

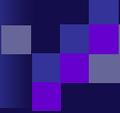
Harris County

HCPHES

Public Health & Environmental Services

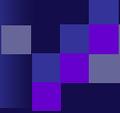
www.harriscountyhealth.com

Pandemic Influenza:
Local Preparedness & Response

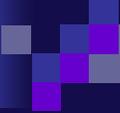


Overview

- Influenza Facts
- Local Pandemic Influenza Planning
- Complex Issues



Influenza Facts



Influenza – the viruses

- Three types

- Influenza A viruses

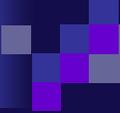
- classified on the 2 main surface glycoproteins:

- hemagglutinin (HA) – 16 known HA subtypes

- neuraminidase (NA) – 9 known NA subtypes

- Influenza B viruses

- Influenza C viruses



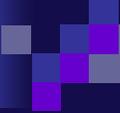
Public health-speak (*it's Greek to me*)

- Epidemic

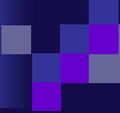
- from Greek *epi* (upon) and *demos* (people)

- Pandemic

- from Greek *pan* (all) and *demos* (people)



Planning for Pandemic Influenza



WHO Pandemic Phases

Inter-Pandemic Period

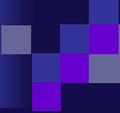
- **Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in humans, the risk of human infection or disease is considered low
- **Phase 2:** No new influenza virus subtypes have been detected in humans. However a circulating animal influenza virus subtype poses a substantial risk of human disease



WHO Pandemic Phases

Pandemic Alert Period

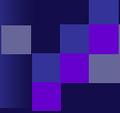
- **Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact. (concern for H5N1)
- **Phase 4:** Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.
- **Phase 5:** Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk)



WHO Pandemic Phases

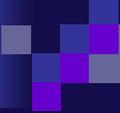
Pandemic Period

- **Phase 6:** Pandemic – increased and sustained transmission in the general population



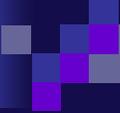
Current Status through November 13, 2006

- 258 laboratory-confirmed **human cases** of H5N1 avian influenza within 10 countries
- 153 deaths among people known to be infected with H5N1
- Infections in **domestic and wild birds** in over 50 countries (Asia, Southeast Asia, Africa, Europe, Middle East)



Local Health Department Pandemic Influenza Plan

- Delineates health department responsibilities
- Companion to and should be interpreted in context of:
 - Texas Department of State Health Services Pandemic Influenza Preparedness Plan
 - U.S. Department of Health and Human Services Pandemic Influenza Plan
- Serves as template for response to outbreaks of other highly contagious respiratory illnesses

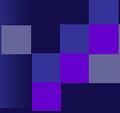


Local Planning Assumptions

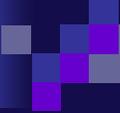
- The duration of illness for an uncomplicated case of influenza is five days
- Medical care services will likely be severely taxed or overwhelmed
- Illness rates may be up to 40% among school-aged children and 20% among working adults
- An estimated 40% of the workforce may be out of work due to illness at the peak of a major pandemic influenza wave.

Local Planning Assumptions

- 30% of population may become ill
 - *1,093,286 persons ill in Harris County*
- 15% of population will seek outpatient care
 - *546,643 persons in outpatient settings*
- 0.3 to 3% of population hospitalized
 - *10,933 - 109,328 persons hospitalized*
- 0.04 to 0.5% of population requiring ICU
 - *1,458 - 18,221 persons in ICU*
- 0.02% to 0.25% of population requiring mechanical ventilation
 - *728 - 9,111 requiring vents*
- 0.07 to 0.64% of population may die
 - *2,551 - 23,323 deaths*

