



Pandemic Preparedness

APCO International Homeland Security Committee and APCO Institute, Inc.

An influenza (flu) pandemic is a widespread outbreak of disease that occurs when a new flu virus appears that people have not been exposed to before. Pandemic flu spreads easily from person to person and can cause serious illness because people do not have immunity to the new virus. The U.S. Department of Health warns, *“A pandemic may come and go in waves, each of which can last for months at a time. Everyday life could be disrupted due to people in communities across the country becoming ill at the same time. These disruptions could include everything from school and business closings to interruption of basic services, such as public transportation and health care. An especially severe influenza pandemic could lead to high levels of illness, death, social disruption, and economic loss.”*

In the last century, pandemics occurred in 1918, 1957 and 1968. The 1918 pandemic, Spanish Flu or “La Grippe”, was the most devastating pandemic in recorded history, infecting 1/5 of the world population and ¼ of the U.S. population over a two-year period. The Spanish Flu pandemic received its name from the early affliction and large mortality rates in Spain. There was more death attributed to the Spanish Flu in one year than during the four years of the Black Death Bubonic Plague (1347 – 1351). Complications from influenza usually target infants, the elderly and those with a compromised immune system; the group in 1918 with the highest mortality rates were 20 to 40 year olds.

In 1957 the Asian flu, which originated in China, reached the U.S. where infection rates were highest among school aged children, young adults and pregnant women. The Asian flu lasted two years and was responsible for the deaths of 2 million people worldwide, including approximately 70,000 deaths in the United States. The Asian flu resulted from the hybridization of Influenza A and the H1 type virus from birds that carried another surface protein, H2. Science and technology had vastly increased since 1918 and the virus was quickly identified and a vaccine made available in a limited supply.

The Hong Kong Flu spread to the United States in 1968 and again in 1970 and 1972. The Hong Kong flu was the mildest pandemic of the last century resulting in the deaths of nearly 34,000 people. The Hong Kong flu was similar to the Asian flu so there was some immunity to this influenza; antibiotics were also widely available to help with any secondary infections.

The current threat of a pandemic concerns avian influenza, or as it is commonly known, "Bird Flu". Bird Flu is caused by the H5N1 strain of influenza A virus. It is a contagious disease of animals caused by viruses that normally infect only birds, but on rare occasions have crossed the species barrier and infected humans. To date, human infections from the Bird Flu virus have only resulted from direct and sustained contact with infected birds or surfaces that have become contaminated by infected bird secretions. Bird Flu symptoms include those of typical influenza - fever, cough, runny nose, sore throat, muscle aches, general malaise and upper respiratory infections. Symptoms can also include eye infections, pneumonia, severe respiratory complications and other life threatening complications. In the most virulent form, it is believed that people could be struck ill while enroute to work, develop life-threatening complications, and succumb to the virus before the workday is completed.

Bird Flu was first detected in 1997 in Hong Kong, where it infected 18 people, resulting in 6 deaths. As of July 2006, sixty countries have reported confirmed cases of the H5N1 virus in animals. July 2006 World Health Organization figures indicate infections to humans have increased to 229 confirmed cases of H5N1 virus, resulting in 131 deaths.

The Center for Disease Control (CDC) suggests that, if proper preparations are not made, a medium-level pandemic in the United States could cause 90,000 to 210,000 deaths, hundreds of thousands of hospitalizations and affect the economy by \$70 to \$167 billion dollars. Secretary Michael O. Leavitt of the Department of Health and Human Services has said, *"Let me be very clear. It is only a matter of time before we discover H5N1 in birds in America...It does not mean that a pandemic is at our doorstep. It should, however, motivate us to pick up the pace, to renew pandemic preparations on every front at every level."*

Every public safety communications center or discipline-specific dispatch point manager must assess the level of risk to the survivability and sustainability to basic operability and interoperability presented by this and all hazards. As you plan, it is important to think about the challenges that you might face, particularly if a pandemic is severe. A pandemic would touch every aspect of society, and so every aspect of society must begin to prepare. These disruptions to everyday life may be widespread.

It may be difficult or impossible to work. Schools may be closed for extended periods of time. Transportation services may be disrupted. Just as we work daily with other local officials in making preparations for natural and man-made disasters, we must include a pandemic plan in those preparations.

Your PSAP's Continuity of Operations Plan (COOP) should provide the basis of such efforts. However, the potential impact of a pandemic will test even the best plans.

It's not just a matter of whether adequate facilities and equipment will be available but, more importantly, whether there will be the staff to maintain the level of service expected and required of public safety communications. The numbers provided by the

CDC of a medium-level pandemic certainly indicate there is a very good chance your PSAP will be impacted. Local governments will shoulder much of the burden and must prepare for shortages of key personnel, such as telecommunicators.

