

After-Action Report (AAR)

University of Washington Disaster Resistant University (DRU) Pandemic Influenza Functional Tabletop Exercise

Executive Summary

The University of Washington's (UW) 2006 annual emergency preparedness exercise was held on Wednesday, May 31, 2006. The exercise involved a simulated communicable disease outbreak that affected the Seattle, Bothell, and Tacoma campuses, and the entire region. There were 56 participants, representing UW administrators, unit leaders, and departments as well as external agencies. The primary purpose of this exercise was to test the adequacy of the University's emergency response plan during all phases of a simulated pandemic influenza (flu) event. This report is based upon the observations and evaluations of the exercise, and is intended to assist UW units and operating departments in enhancing emergency preparedness. The suggested actions in this report should be viewed as *recommendations only*.

The exercise was developed by a design committee with representation from the University and community partners. The committee was chaired by the Northwest Center for Public Health Practice, which also coordinated logistics, facilitation, and evaluation for the event. The exercise scenario was strategically developed to address specific exercise objectives and to cover all phases of a pandemic flu event. The tabletop exercise engaged all players (exercise participants) actively in group discussion. It concluded with a debriefing session.



The exercise was evaluated both by the players and official evaluators. The players completed pre- and post-drill surveys, which asked participants to self-assess their level of competency regarding the exercise objectives and related response activities based on the UW emergency response plan. Response rates for the pre- and post-exercise surveys were 98% and 81%, respectively. The vast majority of survey respondents reported that the exercise met the specific objectives (71% to 89%, depending on objective). Respondents who identified themselves as being from UW were significantly more likely on the post-exercise survey to agree that they were “aware of gaps” in the University's pandemic flu plan compared to their pre-exercise replies.

Exercise evaluators participated on the design team and were trained to identify and evaluate specific measures using an evaluation template during the exercise. The key findings from this evaluation show that improvements or clarification should be made in the following areas and activities:

- Communicating the role and function of the UW's Advisory Committee on Communicable Diseases (ACCD) and the ACCD plan.
- Enhancing or sustaining systems to coordinate between internal functional units and external agencies.
- Clarifying the role of Human Resources during a major pandemic flu outbreak.
- Tracking and documenting the status of students, faculty, and staff during a disease outbreak.
- Planning for "social distancing" and personal protection among essential services staff and, in particular, within the UW's Emergency Operations Center (EOC).
- Ensuring consistency and coordination in message communication.
- Preplanning of alternate instructional or employee work options (*e.g.*, telecommuting).
- Clarifying the availability, eligibility, and scope of counseling "disaster mental health" services.
- Identifying and communicating the policies or criteria for suspending operations during and for reopening the University after a pandemic influenza outbreak.
- Clarifying the use of volunteers and professional licensure requirements.
- Communicating and enforcing travel policies for faculty, staff, and students during various phases of an outbreak.
- Ensuring that the University speaks with "one voice," which includes off-campus sites and independently functioning units.
- Clarifying how costs of the outbreak will be identified and documented (including potentially reimbursable costs and loss of revenue).
- Clarifying University procedures pertaining to isolation and quarantine decisions.

Exercise Overview

Exercise (Full) Name: Annual University of Washington Disaster Drill

Duration: 7 ½ hours

Exercise Date: Wednesday, May 31, 2006

Type of Exercise: Functional Tabletop

Funding Source

This exercise was funded through the Disaster Resistant University (DRU) grant awarded to the University of Washington (UW) Office of Emergency Management (OEM) from the Federal Emergency Management Agency (FEMA).

UW OEM contracted with the Northwest Center for Public Health Practice to create and facilitate a design committee; develop the exercise, handouts, and additional materials; arrange

for a facility and catering; coordinate invitations and RSVPs; and manage all other logistical components.

Program: UW OEM Annual Emergency Preparedness Exercise Program

Focus: Response to a large scale bioevent.

Primary Scenario: A large-scale pandemic influenza outbreak affecting the University's operations during the months of December through March.

Location: UW Husky Union Building (HUB), Room 200 A/B/C

Sponsor(s)

- UW Office of Emergency Management (OEM)
- UW Emergency Management Planning Committee
- Northwest Center for Public Health Practice (NWCPHP)

Participants and Participating Organizations

Participants included University administrators and managers from the Seattle, Bothell, and Tacoma campuses, department/unit chairs, academic medical facilities, and student organizations, as listed below. Exercise participants also included representatives from external partners the University would likely collaborate with or request expert consultation from during a communicable disease outbreak. (*See resources: Participant List*).

List of University of Washington Departments and Operating Units

- Academic Human Resources
- Attorney General's Office (UW Division)
- Business Services Division
- Classroom Support Services
- Computing and Communications
- Environmental Health and Safety
- Executive Vice President's Office
- Facilities Services
- Financial Management
- Hall Health Center
- Harborview Medical Center
- Health Resources and Services Administration
- Health Sciences Administration
- Housing and Food Services
- Human Resources
- Intercollegiate Athletics
- Media Relations
- News and Information
- Office of Emergency Management



- School of Pharmacy
- President's Office
- Property and Transportation Services
- Provost's Office
- Purchasing and Stores
- Real Estate Office
- Regional Affairs
- Risk Management
- School of Nursing/Biobehavioral Nursing
- School of Public Health and Community Medicine
- Student Affairs Office
- Student Government (ASUW)
- UW Medical Center
- UW Police Department
- UW-Bothell Campus
- UW-Tacoma Campus
- Vice Provost for Research Office

List of non-University Participating Organizations

- City of Seattle Fire/EMS
- King County Medical Examiner's Office
- Public Health - Seattle & King County
- Red Cross of Seattle/King County
- Washington State Department of Health

Number of Participants

- Players: 56 (*based on sign-in sheet*)
- Facilitators: 4
- Recorders: 3
- Evaluators: 3 (*official evaluator*)
- Observers: 5

Exercise Background and Overview

The exercise was developed by an Exercise Design Committee (EDC) with representation from the University and community partners. The EDC was chaired and facilitated by NWCPHP. (*See pre-planning activities, below*). Those who were invited to design or participate in this exercise were selected on the basis of their leadership roles and their unit or agency responsibilities or as community partners who would be expected to collaborate in the event of a communicable disease event.

