
**AFTER ACTION REPORT
FY2009 TCN 09238
Workshop 5**



**From Practice to Preparedness: Evaluating Competency Based
Education for Disaster Medicine and Public Health Preparedness and
Response**

A National Consultation Meeting

June 8, 2011 • Logistics Management Institute, McLean, VA

The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Defense position, policy or decision, unless so designated by other documentation.

TABLE OF CONTENTS

INTRODUCTION..... 1

 PREFACE 1

 HANDLING INSTRUCTIONS 1

EXECUTIVE SUMMARY 3

 OVERVIEW 3

 DESIRED OUTPUTS..... 5

 ATTENDANCE 5

 BACKGROUND 7

SUMMARY OF WORKSHOP RESULTS..... 13

RECOMMENDATIONS AND CONCLUSIONS..... 18

 RECOMMENDATIONS..... 18

 CONCLUSIONS..... 19

APPENDIX 1 21

 AUDIENCE RESPONSE QUESTION RESULTS..... 21

APPENDIX 2..... 26

 PARTICIPANT SURVEY RESULTS 26

APPENDIX 3..... 29

 WORKSHOP AGENDA 29

APPENDIX 4..... 34

 BIOGRAPHIES: FACILITATORS, MODERATORS AND PRESENTERS 34

APPENDIX 5..... 47

 PARTICIPANT SURVEY 47

APPENDIX 6..... 51

 EVALUATION PLAN 51

FIGURES

FIGURE 1: ATTENDEES - STATES REPRESENTED

CHARTS

CHART 1: ATTENDEE ORGANIZATIONS

CHART 2: TRAINING AND EDUCATION RECOMMENDATIONS

CHART 3: EDUCATION PROGRAMS

CHART 4: EVALUATION DESIGN

CHART 5: INSTRUCTIONAL DESIGN

CHART 6: CONTENT EVALUATION

CHART 7: COURSE EVALUATION

CHART 8: STANDARDIZED COURSE EVALUATIONS

CHART 9: CHALLENGES TO COURSE EVALUATIONS

CHART 10: BARRIERS TO COURSE EVALUATIONS

TABLES

TABLE 1: TARGETED AUDIENCE

TABLE 2: WORKSHOP SCHEDULE

TABLE 3: WORKSHOP AGENDA

INTRODUCTION

PREFACE

This workshop was conducted through the Integrated Civilian-Military Domestic Disaster Medical Response (ICMDDMR) program of the Yale New Haven Center for Emergency Preparedness and Disaster Response (YNH-CEPDR) under TCN 09238 funded by the United States Northern Command. This task requires conduct of a study to: (1) clarify the federal disaster medicine and public health education and training products currently in existence, (2) identify needs and explore strategies to fill education and training gaps and (3) synthesize long-term expectations of competencies. The means to accomplish this study is through a series of at least six (6) workshops where federal and non-federal stakeholders would convene. This workshop served as the fifth in the series of six. It was co-sponsored by the National Center for Disaster Medicine and Public Health (NCDMPH), the Federal Education and Training Interagency Group for Public Health and Medical Disaster Preparedness and Response (FETIG), the United States Northern Command (USNORTHCOM) and the YNH-CEPDR.

HANDLING INSTRUCTIONS

1. The title of this document is “FY’09 TCN 09238 Workshop #5: *“From Practice to Preparedness: Evaluating Competency Based Education for Disaster Medicine and Public Health Preparedness and Response: A National Consultation Meeting”*”. For additional information, please consult the following points of contact:

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EXECUTIVE SUMMARY

OVERVIEW

Workshop Title: “From Practice to Preparedness: Evaluating Competency Based Education for Disaster Medicine and Public Health Preparedness and Response: A National Consultation Meeting”.

The topic and format for workshop #5 were developed by the Workshop Planning Committee based on qualitative feedback from facilitators and participants in addition to a review of the findings from workshop #4.

Location and Date: Logistics Management Institute (LMI) Corporate Headquarters, McLean, Virginia. LMI generously offered the use of their conveniently located facilities in support of the meeting held on June 8, 2011.

Workshop Format: Workshop #5 was designed as a one-day intensive participatory consultation meeting (see [Appendix 1](#) for complete agenda) with 3 plenary sessions that were each followed by a moderated roundtable integrating the use of audience response technologies and guided by skilled moderators. The moderated roundtables allowed three groups of 4-6 subject matter experts (SMEs) to effectively share key information on the topic while facilitating dialogue between SMEs and the attendees (see [Appendix 2](#) for Facilitator, Moderator and Speaker Biographies).

Meeting strategies were employed to maximize dialogue and interaction among participants and to increase exploration of the topic. These strategies included limiting attendance to no more than 55 participants and the use of an audience response system to fully integrate audience members into discussions. Questions posed via the audience response system were integrated into panel discussions allowing subject matter experts and audience members to discuss their different responses. This helped to keep the audience engaged and spurred additional creative thoughts from both sides. Participants commented on the positive value of this approach.

The meeting began with an introduction that included an overview of the objectives as well as the desired and actual outputs of the 4 previous workshops. The first moderated roundtable “*The Case for Evaluation*” engaged a variety of federal and non-federal SMEs to discuss the importance of evaluating educational programs designed to build competency within the disaster medicine and public health response workforce.

The second moderated panel “*Existing and Emerging Methods for Evaluation of Continuing Health Education*” explored various methods employed to evaluate educational programs. The final moderated panel “Challenges” explored the challenges associated with the evaluation of educational programs.

Targeted Audience: Members of the following Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) professions were targeted. We also made a special effort to engage representatives of professional organizations and academic institutions that focus on continuing education aimed at members of the ESAR-VHP professions.

TABLE 1: TARGETED AUDIENCE

APRNs	Dentists	LPNs	Physicians
Behavioral Health Professional	Diagnostic Medical Sonographers	Medical and Clinical Laboratory Technologists	Physician Assistants
Cardiovascular Technologists & Technicians	Emergency Medical Technicians and Paramedics	Pharmacists	RNs
Veterinarians	Respiratory Therapists	Radiologic Technologists and Technicians	

Meeting Objectives: The objectives of the meeting were as follows:

- Solicit existing methods and examples for conducting evaluation of competency based education focused on medical disaster preparedness and response
- Identify the challenges associated with the evaluation of educational programs
- Solicit long-term approaches for effective evaluation of professional disaster medicine and public health preparedness and response education

DESIRED OUTPUTS

The desired outputs of the meeting were:

- Representative sample of existing methods for conducting evaluation of competency based education focused on medical disaster preparedness and response
- Catalogue of challenges associated with evaluation of educational programs
- Inventory of long-term approaches to effective evaluation of professional disaster medicine and public health preparedness and response education

Workshop Evaluation: An integrated evaluation plan was designed to guide workshop activities (see the complete plan in [Appendix 6](#)). Evaluators were deployed to take notes and record key findings. At the end of the day, a participant satisfaction survey was administered to all participants. The results of the survey are provided in [Appendix 2](#).

Participating Organizations: This workshop was co-sponsored by the National Center for Disaster Medicine and Public Health, the Federal Education and Training Interagency Group for Public Health and Medical Disaster Preparedness and Response, the United States Northern Command and the Yale New Haven Center for Emergency Preparedness and Disaster Response.

ATTENDANCE

A total of 48 attendees representing 13 states and the District of Columbia participated in the workshop. Fifty percent of attendees indicated they had attended 3 or more of the previous workshops.

FIGURE 1: ATTENDEES - STATES REPRESENTED

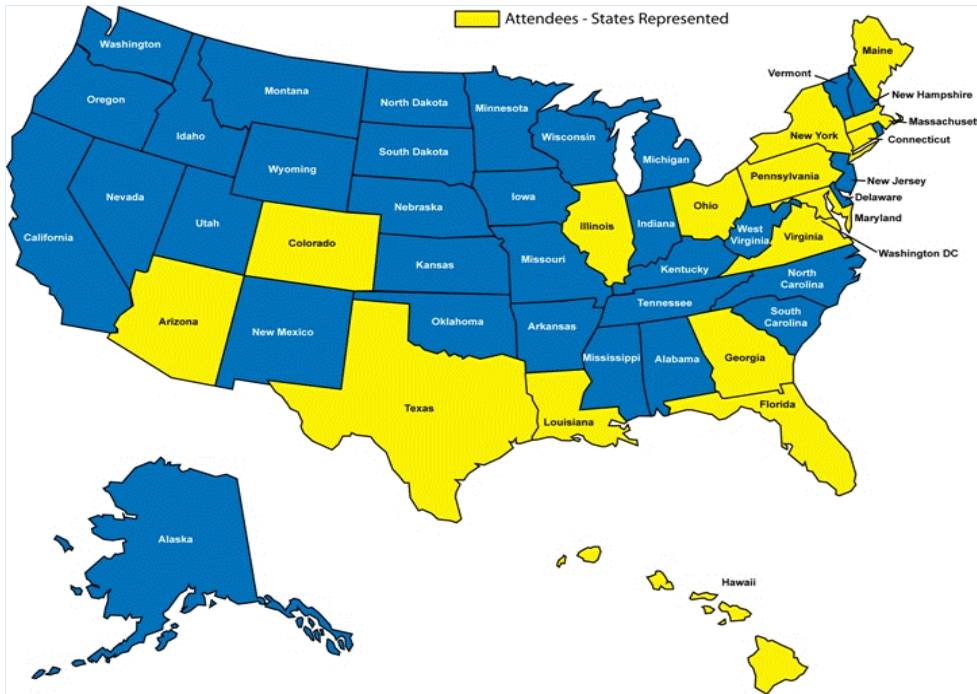
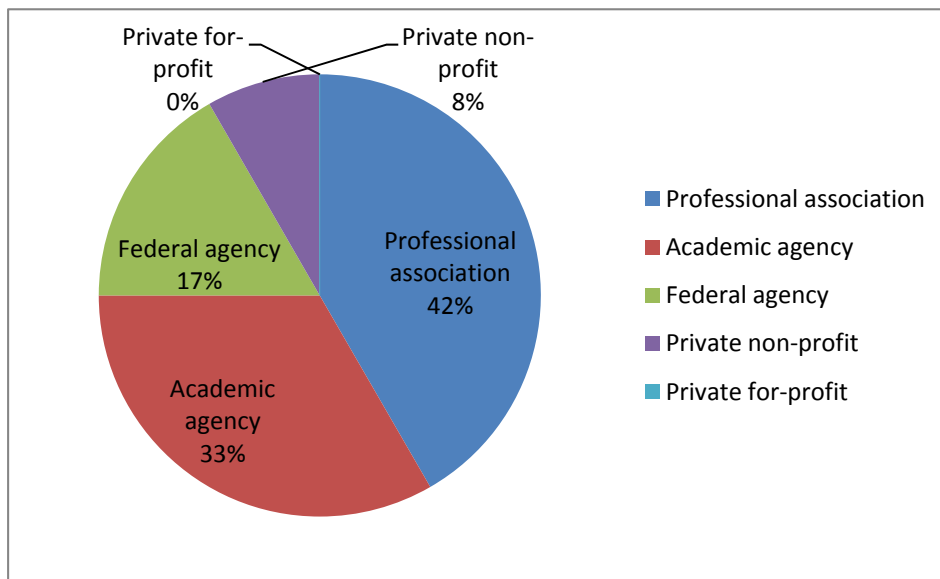


