



UNDER SECRETARY OF DEFENSE

4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

The Honorable Carl Levin
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

DEC 27 2011

Dear Mr. Chairman:

The enclosed report responds to House Report 111-491, page 317, accompanying H.R. 5136, the National Defense Authorization Act for Fiscal Year 2011, requesting the Secretary of Defense evaluate all chemical and biological medical training programs within the Department of Defense (DoD) using a comprehensive set of metrics to determine the efficacy of current training models. This action falls under my purview as the Acting Under Secretary of Defense for Personnel and Readiness, and I am responding on the Secretary's behalf.

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Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

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Jo Ann Rooney
Acting

Enclosure:
As stated

cc:
The Honorable John McCain
Ranking Member



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The Honorable Jim Webb
Chairman
Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510

DEC 7 2011

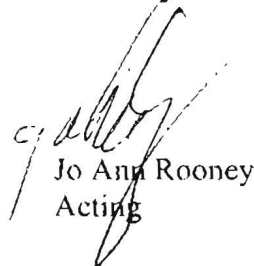
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The Honorable Lindsey Graham
Ranking Member



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The Honorable Howard P. "Buck" McKeon
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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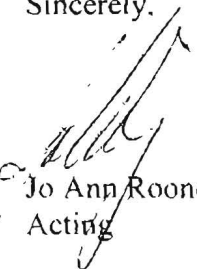
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The Honorable Adam Smith
Ranking Member



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PERSONNEL AND
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The Honorable Joe Wilson
Chairman
Subcommittee on Military Personnel
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

DFC 7-2311


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The Honorable Susan A. Davis
Ranking Member



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The Honorable Daniel K. Inouye
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

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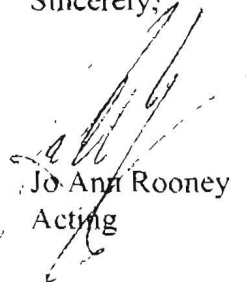
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The Honorable Thad Cochran
Vice Chairman



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The Honorable Harold Rogers
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

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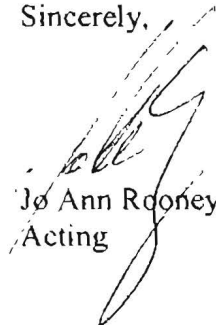
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The Honorable C.W. Bill Young
Chairman
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

DEC 11 2010

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Department of Defense



Report to Congress in Response to House Report 111-491, Page 317, to Accompany H.R. 5136, the National Defense Authorization Act for Fiscal Year 2011, "Training for Chemical-Biological Casualties"

Preparation of this study/report cost the
Department of Defense a total of
approximately \$15,000
in Fiscal Years 2011-2012.

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INTRODUCTION

Congressional Reporting Request - House Report 111-491, page 317, which accompanied H.R. 5136, the National Defense Authorization Act (NDAA) for Fiscal Year 2011, "Medical Training for Chemical-Biological Casualties," requested the Secretary of Defense evaluate all chemical and biological (CB) casualty medical training programs within the Department of Defense (DoD) using a comprehensive set of metrics. It also requested the Secretary of Defense submit a report on this evaluation to the congressional defense committees not later than one year after the date of the enactment of the 2011 NDAA.

The U.S. military medical establishment is preeminent in CB research, response, and training. Military medical personnel are able to respond to specific CB exposures and provide expert consultation to civilian counterparts in the event of a terrorist attack. The value of CB training for medical personnel is paramount in ensuring the most appropriate prevention and life-saving strategies are employed. The DoD medical CB training is a small component of the larger DoD overall military training, preparation, and sustainment initiatives actualized within the military Services for chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE). The CB training is available to all DoD medical Service members and DoD civilians.

This report provides an evaluation of the CB medical training models utilizing a comprehensive set of metrics. The training models are: distance learning, in-resident, DVD training, simulations, and field exercises. Evaluation metrics used within the CB courses to evaluate the models include pre- and post-tests, collection of participant demographic information, and subjective student comments. For this report, the overall training model efficacy was assessed using an evaluation paradigm within four levels: reaction, learning, behavior, and results. Reaction refers to determining how well participants liked a training program. Learning as assessed by pre- and post-testing measures participants' learning of facts, principles, skills, attitudes, and techniques. Behavior refers to the transfer of learning through changes in a participant's job performance attributed to the training. Results refer to the impact of the training on the participant's organization (i.e., return on investment). Reaction, learning, and behavior can be evaluated easily using objective and subjective data, while results are less tangible due to the dearth of real-world CB activity.

