



SCHOOL OF PUBLIC HEALTH
UNIVERSITY AT ALBANY State University of New York

University at Albany
Center for Public Health Preparedness

Grand Rounds Series



**Pandemic Planning for
Academic Institutions**

Speaker

Elizabeth A. Hosmanek, J.D.
Program Associate
University of Iowa



The University of Iowa College of Public Health



Sponsored by

Centers for Disease Control and Prevention (CDC)
Centers for Public Health Preparedness (CPHP)
Program

In collaboration with the

Association of Schools of Public Health (ASPH)

All Centers accessible at

www.asph.org/cphp

Call-In

Phone: 800-452-0662

Fax: 518-426-0696

Evaluation

www.UAlbanyCPHP.org/evals

Nursing Contact Hours,
CME & CHES Credits Available

Learning Objectives

1. Identify a process and organizational structure for pandemic planning in academic institutions.
2. Examine strategies to develop an effective evaluation and review plan.
3. Explore new collaborations to strengthen on and off-campus relationships.

Overview

- I. Definitions and Background
- II. Academic Institutions as Communities
- III. Planning Assumptions
- IV. The Pandemic Planning Process
- V. Evaluation and Next Steps
- VI. ASPH/CDC Collaborative Group
- VII. References and Resources

Definitions

Pandemic Influenza (“pan flu”)

- A global outbreak of a novel influenza strain that spreads rapidly.

Avian Influenza (“bird flu”)

- A respiratory illness caused by a virus, usually found only in birds.

Seasonal Influenza (“seasonal flu”)

- A human respiratory illness caused by a virus, most common during winter months.

Why plan?

Historically, three pandemics occur each century:

- 1918
- 1957
- 1968

We are overdue for a severe pandemic



Influenza Pandemics 20th Century



1918: “Spanish Flu”
A(H1N1)

20-40 m deaths

675,000 US deaths



1957: “Asian Flu”
A(H2N2)

1-4 m deaths

70,000 US deaths



1968: “Hong Kong Flu”
A(H3N2)

1-4 m deaths

34,000 US deaths

Credit: US National Museum of Health and Medicine

Why plan?

H5N1 is a strain of *bird flu* being closely monitored:

- 2/29/08: WHO reported 368 cases, 234 deaths (63.5%)

The next pandemic may be caused by a completely different strain. Opinions vary widely.

Basic Student Needs During a Public Health Emergency

- Housing
- Food
- Safety
- Health care



Academic Institutions as Communities

The University of Iowa:

- “Urban” campus, rural state
- Nearly 30,000 students, 11,000 staff, 1,700 faculty
- Education, hospital, sports, cultural, research, public safety, commerce



Planning Assumptions For Moderate to Severe Pandemic:

- 35% ill, 15% require treatment, 2% mortality
- Well-matched vaccine may not be available for six months from outbreak
- Antivirals may be limited or ineffective
- Social distancing may limit transmission
- Significant social and economic disruptions
- Education and communications are critical
- *In worst-case scenario, the University of Iowa community could expect 14,700 illnesses, 6,300 individuals requiring treatment and 840 may die.*

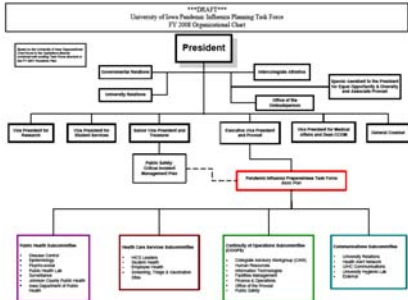
University of Iowa Pandemic Influenza Planning

- Taskforce organized in January 2006 as an initiative of the Office of the Provost
- Draft plan submitted in June 2006
- Recharged by Office of the President
- Currently in third year of planning
- <https://www.uiowa.edu/~crisis/pandemic/index.html>
- <http://www.provost.uiowa.edu/work/pandemic.htm>

UI FY 2007 Pandemic Influenza Task Force Organizational Chart



UI FY 2008 Pandemic Influenza Task Force Organizational Chart



Planning 2007 Tabletop Exercise

Facilitator: Dr. Paul Biddinger, Harvard SPH Center for Public Health Preparedness

- Simulation of a public health emergency on campus, testing Pandemic Plan
- 65 participants role-played through a fictional scenario

2007 Tabletop Exercise

- Prompted rapid decision-making
- National Incident Management System (NIMS) / Incident Command System (ICS), communications
- Coordination w/external organizations
- Ability to care for faculty, staff and students

