

Survey of Emergency Preparedness Training in GNYHA Member Hospitals, 2005

FINAL REPORT

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Introduction

As part of its bioterrorism preparedness grant from the Federal Health Resources and Services Administration (HRSA), the New York City Department of Health and Mental Hygiene (DOHMH) provided grant funding to the Greater New York Hospital Association (GNYHA) to conduct a survey regarding emergency preparedness training efforts to date, the need for future training, and barriers to emergency preparedness training that GNYHA members have encountered. The current report summarizes the findings of the survey, conducted by GNYHA in June 2005.

Method

GNYHA drafted a survey and shared it with DOHMH and GNYHA's Emergency Preparedness Training Workgroup. The Workgroup comprises GNYHA members who are intimately involved in emergency preparedness training efforts in their hospitals and includes physicians, emergency managers, administrators, paramedics, nurses, and EMTs. After revisions based upon a conference call with the Workgroup and DOHMH, the survey instrument was pilot-tested in five hospitals. Revisions were made to the survey instrument based upon recommendations from the pilot-test. GNYHA then sent a member letter bulletin to hospital Chief Executive Officers (CEOs) informing them of the survey and providing a link to the survey instrument through an online survey tool called "Survey Monkey." Copies of the CEO bulletin were sent to the Emergency Preparedness Coordinating Council, Chairs of Emergency Medicine, Administrators of Emergency Departments, Directors of Pre-Hospital Care, Chairs of Disaster Committees, Medical Directors, and Vice Presidents of Nursing at GNYHA member hospitals (N=119) in June 2005. Hospitals were provided with the option of completing the survey as an individual hospital or as a network, provided that the hospital is part of a network and training is centralized for the network.

Hospitals were provided with the option of completing the survey via paper, instead of online. For purposes of the survey "emergency preparedness training" was defined as instruction in any or all of the following:

- Chemical, Biological, Radiological/Nuclear, and Explosive (CBRNE) events awareness
- Introduction to incident command systems (ICS), hospital's plan, and staff's role in the plan;
- Role of local, state, and federal organizations during a disaster;
- Personal and family emergency preparedness;
- Mail handling and security;
- Decontamination (operations level for decontamination team); and
- Crisis communications (communicating with the public, media, governmental agencies, and staff).

Seventy-four surveys representing 91 hospitals, or approximately 77% of those surveyed, were completed. The response sample included public and voluntary hospitals located in the five boroughs of New York City; Nassau, Suffolk, Westchester, Erie, Niagara, Putnam, and Ulster counties; and hospitals in New Jersey and Connecticut.

The survey consisted of twenty-nine questions.

- Questions 9 and 10 focused on barriers to training;
- Questions 11 to 15 focused on whether staff had received training and numbers of staff that still required training;
- Questions 16 to 23 focused on strategies and tools used for training, evaluation and whether hospitals offered training to those not affiliated with the hospital; and
- Questions 24 to 28 focused on tracking training.

In addition, on July 20, 2005, GNYHA held a focus group meeting with its Emergency Preparedness Training Workgroup, DOHMH, and several organizations that conduct emergency preparedness training, to review the survey results, to discuss training being undertaken by the invited organizations, and to discuss additional training needs of GNYHA members. A summary of the focus group discussion is also included in this report.

Results

BARRIERS TO TRAINING

The survey posed the following question: “What difficulties has your organization encountered in training staff?” and then asked hospitals to provide an answer of “Not Difficult,” “Somewhat Difficult,” or “Very Difficult” for each category in the list. The top three reasons why training staff is “Very Difficult” were: the cost of replacing employees (i.e., filling their positions while they are attending training); providing training to staff working shifts other than during weekdays (evening, night, and weekend staff); and the volume of staff that needs to be trained. Table 1 provides a summary of all of the responses to the question regarding barriers to emergency preparedness training.

Table 1: Barriers to Emergency Preparedness Training

What difficulties has your organization encountered in training staff?			
	Not Difficult	Somewhat Difficult	Very Difficult
Cost of delivering training (e.g., trainers, space, materials)	19%	58%	22%
Cost of replacing employees	7%	36%	57%
Finding qualified trainers	58%	33%	8%
Having materials and tools available for the training	54%	36%	10%
Providing training to staff working shifts other than during weekdays (evening, night, and weekend staff)	10%	46%	44%
Volume of staff that needs to be trained	10%	51%	39%

A related question asked respondents to describe any other difficulties the organization had encountered in training staff. For hospitals responding to that question, the most frequent answer was that there is a lack of standard training materials.

