EMERGENCY PREPAREDNESS FOR A BIOLOGICAL THREAT

Bethzayda Matos, PhD
Biosafety Officer
Environmental Health & Safety
IOWA STATE UNIVERSITY

Pandemic Flu Planning

~3 million people
Agricultural State
Corn, Soybeans & Hogs
6,026 Faculty & Staff

26,856 students
21,607 undergraduates
4,718 graduates
531 Vet. Med. students

1,984 acres
802.9 hectares
State Gym in 1918
Expert Projections

- Estimated duration: 7-10 weeks
- Large percentage of workforce affected
- Highest susceptibility potential: 15-35 yr. olds

Estimates:
- 35% will become ill
- 15% will require medical treatment
- 2% mortality rate
ISU planning is critical because:

– Largest entity in Story County
– High concentration of susceptible population
– Active campus
– International travel
Iowa State University

Pandemic Flu Planning

ISU Pandemic Flu Task Force

Academic/Student Affairs
- Admissions
- Dean of Students
- Environmental Health & Safety
- Financial Aid
- International Students & Scholars
- Records & Registration
- Residence Life
- Study Abroad

Communications
- Dean of Students
- EH&S
- Information Technology Services
- University Relations
- Veterinary Medicine

Health & Medical Services
- EH&S
- Occupational Medicine
- Story Co. Emergency Mgmt.
- Story Co. Public Health
- Student Counseling Services
- Thielen Student Health Center

Policy & Administration
- President’s Office
- Provost
- Vice President Business & Finance
- Vice President Student Affairs
- Human Resources
- Information Tech.
- Legal Counsel
- Residence
- Risk Management

Safety & Essential Services
- Athletics Department
- Dining
- EH&S
- Facilities Planning & Management
- Human Resources
- Iowa State Center
- Public Safety
- Recreational Services
- Residence
Task Force objectives

1) Minimize risk of pandemic flu to students, faculty, and staff.
2) Support remaining students.
3) Continue essential functions.
4) After the pandemic, resume normal operations as soon as possible.
Academic/Research Departments
Template Development

• University of North Carolina - Chapel Hill

• Reviewed and modified to fit Iowa State University

• Paper Plan Tested by 12 ISU faculty and staff

• Web-Based format
  – Intended to facilitate self-directed completion.
Spreading the Word!!

- Inside Iowa State
- President, Provost, Deans
  Cabinets presentations
- ISU Website

- President’s Council –Fall Semester 2007
  - Define assumptions
  - Personnel: Emergency vs. Essential
AccessPlus

Students
- Grades/transcripts
- Accounts receivable
- Job opportunities

Employees
- Payroll
- Vacation/Sick Leave
- Reimbursement

uBusiness
- Faculty activities
- Emergency planning
A. Background Information

- CLOSED 7-10 weeks
- Unit Plan Developer
- Head of the Unit
B. Your Unit’s Objectives

“Suspend on-campus activity, but be available for leadership and policy meetings. Work by email and phone.”

“Suspend all research in progress but faculty may continue to perform "non-lab" related functions (reading literature etc.) from home. Online courses will not be interrupted and animal/plant/microbial care will be maintained.”

“Shut down research so that it can be reinstituted at a later date”
C. Emergency Communications Systems

Please provide the following information under the conditions the university has suspended activities and closed for a period of 7-10 weeks due to a medical crisis. Only the most critical functions should be proposed to continue.

To rapidly communicate with employees in an emergency, we encourage all units to prepare and maintain a call tree. Note below the system(s) you will use to contact your employees in an emergency. Units should identify multiple communication systems that can be used for backup, after hours, when not on campus, or for other contingencies.

- Phone/Call Tree
- Email
- Unit's Web Site
- Other
D. Unit Leadership Succession

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Phone</th>
<th>Alt Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of Unit</td>
<td>Hope, Maury M</td>
<td>515-294-0323</td>
<td></td>
<td>iastate.edu</td>
</tr>
<tr>
<td>First Successor</td>
<td>Beckman, Diane</td>
<td>515-294-0834</td>
<td></td>
<td>iastate.edu</td>
</tr>
<tr>
<td>Second Successor</td>
<td>Jones, Rich</td>
<td>515-294-8018</td>
<td></td>
<td>iastate.edu</td>
</tr>
<tr>
<td>Third Successor</td>
<td>McDonald, Carol G</td>
<td>515-294-8377</td>
<td></td>
<td>iastate.edu</td>
</tr>
</tbody>
</table>
E. Emergency Access to Information Systems

“This plan makes the assumption that all college and central computer systems will be working, and that departments responsible for those systems will coordinate any and all changes made to their systems with the IT staff.”

