

# Analysis of the Argonne Distance Tabletop Exercise Method

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Decision and Information Sciences Division

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by

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# CONTENTS

|   |    |
|---|----|
| EXECUTIVE SUMMARY .....                                     | v  |
| ACKNOWLEDGEMENTS .....                                      | vi |
| 1 INTRODUCTION .....  | 1  |
| 2 DISTEX METHOD OVERVIEW .....                              | 1  |
| 2.1 EXERCISE SCENARIO .....                                 | 2  |
| 2.1.1 Objectives and Extent of Play.....                    | 2  |
| 2.1.2 Outbreak Development Matrix .....                     | 3  |
| 2.1.3 Problem-Solving Tasks.....                            | 3  |
| 2.1.4 Injects.....  | 4  |
| 2.1.5 Mock Media Stories.....                               | 4  |
| 2.2 WEEKLY WEBCASTS .....                                   | 5  |
| 2.3 EXERCISE CONTROL STRUCTURE .....                        | 6  |
| 2.3.1 Trusted Agents.....                                   | 6  |
| 2.3.2 Playing Organization Points of Contact .....          | 6  |
| 2.3.3 Exercise Controller/Evaluators.....                   | 6  |
| 2.3.3.1 Mock Media Controller/Evaluators .....              | 7  |
| 2.3.3.2 Simcell Controller/Evaluators.....                  | 7  |
| 2.4 EXERCISE PORTAL.....                                    | 7  |
| 2.4.1 Architecture .....                                    | 8  |
| 2.4.2 Resources.....  | 8  |
| 2.4.3 Security .....  | 9  |
| 2.4.4 Exercise Document Transmittal .....                   | 10 |
| 2.4.5 Portal Use during FluNami 2007.....                   | 10 |
| 3 PLAYING ORGANIZATION PARTICIPATION .....                  | 11 |
| 3.1 PLAYING ORGANIZATION STAFF PARTICIPATION .....          | 11 |
| 3.2 PROBLEM-SOLVING TASK COMPLETION.....                    | 12 |
| 4 EVALUATIONS BY PLAYERS AND CONTROLLER/EVALUATORS .....    | 13 |
| 5 RECOMMENDED IMPROVEMENTS FOR FUTURE DISTEX EXERCISES..... | 15 |
| 6 CONCLUSIONS.....  | 15 |

**APPENDICES**

APPENDIX A: OVERALL PLAYER FEEDBACK ..... A-1  
APPENDIX B: PLAYER PROBLEM-SOLVING TASK FEEDBACK ..... B-1  
APPENDIX C: PLAYER WEBCAST FEEDBACK ..... C-1  
APPENDIX D: ARGONNE CONTROLLER/EVALUATOR IMPROVEMENT  
SUGGESTIONS..... D-1

**FIGURES**

Figure 1: Player View of FluNami 2007 Website ..... 8  
Figure 2: Number of Visits to FluNami 2007 Portal during Exercise ..... 11  
Figure 3: Number of Playing Organization Staff Members Attending FluNami 2007 Weekly  
Webcasts..... 12  
Figure 4: Comparison of Problem-Solving Task Completion Rates between Hospitals and  
Health Departments ..... 13

**TABLES**

Table 1: FluNami 2007 Weekly Scenario Discussion and Problem-Solving Task Assignment  
Subjects..... 3  
Table 2: Exercise Portal Resource Access Among FluNami 2007 Participants..... 10  
Table 3: Overall Exercise Evaluation Average Score by Players on Five-Point Scale ..... 14  
Table 4: Player Exercise Recommendations and Corrective Actions ..... A-7  
Table 5: Topical Comments by Players in Response to Problem Solving Tasks ..... B-7  
Table 6: Problem Solving Task Evaluation Average Score by Players on Five-Point Scale .. B-17  
Table 7: Topical Comments by Players in Response to Webcasts ..... C-7  
Table 8: Webcast Evaluation Average Score by Players on Five-Point Scale ..... C-11  
Table 9: Argonne Controller/Evaluator Suggestions for Improvement..... D-5

## EXECUTIVE SUMMARY

The purpose of this report is to summarize and evaluate the Argonne Distance Tabletop Exercise (DISTEX) method. DISTEX is intended to facilitate multi-organization, multi-objective tabletop emergency response exercises that permit players to participate from their own facility's incident command center. This report is based on experience during its first use during the FluNami 2007 exercise, which took place from September 19-October 17, 2007. FluNami 2007 exercised the response of local public health officials and hospitals to a hypothetical pandemic flu outbreak.

The underlying purpose of the DISTEX method is to make tabletop exercising more effective and more convenient for playing organizations. It combines elements of traditional tabletop exercising, such as scenario discussions and scenario injects, with distance learning technologies. This distance-learning approach also allows playing organizations to include a broader range of staff in the exercise. An average of 81.25 persons participated in each weekly webcast session from all playing organizations combined.

The DISTEX method required development of several components. The exercise objectives were based on the U.S. Department of Homeland Security's Target Capabilities List. The ten playing organizations included four public health departments and six hospitals in the Chicago area. An extent-of-play agreement identified the objectives applicable to each organization. A scenario was developed to drive the exercise over its five-week life. Weekly problem-solving task sets were designed to address objectives that could not be addressed fully during webcast sessions, as well as to involve additional playing organization staff. Injects were developed to drive play between webcast sessions, and, in some cases, featured mock media stories based in part on player actions as identified from the problem-solving tasks. The weekly 90-minute webcast sessions were discussions among the playing organizations that were moderated by a highly-qualified public health physician, who reviewed key scenario developments and player actions, as well as solicited input from each playing organization. The exercise control structure included trusted agents who oversaw exercise planning, playing organization points of contact to ensure exercise coordination, and exercise controller/evaluators to initiate and oversee exercise play. A password-protected exercise website was designed for FluNami 2007 to serve as a compartmentalized central information source, and for transmitting exercise documents.

During the course of FluNami 2007, feedback on its quality was collected from players and controller/evaluators. Player feedback was requested at the conclusion of each webcast, upon completion of each problem-solving task, and on October 17, 2007, after the final webcast session had ended. The overall average score given to FluNami 2008 by the responding players was 3.9 on a five-point scale. In addition, suggestions for improving the process were provided by Argonne controller/evaluators after the exercise concluded.

A series of recommendations was developed based on feedback from the players and controller/evaluators. These included improvements to the exercise scope and objectives, the problem-solving tasks, the scenarios, exercise control, the webcast sessions, the exercise website, and the player feedback process.

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# ANALYSIS OF THE ARGONNE DISTANCE TABLETOP EXERCISE METHOD

## 1 INTRODUCTION

The purpose of this report is to summarize and evaluate Argonne National Laboratory's Distance Tabletop Exercise (DISTEX) method. DISTEX was developed to meet the Chicago Department of Public Health's (CDPH's) need to conduct multi-organization, multi-objective tabletop emergency response exercises of hypothetical disease outbreak scenarios that permit players to participate from their own facility's incident command center. Argonne staff designed the DISTEX method under contract to CDPH.

This report is based on experience implementing the DISTEX method during the FluNami 2007 exercise. FluNami 2007 took place from September 19-October 17, 2007, and used a pandemic influenza outbreak as the basis of its scenario. Participating organizations included CDPH, three other health departments, and six Chicago hospitals. Argonne facilitated FluNami 2007.

This report is organized into six sections. Section 2 summarizes the DISTEX method and its implementation in FluNami 2007. Section 3 discusses participation in FluNami 2007 by playing organizations. Section 4 presents the results of the feedback about FluNami 2007 that was requested from players and controller/evaluators. Section 5 recommends improvements based on player and controller/evaluator feedback to the DISTEX method for future exercises. Section 6 presents the conclusions of this analysis. The substantive results of the FluNami 2007 exercise are not presented in this document; those are contained in the report entitled *Chicago Disease Outbreak Distance Tabletop Exercise After Action Report/Improvement Plan*.

## 2 DISTEX METHOD OVERVIEW

The underlying purpose of the DISTEX method is to make tabletop exercising simultaneously more effective and more convenient for playing organizations. Tabletop exercises are a very common type of emergency response exercise. As United States emergency planning increasingly integrates the actions of separate responding organizations, more tabletop exercises are inter-organizational. Because inter-organizational tabletop exercises typically have been taking place at a central location, playing organizations can spare only some of their responders and then only for a day or less, which results in unrealistically brief and shallow exercise scenarios and exercise play. The current method also tends to involve too many middle-level managers. High-level response leaders are often unavailable because they cannot leave their home facilities easily, which triggers long exercise scheduling lead times and often results in last-minute leadership gaps. Lower-level specialized responders (e.g., laboratory technicians) also can be unavailable for inter-organizational tabletop exercises at central locations because their limited play – however essential – does not justify long absence from their normal production-oriented duties. Consequently, the value of current tabletop exercises for assessing plans, policies, and procedures is insufficient for a world of integrated emergency planning.

By combining the essential elements of traditional tabletop exercising, such as scenario discussions and scenario injects, with distance learning technologies, this approach is intended to allow exercising of multi-organization scenarios that unfold more realistically over time without requiring players to use valuable resources to travel from their home organizations to a central location. The distance-learning approach also is intended to allow participating organizations to include a broader range of their staff in the exercise without disrupting normal operations than traditional tabletop exercising has been able to accommodate.

The DISTEX method required development of several components. These included an exercise scenario, four weekly facilitated webcast sessions, five problem solving assignment sets, an exercise website, and a controller/evaluator structure. Each of these is described in this section.

## **2.1 EXERCISE SCENARIO**

The exercise scenario consisted of the series of exercise events depicting the disease outbreak that required the playing organizations to respond. It was shaped heavily by the exercise objectives and the extent-of-play agreement. In coordination with the matrix depicting how the fictitious outbreak developed, the scenario included weekly problem-solving tasks for playing organizations, as well as injects, patient counts, and mock media stories to add exercise activities between webcasts. Each of these is explained below.

### **2.1.1 Objectives and Extent of Play**

The objectives and the extent-of-play agreement were developed together. The exercise objectives were tied to the U.S. Department of Homeland Security's Target Capabilities List (TCL). The extent-of-play agreement stated which objectives would be played by each playing organization. The After-Action Report presents all of the exercise objectives. Table 1 summarizes the key subjects that the FluNami 2007 exercise addressed during each webcast session.

**Table 1: FluNami 2007 Weekly Scenario Discussion and Problem-Solving Task Assignment Subjects**

| <b>Item</b>                  | <b>Week 1</b>  | <b>Week 2</b>  | <b>Week 3</b>   | <b>Week 4</b>  |
|------------------------------|--|--|---|--|
| <b>Primary Focus</b>         | Epidemiology, Quarantine and Isolation Policy  | Flu Centers (HFCS <sup>3</sup> ), Antiviral Priorities               | Patient Surge   | Resource Shortages   |
| <b>Secondary Focus</b>       | Public Information, Case Definition, Legal Issues PHICS <sup>1</sup> Decision-Making | Health Alert Network, HEICS, <sup>2</sup> Treatment Recommendations, | Forward Triage/ Alternative Sites, Public Information, Continuity of Operations     | Legal Issues, Security   |
| <b>Problem-Solving Tasks</b> | Gathering of Baseline Data for Epidemiology, Public Information, Resource Planning   | Strategic National Stockpile, FRIP/AIRIP, <sup>4</sup> Legal         | Resource and Financial Management, Update of Antiviral Priorities, Infectious Waste | Mortuary, Absenteeism, Public Information, Financial Recovery Planning |

<sup>1</sup>Public Health Incident Command System

<sup>2</sup>Hospital Emergency Incident Command System

<sup>3</sup>Hospital Flu Centers

<sup>4</sup>Febrile Rash Illness Protocol/Acute Infectious Respiratory Illness Protocol

It became clear during FluNami 2007 that too many objectives were played. The large number of playing organizations and staff slowed the discussion pace. Consequently, more objectives than anticipated were played through problem-solving tasks rather than webcast discussion. This had the unintended effect of making completion of these tasks burdensome at times.

Also, the extent-of-play agreement proved to be insufficiently specific. It was especially problematic in identifying how communications-related objectives would be played between webcasts. As a result, some playing organizations tried to contact others as part of their response to the scenario, but got no response.

### **2.1.2 Outbreak Development Matrix**

The outbreak development matrix was the largest part of the scenario and served as the equivalent to a master scenario events list. It listed the major events that occurred over the course of the outbreak, correlating these with the relevant objectives and anticipated player actions. In effect, this document served as the “exercise script.”