The scenario and group discussion points were strategically developed to address specific exercise objectives and to cover the phases of a pandemic influenza event.

The tabletop exercise itself was facilitated and all participants/players' verbal responses were summarized and recorded as the scenario unfolded. Immediately following the tabletop exercise, the facilitator guided the group through a "hot wash" in which participants were asked to identify main themes as well as the strengths and weaknesses of the current University emergency response plan.

Pre-Exercise Planning Activities

The sponsors, UW OEM and NWCPHP, began planning for the event in early December 2005. The initial meeting was used to finalize the budget and timeline; determine the subject for the exercise scenario; confirm the overall exercise goal; and determine the expectations for the exercise design committee (EDC). The sponsors contacted five key UW departments and outside agencies, requesting them to identify one person from their department to serve on the EDC.

The EDC comprised representatives from UW OEM, UW ACCD, UW Housing and Food Services, UW Environmental Health and Safety, UW Human Resources, UW Hall Health Center, Public Health – Seattle and King County (PHSKC), and NWCPHP. The EDC served as subject matter experts to review and validate the exercise scenario. Members were informed that because they would know the details of the exercise scenario, they would not be able to participate in the actual drill. They met in-person once every three to four weeks and participated in regular discussions via e-mail. Their activities included reviewing the existing UW Emergency Response Management Plan (ERMP) and other plans related to bio-events impacting the UW; drafting of an overall set of exercise objectives; identifying key UW and extramural players to participate in the exercise; and reviewing exercise handouts, slides, and scenario.

A technical planning group, comprising NWCPHP staff, provided technical and logistical assistance, including graphic and instructional design, editing, secretarial support, and project management. This group met as needed to discuss logistics; these duties and meetings increased in frequency as the exercise date approached.

The UW OEM Director sent an e-mail to all invited participants and observers notifying them of the upcoming annual drill. This e-mail contained the general purpose of the drill and explained the executive-level importance of full participation of all UW units and departments. This e-mail was followed up by an e-mail from the UW Associate Vice President to all UW members re-emphasizing the executive-level importance of full participation and support.

Timeline of Event Planning

2005

- Dec. 9: Initial planning meeting with OEM and NWCPHP
- Dec. 12: Request to identify persons to serve on EDC
- Dec. 29: Invitation to identified potential EDC members

2006

- Jan. 11: Technical Planning Group meeting
- Jan. 20: First EDC meeting – member expectations; brainstorming ideas for scenario
- Feb. 16: Second EDC meeting – review of objectives; identification of potential players
- Feb. 28: Draft exercise plan completed and distributed to EDC for review

- Mar. 8: Technical Planning Group meeting
- Mar. 16: Third EDC meeting – review of draft exercise plan; finalize invitee list
- Mar. 17: Initial invitation sent to exercise participants (players)
- Mar. 31: Final plan given to instructional/graphic design team to begin work on slides.
- Apr. 12: Technical Planning Group meeting
- Apr. 14: List of all handouts and printing needs submitted to technical planning group.
- Apr. 21: Draft of slides and handouts completed and distributed to EDC for review
- May 2: Fourth EDC meeting – review of draft slides and handouts
- May 5: Final comments due from EDC
- May 12: All handouts sent to printer for copies
- May 19: Final draft of slides ready
- May 22: Reminder email sent to exercise participants (players) and observers
- May 23: Participant and Facilitator Assistant packets assembled
- May 25: Orientation (*see below*)

An orientation session for the exercise staff was held one week prior to the actual drill. This time was used to go over the day of exercise responsibilities and to clarify the exact duties for the exercise staff. (*See resources: Day of Exercise Responsibilities*). These staff roles included: main facilitator, three group facilitators, four facilitator assistants, three recorders, three evaluators, and eight staff assistants. All staff members were provided written and oral instructions about their specific tasks. (*See resources: Orientation handout*).

Exercise Goals and Objectives

The primary purpose of the 2006 annual UW emergency exercise was to test the adequacy of the University's emergency response plan during all phases of a simulated pandemic flu event. Tabletop exercises are ideally suited for examining existing policies and procedures during a simulated disaster as well as for assisting in the identification of gaps in planning. The specific objectives of this tabletop exercise were to:

- 1. Test the elements of the UW emergency response plan in the context of a communicable disease emergency**
 - Test the understanding of the UW communicable disease plan
 - Test the linkage between the ACCD plan and the UW Emergency Operations Center (EOC)
 - Test the process of activating the EOC in coordination with the ACCD plan
 - Clarify different roles/responsibilities/processes for communicable disease vs. other emergencies
 - Determine how and when campus EOCs are activated
- 2. Test the communication strategies and processes during each stage of a communicable disease emergency**
 - Test the ability to communicate internally
 - Clarify communication between campus sites and facilities
 - Determine how all campus sites (*e.g.*, UW-Bothell, UW-Tacoma, Pack Forest, and Friday Harbor Labs) are coordinated for closures, information to students, faculty, staff, and business operations

