Director’s Update Brief

Tuesday

14 JUL 2009 0815 EDT
Day 87

Week of State Planning for the Fall
Key Events
Pandemic H1N1 – 14 JUL 2009

- Pandemic H1N1 Declarations
  - WHO: Pandemic Phase 6 (11 JUN 2009 1600 EDT)
    - Outbreaks in at least one country in > two WHO regions
  - USG: Public Health Emergency declared (26 Apr 2009)
  - HHS: Downgraded to Phase 1 – Awareness (9 May 2009)

- US Cases (next update 17 JUL 2009)

<table>
<thead>
<tr>
<th>US TOTALS</th>
<th>CASES</th>
<th>HOSPS</th>
<th>DEATHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASES</td>
<td>37,246</td>
<td>4,132</td>
<td>211</td>
</tr>
<tr>
<td>SLTTs AFFECTED</td>
<td>54</td>
<td>48</td>
<td>24</td>
</tr>
</tbody>
</table>

- Majority of states only testing hospitalized cases.
- International
  - 94,512 cases, 122 countries – (429 deaths)
International
Global Cases - 122 countries – 94,512 cases (429 deaths)
Pandemic H1N1 – 14 JUL 2009

Global Case Count and Number of Countries with Confirmed Cases,
April 24 to July 14

Cases

Countries

Date

4/24 5/8 5/22 6/5 6/19 7/3

0 25 50 75 100 125

0 20,000 40,000 60,000 80,000 100,000

International Global Cases - 122 countries – 94,512 cases (429 deaths)
Pandemic H1N1 – 14 JUL 2009

Global Case Count and Number of Countries with Confirmed Cases,
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International Updates
Pandemic H1N1 – 14 JUL 2009

• Vietnam
  – Previous report of cases with resistant strain is unfounded
    • No difference in strain sequence from 2 individuals in question
  – Confusion stemmed from headline of report from viral shedding study
• Among 52 obese patients
  – 27/33 (82%) of obese have at least one known underlying condition
    • Adults: 19/22 (86%)
    • Children: 8/11 (73%)
  – 16/19 (84%) of morbidly obese* have at least one known underlying condition
• Among 75 patients without a known underlying condition conferring risk
  – 5/54 (9%) of those without a known underlying condition were obese
    • Adults: 2/21 (10%)
    • Children: 3/33 (9%)
  – 3/21 (14%) of adults without a known underlying condition were morbidly obese*

*Morbid obesity defined as BMI ≥40; was not calculated for children <2-18 years old
• Median days from onset to
  – Antiviral treatment (n=176), 3 days (0 to 29 days)
  – Hospitalization admission (n=244), 3 days (range 0-18 days)
  – ICU (n=49), 4 days (0-19 days)

• Median days from onset to antiviral treatment
  – In all hospitalized patients (n=176), 3 days (0 to 29 days)
  – In ICU patients (n=57), 5 days (0-24 days)
  – In deaths (n=19), 10 days (range 3-20 days)
Epidemiology/Surveillance
Distribution by Age Group of Influenza Hospitalized Cases
Emerging Infections Program - Pandemic H1N1 - 14 JUL 2009

- Seasonal 2007-08
- Pandemic 2009*

*April 12 – June 30
Confirmed, Probable Fatalities by Date of Death as of 14 July 2009

• Date of death available for 178/211 (84%) of reported fatalities
Epidemiology/Surveillance
States with Increased ILI Activity
14 JUL 2009

U.S. Outpatient Influenza-like Illness Surveillance Network
Florida

U.S. Outpatient Influenza-like Illness Surveillance Network
California

U.S. Outpatient Influenza-like Illness Surveillance Network
New Hampshire

U.S. Outpatient Influenza-like Illness Surveillance Network
Hawaii
States with Decreased ILI Activity
14 JUL 2009

U.S. Outpatient Influenza-like Illness Surveillance Network
New York

Week
ILI (%)