### **2.1.3 Problem-Solving Tasks**

Five sets of problem-solving tasks were assigned to players during FluNami 2007. The two purposes of these tasks were:

- to require playing organizations to address issues raised by the scenario that demanded more time to consider than was available during webcasts; and
- to allow them to reach more deeply into their organizations for expertise and information than they might be able to do during the webcasts.

The tasks consisted of small sets of written questions that were distributed electronically to each playing organization on the morning of each webcast, except that the first week's tasks were assigned only to public health departments and were distributed a week prior to the first webcast so that the first webcast could include the results of these assignments.

Among them, the problem-solving tasks addressed all of the exercise objectives that were not discussed during the webcasts. Incident commanders were free to delegate tasks however they chose, but the tasks were separated by incident command functions so that Incident Commanders could distribute single sets to each of several response units. For example, one task might include several questions only on risk communication so that it could be completed entirely by the Public Information Officer, whereas another set might include questions only on inpatient surge capacity issues so that it could be completed entirely by the Medical Care Branch Director.

The results of each week's problem-solving tasks were used extensively in the next succeeding webcast. The controller/evaluators reviewed the completed assignments, and the moderator highlighted issues that they raised, without attribution. For example, conflicting instructions to the public issued by different playing organizations were topics of discussion during several of the webcasts. One result was a decision during a webcast by the playing organizations to include area hospitals in the Joint Information System currently under development.

#### **2.1.4 Injects**

Injects are scenario events communicated to playing organizations outside of weekly webcasts. They simulate the actions of non-participating organizations. Injects can either be planned or developed for use in response to unanticipated player actions ("contingency injects"). During FluNami 2007, their purposes were to communicate new information, prompt additional play, and create a sense of realism outside of what the webcasts could provide. For example, one inject was the simulated message from the Centers for Disease Control, which did not play in the exercise, responding to the request from the public health departments for distribution of antivirals and vaccines from the Strategic National Stockpile, and providing the number of doses of each that would be provided.

#### **2.1.5 Mock Media Stories**

Mock media stories were a special type of inject. These were simulated video or print stories prepared in response to player actions. Their purposes were to communicate player decisions among all players, to show how the media might react to key player decisions, to introduce new problems, and to create a sense of ongoing realism. Each webcast included a several minute "news roundup" on the simulated pandemic, depicting how the mock television

reporters might characterize player actions that had been decided in response to problem-solving tasks or injects. In addition, a print story appeared during the course of each week to introduce new issues. For example, one print story was written in response to conflicting public instructions about eligibility for receiving antiviral medication that were found in the answers of different public health departments to a problem-solving task. The resulting newspaper story reported community dissatisfaction in a Chicago neighborhood about an allegedly disproportionate number of suburbanites traveling to the city to seek antiviral medication. It prompted discussion about how to avoid such problems in the next webcast.

## **2.2 WEEKLY WEBCASTS**

Weekly 90-minute webcasts were the central activity in FluNami 2007, taking the place of the more usual gathering of players in a single conference room that occurs in most tabletop exercises. Four weekly webcasts occurred during FluNami 2007, beginning on September 26, 2007 and ending on October 17, 2007. Each playing organization was asked to gather its staff in a single conference facility for the webcasts so that they could collaborate with each other during webcasts. In addition to playing organizations, individual invited observers and controller/evaluators also joined the webcasts but did not speak.

Playing organizations arranged their own conference facilities for hosting the webcasts. They were responsible for providing a Windows computer with speakers and a high-speed internet connection, a computer projector to show the visuals, and a speakerphone for the voice communications. No video cameras were used. A “trusted agent” at each playing organization served as the point of contact for the logistical arrangements, which were tested at a “dry run” one week prior to the first webcast.

Argonne arranged each webcast, and provided technical support prior to and during webcasts. Convoq’s ASAP webcasting software was used to broadcast the visual aspects of the webcasts. In order to conserve bandwidth, a standard telephone conference bridge was used to broadcast all of the audio portions except for the mock media video clips, which relied on broadcast from the FluNami 2007 website using the computers and speakers.

The Webcast Moderator was a highly-qualified public health physician provided by Argonne. He conducted the webcasts from a conference room at Argonne. His responsibilities included preparing and facilitating a vugraph-driven discussion of key scenario developments, recognizing speakers, and commenting on various aspects of the response. An informal summary of each webcast was prepared and posted on the FluNami 2007 Portal for participants, including those who could not attend.

Conducting the webcast discussions presented unusual challenges because of the difficulty of coordinating a discussion involving an average of 81 persons distributed among ten locations with no eye contact. A set of specific guidelines for playing organizations to seek and obtain the Moderator’s recognition was included in the Exercise Instructions, and repeated as part of the introduction to each webcast. At times, discussion had to be interrupted briefly to address technical issues, which diminished as experience was gained with the method. For example, when it was discovered that background noise and occasional audio feedback was

being picked up by speakerphones, the playing organizations learned to mute their speakerphones except when one of their staff members had been recognized by the Moderator to speak.

## **2.3 EXERCISE CONTROL STRUCTURE**

Because it involves multiple locations playing simultaneously, the DISTEX method requires a more highly-developed control structure than typical tabletop exercises. The FluNami 2007 exercise control structure included trusted agents, playing organization points of contact, and exercise controller/evaluators. This section explains their functions.

### **2.3.1 Trusted Agents**

The exercise relied on “trusted agents” to provide oversight and ideas. Trusted agents are personnel from playing organizations who help to plan exercises without providing exercise scenario details to fellow employees. The FluNami 2007 Trusted Agents Committee included representatives of John H. Stroger, Jr. Hospital of Cook County, Rush University Medical Center, CDPH, and Argonne. The Committee convened seven hour-long exercise planning conference calls prior to and during the exercise.

### **2.3.2 Playing Organization Points of Contact**

The DISTEX method’s reliance on computer-based technology to enable playing organizations to play in the exercise from their home facilities necessitates tight coordination. Consequently, the control structure requires a “point of contact” at each playing organization. They are responsible for communicating on behalf of their organization with the Lead Controller/Evaluator and other exercise managers and controller/evaluators about exercise logistics, exercise policies, problem-solving tasks (including their distribution and completion), exercise control issues, and all other interactions between their organization and the exercise leadership. In addition, they must assure that the facility is correctly set up and that the required equipment works properly. For example, the points of contact participated in an hour-long “dry run” to test equipment, connections, and webcasting protocol on September 19, 2007. The trusted agents served as the points of contact for their organizations. These points of contact put in a lot of effort and proved to be invaluable to assuring that FluNami 2007 unfolded smoothly.

### **2.3.3 Exercise Controller/Evaluators**

Like other exercises, the DISTEX exercise control structure included controller/evaluators. Controller/evaluators initiate and oversee exercise play. They depict the scenario and its simulated consequences to the players as realistically as possible. Controller/evaluators interact with players as needed to clarify issues and answer questions about how to play in the exercise. At the conclusion of the exercise, selected controller/evaluators assist in the analysis and the development of the after-action report. Two special types of controller/evaluators are the Mock Media Controller/Evaluators and the Simcell Controller/Evaluators.

### **2.3.3.1 Mock Media Controller/Evaluators**

The “mock media” act in the role of real world media, such as local and national television networks, radio stations, newspapers, and magazines. These simulated media representatives interact with player organizations during the exercise to simulate the important role of the media in emergency public information. Mock media do not interact with real world media and must not “play” when in the presence of real world media. During FluNami 2007, the Mock Media Controller/Evaluators developed simulated television and print news stories based on player actions – often their responses to problem-solving tasks – that were used to drive exercise play. However, they did not interact otherwise with playing organizations because the exercise controllers did not want exercise to become more burdensome.

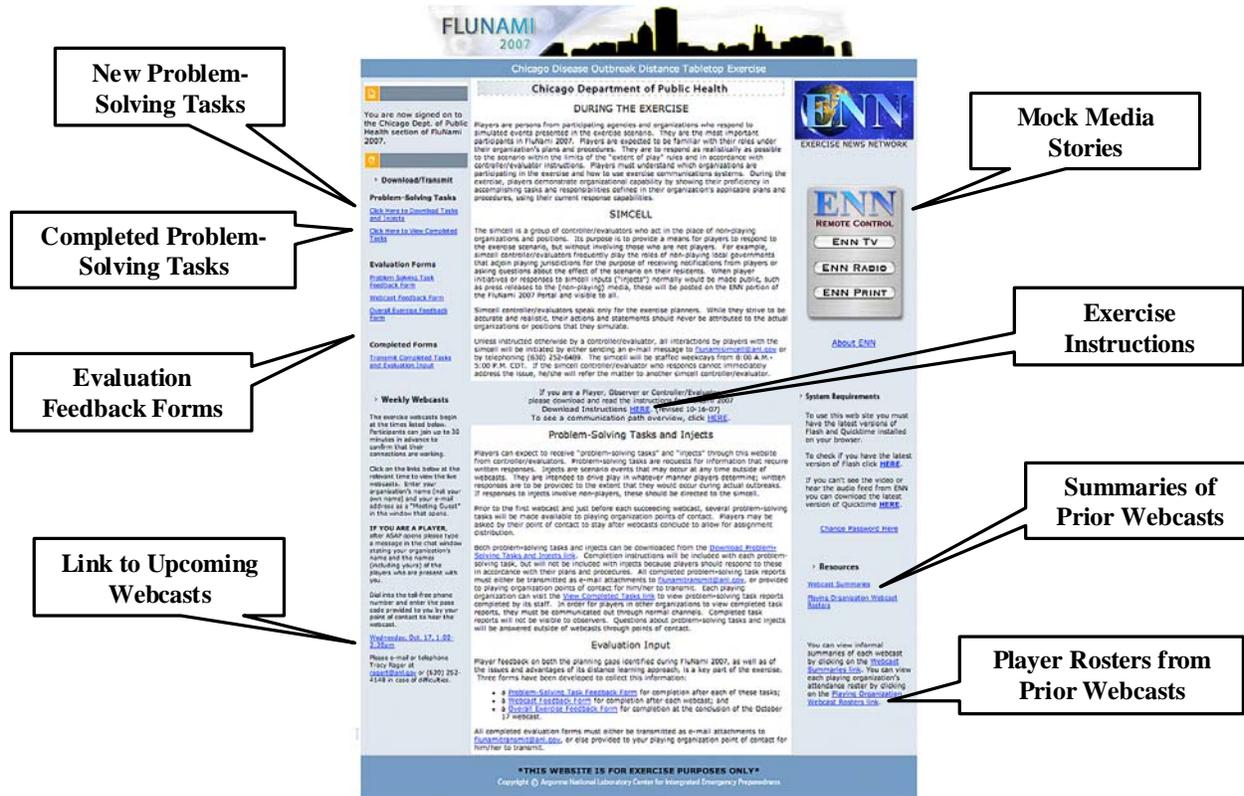
### **2.3.3.2 Simcell Controller/Evaluators**

The simcell is a group of controller/evaluators who act in the place of non-playing organizations and positions. Its purpose is to provide a means for players to interact with everybody in accordance with the exercise scenario, but without involving those who are not players. For example, simcell controller/evaluators frequently play the roles of non-playing local governments that adjoin playing jurisdictions for the purpose of receiving notifications from players or asking questions about the effect of the scenario on their residents. Simcell controller/evaluators speak only for the exercise planners. During FluNami 2007, interactions between players and Simcell Controller/Evaluators were tracked using logging forms. However, the Simcell Controller/Evaluators had limited contact with players in this exercise because most players did not reach beyond their own organizations except when interacting with other players during weekly webcasts. More complete extent-of-play agreements might prompt more interaction between players and simcells in future exercises.

## **2.4 EXERCISE PORTAL**

The FluNami 2007 Exercise Portal was designed as a central information source and for transmitting exercise documents. It contained a single public page for entry into the system, and password-protected pages for all other purposes. This section describes its architecture, security, resources that it made available, exercise document transmittal function, and use during the exercise. Figure 1 shows the portal from the player perspective, indicating key documents that could be accessed from its links.

**Figure 1: Player View of FluNami 2007 Website**



## 2.4.1 Architecture

The key design goal of the FluNami 2007 Exercise Portal was to make it easy for participants to find, view, and disseminate exercise-related information and documents to each other. The Portal was designed by Argonne staff using Adobe DreamWeaver version 9.0 for its written material and QuickTime version 7.3 for its audio and video material. The Portal consisted of 48 total pages coded in HTML, and was hosted on Argonne servers. A website administrator uploaded and maintained all content on a daily basis during the exercise. The Portal included a help function that was available to all participants during normal business hours by both telephone and e-mail.

