Private Sector Considerations for Pandemic Influenza Preparedness and Response

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Learning Objectives

- Describe the operational relevance of the following elements with regard to organizational readiness and response to pandemic flu:
  - Planning
  - Policies
  - Resource allocation
  - Communication
  - Coordination

World Map: Pandemic (H1N1) 2009 [as of 11 Oct. 2009]

Reported cumulative number of confirmed fatal cases of influenza A(H1N1)v and country reporting status by country, as of 11 October 2009, 16:00 hours CEST

U.S.: Pandemic (H1N1) 2009 [as of 3 Oct. 2009]

Institutional Planning and Response for Pandemic Flu

COOP: General Process Elements

Continuity of Operations Plan (COOP) Chart

- Problem 1: Identify critical functions and services
- Problem 2: Identify potential impact of illness on operations
- Problem 3: Identify critical resources and supplies
- Problem 4: Plan and schedule support activities
- Problem 5: Plan and schedule recovery activities
- Problem 6: Plan and schedule active case investigation
- Problem 7: Plan and schedule case management
- Problem 8: Plan and schedule other activities

Review/Update Annually
Institutional Planning Checklist

- **Point 1: Plan** for pandemic’s impact on your institution, your employees, and your stakeholders
- **Point 2: Establish policies** to be implemented during a pandemic
- **Point 3: Allocate resources** to protect your employees and stakeholders during a pandemic
- **Point 4: Communicate** with and educate your employees (and stakeholders) both before and during a pandemic
- **Point 5: Coordinate** with external organizations and help your communities

Adapted from: http://www.pandemicflu.gov

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Point 1: Plan

- Employers should plan to respond flexibly to varying and unpredictable pandemic flu severity levels
  - Local changing conditions

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Point 1: Plan

- Identify your essential employees and other critical inputs
- Related questions to consider:
  - Who are your “essential” or “required attendance” employees?
  - How do you identify them?
  - How do you tell them?
  - What special training do they get?
  - What benefits do they get? (Extra pay?)
  - What if they’re unionized?
- Train and prepare all employees, even ancillary workforce

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Table 2: Associations of attitudes and beliefs regarding pandemic influenza preparedness with projected likelihood of reporting to duty by state and local health department personnel

<table>
<thead>
<tr>
<th>Construct</th>
<th>Agreement n(%)</th>
<th>Bivariate OR (95%CI)</th>
<th>Multivariate OR (95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of existing knowledge about public health impact of pandemic influenza</td>
<td>101 (33.4)</td>
<td>3.5 (2.1-5.9)</td>
<td>3.1 (1.8-5.5)</td>
</tr>
<tr>
<td>Confidence in personal safety</td>
<td>100 (33.3)</td>
<td>4.4 (2.0-7.6)</td>
<td>4 (2.2-7.2)</td>
</tr>
<tr>
<td>Family preparation</td>
<td>100 (33.3)</td>
<td>2.4 (1.5-3.8)</td>
<td>2.1 (1.2-3.4)</td>
</tr>
<tr>
<td>Health Department’s perceived ability to provide timely information</td>
<td>100 (33.3)</td>
<td>2.3 (1.3-3.8)</td>
<td>2.3 (1.3-3.8)</td>
</tr>
<tr>
<td>Perception of the capacity to effectively communicate risk</td>
<td>100 (33.3)</td>
<td>6.6 (3.3-13.5)</td>
<td>6 (3.2-12.7)</td>
</tr>
<tr>
<td>Familiarity with one’s role-specific response requirements</td>
<td>100 (33.3)</td>
<td>7 (2.3-16.9)</td>
<td>7 (2.3-16.9)</td>
</tr>
<tr>
<td>Perceived importance of preparedness training and education</td>
<td>93 (31.1)</td>
<td>9.5 (4.6-19.9)</td>
<td>9.5 (4.6-19.9)</td>
</tr>
</tbody>
</table>

* A score of 4 or 5 on the Likert scale
† Adjusted for Age, Gender, Job Classification

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Point 1: Plan

- Identify a pan flu coordinator and team
  - Suggestion: Organize them using the Incident Command System (ICS) concept
  - Created in 1970s by fire departments to combat massive fires
  - Uses hierarchical structure that provides flexible, responsive command
- ICS structure
  - Incident commander: leads ICS structure
    - Makes decisions based on situation and intelligence
  - Public Information Officer
    - Works with Incident Commander
    - Provides information to media, employees, customers