- Determine how messages to the public, parents, family members, and other relevant target audiences are coordinated
 - Determine how the ACCD communicates with all campus groups through the EOC
 - Determine how emergency response and protection messages are developed
- 3. Demonstrate the ability of UW to recognize and work with outside agencies and resources**
- Determine how isolation and quarantine and closure decisions are made
 - Clarify linkages and processes with local and state health
 - Determine how contacts are made and who makes them (*e.g.*, with local health, state health, Harborview Medical Center)
 - Determine when and how to use outside resources (*e.g.*, Strategic National Stockpile, mental health, medical back-up, etc.)
 - Clarify how to handle requests from outside agencies on the use of campus resources
- 4. Test when and how internal UW resources and expertise among students and faculty become a response asset versus a client**
- Determine how to identify and use faculty/staff/students who are subject matter experts or interested volunteers, and may also be personally affected by the emergency
 - Determine how to identify, coordinate, and use internal UW assets, resources, and expertise

Exercise Events Synopsis

The tabletop exercise was held on May 31, 2006, in Room 200A/B/C in the Husky Union Building. It was completed in 7.5 hours, including a complimentary breakfast and lunch. (*See resources: Day of Exercise Agenda*).

Welcome and Background

The exercise began with a welcome by Sandra Lier, Associate Vice President. The purpose, objectives, and a description of the exercise were presented by Steve Charvat, Director of UW OEM. Jack Thompson, Director of NWCPHP, offered acknowledgements recognizing individuals involved in the planning and conduct of the exercise.

Pre- and Post-Exercise Data Collection

Prior to the exercise, a questionnaire was distributed to identify the participant's knowledge of their unit's role in responding to a pandemic outbreak. A post-exercise questionnaire, distributed immediately following the exercise, was designed to measure self-reported changes.

The Exercise

Participants were assigned to one of three tables and were asked to remain at their assigned seat for the remainder of the exercise. Approximately 18 players sat at each table. Each table was assigned a facilitator to guide discussions, answer questions, and keep the exercise on time. Each table was assigned a recorder who took notes on an easel notepad. An evaluator was also assigned to each table and recorded observations, which serve as a basis for the findings in this

report. A main facilitator provided the instructions for the exercise and displayed and narrated the scenario for all the participants to view and hear at the same time. All participants were provided instructions including roles to be played and how to participate.

At selected times throughout the exercise scenario participants were provided with supplemental handouts. (*See resources appendix*). These included a fact sheet with health information and planning assumptions about pandemic influenza, such as the incubation period for the virus and the World Health Organization (WHO) pandemic alert levels; the UW ERMP; and a short summary of the University's ACCD recommendations and guidelines. The latter document provided an overview of the ongoing planning process as well as the three goals of the University's ACCD plan: 1) prevent the spread of disease; 2) protect University students, faculty, and staff needs to keep the University functioning; and 3) provide support for essential services that must be maintained.

The scenario was presented through four storyboards that each depicted a different phase in the flu outbreak. The purpose of the storyboard was to provide context for the exercise scenario in terms of time, place, and status of the outbreak. Storyboards did not require a response. The first storyboard described the flu outbreak beginning in Southeast Asia. The second described the outbreak arriving into the United States, but not yet affecting the Puget Sound area. The third storyboard described the influenza outbreak affecting the Seattle area and, hence, University operations. The final storyboard described the large-scale effects of influenza on the local community and the need to prepare for future cases.

Each storyboard contained three to five messages (sixteen total for the four storyboards) that required a response from the players. Each message was presented to all three tables at the same time. Each required a decision or proposed course of action by some or all of the departments or functional units at each table.

The groups were given seven minutes to discuss each message. The facilitators at each table assisted their groups in discussing items such as gaps in policies or plans, inconsistencies or confusion about roles or responsibilities, capacity issues such as assets or limitations in personnel and equipment, communication and coordination within and outside of the University, and unrealistic or impractical solutions to problems.

Group Discussions

After a lunch break, participants reconvened in their groups to discuss the three to five major themes or issues for each storyboard. These themes were developed from a review of the notes and discussions during the morning exercise. This facilitated session lasted about an hour, and reporters were assigned to share each group's themes, issues, and possible strategies.

Hot Wash and Closing

The final session, which also lasted about an hour, provided an opportunity for each group to present its issues and themes to the entire audience.

A closing summary included a review of the objectives and discussion of next steps, along with the completion of the post exercise evaluation.

Analysis of Issues: Participant Pre-/Post-Exercise Surveys

Evaluation of exercise objectives

All 56 participants were given a packet of handouts, including both the pre- and post-exercise surveys, upon check-in at the event registration table. Both surveys asked participants to identify their affiliation as either UW or non-UW, thus enabling us to analyze the data overall and by affiliation. At the time the pre-survey was administered, there were 53 participants present. The response rate for the pre-exercise survey was 98% (52/53). Not all players were able to stay for the entire exercise. Therefore, some players substituted for each other. The participation rate for the post-exercise survey assumed that there were still a total of 53 players, thus the response rate was 81% (43/53).

Data resulting from the pre- and post-exercise survey indicated that the vast majority of pre- and post-exercise UW survey respondents reported that the tabletop exercise met all four exercise objectives (Table 1). The percentage of respondents who agreed or strongly agreed with statements that exercise objectives had been met varied from 71% to 89%. Three of the four exercise objectives used the verb “test,” and it is possible that some respondents may have felt that a tabletop exercise, no matter how well designed or executed, could not truly “test” all elements of the University’s pandemic flu preparedness plans.