0 1 2 3 4 5 6 7
4-Oct 1-Nov 29-Nov 27-Dec 24-Jan 21-Feb 21-Mar 18-Apr 16-May 13-Jun 11-Jul 8-Aug 5-Sep

U.S. Outpatient Influenza-like Illness Surveillance Network
New York City

Week
ILI (%)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
4-Oct 1-Nov 29-Nov 27-Dec 24-Jan 21-Feb 21-Mar 18-Apr 16-May 13-Jun 11-Jul 8-Aug 5-Sep

U.S. Outpatient Influenza-like Illness Surveillance Network
Minnesota

Week
ILI (%)

0 1 2 3 4 5 6 7
4-Oct 1-Nov 29-Nov 27-Dec 24-Jan 21-Feb 21-Mar 18-Apr 16-May 13-Jun 11-Jul 8-Aug 5-Sep

U.S. Outpatient Influenza-like Illness Surveillance Network
Texas

Week
ILI (%)

0 1 2 3 4 5 6 7 8 9 10 11
4-Oct 1-Nov 29-Nov 27-Dec 24-Jan 21-Feb 21-Mar 18-Apr 16-May 13-Jun 11-Jul 8-Aug 5-Sep
Data analyzed by state for percent of influenza positive lab specimens

- Increasing trends
  - Hawaii noted to have a consistent increasing trend
  - A number of states had trends that appeared to be increasing, though the data needs to be further examined (VT, MS, KS, ID, AK)
  - Four states had increase in ILINet

- Many states showed data that did not have a consistent trend due to reporting difficulties resulting in lack of data for some weeks

- Currently looking at ways to provide an efficient visualization for summary review.
Commonly used RIDTs are capable of detecting Pandemic H1N1 from respiratory samples containing high virus titers

Overall sensitivity was <70% among all samples tested (18-69%)

All RIDTs performed well compared to rRT-PCR for samples with Ct values <20 with 90-100% sensitivity

Sensitivity of the RIDTs was highest among specimens with Ct values of 20-<25

Among samples with Ct values of 20 or greater, the sensitivity declined substantially

Four RIDTs (BinaxNOW, Directigen EZ, QuickVue A+B, and QuickVue) detected cultured A/California/4/2009 with a lower limit of detection between 104.5 and 105.5 TCID50, slightly higher TCID50 levels than for detection of seasonal influenza viruses
# Laboratory Performance of RIDTs Compared to Ct Values in Type A rRT-PCR Assay

## Pandemic H1N1 - 14 JUL 2009

<table>
<thead>
<tr>
<th>RIDT</th>
<th>Samples positive for:</th>
<th>Number of rRT-PCR Positive Specimens Ct Values</th>
<th># Test Positive/ # rRT-PCR Positive (%)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>&lt;20</td>
<td>20 to &lt;25</td>
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<tr>
<td><strong>BinaxNOW</strong></td>
<td>Pandemic 2009 H1N1</td>
<td>8/9</td>
<td>7/17</td>
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<tr>
<td></td>
<td>Seasonal H1N1</td>
<td>ND</td>
<td>2/3</td>
</tr>
<tr>
<td></td>
<td>Seasonal H3N2</td>
<td>ND</td>
<td>10/10</td>
</tr>
<tr>
<td><strong>Directigen EZ</strong></td>
<td>Pandemic 2009 H1N1</td>
<td>8/9</td>
<td>10/16</td>
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<td>Seasonal H1N1</td>
<td>ND</td>
<td>2/2</td>
</tr>
<tr>
<td></td>
<td>Seasonal H3N2</td>
<td>ND</td>
<td>8/8</td>
</tr>
<tr>
<td><strong>QuickVue A+B</strong></td>
<td>Pandemic 2009 H1N1</td>
<td>9/9</td>
<td>13/17</td>
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<tr>
<td></td>
<td>Seasonal H1N1</td>
<td>ND</td>
<td>2/3</td>
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<tr>
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<td>ND</td>
<td>10/10</td>
</tr>
<tr>
<td><strong>QuickVue</strong></td>
<td>Pandemic 2009 H1N1</td>
<td>3/3</td>
<td>1/5</td>
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<tr>
<td></td>
<td>Pandemic 2009 H1N1</td>
<td>4/4</td>
<td>1/5</td>
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<td><strong>3M</strong></td>
<td>Pandemic 2009 H1N1</td>
<td>ND</td>
<td>ND</td>
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<td>2/3</td>
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Community Measures
Pandemic H1N1 – 14 JUL 2009
Comprehensive School Guidance