DOD POLICIES GOVERNING CB MEDICAL TRAINING

The policies and regulations that govern the mandate for CB medical training include:

- DoD Instruction 1322.24, "Medical Readiness Training," October 2011
- DoD Directive 1322.18, "Military Training," January 13, 2009
- DoD Instruction 3216.01, "Use of Animals in DoD Programs," September 13, 2010
- DoD Directive 5136.01, "Assistant Secretary of Defense for Health Affairs (ASD(HA))," June 4, 2008
- U.S. Army Training and Doctrine Command (TRADOC) Reg 350-70, "Systems Approach to Training Management, Processes and Products"
- U.S. Army Training and Doctrine Command (TRADOC) Pam 350-70-8, "Total Army School System (TASS) Training Requirements Analysis System (TRAS)"
- Approval of Programs of Instruction (POI), U.S. Army Medical Department Center and School (AMEDDC&S), Memorandum No. 350-20, January 4, 2010
- Student Evaluation Plan, AMEDDC&S, Memorandum No. 350-33, March 16, 2009
- Critical Task Selection Board (CTSB)/Critical Task Selection Survey (CTSS) Procedures, AMEDDC&S Memorandum No. 350-14, April 1, 2004
- Curriculum Committee Meetings (CCM), AMEDDC&S Memo No. 350-32, July 1, 2010
- Enrollment, Relief, New Start/Recycle, Administrative Disposition, and Counseling of Student Personnel, AMEDDC&S and Fort Sam Houston Regulation No. 351-12, February 3, 2003

DOD CB MEDICAL TRAINING SITES

Defense Medical Readiness Training Institute (DMRTI)

DMRTI executes its mission under the direction and guidance of the Deputy Assistant Secretary of Defense for Force Health Protection and Readiness (DASD(FHP&R)) and the Force Health Protection Integrating Council (FHPIC). DMRTI, located on Fort Sam Houston, Texas, is a multi-Service training institute providing training on trauma care, burn care, disaster preparedness, and humanitarian assistance to thousands of military and DoD civilian medical personnel. DMRTI facilitates joint training activities by evaluating medical readiness training, coordinating, and facilitating development of medical readiness competencies, training initiatives, and exercises.

The DMRTI is designated by the Assistant Secretary of Defense for Health Affairs (ASD(HA)) as the lead agent for medical CBRNE training. Only 25% of the DMRTI courses are CBRNE-specific courses. In 2002, the Joint Staff and the DASD(FHP&R) tasked DMRTI to develop CB medical training requirements and to assess the

effectiveness of the training with rigorous proficiency metrics and standards. The resulting CBRNE Training Program established standards of competency based on the needs of the Services (Army, Air Force, Navy, and Marines). Since 2004, DMRTI has provided the initial baseline CB required training to thousands of DoD medical Service members, civilians, and contractors using the Emergency Medical Preparedness Response Course (EPRC). Upon completion of the initial CBRNE training, these individuals have the knowledge and training to enable them to perform critical tasks needed to meet real-world requirements. This EPRC training consists of standards of proficiency that are necessary to support standardized medical CB readiness training to all DoD medical Service members, civilians, and contractors.

United States Army Medical Research Institute of Chemical Defense (USAMRICD)

The USAMRICD, an organization of the U.S. Army Medical Research and Materiel Command (MRMC), is the nation's leading science and technology laboratory in the area of medical chemical countermeasures research and development. With sophisticated laboratories located at Aberdeen Proving Ground, MD (Edgewood), USAMRICD manages a diversified portfolio of medical chemical warfare agent research projects for the DoD and other Federal agencies.

Education and training is provided at USAMRICD through the Chemical Casualty Care Division (CCCD). Under sponsorship of the U.S. Army Medical Department Center and School (AMEDDC&S), Office of the Assistant Secretary of Defense for Health Affairs (OASD(HA)), and the Army Office of The Surgeon General, CCCD staff develops, organize, and implements post-graduate education programs for medical professionals, hospital administrators, medical planners, and first responders in the management of chemical agent casualties. The CCCD provides consultant services to various DoD, federal, and civilian authorities on chemical training and chemical warfare.