2007 Tabletop Agenda

- Introduction, Objectives, Ground Rules (1+ hour)
- Exercise Play (1+ hour)
- Break and Lunch (1/2 hour)
- Hot Wash (1 hour)



First Lesson Learned

- Objectives not clear enough
- We under-allocated time
- Roles must be identified and understood



The Scenario

- Day 1: Return from overseas spring break
Student #1: classes, bar crawl, hospital
- Day 2: Student #2 seeks medical attention
- Day 5: Student #1 dies, influx of parents
- Day 11: Hospitals full, 30% of students on campus

Evaluation

Preparedness Cycle: Planning, Training, Exercise, and Evaluation

Composing After-Action Report (AAR) and Improvement Plan (Next Steps)

- Hot wash (immediately after exercise)
- Evaluation forms (less than 50%)
- Timeline for completion of goals

After-Action Report

What went well:

- Care for students
- Health care services



After-Action Report

Areas for improvement:

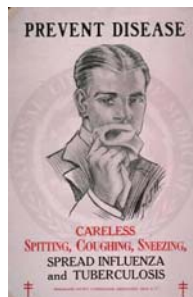
- Job Action Sheets (JAS) for NIMS/ICS
- Communications (redundancies)



Improvement Plan

Progress Reports & Next Steps in University Pandemic Planning (June 2007)

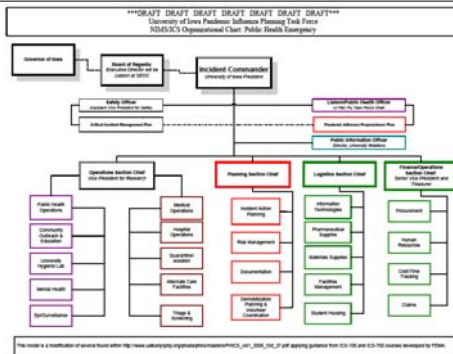
- Formalize NIMS/ICS
- Increase internal & external coordination with partners
- Begin recovery plans



Community & State-wide Partners

- American Red Cross
- Iowa City Government and Business leaders
- Iowa Department of Public Health (IDPH)
- Iowa Regents schools:
 - Iowa Braille and Sight Saving School
 - Iowa School for the Deaf
 - Iowa State University
 - University of Northern Iowa
- Johnson County Public Health (JCPH)
- Mercy Hospital, Iowa City
- Veterans Affairs Medical Center (VAMC)

Planning for the 2008 Tabletop



Homeland Security Exercise & Evaluation Program (HSEEP)

- National Exercise Program, 2-day training
- Focus on *evaluation* and *scale*
- Building block approach
- Identify recommendations, corrective actions, timeline for completion, next exercise to test for improvements
- <https://hseep.dhs.gov>

Building Block Approach

Multi-year plan in which training and exercise activities focus on specific capabilities in a cycle of escalating complexity.



Training & Exercise Activities

Discussion-based activities:

- Seminars
- Workshops
- Tabletops
- Games

Operations-based activities:

- Drills
- Functional Exercises
- Full-Scale Exercises

Choosing Objectives

It is *extremely* difficult to write good objectives

- Cornerstone of design & development
- Provide a basis of measurement
- Five objectives recommended
- Avoid arbitrarily choosing weaknesses

SMART Objectives

Create SMART exercise objectives:

- Specific
- Measurable
- Achievable
- Realistic
- Time



The Good

Draft objective for 2008 exercise:

- Participants will activate and utilize an incident command structure within 24 hours of a declared emergency on the University of Iowa campus.

The Bad

Draft objective for 2008 exercise:

- The exercise will maintain a challenging pace for both advanced and beginner participants.

Better:

- Participants will identify their roles and responsibilities as outlined in the Pandemic Plan.

The Ugly

Objective from 2007 tabletop exercise:

- Meet basic needs (including but not limited to safety, healthcare, psycho-social, housing, and nutrition) of University of Iowa students who remain on campus during a pandemic.

Lessons Learned

- 1) Continuity of Operations
- 2) Alternate Care Facilities
- 3) Screening and Triage

Continuity of Operations

Define “essential” / “core” functions.

- Necessary to protect health and safety of community members and avoid irreparable damage to property.