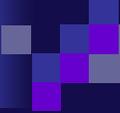


Local Public Health Plans



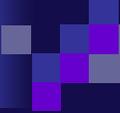
Command/Control

- Roles and responsibilities for staff:
 - Communicating with stakeholders
 - Conducting surveillance and monitoring activities
 - Implementing community control measures
 - Disseminating information to the public
 - Prioritizing and conducting distribution of limited vaccines (once available) and antivirals to the public



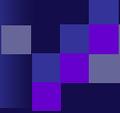
Surveillance

- Monitoring of community influenza activity via:
 - Area physicians
 - Hospital laboratories
 - Hospital emergency rooms
 - Long-term care facilities



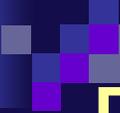
Prevention/Containment

- Community Control Measures :
 - Decrease the probability that contact will result in infection (cough etiquette, hand hygiene)
 - Decrease contact between infected and uninfected individuals (social distancing, travel advisories, school closures)



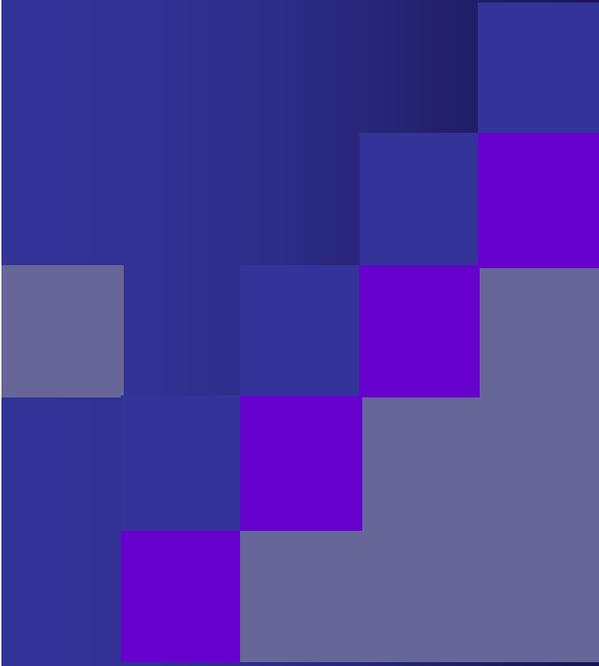
Prevention/Containment

- Local Health Authority can recommend and enact measures such as:
 - Isolation and quarantine
 - Travel advisories
 - Cancellation of mass gatherings
 - Closure of schools and office buildings
- Such measures would be undertaken in coordination with other local, state and federal officials

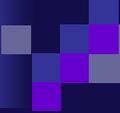


Risk Communications and Emergency Public Information

- Epidemiology of the pandemic
- Symptoms that should prompt medical attention
- Information and instructions about vaccines and antivirals
- Directives for community control measures
- Explanations of concepts like isolation and quarantine

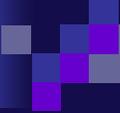


How Can Your Agency Prepare?



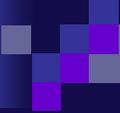
Continuity of Operations

- Continuity of operations refers to ensuring that the capability exists to continue essential agency functions when faced with high absenteeism, temporary closure, severe disruption in supply chain, temporary damage to infrastructure, etc...



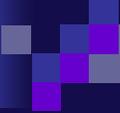
Continuity of Operations and Instruction

- Key activities:
 - Develop a continuity of operations plan (COOP) for essential central office functions
 - Payroll
 - Communication with staff, customers, subcontractors, etc



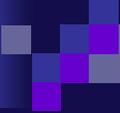
Continuity of Operations Planning

*Special Planning Considerations for
Pandemic Influenza*



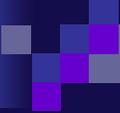
Planning and Coordination

- Identify the **authorities** responsible for executing community response plans and activities, including case identification, isolation, quarantine and community control measures
 - The **public health authority** in your jurisdiction
 - **Emergency management officials** in your jurisdiction