## 2.4.2 Resources

As illustrated in part by Figure 1, the FluNami 2007 Exercise Portal contained many resources for players, observers, and controller/evaluator use. These included the following key items:

- points of contact for each playing organization;
- exercise instructional guide;

- the exercise scenario;
- uncompleted problem-solving tasks;
- completed problem-solving tasks;
- injects;
- mock media stories;
- summaries of prior webcast sessions;
- rosters of player attendees at prior webcast sessions;
- links to future webcast sessions;
- simcell logs and records; and
- player feedback forms.

As explained below, access was restricted to some of these resources. These restrictions served both to protect confidential contact information and to maintain exercise integrity.

### **2.4.3 Security**

Security was a significant consideration in designing the FluNami 2007 Exercise Portal. Sufficient information had to be available on an unsecured website to enable players or observers without usernames and passwords to acquaint themselves with how to proceed to request access. No confidential information could be displayed there; even the exercise instructions available from this website omitted the annexes containing contact information for playing organization points of contact and controller/evaluators.

The remainder of the portal was password-protected. Individual accounts were assigned to controller/evaluators and observers, and shared accounts were assigned to entire playing organizations. The reason for shared accounts was that it was not cost effective for the webmasters to handle the large number of individual accounts that would otherwise be required, nor was such tight control required for protection. Instead, the trusted agent from each playing organization was responsible for distributing the organization's username and password only to its designated players.

The purpose of creating separate webpages for each playing organization, for controller/evaluators, and for observers was to enable selective display of exercise resources. In order to avoid concerns about organizational sensitivities, players each were allowed to view their own organization's completed problem-solving task submissions, but not those of other playing organizations. Controller/evaluators needed to be able to view the completed problem-solving task submissions by all playing organizations. Observers were allowed to see only limited exercise materials (e.g., excluding all completed problem-solving task submissions), necessitating a separate password-protected webpage for their use. In all, the FluNami 2007 Portal contained a total of twelve password-protected webpages: one for each the ten playing organizations, one for all controller/evaluators, and one for all observers. Table 2 shows which participants had access to each resource on the Portal.

**Table 2: Exercise Portal Resource Access Among FluNami 2007 Participants**

| Available Information or Function  | Opening Webpage | Playing Organization Webpages | Controller/Evaluator Webpage | Observer Webpage |
|--|-----------------|-------------------------------|------------------------------|------------------|
| Playing Organization Points of Contact E-Mail Links and Telephone Number | X               |                               |                              |                  |
| Help E-Mail Link and Telephone Number                                    |                 | X                             | X                            | X                |
| E-Mail Link to “flunamisimcell@anl.gov”                                  |                 | X                             |                              |                  |
| E-Mail Link to “flunamitransmit@anl.gov”                                 |                 | X                             |                              |                  |
| Exercise Scenario  |                 |                               | X                            |                  |
| Link to Webcast Website  |                 | X                             | X                            | X                |
| Instruction Guide without Confidential Participant Lists                 | X               |                               |                              |                  |
| Instruction Guide with Confidential Participant Lists                    |                 | X                             | X                            | X                |
| Communication Path Overview  |                 | X                             | X                            | X                |
| Uncompleted Problem-Solving Tasks  |                 | X                             | X                            | X                |
| Completed Problem-Solving Tasks for Single Playing Organization          |                 | X                             |                              |                  |
| Completed Problem-Solving Tasks for All Playing Organizations            |                 |                               | X                            |                  |
| Injects  |                 | X                             | X                            |                  |
| Mock Media Video and Print Stories                                       |                 | X                             | X                            | X                |
| Webcast Summaries  |                 | X                             | X                            |                  |
| Weekly Playing Organization Attendee Rosters                             |                 | X                             | X                            | X                |
| Uncompleted Simcell Inject Records                                       |                 | X                             | X                            | X                |
| Completed Simcell Inject Records   |                 |                               | X                            |                  |
| Uncompleted Feedback Forms   |                 | X                             | X                            | X                |

#### 2.4.4 Exercise Document Transmittal

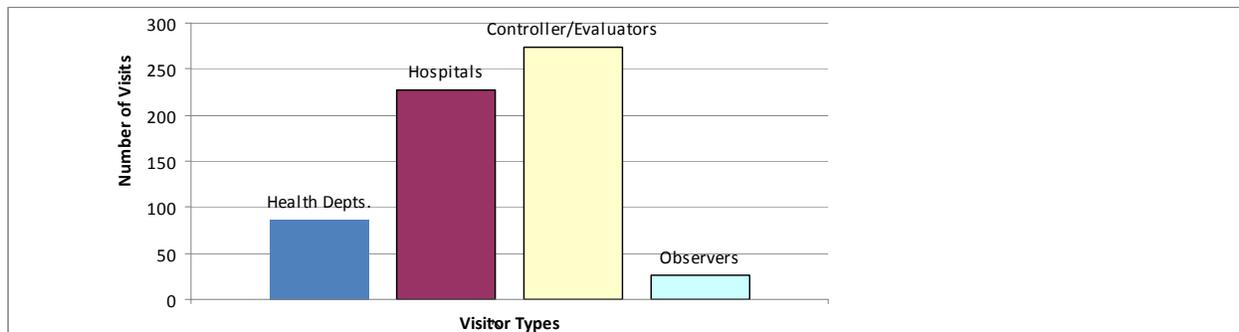
The FluNami 2007 Exercise Portal also provided the mechanism for transmitting documents between players and controller/evaluators. E-mail links were provided for document transmittal to the webmaster (e.g., of completed problem-solving tasks and evaluation feedback forms), to the simcell controller/evaluators (for communication with non-playing organizations), and for help. Telephone contact information was also available as appropriate.

#### 2.4.5 Portal Use during FluNami 2007

The FluNami 2007 Exercise Portal was used by all participants during the exercise. Figure 2 displays the total number of visits as reported by tracking software from health departments, hospitals, controller/evaluators, and observers from September 19-October 24, 2007. Visit frequency tended to be higher on the dates immediately before and after webcast

sessions. The actual visit numbers may be different than those reported due to difficulties resolving visitor domains.

**Figure 2: Number of Visits to FluNami 2007 Portal during Exercise**



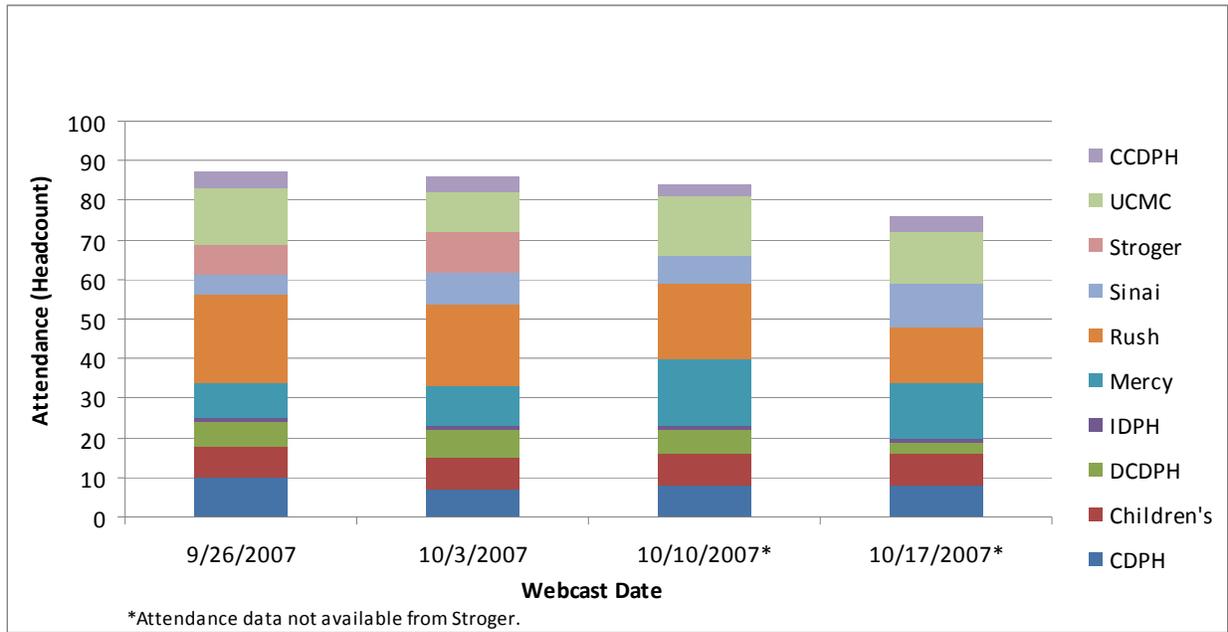
### 3 PLAYING ORGANIZATION PARTICIPATION

Substantive involvement of a broad range of playing organization staff was an important goal of FluNami 2007. Exercise planners believed that the ability to play from playing organizations' home facilities would make it easier for more staff members from a larger range of positions to take part than in past exercises requiring travel to a single location. The problem-solving task assignments were designed to require significant exercise issues to be delegated to an array of response functions for completion. This section analyzes the extent to which this goal was achieved by analyzing player participation in the weekly webcasts and in the extent to which problem-solving tasks were completed.

#### 3.1 PLAYING ORGANIZATION STAFF PARTICIPATION

Player rosters were requested each week from each playing organization for the purpose of gathering data about staff participation. Two hospitals did not submit data for all four weeks. According to the reported data, weekly webcast participation averaged 81.25 persons, ranging from a high of 87 in Week 1 to a low of 76 in Week 4. Figure 3 shows the weekly participation by each organization. While participation by a majority of playing organizations dropped over the course of the exercise, attendance by staff at two hospitals increased. One hospital did not report attendance at the October 10 and 17 webcasts. It became apparent as the exercise unfolded that identification by controller/evaluators of which objectives would be discussed at upcoming webcast sessions would have enabled points of contact to recruit the most appropriate staff members from playing organizations to be present.

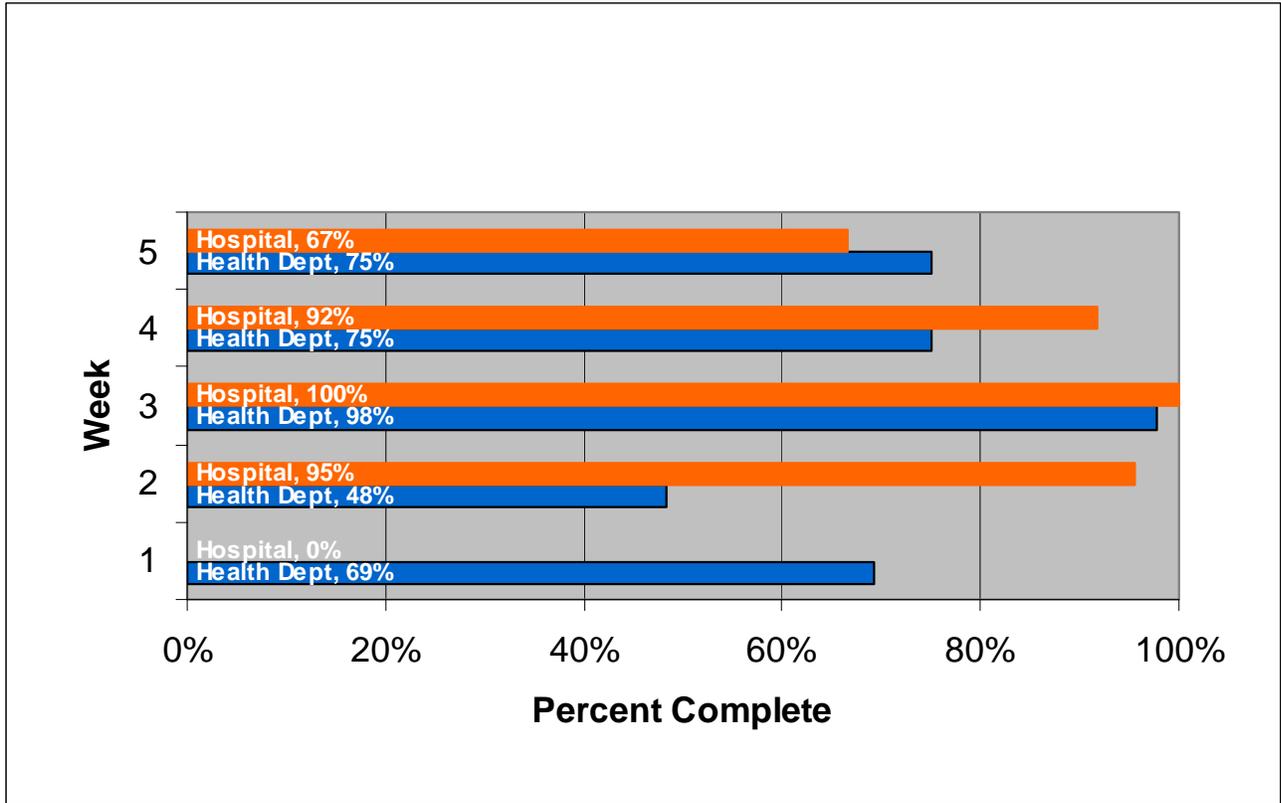
**Figure 3: Number of Playing Organization Staff Members Attending FluNami 2007 Weekly Webcasts**



### 3.2 PROBLEM-SOLVING TASK COMPLETION

Five sets of problem-solving tasks containing a total of 435 questions were asked over the course of the FluNami 2007 exercise. Of these, 213 questions were assigned to the three health departments, and 222 were assigned to the six hospitals. The overall question completion rate was 81%. Health departments completed 70% of the questions assigned to their staffs, and hospitals completed 92% of the questions directed to their staffs. Figure 4 compares the completion rates during each of the five weeks when problem-solving tasks were assigned; only health departments were assigned tasks during Week 1. As discussed above in section 2.1.1, so many objectives were played through problem-solving tasks that excessive player time was sometimes needed to complete them.