Table 1. Survey respondent ratings of exercise objectives (by group).

Exercise Objective	Respondent Affiliation	Strongly Disagree		Strongly Agree		Total
		Disagree	Agree	Disagree	Agree	
Tested ERMP plan	UW	1	7	24	4	36
	Non-UW	0	2	4	1	7
	All	1	9	28	5	43
Tested communication	UW	1	8	21	6	36
	Non-UW	0	1	6	0	7
	All	1	9	27	6	43
Demonstrated work with external agencies	UW	0	4	23	8	35
	Non-UW	0	0	6	1	7
	All	0	4	29	9	42
Tested internal resources	UW	0	10	22	3	35
	Non-UW	0	0	7	0	7
	All	0	10	29	3	42

As shown in Table 1, a total of 28/36 (78%) UW respondents agreed or strongly agreed that the exercise tested the elements of the UW’s ERMP in the context of a communicable disease emergency (objective 1). A total of 27/36 (75%) agreed or strongly agreed that the exercise tested the communication strategies and processes during each stage of a communicable disease emergency (objective 2). A total of 31/35 (89%) agreed or strongly agreed that the exercise demonstrated the ability of the UW to recognize and work with outside agencies and access external resources (objective 3); and 24/35 (71%) agreed or strongly agreed that the exercise tested when and how internal UW resources and expertise among students and faculty are a response asset (objective 4). Also, 100% of the non-UW respondents felt the exercise tested the

ability of UW to recognize and work with external agencies and tested when and how internal resources and expertise are a response asset. On the other hand, only 5/7 or 71% of the non-UW respondents felt the exercise tested the ERMP plan and 6/7 or 86% felt the exercise tested communication.

Pre-exercise survey findings documented that UW tabletop participants were, on average, ambivalent about various aspects of the University’s plans for responding to an influenza pandemic. Following the tabletop exercise, based on the sample that completed both the pre- and post-exercise surveys, respondents self-reported that they were, on average, incrementally “more prepared.” For example, UW pre- and post-exercise survey respondents (n=35-36) were significantly more likely on the post-exercise survey to agree with the statement that they were “aware of gaps” in the University’s pandemic flu plan.

Evaluation of overall event and exercise scenario

A total of 33/35 (94%) of the UW respondents either agreed or strongly agreed that the pandemic flu exercise scenario was a realistic and credible one, as did 6/7 (86%) of the non-UW respondents. A total of 27/36 (75%) of the UW respondents rated the usefulness of the exercise as very good to excellent, and 28/36 (78%) of the UW respondents rated the networking opportunities as good to excellent. Comparable ratings for the non-UW respondents were 71% and 100%, respectively. Data for these exercise quality questions is summarized in Table 2. The day-long participation of very high-level administrators and community agency leaders at the exercise is also noteworthy and validates the importance of this exercise, even though it is not captured by our survey data.

Table 2. Survey ratings of exercise quality

Exercise Quality	Respondent Affiliation	Strongly Disagree		Strongly Agree		Total
		Disagree	Agree	Disagree	Agree	
Clear expectation / instructions	UW	0	3	11	21	35
	Non-UW	0	0	0	7	7
	All	0	3	11	28	42
Scenario realistic & credible	UW	0	2	13	20	35
	Non-UW	0	1	4	2	7
	All	0	3	17	22	42

Analysis of Issues: Official Exercise Evaluation

The assessment of the strengths and areas for improvement in the University’s system of preparedness, response, and recovery from a pandemic influenza outbreak were measured by criteria using a combination of the Centers for Disease Control and Prevention’s (CDC) “Colleges and Universities Pandemic Influenza Planning Checklist” and the four objectives of the tabletop exercise. The 20 criteria, an explanation of each criterion, and the strengths and areas for improvement follow.

1. Accountability: *An accountability system (clarity as to who is doing what and how we know it is being accomplished) is in place to respond to pandemic flu (including individuals with defined roles and responsibilities for preparedness, response, and recovery).*

STRENGTHS

- Tabletop responses consistent with the plan.
- Evidence of thinking about coordinating purchasing of supplies and equipment.
- Sufficient clarity as to who does what internally, with clearly defined roles within each functional unit.
- Back-up is well covered throughout the University.
- Human Resources (HR) department would determine priority list of needed HR staff.
- President's office has defined chain of command.
- Academic personnel would use seniority.
- University of Washington Medical Center (UWMC) has only two representatives assigned to the UW EOC but job action responsibilities are written so anyone can go and should be able to fill a role.

AREAS FOR IMPROVEMENT

- A system for determining who goes to the EOC is needed because most functional units do not have formal procedures or policies in responding to bioevents.
- Clarify who should be in the EOC from the UW-Bothell campus.
- Clarify the responsibility of community members (outsiders) in the University's response. The University has identified numerous agencies and people that will likely be involved in responding, but there is uncertainty as to who is responsible for the training of community members.
- HR has its own plan for who responds, but the plan needs improvement. They have a sequence of back-ups, but there is uncertainty about whether the back-ups would know what to do.
- The regional affairs staff are not included in the EOC, but there is uncertainty if they need to be included since they have only three members.
- PHSKC would want UW to avoid packing people into the EOC in order to prevent further transmission of disease. Determine which functions can be performed remotely. Might need to consider a virtual EOC (web-based system) to conduct research and legal issues as well as track employees, or consider limiting contact among people in the EOC to no closer than three feet of each other.
- Clarify what assistance units can provide to set up a field hospital on campus, including who will be in charge.
- Identify in advance pool of available health care providers from faculty.
- Figure out how to access volunteers, cover them for liability, and how to house and feed them.
- Need a plan for utilizing volunteers. This activity is in development, but not finished. There is no memorandum of understanding (MOU) with the Red Cross. UW has to decide which part of volunteer responsibilities it owns and which aspects can be covered by the community.
- Clarify who from the UW will be lost to National Guard Service if it gets activated.