TRAINING CONDUCTED AND NEED FOR TRAINING

The survey also asked a “Yes/No” question as to whether hospital staff had received training in certain categories. As indicated in Table 2, 54% of respondents said that hospital staff had **not** been trained in “Personal and family emergency preparedness,” which was the topic with the

highest percentage of “No” responses. Table 2 provides a summary of the responses to the question.

Table 2: Training Conducted

Has your hospital staff received training in the following categories?	No	Yes
Personal and family emergency preparedness	54%	46%
Crisis communication (communicating with the public, media, governmental agencies, and staff)	38%	62%
Role of local, state, and federal organizations during a disaster	25%	75%
Mail handling and security	26%	74%
Decontamination (Operations level for decontamination team)	14%	86%
Chemical, Biological, Radiological/Nuclear, and Explosive (CBRNE) events awareness	7%	93%
Introduction to incident command systems (ICS), hospital's ICS plan, and staff's role in the plan	4%	96%

The next few questions focused on the number of staff members that hospitals would like to train in certain categories. One question requested information regarding the number of staff that hospitals would like to train in the topic of CBRNE Events Awareness. As Table 3 indicates, the greatest need for training staff is in the job categories of nursing staff and non-clinical staff.

Table 3: Number of Staff Responding Hospitals Would Like to Train in CBRNE Events Awareness

	Minimum Number of Employees*
Physician employees	6,450
Physician voluntary staff	4,500
Nursing staff	14,550
Other clinical staff	9,350
Non-clinical staff	12,200

* Total numbers of employees are minimum numbers since question did not ask for specific numbers, but estimates of numbers within certain parameters (e.g., “More than 500”).

The survey also requested the number of staff that hospitals would like to train on the topic of “Introduction to incident command systems, (ICS), hospital’s ICS plan, and staff’s role in the plan.” As Table 4 shows, the greatest need for training staff is in the categories of nursing staff and non-clinical staff.

Table 4: Number of Staff Responding Hospitals Would Like to Train in ICS Topics

	Minimum Number of Employees*
Physician employees	6,350
Physician voluntary staff	3,100
Nursing staff	12,350
Other clinical staff	7,600
Non-clinical staff	11,350

* Total numbers of employees are minimum numbers since question did not ask for specific numbers, but estimates of numbers within certain parameters (e.g., “More than 500”).

In addition, the survey requested numbers of staff that hospitals would like to train on the topic of “Decontamination: operations level training for the decontamination team.” Because only a relatively small number of hospital staff are usually trained to be on the team, a smaller need was indicated for training of team members. In all staff categories, the most frequent response was “fewer than 50” for the number of staff members that hospitals would like to train.

The survey also asked whether hospitals were interested in training staff on certain topics. As Table 5 indicates, the greatest interest was in the area of “Personal and family emergency preparedness,” where 85% of respondents indicated that they are interested in training staff. That was followed by “Crisis communication (communicating with the public, media, and staff),” where 82% of respondents indicated an interest in training in that job category.

Table 5: Interest in Training Staff in Certain Topics

	Yes	No
Personal and family emergency preparedness	85%	15%
Crisis communication (communicating with the public, media, and staff)	82%	18%
Role of local, state, and federal organizations during a disaster	78%	22%
Mail handling and security	74%	26%

Training Programs, Tools, and Evaluation

The survey also asked for the names of standard training programs (e.g., HAZMAT for Healthcare, CBRNE Academy (Bellevue)) that employees have attended. The most frequently listed programs were HAZMAT for Healthcare and the CBRNE Academy.

Another survey question requested information regarding which training strategies the hospital routinely uses for training staff, and for the strategies listed, asked respondents to indicate whether they “Always,” “Sometimes,” or “Never” used those strategies, checking all that apply. The most frequently used strategies were: using “your own staff as trainers” which 97% of respondents used always or sometimes; and in-person training, with staff attending programs off site, which 95% of respondents also used always or sometimes. A similar question asked which training strategies have been most effective in training the institution’s staff, and the strategy most frequently cited as “Very Effective” or “Somewhat Effective” was using “your own staff as trainers” (94%) and in-person training, with staff attending programs off site (also 94%). In addition, the survey asked what other training aides have been effective in educating hospital workforces, checking all that apply. The largest percentage of hospitals reported using posters (63%) and brochures (59%). The survey also asked for other effective training aides, to which respondents listed aides such as: a hospital-wide television system, reminders affixed to hospital identification cards, departmental orientation and staff meetings, and hotlines.