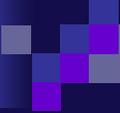
Planning and Coordination

- Identify the person responsible for activating your organization's pandemic influenza plan
 - Provide the contact information for this person(s) to employees and key stakeholders so that information can be communicated efficiently during an event



Planning and Coordination

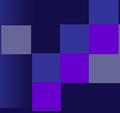
- Address pandemic influenza preparedness as part of your organization's crisis management plan
 - Involve all relevant stakeholders
 - Delineate accountability and responsibility
 - Coordinate with other relevant response plans
 - Establish an organizational structure to manage the execution of the plan, such as an **Incident Command Structure**



Infection Control

- Key activities:

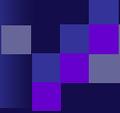
- Implement policies and procedures (**NOW**) that can limit the spread of influenza at your agency
 - Promote of hand hygiene and cough etiquette
 - Ensure appropriate supplies are available – soap, tissues, hand sanitizer, waste baskets



Infection Control

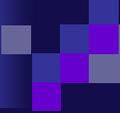
- Key activities:

- Special exclusion from work and return to work policies
- Relaxed and/or enhanced sick leave and absenteeism policies for employees
- Telecommuting policies as practicable to accomplish social distancing



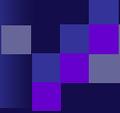
Infection Control

- Sample policy language:
 - “During times of a declared public health emergency and/or large-scale disease outbreak and school remains in session, *[agency name]* may temporarily adopt alternate policies regarding staff sick leave and absenteeism”



Information Resources

- Hand hygiene and cough etiquette resources
 - HCPHES “Help Us Keep You Healthy” campaign – www.harriscountyhealth.com/PROJ/HANDWASHING/index.htm
 - CDC hand hygiene guidelines - www.cdc.gov/od/oc/media/pressrel/fs021025.htm
 - CDC “Germstopper” campaign - www.cdc.gov/germstopper/
 - CDC “Cover Your Cough” campaign - www.cdc.gov/flu/protect/covercough.htm



Information Resources

- Pandemic Influenza Plans

- Harris County Public Health & Environmental Services
Pandemic Influenza and Highly Infectious Respiratory
Diseases

<http://www.harriscountyhealth.com/pandemicplan.htm>

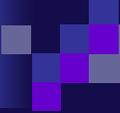
- Houston Department of Health and Human Services
Pandemic Influenza and Response Plan

<http://www.houstontx.gov/health/Emergency/pandemicplan.pdf>

- Texas Department of State Health Services Pandemic
Influenza Plan

http://www.dshs.state.tx.us/idcu/disease/influenza/pandemic/Draft_PIPP_10_24_web.pdf

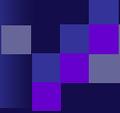
- Federal plan and information: www.pandemicflu.gov



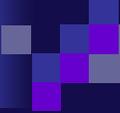
Information Resources

- Continuity of Operation Plans

- www.whitehouse.gov/homeland/nspi_implementation_chap09.pdf



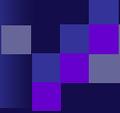
Complex Issues...



Medical Issues:

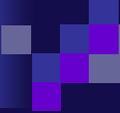
Local ethics committee

- Possible topics of discussion:
 - Review federal recommendations and develop contingency plans
 - “Prioritize” priority groups if events unfold differently than predicted (“expect the unexpected”)
 - Develop recommendations for altered standards of care
 - Ventilator shortages
 - Intensive care unit shortages



Economic Issues

- Aligning economic incentives to support compliance with prevention and containment measures
- Procuring resources to meet surge demand erupting simultaneously across the nation
- Public-private vaccine and antivirals distribution strategies
- Balancing potential conflicts between continuity of operations objectives (e.g. 30% workforce absent) and social isolation measures



Harris County

HCPHES

Public Health & Environmental Services

Herminia Palacio, MD, MPH

Executive Director

website: www.harriscountyhealth.com