CHART 1: ATTENDEE ORGANIZATIONS

Workshop attendees represented the following organizations



BACKGROUND

The overarching mission of the ICMDDMR program is to enhance the ability to develop integrated civilian/military approaches to large-scale disasters and to maximize the coordination, efficiency and effectiveness of a medical response. This mission is being implemented through various activities, including:

- Developing a national strategy for civilian/military collaboration on integration of medical/public health preparedness education and training programs with USNORTHCOM
- Developing models for education and training that can be modified, replicated and made scalable for the civilian/military health delivery workforce
- Determining appropriate evaluation modalities for education and training programs that are implemented
- Capturing and utilizing a best practices approach across the civilian/military continuum to implement education and training programs
- Integrating civilian/military emergency preparedness strategies for medical and public health delivery

Both the military and the civilian sectors have significant resources that can be mobilized in the event of an emergency or disaster. Unfortunately, their respective organizational structures and lack of integration with each other have the unintended consequence of an ineffective mass casualty response in the homeland. In recognition of the importance of education and training as a strategy and tool to assist civilian and military organizations to better prepare to work together during a disaster, Homeland Security Presidential Directive 21 (HSPD-21): Public Health and Medical Preparedness called for the coordination of education and training programs related to disaster medicine and public health and the establishment of the NCDMPH to lead those coordination efforts. The FETIG serves in an advisory role to the NCDMPH and worked closely with USNORTHCOM to craft ICMDDMR TCN 09238 to support and further the work of the NCDMPH.

ICMDDMR TCN 09238 entitled “Study to determine the current state of disaster medicine and public health education and training and determine long-term expectations of competencies” establishes the following Statement of Work (SOW) and charges YNH-CEPDR with the following task:

Conduct a study to: (1) clarify the federal disaster medicine and public health education and training products currently in existence, (2) identify needs and explore strategies to fill education and training gaps and (3) synthesize long-term expectations of competencies. The means to accomplish this study should be through a series of at least six (6) workshops where federal and non-federal stakeholders would convene.

The results of this study will:

- Provide the structure needed to address core curricula, training and research in disaster medicine as set forth in HSPD 21
- Ensure USNORTHCOM is prepared to provide continuous health service support in meeting its homeland defense and civil support missions

The workshop development plan for TCN 09238 builds on the work done by the NCDMPH in its inaugural workshop entitled, “*A Nation Prepared: Education and Training Needs for Disaster Medicine and Public Health*”. During its initial meeting, the NCDMPH performed a needs assessment and brought together federal partners in a dynamic workshop intended to support networking across federal agencies and gathering of data that would be useful to the assessment. In addition the inaugural meeting was structured to facilitate its replication and the collection of comparative data.

A Workshop Planning Committee made up of representatives from: the FETIG, the NCDMPH and YNH-CEPDR was convened to design a series of workshops to meet the stated objectives of TCN 09238. This integration of civilian, military and federal partners allows the development of workshops and other outputs that are meaningful to all sectors. The Workshop Planning Committee has weekly meetings to conduct workshop planning activities.

The first workshop conducted under TCN 09238, entitled “*Education and Training Needs for Disaster Medicine and Public Health Preparedness: Building Consensus, Understanding and Capabilities*” was designed to bring together federal and non-federal stakeholders for discussion of key issues, information sharing and networking related to disaster medicine and public health education and training. Participants were expected to:

- Receive the latest update regarding key federal activities and legislation

- Share federal and private sector education and training integration strategies
- Develop recommendations and a way ahead for future collaboration

The outputs of workshop #1 and feedback from the FETIG were used to design the structure and content of workshop #2 “*Building a Framework for the Development of Core Capabilities and Competencies for Medical Disaster Preparedness and Response: A National Consultation Meeting*”. Workshop #2 used a scenario-based format to elicit the following desired outputs:

- Framework for identification and validation of core capabilities and competencies for the clinical workforce responsible for medical preparedness and response to a disaster event
- Process for identification and validation of core competencies for the clinical workforce responsible for medical preparedness and response to a disaster event
- Draft set of core capabilities and recommended associated competencies for selected capabilities for the clinical workforce in attendance at the meeting
- List of perceived barriers to attaining core capabilities and competencies
- List of core capabilities and potential gaps identified for ESAR-VHP professionals

Workshop #3” *Building a Framework for the Development of Core Capabilities and Competencies for Medical Disaster Preparedness and Response: A Continuing National Consultation Meeting*” continued the discussions begun in Workshop #2 and followed a similar format to achieve the outputs described below:

- Process for identification and validation of core competencies for the clinical workforce responsible for medical preparedness and response to a disaster event
- Draft set of core capabilities and recommended associated competencies for selected capabilities for the clinical workforce in attendance at this meeting
- List of perceived barriers to attaining core capabilities and competencies
- List of common core capabilities and potential gaps identified for ESAR-VHP professionals

Workshop #4 was entitled “*From Process to Practice: Implementing Core Competencies for Medical Disaster Preparedness and Response*”. This workshop included the use of an audience response system, separating participants into smaller groups for more focused discussions and the use of brief plenary sessions followed by moderated panels to provide a strong evidence base for the discussions.

Questions posed via the audience response system were integrated into the panel discussions allowing subject matter experts and audience members to dialogue regarding the differences in their responses. This helped to keep the audience engaged and spurred additional creative thoughts from both sides. Participants commented on the positive value of this approach and it was effective in supporting achievement of the outputs described below:

- Revised recommended framework and process for competency development
- List of long-term expectations of competencies for medical disaster preparedness and response from practitioners in the field
- List of recommendations on how to disseminate, coordinate, update and evaluate core competencies (acknowledging the dynamic nature of disaster response)
- List of practices used to implement core competencies for medical disaster preparedness and response

Outputs from the preceding workshops and feedback from key stakeholders were used to design the structure and content of workshop #5 and will inform the remaining workshop to ensure that the objectives outlined in the SOW for this task are met. A draft sequence of future topics was designed based on the trajectory of outputs and is listed below. Each potential topic was re-evaluated in light of the results of the preceding workshop. The final workshop will occur in August of 2011 as outlined in the draft schedule below:

TABLE 2: WORKSHOP SCHEDULE

Workshop #	Date	Location	Topic
2010 Workshops			
1	May 5-6	Gaithersburg, MD	Education and Training Needs for Disaster Medicine and Public Health Preparedness: Building Consensus, Understanding and Capabilities
2	Sept. 22	McLean, VA	Disaster Medicine and Public Health Preparedness Workforce Definition and Required Capabilities: A National Consultation Meeting
3	Nov. 17	McLean, VA	Disaster Medicine and Public Health Preparedness Workforce Definition and Required Capabilities: A Continuing National Consultation Meeting
2011 Workshops			
4	March 23	McLean, VA	From Process to Practice: Coordinating Core Competencies for Medical Disaster Preparedness and Response – A National Consultation Meeting
5	June 8	McLean, VA	From Practice to Preparedness: Evaluating Competency Based Education for Disaster Medicine and Public Health Preparedness and Response
6	August 3	National Capital Region	TBD

The first 5 workshops were held in the National Capital Region. This area has proven to be a central location that works well for the targeted audience and has drawn participants from the 48 contiguous states and Hawaii.

Workshop attendees have included, but were not limited to, civilian, federal and military representatives from accredited academic institutions, accrediting groups, professional

organizations and members of the ESAR-VHP professions as well as representatives of state and local organizations and the member organizations of the FETIG.

Should the planning committee determine a need for additional attendees who are currently not included in the listed groups, to participate we will seek approval of their inclusion from the Contract Officer's Representative (COR).

At the conclusion of all six workshops, a comprehensive final report will be developed that addresses our key findings relative to the stated objectives of the TCN.

SUMMARY OF WORKSHOP RESULTS

An analysis of the workshop's presentations and discussions generated the following 5 major topics:

1. **Decreased funding to support evaluation activities**

Both speakers and participants discussed emergency preparedness program funding cuts and their deleterious impact on the evaluation portions of program budgets. Public health funding for emergency preparedness is particularly challenging. For all programs, using line/clinical staff to conduct evaluation activities in addition to or instead of their usual tasks is expensive.

However, professionally trained evaluators (particularly external evaluators) are also costly. Despite the funding challenges, health systems (e.g. hospital systems, public health agencies) need to financially support both individual and system-wide evaluation activities.

2. **Knowledge retention**

The ability of students to retain new information gained from trainings is a concern. The limited frequency of disasters means that students are not quickly applying their new knowledge, skills and attitudes in the workplace.

Both speakers and participants pointed out that supporting students to quickly apply new skills (e.g., via exercises) takes both time and funding. Workshop speakers also articulated the need to investigate how technology can be applied to support knowledge retention. Refresher courses and continuing education classes are also needed.

3. **Competencies and metrics**

Throughout the workshop, speakers consistently raised the need for nationally accepted metrics and competencies to support national training goals that are both intra and inter-disciplinary.

4. **Progress beyond individual and program evaluations to system-level and population-level evaluation**

The speakers pointed out that the current state of emergency preparedness training evaluations primarily remains at the individual student or program level. Further, these individual learner and program accomplishments cannot be aggregated to demonstrate achievement of national goals for preparedness.

Additionally, although the Federal Emergency Management Agency has developed and distributed the Target Capabilities List, which includes some preliminary measures of achievement, these have been principally used to guide the development of national training goals for preparedness in some areas. These issues reflect the early stage of the science, which can be viewed in contrast to the decades of data that has been collected and analyzed in furtherance of the national health improvement goals and activities associated with smoking cessation and injury prevention, for example.

5. Transition beyond knowledge acquisition to impact evaluation

Also indicative of a relatively new field, evaluations of emergency preparedness training programs have focused on short-term outcomes, rather than the trainings' long-term impact on learner knowledge, attitudes and skills. Further, the desired (long-term) impacts of trainings remain imprecisely defined.

A review of workshop objectives and desired outputs reveals the following:

OBJECTIVE #1 - Solicit existing methods and examples for conducting evaluation of competency based education focused on medical disaster preparedness and response

OUTPUT - Representative sample of existing methods for conducting evaluation of competency based education focused on medical disaster preparedness and response

Existing Evaluation Methods

Measuring competency or skills acquired through an educational program is one element of determining the quality and effectiveness of an educational program. Methods used to determine this acquisition of knowledge include:

- Pre/post tests
- Longitudinal post tests (e.g., at six months)
 - Increasing response rates to longitudinal post tests with sequential delivery of CEUs and certificates
- Testing skills via exercises
- Questions provided during the training (e.g., during online training)
- Testing skills via simulations
- A variety of training modalities should be considered

- Length, cost and value of courses are key issues for consumers
- Interactive courses are consistently well-received
- Web-based courses should be interactive, case/problem-based, and include learning checks throughout the course
- Confidence-based learning has shown promise
- Clients/consumers want ready access to reliable and current information regarding recommended course
- Students need opportunities to quickly apply new knowledge and skills
- Trainings should be designed to keep workforce interested and engaged
- Providing reach-back as students go into workforce, provide mentorship and ongoing conversation

Recommendations for conducting evaluations of educational programs include:

- Improving objectivity with outside evaluators
- Using alumni of training programs for feedback

OBJECTIVE #2 - Identify the challenges associated with the evaluation of educational programs

OUTPUT - Catalogue of challenges associated with evaluation of educational programs

Challenges to Evaluations of Emergency Preparedness Training Programs

1. As noted above, funding for internal and/or external evaluation staff is limited. In addition, higher costs are necessarily a part of longitudinal evaluations.
2. Programs often lack professionally trained evaluators.
3. Particularly for non-evaluators, the terminology can be confusing (e.g., compliance vs. evaluation).
4. Since the science that undergirds best practice in emergency preparedness is currently very shallow, evidence-based practices are limited.
5. Retaining participants to collect longitudinal data is very challenging.