Core Functions Specific to Higher Academic Institutions

- Human Resources
- Communications
- Information Technologies
- Facilities Management (heating/cooling)
- Public safety
- Health care Services
- Housing



Alternate Care Facilities

Facilities for students who require quarantine or isolation

- Not ill enough for hospital
- Mayflower Dormitory



Alternate Care Facilities

Logistics issues:

- Staffing
- Food
- Communications



Screening and Triage

- Triage facilities will also serve as Points of Dispensing (PODs)
- Open to all county residents
- Working on protocol for hotline
- Logistics issues:
 - Staffing
 - Supplies

Tri-Hospital Collaborative Group

- University of Iowa Hospitals and Clinics (UIHC)
- Mercy Hospital, Iowa City
- Veterans Affairs Medical Center (VAMC)
- Local county health department
- State health department

Next Steps

1. Complete FY 2008 goals (charge)
2. Expand student involvement in pandemic planning
 - Public Health Emergency Student Volunteer Advance Registration System (UI-PHESVAR): secure, confidential database of potential student volunteers



Next Steps

3. Applicability to wide array of hazards
4. Identify areas for continuing and ongoing refinement of plan
5. Identify individuals for training

Key Points

Support from central administration is crucial

- Embrace diversity
- Stay situationally aware
- Objectives drive the exercise



Key Points

- Document progress
- Realize all-hazards benefits
- Don't let perfect be the enemy of good!



ASPH/CDC Collaborative

Association of Schools of Public Health and
Centers for Disease Control & Prevention

Pandemic Influenza Preparedness Resource Kit for Academic Institutions

- Guidance for all planning levels
- Developed by 32 individuals representing 24 Colleges and Universities, a county public health department, ASPH staff, and CDC expert liaisons
- www.asph.org/cphp/home.cfm

Additional Resources

CDC Social Distancing Guidance:

www.pandemicflu.gov/plan/community/community-mitigation.pdf

Cough Etiquette Training Video:

<http://video.google.com/videoplay?docid=-8574515984097771637>

Flu Wiki Planning at Specific Schools:

<http://www.fluwiki.com/pmwiki.php?n=Consequences.SpecificSchools>

NIH Pandemic Plan for Research Animals

oacu.od.nih.gov/disaster/PandemicReadiness.doc

OSHA 2007 Guidance:

<http://www.osha.gov/publications/osha3327pandemic.pdf>

Public Health Incident Command System:

<http://www.ualbanycphp.org/pinata/phics/default.cfm>

UAlbany CPHP Online Course:

Preparedness & Community Response to Pandemics



Annual Vaccines

Two types of annual vaccines are available:

Inactivated influenza virus, usually administered intramuscularly by injection

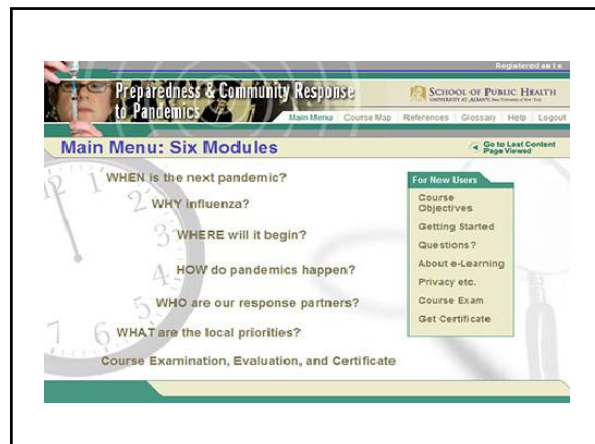
Risks include allergic reactions and GBS (associated with the swine flu vaccinations in 1976).

Live attenuated influenza virus (LAIV) vaccine sprayed into nostrils

Licensed in 2003, FluAid® has been approved for healthy children and adults, ages 5-49, and household contacts of people at high risk for influenza complications.



According to the product fact, the intranasal route of administration is recommended, recommending adults and older children in the defined market using a nasal spray to help in order to penetrate the mucous lining.



Registered as L.E.

SCHOOL OF PUBLIC HEALTH
UNIVERSITY AT ALBANY, THE STATE UNIVERSITY OF NEW YORK

Main Menu Course Map References Glossary Help Logout

Main Menu: Six Modules

Go to Last Content Page Viewed

- 1 WHEN is the next pandemic?
- 2 WHY Influenza?
- 3 WHERE will it begin?
- 4 HOW do pandemics happen?
- 5 WHO are our response partners?
- 6 WHAT are the local priorities?