What if your facility is contaminated and must be evacuated? What if your technical support staff (in-house or contracted) is unavailable? What if transportation routes are closed? More importantly, what if your staffing levels are drastically reduced by 50% or more?

There are a number of resources available to assist you in planning and subsequently making the necessary preparations. First, review your emergency plans and ensure a pandemic plan is included. Prepare for redundancy within your own locality or ensure redundancy capacity with a neighboring jurisdiction. Just as business changes over time, so do your preparedness needs. Coordinate with others.¹

Prepare for restoration of critical operations. Is your facility safe or is it contaminated? Establish a list prioritizing those critical operations, staff and procedures needed to recover from a disaster. Keep in mind, a disaster doesn't have to destroy property to impact the PSAP. A pandemic flu in which staff and/or their families are affected could impact the operation for several days or, in some cases, weeks. Because of the potential of long-term denial of service to the public, PSAPs need to plan for relocation to an alternate facility.

Redundancy in communications and in providing for back-up 9-1-1 and emergency communications facilities are paramount as there are many things, natural and man-made which can affect the ability to continue operating as "normal."

COOP planning allows for the continuation of the essential functions of government departments or agencies during an incident or emergency that may disrupt typical, normal operations.² These essential services support the target capabilities that have been identified in a collaborative effort between public safety and service stakeholders with the Department of Homeland Security, Preparedness Directorate. When COOP planners discuss emergencies, disasters, or adverse events, they can mean any incident that could result in the inability of a governmental entity or agency to provide essential services to its constituents, taxpayers, citizens, businesses, and visitors.

Each PSAP must first and foremost be prepared and informed of prevention activities in its local area. Here are just a few planning considerations from a CALEA (Commission on Accreditation on Law Enforcement Agencies)-certified center and another well-known and recognized center that have invested in the proper planning process:

Prepare a Pandemic Plan:

- Develop a plan to maintain the continuity of services
- Recognize the necessity of providing the target capabilities as appropriate to the specific agency

- Ensure personnel receive training/information on Pandemic Flu, including symptoms, and protective measures for staying healthy, such as:
 - Wash hands frequently with soap and water
 - Cover your mouth and nose with a tissue when you cough or sneeze
 - Put used tissues in a wastebasket
 - Cough or sneeze into your upper sleeve if you don't have a tissue
 - Clean your hands after coughing or sneezing. Use soap and water or an alcohol-based hand cleaner
 - Stay home if you are sick; plan for illness within your family
 - Practice good health habits
 - Eat a balanced diet
 - Exercise on a regular basis
 - Get plenty of rest
- Ensure succession planning for all positions (technical to payroll)
- Ensure healthcare records are up to date and your PSAP's contact information is accurate
- Assess the need for medical supplies and provide/encourage use of anti-bacterial products (approved for this flu strain)
- Identify funding resources for food
- Add additional water to disaster supplies and coordinate storage
- Encourage employees to bring sleeping supplies, medicine, food and other needs from home for storage in lockers in the event they are sequestered

Identify alternatives to traditional work practices and make necessary arrangements to implement those alternatives:

- Develop a staff health screening questionnaire listing 3-5 questions about symptoms and possible exposures
- Develop a draft policy for not allowing access to the facility for anyone meeting certain health criteria. Consider 10-day quarantine and reassessment.
- Develop a draft policy regarding sick leave and potential suspension of attendance criteria as the risk of exposure becomes higher. Include how to handle those without sick leave benefits who may be compelled to come to work sick.
- Begin planning with technical staff the ability for key personnel to work from home with the necessary electronic tools:
 - Assess what software applications need to be provided to key employees for use at home
 - Configure networking for work at home employees
 - Develop related security needs for operating systems interface
- Plan to conduct meetings via teleconference:
 - Prepare an instruction sheet for remote attendance at critical administrative or operational meetings
- Develop policy and procedure for mail handling and other deliveries to protect against potential transmission of infected materials
- Develop a policy to limit access inside the facility to isolate employees

- Implement a “no gathering” policy, i.e. one person in the break room at a time, etc.
- Discontinue non-essential personnel access to the PSAP for the duration of the outbreak. If technical staff determines a critical need for outside technical assistance, enforce a health screening policy before granting access
- Plan for call volume increases and higher than normal overtime
- Coordinate pre-authorization of contingency funds for emergency overtime and additional medical supplies