**Figure 4: Comparison of Problem-Solving Task Completion Rates between Hospitals and Health Departments**



**4 EVALUATIONS BY PLAYERS AND CONTROLLER/EVALUATORS**

During the course of FluNami 2007, feedback on its quality was collected from players and controller/evaluators. Player feedback was requested at the conclusion of each webcast, upon completion of each problem-solving task, and on October 17, 2007, after the final webcast session had ended. Suggestions for improving the process were requested from controller/evaluators on October 23, 2007. Feedback was not invited from observers. Players reported that the feedback process itself was burdensome, which may have contributed to a low response rate.

The best single indicator of overall player views about FluNami 2007 is contained in the overall exercise evaluation scores collected from completed “participant feedback forms,” which were collected on October 17. The scores resulting from this process are contained in Table 3. Together, the responding health department and hospital players scored the webcasts highest and the exercise instructions lowest among the rated exercise items. The overall average score given to FluNami 2007 by the 20 responding players was 3.9 on a five-point scale.

Appendix A contains the blank form that was used to collect this information, as well as the individual player recommendations about the exercise, which are collected in Table 4. Other player feedback on the overall exercise is presented in Appendix A after Table 4.

The remainder of the feedback is presented in Appendices B-D. Appendix B contains the blank form used to collect player input on each week’s problem-solving tasks. It also includes Tables 5 and 6, which respectively show the topical comments that players provided, and the average scores given by players who responded to questions about the tasks.. Additional comments provided by players on the problem-solving tasks are presented after Table 6. Appendix C contains the blank form used to collect player input on each week’s webcast session. It also includes Tables 7 and 8, which respectively show the topical comments that players provided, and the average scores given by players who responded to questions about the webcasts.. Additional comments provided by players on the webcast sessions are presented after Table 8. Appendix D contains Table 9, which presents the suggestions for improvement provided by controller/evaluators from Argonne.

**Table 3: Overall Exercise Evaluation Average Score by Players on Five-Point Scale**

| <b>Item</b>   | <b>Health<br/>Departments<br/>Average Score<br/>(n=6)</b> | <b>Hospitals<br/>Average Score<br/>(n=14)</b> | <b>OVERALL<br/>AVERAGE<br/>SCORE<br/>(n=20)</b> |
|---|---|---|---|
| The exercise was well structured and organized.   | 3.8   | 3.7   | 3.8   |
| The exercise scenario was plausible and realistic.  | 4.2   | 3.9   | 4.0   |
| The exercise instructions provided to assist in preparing for and participating in the exercise were useful.                          | 3.0   | 3.8   | 3.6   |
| The problem solving assignments were appropriately challenging.   | 4.0   | 3.9   | 3.9   |
| The webcasts were a useful tool for discussion and coordination of response.  | 4.3   | 4.4   | 4.4   |
| The use of internet technology increased the realism and scope of exercise play.  | 3.8   | 3.9   | 3.9   |
| The participants included the right people in terms of level and mix of disciplines.  | 3.5   | 3.9   | 3.8   |
| This exercise allowed my agency / jurisdiction to practice and improve priority capabilities.   | 3.7   | 3.7   | 3.7   |
| After this exercise, I believe my agency / jurisdiction is better prepared to deal successfully with the scenario that was exercised. | 4.0   | 3.8   | 3.9   |
| <b>OVERALL AVERAGE SCORE (n=20)</b>   | <b>3.8</b>  | <b>3.9</b>                                    | <b>3.9</b>                                      |

## **5 RECOMMENDED IMPROVEMENTS FOR FUTURE DISTEX EXERCISES**

A considerable number of recommendations for improving the DISTEX method were collected from players and controller/evaluators. The list below briefly summarizes comments that occurred repeatedly:

- precede future exercises with incident command training;
- seek more involvement of additional key responding organizations;
- seek more involvement of infection control professionals;
- work more closely with trusted agents to select a more limited number of exercise objectives and develop a more clearly-defined extent-of-play agreement;
- develop shorter, more functional problem-solving task sets;
- orient future scenarios more toward hospital response;
- provide advance notice to points of contact of the subjects that are on the agenda for each webcast session so that appropriate players can be present;
- more actively encourage interaction among playing organizations between webcast sessions, including use of normal communication links;
- more actively encourage interaction among playing organizations and the simcell between webcast sessions;
- increase mock media involvement in future exercises;
- allow time during webcasts for internal discussion at each playing organization;
- simplify the exercise website; and
- simplify the player feedback process.

## **6 CONCLUSIONS**

The FluNami 2007 Exercise was a good demonstration of the value of the DISTEX method. This exercise showed that a high level of playing organization participation in inter-organizational tabletop exercises could be achieved when players could take part from their home organizations, and that the players considered the exercise a useful learning experience and preparedness tool. A series of recommended improvements to the method, based on player and controller/evaluator input, offers the possibility that the method can be refined further.

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## **APPENDIX A: OVERALL PLAYER FEEDBACK**

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## **APPENDIX A: OVERALL PLAYER FEEDBACK**

Appendix A presents the player feedback not discussed in section 4 of this report that was collected on October 17, 2007. Pages A-5 and A-6 display the player feedback form on which this information was collected. A total of 20 responses was received. Table 4 presents the player feedback requested in part 1 of this form. The feedback requested in part 3 of this form is presented on pages A-19 and A-20. The feedback requested in part 2 of the form is not presented in this appendix because it is summarized in Table 3 in section 4 of this report.

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**CHICAGO DISEASE OUTBREAK DISTANCE TABLETOP EXERCISE  
FLUNAMI 2007  
PARTICIPANT FEEDBACK FORM**

**Exercise Date:** September 19 – October 19, 2007

**Participant Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Agency or Organization:** \_\_\_\_\_

**Role:**  **Player**     **Controller/Evaluator**

**PART I: RECOMMENDATIONS AND CORRECTIVE ACTIONS**

1. Based on the exercise overall and the tasks identified, list the top three (3) strengths and/or areas that need improvement.

\_\_\_\_\_

2. Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?

\_\_\_\_\_

3. Identify the corrective actions that should be taken to address the issues identified above. For each corrective action, indicate if it is a high, medium, or low priority.

\_\_\_\_\_

4. Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective action?

\_\_\_\_\_

5. List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed. Indicate the priority level for each.

\_\_\_\_\_

## PART II – EXERCISE DESIGN AND CONDUCT: ASSESSMENT

Please rate, on a scale of 1 to 5, your overall assessment of the exercise relative to the statements provided below, with **1** indicating **strong disagreement** with the statement and **5** indicating **strong agreement**.

**Table E.1: Exercise Assessment**

| Assessment Factor  | Strongly Disagree        |                          | Strongly Agree           |                          |                          |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|  | 1                        | 2                        | 3                        | 4                        | 5                        |
| a. The exercise was well structured and organized.   | <input type="checkbox"/> |
| b. The exercise scenario was plausible and realistic.  | <input type="checkbox"/> |
| c. The exercise instructions provided to assist in preparing for and participating in the exercise were useful.                        | <input type="checkbox"/> |
| d. The problem solving assignments were appropriately challenging.   | <input type="checkbox"/> |
| e. The webcasts were a useful tool for discussion and coordination of response.  | <input type="checkbox"/> |
| f. The use of Internet technology increased the realism and scope of exercise play.  | <input type="checkbox"/> |
| g. The participants included the right people in terms of level and mix of disciplines.  | <input type="checkbox"/> |
| h. This exercise allowed my agency/jurisdiction to practice and improve priority capabilities.   | <input type="checkbox"/> |
| i. After this exercise, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised. | <input type="checkbox"/> |

## PART III – PARTICIPANT FEEDBACK

Please provide any recommendations on how this exercise or future exercises could be improved or enhanced.

