

# Assessing the Effectiveness of Education and Training for Humanitarian Assistance and Disaster Response (HADR)

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## Background Information

In 2010, as part of its strategic plan, the NCDMPH completed an education and training needs assessment in support of HSPD-21<sup>1</sup> for medical personnel aboard the USS Iwo Jima during Operation Continuing Promise 2010 (CP 10). Findings from this needs assessment were used to drive the development of curriculum priorities and training for Continuing Promise 2011 (CP 11) and conduct a formal IRB approved program evaluation aboard the USNS Comfort. Educational intervention included the following core topics:

- Cultural awareness of host nation health values & beliefs
- Host nation health status / causes of morbidity & mortality
- Baseline humanitarian and disaster response education
- Team roles & responsibilities
- Disaster specific education, i.e. floods, earthquakes, hurricanes
- Safety & risk management practices



USNS Comfort - Operation Continuing Promise 2011

## Methodology

### Design

A mixed-method approach was used to assess the effectiveness of an education and training curriculum provided to embarked medical personnel. A quasi-experimental one group pre-test / post-test design<sup>2</sup> was used to collect both quantitative and qualitative data.

### Conceptual Framework

Kirkpatrick's (2006) training evaluation model<sup>3</sup> was used to determine if formal education and training provided during Continuing Promise 2011 had an impact and resulted in perceived knowledge, skills and attitudes among embarked medical personnel.

Evaluation Level	Activity
Reaction Level	Pre and post activity questionnaire
Knowledge Level	Pre and post activity questionnaire; Course post test; Participant focus groups
Transfer Level	Participant observation
Impact Level	Pre and post activity questionnaire; Participant and leadership focus groups

### Hypotheses

- #1 Post-test responses will show positive increases related to education & training expectations
- #2 There will be positive differences in knowledge gained pre and post activity related to education & training provided
- #3 Participants will demonstrate the ability to transfer classroom learning to practice
- #4 Measured and perceived changes in capabilities as well as higher levels of satisfaction will occur following intervention

## Results

- Formal education and training provided during the mission resulted in increases in knowledge, skills and attitudes among embarked medical personnel in the area of disaster response and humanitarian assistance
- The embarked staff were largely novices and only 15% of participants had any prior experience with actual disaster response or humanitarian assistance and over 40% had never participated in a training exercise for disaster response, humanitarian assistance, or medical stability operations
- Perceived adequacy of training
  - Pre-survey 30% of personnel indicated they were adequately trained for the mission
  - Post-survey 70% of respondents indicating they were adequately trained for the mission
- Qualitative findings reinforce the importance which embarked medical staff place on the development of core competencies in disaster response and humanitarian assistance and the opportunity that missions of this nature provide for the achievement of these core competencies
- Findings support the need for embarked staff to have access to learning resources supporting their ability to interact with host nation providers and patients
- Findings indicate participants' knowledge of the host nation culture and health care system increased throughout the mission. However, this finding is largely attributed to participation in the mission itself and providing care at the medical sites

## Recommendations

Program evaluation data supported hypotheses 1, 2 & 4. Hypothesis 3 was not supported. Additionally, not all findings could be directly attributed to the education and training intervention. As a result of this evaluation, the following recommendations are proposed:

1. Targeted education and training in HADR has clear benefit in enhancing participant knowledge, skills and expertise
2. Education requires ongoing reinforcement and practical exercise
3. Reinforcement activities and practical exercises should be developed and supported by leadership in the initial phases of mission planning
4. Specific core knowledge needs were identified in CP 11: understanding the host nation health care system; working with interpreters; conducting subject matter exchange (SMEE)
5. More effective methods for enhancing medical staff knowledge about host nation health systems and beliefs are required
6. Stewardship from mentors experienced in HADR should be a component of planning

**Further evaluation and research is recommended to evaluate alternative methods for achieving core competencies in disaster preparedness & response and to translate these activities to domestic disaster response.**

## References

1. Homeland Security Presidential Directive/ HSPD-21. Public health and medical preparedness. (October 18, 2007).
2. Cook, T. & Campbell, D.T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Boston: Houghton Mifflin Co.
3. Kirkpatrick, D.L. (2006) Evaluating training programs: The four levels (3<sup>rd</sup> ed.). San Francisco: Berrett-Koehler.

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