Texas Pandemic Influenza Update

Presentation to
Disaster/Emergency Preparedness Committee
of Governor’s EMS and Trauma Advisory Council

August 19, 2009

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Presentation Goals

1. Describe previous pandemics of influenza and their influence on planning assumptions
2. Describe the initial response to “novel” H1N1 influenza
3. Describe Texas’ preparation for second wave
4. Discuss coordination of efforts and what you and your community need to consider in preparation for H1N1 (next steps)
Influenza Virus Infection

General Characteristics

• Sudden onset of symptoms
• Incubation period: ~1-4 days
• Infectious period: 5+ days, starting 1 day before symptoms (longer in children)
• Fever, headache, cough, sore throat, aches, possibly vomiting and diarrhea
• 50% of individuals with typical “seasonal” influenza have contact with the health care system (ranging from a doctor visit to hospital admission)

Several types of influenza virus are circulating.
Pandemic

Definition: A disease outbreak occurring over a wide geographic area and affecting an exceptionally high proportion of the population.

The June 2009 declaration of a pandemic by the World Health Organization is an indication of the spread of the disease, not the severity.
April 17: - The CDC lab confirmed the first novel H1N1 virus result from California

April 23: - DSHS received laboratory confirmation of novel H1N1 virus in two teenagers from the same school in Guadalupe County

April 24: - Confirmation of flu-like illness in Mexico reported
   - DSHS activated the “MACC”, the department’s emergency operations center

April 25: - Decision to close Schertz-Cibolo High School was made
   - A third student from the same Guadalupe County school was also confirmed to have novel H1N1 virus
   - Governor Perry made an initial request for antivirals through the Strategic National Stockpile
April 26:
- Initiated daily statewide State Operations Center conference calls
- Governor Perry increased the request for antivirals to 850,000 courses
- As of this date, the Government of Mexico had reported 18 laboratory confirmed cases of novel H1N1 virus
- All 14 schools in the Schertz-Cibolo Universal City ISD closed

April 29:
- Confirmation of 1st death in Texas/United States

May 5:
- CDC announces new guidelines for school closure

May / June
- End of school year
June 11:  - W.H.O. declares pandemic

June 17:  - Lab confirmed case at summer camp in Tyler

July 31:  - Approximately 5,200 Texas cases confirmed to date

August 24:  - School starts
# Pandemic Influenza Planning Assumptions Prior to April 2009

<table>
<thead>
<tr>
<th>Pre-April Assumptions</th>
<th>Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5N1 (bird flu) would be the pandemic strain</td>
<td>H1N1 was the pandemic strain</td>
</tr>
<tr>
<td>Need to plan for high mortality and morbidity</td>
<td>Low mortality</td>
</tr>
<tr>
<td>Outbreak would occur overseas (Asia)</td>
<td>Outbreak began in Mexico</td>
</tr>
<tr>
<td>Potential for rapid spread</td>
<td>Rapid spread</td>
</tr>
<tr>
<td>Elderly, chronically ill, and very young would be the most affected</td>
<td>Primarily affected school age</td>
</tr>
<tr>
<td>Vaccine would not be available</td>
<td>Vaccines will be available</td>
</tr>
<tr>
<td>Key role for community mitigation</td>
<td>Schools were closed as a precaution</td>
</tr>
<tr>
<td>Unpredictability of influenza virus</td>
<td>Conducted surveillance for changes in the virus strains</td>
</tr>
</tbody>
</table>
### Signs and Symptoms of Novel A (H1N1) Cases Reported to DSHS April – May 2009

#### Symptoms reported in confirmed cases

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever (&gt;100°F) (median temp: 102.0°F)</td>
<td>94%</td>
</tr>
<tr>
<td>Cough</td>
<td>87%</td>
</tr>
<tr>
<td>Sore throat</td>
<td>61%</td>
</tr>
<tr>
<td>Diarrhea and/or vomiting</td>
<td>47%</td>
</tr>
</tbody>
</table>

**Critical point:**

88% of the confirmed H1N1 cases met Influenza Like Illness (ILI) case definition (fever > 100°F and sore throat or cough)

*Based on early cases when we were doing general surveillance*
### Descriptive Statistics of Novel A (H1N1) Cases Reported to DSHS April – May 2009*

<table>
<thead>
<tr>
<th>Demographic</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49%</td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Age (median 10 yrs, range 1 mos – 84 yrs)</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;5 years</td>
<td>16%</td>
</tr>
<tr>
<td>5-18 years</td>
<td>65%</td>
</tr>
<tr>
<td>19-45 years</td>
<td>15%</td>
</tr>
<tr>
<td>&gt;45 years</td>
<td>4%</td>
</tr>
</tbody>
</table>

*Based on early cases when we were doing general surveillance*
**Regional Surveillance Summary – H1N1 Influenza as of July 29, 2009**