2. ACCD Plan. *There is a clear process for dissemination of information about the ACCD plan for responding to a pandemic flu outbreak.*

STRENGTHS

- A draft plan specifically addresses pandemic flu, and this plan is consistent with the EOC Plan.

AREA FOR IMPROVEMENT

- No responses mentioned for this criterion. However, it is clear that the draft plan needs to be finalized and distributed.

3. Consistency. *The ACCD plan is consistent with the University OEM plan and with the pandemic plans of the community.*

STRENGTHS

- HR has a system in place to review and clarify policies, including sick leave, telecommuting, and benefits policies.

AREAS FOR IMPROVEMENT

- Must ensure consistent communication and messages throughout the entire length of an outbreak. However, even if communication were consistent, it is uncertain how people would translate or interpret these messages into action.
- Need consistency in the numbering system for levels of alert and in how different organizations use different levels/stages. Perhaps a different naming or labeling (low, medium, high, severe) would make more intuitive sense. People did state that they would want information from the WA Department of Health (DOH) and PHSKC to help determine reactions. They emphasized the importance of the University being consistent with the public sector.
- Need consistency in tracking deaths on campus associated with the University's centers of responsibility.
- Clarify the University's responsibility for student deaths off campus; if there is a policy, it should be explained to all.
- Clarify how costs for impacts resulting from an outbreak will be collected and recorded using a common or consistent methodology.

4. Legal Issues. *Legal authorities, responsibilities, and resources are clear and are appropriately executed (e.g., infection control measures, case identification, isolation, restricted movement, etc.)*

STRENGTHS

- Recognition of the need to consider policy tradeoffs.
- The role of ACCD plan as a policy guide to action.
- Faith in the University's Attorney General's (AG) Office in helping to address legal issues, including where and when to go for assistance.
- Provosts refer to AG office for legal advice and assistance.

AREAS FOR IMPROVEMENT

- Need an understanding about who has authority to close the University. If PHSKC closes public (K-12) schools, can university remain open?
- Clarify who controls the scene of a death on campus, who removes bodies, and the legal jurisdiction for deaths in residence halls.
- Clarify legal responsibilities for costs associated with response to the outbreak.
- Clarify the boundaries for actions outside of job descriptions (in residence halls, etc.) and whether the University will provide defense and indemnification.
- Clarify the role of risk management during an outbreak.

5. Recovery Plan. *There is a recovery plan to deal with consequences of a pandemic (e.g., death of students, staff, financial and operational disruption).*

STRENGTHS

- Recognition of the need to work with state and local public health agencies in recovery efforts.
- Understanding the need to have clear justification for closure and opening of the University.

AREAS FOR IMPROVEMENT

- Clarify what is actually in a plan, what makes common sense, and what needs to be developed.
- Need for assessment of staff capabilities (and uncertainty about whether this is in the current emergency response plan).
- Clarify when and how to downsize and what effects this will have on the University's revenue stream.
- Clarify financial issues during recovery.

6. Business Continuity. *There are alternate procedures to assure continuity of instruction (e.g., web-based distance instruction, telephone trees, and mailed lessons) in the event of closure.*

STRENGTHS

- Recognition that a plan must be in place for continuity of operations.
- The new Emergency Management focus on business continuity was seen as an important asset.
- Recognition that identification of mission critical personnel should be identified in advance and alternative staffing plan should be in place.
- Most essential units within the University and the UWMC already have essential staff identified.
- Recognition that the University's research activities and facility systems (HVAC, water, power, etc.) need to be maintained and supported. A list of essential services that would be activated exists.

AREAS FOR IMPROVEMENT

- Need to revisit criteria to determine continuation of essential services during periods of suspended operations. May need to redefine essential services to address the particulars of a pandemic situation.
- Clarify the policy regarding continuity of operations for residential services.
- Establish criteria for deciding if and when it's business as usual.
- Communicate when students are required to be screened, by whom, and where for travel during a pandemic.
- Identify the threshold for beginning the University's continuity plan.
- Clarify when people can work from their homes and testing of feasibility of telecommuting or home-based options.
- Identify options for conducting classes off-site, (*e.g.*, through on-line or electronic methods).
- Policies needed to address such business practices as paying for tuition, paying staff who have been asked to stay away, receipt of monies from external sources, and paying faculty and staff who are grant funded.
- Clarify what type of work people can take home to maintain operations, particularly confidential documents.
- Resolve lack of permanent staffing for the UW's temporary Business Continuity program, which is grant-funded and expires in February 2007.

7. Essential Operations. *There is a plan in place for maintaining essential operations including payroll; ongoing communication with employees, students, and families; security; maintenance; and housekeeping and food service for student housing.*

STRENGTHS

- Recognition of need to utilize existing, established resources.
- HR is already periodically reminding people about roles and rules.
- UWMC is naturally built to operate on a 24-hour per day, 7-day per week basis.
- Recognition that everything is critical in the face of a pandemic flu outbreak.
- Availability of Red Cross, including several levels of staff and volunteers for most functions.
- Research staff working with animals considered essential.
- HMC policy for staff essential services may be a model.
- Housing and Food Services (H&FS) has a succession plan in place and has identified essential staff and expectations. Uses groups through leads since there are so many essential staff.
- Facilities have identified essential services staff. Set up if supervisor there, but implementation happens naturally, if there is a need for someone to take over, employees empowered to find someone to take over. They have responsibility and authority.

