



H1N1 Pandemic Influenza - Are We Ready?

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Duval CHD Overview

- Public health programs include
 - Maternal & child health
 - Communicable & chronic disease control
 - Environmental health
 - Primary care
 - Nutrition
 - Vital statistics
 - Informatics & research
- 18 clinics serving > 128,000 people
- ~900 staff
- Part of Florida Dept. of Health



Flu terms defined

■ Seasonal (or common) flu

A respiratory illness that can be transmitted person to person. Most people have some immunity, and a vaccine is available.

■ Pandemic flu

Virulent human flu that causes a global outbreak, or pandemic, of serious illness. Because there is little natural immunity, the disease can spread easily from person to person.



Flu symptoms in humans

- **Typical**
 - High fever ($>100^{\circ}$ F)
 - Chills
 - Cough
 - Body aches
- **Complications**
 - Pneumonia
 - Severe respiratory distress
 - Encephalitis
 - Death



Historic pandemics

- 1918-1919 Spanish Flu
 - Type A virus (H1N1)
 - 20-50 million deaths worldwide
 - 500,000 deaths in the United States
 - Good book: *The Great Influenza* by John M. Barry



Historic pandemics (cont)

- **1957-1958 Asian Flu**
 - Type A virus (H2N2)
 - First identified in China in February 1957
 - Spread to US by June 1957
 - 70,000 deaths in the United States



Historic pandemics (cont)

- **1968-1969 Hong Kong Flu**
 - Type A virus (H3N2)
 - First detected in Hong Kong early 1968
 - Spread to US later that year
 - Approx 34,000 deaths in the United States (our seasonal flu kills 36,000)
 - Virus still circulating today



Characteristics of influenza pandemics

- All influenza viruses can change or mutate
- Spreads between people through airborne droplets or close contact
- Current seasonal flu vaccine not effective against H1N1 Swine flu pandemic
- Can be treated with antiviral meds, but resistance to treatment can develop
- Vaccine can take 6 months or more to develop. Hope to have by October 2009



The burden of influenza

- Epidemics of influenza usually occur during the winter months.
- Responsible for more than 200,000 hospitalizations per year in the U.S.
- Annual cost burden = >\$87 billion
- Influenza and pneumonia together were the eighth leading cause of death in Florida in 2005 with ~ 3,000 deaths.



Where are we now?

- New, novel H1N1 Swine flu virus emerged early 2009 in Mexico
- It's H1N1, but not like other recent human H1N1's
- New virus has pieces that came from birds, pigs, and people. Several pieces are descendants of the 1918 virus
- Highest attack rate in children and young adults
- Adults born before 1957 seem to be spared
- Continuing activity this summer