---

**Table 4: Player Exercise Recommendations and Corrective Actions**

| <p><b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b></p>   | <p><b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b></p> | <p><b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b></p> | <p><b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b></p> | <p><b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b></p> |
|--|--|---|--|---|
| <p>Strengths: 1) Identified gaps in regional planning, 2) Loved the media pieces (added a note of realism), 3) Promoted participation and collaboration, 4) Very helpful to hear the hospital perspective<br/>                     Areas for Improvement: 1) Need wider inclusion of suburban partners beyond the health departments (hospitals, medical examiners, EMAs), 2) Needed greater participation from public health medical directors and public information officers during the exercise, 3) Would have been very helpful to have wider specialty</p> | <p>No response</p>   | <p>This will be an internal discussion</p>  | <p>This will be an internal discussion</p>   | <p>This will be an internal discussion</p>  |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>  | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b> | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b> | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|--|---|--|---|--|
| <p>participation from IDPH staff, particularly those responsible for medical disaster planning (every hospital will hopefully not have to figure this out on their own), and communicable disease control, 4) Sometimes difficult to follow the exercise particularly from week to week. Provision of a chronology and agendas would be helpful and lead to more informed, meaningful discussion (e.g. we could have verified the medical examiner's current position prior to today's call, 5) Suggest shortening time and condensing tasks</p> |   |  |   |  |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>   | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b>   | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b> | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|---|---|--|---|--|
| <p>Communications regarding injects – on several occasions, critical information was not communicated to us in a timely manner (i.e., the first case of Avian Flu in the Chicagoland area). Was Chicago supposed to contact DuPage directly or go through the SimCell. This dynamic was not described thoroughly enough at the beginning of the exercise.</p> | <p>While trying to communicate with other players and the SimCell during the week, many of the players did not answer the phone or did not get back to us in a timely manner. On several occasions, there was no answer at the SimCell. These contact numbers should be manned during normal business hours at a minimum to increase the “realism” of the exercise.</p> | <p>Stated above</p>  | <p>The Exercise facilitators should explain these rules at the onset of the exercise and enforce them throughout.</p>   | <p>No response</p>   |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>  | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b>   | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b>                                       | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|--|---|--|---|--|
| <p>The one area that needs improvement from my PIO perspective is the need for creation of a network of PIOs within each county that would include hospitals, the health department and possibly other PIOs who we might need to know in an emergency.</p> | <p>The only public information issue (discussed only slightly) that I noticed missing is controlling the 800-pound gorilla of misinformation and rumors (fueled by self-appointed experts) who would fill the news media with interviews during an emergency.</p> | <p>I think we would have to be VERY proactive in getting informed public health, hospital, IDPH, CDC and informed spokesmen in front of microphones and cameras.</p> | <p>I'm not sure who could pull together a network of county hospital PIOs. I tried in the past and it did not work.</p>   | <p>No response</p>   |
| <p>Provided good forum for open discussion; simulated news provided more realism. Too "Chicago" focused; assumptions and expectations were not realistic with respect to hospitals</p>   | <p>No response</p>  | <p>No response</p>   | <p>No response</p>  | <p>No response</p>   |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>  | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b>                   | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b>  | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b>  | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b>   |
|--|---|---|--|--|
| <p>Considering I took part in only 2 of 4 exercises I thought it was well organized, technically proficient and vital as a training method to increase comfort when and if we are put a similar situation.</p> | <p>It seemed to me that all three evaluators I observed were very well prepared and aware of all of the twists and turns exercises like this might eventually take.</p> | <p>Considering my praise of the procedure I should mention the need for an established team leader at all procedures, I believe this should be a high priority- Please understand I am not judging the leaders but only as evaluators of which I thought they were exemplary.</p> | <p>I thought my department and especially the PIO did a remarkable job, considering the format of the exercise, corrective action is a tough phrase because a lot of this comes out of left field and has to be handled on the fly the PIO is very good at that and I'm sure will continue to be well prepared for any eventuality</p> | <p>I can only assume our equipment is state of the art, our training is intense and given a great priority as is policies, plans and procedures, all in all I believe our emergency team should be commended for their actions and our emergency procedures should be heralded, they are well thought out and motivated by a very strong team.</p> |
| <p>Need Improvement: Plans, resources, # of people involved in planning. Strengths: Few key individuals committed to planning, lots of individuals with good/great ideas</p>                                   | <p>Responses at the home sites: maybe some point take the threat seriously before the exercise.</p>   | <p>Preplanning! High. On part of the entire organization</p>  | <p>Awareness of the resp. cough etiquette policy. Tighten ARIP procedure, enhance pan flu flag. GET ME MORE STAFF!</p>   | <p>Need more simple masks (medium). Policy review high</p>   |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>   | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b> | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b>   | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|---|---|--|---|--|
| <p>Strengths: Plan for expanding health care venues, relationship between hospitals and agencies, plan for providing vaccines. Area for improvement: communicate among all - some plans seemed contradictory.</p> | <p>Not sure that staffing issues was explored well enough</p>   | <p>High: for future - spend more time on staffing issues and how they would be addressed.</p>  | <p>No response</p>  | <p>No response</p>   |
| <p>The rapid mobilization of qualified individuals to administer vaccines.</p>  | <p>No response</p>  | <p>No response</p>   | <p>No response</p>  | <p>Rapid immunization of hospital employees (High)</p>   |
| <p>1. Communication between health departments, 2. More details around patients &amp; staff, proposal - illness at a given time (i.e., daily census), 3. The real issue of staff shortage was under played.</p>   | <p>The beneficial group conversations at when completing the homework assignments</p>   | <p>For communication, a task force to clear expectations around needs (high). Ethics restricting ventilator use (standardized communication). MOUs / credentialing now for additional staffing agreements (high)</p> | <p>Revise inpatient surge plan</p>  | <p>Surge Plan Policy and logistics of additional staffing</p>  |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>  | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b> | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b> | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|--|---|--|---|--|
| Problem sets stimulated thinking and revising plans, moderators kept everyone involved. Good use of technology.  | No response   | No response  | No response   | No response  |
| 1. Actual "play" during the drill. For instance if it is stated "HAN" would be used - then it should have been used. 2. More involvement of participants "pulled" into the drill. For instance we talked about the MEO involvement - rep should have been on the phone. 3. Good way to get everyone to think of a longterm disaster. | Number of participants at drill diminished over the course of the 4 weeks - the drill seemed to be more about public health but not the hospital end. | Drill needs to be more widespread among players and participants should be called on.  | At the institutional level we were looking at levels of PPE - will be working with IHCC and Emergency Preparedness Teams  | N-95 masks, surgical masks, home quarantine (all on high priority)   |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b> | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b> | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b> | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|---|---|--|---|--|
| Strengths: Plausible scenario, group participation. Areas needing improvement: Group participation - chaos.                                 | Due to large numbers participating in problems were not developed in-depth response to some of the situations   | Limit the number of participants   | No response   | Department of Emergency Preparedness Plan  |
| Improvement: Surge plans, communication. Strengths: site prep, plan of distribution   | Mass hysteria   | No response  | Develop more specific Surge Plan. Also communication and explanations   | No response  |
| 1. Reality, 2. Cost of participants, 2. Talking points  | Issues on the public transit, airports, universities.   | A session on the dynamics of closing and quarantine large groups of transients, university students, etc.                      | I was an observer. Security - CPD / CFD perhaps should participate.   | Procedures to address university issues, student populations, international populations.   |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>  | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b>  | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b> | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b>  |
|--|--|--|---|---|
| <p>Due to technology, multiple institutions were able to participate while staying at home institution.</p>  | <p>No response</p>   | <p>No response</p>   | <p>No response</p>  | <p>Suggestions: Make exercise more detailed. More homework / exercises with specific answers discussed in joint conference. Laboratory testing details not included in exercise. How many tests done in house vs. public health. Even though I participated in all sessions, it is not clear who got vaccine or meds when or where.</p> |
| <p>Weakness: 1. We need better coordination between various county depts of health. There were conflicting messages about vaccine dispensing stations, etc. We need a unified message. 2. Unrealistic assumptions, ie, we will</p> | <p>Next drill, you should give the hospitals a few 10 minute breaks in the middle of the action to allow time to discuss. when the session closed, most of the staff had other commitments. It would be to take a few minutes in the middle of</p> | <p>No response</p>   | <p>No response</p>  | <p>No response</p>  |

| <b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b>   | <b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b> | <b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b> | <b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b> | <b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b> |
|---|---|--|---|--|
| <p>set up tent that can handle X,Y, Z issues and X,Y, Z numbers of patients. Will this really happen? One of the depts of health mentioned docs/health workers making house calls. This will NOT happen. Very unrealistic assumption. Not enough staff.</p> <p>. Strength: 1. We are actually conducting this type of joint drill. Very important. 2. The remote location exercise worked well. This model will serve us in the event of a disaster. It also increased participation. Employees did not have to leave our site to travel to the exercise.</p> | <p>the exercise to talk among ourselves.</p>  |  |   |  |

|  |  |   |  |   |
|--|--|---|--|---|
| <p><b>Question 1: Based on the exercise overall and the tasks identified, list the top three strengths and/or areas that need improvement.</b></p> | <p><b>Question 2: Is there any issue you observed in the exercise that the evaluator(s) might not have been able to experience, observe, and record?</b></p> | <p><b>Question 3: Identify the corrective actions that should be taken to address the issues identified above and prioritize.</b></p> | <p><b>Question 4: Describe the corrective actions that relate to your area of responsibility. Who should be assigned responsibility for each corrective issue?</b></p> | <p><b>Question 5: List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed and prioritize.</b></p>   |
| <p>Realistic in showing confusion in governance decision and communication process.</p>  | <p>Synchronization of medical center and university pandemic plans</p>   | <p>Governance and unified command</p>   | <p>Medical Center president, dean of BSD, president of university</p>  | <p>When critical government controlled resources are in short supply (i.e. vaccines), the governmental agencies should be prepared to clearly communicate the algorithm by which such resources are distributed, asking for Bios leads to confusion and misunderstanding.</p> |

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## PLAYER FEEDBACK ON THE OVERALL EXERCISE

Good videos – added to the “realism.”

Difficulties with Technology, feedback and conference call format led to side conversations occurring the chat window during the session I attended of the exercise. Although the news clips are intended to provide realism, the efforts and funds spent on obtaining these elements might not always be necessary when dealing with emergency planning and operations staff.

I thought the overall exercise was outstanding and informative. I liked the format. I’m not sure it is my role to suggest a stronger role in this kind of exercise by IDPH, but I know our local HD would only act after consultation and direction from IDPH. The team within my agency works very hard on these exercises and I applaud them.

My only complaint is the lack of a team leader in only one of my sessions and that could have been due to another priority pulling an assigned leader out of the exercise. That said, I think it was extremely well organized and a necessary step in preparing for a horrific situation, of which you can never be completely prepared.

This provided us with the opportunity to evaluate our plans and we are able to strengthen it based on what we learned. It was difficult spanning over 4 weeks - perhaps daily x 4 days would be better so concentration is not lost - although it would be difficult to do home work in such a small timeframe.

For many this may have been their first experience with web based training. I think you were able to get a larger and broader group of individuals to participate.

Improved technology - too much interference in week 2.

Overall, very good job / interactive / helpful.

Since CPH is planning on doing this again in the future, I wanted to give some feedback from the POC perspective. This exercise was very time consuming - I probably spent at least 8 hrs / wk in the conference calls, distributing injects, assuring people were going to come, setting up the equipment and room, cleaning up afterwards, polishing and assembling the homework assignments. Being the POC was a much bigger undertaking than I anticipated. I think our expectations for how the drill would work over time were a bit off. We thought there would be more drill playing throughout the week - receiving alerts, contacting appropriate people, dealing with injects, etc - and much more communication with CDPH and among hospitals, b/c there really wasn't any. We tried "playing" after the first webcast by calling 311, CDPH, DuPage Health, etc and it didn't work. But if we were not playing in between webcasts, then I really don't see the point in spreading them over time versus having one 3 hr drill. We learned the most from completing the homework as a group after the webcast. I highly recommend this strategy, b/c it enables us to discuss the topics amongst ourselves and learn from each other about hospital- specific problems and strengths. During the webcast there is no time for internal discussion, which I think is one of the negatives of this format. I think one of the major

advantages of the format was that different people were able to attend who don't normally attend drills. The webcasts seemed to be very slow - I could see people's eyes closing, and our number of participants dropped each week). I think that is b/c there were so many participants and therefore not much time for discussion or for each organization to talk. I would suggest limiting the number of playing organizations or perhaps do 1 drill among the health departments and another just with the hospitals and CDPH. Overall, it was a good learning experience, and I thank Argonne and CDPH for the opportunity.

Need IDPH & EOC, Fire & Police involved in the next drill. I think we should do this each year. Scrolling screen: comments should be layered fonts - smaller on right of screen - couldn't see from back row. Maybe webcam to see people talking making it feel even more interactive. Time for break out discussions during the exercise each week.

Possible for warm-up session for review of External Disaster Policies from other hospitals. Would need to exchange and review materials before sessions.

Exercise seemed more helpful to CDPH than to individual hospitals. The specific definitions and criteria for receiving vaccine and meds were not listed as a final decision. Agree with last comments made at end (2:37 last day). Overall, I am not sure if this exercise was fully effective in making the best use of everyone's time. Details discussed on last day of exercise should have been included sooner (better than other days). Build up sooner?

## **APPENDIX B: PLAYER PROBLEM-SOLVING TASK FEEDBACK**

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## **APPENDIX B: PLAYER PROBLEM-SOLVING TASK FEEDBACK**

Appendix B presents the player feedback that was collected about the problem-solving tasks. Page B-5 display the player feedback form on which this information was collected. A total of 33 responses was received. Table 5 presents the feedback that was collected in response to questions 1-3 on this form. Table 6 presents the results of the assignment assessments requested in Table PS1 of the form. The material on page B-19 presents the recommendations about problem-solving tasks that players provided in response to the final question on this form.

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# CHICAGO DISEASE OUTBREAK DISTANCE TABLETOP EXERCISE FLUNAMI 2007 PROBLEM SOLVING TASK FEEDBACK FORM

Participant Name: \_\_\_\_\_ Title: \_\_\_\_\_

Agency or Organization: \_\_\_\_\_ Task #: \_\_\_\_\_

1. Based on the Problem Solving Assignment, list the top three (3) strengths and/or areas that need improvement.  
\_\_\_\_\_
2. Identify the corrective actions that should be taken to address any issues identified above. For each corrective action, indicate if it is a high, medium, or low priority.  
\_\_\_\_\_
3. List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed. Indicate the priority level for each.  
\_\_\_\_\_

Please rate, on a scale of 1 to 5, your assessment of the assignment relative to the statements provided below, with **1** indicating **strong disagreement** with the statement and **5** indicating **strong agreement**.

**Table PS1: Assignment Assessment**

| Assessment Factor  | Strongly Disagree        |                          |                          | Strongly Agree           |                          |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|  | 1                        | 2                        | 3                        | 4                        | 5                        |
| a. The assignment was well structured and organized.   | <input type="checkbox"/> |
| b. The system for receiving and submitting the assignment worked well.                           | <input type="checkbox"/> |
| c. Participation in the assignment was appropriate for someone in my position.                   | <input type="checkbox"/> |
| d. The participants included the right people in terms of level and mix of disciplines.          | <input type="checkbox"/> |
| e. This assignment allowed my agency/jurisdiction to practice and improve priority capabilities. | <input type="checkbox"/> |

Please provide any recommendations on how this assignment or future assignments could be improved or enhanced.