AREAS FOR IMPROVEMENT

- Review and clarify personnel policies for essential services staff. (*e.g.*, discretionary leave, taking care of personal illness or family members, and leave without pay).
- Need a tracking system for employees unwilling or unable to report as required.
- Clarify the option of staging of campus operations for essential services.
- Need to have a list of essential services staff readily available, beyond the OEM.

- Essential services relating to the research component has not been adequately addressed. There are over 100 decentralized animal housing units.
- HR is developing payroll recovery plan. Even though HR has a great Web site, they don't have documents that will assist doing payroll from home. There may be software/data issues.
- Clarify how to implement social distancing or housing for medical care staff.
- Clarify who Medical Centers should go to (*e.g.*, UW EOC or elsewhere) for additional support personnel.

8. Infection Control. *There are infection control policies and procedures in place to limit the spread of flu on campus.*

STRENGTHS

- UWMC, Hall Health, medical facilities, and Environmental Health and Safety (EH&S) recognize need of different levels of infection control and have clear measures in place.
- UWMC is prepared in the event of an outbreak.
- System in place to move students to other locations; but limited by space.

AREA FOR IMPROVEMENT

- Clarify the different levels of infection control at health care settings in the community. This may cause confusion if messages are not relayed carefully.
- A byproduct of using residence halls for sick patients is the need to ensure that the rooms are clean and making sure the public is confident about using them.
- Clarify to the public the difference between seasonal flu vaccine, antiviral drugs, and pandemic flu vaccine.

9. Personnel Policies. *Sick leave policies are in place for employees and students suspected to be ill or who become ill on campus.*

STRENGTHS

- Personnel issues appear to be well defined. Employees may not be fully aware of the policy, but HR feels that a clear policy is in place; the only area that may need further development is advancing policies for telecommuting and work from other sites. HR allows people to work from home.
- Telecommuting policies are already in existence, but might be revised in a pandemic flu situation.

AREAS FOR IMPROVEMENT

- HR needs to do more outreach and communication to ensure employees are fully aware of existing policy.
- Need for bargaining units to understand that personnel policies in place override union concerns about emergency response.
- Address limitations in policies regarding sick students.
- Communicate that responding to a pandemic flu outbreak will result in a different policy than the reporting to work under the snow policy.

10. Medical Supplies. *There are procedures in place for procuring, storing, and providing sufficient and accessible infection prevention supplies.*

STRENGTHS

- UWMC has policy in place on distribution of antivirals.
- Fit testing for respirators and other personal protective equipment is incredibly labor intensive, therefore, UWMC will give masks and not fit test (but will instruct on use) when it is appropriate.
- PHSKC has a clear explanation of use of antivirals and a system in place to educate people about the distribution and use of antivirals.

AREAS FOR IMPROVEMENT

- Need to understand when and how to distribute antivirals on campus.
- Need for a dispensing plan for medications and antivirals.
- Medical supplies management is key issue that the University is unprepared for. Uncertainty about the appropriate personal protection (N95 vs. surgical mask) and the cost of storing enough supplies. EH&S is prepared to do fit testing and considers it an essential function but there were questions about whether fit testing is necessary.

11. Medical Facilities Plan. *There is a pandemic flu plan for campus-based health care facilities.*

STRENGTHS

- Hall Health has a plan at this point for critical services; but limited personnel.
- HMC would continue business as usual and is prepared for an outbreak.
- A Medical Facilities Plan exists that defines what proposed facilities have/don't have (phone, waste, preplanning), and what can/cannot be expected of medical units.

AREAS FOR IMPROVEMENT

- Clarify the major policy question of how many drugs UW should have on hand?
- It is questionable – or at least appears to be so from an outsiders' viewpoint – as to whether a medical care plan exists.
- Clarify who would actually run a hospital that was set up on campus by the military or an external agency (*i.e.*, National Guard).

12. Health Information. *There is a system in place for providing advice to employees and students on how to find up-to-date and reliable pandemic flu information from federal, state, and local public health sources.*

STRENGTHS

- All students who travel would be screened, if they haven't left yet.
- Trusted spokespeople in the community will help decrease fears.

AREAS FOR IMPROVEMENT

- Determine how all campuses coordinate information with health department. Main campus in Seattle will coordinate with PHSKC. Need to clarify role of the Tacoma campus and where they get their messages (*i.e.*, Tacoma-Pierce County Health Department).
- Need to make sure the plan is known and understood by community.
- Need for transparency about what UW does and doesn't know.
- Request guidance from county on how to use nursing students for communicating health messages and resource back-up.
- Clarify confusion about different recommended levels of infection control.
- Differentiate between health care facilities and other functions on campus. Two types of messages are needed: one for health care and one for non-health functions.
- Health care facilities will be seeing sick people and need to have active surveillance, screening, and reporting.

13. Communication Plan. *An up-to-date emergency response communication plan is in place (contains key contacts with local and state public health officials as well as within the university – including back-ups).*

STRENGTHS

- Evidence of communication plan in place and implemented (both in the residence halls and with campus communications news and information).
- Bothell campus has a communications plan in place.
- HMC has a plan for educating staff.
- Computing and Communications would convene unit response staff and include internal Human Resources to oversee attendance – has an internal communication plan.
- PHSKC has developed messages, both active and passive. Campus police involved in on-line communications plan.
- H&FS would try to determine both employee and student numbers.
- OEM and News and Information would be the clearinghouse for tracking all communication.