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Point 1: Plan

- Additional planning considerations:
  - Community-level engagement will be vital
  - Planning measures must anticipate long duration of pandemic and resource scarcity
  - Preparation for psychosocial impacts critical
  - Encourage personal preparedness planning for employees and families
Key Planning Elements: Pandemic Flu

- **2-week** supply of food and water:
  - self, family, pets
- Prescription medicines
- Basic OTC health supplies
  - e.g.: thermometers, tissues, soap, hand sanitizers, fever-reducing meds, cold meds
- Current phone numbers/e-mails:
  - work, teachers, community groups

Source: http://pandemicflu.gov/professional/community/plannow.pdf

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Point 1: Plan

- Personal plans should account for disruptions in:
  - Healthcare facilities
  - Banks
  - Stores
  - Restaurants
  - Government offices
  - Postal facilities
  - Special needs services

Source: HHS

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Point 1: Plan

- Employees’ personal planning should factor in contingencies for potential school closures:
  - Discuss with school administrators about potential for closures
  - Plan for home learning activities if necessary
  - Plan for recreational activities for children
  - Consider childcare needs
  - Consider special-needs dependents

Source: HHS

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Point 2: Establish Policies

- Policies that should be established in advance of a pandemic:
  - Employee compensation and sick leave
  - Flexible worksite considerations
  - Preventing flu spread
  - Isolation and quarantine
  - Travel to and from affected areas

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Point 3: Allocate Resources

- What resources should be allocated to help your business?
  - Infection control
    - Sneezing and coughing etiquette
    - Hand-washing (encouragement and stations)
    - Social distancing (canceling face-to-face meetings)
    - Screening at entry points (self-screening, active screening)
      - Fever or chills AND cough or sore throat
    - Telecommuting
### Point 4: Communicate

**Items to communicate with external customers (“clients”) and your internal customers (employees):**
- Both groups must receive attention
- Pandemic fundamentals
- Corporate plan
- Corporate policies and procedures
- Resources

**Communicate with external customers (“clients”):**
- Pandemic fundamentals
- Corporate plan
- Corporate policies and procedures
- Resources

**Communicate with internal customers (employees):**
- Pandemic fundamentals
- Corporate plan
- Corporate policies and procedures
- Resources

**Point 4: Communicate**

<table>
<thead>
<tr>
<th>Key communication message for employers should include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- All sick people should stay home and away from workplace during pandemic</td>
</tr>
<tr>
<td>- Non-punitive leave, consistent with public health guidance</td>
</tr>
<tr>
<td>- Should not require doctor’s note</td>
</tr>
<tr>
<td>- Vaccination to be encouraged (both seasonal flu vaccine and H1N1 vaccine)</td>
</tr>
<tr>
<td>- Employees with higher risk (or with dependents at higher risk) for flu complications should check with their healthcare provider:</td>
</tr>
<tr>
<td>- Children &lt; 5 years</td>
</tr>
<tr>
<td>- Pregnant</td>
</tr>
<tr>
<td>- Chronic lung disease (adults and children)</td>
</tr>
<tr>
<td>- Heart disease</td>
</tr>
<tr>
<td>- Diabetes</td>
</tr>
<tr>
<td>- Immune system-suppressing diseases and other chronic med conditions</td>
</tr>
<tr>
<td>- Adults &gt; 65 years</td>
</tr>
</tbody>
</table>

Source: [http://www.pandemicflu.gov](http://www.pandemicflu.gov)

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**Critical Message: “Stay home if you’re sick.”**

- Non-healthcare workers / non-visitors to healthcare facilities with influenza-like illness should stay home:
  - For at least 24 hours post resolution of fever (100 deg. F)
  - In absence of fever-reducing meds
  - Total stay-home time typically 3 – 5 days

- Healthcare workers / visitors to healthcare facilities with influenza-like illness should stay home:
  - 7 days after illness onset or for 24 hours after symptoms resolve, whichever is longer

- Those who become ill with symptoms of an influenza-like illness during the work day should be separated from other workers and asked to go home promptly

- If an employee becomes ill at work, inform fellow employees of their possible exposure in the workplace to influenza-like illness but maintain confidentiality as required by the Americans with Disabilities Act (ADA)

Source:
- CDC
- CIDRAP
- [http://www.pandemicflu.gov](http://www.pandemicflu.gov)

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**Point 4: Communicate**

**How do you frame messages to get people to take care of themselves?** *(Extended Parallel Process Model – K. Witte)*

1. **Appraisal**
   - Threat appraisal
   - Self-efficacy
2. **Appraisal**
   - Susceptibility
   - Response efficacy