<table>
<thead>
<tr>
<th></th>
<th>HSR 1</th>
<th>HSR 2/3</th>
<th>HSR 4/5N</th>
<th>HSR 6/5S</th>
<th>HSR 7</th>
<th>HSR 8</th>
<th>HSR 9/10</th>
<th>HSR 11</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR Confirmed H1N1 Flu</td>
<td>20</td>
<td>802</td>
<td>79</td>
<td>932</td>
<td>710</td>
<td>391</td>
<td>426</td>
<td>1858</td>
<td>5218</td>
</tr>
<tr>
<td>Cumulative # of Deaths</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>Total # Hospital Admissions</td>
<td>0</td>
<td>55</td>
<td>1</td>
<td>16</td>
<td>25</td>
<td>26</td>
<td>90</td>
<td>57</td>
<td>270</td>
</tr>
</tbody>
</table>
Perspective: Seasonal vs. H1N1

• Each year in Texas, it’s estimated that influenza viruses have the following impact:
  • Between 1 and 5 million people sick
  • Over 16,000 people hospitalized
  • Nearly 3,000 people die each year

• To date in Texas, the novel H1N1 virus has had the following impact:
  • 5,200 sick
  • 270 hospitalized
  • 28 people have died

• The impact of novel H1N1 virus in the upcoming flu season will raise the number of people sickened, hospitalized, or killed

The degree of impact is unknown
Lessons Learned in 2009

- Young adults MAY experience higher than expected mortality rates from a “novel” (new) strain of influenza virus

- Severity of illness MAY be lessened by prior exposure to a genetically related influenza virus

- Targeted, layered non-pharmaceutical interventions (NPI) MAY help mitigate the impact of flu on communities
Lessons Learned in 2009 (cont’d)

• *Timely* closure of large public gatherings MAY help diminish the “peak” number of people who are ill with the flu in a community at any one time

• Outpatient and inpatient medical care facilities WILL be overwhelmed when the number of people who are seriously ill at any one time exceeds each community’s medical surge capacity.
Implementing Lessons Learned

• Non-Pharmaceutical Interventions
  • Epidemiology
  • Laboratory
  • Vaccinations
• Antiviral Medications
Public Health Messages

• Practice good hand hygiene
• Practice cough/sneeze etiquette
• Be prepared to get sick
• Stay home when you get sick
• Get your flu vaccinations (shots or sprays)
• No aspirin for kids when they are sick
• Get pneumococcal vaccine as recommended
Texas Flu.org
On June 11, 2009, the World Health Organization (WHO) signaled that a global pandemic of novel influenza A (H1N1) was underway by raising the worldwide pandemic alert level to Phase 6. Texas Flu.org provides H1N1 flu information for the public and health care professionals to help prepare for and respond to this pandemic.

Reporting
Following similar actions by the WHO and CDC, DSHS discontinued reporting novel H1N1 flu cases effective Aug. 1. Texas is returning to using its standard seasonal flu surveillance network to track and report flu activity.

Latest DSHS Weekly Flu Surveillance Report
Families and Individuals
- Frequently Asked Questions for the General Public (Rev. 8/09/09) (PDF Version, 27kb)
- Steps You Can Take to Stay Healthy
- How to Stay Home Safely (Rev. 8/09/09) (PDF Version, 35kb)
- More information for families and individuals

Health Care Professionals
- Interim Guidance for Reducing the Spread of Novel H1N1 and Seasonal Influenza in State Hospitals and State Supported Living Centers (8/09/09) (PDF Version, 116kb)
- Healthcare Provider Registration – Texas Novel H1N1 Vaccine
- More information for health care professionals

Schools, Childcare Facilities, Congregate Settings
- CDC Guidance for State and Local Public Health Officials and School Administrators for School (K-12) Responses to Influenza during the 2009-2010 School Year with Texas Specific Notes from DSHS (8/14/09) (PDF Version, 112 kb)
- More information for Schools, Childcare Facilities, Congregate Settings

Laboratories
- Laboratory Testing Protocol for the Surveillance of Novel H1N1 Influenza and Seasonal Influenza (Rev. 8/05/09) (PDF Version, 140 kb)
- Influenza ICD-9 Codes and CPT Codes (Rev. 5/06/09) (PDF Version, 30 kb)
- More information for laboratories
Health Care Professionals

Interim Guidance for Reducing the Spread of Novel H1N1 and Seasonal Influenza in State Hospitals and State Supported Living Centers

August 9, 2009

Introduction

Seasonal flu circulates each year in Texas, typically during October through May. Periodically, a new flu virus emerges that has not infected people before and for which there is no vaccine. In 2009, a novel H1N1 influenza began circulating throughout Mexico and spread to the United States and other parts of the world. Both novel H1N1 and seasonal influenza can cause significant illness in persons at high risk for complications and also in individuals who are healthy and not in high risk categories.