6. Program staff can be biased in their assumption that “their” program is well-designed and executed.

Challenges to Quality of Training Programs

1. Content is:
 - Erroneous/inaccurate
 - Outdated
 - Not technical (e.g., making decisions, making teams)
 - Unstimulating
 - Not operational
 - Not based on scientific study
 - Not readily prepared for consumers to evaluate (such as in a centralized catalogue)
 - Not culturally competent
2. SMEs (e.g., staff who directly experienced Katrina) are not necessarily qualified to develop curricula. Conversely, writers often lack operational experience. It is challenging to blend book content and operational components.
3. There has been a failure to collect data during disasters that can inform training content.
4. Faculty development is often overlooked.
5. Lessons learned from program evaluations often do not result in modifications to training programs, both at the local and the federal level.
6. Dedicated evaluation teams from the federal government (e.g., those who collected data following Katrina) are sometimes reluctant to quickly share what they have learned so that relevant course material can be updated.
7. Using the leverage of regulations/licensure to mandate or institutionalize disaster medicine and public health preparedness and response education and training is not yet universally accepted or employed.

OBJECTIVE #3 - Solicit long-term approaches for effective evaluation of professional disaster medicine and public health preparedness and response education

OUTPUT - Inventory of long-term approaches to effective evaluation of professional disaster medicine and public health preparedness and response education

As noted above, the identification and development of long-term approaches to evaluation of emergency preparedness training programs have been significantly challenged by funding and staffing issues. However, when discussing this issue, the evaluation professionals participating in this workshop readily articulated the long-term goals of this field. These were as follows:

1. Provide the greatest good for the country.
2. Identify evidence-based/best practices.
3. Develop metrics.
4. Demonstrate that emergency preparedness training is essential.
5. Support a business case for emergency preparedness training and education.
6. Evaluate the (longer-term) impact of training.
7. Evaluate at the systems (e.g., public health systems) and population levels.
8. Support a national training curriculum with linkages across content but varying across learners and disciplines.
9. Conduct real-time evaluation of disaster response.

RECOMMENDATIONS AND CONCLUSIONS

RECOMMENDATIONS

The workshop identified the following 5 major subjects, which are described in detail above:

1. Decreased funding to support evaluation activities.
2. Knowledge retention.
3. Competencies and metrics.
4. Progress beyond individual and program evaluations to system-level and population-level evaluation.
5. Transition beyond measures of knowledge acquisition to impact evaluation.

Key recommendations from the workshop link back to the themes identified above. The identification and development of long-term approaches to evaluation of emergency preparedness training programs have been significantly challenged by funding and staffing issues.

However, when discussing this issue, the evaluation professionals participating in this workshop readily articulated nine long-term goals of this field. These were as follows:

1. Provide the greatest good for the country.
2. Identify evidence-based/best practices.
3. Develop metrics.
4. Demonstrate that emergency preparedness training is essential.
5. Support a business case for emergency preparedness training and education.
6. Evaluate the (longer-term) impact of training.
7. Evaluate at the systems (e.g., public health systems) and population levels.
8. Support a national training curriculum with linkages across content, but varying across learners and disciplines.
9. Conduct real-time evaluation of disaster response.

In addition the recommendations in the chart below were made regarding training and education:

CHART 2: TRAINING AND EDUCATION RECOMMENDATIONS

Recommendations Regarding Training and Education
<ul style="list-style-type: none">• A variety of training modalities should be considered• Length, cost and value of courses are key issues for consumers• Interactive courses are consistently well-received• Web-based courses should be interactive, case/problem-based, and include learning checks throughout the course• Confidence-based learning has shown promise• Clients/consumers want ready access to reliable and current information regarding recommended courses• Students need opportunities to quickly apply new knowledge and skills• Trainings should be designed to keep the workforce interested and engaged.• Exercises and drills encourage retention of knowledge gained through trainings

CONCLUSIONS

Overall the stated objectives and desired outputs were attained and this workshop has positively contributed to the achievement of the statement of work for this TCN. Participant feedback was overwhelmingly positive. We will use the recommendations and feedback herein to design the 6th workshop.

APPENDIX 1

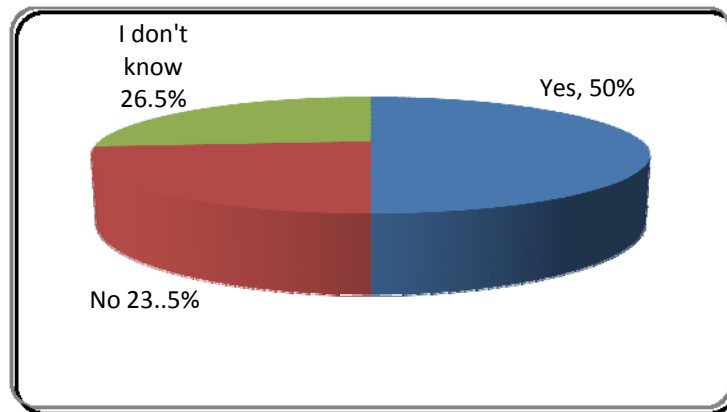
AUDIENCE RESPONSE QUESTION RESULTS

APPENDIX 1

AUDIENCE RESPONSE QUESTION RESULTS

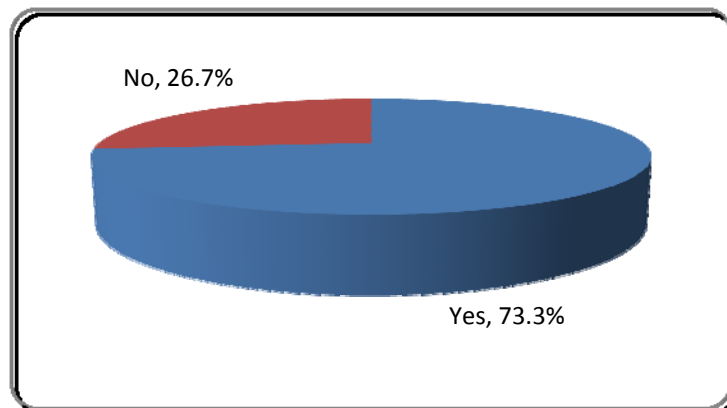
Is evaluation of education programs generally supported by funders and sponsors?

CHART 3: EDUCATION PROGRAMS



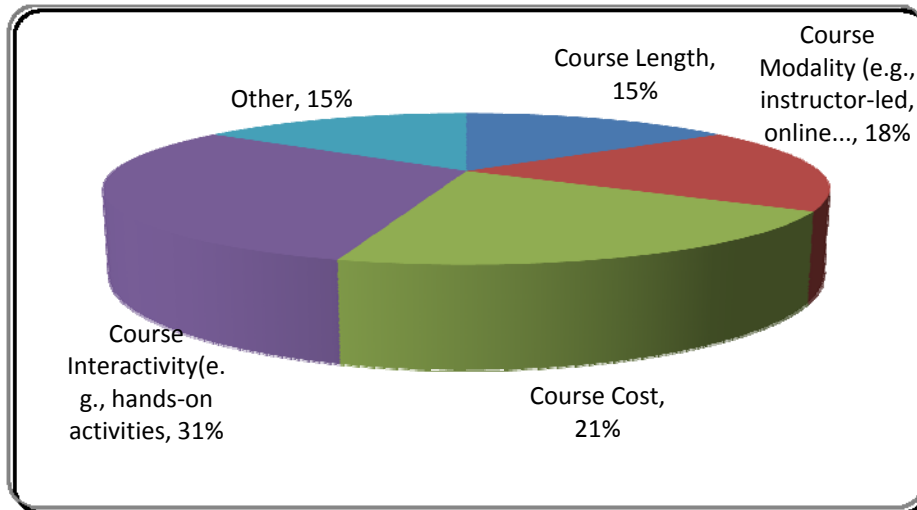
Should there be a standardized evaluation design and tools for evaluation of emergency response training?

CHART 4: EVALUATION DESIGN



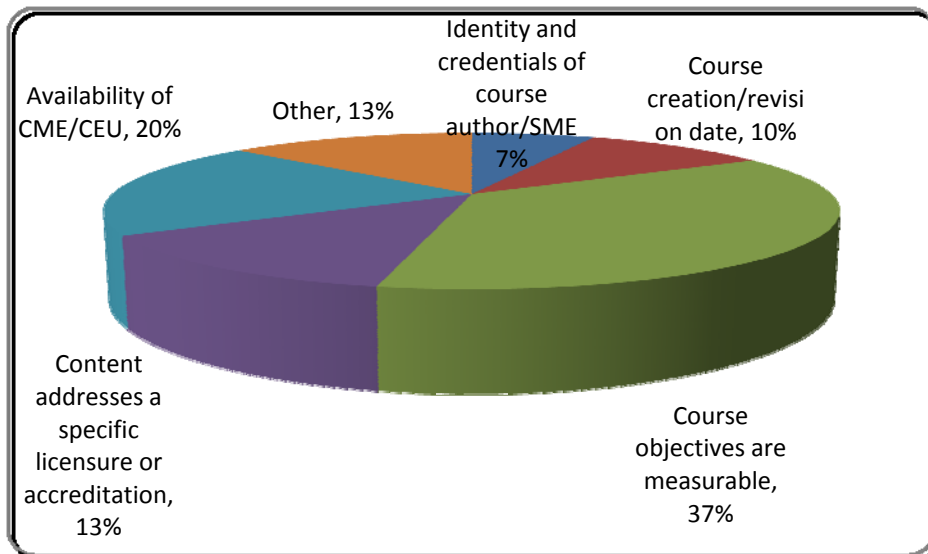
Which of the following instructional design evaluation elements would be most important to your organization when making a decision about purchasing an educational program? (multiple choice)