United States Army Medical Research Institute of Infectious Diseases (USAMRIID)

The USAMRIID, located at Fort Detrick, MD, is also an organization of the MRMC, and is the lead medical research laboratory for the U.S. Biological Defense Research Program. Since its inception in 1969, USAMRIID has spearheaded research to develop medical solutions – vaccines, drugs, diagnostics, and information – to protect our military Service members from biological and infectious disease threats. Many of the scientists are involved in the biological medical training, providing unparalleled scientific, historical, institutional, and technological knowledge.

Education and training is provided at USAMRIID through the Operational Medicine Division (OPMED). AMEDDC&S and OASD(HA) provide sponsorship and guidance for USAMRIID's CB medical training.

CB MEDICAL TRAINING COURSES

DMRTI Course

The DMRTI provides the EPRC, which is offered in six audience-specific platforms within the following levels: basic awareness, operator/responder, clinicians, and executive/commander's. The six course models include both distance learning and in-residence training modalities. The Services directed all of their healthcare personnel to complete the EPRC, a Web-based distance-learning product at the basic level. DMRTI provides the basic initial CB training awareness to healthcare Service members, completed during their first year of service. In addition, DMRTI provides the CB sustainment training required for all Military Health System (MHS) employees every three years. The DMRTI CB EPRC includes:

1. Clinician Long Course: Prepares military clinicians to effectively manage casualties during an all-hazards event (13-hour course).
2. Clinician Short Course: A refresher/sustainment course (8-hour course).
3. Operator Long Course: Designed for personnel providing security support and non-direct patient care (13-hour course).
4. Operator Short Course: Designed for personnel providing security support and non-direct patient care (8-hour course).
5. Basic Awareness Course – Provides an overview of CBRNE. Designed for DoD non-medical/non-security civilians (2-hour course).
6. Executive Commander Course: Provides an overview of the National Response Framework, and is a training requirement for military executives and commanders in the MHS (6-hour course).

USAMRICD and USAMRIID Courses

The USAMRICD and the USAMRIID jointly develop, organize, and conduct three postgraduate professional in-residence training courses on the medical management of CB casualties. The USAMRICD and the USAMRIID train medical professionals, hospital administrators, medical planners, and first responders in the management of CB agent casualties. This training has evolved over several decades and has been influenced by the use of chemical and biological agents in previous wars and other national and international terrorist events.

1. ***Medical Management of Chemical and Biological Casualties Course (MCBC).***
This course is an advanced level of CB training for healthcare professionals. The course is a mixture of classroom instruction, hands-on laboratory and field exercises, preparing students to effectively manage casualties of chemical and biological agent exposures. The valuable hands-on laboratory and field environment experience includes incorporation of simulation platforms, enhancing students' total training experience. This 6-day training is offered eight times per year. The chemical component is instructed at Aberdeen Proving Ground, MD, while the biological component is provided at Fort Detrick, MD. Evaluations occur at each site location.

2. ***Field Management of Chemical and Biological Casualties (FCBC)***. This course is pre-hospital training for medics, early responders, chemical personnel, and healthcare personnel. This 5-day course is considered one of the best hands-on CB training courses in the world, providing students with resources and extensive knowledge to recognize and begin early treatment of CB casualties. Student learning is enhanced in this course with the use of the simulation center, using the newest and most advanced simulators. This course is provided at Aberdeen Proving Ground, MD.

3. ***Hospital Management – Chemical, Biological, Radiological, Nuclear, and Explosives Course (HM-CBRNE)***. This 5-day course is a course for emergency planners, hospital administrators, clinicians and emergency responders. HM-CBRNE offers healthcare professionals state-of-the-art instruction that may save lives in major weapons of mass destruction (WMD) incidents. Designed for civilian and military healthcare managers and clinicians, the course is presented by some of the nation's leading authorities in biological, chemical, explosive and radiation incident management. This course was developed with hospital level objectives – clinical and non-clinical. The HM-CBRNE course is intended to help mitigate the existing gaps in support of hospital operations during major WMD events. The HM-CBRNE is offered once or twice per year and provided at Aberdeen Proving Ground, MD.

In addition to the in-residence chemical and biological training, both USAMRICD and USAMRIID offer specific distance learning opportunities (e.g., DVD training resources/courses, innumerable hard and softcopy educational products, and award-winning satellite broadcasts), designed to enhance the overall and continuous learning experiences of students. Both Institutes provide students online supplemental CB training and live satellite webinars on specific CB threats. A two-day condensed MCBC course is also offered on-location at select military sites.