AREAS FOR IMPROVEMENT

- Recognized importance of consistent message but no clear pattern of how this would be done. Unclear who will take on this role.
- Clarify how to and who should collect and report the status of absenteeism.
- Consider how to ramp up the utilization of mail order prescriptions for Hall Health in order to keep students from coming in person to fill prescriptions.
- Determine how to communicate with and identify students on University-sponsored events away from campus, *e.g.* athletics, concerts/recitals, conferences, etc.
- Clarify how communication actually gets out.

14. Communication Systems. *There is the capacity to carry out the communications needs including regular review, testing, and updating of communications plans that link with public health authorities and other key stakeholders.*

No responses mentioned for this criterion.

15. Communicating with Employees and Students: *There is a plan is for dissemination of information to employees, students, and families, including a lead spokesperson, and for coordination with other communication networks. Language, culture, and reading level appropriateness are incorporated.*

STRENGTHS

- Email/Web developed but recognition that other mechanisms of communication may be important and available, including mass emails and audio-visual resources such as UWTV and mainstream media (clips for evening news).
- Importance of the role of ACCD in developing official messages for the President in communicating with employees and students.
- Credibility of President and Provost for communicating messages.
- Recognition of need to coordinate with other external agencies and local EOCs for messages.
- Availability of faculty as a means of delivering consistent messages. (This is also viewed as an area for improvement, as there is some need to determine how the messages are sent to faculty in the first place, *i.e.* should this be through OEM?)

AREAS FOR IMPROVEMENT

- Ensure that faculty are part of the plan and do not change messages (*i.e.*, communicate misinformation). This needs to be enforced by the Deans..
- Need a good system of recordkeeping of messages. May need to do retroactive fixes.
- Create effective messages for those who are fearful but not sick and who don't come to work.
- Need a plan for communicating with potential travelers. Response plan for returning travelers in place but need to make sure returning travelers know they are supposed to take part in the plan.
- Clarify difference between normal (seasonal) flu and pandemic flu. (May have two types of flu in the community at the same time).
- Need to plan to communicate what isn't known in addition to what is known.
- Consider how to implement a joint information center, and how and who develops communication strategy and messaging.

16. Communication Equipment. *There are communication platforms (e.g., hotlines, telephone trees, dedicated websites, local radio, or television) for communicating university response and actions to employees, students, and families.*

STRENGTHS

- Data regarding absenteeism among staff collected in a central server; data sent to HR once a month.
- Computerized medical record system in Hall Health.
- Electronic means to mass communicate. Heavy reliance on email and the internet as means of getting messages out to students, staff, employees, and faculty. However, this will place a large burden on Communications and Computing.

17. Back-up Communication. *Redundant communication systems/channels are present to expedite transmission and receipt of information.*

No responses mentioned for this criterion.

18. Mental Health. *A communications plan is present to address the potential fear and anxiety of employees, students, and families that may result from rumors or misinformation.*

STRENGTHS

- Hall Health has resources. UWMC has a unit within social work that deals with crisis management.
- H&FS has counseling services available and could have mental health professional to do limited counseling by phone for students.
- Student affairs counseling services would be immediately involved.

AREAS FOR IMPROVEMENT

- Review message development protocol to ensure sensitive, caring, and accurate public information.
- Clarify who can use and how to access campus counseling services (*i.e.*, student vs. employee, residence hall vs. off-campus housing).
- Develop a strategy for dealing with employees who are afraid to come to work – sanctions, exemptions, etc.
- Need for coordination in communications between residence halls and News and Information.
- Need back-up for when counseling resources are depleted. Develop a plan for having back-up on call.
- Need a system to record and document frequency and scope of services needed.

19. External Coordination. *There is a clear process for working appropriately with state and local public health agencies and other local authorities to identify legal authority, decision makers, trigger points, and thresholds to institute community containment measures such as closing (and reopening) the University.*

STRENGTHS

- Definite recognition for need to coordinate with external organizations. PHSKC and DOH were recognized as important players.

AREAS FOR IMPROVEMENT

- HR needs guidance from the state on how UW can pay people if they aren't coming to work.
- Clarify how to keep essential services (*e.g.*, security, utilities, animal care, hospital personnel, housing, and food) functioning.
- Need to coordinate with external agencies about their expected roles in advance, but there is no real clarity as to who decides/oversees. People did recognize that requests would probably be coming through EOC and thus the key players making decisions would be involved in EOC.

- Regional Affairs needs a memorandum of agreement if a third party hospital is set up. Need understanding of how we work with Red Cross. Volunteer management needs to be addressed in the EOC plan.
- As the pandemic increases, Seattle fire and police will be reducing services, but the University may need more external resources. Where should UW put the National Guard if they are called in to assist?

20. Surge Capacity. *There is a system in place to work with PHSKC and UW medical care resources to handle surge capacity issues on campus.*

STRENGTHS

- Campus police have an MOU with Seattle Police.
- The School of Public Health and Community Medicine has developed a web-based volunteer registry system of health sciences graduate students who have come from other professions (*i.e.*, nursing, pharmacy) and faculty who would be willing to assist in the event of an emergency. UWMC and Hall Health could draw from this database of volunteers and match appropriate job skills and abilities to needs during a disaster event.
- WA DOH has procedures in place to rapidly license volunteers, including a retired license category that allows registering of retired personnel.
- PHSKC has a volunteer list, *e.g.*, medical corps program targeting nurses, pharmacists, but numbers are fairly small.
- Some hospitals have inter-hospital agreements to share staff and resources, but not all participate. All the hospitals have signed regional disaster plans.

