AFTER ACTION REPORT

FY2009 TCN 09238
Workshop 3

Building a Framework for the Development of Core Capabilities and Competencies for Medical Disaster Preparedness and Response: A Continuing National Consultation Meeting

November 17, 2010 • Logistics Management Institute, McLean, VA

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NCDMPH National Center for Disaster Medicine & Public Health
FETIG
Center for Emergency Preparedness and Disaster Response
Yale New Haven Health

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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 third in a series of six workshops. 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 #3: Building a Framework for the Development of Core Capabilities and Competencies for Medical Disaster Preparedness and Response: A Continuing National Consultation Meeting After Action Report"
2. For additional information, please consult the following points of contact:

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EXECUTIVE SUMMARY

OVERVIEW

Based on its demonstrated success, the workshop format used in Workshop #2 was replicated for Workshop #3. Workshop #3 was designed as a one day consultation meeting bringing together representatives of each of the 20 healthcare professions defined as part of the federal Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) to: (1) identify work underway by federal agencies and professional organizations and academia to develop and disseminate profession-specific medical disaster preparedness and response capabilities and competencies; (2) review the updated capabilities matrix to identify potential gaps and recommend additions; (3) through a facilitated discussion, recommend specific competencies to achieve selected capabilities; and (4) identify different clinical professions' perceptions of barriers to attaining core capabilities and competencies.

As with Workshop #2, meeting strategies were employed to maximize dialog and interaction among participants and to increase exploration of the topic. These strategies included limiting attendance to 50 participants, setting up the physical space to support face-to-face interaction and breaking participants out into smaller groups for more focused discussions. The meeting began with an introduction that included an overview of previous workshops and focused on setting the foundation for the work of the day. Participants spent the majority of the day in one of three identically structured breakout sessions designed to meet the objectives and achieve the desired outputs of the meeting. The disciplines represented were assigned and equally distributed across the breakout groups. Each breakout session was guided by a skilled facilitator with knowledge of the topic, who was supported by a strategically placed subject matter expert and a session evaluator. The breakout sessions were followed by a structured group report-out to provide an opportunity for further information sharing and discussion among the meeting participants. The complete agenda can be found in Appendix 1.

ATTENDANCE

Due to overwhelming interest in the conference, available registration was expanded from 50 to 60 participants, the maximum capacity of the main conference room. Despite this increase in the number of available registrations, interest in attending still exceeded the spaces available. In addition, inspite of a major storm in the DC area on the day of the conference, there were three spontaneous registration requests which were able to

be accommodated due to absences caused by the storm. The meeting was attended by 60 federal and non-federal representatives of the ESAR-VHP professions and representatives of the public health discipline. Approximately 70% of those present had attended one or both of the previous workshops while the remaining participants were referred by a previous attendee or heard about the results of the workshop and took an active role in seeking out information about attending subsequent workshop events.

Attendees represented the 12 states listed in the table below and the District of Columbia. The level of interest and meeting attendance clearly reflected the success of Workshop #2 as well as the timeliness and relevance of the workshop topic.

California	**Arizona**	**Colorado**	**Texas**
Illinois	**New York**	**Massachusetts**	**Pennsylvania**
Virginia	**Maryland**	**Delaware**	**Virginia**

SUMMARY OF PARTICIPANT FEEDBACK

The respondents reported that the current workshop attendance was diverse, representative and inclusive of multiple disciplines that, for the most part, validated that the conference had the right mix of people in the attendance. However, the diversity of this set of military, federal and civilian healthcare providers also highlighted the ongoing requirement to address challenges of inter-agency communication (e.g., mitigating variations in lexicons).

Participants conveyed, via the participant evaluation form, that the interactive format of the workshop continues to facilitate the sharing of multiple ideas while simultaneously focusing the group to produce a single set of outputs reflective of the collaborative work that took place throughout the day. The majority of participants (92%) felt that the facilitated discussions were effective in identifying specific core competencies to achieve the targeted capabilities and in identifying their associated barriers (88%). They also indicated that the facilitators worked diligently to encourage and support dialogue and overall performed very well. In addition, meeting attendees reported that

the facilities at LMI were excellent and generally conducive to the work of the meeting. A full description of participant survey results, as well as a summary of the salient discussions conducted within each breakout session may be found in Appendix 5. It is also important to note that one participant, from Hawaii, was unable to attend due to the travel costs involved. Given the fiscal crises that many states find themselves in, this will likely be a continuing concern for interested participants. The planning team will consider virtual participation tools for future workshops to encourage both remote and in-person dialog.

WORKSHOP OVERVIEW

Workshop Title: "Building a Framework for the Development of Core Capabilities and Competencies for Medical Disaster Preparedness and Response: A Continuing National Consultation Meeting"

The topic and format for workshop #3 was developed by the Workshop Planning Committee based on qualitative feedback from facilitators and participants in addition to a review of the findings from workshop #2.

Location and Date: Logistics Management Institute (LMI) Corporate Headquarters, McLean, Virginia. LMI generously offered the use of their modern, conveniently located facilities in support of the meeting held on November 17, 2010.

Workshop Format: Workshop #3 was designed as a one day intensive facilitated consultation meeting bringing together representatives of each of the 20 healthcare professions defined as part of the federal Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) to: (1) identify work underway by federal agencies and professional organizations and academia to develop and disseminate profession-specific medical disaster preparedness and response capabilities and competencies; (2) review the updated capabilities matrix to identify potential gaps and recommend additions; (3) through a facilitated discussion, recommend specific competencies to achieve selected capabilities; and (4) identify different clinical professions' perceptions of barriers to attaining core capabilities and competencies.

Meeting strategies were employed to maximize dialog and interaction among participants and to increase exploration of the topic. These strategies included limiting attendance to 50 participants, setting up the physical space to support face-to-face interaction and breaking participants out into smaller groups for more focused discussions. The meeting began with an introduction that included an overview of previous workshops and focused on setting the foundation for the work of the day. Participants spent the majority of the day in one of three identically structured breakout sessions designed to meet the objectives and achieve the desired outputs of the meeting. The disciplines represented were assigned and equally distributed across the breakout groups. Each breakout session was guided by a skilled facilitator with knowledge of the topic, who was supported by a strategically placed subject matter expert and a session evaluator. The breakout sessions were followed by a structured group report-out to provide an opportunity for further information sharing and discussion

among the meeting participants. The complete workshop agenda can be found in Appendix 1.

Targeted Audience: Members of the following ESAR-VHP professions were targeted

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

Meeting Objectives:

- Identify work underway by federal agencies, professional organizations and academia to develop and disseminate profession-specific medical disaster preparedness and response capabilities and competencies
- Review the updated capabilities matrix to identify potential gaps and recommend additions
- Through a facilitated discussion, recommend specific competencies to achieve selected capabilities
- Identify different clinical professions' perceptions of barriers to attaining core capabilities and competencies

Desired Outputs:

- Process for identification and validation of core competencies for the clinical workforce responsible for medical preparation 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

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.