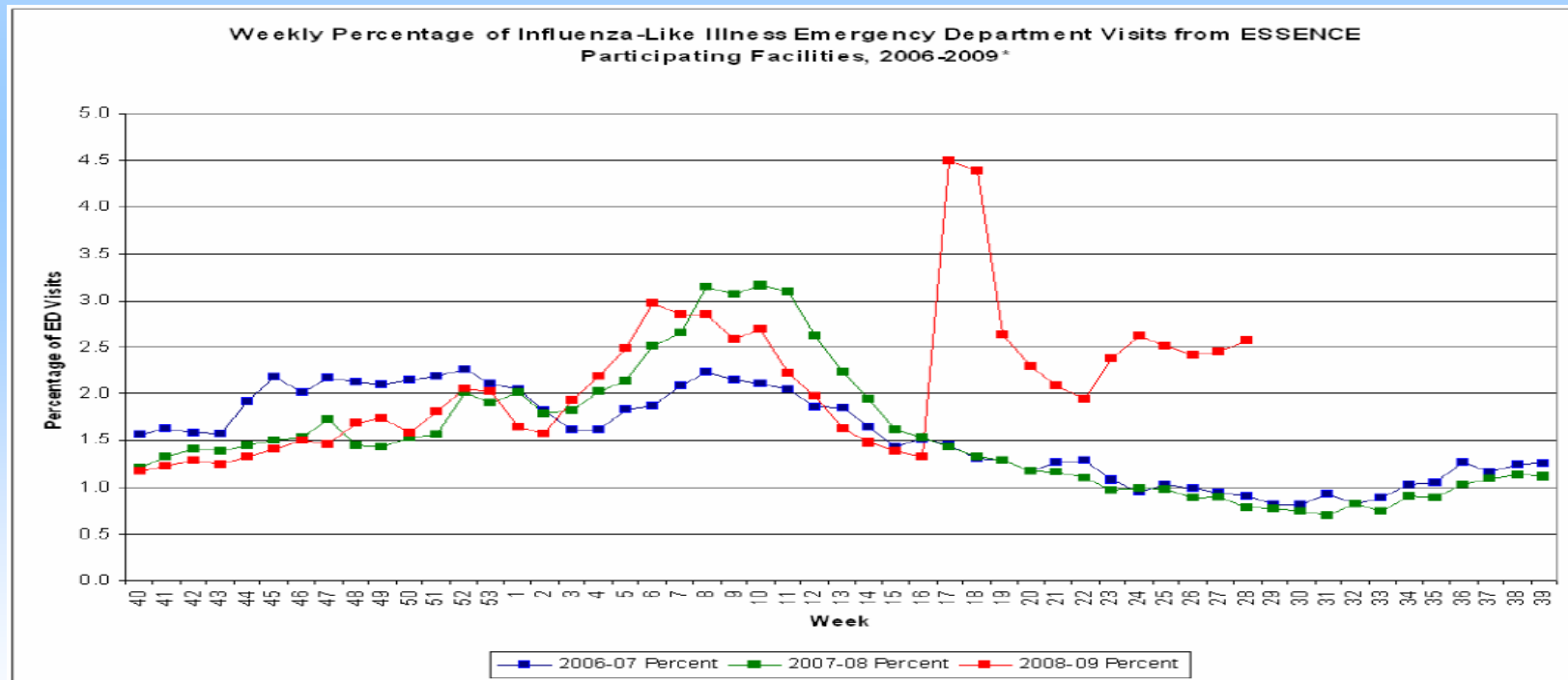
More H1N1 pan flu facts

- Probably capturing <5% of morbidity in case counts
- CDC and WHO will stop publicizing case count -- will show impact in other ways
- >Novel H1N1 is consistently sensitive to oseltamivir (Tamiflu) and zanamivir (Relenza)



Percentage of influenza-like illness (ILI) visits to 114 FL emergency departments

- Big spike in May 2009 was media-driven
- Current ILI % remains well above seasonal



Are We Ready?

- How are Florida and Jacksonville/Duval County getting ready?
- How can you prepare yourself, your family and your workplace?
- How will we respond?



How are Florida and its counties preparing?

- State Emergency Operations Center (EOC)
 - State Emergency Response Team
 - Federal, state and local partners work side by side, under one unified command
- County EOC
 - Jacksonville/Duval County EOC is downtown on 4th floor of Fire & Rescue Dept in former Federal Reserve building (515 Julia Street)



Emergency plan components

- Unified incident command
- Public information
- Disease surveillance
- Outbreak management
- Community containment measures
- Medical treatment – home, health care facilities, alternate treatment sites
- Vaccine and anti-viral management
- Behavioral health
- Fatality management



Pandemic flu impact in Duval County

Estimated Number of Cases by Outcome						
Attack Rate	15%		25%		35%	
Outcome	Most likely	Range	Most likely	Range	Most likely	Range
Deaths	734	113 - 1,538	1,224	188 - 2,653	1,713	263 - 3,589
Hospitalizations	1,439	498 - 2,173	2,398	1,110 - 3,622	3,358	1,555 - 5,071
Outpatient Care	71,035	65,492 - 121,946	118,392	109,153 - 203,245	165,749	152,815 - 284,543



Direction and Control

- DCHD will direct the countywide health and medical response with health care system partners
- Local Health Officer in collaboration with city officials will issue countywide directives when needed (i.e. school closings, health and medical response)
- DCHD response actions will emphasize surveillance, social distancing and communications
- All local jurisdictions will activate emergency operations plans as needed
- Local elected officials will issue directives to ensure continuity of government





How can you prepare yourself and your family?

During a pandemic event, equipment, supplies and staff will be in short supply or not available at all. Be prepared to take care of yourself.



