

Leon County Influenza Pandemic Tabletop Exercise

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INTRODUCTION

PURPOSE

Today's Influenza Pandemic Tabletop Exercise offers participants an opportunity to gain an understanding of problems they could possibly face in response to a epidemiological incident.

SCOPE

This Tabletop Exercise for the Leon County Health Department will focus on a epidemiological incident effecting the United States. The exercise is intended to focus on the overall response and decision-making process and is not a test of detailed response procedures. The exercise will emphasize communication, emergency response coordination, resource integration, problem identification, and resolution.

OBJECTIVES

1. **Local Decision-Making Process.** Exercise the local and regional decision-making process and identify areas needing refinements. Identify key actions to be taken and by whom.
2. **Affected Area Access / Quarantine.** Review Local, State and Federal operations for area access control and possible quarantine issues resulting from a epidemiological incident.
3. **City / County / State / Federal Agencies and Private / Public Sector Interface.** Examine the local interface among City / County / State / Federal agencies in the conduct of crisis and consequence management activities. Examine Local, State, and Federal interactions with the private and public sector during the threat or actual occurrence of a epidemiological incident.
4. **Public Information and Media Control.** Discuss options to provide timely information to the population and assist in minimizing chaos. Review plans to preclude dissemination of conflicting data. Assess the adequacy of local plans for interface with and use of media resources. Discuss how media will be coordinated when State and Federal agencies are involved.
5. **Medical Monitoring / Surveillance.** Review the local medical, emergency medical transport, and public health department capabilities to recognize, identify, monitor and respond to an incident involving a influenza pandemic.

EXERCISE STRUCTURE

ROLES

PARTICIPANTS respond to the situations as presented based on experience and knowledge as well as the current plans and procedures utilized within their agencies.

OBSERVERS may support the participants in the group as they develop responses to the situation. However, they are primarily invited to observe the exercise and preparedness process.

FACILITATORS provide situation updates and moderate group discussions. They also provide additional information or answer questions, as required.

Although, participants as well as observers are encouraged to move among groups to ensure through provoking discussion, participants will be grouped into the following six functional areas for the purposes of this exercise:

- Nursing
- Environmental Health
- Disease Intervention
- Medical
- Social Services
- Administration

EXERCISE MATERIALS

Each exercise participant receives a Situation Manual (*this document*) that provides a written storyline or scenario to accompany presented situation updates. Following each corresponding module in the storyline are a series of questions provided to highlight pertinent issues for consideration. These questions are supplied as a catalyst for the group discussion. Participants are not required to answer every question nor are they limited to those topics.

Participants are encouraged to use their Situation Manual (SITMAN) as a reference throughout the exercise. To this end, resource materials are provided in the appendices of the SITMAN.

EXERCISE GUIDELINES

- This is not a test. Varying viewpoints, even disagreements, are expected. This is intended to be an open, low stress environment.
- The exercise setting is the ideal opportunity to consider different approaches and suggest improvements to current resources, plans and training,
- Responses should be based on current capabilities (i.e., you may utilize only existing abilities and assets).
- You are not stuck in your group. Feel free to interact with other agency representatives and get answers when needed.

EXERCISE ASSUMPTIONS AND ARTIFICIALITIES

In any exercise, a number of assumptions and artificialities may be necessary to complete discussion within the time allotted. During the Leon County Influenza Pandemic Tabletop Exercise, the following apply.

- There is no “Hidden Agenda” nor are there any trick questions.
- All participants receive information at the same time.
- Participants should assume that all jurisdictions are implementing their plans, procedures and protocols.

Module One - Incubation

In Mid-October of 2002, an outbreak of unusually severe respiratory illness is identified in a small village in South China. At least 25 cases have occurred, affecting all age groups; 20 patients require hospitalization, 5 of whom died. Surveillance in surrounding areas increases, and new cases begin to be identified throughout the province. Viral cultures collected from several of the initial patients are positive for type A influenza virus. The isolates are sent to the World Health Organization (WHO) Reference Center for influenza at the Centers for Disease Control and Prevention (CDC) in Atlanta, for further characterization. CDC determines that the isolates are type A H7N1, a subtype never before isolated from humans.

This information is immediately transmitted back to the Chinese Ministry of Health, and throughout the WHO network. CDC dispatches a team of epidemiologists and laboratory personnel to further study the disease, and notifies quarantine stations and large hospitals at major United States ports of entry to be on the alert for arriving passengers with severe respiratory illness.

Isolates of the new strain are sent to the Federal Drug Administration (FDA) to begin work on producing a reference strain for vaccine production, and influenza vaccine manufacturers are placed on alert.

The novel influenza virus begins to make headlines in every major newspaper, and becomes the lead story on major news networks. Key United States government officials are briefed on a daily basis as surveillance is intensified throughout Southeast Asia and the Pacific Rim.