“Using remote access to ISU and other email systems. Keeping essential files backed up on server and on flash drives.”
F. Unit’s Essential Functions

“Maintain our 24/7 Emergency Response for ISU study abroad students currently abroad. This function can be maintained remotely.”

“Microbial cultures in Bessey Hall will be maintained by Yingjun Wang.”

“Plant care in Bessey Hall greenhouse will be maintained by Steve Mahoney.”
G. Key Internal (Within ISU) Dependencies

- "Power for -80 freezers" – Facilities Planning & Mgmt.
- "IT services" – Information Technology Services
- "Animal care" – Laboratory Animal Resources
- "Facility Security" – Public Safety
Requested Dependency

<table>
<thead>
<tr>
<th>Requesting Unit</th>
<th>Product/Service</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Services</td>
<td>Internet access, email, access and support</td>
<td>Accepted</td>
</tr>
<tr>
<td>VPBF</td>
<td>IT Services</td>
<td>Accepted</td>
</tr>
<tr>
<td>College of Human Sciences</td>
<td>IT Services</td>
<td>Accepted</td>
</tr>
<tr>
<td>Controllers Department</td>
<td>ITS jobs which process payroll must cont</td>
<td>Accepted</td>
</tr>
<tr>
<td>College of Liberal Arts and Sciences</td>
<td>Maintain email service and maintain elec</td>
<td>Accepted</td>
</tr>
<tr>
<td>Environmental Health and Safety</td>
<td>IT support, server support, network &amp; we</td>
<td>Accepted</td>
</tr>
<tr>
<td>University Relations</td>
<td>E-mail and web server IT Services</td>
<td>Accepted</td>
</tr>
<tr>
<td>Office of the President</td>
<td>IT services</td>
<td>Accepted</td>
</tr>
<tr>
<td>Political Science</td>
<td>Maintain email service and maintain elec</td>
<td>Accepted</td>
</tr>
<tr>
<td>ISU Research Foundation</td>
<td>We will all need access to email</td>
<td>Accepted</td>
</tr>
<tr>
<td>Treasurers Office</td>
<td>Payroll, Bond Payments, Financial Aid, S</td>
<td>Accepted</td>
</tr>
<tr>
<td>Material Science &amp; Engineering</td>
<td>Internet services (email, data access)</td>
<td>Accepted</td>
</tr>
<tr>
<td>Center for Industrial Research &amp; Service</td>
<td>IT services</td>
<td>Accepted</td>
</tr>
<tr>
<td>Academic Programs</td>
<td>IT Services</td>
<td>Accepted</td>
</tr>
<tr>
<td>Research and Economic Development</td>
<td>In the event that some research continue</td>
<td>Accepted</td>
</tr>
<tr>
<td>Physical &amp; Computer Sciences</td>
<td>IT Support</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
H. Key External Dependencies
I. Mitigation Strategies

“Replacing desktops with laptops for portability.” —$12,000

“Stock up on supplies: gloves, respirators, biohazard bags, fit test supplies, waste management supplies, infection control supplies.” —$15,000

“Crosstrain to provide backup for essential services.”
J. Recovery After the Pandemic

“Additional waste management costs to dispose of increased medical/biohazard waste.” -- $20,000

“Tap ISU's Employee Assistance Program to address emotional needs.”

“Address continued employee absenteeism, earned time off and emotional needs on an individual and on a group basis, making use of Counseling Services and other resources.”
K. Special Considerations for Each Unit

“In the event ISU is quarantined before evacuations can commence, we estimate the need for 480 total personnel to continue operations in our facilities, housing both sick and healthy students/guests at maximum capacity.”

“Many of the services we will be asked to provide will rely on IT communications systems.”
L. Additional Resources and Planning Suggestions

Please provide the following information under the conditions the university has suspended activities and closed for a period of 7–10 weeks due to a medical crisis. Only the most critical functions should be proposed to continue.

<table>
<thead>
<tr>
<th>L: Additional Resources and Planning Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following is a list of resources, guidelines and policies that will help you plan for pandemic influenza.</td>
</tr>
</tbody>
</table>

**Training and Exercise**

To reduce anxiety units should train and exercise the plans.

**Counseling Services**

Employee Assistance Program is available for faculty and staff who are working during a pandemic outbreak.

**Guidelines for Workplace Dispersement and Fitness to Work**

During a pandemic, employees will be encouraged to reduce face-to-face contact between employees, where possible. Increasing the physical distance between employees to three to six feet will reduce influenza transmission risk from coughing, sneezing or speaking. Employees who are sick should not report to work. Be prepared to implement procedures to reduce the workplace risk of transmitting influenza.

**Emergency Personnel Selection Guidelines**

Units should identify as “emergency personnel” those who are responsible for performing functions that are absolutely essential to the continuation of core university operations (e.g., protection of health or property, support of campus health service, feeding and taking care of animals, watering plants, maintain colonies, or payroll, etc.) during a multi-week public health emergency when classes and other university activities are suspended. “Emergency personnel” must satisfactorily perform their responsibilities in a public health emergency.