With regard to evaluations of training programs, the survey asked how hospitals evaluate training programs, and asked respondents to check all that apply. Seventy-six percent of hospitals indicated that they evaluated training programs via participant evaluation/participant satisfaction surveys, 74% used pre/post testing, and 73% employed follow-up drills or exercises. Seven percent of respondents indicated that no evaluations were currently done.

Sixty-five percent of hospitals also indicated that they offer training to hospital workers not affiliated with their institution. In addition, many indicated that they offer training to fire, police, and emergency medical service personnel.

When respondents were asked whether they have a tracking system or otherwise keep records as to which staff have attended emergency preparedness trainings, 89% indicated that they do. Of those respondents, 86% indicated that they keep track of training for all employees. When respondents were asked how they keep track of trainings, checking all that apply, 89% indicated that they use paper-based systems, and 50% indicated that they use electronic systems. All respondents indicated that their record-keeping system tracks on-site training, while 66% indicated that it tracks participation in drills and exercises (including tabletops), 37% indicated

that the system tracks off-site training, and 20% indicated that the system prompts for retraining after a certain interval. When hospitals were asked which department is responsible for keeping records of the training and asked to check all that apply, 48% indicated the emergency management committee, 40% indicated the training and education department, 31% indicated the nursing education department, 31% indicated the safety department, 26% indicated the human resources department, and eight percent indicated the medical staff services office. In addition, a few hospitals indicated that individual departments are responsible for tracking their own training.

Focus Group Meeting

On July 20, 2005, GNYHA convened a “focus group” meeting of GNYHA members, DOHMH, and the following organizations:

- CBRNE Training Academy;
- Columbia University School of Nursing;
- Medical Society of the State of New York (MSSNY); and
- Borough of Manhattan Community College (BMCC).

Representatives from six GNYHA member hospitals attended the meeting as well. At the meeting, GNYHA presented preliminary survey results as of July 19, 2005, and representatives from the four training organizations presented information about their programs. A description of the training programs offered by the four organizations is attached as “Attachment I: Catalogue of Local Area Training Programs.”

At the meeting, focus group participants asked questions of the training organizations and provided feedback to the organizations regarding their training programs. GNYHA then followed up via email with a series of questions to GNYHA members. Following are the major points regarding the feedback that GNYHA members and other focus group participants provided:

- Focus group participants indicated that the meeting was quite valuable, as they had never attended a meeting before with the various entities (GNYHA members, DOHMH, and training organizations) to discuss emergency preparedness training programs and receive

member feedback. In addition, the organizations had not presented information regarding their programs to each other prior to this session.

- As indicated in Attachment I, each of the training programs presented had somewhat of a different target audience.
- One GNYHA member expressed concern that three of the four programs were grant-funded and therefore, if grant funding was discontinued, the programs might be discontinued.
- One GNYHA member indicated that it had utilized the train-the-trainer model, but no longer used it, since the member found it difficult for trainers to teach using materials that the trainers had not developed themselves.
- As indicated above, the survey demonstrated that the top barrier to training was filling staff positions for those who were attending training (“backfill”). Through an RFP process, using funding from the Federal Urban Area Security Initiative, DOHMH provided funds for hospitals to use for backfill when sending staff to the CBRNE Academy trainings.
- The CBRNE Academy indicated that some hospitals did not coordinate attendees throughout the institution, sometimes sending several representatives from different departments who were unaware that their colleagues were also participating in training. Additionally, scheduled participants sometimes did not attend, as they were needed to be present at the hospital.
- The CBRNE Academy indicated that, in light of HRSA’s “competency-based” requirement, it was reviewing and, if necessary, revising its curriculum. The funding source for the original CBRNE Academy training (Federal Department of Homeland Security, Office of Domestic Preparedness) did not require that the curriculum be “competency- based.”
- GNYHA members indicated that the CBRNE Academy was well-suited to deliver training to hospital personnel. Members also indicated, however, that those involved in the training design should discuss with GNYHA members how to better present the materials to hospital staff before it embarks on the next round of training (scheduled for this fall).
- MSSNY indicated that participants in its in-person training sessions often repeated the training afterward utilizing its online training modules.
- GNYHA member participants who had used online training modules indicated the importance of both dedicated time during the workday and hospital-provided computers for completing the training. Expecting staff to complete the courses during a busy workday or after the workday was generally not successful.

Recommendations for Next Steps

Based on the training survey, focus group meeting, and discussions with members, the following are recommendations regarding “next steps” that GNYHA and/or DOHMH should consider to assist GNYHA members in training health care workers in emergency preparedness.