CB Models

DoD has a robust and world renowned CB medical training program. The CB medical training models consist of in-resident, distance learning, DVD, simulations, and field exercises, providing both a self-contained yet synergistic learning experience. The in-residence training is offered for the MCBC, FCBC, HM-CBRNE, and three DMRTI courses (executive commander's, basic course, and clinician course). The USAMRIID provides distance learning biological training on topic-specific content. Additionally, DMRTI offers all six of the audience-specific EPRC trainings in a distance learning format, which provides greater student access. Individual topic-specific CB content is offered by USAMRICD and USAMRIID in DVD format as supplemental information. The simulation model is predominately utilized within the chemical medical training, with limited employment within the biological training components. CB simulation employed within the USAMRICD courses includes manikin, computer, and live animal models.

CB medical training is provided using multimodal learning platforms, whereby various teaching tools (e.g., lecture, illustrations, demonstration, simulation, group work, reading, etc.) are employed within the models to provide optimal learning experiences. Interactive multimodal learning is incorporated into the USAMRICD courses, while primarily non-interactive multimodal training permeates the USAMRIID and DMRTI courses. Simulation provides the learner opportunities to expand their critical thinking and decision making, using advanced technologies of patient simulators, scenario generators, and/or gaming technologies. The field exercises provide real-world training opportunities during onsite training. Given that field exercises are limited to onsite training, simulation offers an extension to this needed training within the distance learning model.

A CCCD 2006 study was conducted using MCBC and FCBC student evaluation (n=303) data to measure the value of live animal lab experience combined with other platforms (i.e., lecture, video), and assess student perceptions of the learning value derived from the live animal lab. Objective test results reflected a higher level of competency by students who participated in the lecture, video, and live animal lab (75.4%) versus those who only participated in the lecture and video (68.6%). Anecdotal information from these evaluations indicate improved student understanding and learning accomplished using a hierarchy of interactive training models – each model providing an additive knowledge experience. For example, lecture and video along with hands-on experiences provide better learning outcomes than lecture alone. Together, CB medical training models provide valuable basic and advanced training opportunities for participants.

CB Metrics

Training evaluation metrics for CB medical training courses consists of a multi-faceted approach consisting of pre- and post-tests, collection of participant demographic information, assessment of content specific understanding, and written subjective student comments. Pre-testing is provided to students to assess their CB knowledge before participating in the CB training. Post-tests are provided at the completion of CB training to determine students' overall retention and understanding of the course material. Participant demographic information provides a representative makeup of class attendance, which the Services use in CB marketing and determining if training is provided to the right audience. Audience right-sizing is of particular concern with the USAMRICD and USAMRIID courses, because neither is requirement-driven. Evaluations are used within each of the courses to assess, update, and improve course content, delivery mechanism, and instructional strategies.

Appendix A provides samples of the CB medical training course evaluations. Student attendance from the 2010 and 2011 MCBC and FCBC classes indicates broad representation from the Services and DoD civilians. Student surveys from the post-graduate CB courses indicate that over 70% of the students agreed that the teaching methods were effective for the content, the course met the identified need for the training, and the information presented would better prepare them to perform their professional

duties. Additionally, MCBC and FCBC post-test scores showed an average of a 20-30 point increase in CB knowledge over pre-test scores. More than 95% of DMRTI Clinician Course students believed that the course met their expectations, training aides were used appropriately, and they would be better prepared in making proper decisions regarding use of CB personal protection because of the course. Student evaluations of the training models indicate that the DoD CB medical training programs are efficacious.

EVALUATION

An assessment of the CB training models used a comprehensive paradigm with four levels – reaction, learning, behavior, and results. Reaction refers to how well participants enjoyed the training. Learning involves how well students acquire course facts and techniques. Behavior refers to the transfer of learning through changes in a participant's job performance attributed to the training. Results measure the impact of the training on the participant's organization.