\_\_\_\_\_

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**Table 5: Topical Comments by Players in Response to Problem Solving Tasks**

| <b>Question 1: Top Three strengths/areas needing improvement</b>  | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>  | <b>Question 3: Identify any area needing improvement and prioritize</b>   |
|---|--|---|
| <i>Health Departments</i>   |  |   |
| We need electronic lab surveillance to find out quick lab results- this needs improvement; the HAN is a strength; hospital partnerships are a strength  | Funding and support for electronic lab surveillance should be a high priority  | Review big outbreak plan; review CDC and IDPH alerts  |
| I believe our strength is striving to be consistent with CDC, state health officials and regional partners as far as any messages on this topic   | Our internal Communications Strike Team is being informed and trained on disease outbreaks, both large and small.  | My Communications Strike Team may be able to identify communication/message gaps after additional training, but not at this time.                 |
| Need to develop estimates of local priority groups; Strengths: regional communication; communication and guidance from IDPH   | Medium priority, to develop estimates of local priority groups   | Review pandemic influenza response plans for DCHD, IDPH, and CDC/HHS (all high and ongoing)   |
| I think CDC and IDPH will supply messages, but my concern would be that health officials across the nation will have to deal with misinformation in the media from the wrong people, such as interviews on news networks. | The health department will need to monitor print and electronic media and attempt to correct information in the media that is incorrect. (High Priority). We will also have to work very hard to coordinate messages and the times those messages are released with state and neighboring health departments | For this section, I would suggest organizing a network of PIOs in regional hospitals so we are in closer communication now and during emergencies |

B-7

| <b>Question 1: Top Three strengths/areas needing improvement</b>   | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>   | <b>Question 3: Identify any area needing improvement and prioritize</b>  |
|--|---|--|
| <p>1. A thorough understanding of the issues at hand and subject matter<br/> 2. Additional information on how guidance and anticipated guidance from state and federal level is needed- what channels will provide this, how will it be provided<br/> 3. The partnership between the health department and other regional and local partners is an important part of this exercise and Pandemic Influenza planning and is demonstrated in this task assignment</p> | <p>Methods for identifying accurate numbers for staffing and volunteers instead of each healthcare workers being counted by multiple agencies- looking at licensure numbers or other methods to obtain this information (medium priority)</p> | <p>No response</p>   |
| <p>1. Judicial concerns and regulations for quarantine; 2. CDC will need to ensure guidance from the federal level is achieved to ensure consistency; 3. External partners ability to enforce quarantine</p>   | <p>High - Engage external partners in planning for a "small and contained" quarantine order<br/> High - Engage the judicial sections of government to address quarantine orders</p>   | <p>High - Communications (Public Health Role will be to educate, and interpret both governmental and private parties in the public health emergency) Messaging techniques must be continually reviewed, evaluated and practiced.<br/> High - Planning for this event must be conducted at a regional level, resources must be pooled and information shared specifically with surveillance.<br/> High - Regional compliance with standard data surveillance system.<br/> High - Hospitals and LHD must be partners in both the planning and recovery process</p> |

| <b>Question 1: Top Three strengths/areas needing improvement</b>  | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>   | <b>Question 3: Identify any area needing improvement and prioritize</b> |
|---|---|---|
| At this point in the exercise the situation is very challenging and it is difficult to depend fully on the current written plans as the response is very situation – specific.  | Must further review and modify our plans to reflect scenarios that are represented in this drill  | Legal, COOP, County EOP need reviewed.                                  |
| Recovery plans are based on the assumption of worst-case scenario, making realistic answers difficult to envision for an event of lesser severity, Highlighting gaps with our hospitals is important, We need to continue to plan for staffing considerations throughout an event | Establish regular contact with hospitals, Develop tiered levels of planning for different cases of severity for a pandemic matching the WHO phases and federal stages. Continue to involve staff in the planning and exercising process to appreciate the importance and better understand ICS. | All plans, especially demobilization of ICS.                            |
| Increased local and regional coordination, treatment center coordination  | Closer coordination with Hospital preparedness program (HPP) at IDPH (high), CRI coordinator hired (high)   | Standard procedures for coordination among HPP and ERCs                 |
| Strong SNS rating and multi-agency collaboration for SNS! Need to provide better guidance to locals regarding hospital coordination   | Improve integration and frequency of meetings with hospital program (high)  | Ensure all hospitals train on the request procedures (high)             |
| Little stateside exercising of NPI. Recently expanded local quarantine powers.  | Improve private sector discussion (high), provide exercises for locals re: NPI (medium)   | Hire an exercise coordinator (high)                                     |

| <b>Question 1: Top Three strengths/areas needing improvement</b>  | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>             | <b>Question 3: Identify any area needing improvement and prioritize</b>   |
|---|---|---|
| <i>Hospitals</i>  |   |   |
| <p>Employee Health Policies: Does not specifically address situation of this magnitude. How to separate the EHS population from external customers for the Occ Med Program</p> <p>Will need to supply Infection Control with more manpower, though currently developing Infection Control Resource Teams for each unity: add basic surveillance techniques to their knowledge base</p> <p>Though we have stockpiled masks (surgical and N-95) I think we will run out and won't be able to get more</p> | <p>Meet with Occ Med to address this issue: HIGH, Manpower of Infection Control HIGH, stockpile more???????</p> | <p>AIRIP, RESP/COUGH ETIQUETTE: High Priority, Security Fit Testing, may also need to add dietary staff: HIGH</p>   |
| <p>Who will get the vents?</p>  | <p>Pulmonary, ethics, ID, ED need to meet</p>   | <p>PPE, high, can you write on policy on how to decide who gets the ventilator? HIGH</p>  |
| <p>We have strong and competent chaplaincy and social work services. In a city as big as Chicago there are many resources to draw from and work with. In a pandemic we have got to get beyond what is the legal thing to do and just mobilize to do what is right for peoples affected</p>  | <p>No response</p>  | <p>Clarification of Chicago's process for Death Certificates in a pandemic. Need to proactively converse and plan with outside agencies for expanding morgue spaces and housing in a pandemic</p> |

| <b>Question 1: Top Three strengths/areas needing improvement</b>  | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>                                | <b>Question 3: Identify any area needing improvement and prioritize</b>   |
|---|--|---|
| Strengths: Current inventory of Emergency Preparedness equipment, Internal Communication, and Pandemic Flu Plan with accurate procedures for response. Improvement: Staff Participation | Participation in practice drills needs to be enforced. HICS charts needs to have full participation                                | Pandemic Influenza Plan. Currently has been approved by Infection Control and the Emergency Preparedness Committee. |
| Strength: HDVRT is established and has received training. Also, good working relationship with Infectious Disease and Control Department.   | Have a more in-depth plan for vaccination priorities.  | Vaccination priority list. Standards should be documented by Infection Control.                                     |
| Strength, experience in activating HICS   | No response  | Pandemic Flu plan review for HICS team.   |
| Strength: current level of planning, ideas brought by HICS group, good team work. OFI: Dialogue between HDs and hospitals, staffing issues, antiviral supply.                           | Didn't have specific enough involvement with hospitals-too general. Need time during the webcast to discuss issues amongst IC team | High, develop a national clinical plan that can be made into a model for when disease moves from region to region.  |

| <b>Question 1: Top Three strengths/areas needing improvement</b>   | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>  | <b>Question 3: Identify any area needing improvement and prioritize</b>  |
|--|--|--|
| <p>1. Needs Improvement: Better communication mechanism to the hospitals on approximately how much vaccine &amp; antiviral to expect; this will greatly influence our Incident Action Plan. 2. Strength: The webcast – phone format would be useful during an actual event because the health departments &amp; hospitals can collaborate in real-time rather than attempt to make multiple phone calls or dredge through hundreds of emails. More immediate decision-making is possible 3. Needs Improvement: At this stage, our hospital considers the pandemic to be started. There are cases in multiple countries, multiple cases in different local hospitals, deaths, and large groups with common exposure. Would like to see concrete decisions made now on social distancing, quarantine, etc.</p> | <p>1. Plan and disseminate the communication mechanism and plan to exercise in near future; High Priority<br/>2. Plan now for how JIC will develop its message, transmit this to public, 1st responders, hospitals, and how changes or updates will be disseminated. High Priority</p> | <p>We need an influenza testing plan. If symptomatic patients come in and can receive a rapid test for influenza which is negative; that could greatly increase the availability of antiviral for treating pandemic strain patients, isolation space and supplies and need for contract tracing.</p> |

| <b>Question 1: Top Three strengths/areas needing improvement</b>   | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>   | <b>Question 3: Identify any area needing improvement and prioritize</b>  |
|--|---|--|
| <p>1. We need good guidelines on surface decontamination solutions, reuse or preservation of PPE. 2. We would like the public health message from the JIC to include information on possible avoidance of hospitals for routine or non-emergent conditions. It would also help to inform the public that clinics and hospitals will be screening patients for influenza symptoms at the door. This message should be disseminated in multiple languages. 3. We need information on the diagnostic accuracy of the currently used tests for H5N1 infection.</p> | <p>1. Experimental data on surface decontamination elimination of the H5N1 virus from surfaces would be useful, if it does not exist yet. High priority 2. We need plan to distribute medications for chronic diseases such as diabetes, hypertension and asthma to patients without having to visit the doctor. This might work to prevent disease spread. Medium Priority 3. We should develop plan for how to interpret test results in various patients (high suspicion, low suspicion) High Priority</p> | <p>LR PCR machines should be tested. Medium priority. Just-in-time infection control and incident command training would be useful now. High priority Cohort and quarantine policies should be revised as needed and widely disseminated to key staff. High Priority</p> |
| <p>1. We need more solid internal policies for transfer between sister hospitals. For example, could one hospital become the infectious hospital and another take all non-infected cases. 2. Family concerns may require many staff to remain off-duty if there are school or day-care closures. 3. We will run short on ventilators.</p>  | <p>1. Refine current transfer policies to address pandemic influenza or other contagious outbreak. Medium Priority. 2. Encourage pre-endemic family disaster planning to maintain staff during bioagent outbreaks. Consider hospital or clinic help with child or elder care. High Priority. 3. Convene ventilator preservation team including intensivists, respiratory therapists, pediatricians, and bioethists. High Priority</p>   | <p>Interhospital transfer policy, Staff overtime and dependent care policies, Attempt to locate old Bird ventilators for emergency use. Visiting Medical student &amp; physician policies.</p>   |

| <b>Question 1: Top Three strengths/areas needing improvement</b>  | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>   | <b>Question 3: Identify any area needing improvement and prioritize</b>  |
|---|---|--|
| <p>External - Clearly defined distribution channels from CDPH to the hospitals.<br/>           Internal – Greater awareness of supply chain expectations during disasters<br/>           Internal – Request greater involvement from Nursing in disaster planning.</p>  | <p>Request a written outline/flowsheet from CDPH on how disaster supply dispersement happens (medium).<br/>           Establish internal supply flows (high).</p>                 | <p>Disaster supply chain policy</p>  |
| <p>Strengths: We have an HDVRT plan; We have participated in numerous Code Bio drills. Weaknesses: Don't know whether space which has been identified for vaccination is adequate for vaccinating large numbers of persons; Need to drill specific HDVRT plan in designated space; Staff turnover throughout the medical center-add'l training/in-services needed</p> | <p>High Priorities: Upcoming flu immunization program will serve as a test of the HDVRT system; Periodic in-services for staff/ periodic re-reading of plan; Drill HDRVT plan</p> | <p>Need to confirm cache of syringes, alcohol, bandaids, juice; forms/papers for documenting vaccinations; Physical distribution of supplies/vaccine from pharmacy</p> |
| <p>Report transmission of communicable disease relatively low, active infection control surveillance program, good stockpile or resources (trained specialists and staff, PPE, drugs, etc.)</p>   | <p>No response</p>  | <p>No response</p>   |
| <p>Weakness: Key staff not familiar with HICS structure</p>   | <p>Review HICS structure with key staff; Continue to regularly drill bio-outbreak plan</p>  | <p>Continue to review, in-service and drill.</p>   |
| <p>Strengths: We have a Bio-Outbreak plan and drills regularly; Weakness: Need to in-service staff on various aspects of plan; Need to remind staff about personal/family disaster contingency planning</p>   | <p>Continue to drill plan and in-service staff; Review departmental telephone trees</p>   | <p>Ensure that managers re-read plans and review during staff meetings</p>   |

| <b>Question 1: Top Three strengths/areas needing improvement</b>   | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>                              | <b>Question 3: Identify any area needing improvement and prioritize</b>                          |
|--|--|--|
| Strengths: Significant surge capacity in outpatient facility; Staff in outpatient facility can be re-deployed as clinics are cancelled. Weakness: No real time method to determine staffing shortages/absences   | Develop real-time staffing drill to determine number of absences   | Incorporate methods to obtain staffing levels into our code bio plan                             |
| Strengths: Relationship with local clergy through our local interfaith council; Local clergy have been trained in disaster pastoral care.  | Revise plan to include rental of refrigerator trucks to expand morgue capacity   | No response  |
| Strengths: Medical students available as volunteers; Our motor pools to transport employees include many buses; Weakness: Need to coordinate staffing issues with University   | Coordinate response plan with University safety office with respect to volunteers and motor pool                                 | No response  |
| 1. We have a concrete plan in place. 2. Call tree updated frequently. 3 We should consider other options for storage of remains, possibly contacting a local church or school.<br>2. We never considered a chaplain's role in the morgue, and possibly establishing a disaster debriefing for faculty and staff. | We have a plan in place, we should consider the chaplain's service as low, and the debriefing for our faculty and staff as high. | Our policy for disaster should include provision for both bioterrorism and infectious outbreaks. |
| CDPH plan for pandemic flu, Distribution of vaccine, Distribution of Antiviral Medication  | Provide access to pandemic flu plan for city   | No response  |

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**Table 6: Problem Solving Task Evaluation Average Score by Players on Five-Point Scale**

| <b>Statement</b>  | <b>Average Score<br/>(n=33)</b> |
|---|---------------------------------|
| The assignment was well structured and organized.   | 3.8                             |
| The system for receiving and submitting the assignment worked well.                           | 3.7                             |
| Participation in the assignment was appropriate for someone in my position.                   | 3.7                             |
| The participants included the right people in terms of level and mix of disciplines.          | 3.6                             |
| This assignment allowed my agency/jurisdiction to practice and improve priority capabilities. | 3.9                             |

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## **ADDITIONAL PLAYER COMMENTS ON PROBLEM SOLVING TASKS**

The first exercise, especially the discussion about passenger screening at airports, left us with little to do but listen. The exercise context was probably necessary to build on but was out of the hospitals' sphere of influence.