- GNYHA should assist in linking members to organizations that offer emergency preparedness training to meet unmet training needs.
- GNYHA can assist in linking members to local training programs, in addition to the CBRNE Academy, through communications with members and the training section of GNYHA’s Emergency Preparedness Resource Center Web site.
- GNYHA can assist in meeting the unmet needs identified in the emergency preparedness training survey by encouraging more organizations to tailor their training programs to meet that need, including the development of curriculum on certain topics (e.g. Personal and Family Emergency Preparedness).
- In order to ensure awareness at higher administrative levels of hospitals as to the availability of the CBRNE Academy, GNYHA can assist DOHMH in publicizing the availability of the Academy to hospital Chief Executive Officers through announcements to them.
- GNYHA members have a great deal of expertise in emergency preparedness training. GNYHA should convene additional meetings so that members can share training strategies with each other and with organizations in the New York City region that undertake training.
- DOHMH should consider reimbursing GNYHA members for attending trainings sponsored by organizations in addition to the CBRNE Academy. GNYHA can assist in that effort by seeking additional member input on reimbursement strategies, providing that information to DOHMH, and publicizing to members the availability of the reimbursement.
- Before the CBRNE Academy embarks on its next round of trainings, DOHMH and the CBRNE Academy administration should consider soliciting input from GNYHA members regarding training format and strategies. GNYHA can convene a meeting of DOHMH, representatives of the CBRNE Academy, and members for this purpose.

CBRNE (Chemical, Biological, Radiological, Nuclear, Explosive)

Training Academy

Lectures:

- Awareness
- Hazard Recognition
- Safety and Response
- Relating the Exotic to the Mundane
- Introduction to HEICS
- Introduction to Decontamination and Personal Protective Equipment
- Understanding CBRNE: The Science and Personal Risk Assessment

Workshops: Advanced Personal Protective Step by Step, Advanced Decontamination Tabletop Discussion, and Clinical Syndrome Recognition: Management and Patient Simulation.

Target audience: Clinical, non-clinical, support, and facility staff were invited to attend the trainings.

Instructors: Instructors were selected from the target audience to participate in train-the-trainer sessions. Lectures given and workshops facilitated by a cadre of educators, physicians, and hospital instructor trainees as needed.

Format: Three-day train-the-trainer instructor course that consists of attendance at a provider course, a full-day curriculum review, and assignment to lecture and/or facilitate a workshop with supervision as part of a subsequent provider day.

Development of curriculum: Developed by Dr. Howard Greller, M.D., Attending Physician & Assistant Professor of Clinical Emergency Medicine at Bellevue Hospital and the NYU School of Medicine, board-certified in both Emergency Medicine and Clinical Toxicology. The curriculum has been approved by Federal Department of Homeland Security, Office of Domestic Preparedness.

BMCC (Borough of Manhattan Community College)

Courses:

- BDLS (basic disaster life support)
- ADLS (advanced disaster life support)
- NDLS Instructor (national disaster life support)

Target audience: Clinical providers (including nursing, respiratory therapists, and EMT programs will be developed).

Instructors: Plan on using existing certified faculty and will be hiring additional adjunct faculty dedicated to this new emergency preparedness center.

Format: Traditional lecture format and use of interactive scenarios, drills, and human patient simulators. Program expected to begin in December 2005.

Development of curriculum: The National Disaster Life Support program courses were developed by the American Medical Association in collaboration with the National Disaster Life Support Education Consortium partners, including the Medical College of Georgia, University of Georgia, University of Texas (Southwestern Medical Center at Dallas and School of Public Health Houston).

Columbia University School of Nursing

Courses:

- Overview
- Increasing Hospital Preparedness: An Urgent Issue
- Basic Incident Response
- Biological Incidents
- Chemical Incidents
- Radiological and Nuclear Incidents, Explosive Incidents, and Incidents Affecting Children

Target Audience: Any clinician associated with a hospital and secondary responders

Instructors: New York-Presbyterian Healthcare System employees consisting of Columbia University School of Nursing.

Format: Online courses

Development of Curriculum: Iterative process beginning with classroom presentation; each module developed by a content expert and the team (consisting of representatives of Columbia University School of Nursing and New York-Presbyterian Healthcare System); revised after each presentation based on evaluations; and audience included all target professional groups.

Medical Society of the State of New York (MSSNY)

Courses: Courses on sixteen biological, chemical and nuclear agents, SARS, and four mental health modules.

Target Audience: New York State physician community

Instructors: Members of MSSNY's Task Force on Bioterrorism

Format: Live seminars and online courses

Development of Curriculum: Created a task force on bioterrorism to review and approve educational materials. MSSNY experts designed an education program and an action plan to train physicians through live seminars and online. Also commissioned EM Technologies to develop online course and live seminar.