- *Reaction* – student survey and subjective data from the CB courses indicate that the majority of students enjoyed the training. Reaction was adequately assessed within all training models, which provides insight into future course efficiency and reliability.
- *Learning* – student objective test results and comments indicate that that CB training models are effective. Student CB knowledge increased because of the training. Both reaction and learning evaluation measures provide information on course validity, as well as provide insight into course improvement.
- *Behavior* – student evaluations indicate that students are better prepared to provide CB personal protection as well as save the lives of others through proper identification and response to CB agents. For example, because of the CB medical training, students have greater familiarity with donning their chemical gas mask, CB decontamination and casualty treatment. Assessment of behavior shows the direct impact of CB training on DoD preparedness and readiness organizational objectives.
- *Results* – student results could not be assessed due to limited exposure of DoD assets to real-world CB activity. See Appendix A for specific course evaluation data.

The preponderance of the CB training data indicates that the training metrics are effective and provide measurable efficacy outcomes – student reaction, learning, and results. For example, students attending the post-graduate CB training courses (e.g., MCBC, HM-CBRNE) overwhelmingly showed an improvement in post-test scores over pre-test scores, which is a clear indication of their learning of the course content. Analyses of evaluations in the DoD CB medical training courses show that students not only learn the course material, but they like attending the training. Students attending the CB medical training are much better prepared to identify, treat, and stabilize CB

casualties than if they did not attend the training. Additionally, with the knowledge gained from the CB medical training courses, attendees are likely better prepared to protect themselves and others, and better able to sustain the warfighter. CB medical training attendees meet EPRC training requirements, while fulfilling the mandate of a ready and prepared force. Although limited information is available to quantify attendee behaviors at the organizational level, student evaluations indicate a greater propensity for behavior change commensurate with proper CB life-saving activities. Despite this lack of quantifiable organizational behavior and results data, the CB medical training evaluation metrics utilized are valuable in assessing the training model's effectiveness.

CONCLUSIONS

Broad spectrum metrics are used within the CB medical training models to thoroughly evaluate the training. The training evaluations are an important part of course improvement. The CB medical training is sponsored in collaboration with the AMEDDC&S, which provides academic oversight and structure for the courses. This oversight ensures that each course meets rigorous academic standards and evaluation. Both ASD(HA) and DASD(FHP&R) provide DoD CB medical training oversight and sponsorship.

Simulation offers opportunities for additional in-depth training within each of the CB medical training platforms. Greater use of effective simulation within all of the CB medical training courses may offer increased student participation and interest, retention of knowledge, understanding of CB content, and change in behaviors. Chemical and biological agents are and will continue to be a significant threat to homeland and in-theater security, as well as warfighter preparation and readiness. DoD employs multimodal learning to provide CB medical training. Evaluation of the training models using a comprehensive set of metrics and paradigms indicate that DoD CB medical training models are efficacious. Using data from student evaluation metrics, a comprehensive assessment of the CB training models was conducted using an evaluation paradigm comprised of four levels - reaction, learning, behavior, and results. Results of this DoD CB medical training evaluation indicate that the models can clearly assess efficacy within the reaction, learning, and individual behavior paradigm levels. The CB medical training models are effective in meeting the DoD CB medical training needs.

APPENDIX A: Sample Evaluation Data from the CB Medical Training Courses:

Participant Numbers

| MCBC/FCBC/HM-CBRNE: Resident Courses | | | | | | | | | |
|--------------------------------------|----------|----------|------------|-----------|-----------|----------|------------|----------|------------|
| | | | | | | | Civ/ | | |
| Course Type | Start | End | USA | USAF | USN | PHS | Other | FN | Total |
| HM-CBRNE | 8/1/11 | 8/5/11 | 48 | 2 | 4 | 5 | 31 | 0 | 90 |
| FCBC | 6/6/11 | 6/10/11 | 71 | 8 | 3 | 0 | 9 | 0 | 89 |
| MCBC | 5/1/11 | 5/6/11 | 85 | 6 | 6 | 0 | 11 | 1 | 109 |
| FCBC | 4/11/11 | 4/15/11 | 49 | 3 | 5 | 0 | 6 | 0 | 63 |
| MCBC | 3/20/11 | 3/25/11 | 70 | 4 | 5 | 1 | 10 | 3 | 93 |
| FCBC | 2/28/11 | 3/4/11 | 78 | 3 | 6 | 0 | 14 | 0 | 101 |
| HM-CBRNE | 1/31/11 | 2/4/11 | 58 | 11 | 1 | 0 | 27 | 0 | 98 |
| FCBC | 11/15/10 | 11/19/10 | 67 | 5 | 8 | 0 | 6 | 0 | 86 |
| MCBC | 10/17/10 | 10/22/10 | 49 | 0 | 6 | 1 | 9 | 4 | 69 |
| Total | | | 576 | 40 | 44 | 7 | 123 | 8 | 798 |