A total of 60 attendees from a diverse cross-section of the medical and public health community participated and included representatives from:

- Federal, state and local government agencies and institutions
- Accredited academic institutions
- Private sector entities involved in accreditation/competency activities
- Practitioners in the field

BACKGROUND

The overarching mission of the ICMDDMR Project is to enhance the ability to develop integrated civilian/military approaches to large-scale disaster preparedness and response 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 which can be modified, replicated and made scalable for the civilian/military health delivery workforce.
- Determining evaluation modalities for education and training programs 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 in better preparing 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 establishing 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.

As such 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 built 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 this 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.

For TCN 09238, a Workshop Planning Committee made up of representatives from the FETIG, the NCDMPH and representatives from YNH-CEPDR was convened to design a series of workshops to meet the stated objectives of the TCN. 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 regularly scheduled weekly meetings to conduct workshop planning activities.

The first workshop conducted under TCN 09238 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. Workshop #2 used a scenario-based workshop 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 common core capabilities and potential gaps identified for ESAR-VHP professionals

Workshop #3 continued the discussions begun in Workshop #2 and followed much the same format to achieve the outputs described previously.
Outputs from the preceding workshops and feedback from key stakeholders will continue to be used to design the structure and content of the remaining workshops 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 current trajectory of outputs and is listed

below. Each potential topic will be re-evaluated in light of the results of the preceding workshop. Additional workshops will occur at intervals of approximately 3 months as outlined in the draft schedule below:

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
Workshop #	**Date**	**Location**	**Topic**
2011 Workshops			
4	March 23	McLean, VA	**From Process to Practice**
5	May 18	TBD	**From Practice to Preparedness**
6	August 3	Washington, DC	**TBD**

The first 3 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. We will continue to evaluate the appropriateness of this location before and after each workshop and, if appropriate, will consider moving future workshops to one of the following areas: Colorado Springs, Colorado or New Haven, Connecticut. In addition, the Workshop Planning Committee will consider strategies and virtual conference tools that would support remote participation and increase awareness and dissemination of this project's outputs. Workshop attendees have included, but were not limited to, member organizations of the FETIG, members from accredited academic institutions and members of the ESAR-VHP professions previously described from state and local organizations. Should the planning committee determine a need for additional attendees to participate, that are currently not included in the listed groups, 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.

WORKSHOP STRUCTURE

The workshop took place over 1 day and opened with an overview of previous activities and presentation of a draft process for identification and validation of core competencies for the clinical workforce responsible for medical preparedness and response to a disaster event. The overview was followed by 3 concurrent breakout sessions which consisted of a facilitated dialogue (see Appendix 2 for Facilitator Biographies) that addressed 1-2 core capabilities selected from an updated cross-walk of capabilities (Appendix 3) available from several organizations. Potential core competencies were then identified to fulfill those capabilities. The reporting template shown in Appendix 4 was utilized to capture the outcomes of each breakout group's discussion.

The breakout sessions were followed by a structured group report-out and closing remarks encouraging the group to consider the way ahead as we continue to explore issues related to the education and training needs for disaster medicine and public health preparedness. The primary goal of this format was to maximize participant input and sharing of ideas between key stakeholders.

WORKSHOP EVALUATION

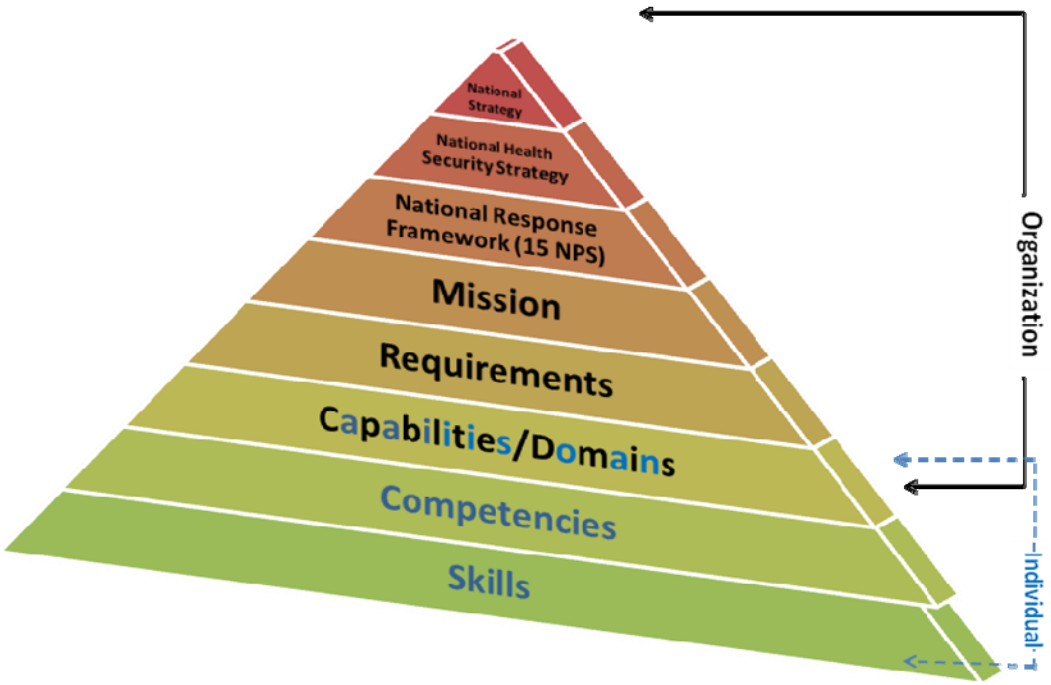
Evaluators were assigned to each breakout session to take notes and record key findings. At the end of the day, a specific evaluation questionnaire was administered to all participants. The evaluation questionnaire results are provided in Appendix 5.

WORKSHOP SUMMARY OF RESULTS

RESULT 1: PROCESS FOR IDENTIFICATION AND VALIDATION OF CORE COMPETENCIES

A key output of workshop #2 was achievement of consensus that the framework illustrated below is the appropriate framework for identification and validation of core capabilities and competencies for the workforce responsible for preparedness and response to public health and medical disasters.