CHART 5: INSTRUCTIONAL DESIGN



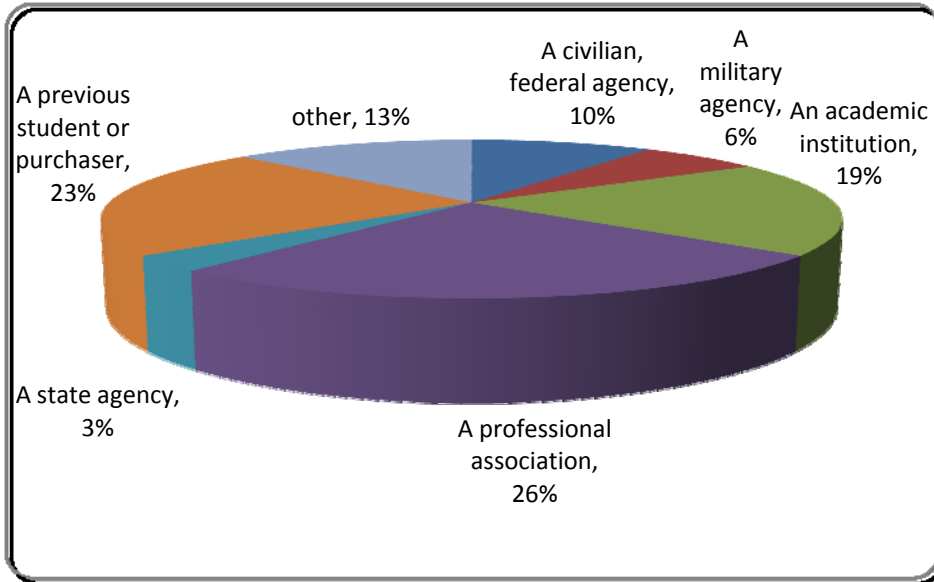
Which of the following content evaluation elements would be most important to your organization when making a decision about purchasing an educational program? (multiple choice)

CHART 6: CONTENT EVALUATION



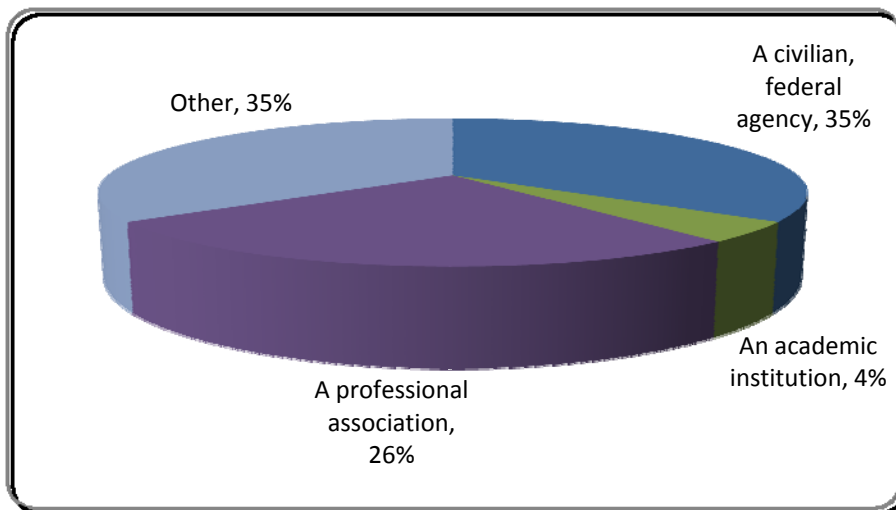
Where would you currently go to find a reliable evaluation of a course your organization was considering purchasing? (multiple choice)

CHART 7: COURSE EVALUATION



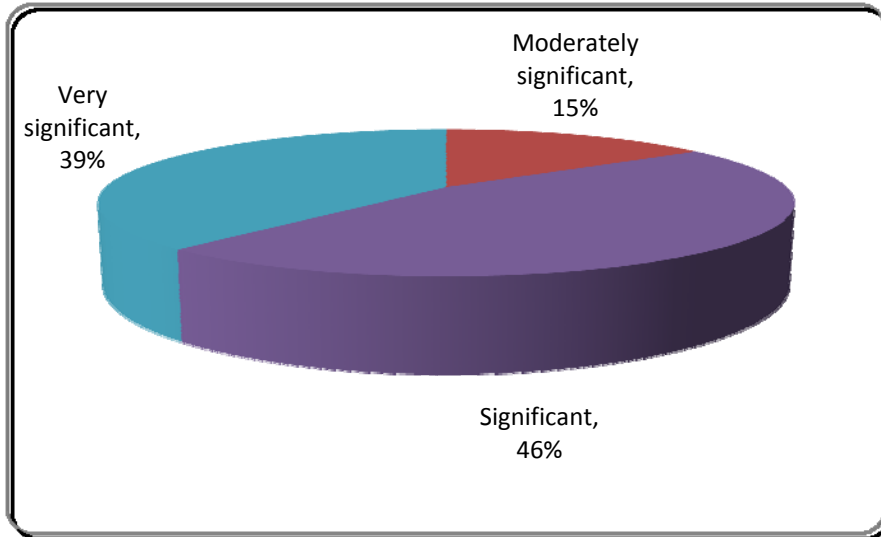
Where do you think potential consumers of courses should be directed for objective, standardized course evaluation? (multiple choice)

CHART 8: STANDARDIZED COURSE EVALUATIONS



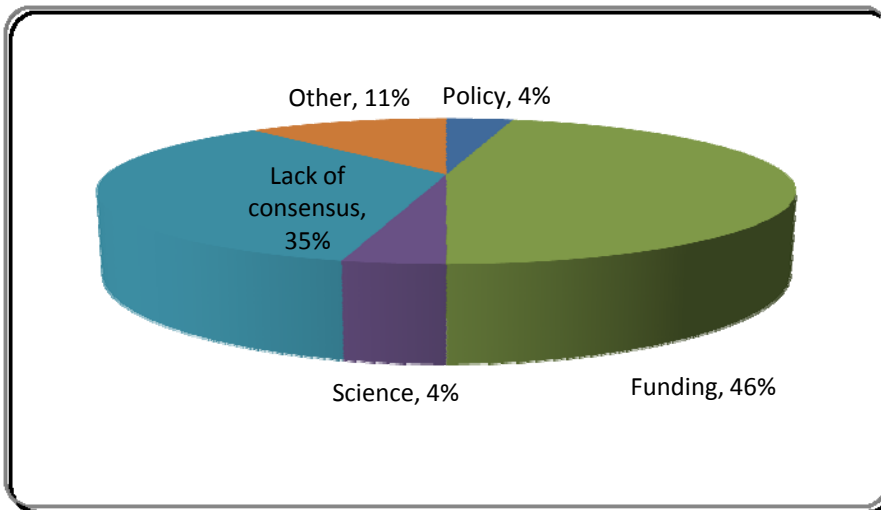
In your discipline/field, how significant are the challenges to evaluation of training programs? (multiple choice)

CHART 9: CHALLENGES TO COURSE EVALUATIONS



What is the biggest barrier to evaluation of education and training programs? (multiple choice)

CHART 10: BARRIERS TO COURSE EVALUATIONS



APPENDIX 2

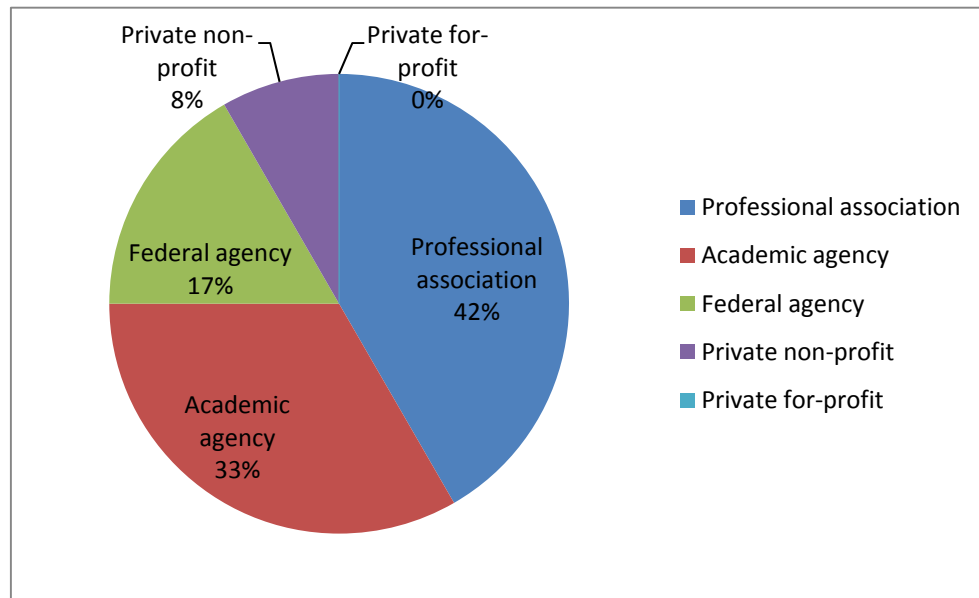
PARTICIPANT SURVEY RESULTS

APPENDIX 2

PARTICIPANT SURVEY RESULTS

CHART 1: ATTENDEE ORGANIZATIONS

Agencies represented by workshop participants (n=12)



Participants submitted the following comments in response to the question: “**What did you find most useful about the national consultation meeting?**” (responses are unedited).

- Level of discussion and engagement was impressively robust
- The speakers - I learned specific useful tools that can be used; also evaluation elements and how it needs to be a first step rather than last
- It placed many issues on the table from multiple perspectives. The challenge is to find answers
- Hearing what everyone is doing and finding out how people are solving the problems
- Discussions were helpful in understanding how much work needs to be done
- Hearing the points from the wide range of presenters and participants in the room
- Networking

- Learned several specific factoids. Some of the evaluation discussion was not helpful or clearly applicable
- Sharing of experience and lessons learned. Gathering a better understanding of the issues faced by both training course creators and end users
- Participants having the opportunity to discuss issues and challenges in-depth during panel discussions
- Networking Discussing issues and how they relate to the needs of different groups
- One of the best of the series as the rubber met the road - got down to the "so what"
- The impressive expertise of the panelists

In addition and in response to the participant survey question, “**Are there any topics that should have been covered, but were not? Please list**”, the following suggestions were provided and should be considered for future meetings (responses are unedited).

- None
- Crisis standards of care in relation to competencies since this also involve low resource situations
- Not quite sure how this dialogue will be taken forward with actionable recommendations. And what recommendations
- The role of communication with end user (i.e., less to follow-up). Issues, barriers and best practice
- More in-depth topic on program/training center evaluation vs. participant evaluation of an all-hazards preparation training course. This would have been a good opportunity to break people into groups to develop first draft evaluation forms
- I would have liked more examples of well-conducted evaluations

APPENDIX 3

WORKSHOP AGENDA

APPENDIX 3

WORKSHOP AGENDA

From Practice to Preparedness: Evaluating Competency based Education for Disaster Medicine and Public Health Preparedness and Response

June 8, 2011 • LMI Corporate Headquarters, McLean, Virginia

Meeting Objectives:

- Solicit existing methods and examples for conducting evaluation of competency based education focused on medical disaster preparedness and response
- Identify the challenges associated with the evaluation of educational programs
- Solicit long-term approaches for effective evaluation of professional disaster medicine and public health preparedness and response education



Desired Outputs to be Integrated into an After Action Report Enumerating Gaps, Associated Challenges and Recommendations:

- Representative sample of existing methods for conducting evaluation of competency based education focused on medical disaster preparedness and response
- Catalogue of challenges associated with evaluation of educational programs
- Inventory of long-term approaches to effective evaluation of professional disaster medicine and public health preparedness and response education

Meeting Sponsors:

This meeting is sponsored by the National Center for Disaster Medicine and Public Health, Federal Education and Training Interagency Group for Public Health and Medical Disaster Preparedness and Response, United States Northern Command and Yale New Haven Center for Emergency Preparedness and Disaster Response.