Purpose

It is not uncommon to encounter seasonal influenza in hospitals and state supported living centers. This document provides guidance and information to reduce the spread of novel H1N1 and seasonal influenza. Guidance regarding novel H1N1 and other influenza may be modified as the situation changes; therefore it is important that people stay informed. Updates and additional information will be posted on www.Texasflu.org. You may sign up on the www.Texasflu.org Web site to receive e-mail updates.
Schools, Childcare Facilities, Congregate Settings

CDC Guidance for State and Local Public Health Officials and School Administrators for School (K-12) Responses to Influenza during the 2009-2010 School Year with Texas Specific Notes from DSHS

August 7, 2009 (CDC release)

Texas Note: The Texas Department of State Health Services (DSHS) has inserted Texas specific information (as of August 13, 2009) or information matching other guidance into this CDC document, labeled as “Texas note.” The original CDC document is at www.cdc.gov/h1n1flu/schools/schoolguidance.htm.

DSHS concurs with the U.S. Department of Health and Human Services (HHS) and US Department of Education (EA) and does not recommend closing schools unless the majority of students are considered a high-risk group (e.g., pregnant teens and students who are medically fragile) at this time.

This recommendation and contents of this document will be updated as the situation evolves.

This document provides guidance to help decrease the spread of flu among students and school staff during the 2009-2010 school year. This document expands upon earlier school guidance documents by providing a menu of tools that school and health officials can choose from based on conditions in their area. It recommends actions to take this school year and suggests strategies to use if CDC finds that the flu starts causing more severe disease. The guidance also provides a checklist for making decisions at the local level. Detailed information on the reasons for these strategies and suggestions on how to use them is included in the Technical Report. Based on the severity of 2009 H1N1 flu-related illness thus far, this guidance also recommends that students and staff with influenza-like illness remain home until 24 hours after resolution of fever without the use of fever-reducing medications.
Laboratories

Laboratory Testing Protocol for the Surveillance of Novel H1N1 Influenza and Seasonal Influenza

August 6, 2009

These guidelines will be revised as the situation evolves.

Texas is currently following traditional influenza seasonal surveillance protocols for the identification of novel H1N1 influenza cases and the emergence of other novel influenza strains using providers from the Texas Department of State Health Services (DSHS) Influenza Laboratory Surveillance Program. Public health laboratory testing for influenza conducted by the DSHS Austin Laboratory and Texas Laboratory Response Network laboratories is primarily surveillance:

- To detect the distribution and spread of the virus
- To detect new variants of the virus and
- To assist in outbreak investigations.

Clinical disease management in individual patients is not a primary goal of public health laboratory testing. Diagnostic testing, if desired, should be performed by commercial laboratory services. To make the most effective and appropriate use of the DSHS Laboratory and Laboratory Response Network (LRN) resources in the primary mission of supporting public health activities, DSHS has revised the criteria for specimens that should be submitted to these laboratories.
Overview of Changes

What Has Changed Since Spring, 2009?

NPI

- School closure not being recommended
- Emphasize hand washing/cover your cough
- Work/school exclusion while sick
Overview of Changes

- **EPI**
  - No reporting of case numbers
  - Monitor key groups
  - Sentinel sites

- **LAB**
  - Not a diagnostic lab
  - Priority
    - Pregnant Woman
    - Impending deaths
    - Lab surveillance
Overview of Changes

• Antiviral
  • Use normal sources to get medications
  • Stockpile for those who cannot get medications
  • FQHC’s to get medications
  • Doctors will be told how to access stockpile
Overview of Changes

• Vaccine
  • Prepare for three shots this year
  • Seasonal Flu in September
  • H1N1 in October
• Priority Groups
  • Pregnant woman
  • Infant caregivers
  • Medical workers
  • 6 months – 24 years
  • >25 – 64 if chronic ill
Next Steps

• Plan now with others in your community
  • local governments, health departments, trauma regional advisory councils, hospitals, doctors, schools, businesses, etc.

• Encourage (or require if appropriate) both “seasonal” and novel H1N1 virus vaccinations

• Encourage common sense measures
  • like washing hands, covering coughs and sneezes, staying at home when sick with flu-like symptoms, etc.

• Engage in continuity of operations planning at work, personal readiness planning at home
Next Steps (cont’d)

• Plan for increased demand for healthcare services within your community
  • Also plan for increased demand for mortuary services
• Don’t assume help will be available from nearby jurisdictions, the state, or the feds
  • Every community and every level of government will likely be impacted
• Promote readiness and self-care in your communities among those who are able
Resources

- www.TexasFlu.org
- www.TexasPrepares.org
- www.TEA.state.tx.us
- www.TDA.state.tx.us
- www.flu.gov