- Section 1: Background
  - Context: Keep schools open
  - Recommendation: collaborative community level decision making
  - Roles of PH, ED, schools, parents, students, community
- Section 2: Interventions by Scenario
  - Basic interventions for all schools at all times
  - Seasonal flu conditions and/or H1N1 “spring-like” conditions
  - H1N1 “severe” conditions OR unable to protect high risk
- Section 3: Decision-Making
  - Local and collaborative
  - Based on Epi + Values + Intent + Feasibility
  - School dismissal section
Vaccine Implementation Steering Committee
Pandemic H1N1- 14 JUL 2009

• Vaccine Implementation Steering Committee: ASTHO, CSTE, NACCHO, AIM, Preparedness Program Directors, National Vaccine Program Office (NVPO)
  – Goal: Address key policy issues that will affect success of Pandemic H1N1 vaccination campaign
  – Teleconference every Monday and Wednesday
  – Additional meetings scheduled for subcommittees
    • Vaccine Administration Reimbursement
  – Issues under discussion
    • Provider engagement, particularly non-VFC providers
    • Implementation of planning scenarios

• Upcoming Events
  – National Vaccine Advisory Committee (NVAC) Vaccine Safety Meeting: July 15-16
  – Vaccines and Related Biological Products Advisory Committee (VRBPAC) meeting to discuss pathways to licensure: July 23
  – Advisory Committee on Immunization Practices (ACIP): July 29
Healthcare Delivery & Infection Control
Influenza Antiviral-Related ED Visits and Antiviral Prescriptions
Pandemic H1N1 – 14 JUL 2009

Influenza Antiviral-Related Emergency Department Visits (DAWN Live!) and Influenza Antiviral Prescriptions (CDC BioSense), 2008-2009 Season YTD

- Pediatric Stakeholder Meeting set for September 9 & 10
• Harvard Poll Press Release Expected 7/16/09
  – Conducted 6/22-28
  – Nationally representative sample: 1328 respondents (260 Hispanic; 315 Non-Hispanic African American; 305 cell phone interviews)

• Results:
  – Awareness: 92% seen/heard out about outbreak
    • 72% of those followed news closely
  – Level of Concern:
    • At any time: 42% concerned that someone in family would be sick
    • Today: 38%
  – Perceived severity
    • If household member became ill, 51% thought would likely be life-threatening
  – Proximity
    • 27% aware of cases in their community
    • 18% schools in community closed due to H1N1
Joint Information Center (JIC)
Harvard Poll (22 JUN – 28 JUN 2009)
Pandemic H1N1 – 14 JUL 2009

• Self reported responses
  – Washed hands/used sanitizer more: 62% (-5%; 5/6 Poll)
  – Taken steps to avoid someone who has flu-like symptoms 38% (+3%)
  – Avoided places where many people gather: 16% (-9%)
  – Avoided air travel: 13% (-14%)
  – Purchased a face mask: 5%
  – Worn a face mask: 6% (+1%; 4/29 Poll)
  – Gotten a prescription/purchased antivirals: 3% (+1%; 5/6)

• Ability to stay at home
  – 7-10 days: 68%
  – Most of 7-10 days: 17%
  – A few days: 9%