Figure 1:
Framework for Developing Work Force Competencies for Public Health and Medical Disasters



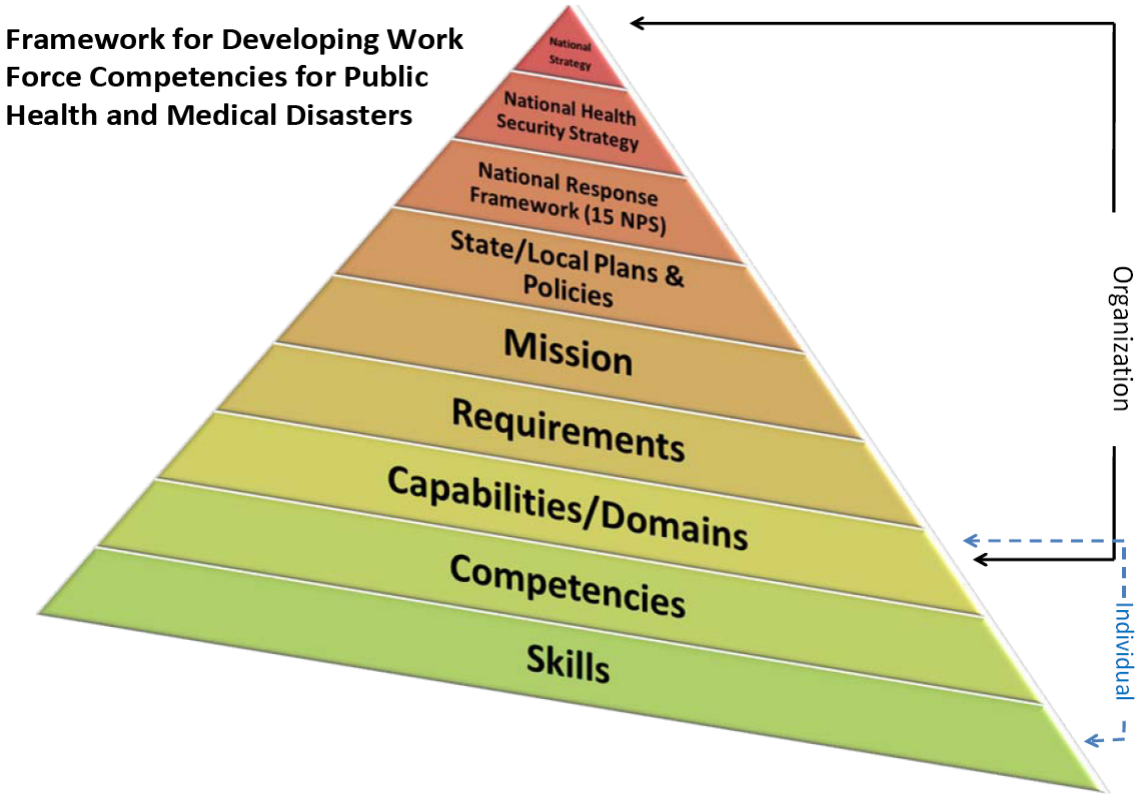
Smith, S., McGovern, J., 2010

The National Security Strategy sits at the pinnacle of the framework and outlines actions to keep the country safe and prosperous. The framework also recognizes that on a national level the National Health Security Strategy and the National Response Framework are key documents that define the organization's mission(s). To achieve the mission, an organization must identify the requirements, those collective tasks that are required for a specific period of time, to accomplish the mission. Requirements in turn drive the identification of capabilities and competencies. Capabilities are defined as "the ability to execute a specified course of action."[1] A capability provides a means to

[1] *Joint Publication 1-02, "DoD Dictionary of Military and Associated Terms"* http://www.dtic.mil/doctrine/dod_dictionary/

achieve a measurable outcome resulting from performance of one or more critical task(s), under specified conditions and performance standards. In order for an organization to reach and maintain a capability it requires individuals who have the "abilities relating to excellence in a specific activity".[2] In this sense competencies refer to a "standardized requirement for an individual to properly perform a specific job". [3] For an individual to be considered "competent" they must be able to perform specific skills needed to respond during a disaster.

During workshop #3, additional discussion ensued regarding the need for revisions to the above framework to reflect the importance of core competencies, core capabilities/domains, the National Preparedness Guidelines and state and local plans that account for geographic and population uniqueness. There were also additional recommendations to emphasize that curriculum and courses are the methods of teaching the skills at the foundation of the framework and to enhance the graphic with narrative. As a result of these recommendations the explanation of the Framework was revised to the following.



[2] *Capabilities Based Planning Overview 12-17* DHS/SLGCP/OPIA/Policy and Planning Branch *http://www.scd.hawaii.gov/grant_docs/Capabilities_Based_Planning_Overview_12_17.pdf*

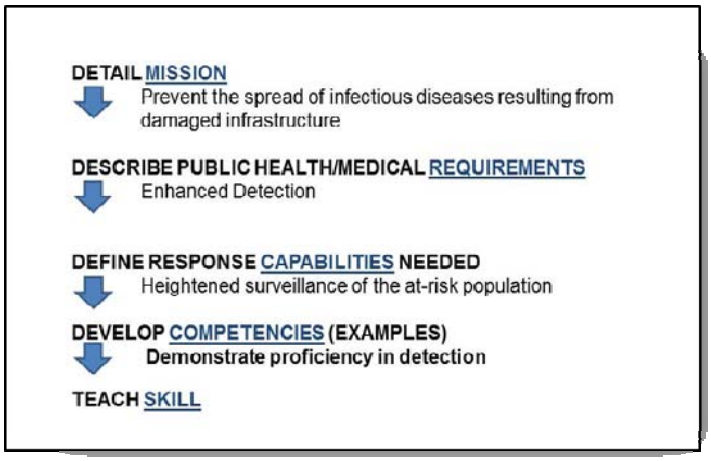
[3] American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2009 by Houghton Mifflin Company

For competencies or capabilities/domains to be considered "core" they need to apply across phases of the disaster, across disciplines and across scenarios.

Further, between Workshops #2 and #3 an article entitled "*A Review of Competencies Developed for Disaster Healthcare Providers: Limitations of Current Processes and Applicability"* was published in the journal of Prehospital and Disaster Medicine. The article came to the conclusion that "[further efforts must be directed to developing a framework for the articulation of competency sets for disaster health professionals that can be accepted and adapted universally]" (Birnbaum, et al., 2010) further demonstrating the importance of the discussions and outputs derived from this workshop series.

The Process

The next step for the group was to identify a process for identification and validation of core competencies for the clinical workforce responsible for medical preparation and response to a disaster event. The group reached consensus on the following description of the process.



The process is initiated by recognition or assignment of a **Mission**. The mission could be generated in the context of a scenario or threat. For example a mission might be "Prevent the spread of infectious diseases resulting from damaged infrastructure".

