

James L. Holly, M.D.

Pandemic Part III What can and what should I do? By James L. Holly, MD Your Life Your Health *The Examiner* May 29, 2008

No one knows whether an Avian (bird) flu pandemic is inevitable. If the H5N1 virus - the structural name of the bird flu virus -- mutates to allow human-to-human transmission, then a pandemic will certainly occur. While that is possible and perhaps even probable, it is not inevitable. And, even in the face of a pandemic, there are effective things which you can do to protect yourself and your family.

Facts From the Center for Disease Control -- Infectivity

With any flu virus, people are highly contagious for two or three days before they have symptoms and seven days after symptoms end. A general rule is to stay at least six feet from someone to avoid contagion. Avoid crowds or close contact is essential including public transportation, theaters, churches, schools, and meetings, even elevators. Because of the rapid spread of the virus precautions should begin immediately when human-to- human transmission occurs any where in the country.

Many modern buildings are centrally heated and cooled with re-circulated air. Flu germs are transmitted through the air and live outside a body for up to three days. Touching an infected person, their clothes, or anything an infected person touched or coughed on can transmit the virus, for up to three days.

Some doctors describe "self-quarantining" or isolating yourself and your family at home as the most effective preventative measure. However this should not be in an apartment building with central air because if one person in the building is infected it will spread throughout the building. Most current air filters will not prevent contamination. Self- quarantining at home requires stockpiling food and supplies prior to the pandemic.

The Avian flu virus may not be as intense in human cases in the United States as it has been elsewhere in the world because the influenza viruses in general tend to weaken as they reach North America.

If a pandemic occurs and if people abide by imposed quarantines, work from home if possible, and ride out the course of the virus with minimal health problems then the impact of an influenza pandemic will be lessened. However, if people are forced to stay home but fail to stock the necessary food and supplies and venture back out, catching bird flu and infecting their families, the impact will be much more severe.

Steps to avoid any flu

The basic steps everyone should take to stay healthy are the same as what you'd do to avoid any flu:

- Wash your hands often - remember, washing your hands is different from "rinsing" them. The former means to scrub with a bactericidal soap for several minutes; the latter means to run water over your hands for a few seconds. The latter has no health benefits; the former is the first step to surviving a pandemic.
- Don't shake hands with others - the most common means of transmitting viruses is being in a crowd when someone coughs. The second most common is when a person is shedding virus before they are even aware that they are sick, and they shake your hand just after wiping their mouth or their nose.
- Cover your mouth when coughing or sneezing -- In a pandemic, those who are infected should wear masks to avoid spreading the virus and those who are not infected should wear masks to avoid contracting the illness.
- Avoid crowds -- self imposed quarantine is going to be very important in the case of a pandemic. Everything which can be done without contact with others should be. Crowds are particularly important to avoid as the probability of infection goes up geometrically as contact with more people and bigger crowds occur.

Preparing to survive a pandemic

It is probable that there will be some warning of an impending possible pandemic. It may not be long but it will be enough time to take the following steps.

- Stock up on essential items in case you get stuck at home for extended periods because of your own illness or quarantines.
- Have a supply of bottled water, dried foods, pastas, extra canned goods and anything which is not perishable.
- Avoiding crowds will require you not to go to the grocery store, the bank, etc.

In addition, it would be valuable to have:

- a high-quality high efficiency particulate air filter (HEPA) in your home (next week, we will discuss these filters in detail)
- a supply of face masks
- a supply of soap with which to wash your hands

How Should Businesses Prepare for a Pandemic?

If people work from home when possible and business gets done while children and sick family members are cared for, the impact of a pandemic will be lessened. However, if mildly symptomatic people go to work and/or to school, the spread of bird flu will intensify. In this case, businesses will be crippled by mass illness and supply-chain disruptions will take place.

The pandemic will be worsened if those who feel bad go to school or work. Dragging yourself to work with even a few flu-like symptoms could be devastating to those who work beside you. Employers will have to cope with absences because of illness and the need of their employees to care for others. Businesses should put policies in place to prevent the spread of the virus at work. Businesses should:

- Figure out who could telecommute
- How to function on a reduced staff
- Provide masks to all employees who come to work
- Cancel meetings
- Increase "social distance" to reduce transmission from person to person
- Reconsider sick leave policies to address the special problems of a pandemic.

The economic impact of a pandemic could be severe. The globalization of economies means that when one nation is affected even those who have not yet experienced the pandemic will begin to be affected. For instance, 80% of all drugs produced in this country use raw ingredients that come from offshore, which will be hard to come by in a global pandemic.

Hospitals and a Pandemic

Hospitals need a stockpile of masks, gowns and gloves, as well as staff trained to manage an influx of patients and set priorities for the neediest cases, which will help keep the virus from spreading. But, if hospitals lack basic supplies and end up spreading the infection from unsanitary conditions rather than treating the sick, the pandemic will be worsened.