Course Examination, Evaluation, and Certificate

For New Users

- Course Objectives
- Getting Started
- Questions?
- About e-Learning
- Privacy etc.
- Course Exam
- Get Certificate

References

CDC, Pandemic Influenza Website: www.pandemicflu.gov

DHHS, Pandemic Plan: www.hhs.gov/pandemicflu/plan

DHHS, The Great Pandemic:

<http://1918.pandemicflu.gov/index.htm>

DHS, National Strategy for Pandemic Flu:

http://www.dhs.gov/xprevprot/programs/editorial_0760.shtm

FEMA, Manual for National Incident Management System:

<http://www.training.fema.gov/EMIWeb/IS/ICSResource/assets/NIMS-90-web.pdf>

Hospital Incident Command System:

<http://www.emsa.ca.gov/hics/hics.asp>

World Health Organization Pan Flu:

www.who.int/csr/disease/avian_influenza/en/index.html

**Elizabeth Alexandra
Hosmanek, JD**

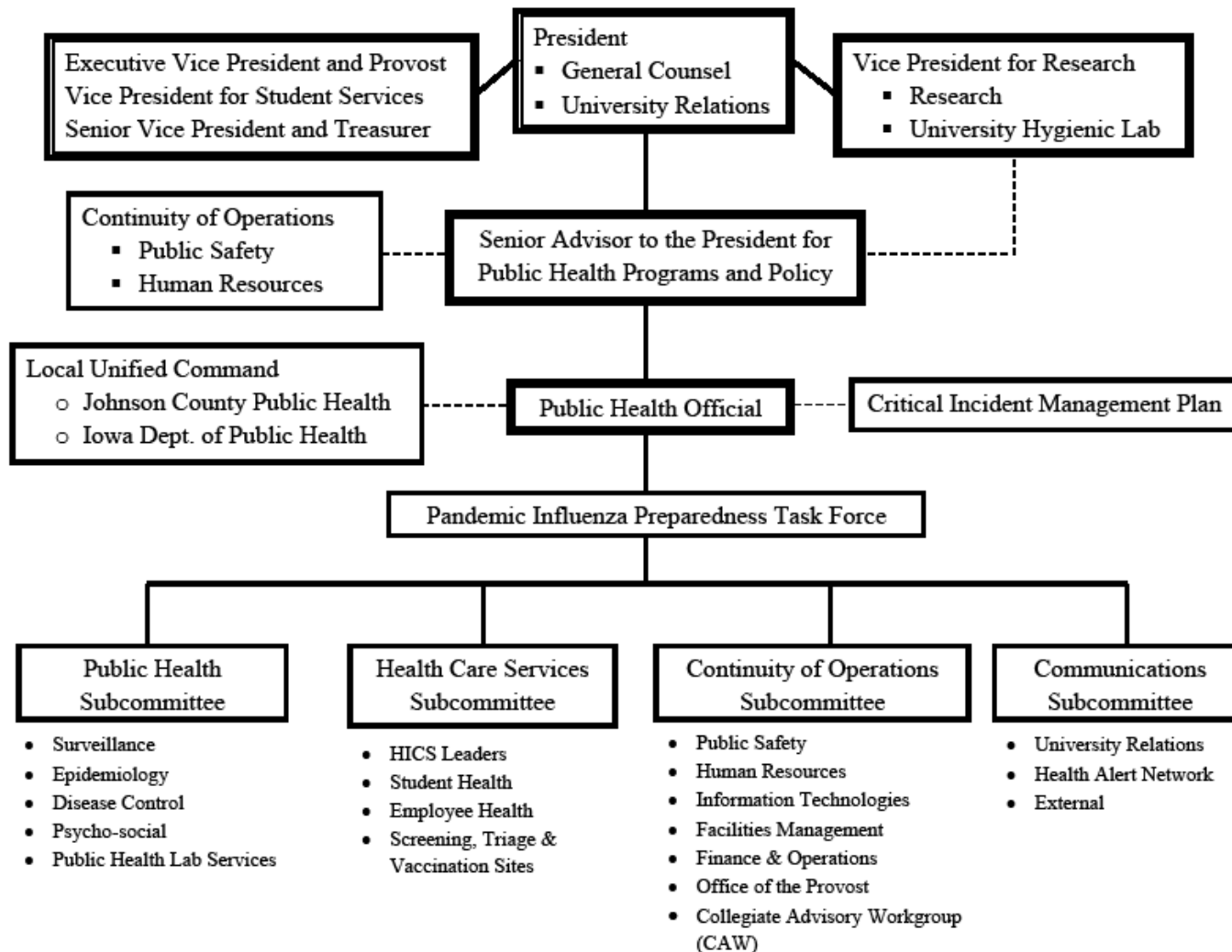
elizabeth-hosmanek@uiowa.edu

Evaluation

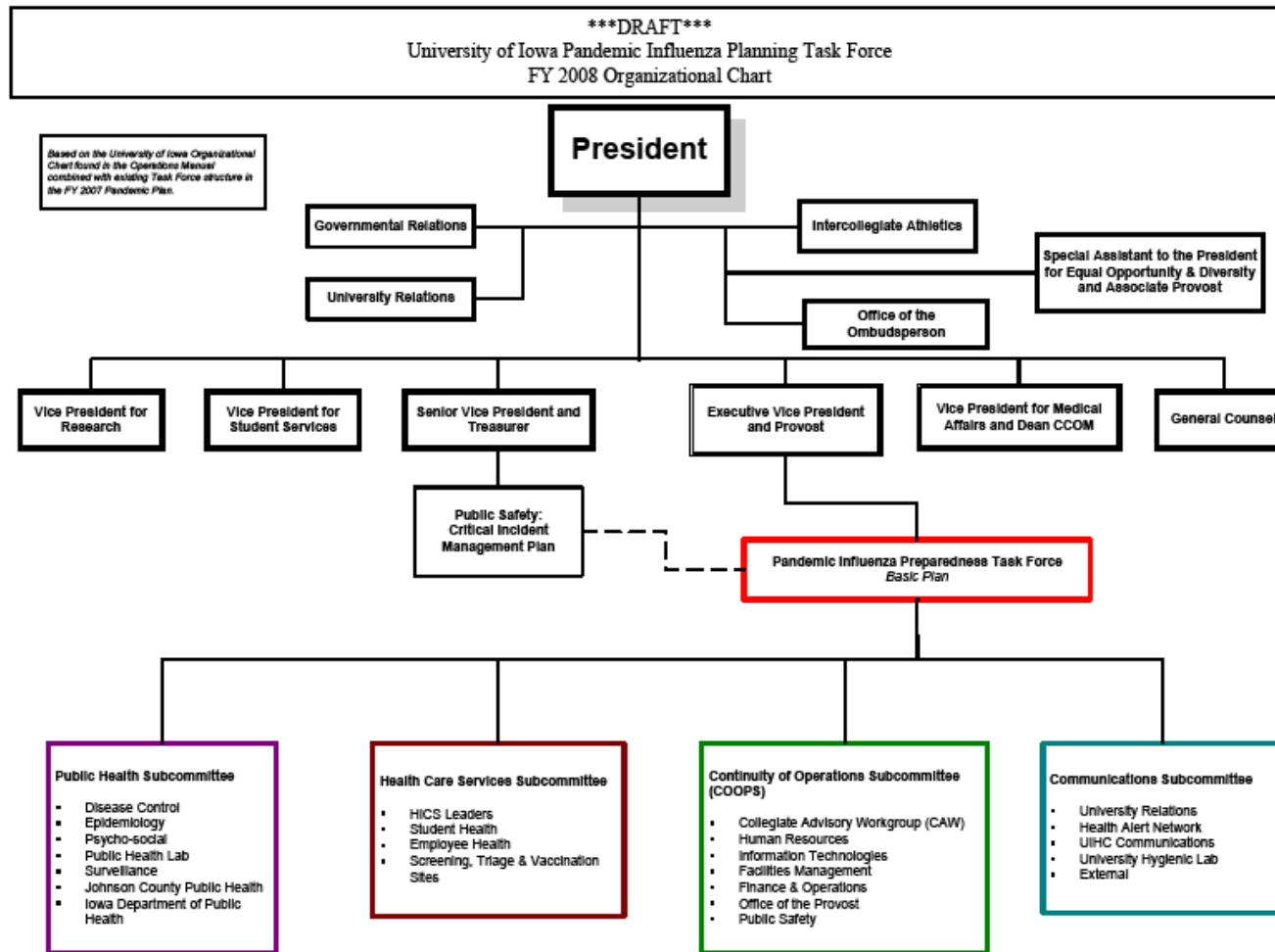
UAlbanyCPHP.org/evals

**Nursing Contact Hours,
CME & CHES Credits Available**

UI FY 2007 Pandemic Influenza Task Force Organizational Chart



UI FY 2008 Pandemic Influenza Task Force Organizational Chart



Planning for the 2008 Tabletop