Thank you to meeting participants, panelists, speakers and moderators for your participation. Your input and expertise will help to shape the future of disaster medicine and public health preparedness education and training.

TABLE 3: WORKSHOP AGENDA

Agenda: Wednesday, June 8, 2011	
7:30 am- 8:00 am	Registration and Networking Breakfast LOCATION: LMI MCC1
8:00 am- 8:15 am	Introduction and Meeting Overview <i>Beverly M. Belton, RN, MSN, NE-BC</i> – Program Manager, AHRQ ACTION Projects, Yale New Haven Center for Emergency Preparedness and Disaster Response Welcome and Opening Remarks <i>Houston Polson, JD</i> – Chief Joint Education, United States Northern Command Brief Review of Overall Workshop Roadmap <i>Rick Cocrane, MA, MPH</i> – Support of the Office of the Assistant Secretary of Defense (Health Affairs)
8:15 am- 8:45 am	Plenary Session # 1 – The Case for Evaluation <i>Peter Brewster</i> – Director, Education and Training for the Emergency Management Strategic Healthcare Group, Veterans Health Administration
8:45 am- 10:00 am	Moderated Roundtable I: The Case for Evaluation Moderator: <i>Kandra Strauss-Riggs, MPH</i> – Joint Program Coordinator, National Center for Disaster Medicine and Public Health Panelists: <i>Kenneth W. Schor, DO, MPH</i> – Acting Director, National Center for Disaster Medicine and Public Health <i>LTC (Ret) Joanne McGovern</i> – ESF 8 Planning and Response Program at Yale University and Tulane University <i>Joan P. Cioffi, PhD</i> – Associate Director, Learning Office and Program Official for Preparedness and Emergency Response Learning Centers (PERLC) <i>Marcia M. Sass, Sc.D.</i> – Assistant Professor, University of Medicine and Dentistry of New Jersey School of Public Health, Health Systems and Policy and Senior Evaluator for New Jersey Center for Public Health Preparedness at University of Medicine and Dentistry of New Jersey (UMDNJ) <i>Kimberly Shoaf, DrPH</i> – Associate Director, Center for Public Health Disasters, UCLA School of Public Health <i>LT CDR James (Claude) Long</i> – Chief, Joint Operations Program, Defense Medical Readiness Training Institute
10:00 am- 10:15 am	Break/Morning Refreshments

Agenda: Wednesday, June 8, 2011 CONTINUED	
10:15 am- 11:15 am	<p>Plenary Session #2: Existing and Emerging Methods for Evaluation of Continuing Health Education</p> <p>Elizabeth Ablah, PhD, MPH – Assistant Professor, Department of Preventive Medicine and Public Health, and Program Director for Emergency Preparedness at the University of Kansas School of Medicine</p> <p>Sylvia K. Scherr, MS, RN – Director, Continuing Education for Health Professionals, CHE, USUHS</p>
11:15 am- 12:30 pm	<p>Moderated Roundtable II: Methods</p> <p>Moderator: Elaine Forte, BS, MT (ASCP) – Senior Deputy Director, Operations, Yale New Haven Center for Emergency Preparedness and Disaster Response</p> <p>Panelists:</p> <p>Richard Smith, BS, FF1– Evaluation Specialist, Yale New Haven Center for Emergency Preparedness and Disaster Response</p> <p>Marcia M. Sass, Sc.D. – Assistant Professor at UMDNJ School of Public Health, Health Systems and Policy and Senior Evaluator for New Jersey Center for Public Health Preparedness at UMDNJ</p> <p>Sylvia K. Scherr, MS, RN – Director, Continuing Education for Health Professionals, CHE, USUHS</p> <p>Elizabeth Ablah, PhD, MPH – Assistant Professor, Department of Preventive Medicine and Public Health, and Program Director for Emergency Preparedness at the University of Kansas School of Medicine</p>
12:30 pm- 1:15 pm	Lunch/Networking
1:15 pm- 1: 45 pm	<p>Plenary Session #3: Challenges Associated with the Evaluation of Educational Programs</p> <p>Joan P. Cioffi, PhD – Associate Director, Learning Office and Program Official for Preparedness and Emergency Response Learning Centers (PERLC)</p>
1:45 pm- 3:15 pm	<p>Moderated Roundtable III: Challenges</p> <p>Moderator: Debbie Hettler, OD, MPH, FAAO – Clinical Director, Associated Health Education, Office of Academic Affiliations, VA Central Office</p> <p>Panelists:</p> <p>John Armstrong, MD, FACS – Associate Professor of Surgery, University of South Florida College of Medicine</p> <p>Joan P. Cioffi, PhD – Associate Director, Learning Office and Program Official for Preparedness and Emergency Response Learning Centers (PERLC)</p> <p>Kimberly Shoaf, DrPH – Associate Director, Center for Public Health Disasters, UCLA School of Public Health</p> <p>Elizabeth Ablah, PhD, MPH – Assistant Professor, Department of Preventive Medicine and Public Health, and Program Director for Emergency Preparedness at the University of Kansas School of Medicine</p> <p>LTC Thomas Jones – Medical Operations, United States Central Command</p> <p>Linda Hill – Chief, Disaster Medicine Program, Defense Medical Readiness Training Institute</p>

Agenda: Wednesday, June 8, 2011 CONTINUED	
3:15 pm- 3:30 pm	Kenneth W. Schor, DO, MPH – Acting Director, National Center for Disaster Medicine and Public Health
	Closing Remarks and The Way Ahead
3:30 pm- 4:00 pm	Networking Break with Beverages and Hors d’oeuvres

APPENDIX 4

BIOGRAPHIES: FACILITATORS, MODERATORS AND PRESENTERS

APPENDIX 4

BIOGRAPHIES: FACILITATORS, MODERATORS AND PRESENTERS

Elizabeth Ablah, PhD, MPH

Dr. Elizabeth Ablah, Assistant Professor in the Department of Preventive Medicine and Public Health at the University of Kansas, School of Medicine in Wichita, is the Program Director for Emergency Preparedness at the University of Kansas School of Medicine in Wichita, Kansas.

Dr. Ablah's recent emergency preparedness research includes evaluating: integrated disaster drills, multiple point of dispensing (POD) drills, and training for first responders, public health and health professionals, county commissioners, and behavioral health professionals. She is currently interested in understanding why some health professionals do not report to work when needed during an emergency.

Dr. Ablah received a BA from St. Olaf College, a MA from Wichita State University, a MPH from the University of Kansas and a PhD from Wichita State University.

John Armstrong, MD

John H. Armstrong is a medical educator and trauma/critical care surgeon at the University of South Florida (USF), Tampa, FL, where he is Associate Professor of Surgery and Medical Director of the USF Center for Advanced Medical Learning and Simulation (CAMLS). CAMLS brings together all forms of simulation for specialty-specific and inter-professional education and training within a 90,000 sq ft building. Dr. Armstrong came to USF from the University of Florida & Shands Medical Center in Gainesville, FL, where he was Trauma Medical Director. He has internationally-recognized expertise in curriculum development and system implementation, casualty simulation, medical team training, and public health preparedness for disasters.

Dr. Armstrong is Co-Editor of the American College of Surgeons (ACS) Disaster Management and Emergency Preparedness course; Editor-in-Chief of the American Medical Association (AMA) Advanced Disaster Life Support, v.3.0; consultant to the ACS Committee on Trauma Ad Hoc Committee on Disaster and Mass Casualty Management; executive committee member of the AMA National Disaster Life Support Educational Consortium; and founding editorial board member of the AMA journal, Disaster Medicine and Public Health Preparedness. He has served on US Centers for Disease Control and Prevention (CDC) expert panels in surge capacity, field triage, and blast injury, and is a principle author of the CDC curriculum, Bombings: Injury Patterns and Care, v.2.0. He is State Faculty for ATLS, a course director for the ACS Advanced Trauma Operative Management (ATOM) course, an instructor for the ACS Advanced Surgical Skills for Exposure in Trauma (ASSET) course, and a faculty member for the Definitive Surgical Skills in Trauma course of the Royal College of Surgeons of England. Dr. Armstrong serves as Chair of ACS Political Action Committee (SurgeonsPAC); Chair of the ACS delegation to the AMA House of Delegates (HOD); ACS Governor from Florida; member of the ACS Health Policy and Advocacy Groups; and host of ReachMD (XM 160) radio programs. He has recently been

appointed to the Accreditation Council for Graduate Medical Education Residency Review Committee for Surgery. He is a former trustee and executive committee member of the AMA.

Dr. Armstrong completed his career in the US Army Medical Corps at the rank of Colonel in 2005. His final assignment was Director, US Army Trauma Training Center (ATTC), in association with the Ryder Trauma Center, Jackson Memorial Hospital, Miami, FL. He led the development and implementation of a two-week bona fide inter-professional team training program in trauma casualty care for military medical units deploying to Iraq and Afghanistan. This incorporated elements of the AHRQ TeamSTEPPS program. Under his leadership, the ATTC was named the Department of Defense (DOD) Center of Excellence for Combat Casualty Care Team Training (2004), and received the DOD Patient Safety Award for Team Training (2005). He is an in-residence graduate of the US Army Command and General Staff College and remains on faculty at the Uniformed Services University of the Health Sciences, Bethesda, MD, where he was a Distinguished Visiting Professor in August 2010.

Born in Montana, Dr. Armstrong graduated from Princeton University with an economics degree in 1984 and the University of Virginia School of Medicine in 1988. He completed his surgical residency at Tripler Army Medical Center in Hawaii in 1993, his fellowship in trauma/surgical critical care at the University of Miami/Jackson Memorial Medical Center in 1997, and a Master Educators in Medical Education fellowship at the University of Florida in 2008. He is a member of the Alpha Omega Alpha Honor Medical Society. He is recertified by the American Board of Surgery with added qualifications in surgical critical care, and is a fellow of the ACS and the American College of Chest Physicians. He is a member of the American Association for the Surgery of Trauma, the Eastern Association for the Surgery of Trauma, the Florida Medical Association, the American Medical Association, the American College of Physician Executives, and the Association of Military Surgeons of the United States.

Beverly M. Belton, RN, MSN, NE-BC

Ms. Belton is a Program Manager at Yale New Haven Health System, Center for Emergency Preparedness and Disaster Response. She has more than twenty-five years experience in healthcare management and leadership with experience in a variety of settings across the healthcare continuum – including the United States Army Nurse Corp. She has a demonstrated capacity to lead change with a focus on patient safety, employee satisfaction and regulatory compliance. She is a certified Six Sigma Green Belt who has successfully applied the principles of Six Sigma in healthcare improvement projects. She is also a skilled presenter who has presented to international audiences. Ms Belton applies her clinical expertise, leadership and project management skills to oversight of the AHRQ ACTION and DOD TCN 09238 projects.