Healthcare workers are targeted for earlier immunization in case of a pandemic. This is critical so that they can stay on the job and care for those who are sick. Some have speculated as to the consequences if doctors and nurses panic and don't want to jeopardize their own health by treating others. The good news is that this has never happened. Healthcare workers around the world have nobly risked their own health to care for others. They will do it again.

What about school?

If a pandemic is threatened, schools need to be closed for extended periods of time. This action alone would save the lives of many children, teachers and staff that could be infected in close quarters. If schools stay open and parents who must work send their children to school the spread of infection will be accelerated.

If schools close, those who have to go to work will have to find alternative care for their children. The pandemic actually provides an excellent opportunity for a community to pull together. All of the social service resources, private, public, religious and personal will be required to meet this need. The care should be in small residential settings, not large day cares. It should be voluntary. Where possible, one parent should stay home with the children. Schools need to supply resources and instructions for how to continue education at home during any such extended school closing

General Information from the Center for Disease Control -- Preparations to consider prior to the pandemic for a two to three month self-quarantining

Highest priority steps

- Develop a family contingency plan and select a shelter site:
 - Dependents, e.g. students, should plan to move to the family 's selected shelter site.
 - In most cases a shelter site will be a person 's home, unless the home is an apartment in a building.
 - Infirm or elderly relatives in care facilities should plan to move to the shelter site.
 - Plan alternatives to public transportation.
 - If living in a city or in an apartment building with central air, explore an alternate shelter site; this could be a vacation home or a relative 's home.
- Stockpile food, supplies, water, etc. (see below for suggestions)
- Everyone should get a flu and pneumococcal vaccination (for pneumonia) immediately.
- Purchase latex or vinyl gloves and N-95 paper facemasks. The NIOSH rated N-95 mask protected people from the SARs virus and is the best protection available, but it has not been tested with avian flu. N-95 masks are in short supply but may be available at medical supply stores (not pharmacies). Masks should be purchased as soon as possible; 3M brand N-95 masks costs \$80-\$90 for 20. Masks need to be disposed of after each use.
- A very thorough washing of hands, front and back, plus an alcohol-based hand sanitizer, e.g.: Purell provides some protection.
- Insist your employer develops a contingency plans for workers.

Second-level Priority Steps

1. Complete needed repairs and replacements including home security.
2. Set up home office or up-date home office to be able to work at home.
3. Keep car full of gas. Consider storing additional gas in out buildings.
4. Consider protecting investments. The World Bank estimates an \$800 billion

recession.

5. Consider cable TV for news (CNN) and diversion.
6. Prepare for possible electrical and water supply problems by stocking:
 - Working flashlights, portable radio, and extra batteries
 - Potable water containers: 1 gallon per person per day is recommended
 - Oil lamps, long burning candles, and kerosene heaters.
 - Landline phone, not portable, will work longer without local electricity.
7. If your water source is a well consider an electric generator and water containers. This will avoid constantly running the generator to have water, conserving fuel.

Stockpiling

Stock non-perishable food and other supplies to last 2-3 months: foods that you enjoy and would use over time anyway. Each family will be different; but some examples include:

- Canned fish and meat, dried beans and rice
- Canned fruits, vegetables and juices.
- Salt, sugar, cooking oil, vitamins, powdered milk
- Tissues, toilet paper, light bulbs, matches, pet food, kitty litter, cash.
- Disposable latex or vinyl gloves and disposable N-95 paper facemasks. }
- Alcohol-based hand sanitizer, e.g.: Purell.
- Prescription medicines, cold medicines, broad-spectrum antibiotic.

Stock home treatment supplies for flu (from Woodson article, see article for instructions).

- Table salt, 1 lb - Sugar, 10 lbs
Baking soda, 6 oz. - Household bleach 1 gal.
- Tums Ex: 500 tablets - Acetaminophen 500 mg #100 tablets
- Ibuprofen 200 mg #100 tablets. - Tea, caffeinated, dry loose, 1 lb.
- Electronic thermometer #2 - Blood pressure monitor
- Measuring cup with 500 cc (two cup) capacity
- Diphenhydramine (Benadryl) 25 mg capsules #60

Take a Deep Breath

In preparing for a bird-flu pandemic, two things are certain: Knowledge is good, panic is bad. But the more we know, the more frightened we tend to get, which doesn't help in the panic

area.

Bird flu is scary but may not be as bad as we expect. Worrying and stress actually decrease your immune systems effectiveness and makes you more susceptible to infection. Each person should make their own preparations for how they will respond to a pandemic. Prepare, pray, but do not panic!! Once you have done all that you can do, then relax. Rest, nutrition, hydration and faith will do more to protect you, along with the steps described above, than all the worrying in the world.

Anxiety about the bird flu may be like the elderly lady who told her friend, "Ye know, all my life, I have worried and worried about lots of things. Most of those things never happened. It just goes to show you that worrying really works!!" We all know that this lady drew the wrong conclusion and missed out on many wonderful years of happiness.

The Bird flu is real; the threat is real, but it may never become a reality. In my experience that which you prepare for - not just worry about - rarely happens. So prepare and expect good things to happen, but don't worry. Remember, it is your life and it is your health.