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How to prepare yourself and your family

- Have a family disaster plan
- Stock food, water, needed medicines and other health supplies
- Be prepared to work from home



Avoiding Influenza




- Get a flu shot
- Wash hands frequently
- Cover your mouth and nose with a tissue or your sleeve when you cough or sneeze
- Stay home if flu symptoms appear. Return >24 hours after fever is gone
- Thoroughly wash eating utensils
- Avoid close contact with ill family members



Seasonal flu shots are for:

TOP
3 reasons to get your **flu vaccine**

- 1 Prevents influenza-related death.**
Each year over 36,000 people in the U.S. die because of the flu—most are 65 or older. More people die from flu than from any other vaccine-preventable disease.
- 2 Prevents severe illness.**
In the U.S. influenza puts about 200,000 people in the hospital each year. Children younger than 2 years old are as likely to be hospitalized as adults who are 65 or older.
- 3 Protects other people.**
You should get vaccinated if you live with or care for others who are at high risk of complications from the flu. Getting a flu vaccination yourself can help protect your family members, including seniors and young children.

Department of Health and Human Services
Centers for Disease Control and Prevention

For more information, ask your healthcare provider or call 800-CDC-INFO (800-232-4636) Website www.cdc.gov/flu

- People who are 50 years or older
- People of any age who have ever had a heart attack, have heart disease, have lung disease such as asthma, emphysema or chronic bronchitis; have diabetes, HIV, a blood disorder, kidney disease, or a weakened immune system
- Children ages 6 months to 18 years
- Pregnant women
- People who live in nursing homes or assisted living facilities
- People who have health problems that make it difficult to breathe or swallow

CDC also recommends that people who care for or live with anyone listed above get a flu shot. This includes healthcare workers. Getting a flu shot will help stop you from bringing the virus home or to work and infecting others.



Mass H1N1 pan flu vaccination campaign

- Hope to have supplies by October 2009
- Florida will follow the federal (CDC) distribution guidelines
- Many public & private locations. FLSHOTS web-based system will track.
- Priority groups
 - All ages with chronic conditions, including obesity
 - Children & young adults: ages 6 months to 25 years
 - Pregnant women
 - Health care & emergency staff
 - Care givers of infants <6 months old



Next Steps

- Business continuity of operations plans (COOPs)
 - What are essential services?
 - How can the emergency response system support them?
- Government COOP
- School COOP
- Rumor control
- Health & medical
 - Community control measures
 - Alternate treatment sites, ie Fairgrounds
 - Medical staff surge capacity – Medical Reserve Corps



Pan flu impact on the workplace

- Absenteeism of 25 to 35%
- Schools may be closed (last resort). Children will require care.
- Challenges getting to and from work. Working from home on large scale may be essential.
- Adverse psychological impact on workers
- Serious short and long term economic losses



What do we mean by “community mitigation”?

- Voluntary measures to reduce person-to-person spread
 - Self-isolation of the sick
 - Surgical masks on sick people, at home and in public
 - Sensible, practical methods to reduce face-to-face contacts in public and private settings (social distancing)
 - Hand-washing
- Help treatment facilities provide appropriate care
 - Healthcare facilities shouldn't amplify infection
 - Make best use of available treatment drugs and equipment to reduce morbidity and mortality
 - Coordinate public health and medical care responses



Does your workplace have a pan flu plan? Here's a checklist...

- Impact on business
- Impact on employees & customers
- Policies for pandemic
- Resource allocation
- Communication
- Coordination



Business Planning Checklist

BUSINESS PANDEMIC INFLUENZA PLANNING CHECKLIST



In the event of pandemic influenza, businesses will play a key role in protecting employees' health and safety as well as limiting the negative impact to the economy and society. Planning for pandemic influenza is critical. To assist you in your efforts, the Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed the following checklist for large businesses. It identifies important, specific activities large businesses can do now to prepare, many of which will also help you in other emergencies. Further information can be found at www.pandemicflu.gov and www.cdc.gov/business.

1.1 Plan for the impact of a pandemic on your business

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify a pandemic coordinator and/or team with defined roles and responsibilities for preparedness and response planning. The planning process should include input from labor representatives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify essential employees and other critical inputs (e.g. raw materials, suppliers, sub-contractor services/products, and logistics) required to maintain business operations by location and function during a pandemic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Train and prepare ancillary workforce (e.g. contractors, employees in other job titles/descriptions, retirees).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop and plan for scenarios likely to result in an increase or decrease in demand for your products and/or services during a pandemic (e.g. effect of restriction on mass gatherings, need for hygiene supplies).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Determine potential impact of a pandemic on company business financials using multiple possible scenarios that affect different product lines and/or production sites.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Determine potential impact of a pandemic on business-related domestic and international travel (e.g. quarantines, border closures).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Find up-to-date, reliable pandemic information from community public health, emergency management, and other sources and make sustainable links.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish an emergency communications plan and revise periodically. This plan includes identification of key contacts (with back-ups), chain of communications (including suppliers and customers), and processes for tracking and communicating business and employee status.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implement an exercise/drill to test your plan, and revise periodically.