Based on the mission, **Requirements** are identified. For example, using the mission above, some of the requirements could be:

- Implementation of Preventive Measures
- Enhanced Detection
- Disease Eradication

Capabilities are what is necessary to meet the requirements, and can therefore be derived from the list of requirements. For example, to address a requirement for Enhanced Detection, the entity responsible for mission success must be capable of deploying methods for early recognition of the clinical syndrome, heightened surveillance of the at-risk population and reliable tracking and reporting mechanisms.

In addition to funding, hardware, software, and other resources, these capabilities demand specific **Competencies** of the response personnel. These encompass epidemiologic methods, including skill sets typically used to describe minor outbreaks in community public health settings.

Individual **Skills** contributing to competency in this example might include establishment and distribution of case definitions, management of databases, coordination of electronic health information among medical care facilities, and others.

RESULTS 2-4: DRAFT A SET OF CORE CAPABILITIES AND RECOMMENDED ASSOCIATED COMPETENCIES FOR SELECTED CAPABILITIES FOR THE CLINICAL WORKFORCE IN ATTENDANCE AT THIS MEETING

Prior to embarking on tasks associated with the above referenced desired outputs each of the groups reviewed the capabilities matrix that was updated based on feedback from Workshop #2 and identified which capabilities were core. The capabilities matrix compares capabilities from a cross-section of military and civilian medical and public health agencies (see Appendix 3). The following capabilities should be added:

- Evaluation criteria/ quantitative benchmarks
- Cultural competency/cultural sensitivity
- Licensing and credentialing
- Legal issues/scope of practice
- Organizational command structure
- Public health
- Individual preparedness

Participants also identified the following agencies as source gaps in the Capabilities Matrix:

- ESF#5, 6 and 9 capabilities
- Association for Community Health Improvement
- Red Cross
- National Guard Teams
- Related professional organizations (e.g., Nurses' Associations)

The chart on the next page demonstrates which capabilities were identified as core.

CAPABILITIES CROSSWALK

CAPABILITY	DMRTI	VHA	ESF-8	ESF-11	TCL	MHS	Columbia	NHSS	UTL	CDC - PH	NDLSEC	ACEP	MRC	NEPEC	WKSP#2
Provide of Medical Care			X			X		X	X			X		X	
Perform Triage					X	X						X			
Conduct Extraction/Evacuation			X		X				X			X			X
Provide Behavioral Healthcare			X			X						X	X	X	
Perform Fatality Management			X		X										
Perform event Recognition/Detection												X	X	X	
Provide Veterinary Medical Support			X	X	X										
Provide Health/Medical/Veterinary Equipment and Supplies			X	X	X										
Supply Blood, Organs and Blood Tissues			X												
Provide Communications, Notifications/ Disseminate Information		X	X		X	X	X		X	X		X	X	X	X
Provide All-Hazard Public Health and Medical Consultation, Technical Assistance and Support			X						X						X
Ensure Safety and Security of Drugs, Biologics and Medical Devices			X												
Provide Food Safety and Security			X	X	X										
Ensure Responder Safety and Health		X	X		X			X		X	X	X	X		X
Provide Nutrition Assistance and Distribution of Food Supplies				X											
Ensure Agriculture Safety and Security			X	X	X				X						
Conduct Health Surveillance										X					
Establish Environmental Health Activities					X				X						
Conduct Threat/Risk Assessment			X			X	X			X	X				X
Provide Health Risk Management					X	X					X			X	
Provide Situational Awareness							X	X				X		X	
Ensure/Build Medical Surge Capacity					X							X			
Conduct Mass Prophylaxis					X	X								X	
Implement Isolation and Quarantine Protocols					X			X						X	
Provide Emergency Response		X			X		X		X			X	X		
Conduct Urban Search and Rescue									X						
Carry Out Firefighting Operations									X						
Conduct WMD/HazMat Response and Decontamination					X	X						X			
Conduct Resource Management, Manage Volunteers					X	X						X			
Perform Contingency, Continuity and Recovery Activities		X			X			X	X	X	X				
Provide Patient Transportation						X			X			X		X	
Conduct Planning		X			X	X	X	X	X	X	X				X
Perform Regional, State and Local Prevention Operations/National Prevention Operations									X						
Provide Incident Management and Support Systems		X			X	X	X		X		X	X	X		
Ensure Infrastructure Safety				X				X	X						
Ensure National Strategic Intelligence									X						
Manage Special Needs Populations												X			
Demonstrate Procedures for Assigning Roles, Event Reporting and Activating and Deactivating Personnel		X											X	X	
Identify Limits to Skills, Knowledge and Abilities as They Apply to MRC Role(s)													X		
Apply Ethical Principles										X	X	X		X	
Establish Patient Identification and Tracking												X			
Perform All Deployment Mobilization - Specific Tasks		X													
Perform All Tasks Necessary for Traveling to and from Deployment and Destination Sites		X													

Manage/Mitigate Volunteers

Conduct resource management

X = Capability Recognized within the Specified Policy/Recommendations Document

There is debate as to whether item is a core capability

There is debate as to whether item is a core capability

Not a core capability /maybe a competency

A draft set of core competencies for the preparedness, response and recovery phases was developed for the following capabilities:

- Emergency Response
- Threat/Risk Assessment
- Incident Management and Support Systems

The competencies produced used accepted terminology and language and reflect an understanding of the core tasks that cross over disciplines and are required in a medical or public health disaster. This was an improvement over the outputs of workshop #2 and reflects the success of the focus on the correct format for writing competencies that was included in the overview of previous workshops in the beginning of workshop #3.

The groups also identified barriers to achievement of identified competencies and solutions to the identified barriers. The barriers fell into one of three major categories: personal, organizational or system. The solutions identified followed the same pattern.

The competencies of particular interest and concern (regardless of the associated capability) to workshop participants included the following:

- Inter and intra-agency communication
- Situational awareness
- Evaluation/quantitative benchmarks

All three breakout groups also identified worker motivation issues (e.g., anxiety, complacency, avoidance) as barriers to achievement of competencies.

RECOMMENDATIONS AND CONCLUSIONS

RECOMMENDATIONS

In response to both positive participant feedback and the quality of competency data collected via the breakout sessions, meeting planners are advised to conduct subsequent meetings according to the framework and processes implemented for this *Building a Framework for the Development of Core Capabilities and Competencies for Medication Disaster Preparedness and Response: A Continuing National Consultation Meeting*. Meeting planners may also wish to further explore the competencies of particular interest to these participants (inter and intra-agency communication, situational awareness, evaluation/quantitative benchmarks). In addition and in response to the participant survey question, **"***Are there any topics that should have been covered, but were not?",* the following suggestions were provided and should be considered for future meetings*:*

- Distribute an acronym list and glossary of terms
- Provide relevant materials to participants in advance of the meeting
- Reserve a portion of the agenda for a focused discussion on funding/sustainability issues related to training

CONCLUSION

This workshop was successful at achieving its objectives and desired outputs and has positively contributed to the achievement of the overall statement of work for this TCN. We will use the recommendations and participant feedback herein to design the 4th workshop with a focus on addressing the identified barriers to achievement of competencies and moving from process to practice.