She received her Bachelor of Science in Nursing from the University of Pennsylvania and her Master of Science in Nursing Policy, Management and Leadership in 2010 from Yale University. She is board certified in nursing executive practice.

Peter Brewster

Mr. Brewster is the Director, Education and Training for the Emergency Management Strategic Healthcare Group, Veterans Health Administration (VHA), the largest integrated health care system in the United States. VHA operates 158 VA Medical Centers and 919 outpatient clinics in all fifty states and U.S. territories. In his current position, Mr. Brewster is responsible for providing policy and guidance for emergency management education, training and exercise for VHA. He is involved with Federal and NFPA technical committees that provide research, standards, guidance, education, training, evaluation and performance improvement for the health system and emergency management communities.

Mr. Brewster joined VHA in 1990 at the start of Operation Desert Shield from his previous position as an Emergency Management Coordinator with the Consolidated City of Indianapolis-Marion County. During his time with the City, he handled the medical, utilities and communications functional areas, and was instrumental in helping develop Indiana's FEMA Urban Search and Rescue Task Force. He worked with the National Park Service and United States Forest Service while in Wyoming and was active in technical climbing, wild land search, and emergency medical services.

Mr. Brewster has a Bachelors of Science from the University of Wyoming, and a Certificate in Public Management from the Indiana University-Purdue University of Indianapolis.

Joan P. Cioffi, PhD

Dr. Cioffi serves as the Associate Director, Learning Office for the Office of Public Health Preparedness and Response (OPHPR), Centers for Disease Control and Prevention (CDC). In this role, Dr. Cioffi is responsible for developing and executing CDC's preparedness and response learning strategy. Her office has oversight and coordination responsibilities related to analysis, design, development, implementation, policy, and evaluation of workforce development programs that target CDC emergency responders, and external audiences, at the state and local levels, with public health preparedness and response responsibilities. Dr. Cioffi is the Program Official for the Preparedness and Emergency Response Learning Centers program (PERLC). CDC funds 14 schools of public health to develop and implement competency based preparedness training to support state, tribal, local and territorial public health agencies. She continues as the Deputy Director for the WHO-CDC Collaborating Center for Global Public Health Workforce Development (2005 -2011).

Dr. Cioffi has a doctoral degree in educational leadership/educational psychology from Georgia State University, a master's degree in physiology from New York University and a bachelor's degree in pharmacy, magna cum laude, from St. John's University. She serves as adjunct assistant professor in behavioral and social sciences at Emory University, Rollins School of Public Health. She has held certifications as a senior professional in human resources (S.P.H.R) and a diplomate in the American College of Health Care Executives (A.C.H.E.). She is trained as an accreditation chairperson and surveyor for the Council on Public Health Education. Since 1999 she has published and presented on workforce development research, competencies, certification and credentialing. She is a member of, and has served as an officer

in, numerous state and local professional organizations in public health, health education and training and health administration.

Richard M. Cocrane, MA, MPH

Mr. Cocrane has 29 years of experience in healthcare policy and strategic medical plans and operations in the military health system. His last five years on active duty were spent with the Joint Staff as the Director of the Joint Medical Planners Course and as Chief, Health Service Support Division. Since retiring from the Navy and joining LMI, Mr. Cocrane has supported the Assistant Secretary of Defense (Health Affairs) on several projects related to medical support to disasters, including the Defense Critical Infrastructure Program, the Installation Protection Program, and Homeland Security Presidential Directive 21 on Medical and Public Health Preparedness.

Mr. Cocrane received a Master of Arts in National Security and Strategic Studies from the Naval War College in 1991 and his Master of Public Health from the University of Pittsburgh, 1979.

Elaine Forte, BS, MT (ASCP)

Ms. Forte has more than 29 years of experience managing program development and delivery in laboratory settings, healthcare delivery and education and training and has co-authored numerous articles and abstracts. She has extensive project management experience including design, development, implementation and evaluation of (1) information technology systems, (2) education and training programs, (3) risk communication materials and (4) emergency preparedness and surge capacity initiatives. She was one of the primary participants in the national Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) committee and guided the development and implementation of the statewide emergency credentialing program in Connecticut. She guides the activities of YNHHS' National Center for Integrated Civilian-Military Domestic Disaster Medical Response and the Center for Public Health Preparedness, a CDC designated center at YNHHS. Under Ms. Forte's leadership, YNHHS has delivered education and training through multiple modalities to more than 120,000 healthcare workers at all levels of skill in a variety of disciplines and healthcare settings in more than 42 states and US territories.

Debbie L. Hettler, O.D., MPH, FAAO

Dr. Debbie Hettler's education includes a BS and OD from The Ohio State University College of Optometry and an MPH from University of Illinois. Her professional practice experience includes optometric education, clinical practice in HMOs and the VA as well as quality assurance activities. She has over 100 scientific presentations including such topics as clinical techniques, ocular disease, public health issues, contact lenses, and managed care, and authored articles published concerning public health, primary care coordination and ocular disease topics.

She has served in many professional organization leadership roles including the American Academy of Optometry, American Optometric Association, and American Public Health Association. She has been with the Veterans' Administration since 1994 as a clinical optometrist and associated education affiliations with University of Missouri Department of Ophthalmology and Internal Medicine. As Optometry Residency Supervisor there, she was associated with four optometry schools for optometric externships and residencies. Currently, she is the Clinical Director, Associated Health Education, Office of Academic Affiliations, VA Central Office located in Washington, DC.

LT CDR James (Claude) Long

Lieutenant Commander Long was born in Waynesville, NC and entered the Navy at the age of 17. After 14 years of enlisted service he was commissioned an Ensign in the Medical Service Corps. Lieutenant Commander Long is currently assigned to the Defense Medical Readiness Training Institute (DMRTI) in San Antonio, Tx. He is currently serving as the Chief, Joint Operations Programs that includes the Homeland Security Medical Professionals Course (HLSMPC), Joint Operations Medical Managers Course (JOMMC), Medical Humanitarian Assistance Course (MHAC), and the Medical Stability Operations Course (MSOC). Lieutenant Commander Long directly manages the HLSMPC and will assume direct responsibility for JOMMC later this year. He is the senior Plans, Operations & Medical Intelligence Officer (POMI) assigned to DMRTI and in this capacity serves as a subject matter expert to the Commander. His most recent previous assignment was at United States Northern Command as a Joint Regional Medical Plans and Operations Officer (JRMPO). He provided regional military and civil medical planning coordination in support of DoD, Department of Health and Human Services, National Disaster Medical System, Department of Homeland Security and other Federal and state disaster plans. He deployed to numerous disasters, contingencies and other events of national significance to provide direct medical operations and planning support to the Defense Coordinating Officer, the affected state(s) and the US Northern Command Commander.

Lieutenant Commander Long has deployed in support of the USNORTHCOM Commander, USNORTHCOM Command Surgeon and the FEMA Region VI Defense Coordinating Officer (DCO) for several tropical storms/depressions, Hurricanes Dean, Gustav and Ike. He also deployed in support of FEMA Region IX DCO for the California wildfires, to the Louisiana FEMA Joint Field Office to provide medical planning support to the Gulf Coast Recovery Office (Warm Cell) and deployed as the Navy Fellow to NDMS in support of Hurricanes Dennis, Emily, Katrina, and Rita. He has also planned, participated and evaluated numerous strategic, operational and tactical level disaster related exercises at the Federal and state/local levels. Lieutenant Commander Long coordinated military and other Federal level support for several state-led exercises to include aeromedical evacuation, hospital evacuation and pandemic influenza.

Lieutenant Commander Long has also served as the Division Officer/Medical Regulating Control Officer, Fleet Surgical Team ONE. He has numerous deployments with Naval and Marine Corps units to provide surgical component capability to operational forces. While deployed to the Western Pacific (WESTPAC) with the USS TARAWA (LHA 1) Amphibious Ready Group (ARG)/13th Marine Expeditionary Unit (MEU), his team provided medical-surgical command and

control for *Operation Determined Response* in support of the USS COLE attack recovery operations. He also conducted a rapid redeployment with USS BONHOMME RICHARD (LHD 6) ARG/13th MEU in support of *Operation Enduring Freedom* immediately following September 11th attacks.

Lieutenant Commander Long served honorably for 14 years as a hospital corpsman, attaining the rank of Chief Petty Officer. As an independent duty corpsman he had numerous assignments with the responsibility to provide direct health care and emergency medical support to operating forces of the Navy and Marine Corps.

LTC(Ret) Joanne McGovern

Lieutenant Colonel (Retired) McGovern enlisted in the United States Army as a private in 1975 and served as an electrical engineer and a combat medic. In 1979 she was accepted to the Military College of Vermont, Norwich University and transferred from active duty to the Vermont National Guard to become one of the first military members to participate in the Simultaneous Membership Program in the fall of 1979. She received her commission as a Lieutenant in September 1981 and completed her Bachelor of Science (Earth Science) from Norwich University in December 1981. She returned to active service as a Medical Service Corps officer in January 1982.

Her initial assignment was as a platoon leader in the Medical Company, 498th Support Battalion, 2nd Armored Division (FWD), Garlstedt, Germany. While serving in the Division she established the Family Health Clinic and served as its Executive Officer. In 1985 Lieutenant Colonel McGovern became Chief of Plans, Operations and Training for the Supreme Headquarters Allied Powers Europe Medical Activity Center (SHAPE MEDDAC). In 1986 she became the Commander of the Medical Company at SHAPE. She returned to the United States in 1987 to serve as the Senior Medical Advisor, Readiness Group, Ft Sill, Oklahoma.

Lieutenant Colonel McGovern returned to Europe in 1991 and was assigned as the Chief of Operations to the 45th Field Hospital, Vicenza Italy. She deployed on several contingency and humanitarian missions to Southwest Asia, the Balkans and Africa while serving as the Executive Officer for the contingency hospital. In 1992 she established the Airborne Forward Surgical Team, the first in Europe, and became the Deputy Surgeon, Southern European Task Force (SETAF). In that role she was instrumental in writing the initial Health Service Support Plans for operations in the Balkans to include Operation Able Sentry. As a result of this expertise she was assigned as the Chief, 1st Armored Division Medical Operations Center (DMOC), Bad Kreuznach, Germany, in 1993.

As the DMOC for 1st Armored Division, Lieutenant Colonel McGovern played a pivotal role in preparing the Division to deploy to Bosnia. She spearheaded training initiatives to better prepare medical personnel for operations in a non-permissive environment and developed the Health Service Support Plan for the Division. In 1995 Lieutenant Colonel McGovern was transferred to Headquarters, V Corps, to develop the Health Service Support portion of the Campaign Plan for Operation Joint Endeavor, the United States forces entry and operations into the Balkans. Lieutenant Colonel McGovern deployed as a member of USAREUR (FWD) and served as the

Chief of Medical Plans and Operations for one year. Upon her redeployment she was assigned as the Executive Officer, 212th Mobile Army Surgical Hospital.