Not repeat the same second form for every assignment.

Try not to blow off important questions when asked.

Week #2 was much better than week #1. Disadvantage on our end as many key players were out of town for computer training

Web-based form, great exercise questions

I would make these forms web-driven

Well done.

This assignment allowed my agency/ jurisdiction practice and improve priority capabilities.

More time, short notice.

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## **APPENDIX C: PLAYER WEBCAST FEEDBACK**

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## **APPENDIX C: PLAYER WEBCAST FEEDBACK**

Appendix C presents the player feedback that was collected about the four webcasts. Pages C-5 and C-6 display the player feedback form on which this information was collected. A total of six responses was received. Table 7 presents the feedback that was collected in response to questions 1-5 on this form. Table 8 presents the results of the webcast assessments requested in Table W.1 of the form. The material on page C-13 presents the recommendations about webcasts that players provided in response to the final question on this form.

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# CHICAGO DISEASE OUTBREAK DISTANCE TABLETOP EXERCISE FLUNAMI 2007 WEBCAST FEEDBACK FORM

Participant Name: \_\_\_\_\_ Title: \_\_\_\_\_

Agency or Organization: \_\_\_\_\_ Webcast Date: \_\_\_\_\_

Role:  Player  Controller/Evaluator

1. Based on the webcast and the tasks and issues identified, list the top three (3) strengths and/or areas that need improvement.

---

2. Identify the corrective actions that should be taken to address the issues identified above. For each corrective action, indicate if it is a high, medium, or low priority.

---

3. For the corrective actions that relate to your area of responsibility, who should be assigned responsibility for each corrective action?

---

4. List the applicable equipment, training, policies, plans, and procedures that should be reviewed, revised, or developed. Indicate the priority level for each.

---

Please rate, on a scale of 1 to 5, your assessment of the webcast relative to the statements provided below, with **1** indicating **strong disagreement** with the statement and **5** indicating **strong agreement**.

**Table W.1: Webcast Assessment**

| Assessment Factor   | Strongly Disagree        |                          |                          | Strongly Agree           |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|   | 1                        | 2                        | 3                        | 4                        | 5                        |
| a. The webcast was well structured and organized.   | <input type="checkbox"/> |
| b. The scenario events were plausible and realistic.  | <input type="checkbox"/> |
| c. The facilitator/controller(s) was knowledgeable about the area of play and kept the webcast on target.                             | <input type="checkbox"/> |
| d. The webcast instructions provided to assist in participating in the webcast were useful.   | <input type="checkbox"/> |
| e. The webcast and telephone conference provided a satisfactory method for participating in a region-wide tabletop exercise.          | <input type="checkbox"/> |
| e. Participation in the webcast was appropriate for someone in my position.   | <input type="checkbox"/> |
| f. The participants included the right people in terms of level and mix of disciplines.   | <input type="checkbox"/> |
| g. This webcast allowed my agency/jurisdiction to practice and improve priority capabilities.   | <input type="checkbox"/> |
| h. After this webcast, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised. | <input type="checkbox"/> |

Please provide any recommendations on how this webcast or future webcasts could be improved or enhanced.

---

**Table 7: Topical Comments by Players in Response to Webcasts**

| <p><b>Question 1: List the top three strengths/ areas needing improvement based on the webcast, and tasks and issues</b></p>   | <p><b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b></p> | <p><b>Question 3: For the corrective actions that relate to your area of responsibility, who should be assigned responsibility for each corrective action</b></p> | <p><b>Question 4: List the applicable equipment, training, policies, plans, and procedure that should be reviewed, revised, or developed and prioritize</b></p> |
|--|--|---|---|
| <p>I would spend a tad more time in the very initial part of the presentation ironing out any of the IT issues with participants. The first 10 minutes would do it, I think.</p> | <p>No response</p>   | <p>Need me to invite some Infectious Disease folks from IDPH? I can have more people participate if it's warranted.</p>   | <p>No response</p>  |
| <p>I Surveillance guidelines/case definitions, manpower for same and vaccination, communications,</p>  | <p>No response</p>   | <p>No response</p>  | <p>repeat training for HDVRT bring in more departments High priority,</p>   |

C-7

| <b>Question 1: List the top three strengths/ areas needing improvement based on the webcast, and tasks and issues</b>  | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b>   | <b>Question 3: For the corrective actions that relate to your area of responsibility, who should be assigned responsibility for each corrective action</b>  | <b>Question 4: List the applicable equipment, training, policies, plans, and procedure that should be reviewed, revised, or developed and prioritize</b>  |
|--|---|---|---|
| <p>1. Need more hospital involvement - this first day was strongly public health related and some on the hospital side felt that the hospital role was minimized (even though the reason for this was explained at the end of the drill); 2. Need dedicated time to discuss scenario changes with your own team off-line from the webcast since it is hard to discuss while trying to listen to other hospitals talking; 3. Like all drills, this has made our members review job action sheets and what our response would be in a similar disaster so I feel this has been useful so far and will most likely improve as the weeks progress and everyone is more comfortable with the format. This seems like a good way to run multi-site table top drills.</p> | <p>For numbers 1 and 2 above the corrective actions are in the response and both should be high priority or we risk losing interest from our Command Center participants who are extremely busy and not necessarily always focused on disaster response but on other hospital functions (ie, CMO, Sr VPs, etc).</p> | <p>As we identified deficiencies on our end we have already identified who would address the issues based on what the deficiency was. This is assigned based on our roles within the organization and our disaster preparedness team which is very active in disaster planning and meets on a regular basis (weekly for one committee).</p> | <p>Equipment - PPE (high priority); Training - ongoing drills to make a response to a disaster seem almost routine rather than something extraordinary (med priority since between drills corrective actions need to be carried out and re-education measures need to occur).</p> |
| <p>Strength: geographic collaboration, topic significance.<br/>Needs improvement: technology testing - timing</p>  | <p>Technology should be tested at every site ahead of time to save time lost</p>  | <p>Our site did not have issues</p>   | <p>Familiar with I/MS</p>   |
| <p>Difficult to moderate so many participants - fairly good job</p>  | <p>Problem loading and viewing news clip</p>  | <p>No response</p>  | <p>No response</p>  |

| <b>Question 1: List the top three strengths/ areas needing improvement based on the webcast, and tasks and issues</b>   | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b> | <b>Question 3: For the corrective actions that relate to your area of responsibility, who should be assigned responsibility for each corrective action</b> | <b>Question 4: List the applicable equipment, training, policies, plans, and procedure that should be reviewed, revised, or developed and prioritize</b> |
|---|---|--|--|
| (All responses to injects) Hosp isolation and social dist feedback from week 2 should be reviewed prior to going over the new scenario. It feels like we go back and forth on the new scenario and our old responses all on the screen. | Argonne   | No response  | No response  |

| <b>Question 1: List the top three strengths/ areas needing improvement based on the webcast, and tasks and issues</b>   | <b>Question 2: Identify corrective actions needed to address the previous issues and prioritize</b> | <b>Question 3: For the corrective actions that relate to your area of responsibility, who should be assigned responsibility for each corrective action</b> | <b>Question 4: List the applicable equipment, training, policies, plans, and procedure that should be reviewed, revised, or developed and prioritize</b> |
|---|---|--|--|
| <p>After the webcast, the group discussed some feedback for the webcasts. I asked people to complete the feedback form, but I think it is too cumbersome so they are not willing to complete it. Therefore, I am reporting on some of the group's feedback: 1. It feels like we back-track during the webcast. It is confusing to go back in time and then forward - we get lost as to where we are, i.e. how much vaccine/tamiflu we have. Also, it makes it feel slow to review what we already did in the past. Why can't we just keep moving forward? 2. It was helpful to read the summary of what other hospitals responded to their problem-solving assignments, but again it felt like we were going backwards - could we receive this summary ahead of time for self-review? 3. Questions that are brought up during the webcast are not addressed - we quickly move back to the presentation/agenda. That is fine, but in a real tabletop these questions that arise are usually addressed and that is what makes tabletops a great learning experience. 4. We are waiting for the health department to play more or respond more. It is hard for us to know what to respond to injects throughout the week when we don't have any information from CDPH such as HAN alerts, status of SNS, vaccines, public messages, citywide shutdowns, etc.</p> | <p>No response</p>  | <p>No response</p>   | <p>No response</p>   |

**Table 8: Webcast Evaluation Average Score by Players on Five-Point Scale**

| <b>Item</b>   | <b>Average Score (n=6)</b> |
|---|----------------------------|
| The webcast was well structured and organized.  | 3.2                        |
| The scenario events were plausible and realistic.   | 3.2                        |
| The facilitator/ controller(s) was knowledgeable about the area of play and kept the webcast on target.                             | 3.7                        |
| The webcast instructions provided to assist in participating in the webcast were useful.  | 3.3                        |
| The webcast and telephone conference provided a satisfactory method for participation in a region-wide tabletop exercise.           | 3.8                        |
| Participation in the webcast was appropriate for someone in my position.  | 3.5                        |
| The participants included the right people in terms of level and mix of disciplines.  | 3.2                        |
| This webcast allowed my agency/ jurisdiction to practice and improve priority capabilities.   | 3.0                        |
| After this webcast, I believe my agency/ jurisdiction is better prepared to deal successfully with the scenario that was exercised. | 3.0                        |

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## **ADDITIONAL COMMENTS IN RESPONSE TO INDIVIDUAL WEBCASTS**

Let me know if I need to invite some more folks from IDPH to attend the next one.

I was disappointed. I am not sure what I was expecting, but I know it was more. The IT issues added to that, test clip had worked the previous week. One of our participants remarked she had learned more in the 1st ten minutes of the December 2006 exercise at U of C than she did this whole broadcast. Feel it will be difficult to have sustained interest in this exercise.

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**APPENDIX D: ARGONNE CONTROLLER/EVALUATOR IMPROVEMENT  
SUGGESTIONS**

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## **APPENDIX D: ARGONNE CONTROLLER/EVALUATOR IMPROVEMENT SUGGESTIONS**

Appendix D presents the suggestions for improvement provided by controller/evaluators from Argonne. This material, which is presented in Table 9, was collected informally in response to e-mail messages transmitted on October 23 and 25, 2008. Seven of the eleven controller/evaluators who were invited provided feedback.

