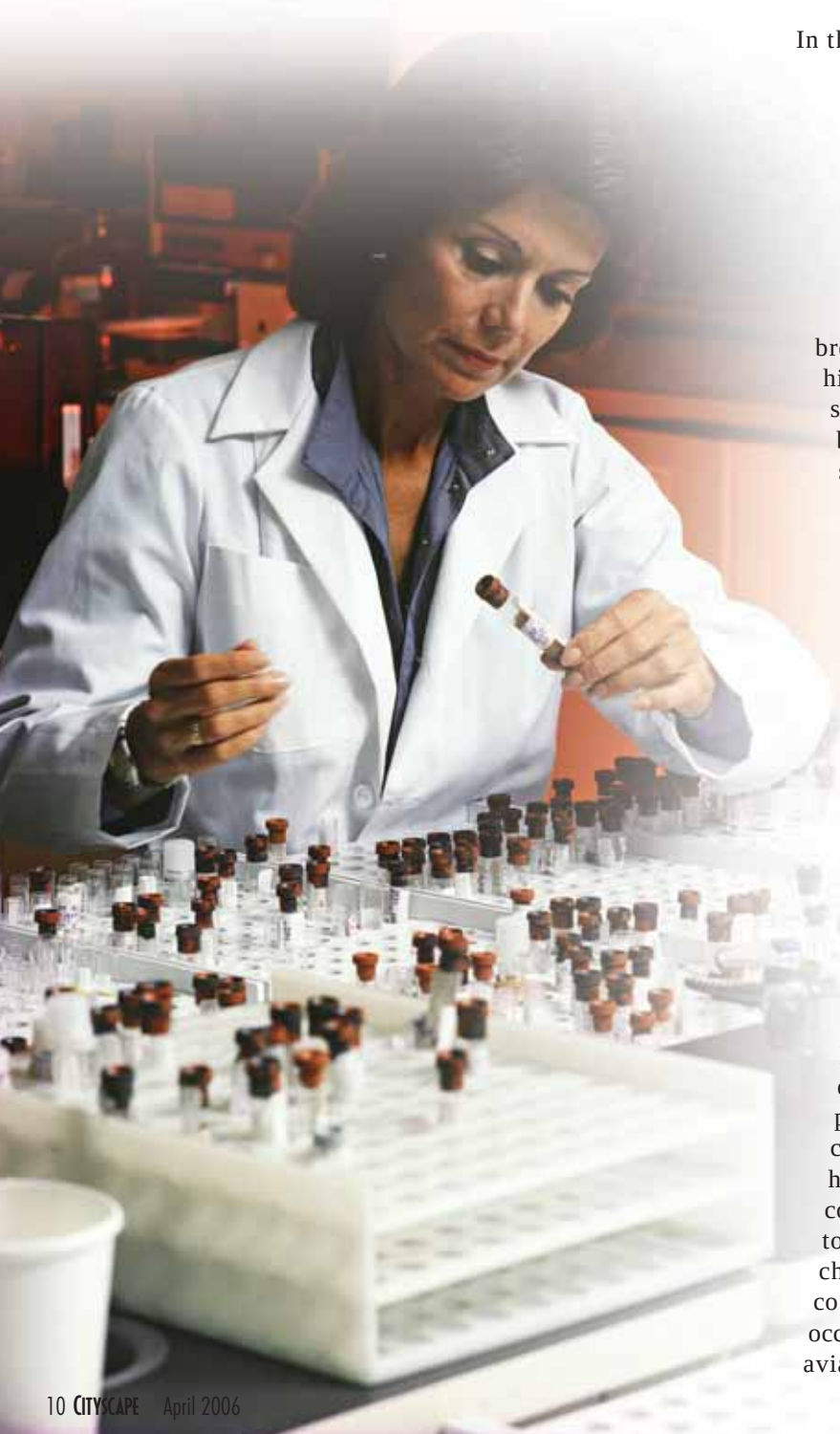
Communication is key to local preparati

Outbreaks of the Avian Flu in parts of Asia and Europe have generated much discussion over the possibility of a flu pandemic and our ability to respond to such a situation. Pandemic influenza is not new, but our increasingly mobile society creates special concerns for our vulnerability. Cities need to be aware of the risk and how a pandemic might affect their citizens and livelihood.

What is a Pandemic Flu?

An influenza pandemic occurs when a new influenza A virus emerges for which humans have little or no immunity, causes serious illness and spreads easily from person-to-person.