**Personal Protection Equipment**

To date, the U.S. Centers for Disease Control and Prevention (CDC) has issued pandemic influenza personal protective equipment (PPE) guidance only for patient care. The CDC is not likely to issue additional pandemic influenza PPE guidance until the threat becomes imminent. When CDC does issue guidance, ISU will follow it to provide the specified PPE (e.g., masks, gloves) to employees in CDC-identified high risk job classifications, and to employees who perform high risk duties identified by CDC.

Units that wish to assess their PPE needs for pandemic influenza should contact the Department of Environment, Health and Safety for guidance: 294-5359.

**Home Emergency Planning for Individuals and Families**

Employees, students, and their families should plan for any type of emergencies that could impact them in their home, apartment or residence hall. Don’t wait–an emergency can occur at any time. Hurricane Katrina taught us that employees may not show up for work if they are concerned for the safety and security of their families. We recommend that your employees receive the following information, available at www.pandemicflu.gov:

- Guide for Individuals and Families
- Family Health Information Sheet
- Pandemic Flu Planning Checklist for Individuals and Families
- Emergency Contact Form
M. Exercising the Plan and Informing Staff

Please provide the following information under the conditions the university has suspended activities and closed for a period of 7-10 weeks due to a medical crisis. Only the most critical functions should be proposed to continue.

### M: Exercising Your Plan & Informing Your Staff

The exercising of plans is the most critical step in determining if what has been identified is feasible, practical, and comprehensive. In many cases, small groups of individuals will be responsible for developing plans. The exercise phase broadens the scrutiny and can inform plan developers on how to make their plans stronger or expose gaps. To ensure the highest level of readiness in the event of an actual emergency, you should train your staff on the plan and conduct drills and exercises.

#### Actions for all units:

<table>
<thead>
<tr>
<th>Plan dissemination</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>All units should share their completed plans with staff relevant to plan implementation.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Staff orientation meeting</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units should orient their staff on the expectations of their plan.</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Emergency communication / call tree drill</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units should test their emergency communication procedures and/or call tree implementation at least semi-annually.</td>
<td></td>
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</table>

#### Exercises for units with essential functions:

<table>
<thead>
<tr>
<th>Off site information drill</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units relying on off-site resources should test those procedures at least annually.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Unit drill</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units with functions required during a medical crisis should test their plan annually within their unit. For assistance with this type of exercise, contact EH&amp;S at 294-5359.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tabletop exercise</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various units would combine to test the interoperability of their plans annually. For assistance with this type of exercise, contact EH&amp;S at 294-5359.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other drills or exercises (describe)</th>
<th>Applies</th>
<th>Does not apply</th>
</tr>
</thead>
</table>
N. Individual Unit Overview

Please provide the following information under the conditions the university has suspended activities and closed for a period of 7-10 weeks due to a medical crisis. Only the most critical functions should be proposed to continue.

A: Background Information for Pandemic Influenza
   Unit: Environmental Health and Safety
   Lead Developer: Jewett, Angie Sue
   Name: Phone: Alt Phone: Email
   Finalized: 2007-11-07

B: Your Unit’s Objectives
   Continue to provide health and safety support to the university community. This may include, but is not limited to: biohazardous waste handling, respirator fit testing, and other services as needed.

C: Emergency Communication Systems
   - Phone/Call Tree
   - Pager
   - Unit’s Web Site
   - Instant Messaging
   - Other

D: Your Unit’s Leadership Succession
   Name: Phone: Alt Phone: Email
   Head of Unit: Inyang, Aniefiok D 515-294-7676
   First Successor: Kerns, Kenneth C 515-294-0746
   Second Successor: Richmond, Paul E 515-294-9698
   Third Successor: Simpson, Steve A 515-294-7675

E: Emergency Access to Information and Systems
   EH&S currently contracts with IT support services.

F: Your Unit’s Essential Functions
   Function: EH&S liaison to the ISU Emergency Operations Center.
Pandemic Flu Planning

Timeline

Task force meeting

Nov '06
Dec
Jan
Feb
Mar
Apr
May
June
Fall '07

Task force meeting

Aug '07
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Fall '08

Template development begins

Units' plan development begins

Units completing the web-based template

Review Process
Lessons Learned

- Academics—*pending*
  - Board of Regents
- Website just for this project
- Test web-based
- Within departments
  - What would we do without Internet?
  - Need to plan for losing employees
  - Cross training is very important
“The threat has by no means receded, and we would be very unwise to let down our guard or slacken our preparedness measures”

Dr. Margaret Chang, Director-General WHO, 2008