APPENDIX I

Workshop Agenda

Agenda: Wednesday, November 17, 2010

7:30 am-8:00 am	**Registration and Networking Breakfast** LOCATION: CONFERENCE FOYER 2ND FLOOR		
8:00 am-8:45 am	**Introduction and Meeting Overview** **Rebecca Cohen, MPH –** Yale New Haven Health Center for Emergency Preparedness and Disaster Response **Welcome** **Christopher M. Cannon, MSN, MPH, MBA, FACHE –** National Director, Yale New Haven Center for Emergency Preparedness and Disaster Response **Opening Remarks** ***Michael T. Handrigan, MD, FACEP –*** Director, Emergency Care Coordination Center Office of the Assistant Secretary for Preparedness and Response and Co-Chairman Federal Education & Training Interagency Group (FETIG) for Public Health and Medical Disaster Preparedness and Response LOCATION: MAIN CONFERENCE ROOM (MCC1)		
8:45 am-10:00 am	**Overview of Previous Workshops** ***Elaine Forte, BS, MT (ASCP)*** – Senior Deputy Director, Operations, Yale New Haven Center for Emergency Preparedness and Disaster Response **Review of Framework and Proposed Process for Identification and Validation of Core Capabilities and Competencies** ***Rick Cocrane –*** MA, MPH, in support of the Office of the Assistant Secretary of Defense (Health Affairs) **Review and Discussion of Capabilities Matrix** ***Stewart D. Smith, MPH, MA, FACCP –*** Yale New Haven Center for Emergency Preparedness and Disaster Response **Our Task Today** **Rebecca Cohen, MPH –** Yale New Haven Health Center for Emergency Preparedness and Disaster Response LOCATION: MAIN CONFERENCE ROOM (MCC1)		
10:00 am-10:15 am	**Break/Morning Refreshments and Movement to Breakout Sessions** LOCATION: CONFERENCE FOYER 2nd FLOOR		
10:15 am-2:15 pm	**Breakout Session A** **FACILITATOR:** ***Mark Schneider, PhD*** BREAKOUT ROOM A 8th Floor ROOM DCC3	**Breakout Session B** **FACILITATOR:** ***Rick Cocrane, MA, MPH*** BREAKOUT ROOM B 8th Floor ROOM DCC1	**Breakout Session C** **FACILITATOR:** ***Stewart D. Smith, MPH, MA*** BREAKOUT ROOM C MAIN CONFERENCE ROOM

Agenda: Wednesday, November 17, 2010 CONTINUED	
2:15 pm – 2:45 pm	**Breakout Session Group Report Out Preparation**
2:45 pm – 4:00 pm	**Breakout Session Report-Out & Discussion** ***Elaine Forte, BS, MT (ASCP)*** – Senior Deputy Director, Operations, Yale New Haven Center for Emergency Preparedness and Disaster Response LOCATION: MAIN CONFERENCE ROOM (MCC1)
4:00 pm-4:15 pm	**Announcement of the National Center for Disaster Medicine and Public Health March 2011 Conference: Toward Core Competencies for Children in Disasters** ***David Siegel, MD*** – Senior Medical Officer National Institute of Child Health & Human Development LOCATION: MAIN CONFERENCE ROOM (MCC1)
4:15 pm-4:30 pm	**Closing Remarks/The Way Ahead** ***Houston Polson, JD*** – Chief Joint Education, United States Northern Command LOCATION: MAIN CONFERENCE ROOM (MCC1)

APPENDIX 2

Facilitator Biographies

Richard M. Cocrane

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.

Mark Schneider, PhD

Mr. Schneider has extensive experience with developing user training strategies, planning, development, implementation, and post implementation activities to meet compliance requirements. He has provided leadership in emergency preparedness and related training projects, and has led several initiatives such as enterprise-wide implementations for departments of public health, emergency management associations, hospital systems, skilled nursing facilities, community heath centers, etc. During these projects he managed training plans, logistics, environment and resources, training materials, learning modalities, trainers, and compiled the final training reports. He has worked on state and national contracts that employed complex education solutions. At YNHHS-CHS, he has provided custom programs through various modalities to train thousands of healthcare and public heath workers, through custom learning management systems, CD-ROMs, instructor-led formats, pod-casts and a variety of other media and blended learning used to engage the learner. Mr. Schneider holds a CDIA certification which qualifies him to test expertise in the technologies and best practices used to plan, design, and specify systems. Through his work on projects with the CDC, FEMA, DPH, DoD, DHS, ASPR, HHS, VHA, he has applied creative solutions to business problems. He has been a speaker at many national training venues (such as Society of Advanced Learning Technologies), and was presented the *2008 Top Young Trainer award by Training Magazine*. He has also served on the FEMA national training advisory board in representing healthcare. Mr. Schneider has presented on knowledge management systems with the Director of Enterprise Web development from the Yale School of Medicine.

Stewart Smith, MPH, MA, FACCP

Stewart Smith provides direct support to Yale New Haven's Center for Emergency Preparedness and Disaster Response as Program Manager for Department of Defense activities to include the National Center for Integrated Civilian-Military Domestic Disaster Medical Response (ICMDDMR).

Stewart is the Founder, President and Chief Executive Officer of Emergency Preparedness and Response International, LLC (EP&R International). A retired Navy Commander, Medical Service Corps Officer, his previous military work history spans over 25 years of progressive assignments that includes Chief of the Joint Regional Medical Plans and Operations Division for

the North American Aerospace Defense Command and the United States Northern Command (NORAD-USNORTHCOM), Surgeons Directorate; Director of International Health Operations Policy, Homeland Defense, and Contingency Planning Policy for the Assistant Secretary of Defense for Health Affairs; Branch Chief for the Joint Staff, Health Services Support Division; and Branch Head for the Deployable Medical Systems, Office of the Chief of Naval Operations, Medical Plans and Policy (OPNAV-N931).

Stewart holds graduate degrees in Public Health Management and Policy from the Yale School of Medicine, Department of Public Health and Epidemiology; and the Naval War College in National Security and Strategic Studies.

He is the co-founder of and immediate past President to the American College of Contingency Planners (ACCP). His particular areas of interest and expertise include strategic medical planning; domestic consequence management operations, the National Disaster Medical System (NDMS), and the National Response Framework (NRF) with a focus on complex emergencies and calamitous events (including medical operations in the WMD/asymmetrical environment); and finally, international Weapons of Mass Destruction medical countermeasures policy. Stewart was selected as the first American to chair the North Atlantic Treaty Organization's (NATO's) Biomedical Defense Advisory Committee (BIOMEDAC); holding that appointment from 2003-2005 while assigned to the Secretary of Defense and USNORTHCOM staffs.