She returned to the United States in 1998 to serve as the Chief of Plans and Current Operations, US Southern Command. She deployed several times to Central and South America in support of Humanitarian Assistance Operations and Disaster Relief as a result of Hurricane Mitch, the volcano eruptions in Ecuador, the Venezuelan floods and chemical disaster, the earthquakes in El Salvador and US counter drug actions in Colombia. She served as a member of the SOUTHCOM's Deployable Joint Task Force Augmentation Cell (DJTFAC) and was a member of its Joint Interagency Task Force (JIATF) working both counter drug and counter terrorism issues. LTC McGovern was one of the founding members of the Center for Disaster Management Humanitarian Assistance, a collaborative endeavor between SOUTHCOM, Tulane University, and the University of South Florida, and one of our country's Centers of Excellence.

LTC McGovern was then assigned to the United States Army Medical Department Center and School, FT Sam Houston, TX, where she has served as the Deputy Director for Healthcare Operations and after September 11th assumed the position as the Chief of the Homeland Security Branch for the Army Medical Department's Center and School. She also served as an Adjunct Professor for the U.S. Army Baylor University Program in Healthcare Administration where she taught courses in Readiness, Homeland Security and Counter-terrorism.

LTC McGovern volunteered to serve in Operation Iraqi Freedom and was deployed in April 2003. She became the Chief of Medical Plans and Operations for the Coalition Forces Land Component Command and was deployed forward with its command post to Baghdad. She returned to Kuwait and was part of the planning team that spearheaded the largest force rotation of its kind. When Multi National Force – Iraq was established in the spring of 2004, LTC McGovern was asked to establish the Surgeon's Office and serve as its Deputy Surgeon/Chief of Operations. She returned to Iraq in March 2004 and by May 2004 had the office fully operational. During the Battle of Fallujah in the fall of 2004, LTC McGovern, was in charge of all Iraqi Ministry of Health Forces deployed forwarded and was tasked with the medical evacuation of all civilian and Iraqi soldiers. For her actions she was awarded the Bronze Star. She redeployed in May 2005 and was assigned to 5th Army as the Deputy Surgeon/Chief of Operations. Her first mission was to serve as the Senior Medical Operations Officer for Hurricane Katrina where she was responsible for coordinating the evacuation of over 26 hospitals and thousands of sick and injured. In 2008 she became the ARNORTH Surgeon and retired in September 2009 having served thirty-four years in the Army.

LTC (RET) McGovern is currently the Chief Operations Officer for the ESF#8 Planning and Response Program at Yale University's School of Public Health and is a staff associate at Yale University, Department of Emergency Medicine, Section of Emergency Medical Services. She also serves as a consultant to the Yale New Haven Center for Emergency Preparedness and Disaster Response.

Houston H. Polson, JD

Dr. Houston H. Polson is the Chief, Joint Education Branch for North American Aerospace Defense Command (NORAD) and US Northern Command (USNORTHCOM). He is responsible for the establishment of programs, policies and curriculum for national defense, homeland security and defense support to civil authorities' educational initiatives to support the NORAD and USNORTHCOM missions. As Chair, Homeland Security/Defense Education Consortium, Dr. Polson directs an international network of colleges, universities and government institutions focused on promoting education, research and cooperation related to and supporting the homeland security / defense mission.

Born in Charlotte, North Carolina, Dr. Polson graduated from East Lincoln High School and entered North Carolina State University at Raleigh, receiving Bachelor of Science degrees in textile chemistry and technical education in 1975. He was named a distinguished graduate of the Reserve Officer Training Corps and commissioned a second lieutenant in the Air Force Reserve. Upon entering active duty, he attended missile combat crew initial training at Vandenberg Air Force Base, California where he was recognized as a Distinguished Graduate. He served on active duty from 1976 until 1987.

In 1987, Dr. Polson separated from active service and was commissioned a captain in the Air Force Reserve. He served in the US Air Force Reserve until his retirement in June 2005 completing 30 years of service and attaining the rank of colonel.

Dr. Polson served in academia from 1987 until 2005. Most recently, he was Dean and Professor of Business Administration, Harold Walter Siebens School of Business, Buena Vista University, Storm Lake, Iowa. He served on the faculty and as Department Chair of Business at Bellevue University, Bellevue, Nebraska; Mesa State College, Grand Junction, Colorado and Shawnee State University, Portsmouth, Ohio. Dr. Polson led the effort to develop Mesa State College's initial graduate degree. His graduate degrees include a Juris Doctor from Creighton University and Master of Business Administration from the University of Montana.

Selected past military assignments include: Deputy Missile Combat Crew Commander Instructor, Missile Combat Crew Flight Commander, IBM Weapon System Analyst, Disaster Preparedness Staff Officer; Senior Individual Mobilization Augmentee to the Base Civil Engineer, Senior Military Advisor to Commander–Stabilization Force and Director, Commander's Special Studies Group, and Emergency Preparedness Liaison Officer (EPLO) to The Adjutant General–Iowa.

Dr. Polson is a distinguished graduate of Squadron Officer School and a graduate of the Air Force Command and Staff College and the Air War College. His decorations and awards include the Legion of Merit, Defense Meritorious Service Medal, Meritorious Service Medal with two oak leaf clusters, Air Force Commendation Medal, Combat Readiness Medal, Air Force Expeditionary Service Ribbon with gold border, Armed Forces Reserve Medal with "M" device and Bronze Hourglass device and NATO Service Medal. He was recognized as an Outstanding Young Man of America in 1982 and has been recognized for teaching excellence on multiple occasions.

He is the author of several publications and book reviews. Dr. Polson is married to the former Jeanie Dryer. They have three sons – Adam, David and Tim and two granddaughters.

Marcia M. Sass, ScD

Born in Baltimore, Maryland, Marcia M. Sass received her BS/RN degree in 1970 from the University of Maryland, School of Nursing. In 1974, she received a MSN degree from the University of Pennsylvania and subsequently served on the Maternal and Child Health faculty until 1980. From 1979 to 1980, Dr. Sass participated in a Robert Wood Johnson Nurse-Faculty Fellowship in Primary Care at the University of Maryland and then began her doctoral studies at the Johns Hopkins University, Bloomberg School of Public Health in the Department of Health Policy and Management. Later, in 1985 and while working at the Robert W. Johnson Foundation in Princeton, New Jersey, she completed her ScD degree with emphases in health services research and evaluation and health policy analysis.

Beyond her three degrees, Dr. Sass now has more than twenty-six years of experience in program evaluation and community health assessment at the national, state and local levels.

She has had long-standing interest in health statistics and health data systems. From 1986 to 1988 she served as a consultant to New Jersey Department of Health and Senior Services (NJDHSS) in the development of New Jersey's HealthStart Program. With her extensive educational training and experience, particularly in maternal and child health services, she served as a consultant to several organizations, most notably the Philadelphia Health Management Corporation and the National Governors Association, before returning to NJDHSS.

While employed at NJDHSS, Dr. Sass held positions as an administrator and manager as well as an evaluator of health service projects. Common to all of these positions, she had major responsibilities for the dissemination of information on health data and outcomes. From 1991 to 1994, she was responsible for implementing, providing technical assistance, building capacity, managing, and developing evaluative mechanisms for the State's six Local Advisory Boards (Regional Health Planning Agencies covering all 21 counties) and Competitive Initiatives Program grants. Moving to the Division of HIV/AIDS Services, she then served as NJDHSS' representative to national groups developing evaluation guidelines for CDC-funded HIV prevention programs. From 1994 to 2005, Dr. Sass was Chair of the Evaluation Committee of the New Jersey HIV Community Planning Group and in December 2005 received the First Annual Ralph Mitchell Award for Outstanding Leadership in the Field of HIV Prevention.

Moving to the University of Medicine and Dentistry of New Jersey (UMDNJ) in 2002, Dr. Sass is presently an Assistant Professor in the Department of Health Systems and Policy in the UMDNJ-School of Public Health as well as the Senior Evaluator for the New Jersey Center for Public Health Preparedness at UMDNJ and the regional New York-New Jersey Preparedness and Emergency Response Learning Center. In addition to teaching topics related to health services research and evaluation and public health policy and practice, she collaborates on community health assessment projects with other UMDNJ faculty and students. She has served as the UMDNJ consultant to the NJDHSS-Diabetes Prevention and Control Program on the implementation of the State Diabetes Public Health System Assessment Process and has

provided guidance on performance management, surveillance and program evaluation. Currently, she serves as the evaluator for the NJDHSS-Office of Cancer Control and Prevention comprehensive cancer control plan.

Sylvia K. Scherr, MS, RN

Sylvia K. Scherr has served as Director, Office of Continuing Education for Health Professionals at the Uniformed Services University (USU) of the Health Sciences since August 2007. USU, the military medical school within the Department of Defense, is approved as a provider of Continuing Education (CE) for six different professions: physicians, nurses, pharmacists, psychologists, health care executives (ACHE), and social workers. While the CE program covers the breadth of topics and issues across the spectrum of medicine, it is unique in relating these activities to military medicine, disaster medicine, and military medical readiness. The purpose of the program is to provide a vital and compelling program of life-long learning designed to change the behaviors of the team of interdisciplinary health professionals in the DoD and other allied federal agencies.

USU's CE interventions are inspired by USU's motto: *Learning to Care for Those in Harm's Way*. The overall content of its educational activities reflects an analysis of needs and gaps in professional performance from multiple sources of current and best practices, evidence-based content presented in a variety of formats, as well as formative, summative, and overall program evaluation. Ms. Scherr is responsible for 1000+ individual educational activities annually provided in a variety of formats to 13,500 health care professionals.

Prior to her present position, Ms. Scherr was Executive Director of Continuing Education at the National Institutes of Health, where she established a web-based request/review process and CE tracker, and oversaw intramural and extramural education for physicians and psychologists. In prior positions Ms. Scherr served as Coordinator, Centers for Disease Control and Prevention/Training Center in Baltimore and as Director of the HRSA and CDC-funded Maryland HIV/AIDS Training Center at the University of Maryland School of Medicine. She has volunteered as a site visitor, published and presented on disease control and professional education served on the advisory panel of the National Commission for Certification of CME Professionals, Inc, and participated on task forces and other work of the ACCME, ACME, and ANCC. Ms. Scherr currently is co-chair of the Alliance for Continuing Medical Education Federal Providers section and serves on the Member Sections Committee. She is a member of the Society for Academic CME and the nursing honor society Sigma Theta Tau. She earned a BSN from University of Maryland and MS from Johns Hopkins University in adult learning and organizational development, and has been especially interested in educational design and evaluation for many years.

Whenever possible, she enjoys playing in her garden and romping with her 6 beautiful grandchildren ages 1-7.

Kenneth Schor, D.O., MPH

Dr. Schor is a federal civilian faculty member of the Uniformed Services University of the Health Sciences (USU) having retired in May 2009 after 27 years active duty service in the US Navy Medical Corps. His appointments at the nation's federal health sciences university include: Acting Director of the National Center for Disaster Medicine and Public Health, Assistant Professor in the Department of Preventive Medicine and Biometrics, and Deputy Public Health Emergency Officer. He is the immediate past Associate Program Director, National Capital Consortium, USU General Preventive Medicine Residency.