1.2 Plan for the impact of a pandemic on your employees and customers

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Forecast and allow for employee absences during a pandemic due to factors such as personal illness, family member illness, community containment measures and quarantines, school and/or business closures, and public transportation closures.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implement guidelines to modify the frequency and type of face-to-face contact (e.g. hand-shaking, seating in meetings, office layout, shared workstations) among employees and between employees and customers (refer to CDC recommendations).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encourage and track annual influenza vaccination for employees.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Evaluate employee access to and availability of healthcare services during a pandemic, and improve services as needed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Evaluate employee access to and availability of mental health and social services during a pandemic, including corporate, community, and faith-based resources, and improve services as needed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify employees and key customers with special needs, and incorporate the requirements of such persons into your preparedness plan.

December 6, 2005
Version 3.6



1.3 Establish policies to be implemented during a pandemic:

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for employee compensation and sick-leave absences unique to a pandemic (e.g. non-punitive, liberal leave), including policies on when a previously ill person is no longer infectious and can return to work after illness.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for flexible worksite (e.g. telecommuting) and flexible work hours (e.g. staggered shifts).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for preventing influenza spread at the worksite (e.g. promoting respiratory hygiene/cough etiquette, and prompt exclusion of people with influenza symptoms).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for employees who have been exposed to pandemic influenza, are suspected to be ill, or become ill at the worksite (e.g. infection control response, immediate mandatory sick leave).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for restricting travel to affected geographic areas (consider both domestic and international sites), evacuating employees working in or near an affected area when an outbreak begins, and guidance for employees returning from affected areas (refer to CDC travel recommendations).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Set up authorities, triggers, and procedures for activating and terminating the company's response plan, altering business operations (e.g. shutting down operations in affected areas), and transferring business knowledge to key employees.

1.4 Allocate resources to protect your employees and customers during a pandemic:

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide sufficient and accessible infection control supplies (e.g. hand-hygiene products, tissues and receptacles for their disposal) in all business locations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enhance communications and information technology infrastructures as needed to support employee telecommuting and remote customer access.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure availability of medical consultation and advice for emergency response.

1.5 Communicate to and educate your employees:

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop and disseminate programs and materials covering pandemic fundamentals (e.g. signs and symptoms of influenza, modes of transmission), personal and family protection and response strategies (e.g. hand hygiene, coughing/sneezing etiquette, contingency plans).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anticipate employee fear and anxiety, rumors and misinformation and plan communications accordingly.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure that communications are culturally and linguistically appropriate.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disseminate information to employees about your pandemic preparedness and response plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide information for the at-home care of ill employees and family members.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop platforms (e.g. hotlines, dedicated websites) for communicating pandemic status and actions to employees, vendors, suppliers, and customers inside and outside the worksite in a consistent and timely way, including redundancies in the emergency contact system.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify community sources for timely and accurate pandemic information (domestic and international) and resources for obtaining counter-measures (e.g. vaccines and antivirals).

1.6 Coordinate with external organizations and help your community:

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Collaborate with insurers, health plans, and major local healthcare facilities to share your pandemic plans and understand their capabilities and plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Collaborate with federal, state, and local public health agencies and/or emergency responders to participate in their planning processes, share your pandemic plans, and understand their capabilities and plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communicate with local and/or state public health agencies and/or emergency responders about the assets and/or services your business could contribute to the community.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Share best practices with other businesses in your communities, chambers of commerce, and associations to improve community response efforts.



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<http://www.pandemicflu.gov/plan/pdf/businesschecklist.pdf>

2009 H1N1 factors that could change...

- Proportion of severe disease
- Transmissibility
- Antiviral resistance patterns
- Vaccine effectiveness, safety, match

So, we will adjust plans based on data

**It is not the strongest of the species that survives,
nor the most intelligent....It is the one that is most
adaptable to change. – Charles Darwin**



References

- www.flu.gov
- www.doh.state.fl.us/DEMO/php/FluInfo.htm
- www.dchd.net (where these slides will be posted)
- theresa_isaac@doh.state.fl.us, 904-253-2286
- robert_harmon@doh.state.fl.us, 904-253-1010