APPENDIX 3

Capabilities Cross-Walk

CAPABILITIES CROSSWALK

CAPABILITY	DMRTI	VHA	ESF-8	ESF-11	TCL	MHS	Columbia	NHSS	UTL	CDC - PH	NDLSEC	ACEP	MRC	NEPEC	WKSP#2
Provide of Medical Care	X		X			X		X	X			X		X	
Perform Triage					X	X						X			
Conduct Extraction/Evacuation	X		X		X				X			X			X
Provide Behavioral Healthcare			X			X						X	X	X	
Perform Fatality Management			X		X										
Perform event Recognition/Detection												X	X	X	
Provide Veterinary Medical Support			X	X	X										
Provide Health/Medical/Veterinary Equipment and Supplies			X	X	X										
Supply Blood, Organs and Blood Tissues			X												
Provide Communications, Notifications/ Disseminate Information		X	X		X	X	X		X	X		X	X	X	X
Provide All-Hazard Public Health and Medical Consultation, Technical Assistance and Support			X						X						X
Ensure Safety and Security of Drugs, Biologics and Medical Devices			X												
Provide Food Safety and Security			X	X	X										
Ensure Responder Safety and Health		X	X		X			X		X	X	X	X		X
Provide Nutrition Assistance and Distribution of Food Supplies				X											
Ensure Agriculture Safety and Security			X	X	X				X						
Conduct Health Surveillance			X							X					
Establish Environmental Health Activities			X		X				X						
Conduct Threat/Risk Assessment	X		X			X	X			X	X				X
Provide Health Risk Management					X	X					X			X	
Provide Situational Awareness							X	X				X		X	
Ensure/Build Medical Surge Capacity					X							X			
Conduct Mass Prophylaxis					X	X								X	
Implement Isolation and Quarantine Protocols					X			X						X	
Provide Emergency Response	X	X			X		X		X			X	X		
Conduct Urban Search and Rescue									X						
Carry Out Firefighting Operations									X						
Conduct WMD/HazMat Response and Decontamination	X				X	X						X			
Conduct Resource Management, Manage Volunteers					X	X						X			
Perform Contingency, Continuity and Recovery Activities		X			X			X	X	X	X				
Provide Patient Transportation						X			X			X		X	
Conduct Planning		X			X	X	X	X	X	X	X				X
Perform Regional, State and Local Prevention Operations/National Prevention Operations									X						
Provide Incident Management and Support Systems	X	X			X	X	X		X		X	X	X		
Ensure Infrastructure Safety				X				X	X						
Ensure National Strategic Intelligence									X						
Manage Special Needs Populations												X			
Demonstrate Procedures for Assigning Roles, Event Reporting and Activating and Deactivating Personnel		X											X	X	
Identify Limits to Skills, Knowledge and Abilities as They Apply to MRC Role(s)													X		
Apply Ethical Principles										X	X	X		X	
Establish Patient Identification and Tracking												X			
Perform All Deployment Mobilization - Specific Tasks		X													
Perform All Tasks Necessary for Traveling to and from Deployment and Destination Sites		X													

X = Capability Recognized within the Specified Policy/Recommendations Document

APPENDIX 4

Breakout Session Report-Out Template

Capability – Threat/Risk Assessment

Scenario Phase	Top 3 Competencies	Barriers to Achievement of Competencies	Solutions to Barriers
Protection	- Using an all-hazards approach, explain general health, safety, and security risks associated with disasters and public health emergencies. - Describe risk management principles in the disaster setting. - Describe unique vulnerabilities across demographics within your community.	- No consensus on common lexicon, terms of reference - Defining and implementing operational risk management in the non-military setting - Avoidance of personal risk - Lack of proper service - Opportunity to cost	- Develop lexicon through consensus process - Operational Risk Management: explore and adopt within civilian settings - Education and Training - Private regulation (when possible) - Create intrinsic motivations
Response	- Using an all-hazards approach, manage risks associated with the disaster and public health emergency. - Apply risk management principles in the disaster setting. - Explain appropriate responses in the emerging disaster environment that includes loss of infrastructure and population change - OR, determine your response based on loss of infrastructures across demographics within your community. -Report unresolved threats to physical and mental health through the chain of command.	- Defining and implementing operational risk management in the non-military setting - Absence of Intrinsic/extrinsic motivations - Lack of process improvement	- Identify teachable moments in a lifelong career - Identify ways to incentivize - Promote inclusion of disaster medicine education and training along pathways for licensure, certification, and organizational accreditation
Recovery	- Using an all-hazards approach, minimize risks associated with the emerging environments - Evaluate risk management decisions in the disaster setting. - Perform adaptation to your response based on loss of infrastructures across demographics within your community.	- Defining and implementing operational risk management in the non-military setting	- Identify teachable moments in a lifelong career - Identify ways to incentivize - Promote inclusion of disaster medicine education and training along pathways for licensure, certification, and organizational accreditation

APPENDIX 5

PARTICIPANT SURVEY RESULTS

OVERVIEW

This evaluation was designed and conducted to measure the meeting's achievement of the following objectives and desired outputs**:**

Objectives

Objective 1: Identify work underway by federal agencies, professional organizations and academia to develop and disseminate profession-specific medical disaster preparedness and response capabilities and competencies

Objective 2: Review the capabilities matrix to identify potential gaps and recommend additions

Objective 3: Through a facilitated discussion, recommend specific competencies to achieve selected capabilities

Objective 4: Identify different clinical professions' perceptions of barriers to attaining core capabilities and competencies

Desired Outputs

***Output 1*:** Process for identification and validation of core capabilities and competencies for the clinical workforce responsible for medical preparation and response to a disaster event

***Output 2*:** Draft set of core capabilities and recommended associated competencies for selected capabilities for the clinical workforce in attendance at this meeting

***Output 3*:** List of perceived barriers to attaining core capabilities and competencies

***Output 4*:** List of common core capabilities and potential gaps identified for ESAR-VHP professionals

Demonstration of these outputs is provided in the succeeding narrative of this document. The outputs provide a measurement of the meeting's attainment of the four objectives as follows:

Output	Objectives Demonstrating Output
1	1, 2, 3
2	1, 2, 3
3	4
4	3

SECTION 1

Output 1: Process for identification and validation of core capabilities and competencies for the clinical workforce responsible for medical preparation and response to a disaster event and

Output 4: List of common core capabilities and potential gaps identified for ESAR-VHP professionals

These outputs were developed during the meeting as demonstrated by data collected via the Participant Evaluation Survey. Chart #1 and #2 illustrate that 92% and 88% of participants, respectively, had a positive view of the efficacy of Facilitated Discussion.