Plan for alternate delivery of service

- Develop a memorandum of agreement with fire departments and EMS providers that will allow PSAP staff to more extensively triage medical calls and divert those that are appropriate
- Identify alternate call routing/transfers for some EMS calls. For example: local EOC or Public Health Info Line as a means to move the caller to a source of information and counseling that may be the level of response most appropriate
 - The APCO International Homeland Security Committee recommends a careful review of emergency medical dispatch protocols which will most likely have to be temporarily modified, as approved by local Medical Control, in order to reasonably respond to a probable shortage of emergency response capability, as well as over crowded and potentially closed/secured emergency rooms
- Consider that police departments may need to reduce staff and may decide to offer or expand a method of completing a police report on line to reduce actual call assignments
 - If patrol units are reduced, a review of current call priority and response parameters will be necessary; clear authority to implement such changes must be within a memorandum of agreement and supported by adequate training
- Develop alternate sources for information that would normally flow thru the PSAP. Callers seeking general information, non-critical assistance and/or reporting a past action may have to be transferred or re-contacted at a later date/time as authorized
- Work with Language Line and other such services to provide consistent and reasonable “scripts” for use with non-English speaking callers while under pandemic conditions.

Stay Informed ³

Identify sources you can count on for reliable information. If a pandemic occurs, having accurate and reliable information will be critical.

- Reliable, accurate and timely information is available at www.pandemicflu.gov
- The Center for Disease Control and Prevention (CDE) has a 24 hour a day, 7 day a week hotline at 1-800-CDC-INFO (1-800-232-4636). Questions can be emailed to inquiry@cdc.gov

- Check your local and state government websites. Links are available to each state Department of Public Health at www.pandemicflu.gov
- Talk to your local health care providers and public health officials to determine how their plans will affect EMS calls and transport decisions
- Continue to check the APCO Homeland Security Committee website at <http://www.apcointl.org/about/Homeland/pandemic.html> for preparedness information, including suggested practices you can tailor to your center.

If a pandemic strikes the United States, the ability to maintain effective public safety services, including essential, sustained operability and interoperability functions of communications could be at risk. The interruptions may be caused by limited staffing and limited service support from in-house and outside contractors that support the systems you rely on everyday. Effective planning must accept that schools and businesses may close having an additional impact on staffing, as well as the maintenance of routine services to the PSAP.

Public safety communications is the lifeline to the community. Proper planning today will ensure that lifeline remains in tact should a pandemic impact your community.

References:

¹ U.S. Department of Homeland Security, READYBusiness, www.ready.gov

² Continuity of Operations Planning: Survival for Government, Continuity Central, www.continuitycentral.com

³ Pandemic Influenza Planning, a Guide for Individuals and Families, U.S. Department of Health and Human Services, January 2006

U.S. Department of Health and Human Services, Pandemicflu.gov; Avianflu.gov, www.pandemicflu.gov

Pandemic Flu Papers, APCO International Homeland Security Committee website, <http://www.apcointl.org/about/Homeland/pandemic.html>

About the Author:

This article is a compilation by the APCO Institute of the pandemic flu white papers published by the APCO International Homeland Security Committee. The history of pandemics is based on information from Pandemicflu.gov.

Quiz

1. Human infections from the Bird Flu virus typically result from eating affected poultry.
TRUE FALSE
2. It is highly unlikely that the Bird Flu virus will be discovered in birds in the United States.
TRUE FALSE
3. A Continuity of Operations Plan (COOP) will provide the basis for pandemic preparedness planning.
TRUE FALSE
4. PSAPs may need to plan for relocation to an alternate facility.
TRUE FALSE
5. Call for service policy and procedures may need to be modified during a pandemic.
TRUE FALSE
6. Local governments will shoulder much of the burden during a pandemic.
TRUE FALSE
7. Property must be destroyed in order for an event to be considered a disaster.
TRUE FALSE
8. Redundancy planning is critically important to ensure the continuation of vital services.
TRUE FALSE
9. All employees should receive training/information on Pandemic Flu and protective measures for staying healthy.
TRUE FALSE
10. Call volumes will decrease during a pandemic outbreak.
TRUE FALSE
11. There may be a shortage of response personnel during a pandemic outbreak.
TRUE FALSE
12. Having access to accurate and reliable information is critical during a pandemic outbreak.
TRUE FALSE
13. There may be disruptions to public transportation during a pandemic outbreak.
TRUE FALSE

14. The most important consideration in pandemic preparedness planning is to make sure adequate facilities and equipment remain available; staffing considerations are secondary.

TRUE FALSE

15. It is important for PSAPs to be prepared and informed of prevention activities in their local area.

TRUE FALSE