By November, outbreaks have begun to appear in Hong Kong, Singapore, South Korea and Japan. Although cases are reported in all age groups, young adults appear to be the most severely affected, and case-fatality rates approach 5%. Widespread panic begins because vaccine is not yet available and supplies of antiviral drugs are severely limited.

In early December, the CDC reports that the H7N1 virus has been isolated from ill airline passengers arriving from Hong Kong and Tokyo in Los Angeles, Honolulu, Chicago and New York. State and local agencies are asked to intensify influenza surveillance activities and vaccine manufacturers are requested to go into full production.

Anticipating arrival of the new flu strain in the Big Bend of Florida within the next few weeks, what do we need to do to prepare?

Module One - Questions

- What do hospitals and primary care providers need to get ready to care for their patients?
- How do public health departments prepare to respond to meet community related health issues?
- What plans need to be in place to deliver the vaccine, assuming there will be some but a very limited supply?
- What plans need to be in place to coordinate, prioritize and administer vaccines / antivirals? How will the vaccines and antivirals be allocated? Who will be on the priority list and who will determine that?
- What kind of communications plan should be put in place for informing the public? Are there any special considerations for the non-english speaking populations? Are there any special cultural diversity needs or concerns that need to be addressed?
- What is happening in the rest of the state and how will this impact our county?
- What other contingencies are predictable and need to be planned for?
- How are responsibilities for decision making roles determined?

Module Two - Intensification

It is now early December and local outbreaks have been reported in major cities throughout the United States.

In Leon County, the impact has begun to be felt in earnest. Best estimates from surveillance of clinics and the hospital are that approximately 10% of the population are ill at this time (23,376) with 40% of those (approximately 9,350) seeking medical care. Phones at physician offices and the health department begin to ring constantly. More people are seeking medical care than actually need it due to fear about the new strain of virus.

Rates of absenteeism in schools and businesses begin to rise. Similarly, personnel in key positions (health care, law enforcement, and other emergency personnel) are absent due to illness or caring for ill family members at rate of about 10%. The impact is being felt even more severely at Florida State University, Florida A & M University, Tallahassee Community College and the Leon County Jail because of this virus is affecting young adults more than other age groups. In the student population, absences appear to be in the 35 - 45% range already and over half of the inmates are ill.

Nationwide, exaggerated accounts of illness are reported by the media. Citizens begin to clamor for the vaccine, but national projections are that only 20% of the estimated needs will be available each month for the next five months. The county has been allotted and has received a small supply of vaccine and antivirals from the State of Florida Department of (FDOH). CDC has defined the order of priority of populations to receive the vaccine, starting with personnel in health care, public health, community safety / security, and telecommunications.

Angry phone calls to elected officials reflect a frustration and lack of understanding about why the limited vaccine is being targeted only at certain personnel and not distributed to the general public.

Module Two - Questions

- Given the apparent nature of the incident, how would medical information be collected to assess the situation? How would local and state officials share information and coordinate strategies?
- Is there a surveillance system in place for tracking / monitoring infectious diseases?
- What procedures are in place to track the location of patients? Are there systems in place to become informed of what is occurring in other hospitals, medical offices, clinics?
- What epidemiological and environmental health issues would need to be addressed at this time? Which other agencies would be involved?
- In what areas are shortages of personnel and supplies expected and how can these be replenished? How will the Leon County Health Department deal with potential staff shortages?
- How are stores of vaccine being shipped, safeguarded, monitored and administered?
- What types of public places and gatherings should be suspended? How will this be accomplished?
- What actions would be taken to manage the increase of cases and / or prepare for further cases? How are potential patients being triaged for care by the physicians offices, Tallahassee Memorial Hospital, Tallahassee Community Hospital and the Leon County Health Department?
- What mechanism should be used to update the public? What role should the media play in that function?
- What are the primary responsibilities of 911 Dispatch, Sheriff, Police and Fire in a public health emergency like this?
- What will be the response to incoming 911 calls for assistance, especially from those complaining of severe flu-like symptoms?
- Are there resources in place to protect first responders? If so, what is readily available?
- What public information policy will be followed and who will lead the effort?

Module Three - Escalation

It is now early January, several weeks later. Leon County is overwhelmed by the number of influenza cases. Although surveillance is sketchy, rough estimates of the number ill with influenza are 40 - 50% of the population (96,000 - 120,000). There are currently approximately 700 people needing hospitalization.

Tallahassee Memorial Hospital, Tallahassee Community Hospital and outpatient clinics are extremely short-staffed when 50 - 60% of physicians, nurses and other health-care workers are absent due to illness, caring for family members, or simply fear for their safety. Intensive care units at the counties 2 hospitals are overwhelmed, and soon there is a shortage of mechanical ventilators for treatment of patients with severe respiratory syndromes or postoperative needs.

Law enforcement, emergency medical personnel, health care, and local utility companies (power and water) also have personnel shortages in the range of 50 - 60%, resulting in some cutbacks in routine services. Grocery stores are suffering shortages of food supplies due to the nationwide impact of ill truckers who deliver those supplies. Reports of outdated dairy products and meats are being received by the Leon County Health Department, along with reports of diarrheal type illness.

