Pandemic Preparation in the Commonwealth

Mass Health Policy Forum
6/8/06
Our Goal

• When the pandemic has passed, and the impact of the wave recedes, we will be able to look back and know:
  – That the Commonwealth of Massachusetts did everything it could; and
  – That by having the right plans in place, and the capability to respond effectively and efficiently, we were able to come together to meet the challenges.
Our Goal

• We will be able to say that:
  – We maintained essential services,
  – We preserved life and minimized discomfort,
  – We created a supportive caring network for our most vulnerable,
  – We minimized the suffering of ALL our residents, and
  – We protected our families and first responders.
WHO global influenza preparedness plan
The role of WHO and recommendations for national measures before and during pandemics

Commonwealth of Massachusetts

Influenza Pandemic Preparedness Plan

Revised January 2006

U.S. Department of Health and Human Services
November 2005
What must we prepare for?

• Surge capacity within the health care system (personnel and hospital capacity).
• Assure the health and safety of the most vulnerable citizens.
• Assure the continuity of society.
• Surveillance / real time identification capability regarding flu outbreaks.
• Timely, effective communications.
Overall Planning Process

- Global / International, and National (WHO, HHS / HRSA, CDC / BT, DHS / HSPD-8)
  - Surveillance, Doctrine / Guidance, National Stockpile, Preparedness Grants
- State / Regional (EOPS / MEMA, EOHHS / MADPH)
  - Comprehensive Emergency Management Planning for all ESF’s
- Local / Institutional
  - COOPs for Businesses, Schools, Colleges, Churches, Community Based Agencies / Providers, Municipal Government
- Family / Individual
  - Emergency plans, supplies, and contingencies
MA Preparedness Planning

- Through EOPS / MEMA Continuity of Operations (COOP) and Continuity of Government (COG) plans have been prepared for all executive branch agencies
  - Agencies responsible for the 18 Emergency Support Functions (health care, food, water, energy, public safety, transportation, etc.) have prepared comprehensive, “All Hazard” COOPs to ensure the continuity of society.
MA Preparedness Planning

• Through EOHHS / MADPH:
  – An education and outreach campaign has been launched through regional forums across the state.
  – All HHS agencies and providers have been required to develop comprehensive COOPs that specifically address the impact of an influenza pandemic to patients as well as the work force.
  – The potential impact of a pandemic on the population at large and the health care system in specific has been analyzed at all levels to identify and address vulnerabilities.
Impact Estimates
### Pandemic Influenza Impact

<table>
<thead>
<tr>
<th>Weeks</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Admission</td>
<td>Weekly admissions:</td>
<td>4820</td>
<td>8000</td>
<td>12000</td>
<td>15200</td>
<td>15200</td>
<td>12000</td>
<td>8000</td>
<td>4800</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peak admissions/day:</td>
<td>2369</td>
<td>2369</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Capacity</td>
<td># of influenza patients in hospital:</td>
<td>3528</td>
<td>5881</td>
<td>8821</td>
<td>11173</td>
<td>11563</td>
<td>10169</td>
<td>7799</td>
<td>5116</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of hospital capacity needed:</td>
<td>27%</td>
<td>44%</td>
<td>67%</td>
<td>84%</td>
<td>87%</td>
<td>77%</td>
<td>59%</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>ICU Capacity</td>
<td># of influenza patients in ICU:</td>
<td>2400</td>
<td>5000</td>
<td>7816</td>
<td>10324</td>
<td>11173</td>
<td>10859</td>
<td>8637</td>
<td>5964</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of ICU capacity needed:</td>
<td>169%</td>
<td>363%</td>
<td>560%</td>
<td>726%</td>
<td>785%</td>
<td>754%</td>
<td>607%</td>
<td>419%</td>
<td></td>
</tr>
<tr>
<td>Ventilator Capacity</td>
<td># of influenza patients on ventilators:</td>
<td>720</td>
<td>1527</td>
<td>2345</td>
<td>3097</td>
<td>3352</td>
<td>3261</td>
<td>2591</td>
<td>1789</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% usage of ventilator:</td>
<td>67%</td>
<td>185%</td>
<td>284%</td>
<td>375%</td>
<td>406%</td>
<td>395%</td>
<td>314%</td>
<td>217%</td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td># of deaths from influenza:</td>
<td>1200</td>
<td>2000</td>
<td>3000</td>
<td>3800</td>
<td>3800</td>
<td>3000</td>
<td>2000</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td></td>
<td># of influenza deaths in hospital:</td>
<td>840</td>
<td>1400</td>
<td>2100</td>
<td>2560</td>
<td>2660</td>
<td>2100</td>
<td>1400</td>
<td>840</td>
<td></td>
</tr>
</tbody>
</table>

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Notes: 1. All results shown in this table are based on most likely scenario.
2. Number of influenza patients in hospital, in ICU, and number of influenza patients on ventilators are based on maximum daily number in a relevant week.
3. Hospital capacity used, ICU capacity used, and % usage of ventilator are calculated as a percentage of total capacity available (see manual for details).
4. The maximum number of influenza patients in the hospital each week is lower than the number of weekly admissions because we assume...
### Comparison of Pandemic Planning Numbers