Message rejected

Behavior change

Message accepted

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**Point 4: Communicate**

**Belief in personal threat (“I am susceptible to X”)**

**Belief in response efficacy (“There is something that can be done to lessen the threat of X”)**

**Belief in personal efficacy (“I am capable of doing it”)**

**Belief that new behaviors are consistent with group norms (“My peers support my doing it”)**
Point 5: Coordinate

- Make arrangements in advance regarding coordination with agencies appropriate for your organization:
  - Insurers, health plans, local healthcare facilities
  - Federal, state, and local public health and emergency response agencies
  - Other institutions/businesses

Pharmaceutical/Biotech Industry at Risk

- This industry has inherent close ties to public health
- The influenza vaccine research conducted by these companies is crucial component of preparedness
- These companies must be as prepared internally as they are attempting to make the country

The Companies

- 104 pharmaceutical/biotech companies were contacted by phone
  - September - October 2007
  - List from Pharma-Key (pharma-key.net)
- Initial contact = “cold call” to company headquarters
  - one contact person per company
- Companies with headquarters not in MD were excluded
- Contact attempted for all companies at least twice

The Survey (cont.)

- The survey established whether a company had:
  - an existing preparedness plan (either general or specific for pandemic influenza),
  - plans to draft a preparedness plan,
  - their reasons for not having a plan,
  - and the contents of their plans as compared to the Business Pandemic Influenza Planning Checklist

Source:
**Results**

### General Characteristics of Surveyed Companies

<table>
<thead>
<tr>
<th>Characteristic</th>
<th># Companies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies contacted</td>
<td>104</td>
</tr>
<tr>
<td>Contact unsuccessful</td>
<td>4</td>
</tr>
<tr>
<td>Contacted multiple times, no response</td>
<td>30</td>
</tr>
<tr>
<td>Refusals</td>
<td>11</td>
</tr>
<tr>
<td>Received survey</td>
<td>59</td>
</tr>
<tr>
<td>Completed survey</td>
<td>50 (48%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company size by # FTE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 10 FTE</td>
<td>24 (48%)</td>
</tr>
<tr>
<td>10-50 FTE</td>
<td>16 (32%)</td>
</tr>
<tr>
<td>50-100 FTE</td>
<td>4 (8%)</td>
</tr>
<tr>
<td>100-500 FTE</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>500+ FTE</td>
<td>1 (2%)</td>
</tr>
</tbody>
</table>

### Status of Preparedness Plans for the 50 Participating Companies

- 3 Companies, 4 Companies, 10 Companies, 6 Companies, 1 Companies
- None of the companies in the two smallest size categories (< 10 FTE and 10 – 50 FTE) had a pandemic flu plan in place or intended to develop one.
- 25% of medium size companies (50 – 100 FTE and 100 – 500 FTE) had general plans that could be adapted to pandemic flu.

### Preparedness Plans by Company Size

- None of the companies in the two smallest size categories (< 10 FTE and 10 – 50 FTE) had a pandemic flu plan in place or intended to develop one.
- 25% of medium size companies (50 – 100 FTE and 100 – 500 FTE) had general plans that could be adapted to pandemic flu.

### Survey Analysis

- The larger companies were more likely to:
  - be drafting a plan or already have one in place
  - have more strategies included in a preparedness plan.
Study Conclusions
- Enhanced pandemic preparedness needed for smaller pharmaceutical/biotech companies
- Greater level of preparedness in larger companies may reflect increasing public awareness and efforts of the public health community to provide guidelines

COOP Challenges to Consider for Pan Flu: Summary
- Disease severity (i.e., hospitalization and death rates) in community where institution is located
- Extent of disease (number of people who are sick) in the community
- Amount of worker absenteeism in your institution
- Impact of disease on workforce populations that are vulnerable and at higher risk (e.g., pregnant women, employees with certain chronic medical conditions that put them at increased risk for complications of influenza)
- Other factors that may affect employees’ ability to get to work, such as school dismissals or closures

Caveats for Pandemic Flu Planning
- Additional important factors to consider in pandemic planning:
  - Psychological impacts

Acknowledgements
- Johns Hopkins Center for Public Health Preparedness
  http://www.jhsph.edu/preparedness

Questions?
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References
- Flu.gov
  http://www.pandemicflu.gov/
- CDC
  http://www.cdc.gov/H1N1FLU/
- Business Pandemic Influenza Planning Checklist (HHS)
  http://www.pandemicflu.gov/plan/businesschecklist.html