AREAS FOR IMPROVEMENT

- Need to address the issue of liability for volunteers. Who has responsibility? What can volunteers do? There may be big role for non- medical volunteers, but there is uncertainty about how to coordinate them.
- Develop a list of resources around campus (at least for back-up).
- No university-wide credentialing program or policy is in place.
- Clarify the use of volunteers to do untrained duties (*e.g.*, asking unlicensed people to give shots).
- H&FS will need staff to aid in distribution of food and maintain housing services.
- The Seattle Fire Department mandates that personnel must have an EMT license as part of their hiring requirements. Need to consider alternatives to providing fire services during times when staff is severely depleted. One suggestion is to consider providing points toward hiring people as an incentive if they volunteer.
- Identify where internal and external resources are located.

Additional Themes Identified by Evaluators

Although, in general, the qualitative comments provided by the evaluators tended to corroborate the self-reported results of the survey respondents, some differences were noted. For example, the evaluators all noted the lack of clarity about counseling services that might be needed during and in the aftermath of a pandemic in terms of who and how to access. However, numerous planning elements were identified during the course of the tabletop by the evaluators that provided additional information. (*See Official Exercise Evaluation, strengths and areas for*

improvement, above). All of the evaluators noted that none of the participants mentioned or referred to the ACCD plan by name. All of the evaluators noted that most participants had some difficulties even defining “essential” operations for their unit. On the other hand, most tabletop participants felt comfortable referring potential legal issues arising from a pandemic to the University Attorney General’s office. A message related to the expected surge in need for volunteers during a pandemic elicited a number of practical approaches from intramural and extramural sources, such as the Red Cross, according to the evaluators.

Evaluators identified two concerns that were raised in response to a message pertaining to activation of the UW Emergency Operations Center during a pandemic: 1) the likelihood that some EOC representatives would themselves become ill and unable to fulfill their emergency role(s); and 2) the possibility that EOC representatives would spread the influenza virus among themselves in the close confines of the UW EOC. One potential solution to the latter concern, suggested by a participant from UW Computing and Communications, is to develop a Web-based virtual EOC (WebEOC™) that would make “social distancing” a viable option for these essential disaster response personnel.

Evaluators noted that tabletop participants felt that official University closure (or “suspended operations”) during the pandemic and recovery periods will be challenging, but not insurmountable. A number of internal (UW) and external partners suggested that the University amend its current plans and consider a number of incremental measures rather than all-or-none thresholds for action(s). It was noted, for instance, that although in-person classroom meetings could be suspended, the University can never truly be “closed” due to the presence and needs of its academic medical center(s).

Evaluators also noted the special issues surrounding geographically separate UW campuses—specifically, how would plans, procedures, and protocols be coordinated across campuses? It was noted that one of the UW campuses is located in another county. In terms of internal coordination, the real challenge before, during, and following a bioevent will be how to transition the University from its usual mode of functioning as a number of quasi-independent units into a cohesive and unified organization. The evaluators noted that leadership, especially at the highest levels, would be needed to make this transition in a timely fashion.

Recommendations

Based on both the survey findings and recorded observations of the evaluators, this tabletop exercise assessed many components of the University of Washington’s plans and procedures needed to respond to all phases of a pandemic influenza event. Several strengths and areas needing improvement were identified through this exercise and are listed in this report. The list below summarizes the major themes or issues that should be considered for action planning or strategic direction.

- Communicating the role and function of the UW’s Advisory Committee on Communicable Diseases (ACCD) and the ACCD plan.
- Enhancing or sustaining systems to coordinate between internal functional units and external agencies.
- Clarifying the role of Human Resources during a major pandemic flu outbreak.

- Tracking and documenting the status of students, faculty, and staff during a disease outbreak.
- Planning for “social distancing” and personal protection among essential services staff and, in particular, within the UW’s Emergency Operations Center (EOC).
- Ensuring consistency and coordination in message communication.
- Preplanning of alternate instructional or employee work options (*e.g.*, telecommuting).
- Clarifying the availability, eligibility, and scope of counseling “disaster mental health” services.
- Identifying and communicating the policy or criteria for suspending operations during and reopening the University after a pandemic influenza outbreak.
- Clarifying the use of volunteers and professional licensure requirements.
- Communicating and enforcing travel policies for faculty, staff, and students during various phases of an outbreak.
- Ensuring that the University, including off-campus sites and independently functioning units, speaks with “one voice.”
- Clarifying how costs of the outbreak will be identified and documented (including potentially reimbursable costs and loss of revenue).
- Clarifying University procedures pertaining to isolation and quarantine decisions.

Resources

The following resources were either used during exercise planning or provided to participants during the exercise.

1. Orientation Session – Roles for Exercise Staff
2. Day of Exercise Responsibilities
3. Day of Exercise Agenda
4. Participant List
5. Exercise Scenario Presentations – main PowerPoint slides
6. Storyboards and Messages – participant versions with narration
 - a. Storyboard 1
 - b. Messages for Storyboard 1 (messages # 1-4)
 - c. Storyboard 2
 - d. Messages for Storyboard 2 (messages # 5-8)
 - e. Storyboard 3
 - f. Messages for Storyboard 3 (messages # 9-13)
 - g. Storyboard 4
 - h. Messages for Storyboard 4 (messages # 14-16)
7. Pandemic Influenza Quick Facts
8. Executive Summary of UW Advisory Plan for Communicable Diseases
9. UW Emergency Response and Management Plan
10. Pre-exercise Participant Survey
11. Post-exercise Participant Survey
12. Evaluation Criteria
13. Evaluation Template