FCBC and HM-CBRNE Evaluation

FCBC

| | No Rating | Poor | Fair | Good | Excellent |
|---|-----------|------|------|------|-----------|
| 1. Content was relevant to the objectives. | 2% | 0% | 8% | 12% | 78% |
| 2. Teaching methods were effective for the content. | 2% | 0% | 8% | 12% | 78% |
| 3. The course met the identified need for the training. | 2% | 0% | 8% | 12% | 78% |
| 4. The objectives clearly related to the purpose/goals of the activity. | 2% | 0% | 8% | 12% | 78% |
| 5. The presentations were fair, balanced, and free of commercial bias (i.e., multiple examples were used, when commercially available). | 2% | 0% | 8% | 12% | 78% |
| 6. The information presented during the activities will better prepare me to perform my professional duties. | 2% | 0% | 8% | 12% | 78% |

HM-CBRNE

| | No Rating | Poor | Fair | Good | Excellent |
|---|-----------|------|------|------|-----------|
| 1. Content was relevant to the objectives. | 4% | 0% | 11% | 12% | 73% |
| 2. Teaching methods were effective for the content. | 4% | 0% | 11% | 12% | 73% |
| 3. The course met the identified need for the training. | 4% | 0% | 11% | 12% | 73% |
| 4. The objectives clearly related to the purpose/goals of the activity. | 4% | 0% | 11% | 12% | 73% |
| 5. The presentations were fair, balanced, and free of commercial bias (i.e., multiple examples were used, when commercially available). | 4% | 0% | 11% | 12% | 73% |
| 6. The information presented during the activities will better prepare me to perform my professional duties. | 4% | 0% | 11% | 12% | 73% |

MCBC Evaluations from the Biological Component of the Course:

FY 11 Data: MCBC Pre/Post-test Scores

| N = 69 students | FY11 Q1 | |
|-----------------|-------------|-----------|
| | Average (%) | Range (%) |
| Pre-test | 49 | 0-70 |
| Post-test | 77 | 40-97 |

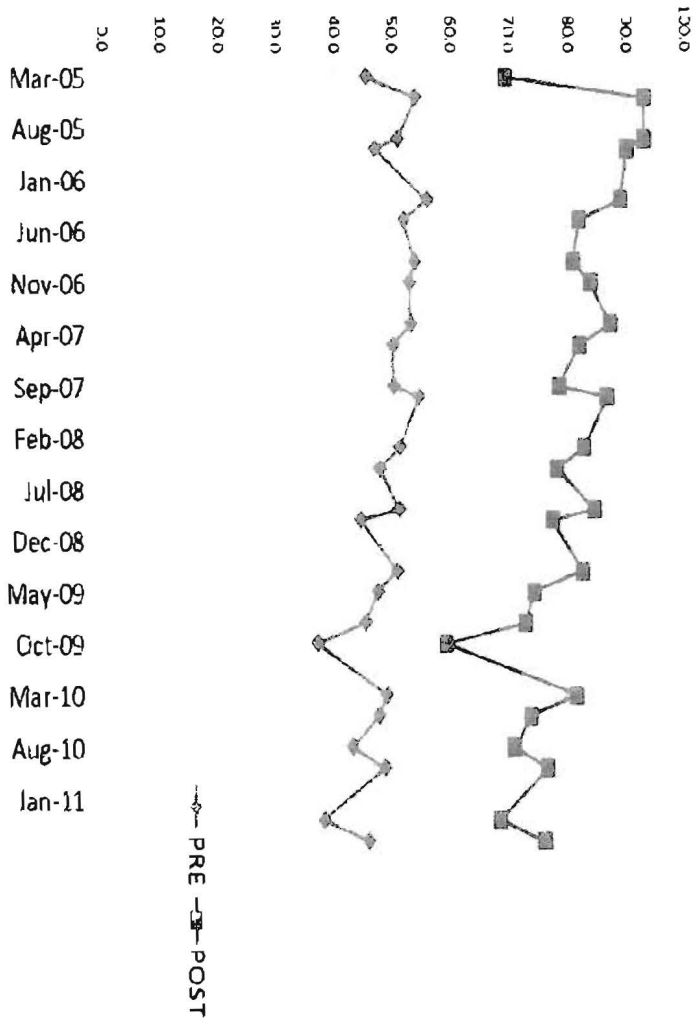
| N = 93 students | FY11 Q2 | |
|-----------------|-------------|-----------|
| | Average (%) | Range (%) |
| Pre-test | 51 | 0-80 |
| Post-test | 75 | 0-97 |

| N = 109 students | FY11 Q3 | |
|------------------|-------------|-----------|
| | Average (%) | Range (%) |
| Pre-test | 46 | 0-77 |
| Post-test | 76 | 37-100 |

