk of a pandemic? - How worried should we be?

There is no pandemic human influenza virus currently in circulation. Human cases of avian influenza in Asia are not part of an influenza pandemic.

There have been an increasing number of media stories focusing on pandemic fears and speculating that the current increase in birds with avian flu virus is the warning sign that a human pandemic is imminent.

Although it is inevitable that there will be major changes (shifts) in the human influenza virus again in the future, no one can say for certain when this will occur, or how severe the resulting disease will be.

The current avian flu would have to evolve to a type capable of efficient human-to-human transmission before a pandemic could occur. This may or may not happen. In the event of an outbreak in one part of the world, modern travel patterns makes the quick spread of the virus to other countries quite likely.

The Public Health Agency of Canada will determine when to declare a pandemic in Canada.

Saskatchewan Health continues to work with federal and provincial governments on pandemic planning. The department also works closely with Regional Health Authorities on the development of their plans, further refinement of the provincial pandemic influenza response plan, and improvement of the provincial emergency response structure.

Protecting Yourself

What is avian influenza (bird flu)?

Avian influenza, or "bird flu", is an infectious disease of *birds* caused by influenza virus that normally cause mild or no symptoms in birds and is found worldwide. However some virus strains such as the H5N1 cause more severe disease in birds and may be lethal to some species of birds. Most avian flu viruses are a greater economic risk than a human health risk as avian influenza virus does not normally cause disease in humans. Avian influenza viruses have, on rare occasions, crossed the species barrier to infect humans.

Human contact with avian influenza occurs most commonly during outbreaks in poultry. The current outbreak affecting poultry populations in many parts of the world is caused by the H5N1 strain of influenza A virus. The risk to humans is mainly from direct contact with infected poultry or contaminated objects. Although the avian flu, H5N1 virus has spread in birds, this virus has rarely infected humans. Most, if not all human cases to date involved people who have had direct contact with infected poultry. There is no evidence of sustained human-to-human transmission that would be necessary for the avian flu virus to become pandemic influenza.

Does the virus spread easily from birds to humans? – No

There is currently no evidence of efficient and sustained human-to-human transmission. There are normally large numbers of birds infected in several countries, and there continues to be a relatively small number of human infections. From December 2003 until mid-October 2005 there have been 121 confirmed human cases with 62 deaths worldwide.

"The flu" vs. influenza – *Is there a difference?*

The term "flu" is a non-specific term often used to mean different things ranging from actual influenza to any illness that causes diarrhea and vomiting (sometimes called stomach flu) or other collections of symptoms like fever or muscle aches.

Influenza is an infectious respiratory disease caused by an influenza virus. It causes a sore throat, cough, runny nose, fever, muscle pains, and less commonly, some stomach symptoms (pain, vomiting and diarrhea). It spreads rapidly from person to person – by a simple cough or sneeze, or contact with something recently contaminated by fluids from an infected people (like shaking hands with someone who has sneezed).

There are many other respiratory viruses in the environment around us. Some of these viruses cause a common cold. Others cause respiratory infections quite similar to influenza.

Real influenza is only caused by influenza viruses.

Antivirals - What are they?

Antivirals are drugs that act directly against viruses, just like antibiotics do against bacteria. They can be prescribed after the onset of influenza to reduce the severity and duration of the illness. Antivirals need to be taken within 48 hours of developing symptoms. Antivirals are also effective at preventing influenza, but they must be taken continuously for the time one wants to be protected. They have no lasting effect. The Public Health Agency of Canada currently does not recommend travellers take antivirals when going to countries with avian influenza.

Does Saskatchewan have enough antiviral drugs for use in a pandemic?

The Canadian Pandemic Influenza Committee, a federal/provincial committee of communicable disease and public health experts is responsible for making recommendations regarding the use of antivirals in a pandemic.

Saskatchewan has participated in the development of a national stockpile of antivirals and in the event of a pandemic, these drugs will be distributed in accordance with national guidelines developed by the Pandemic Influenza Committee.

Saskatchewan will continue to evaluate the level of current provincial antiviral stockpile available here.

What is Tamiflu?

Tamiflu is a brand name of an antiviral medication for influenza infection.

Do people need to buy their own stockpiles of Tamiflu?

At this time Saskatchewan Health is **not** recommending that people purchase their own stockpiles of antivirals. There is no current human pandemic strain of influenza virus present in the world.

What do flu shots protect you from?

The flu shot prevents or minimizes symptoms from the three influenza strains identified by the World Health Organization as strains most likely to circulate during the flu season. The vaccine protects against "seasonal influenza". It does not protect against a pandemic virus caused by a new virus or a virus that has changed or evolved. If a pandemic virus does emerge, a new vaccine will be developed to protect against it.

Who should get a flu shot?

Anyone who is at higher risk of developing serious complications from influenza is eligible for free vaccine in the provincial program:

- Those 65 years of age and older;
- Residents of nursing homes;
- People of any age with chronic health conditions such as cancer, heart or lung disease; and
- Healthy children between six and 23 months have been added to the provincial program this year.

Influenza vaccine can benefit anyone, and is more effective in young healthy people than some high-risk groups. Healthy people must pay for vaccine, unless covered by a workplace program or private insurance.

Flu shots are also recommended for people travelling out of Canada to an area with influenza.

When should you receive a flu shot?

The best time for flu shots for seasonal influenza is between October and December, which is when the provincial influenza vaccine program is active.

Can the flu shot give you influenza?

NO. The influenza vaccine does not contain any live virus and cannot give you influenza. You may experience some mild symptoms in reaction to the flu shot. The most common is a sore arm.

The vaccine will not protect you against infections by other respiratory viruses with similar symptoms.

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Influenza vaccine supply – Do we have enough?

Saskatchewan has purchased enough vaccine for all the high-risk groups eligible for free vaccine under the provincial influenza immunization programs.

There is no shortage of vaccine for immunization of people in the high-risk group who want to be immunized this fall. People in the high-risk group are encouraged to contact their Regional Health Authority public health departments for information on immunization clinics.

This year the vaccine was distributed to provinces in stages to ensure equitable distribution and to permit all provinces to begin their immunization programs in early October. Consequently, some of Saskatchewan's supply was received in the latter part of October resulting in delays in the distribution of some vaccine.

Private versus public vaccine supply – Who buys what?

The "public supply" is the supply of vaccine Saskatchewan Health buys for high-risk groups eligible for free vaccine. This vaccine is administered through Regional Health Authorities and some physician offices.

The "private supply" is the vaccine available for purchase by people who are not in the high-risk group eligible for free vaccine. Regional Health Authorities have some vaccine available for sale to non high-risk groups for immunization beginning in November. Vaccine manufacturers have also made some vaccine available to physician offices, pharmacies, non-government nursing health services

for sale to the public or to businesses that make influenza vaccine available for their staff.

Pandemic vaccine

There is no vaccine available for a pandemic influenza. A vaccine cannot be created until the strain of virus causing the pandemic is identified.

Preventing influenza

The influenza virus is actually quite fragile and is easily killed by washing hands with soap and water, or by using an antibacterial gel. However, influenza germs can live for up to 48 hours on hard non-porous surfaces like faucets, doorknobs, toys and telephone handsets. By washing your hands often, you reduce the risk of spreading the virus. The virus also spreads by droplets that come from the nose or mouth. Cover your mouth when you sneeze or cough and wash your hands immediately afterward.

If you get the flu – stay home and keep your co-workers healthy.

They'll thank you for it.

For more information call your local or regional public health office.

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Saskatchewan Health