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**Table 9: Argonne Controller/Evaluator Suggestions for Improvement**

| Name                    | Improvement Area |       |          |                |       | Proposed Improvement   |
|-------------------------|------------------|-------|----------|----------------|-------|--|
|                         | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller /Evaluator 1 | X                |       |          |                |       | Change upload/download document folder structure so that zip files are not needed, i.e., make all folders like the “Completed Problem-Solving Tasks” folder on the controller webpage. |
| Controller /Evaluator 1 | X                |       |          |                |       | Since mock media stories are essentially a type of inject, consider deleting the separate identity of ENN and simply post mock media stories as injects.                               |
| Controller /Evaluator 1 |                  |       | X        |                |       | Develop a standard webcast outline.  |
| Controller /Evaluator 1 |                  |       |          | X              |       | Make trusted agents explicitly responsible for communicating with player POCs so that latter are not surprised by exercise development and management decisions.                       |
| Controller /Evaluator 1 |                  |       |          |                | X     | Document entire system.  |
| Controller /Evaluator 1 | X                |       |          |                |       | Create diagram to show players how all of the different documents relate to exercise and them (i.e., a picture of the “communications flow” document).                                 |
| Controller /Evaluator 1 |                  | X     |          |                |       | Make all homework (not just from hospitals) due on Friday afternoon each week so that controllers have sufficient time to digest it for webcasts.                                      |
| Controller /Evaluator 1 |                  |       |          | X              |       | Try using webcast software’s audio instead of conference bridge in order to simplify webcasts.   |
| Controller /Evaluator 1 |                  |       | X        |                |       | Consider whether to try webcams in key player conference rooms, e.g., CDPH.  |

| Name                    | Improvement Area |       |          |                |       | Proposed Improvement   |
|-------------------------|------------------|-------|----------|----------------|-------|--|
|                         | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller /Evaluator 1 |                  |       |          |                | X     | Consider whether to allow observers to see more information, e.g., webcast summaries and completed homework.   |
| Controller /Evaluator 1 |                  |       |          |                | X     | Reduce the evaluation form burden on players. The homework evaluation forms are probably least necessary, since this input can be captured in the other two.   |
| Controller /Evaluator 2 |                  | X     | X        |                |       | Post patient counts and problem tasks a few hours before each webcast. Highlight new pt counts in the webcast.   |
| Controller /Evaluator 2 |                  |       | X        |                |       | Include a list of major webcast topics in the webcast reminder to the POCs.  |
| Controller /Evaluator 2 |                  |       |          |                | X     | Reduce all of the evaluation forms to a few checkboxes, except the final one.  |
| Controller /Evaluator 2 |                  | X     |          |                |       | On problem tasks, ask for the ICS positions of all contributors  |
| Controller /Evaluator 3 |                  |       | X        |                |       | Clarify the “rules of engagement” so players understand that when the moderator asks a question, it is expected that a response be received. They would answer a question if they were in the same room. |
| Controller /Evaluator 3 |                  |       | X        |                |       | Make greater use of the “raised hand” and “emotisounds” buttons on the meeting consol during the Webcast. Are there other buttons that can be used to increase the interaction among participants?       |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement  |
|----------------------------|------------------|-------|----------|----------------|-------|---|
|                            | Website          | Tasks | Webcasts | Communications | Other |   |
| Controller<br>/Evaluator 3 |                  |       |          |                | X     | Make a concerted effort to include players from law enforcement, senior elected officials, and pertinent State agencies in the next exercise. Issues like security at key medical facilities and social distancing require input beyond the medical community.  |
| Controller<br>/Evaluator 3 |                  |       |          |                | X     | Consideration could be given to evolving a more robust SimCell involvement/presence in the exercise. Perhaps this could eventually involve daily posting of updates and daily news stories (primarily print, some radio).   |
| Controller<br>/Evaluator 4 | X                |       |          |                |       | I liked the idea of giving the mock media stories a highly visible identity on the website (i.e., ENN) even though they are injects. It adds an extra cachet to the program.  |
| Controller<br>/Evaluator 4 |                  |       | X        |                |       | In addition to providing patient counts and specific problem tasks before each webcast, recommend that additional general information about the impact of the event on the community overall be made available—specifically conditions that drive <u>coordination of response</u> among player organizations. This input could be in the format of a newspaper editorial or comparable video story. |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement   |
|----------------------------|------------------|-------|----------|----------------|-------|--|
|                            | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller<br>/Evaluator 4 |                  |       |          |                | X     | While I only viewed two webcasts, I sensed that the players were not driven to coordinating their responses because the setup and execution of the webcasts focused on interaction between individual jurisdiction OCs and the team at Argonne. Any chance of adding another ½ hour of dynamic webcast that provides/requires interaction among jurisdictions (monitored by the team at Argonne) prior to the weekly 90 minute webcasts? |
| Controller<br>/Evaluator 5 | X                |       |          |                |       | Make player page less complicated so they won't be afraid to participate fully.  |
| Controller<br>/Evaluator 5 |                  |       | X        |                |       | We are getting new webcast software that will take care of all of the webcast problems. It also can be used as a training module. We can make the homework an online document that they can fill out and submit it through. More of an interactive problem solving webpage.  |
| Controller<br>/Evaluator 6 |                  |       |          |                | X     | Develop written simcell protocol (1) determine who responds to which inquiries. (2) Determine when inject records are needed. (3) Determine who has authority to review injects. (4) Develop all injects beforehand, excluding contingency injects.)   |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement  |
|----------------------------|------------------|-------|----------|----------------|-------|---|
|                            | Website          | Tasks | Webcasts | Communications | Other |   |
| Controller<br>/Evaluator 7 |                  |       | X        |                |       | Enable muting and un-muting of phones from within webcast itself (WebEx is the product that I have used) where I think callers are assigned dial-in codes callers so you can mute or un-mute the group or individuals; may be excessive for routine use but useful for when feedback or background noise is high.                                     |
| Controller<br>/Evaluator 7 |                  |       |          | X              |       | We RELIED on organizations to communicate between themselves, and it did not work. Either have to get highly explicit commitment to functional communication, or simulate all communications. The former makes the exercise more of a functional one and should be explicitly stated as such; people may be confused when we then call it a tabletop. |
| Controller<br>/Evaluator 7 |                  |       |          |                | X     | Use one drop site for all communication with controllers/simcell. Emails players sent to members of the team were not processed uniformly or consistently.  |
| Controller<br>/Evaluator 7 |                  |       |          |                | X     | Increase simcell coordination and consistency. May need to meet daily to process all incoming and outgoing messages. Seemed to take days.   |
| Controller<br>/Evaluator 7 | X                |       |          | X              | X     | Controllers MUST be uniformly apprised of all developments. Use of email with inconsistent mailing lists defeated this. Suggest using ONLY website to receive and send info.  |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement   |
|----------------------------|------------------|-------|----------|----------------|-------|--|
|                            | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller<br>/Evaluator 7 | X                |       |          | X              |       | Corollary to above point: website should send an email notification to all intended recipients of a message posted there.  |
| Controller<br>/Evaluator 7 |                  |       | X        |                |       | Consider lengthening to two hours. Seem to hit their stride around hour 2.   |
| Controller<br>/Evaluator 7 |                  |       | X        |                |       | Review feedback to determine if the initiating historical wrap-up in webcasts was excessive or just right in length and detail.  |
| Controller<br>/Evaluator 7 |                  |       | X        |                |       | Participants wanted more time to discuss things internally during webcasts. This may never be efficient, but we could send out a set of Webcast issues for pre-webcast discussion. Not clear to me if this would help- requires setting additional group meeting time.   |
| Controller<br>/Evaluator 7 | X                | X     |          |                |       | We encouraged Incident Command through homework, and it did not seem to hurt and was probably very helpful to learning. (It would be GREAT if participants would take the ICS training immediately before or after one of these!) Suggest having organizations diagram their incident command structure on the exercise website so everyone knows who is in what role during the exercise. |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement   |
|----------------------------|------------------|-------|----------|----------------|-------|--|
|                            | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller<br>/Evaluator 7 |                  | X     | X        | X              |       | The Point of Contact role, the Trusted Agent roles were often confused. Should we try to make sure that the Point of Contact corresponds to the likely liaison officer in the real organizational IC plan (e.g. the person who would play that role during HICS activation)? Let's let infection control professionals play infection control professionals and not IT troubleshooters?! Dream on....) |
| Controller<br>/Evaluator 7 |                  | X     |          |                |       | Homework responses were often simply a recycling of lists of "what we planned we would do" and not a demonstration of CAPACITY. Suggest making homework MORE functional and LESS table top— show us the press release, send a HAN message, etc. Probably need fewer but more functional items. These will give greater insight into capacity to perform tasks.   |
| Controller<br>/Evaluator 7 |                  | X     |          |                |       | With fewer but more functional homework tasks we may be able to have more powerful contingencies. But need a more highly coordinated SIMCELL process to decide and implement them promptly and effectively. NOTE: that my comments about simcell is as an outsider - if meetings were being held, etc, I was not privy. \  |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement   |
|----------------------------|------------------|-------|----------|----------------|-------|--|
|                            | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller<br>/Evaluator 7 | X                |       |          |                |       | Ideally participants would have access to an easy-to-interpret timeline of events (and responses) to date. This could reduce confusion, the effort for newly joining players, and increase the uniformity of knowledge of players. The folder structure was useful for controllers but not sure it is good for players. I think Incident Command software products (collaborative websites) typically offer some event logging and display of this type that we should perhaps mimic. Would be good to mimic a product in use by CDPH or city Emergency management. Also possible that XMT offers such a function - maybe we can cut and paste stuff entered on XMT to a more publically-available website?? |
| Controller<br>/Evaluator 7 |                  | X     |          |                |       | Consider a smaller number of assignments focused on very specific tasks. These tasks, however, may require considerable breadth of situational and plan knowledge, and considerable coordination. (Net labor could be equal but learning more focused). [NOTE: I vacillate between broader and more focused assignments; former may enhance learning at more elementary levels i.e., "I never thought of that" type items, while latter would enhance learning and sharpening of actual competencies, capabilities and capacities.].   |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement  |
|----------------------------|------------------|-------|----------|----------------|-------|---|
|                            | Website          | Tasks | Webcasts | Communications | Other |   |
| Controller<br>/Evaluator 7 | X                | X     | X        | X              | X     | Decide in each area of objectives if we want to test COMPETENCY (knowledge and skill); CAPACITY (resources and organizational depth); CAPABILITY (ability to combine all of above into effective action); and maybe CONTINUOUS IMPROVEMENT (ability to learn as an organization and change for improvement). Homework to test competency would differ from the rest, etc. and discussions during the webcasts could explicitly explain which we are addressing and allow deeper learning. When some people are thinking competency and others are thinking capability, they are not really quite communicating on the same level. |
| Controller<br>/Evaluator 7 |                  |       |          |                | X     | I know we ran into resistance, but suggest that exercise objectives include specific subjects, verbs and concrete, if not quantifiable outcomes. E.g.:<br>“Communication capability”: CDPH will demonstrate creation and dissemination of to all partners of changes in case-finding and case-management within 24 hours.”<br>Etc. This guides homework construction, discussion focus and evaluation   |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement  |
|----------------------------|------------------|-------|----------|----------------|-------|---|
|                            | Website          | Tasks | Webcasts | Communications | Other |   |
| Controller<br>/Evaluator 7 |                  |       | X        |                |       | Seeing each other is very valuable and is possible-for a cost. There are videoconferencing products that permit you to see two or three parties at a time (so can watch speaker and response). Obviously players would need more lead time and instruction to set up. Loaner equipment?   |
| Controller<br>/Evaluator 7 |                  |       |          |                | X     | I am aware these suggestions require more resources that may not be available!!   |
| Controller<br>/Evaluator 7 |                  | X     |          |                |       | It appears some hospitals completed homework prior to detection of first Chicago cases – i.e., homework out of synch with exercise scenario on the date it was submitted. [Or was this lack of alert info being sent out by CDPH?] May need to reduce the amount of scenario development occurring during the homework completion period to address this. |
| Controller<br>/Evaluator 7 |                  | X     |          |                |       | In first assignment distinction between “Alert” and “public information release” not clear  |
| Controller<br>/Evaluator 7 |                  | X     |          | X              |       | Not sure what to do about the large number of “no response” injects. My earlier idea was that each inject have a small problem set attached to make clear what, when and how a response was expected.   |

| Name                       | Improvement Area |       |          |                |       | Proposed Improvement   |
|----------------------------|------------------|-------|----------|----------------|-------|--|
|                            | Website          | Tasks | Webcasts | Communications | Other |  |
| Controller<br>/Evaluator 7 |                  |       |          | X              |       | Each growth of epidemic between the weekly “numbers” and the webcasts seemed to catch participants by surprise. May need to consider daily case counts to keep people in the “rhythm” of the growing epidemic. |
| Controller<br>/Evaluator 7 |                  |       |          | X              |       | Hospitals showed interest in learning from the detailed responses of others. We have a lot of material for shared learning and need to find effective ways for this detailed sharing.                          |
| Controller<br>/Evaluator 7 |                  |       |          |                | X     | Medical examiner involvement was advised.  |

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