Chart 1

How do you rate the effectiveness of the Facilitated Discussion as an approach to identifying specific core competencies to achieve the target capabilities?

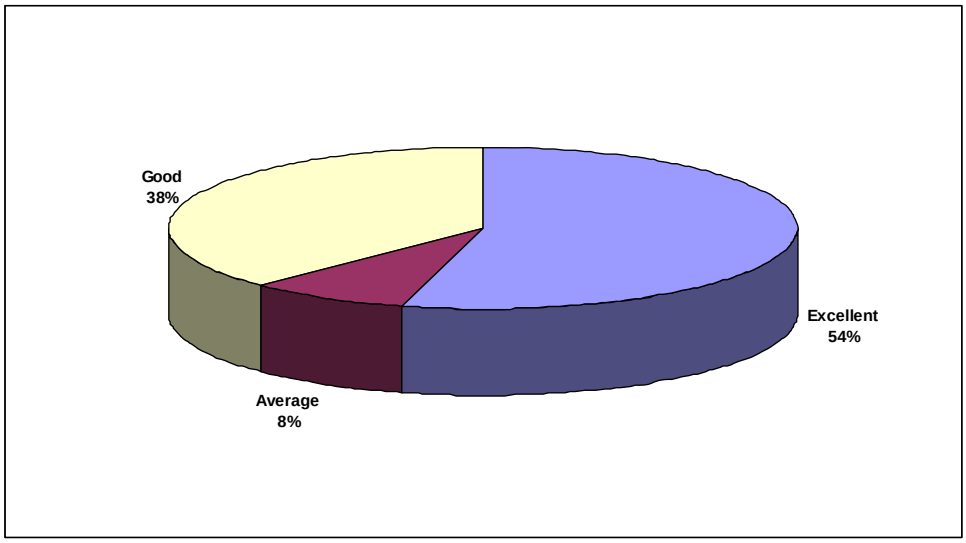
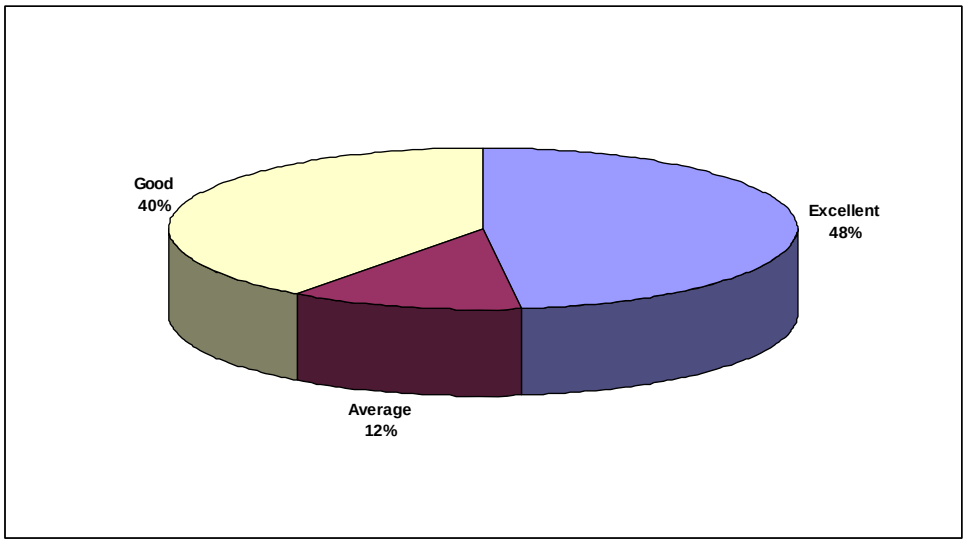


Chart 2

How do you rate the effectiveness of the facilitated discussion as an approach to identifying barriers to achievement of competencies and capabilities?

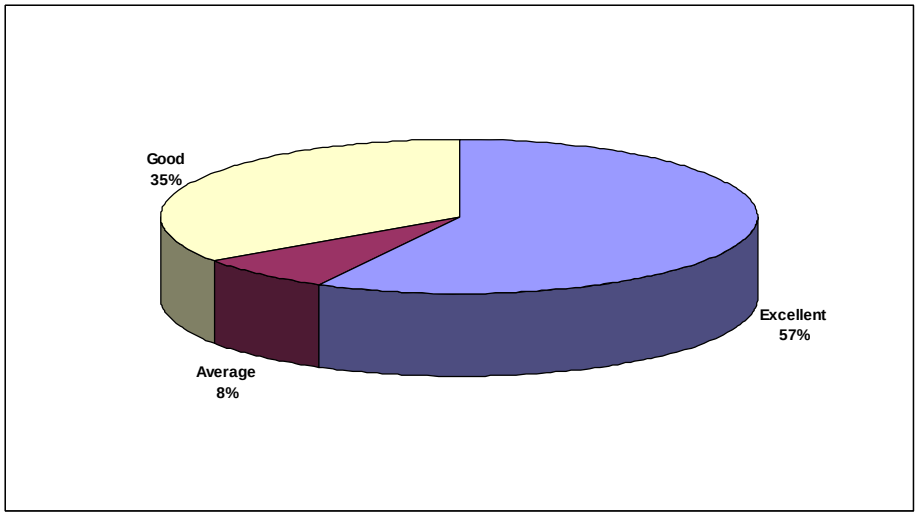


In demonstration of (Output #4) potential gaps in capabilities, participants conveyed that meeting planners should consider adding the following capabilities to the matrix (responses are unedited):

- Add Red Cross, National Guard Teams, and other ESFs (6, 5 & 9)
- Missing capabilities might include:
  - Organizational command structure
  - Public health
  - Individual preparedness
- Identification of capabilities should not only be determined by the number of “x’s” on the crosswalk (ex. Public Health)
- Capabilities may be missing due to methodology or documentation used (i.e. VHA, NDLSEC, NEPEC)
- Grouping capabilities defined as “core” may simplify the process
- Categorization of capabilities by phase, organizational level, or proficiency may also simplify communication of core capabilities
- Need for a salient example (i.e. “A resilient community”)
- Identify target audience of the matrix
- Related Professional Organizations (i.e., Nurses Associations)

In further demonstration that the meeting's approach was well-received by participants, 92% of participants gave a positive rating to the inclusiveness of the invitees (Chart 3).

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



Participants also provided the following qualitative feedback in response to this question (responses are unedited):

- Very well designed
- A superb group in Breakout B. Higher level than last session.
- Small disciplines not present but all key players are at the table.
- Great conversations!
- Maybe more allied health profession representation - rad tech, occupational therapy, etc.
- AHA? a little military and federal agency heavy

Participants submitted the following comments in response to the question: "*What did you find most useful about the national consultation meeting?"* (responses are unedited). As this data indicates, the value in diversity and inclusiveness to the topic addressed by the meeting was raised by 11 (73%) of the 15 participants who responded to this question.