<table>
<thead>
<tr>
<th></th>
<th>1958/68-like</th>
<th>MDPH Surge Planning*</th>
<th>1918-like</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong># Ill</strong></td>
<td>2 M (30%)</td>
<td>2M (30%)</td>
<td>2 M (30%)</td>
</tr>
<tr>
<td><strong>Hospitalizations</strong></td>
<td>20,000 (1%)</td>
<td>80,000 (4%)</td>
<td>220,000 (11%)</td>
</tr>
<tr>
<td><strong>ICU Care</strong></td>
<td>2,746</td>
<td>Peak – 11,173</td>
<td>31,680</td>
</tr>
<tr>
<td><strong>Mechanical Ventilation</strong></td>
<td>1,368</td>
<td>Peak – 3,352</td>
<td>15,840</td>
</tr>
<tr>
<td><strong>Deaths</strong></td>
<td>4,600 (0.23%)</td>
<td>20,000 (1%)</td>
<td>42,000 (2.1%)</td>
</tr>
</tbody>
</table>

*Based on 3X 1968 projections (Trust For America’s health report: A Killer Flu, [www.healthyamericans.org](http://www.healthyamericans.org), June 2005)
Hospital Surge Capacity
# Surge Bed Capacity vs. Need

<table>
<thead>
<tr>
<th></th>
<th>Levels 1 and 2</th>
<th>Level 3</th>
<th>Level 4 *</th>
<th>Total Bed Capacity</th>
<th>Total Beds Needed</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (West.)</td>
<td>2,122</td>
<td>277</td>
<td>1,026</td>
<td>3,425</td>
<td>3,284</td>
<td>141</td>
</tr>
<tr>
<td>2 (Central)</td>
<td>1,948</td>
<td>460</td>
<td>579</td>
<td>2,987</td>
<td>2,867</td>
<td>120</td>
</tr>
<tr>
<td>3 (N.E.)</td>
<td>2,663</td>
<td>788</td>
<td>1,286</td>
<td>4,737</td>
<td>4,022</td>
<td>715</td>
</tr>
<tr>
<td>4AB (128)</td>
<td>2,879</td>
<td>740</td>
<td>915</td>
<td>4,534</td>
<td>5,096</td>
<td>(562)</td>
</tr>
<tr>
<td>4C (Bos.)</td>
<td>3,013</td>
<td>978</td>
<td>748</td>
<td>4,739</td>
<td>4,014</td>
<td>725</td>
</tr>
<tr>
<td>5 (S.E.)</td>
<td>2,761</td>
<td>324</td>
<td>517</td>
<td>3,283</td>
<td>4,277</td>
<td>(994)</td>
</tr>
<tr>
<td>STATE</td>
<td>15,061</td>
<td>3,567</td>
<td>5,071</td>
<td>23,705</td>
<td>23,560</td>
<td>145</td>
</tr>
</tbody>
</table>

* Requires Purchase of Beds & Supplies
Health Care Personnel
Health Care Personnel Recommendations

• Hospital staff could be reduced by as much as 40% during Pandemic, therefore:
  – In order to assure essential workforce capabilities we must optimize the MA System for Advanced Registration of Volunteer Health Professionals.
  – Critical to the viability of such a system, and thereby our capability of assuring adequate personnel is the passage of legislation that indemnifies said volunteers and makes them eligible for worker’s compensation insurance; and
  – Leverage Regional Medical Reserve Corps’ capacity to recruit, train and coordinate local medical volunteers.
MA Preparedness Planning

• Governor Romney:
  – Hosted a State-wide Pandemic Planning Summit 2/7/06 with HHS Secretary Leavitt.
  – Submitted a $36.5 Million Supplemental Budget Request for Pandemic Preparedness.
  – Hosting 5 Regional Pandemic Planning Conferences
    • Targeting key sectors (municipal leaders, business, schools, colleges / universities, community based organizations and public safety / health and hospitals) across the Commonwealth as partners to promote local preparedness.
Summary Recommendations

The Governor’s supplemental budget request to “Provide Funding to Support Pandemic Preparation and Response in the Commonwealth” would support efforts to:

- Assure Availability of Adequate Health Care Personnel:
  - Establish MSAR of health care volunteers
  - Approve legislation indemnifying volunteers
  - Enhance Medical Reserve Corps
- Enhance Hospital Surge Capacity
- Develop State Stockpile of Antiviral Medications
- Enhance State Laboratory Surveillance Capabilities
- Develop 30 day Stockpile of Food, Supplies and Medications for State Operated 24 / 7 Hospitals / Programs
Upcoming Milestones

• Follow-up activities identified through the conferences will be in process by July.
• Guidance / directives from the administration on key issues should be disseminated in July:
  – Mandatory closures, Quarantine and travel restrictions, Communication / notice protocols, Indemnification of volunteers, Locations of local Influenza Specialty Care Units (ISCUs)
• Simulations / exercises will be rolled-out during July, August and September
• Public education campaigns in Fall 2006
What the public can do

- Educate yourself and family members:
  - Review the “Pandemic Influenza Guide for Individuals and Families” included in your package and at [www.pandemicflu.gov](http://www.pandemicflu.gov)
- Develop a home emergency plan and put together a kit as detailed by the Red Cross:
  - [http://www.redcross.org/services/prepare/0,1082,0_91_,00.html](http://www.redcross.org/services/prepare/0,1082,0_91_,00.html)
- As best you can, keep a supply of canned and dried food in the home
- Talk with your healthcare provider about having more than a 30-day supply of needed medications
- Maintain good health and good habits