Many area residents (particularly those with chronic, unstable medical conditions) are afraid to venture out for fear of becoming seriously ill with influenza. Hundreds are staying home and their essential supplies, such as food, are becoming depleted.

Family members are distraught and outraged when loved ones die within a matter of a few days. Funeral homes are overwhelmed by the numbers of dead (approximately 325 in the last three weeks) and are unable to keep up with the need for services.

Module Three - Questions

- What mechanisms can be used to deliver food to those who are staying in their homes?
- How will the backlog of bodies be handled? How will the Tallahassee Memorial Hospital and Tallahassee Community Hospital deal with the number of bodies? How will the deceased be safely and respectfully handled? How will religious beliefs be addressed?
- How will the excess need for hospitalization, ventilators, personal protective equipment (PPE), and healthcare staff be dealt with?
- How will the outdated food and diarrheal illnesses be handled?
- How do you identify and maintain essential services? What contingencies need to be considered if a routine emergency (fire, haz-mat spill, flood etc.) occurs during this period of personnel shortages and the hospital being at capacity?
- What steps could be taken to accommodate employees who have childcare / sick family member issues?
- What special issues need to be considered related to rural/farm needs?

Stages of a Pandemic

Pandemic Phase	Definition
Novel Virus Alert	<ul style="list-style-type: none"> • novel virus detected in one or more humans • little or no immunity in the general population • potential, but not inevitable precursor to a pandemic
Pandemic Alert	<ul style="list-style-type: none"> • Novel virus demonstrates sustained person-to-person transmission and causes multiple cases in the same geographic area.
Pandemic Imminent	<ul style="list-style-type: none"> • Novel virus causing unusually high rates of morbidity and/or mortality in multiple, widespread geographic areas.
Pandemic	<ul style="list-style-type: none"> • Further spread with involvement of multiple continents; formal declaration made.
"Second Wave"	<ul style="list-style-type: none"> • Recrudescence of epidemic activity within several months following the initial wave of infection.
Pandemic Over	<ul style="list-style-type: none"> • Cessation of successive pandemic "waves", accompanied by the return (in the U.S.) of the more typical wintertime "epidemic" cycle.

The Next Influenza Pandemic An Overview

What is an influenza pandemic?

- “Pandemic” simply means a worldwide epidemic. So, an influenza pandemic is a worldwide epidemic of the flu.
- Influenza is unique in its ability to cause sudden and widespread serious illness. That is due in part to the fact that it is very communicable. It is also due to the virus’ ever-changing nature. Every year – in fact, constantly – the flu virus changes slightly, a process we call “drift.” But every now and then a major change – or “shift” – happens to the structure of the virus. This creates a new subtype, never before seen in humans. And that can lead to a pandemic.

What is the history of influenza pandemics?

- In past century, there were three pandemics:
 - 1918-19 Spanish Flu which left 20 million dead worldwide, 500,000 in the US
 - 1957-58 Asian Flu which left 70,000 dead in the US
 - 1968 HK Flu leading to 34,000 deaths in the US
- These pandemics caused not only overwhelming numbers of deaths but complete disruption in normal life and service delivery.
- These three pandemics were separated by approximately 10 – 30 years. If there is any pattern to this phenomenon, we are essentially “overdue.”

Why should we plan?

- Influenza experts all agree that another pandemic is inevitable. It is not known exactly when it will occur, but it will happen..
- There have been recent scares (Swine flu in 1975; Hong Kong Avian flu 1997) which did not materialize into pandemics, but illustrated the need for better preparedness.

What will the next pandemic be like?

- There will be very little warning that the next pandemic is coming. It is estimated 1 - 6 months lead time.

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- There will be a prolonged impact of about 6 - 8 weeks. This is quite different from the timelines for responding to other disasters such as a tornado or even flooding.
- The impact will be essentially simultaneous throughout the United States. This means that shifting human and material resources – which normally happens during major disasters – will not be possible. Health care workers, health care supplies and equipment, emergency personnel, etc, will not be available from other parts of the country.
- Vaccine and antiviral medications will be in short supply
 - It takes at least six months to produce a new flu vaccine
 - The Department of Health will therefore have to prioritize which
 - subpopulations will get vaccine / antivirals first
 - There will need to be a local system to deliver vaccine in an orderly and systematic fashion.
- Health care workers and first responders – who will be critical in providing health care – will be at higher risk of exposure to the virus and therefore of illness.
- There will be personnel shortages due to illness in critical community services such as police, fire, utilities, transportation, communications

What will the impact be?

Based on nationwide estimates, the following can be projected for Leon County:

	Percentage of Population	United States	Leon County
Population		250 million	239,376
Ill	80%	200 million	191,500
Outpatient	20%	50 million	47,875
Hospitalized	0.80%	2 million	1,915
Deaths	0.016%	400,000	383