- Sharing Ideas. Networking. Working as a team on the process.
- Continuing to expand panel of experts.
- Networking and identifying the need for core competencies.
- Diversity of participants with unique perspectives.
- Networking
- Discussions - good talks; different points of view.
- Broad spectrum of skills, experience and expertise. A very good mix of personnel. Excellent staff. Better breakout group reports - more reflective of the groups' discussions than individual views (as noted at last meeting in September).
- Many viewpoints were brought out around a non-controversial, common goal.
- Hearing from diverse views and listening to experiences.
- Being able to contribute. Expanding my own thinking.
- That there is a lot to do and define.
- Learning more about the competencies and capabilities and how they are cross-cutting.
- Networking. Overall, I keep learning more and more about disaster preparedness and involved issues.
- Range of experience and insights from that.
- The multi-level participation and discussion.

SECTION 2

Output 2: Draft set of core capabilities and recommended associated competencies for selected capabilities for the clinical workforce in attendance at this meeting

Output 4: List of common core capabilities and potential gaps identified for ESAR-VHP professionals

Outputs 2 and 4 were achieved during the meeting as demonstrated by data collected via a template developed for the capability-specific breakout sessions. Following each breakout group discussion, participants completed the blank template and identified the following competencies for each of the five capabilities provided in Table 1 (responses are unedited).

Table 1

Capability	Competencies
Emergency Response	• Establish communication infrastructure • Utilize ESAR-VHP • Develop a Responder Family Preparedness Plan • Describe the Responders' role in an emergency/disaster and whom to report to • Implement stratified ICS Training
Incident Management and Support Systems	• Demonstrate the principles of ICS and NIMS • Demonstrate your role within the NIMS environment • Facilitate collaboration with internal and external emergency response partners • Apply the principles of ICS and NIMS within your environment including interacting with internal and external emergency response partners • Participate in the evaluation of effectiveness in response • Utilize situational awareness to drive your decision cycle • Conduct threat and risk assessment • Demonstrate the ability to demobilize to return to steady state IAW the principles of ICS
Threat/Risk Assessment	• Using an all-hazards approach, explain general health, safety, and security risks associated with disasters and public health emergencies. • Describe risk management principles in the disaster setting. • Describe unique vulnerabilities across demographics within your community. • Using an all-hazards approach, manage risks associated with the disaster and public health emergency. • Apply risk management principles in the disaster setting. • Explain appropriate responses in the emerging disaster environment that includes loss of infrastructure and population change or determine your response based on loss of infrastructures across demographics within your community. • Report unresolved threats to physical and mental health through the chain of command. • Using an all-hazards approach, minimize risks associated with the emerging environments • Evaluate risk management decisions in the disaster setting. • Perform adaptation to your response based on loss of infrastructures across demographics within your community.

SECTION 3

Output 4: List of perceived barriers to attaining core capabilities and competencies

Output 4 was achieved during the meeting as demonstrated by data collected via the template described above. As a component of the charge to complete the blank template for each of the five identified capabilities, participants identified the following barriers to achievement and associated solutions as provided in Table 2 (responses are unedited).

Table 2

Capability	Barriers to Achievement of Competencies	Solutions to Barriers
Emergency Response	• Complacency • Time • Lack of Guidance • Anxiety, Time, Interest, Enthusiasm • Who is asking the responders to take the training? • Familiarity with NIMS • Lack of technology, processes, protocols and funding • Unfamiliarity with organizational policies	• Motivation/Engagement • Guiding Tools • Regulations • IAP Templates • Adopt a communication system that meets your needs • Secure funding • Provide training • Drills involving ESAR-VHP • Human Resources – ensure that the request to complete training is made through the most effective channels • Training
Incident Management and Support Systems	• Time • Turnover of workforce and partners • Sustain knowledge management • Lack of Funding • Opportunity cost • Credentialing • Legal (jurisdictional) • Lack of MOUs • Standardization in training • Lack of compliance • Lack of practice • Licensing • Anxiety • Lack of resources • Knowledge retention • Worker recidivism • Employers unwillingness to release personnel • Family Safety/Security • Compression syndrome • Lack of infrastructure • Lack of resiliency • Lack of planning • Physical/Environmental/TIC/TIM	• User friendly educational modalities • Prioritization of time/resources/ incentives • CEUs • Funding Availability • Condition/Means for credentialing • Condition for Licensing • Condition for employment • Legal (jurisdictional) • MOUs/Partnerships • Emphasis on Preparedness • Mandates • Legislation • Organizational Support • Training and education • Exercises and drills • Legislative (Federal statute) • Recognition of stress • Prioritization of resources • Family preparedness/plans • Decompression Activities • Integrate into the deliberate planning cycle • Resiliency training • Situational awareness and mitigation

Threat/Risk Assessment	• No consensus on common lexicon, terms of reference • Defining and implementing operational risk management in the non-military setting • Avoidance of personal risk • Lack of proper service • Opportunity to cost • Defining and implementing operational risk management in the non-military setting • Absence of Intrinsic/extrinsic motivations • Lack of process improvement • Defining and implementing operational risk management in the non-military setting	• Develop lexicon through consensus process • Operational Risk Management: explore and adopt within civilian settings • Education and Training • Private regulation (when possible) • Create intrinsic motivations • Identify teachable moments in a lifelong career • Identify ways to incentivize • Promote inclusion of disaster medicine education and training along pathways for licensure, certification and organizational accreditation

SECTION 4

In response to both positive participant feedback and the quality of competency data collected via the breakout sessions, meeting planners are advised to conduct subsequent meetings according to the framework and processes implemented for this Building a Framework for the Development of Core Capabilities and Competencies for Medication Disaster Preparedness and Response: A Continuing National Consultation Meeting.

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*:*

- Need for lexicon.
- More definitions of concepts. Recommendations: to those who confirm their participation in the meeting - send homework, materials, objectives, etc. so that participants can provide educated insight. I found a lot of confusion in the identification of competencies.
- Are the competencies of the system the same as the competencies of all the individuals within it? Should there be system competencies and basic competencies for all individuals? What is our mission? Should this be defined and shared before competencies are discussed?
- Specific objectives.
- Related to core competencies, maybe a "how to do" list of developing a disaster-preparedness hands-on training scenario, e.g. budget, sources of funding for training, etc.
- Just keep the whole potential medical community in mind. The solution will involve the concepts of one health.
- It is important to my organization that sustainability be a core part of all efforts. I see it currently being discussed but might consider more discussion needed.