In the 20th century there were three pandemics of influenza:

1) 1918 pandemic flu that caused at least 500,000 United States deaths and up to 40 million deaths worldwide.
2) 1957 pandemic flu that caused at least 70,000 U.S. deaths and 1-2 million deaths worldwide.
3) 1968 pandemic flu that caused at least 34,000 U.S. deaths and 700,000 deaths worldwide.

A pandemic flu is quite different from the yearly outbreaks of seasonal flu. Although the typical seasonal flu often hits the young, old and those with compromised immune systems the hardest, in a pandemic flu, healthy people may be at an increased risk for serious complications. With seasonal flu, the health system can usually accommodate those who fall ill and vaccines are available. With a pandemic flu, health systems may be overwhelmed and a vaccine would probably not be available during the early stages of the pandemic. Symptoms of a seasonal flu include fever, cough and muscle aches. Deaths due to seasonal flu are usually because of complications such as pneumonia. A pandemic flu would entail much more severe symptoms and more frequent complications. While the seasonal flu has a modest impact on society (people missing work and school), a pandemic flu would have a much greater impact on society such as widespread travel restrictions, school and business closings and cancellations of public gatherings. Because of these societal impacts, there exists a potential for a severe impact on U.S. and world economy in the event of a pandemic flu outbreak.

Avian Flu

Concerns regarding the Human Avian Flu (H5N1) have mounted because this strain has caused illness and death in many birds and a limited number of humans. Each person that has become ill with this avian flu has had close contact with infected birds, visited a live animal market or has consumed bird blood or meat that was not completely cooked. This type of strain does not spread easily from birds to humans. However, all influenza strains have the ability to change. If this would spread easily from person to person, it could cause a major outbreak. Three of the pandemics that occurred during the 20th century were due to changes of avian and human influenza genes.

on for potential outbreak

Iowa Public Health

Public health and emergency officials in Iowa have recognized the potential risk of a pandemic outbreak in our state and have worked on response plans. If an influenza pandemic were to occur, it could have a devastating impact on Iowa's health system. It is estimated that 15-35% of Iowa's population could be affected. Through modeling, it was suggested that in the United States:

- 1.8 million health care provider visits, which could equate to 180,000 visits for Iowans.
- 300,000-700,000 hospitalizations in the U.S., equating to 3,000-7,000 hospitalizations in Iowa.
- 90,000-200,000 influenza-related deaths in the U.S., equating to 900-2,000 deaths in Iowa.

The Iowa Department of Public Health (IDPH) has identified nine focus areas to be specifically addressed for pandemic flu preparedness.

- **Pre-vaccine preparedness** -This includes education, containment of exposure and transmission with non pharmaceutical control measures such as bans on mass gatherings and travel restrictions.
- **Prioritization of vaccine once available** - This includes determining how many Iowans fall into prioritization categories that may be developed by the Centers for Disease Control (CDC).
- **Consideration of anti-virals** -This includes determining potentials for resistance to anti-virals and how to deal with insufficient stockpiles of anti-virals.
- **Distribution of vaccine and anti-virals** - This includes a determination on how the vaccine will be purchased and distributed and whether it is a public or private process or some combination.
- **Surveillance** -This includes utilizing existing public health systems to monitor the cases of the outbreak.
- **Laboratory** - This involves testing and identification of influenza strains.
- **Personal Protective Equipment (PPE) and infection control** - This involves providing guidance to healthcare workers, emergency medical services, law enforcement and others regarding precautions and infection control in a health care setting.
- **Travel related issues** - This involves potential control measures on travel into and out of Iowa in the event of a pandemic.
- **Hospital surge capacity** - This includes monitoring of bed capacity and movement and transport of patients.

The Local Government Role

Education and communication are key to addressing any public health disaster. It will be important for local, state and federal government to maintain communication and deliver a consistent message to the public, whether it be on the availability of vaccines or restrictions on activity and travel. Additionally, law enforcement and emergency medical service personnel may have specific roles to play and may be dealing with infected individuals throughout the course of their work.

The IDPH and the Iowa Homeland Security and Emergency Management Division (HLSEM) and others are working together to plan and prepare for the risk of pandemic flu in our state. Local departments of public health and county emergency management coordinators can also serve as resources for information on planning for pandemic at the local level. For more information, visit IDPH at www.idph.state.ia.us/pandemic, Protect Iowa Health at www.protectiowahealth.org or HLSEM at www.iowahomelandsecurity.org.

This article was prepared using information from the United States Health and Human Services Department and the Iowa Department of Public Health provided during Iowa's Pandemic Influenza Planning and Response Summit on February 6, 2006 in Des Moines.