Dr. Schor graduated cum laude from Allegheny College, Meadville, PA; received his Doctor of Osteopathic Medicine (DO) degree from the Philadelphia College of Osteopathic Medicine; is a Distinguished Graduate of the National Defense University Industrial College of the Armed Forces (MS, National Resources Policy); and received a Master of Public Health (MPH) degree from USU with a Health Services Administration concentration.

His graduate medical education includes a non-categorical medicine internship at Naval Medical Center, San Diego; completion of a Family Practice Residency at Naval Hospital, Jacksonville; and completion of a General Preventive Medicine Residency at the Uniformed Services University of the Health Sciences. He is a Diplomate of the American Board of Preventive Medicine.

Kimberly Shoaf, DrPH

Kim Shoaf is an Associate Professor In-Residence in the Department of Community Health Sciences at the UCLA School of Public Health, where she teaches a number of courses in emergency public health. She serves as the Acting Director of the UCLA Center for Public Health and Disasters, where she has overall responsibility for the Center's scientific research and training activities. Dr. Shoaf received her BS degree in Community Health Education from the University of Utah. She received her Master of Public Health degree in Population and Family Health, and her DrPH in Community Health Sciences from UCLA. Her expertise is in the combination of qualitative and quantitative methodologies for studying the social and health impacts of disasters as well as the public health response to emergencies. Dr. Shoaf has published numerous scientific articles in peer-reviewed journals and professional publications, specifically in the areas of disasters and emergency public health. Currently, she is an Ad Hoc Reviewer for several publications including Earthquake Spectra, Environmental Hazards, and Prehospital and Disaster Medicine. She recently served as a member of the National Research Council Committee on Disaster Research in the Social Sciences.

Richard Smith, BS, FF1

Mr. Smith is a Training and Evaluation Specialist at YNH-CEPDR with two Bachelor of Science degrees in the area of Fire Science, Firefighter I Certification and numerous FEMA Public Assistance qualifications. He has designed, developed and evaluated surveys and assessments for the organization and its clients. As a subject matter expert, Mr. Smith has been trained in the Homeland Security Exercise and Evaluation Program (HSEEP) as well as several meteorological, radiological and terrorism/CBRNE courses offered through

FEMA. Additionally, past experience has led Mr. Smith to assisting in the assessment of healthcare facilities' ability to shelter in place during hurricanes or similar weather events. Mr. Smith has assisted YNH-CEPDR in exercise development, conduct and evaluation both internally and externally and has served as Task Lead for multiple projects for the National Center for Integrated Civilian-Military Domestic Disaster Medical Response (ICMDDMR) Program. Currently, Mr. Smith is leading an effort to evaluate training and education programs to enhance civilian-military response as well as the development of a process and tool to enhance planning and collaboration for resource allocation during catastrophic health events.

Mr. Smith spent the last several years working with Emergency Response Program Management Consultants (ERPMC) and Nationwide Infrastructure Support Technical Assistance Consultants (NISTAC) under a FEMA Public Assistance contract during the State of Louisiana recovery effort for Hurricanes Katrina and Rita. During the recovery, Mr. Smith served as a Debris Team Lead, Acting Deputy Division Manager, Lead Administrator, Reporting Section Lead and most recently as the Database Support Group Lead for the state's recovery under FEMA Public Assistance (PA). His work with FEMA led to the creation of innovative tools to expedite funding options and enable better overall tracking of the more than \$7 billion in PA funding for the state. These efforts were recognized by FEMA Management and were implemented in the Gulf Coast Region, including Texas, following Hurricanes Ike and Gustav. Mr. Smith has also participated with the Public Assistance Expedited Information Response (PAXIR) Team in Louisiana and has assisted with compiling reports for local media sources, local government entities, state government entities and federal government audiences, including the Executive Offices of the White House.

Kandra Strauss-Riggs, MPH

Ms. Strauss-Riggs is developing the Academic Joint Program of the National Center for Disaster Medicine and Public Health in collaboration with Dr. Kenneth Schor and the entire Center team. She brings a particular focus on the issues that impact children and pregnant women in the event of a disaster.

She is also currently serving as an Adjunct Instructor in the Boston University Healthcare Emergency Management program in the Department of Anatomy and Neurobiology at the Boston University School of Medicine. Prior to joining the National Center, Ms. Strauss-Riggs served as Program Director for Research at the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) where she coordinated the growth of A.S.P.E.N.'s complex research program in nutrition support. Earlier in her career, Ms. Strauss-Riggs served as a Project Coordinator with the National Education Association's Health Information Network where she implemented and evaluated programs serving the health education needs of the NEA's 3.2 million members.

Ms. Strauss-Riggs actively serves her community in Prince George's County, Maryland through membership on the board of a developing women's health and birth center. She has a bachelor's degree in sociology/anthropology from Guilford College and a Master's in Public Health degree from George Washington University School of Public Health and Health Services.

APPENDIX 5

PARTICIPANT SURVEY

APPENDIX 5

PARTICIPANT SURVEY

Thank you for taking the time to participate in this evaluation. Your comments will enable us to better plan and execute future meetings and tailor them to meet your needs.

1. Do you represent (check all that apply):

- Professional association (e.g., American Public Health Association)
- Academic agency
- Federal agency
- Private non-profit agency
- Private for-profit agency

2. How do you rate (in terms of delivery and knowledge of material) the following speakers:

Peter Brewster <i>Plenary Session #1: The Case for Evaluation</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Excellent Good Average Below Average Poor
Elizabeth Ablah, PhD, MPH <i>Plenary Session #2: Existing and Emerging Methods for Evaluation of Continuing Health</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Excellent Good Average Below Average Poor
Sylvia Scheer, MS, RN <i>Plenary Session #2: Existing and Emerging Methods for Evaluation of Continuing Health</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Excellent Good Average Below Average Poor
Joan Cioffi, PhD <i>Plenary Session #3: Challenges Associated with the</i>	<input type="checkbox"/>	Excellent

Evaluation of Educational Programs

- Good**
- Average**
- Below Average**
- Poor**

3. How do you rate the representativeness of the meeting participants (the right people in terms of level and mix of disciplines)?

- Excellent**
- Good**
- Average**
- Below Average**
- Poor**

Comments

- 4. What did you find most useful about the national consultation meeting?
- 5. Are there any topics that should have been covered but were not? Please list.

The following questions address the location and facilities of the workshop.

6. Please rate the location of this meeting (LMI, McLean, VA).

- Excellent**
- Good**
- Average**
- Below Average**
- Poor**

7.

8. Please rate the food.

- Excellent**
- Good**
- Average**
- Below Average**
- Poor**

9. Please rate the pre-registration process.

- Excellent**
- Good**
- Average**
- Below Average**
- Poor**

10. Please rate the on-site meeting check-in process.

- Excellent**
- Good**
- Average**
- Below Average**
- Poor**

APPENDIX 6

EVALUATION PLAN

APPENDIX 6

EVALUATION PLAN

ICMDDMR 09238 Workshop #5 Evaluation Plan

<p>OBJECTIVE #1 - Solicit existing methods and examples for conducting evaluation of competency based education focused on medical disaster preparedness and response</p> <p>OUTPUT - Representative sample of existing methods for conducting evaluation of competency based education focused on medical disaster preparedness and response</p>	<p>ROUND TABLE #1: THE CASE FOR EVALUATION - PANEL QUESTIONS</p> <ol style="list-style-type: none"> 1. Why are we evaluating training programs? 2. What are your concerns about the quality of the content in EP training courses? 3. What have we learned already from evaluations of disaster response training in regards to the following: course content, course delivery, knowledge acquisition, knowledge retention, knowledge application? 4. How have evaluations of training programs stimulated change in the field of emergency response education and training? 5. Going forward, what else should we seek/expect to learn from evaluating disaster response training? 6. What have we learned from recent disasters about the need to improve disaster response training?
<p>OBJECTIVE #2 - Identify the challenges associated with the evaluation of educational programs</p> <p>OUTPUT - Catalogue of challenges associated with evaluation of educational programs</p>	<p>ROUND TABLE #3: CHALLENGES – PANEL QUESTIONS</p> <ol style="list-style-type: none"> 1. What do you see as emerging criteria for effectively evaluating educational programs? 2. What are some the challenges you have faced in ensuring your educational program evaluation process is valid and effective? 3. What are your recommendations for overcoming the challenges or barriers associated with ensuring your educational program evaluation process is valid and effective? 4. What are the major challenges you are either experiencing or foresee in evaluating disaster medical and public health education programs as related to medical and public health competencies? 5. What are your recommendations for overcoming the challenges or barriers associated with evaluating disaster medical and public health education programs as related to medical and public health competencies? 6. What do see as the challenges in ensuring evaluation criteria are coordinated with current policy and standards? 7. What are your recommendations for overcoming the challenges and barriers in ensuring evaluation criteria are coordinated with current policy and standards? <p>AUDIENCE QUESTIONS</p> <ol style="list-style-type: none"> 1. In your discipline/field, how significant are the challenges to evaluation of training programs? (1 = Not at all significant, 5=Very Significant) 2. What is the biggest barrier to evaluation of education and training programs (policy, legislation, funding, science, lack of consensus, other)

<p>OBJECTIVE #3 - Solicit long-term approaches for effective evaluation of professional disaster medicine and public health preparedness and response education</p> <p>OUTPUT - Inventory of long-term approaches to effective evaluation of professional disaster medicine and public health preparedness and response education</p>	<p>ROUNDTABLE #2: <u>METHODS</u> - PANEL QUESTIONS</p> <ol style="list-style-type: none"> 1. What are some key elements of course evaluation related to instructional design parameters? 2. What are appropriate credentials for an evaluator of instructional design parameters? 3. What are some key elements of course evaluation related to content? 4. What are appropriate credentials for an evaluator of course content? 5. Where (or what entity) should guidance related to standardized course evaluations for this topic come from?
	<p>AUDIENCE QUESTIONS</p> <ol style="list-style-type: none"> 1. Which of the following instructional design evaluation elements would be most important to your organization when making a decision about purchasing an educational program? <ol style="list-style-type: none"> a. Course length b. Course modality (e.g., instructor-led, online, CD-ROM) c. Course cost d. Course interactivity (e.g., hands-on activities for instructor-led, point and click “puzzles” for online) e. Other 2. Which of the following content evaluation elements would be most important to your organization when making a decision about purchasing an educational program? <ol style="list-style-type: none"> a. Identity and credentials of course author/subject matter expert b. Course creation/revision date c. Course objectives are measurable d. Content addresses a specific licensure or accreditation requirement e. Availability of CME/CEU f. Other 3. Where would you currently go to find a reliable evaluation of a course your organization was considering purchasing? <ol style="list-style-type: none"> a. A civilian, federal agency b. A military agency c. An academic institution d. A professional association e. A state agency f. A previous student or purchaser g. Other

From Practice to Preparedness: Evaluating Competency Based Education for Disaster Medicine and Public Health Preparedness and Response - A Continuing National Consultation Meeting

4. Where do you think potential consumers of courses should be directed for objective, standardized course evaluation?

- a. A civilian, federal agency
- b. A military agency
- c. An academic institution
- d. A professional association
- e. A state agency
- f. A previous student or purchaser
- g. Other