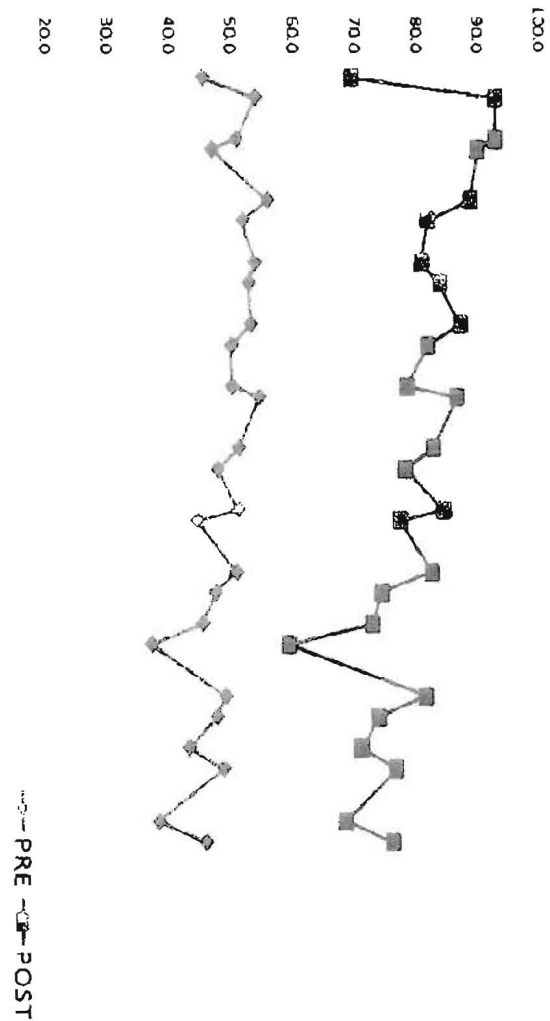
Sample Evaluation from DMRTI Clinician Course:

| Overall Activity Objectives | # Responses | % Met |
|---|-------------|-------|
| As a result of participating, attendees will have increased confidence in their ability to fulfill their work responsibilities in the event of a CBRNE incident. | 774 | 95% |
| As a result of participating, attendees will be more proficient in evaluating conditions and making proper decision regarding the use of personal protection so that loss of life is minimized during a CBRNE incident. | 740 | 96% |
| Expectations | | |
| | # Responses | % Met |
| 1. Addressing my most pressing questions | 705 | 94% |
| 2. Including opportunities to learn interactively | 744 | 86% |
| 3. Providing me with supporting materials or tools | 756 | 97% |
| 4. Allow me to assess what I have learned | 712 | 96% |
| Course Critique | | |
| | # Responses | % Met |
| 1. The activity provided disclosure of significant financial relationships between faculty and commercial entities. | 590 | 82% |
| 2. The activity was free of bias, such as the represented commercial promotion of a particular product. | 719 | 98% |
| 3. This course was well organized and training flowed smoothly. | 747 | 98% |
| 4. In-processing procedures were conducted smoothly and efficiently. | 738 | 98% |
| 5. Course/presentation objectives, goals, and/or purpose were clearly stated and /or outlined. | 773 | 97% |
| 6. The course length was sufficient for the material covered. | 759 | 94% |
| 7. Training aides such as video, slide presentation, etc. were used appropriately the subject matter. | 754 | 98% |
| 8. I would recommend this course to my peers. | 747 | 91% |
| 9. This course met my expectations. | 747 | 95% |

FCBC Test Scores



MCBC Test Scores



APPENDIX B: ACRONYMS

| | |
|------------|--|
| AHS | Academy of Health Sciences |
| AMEDDC&S | Army Medical Department Center and School |
| ASD(HA) | Assistant Secretary of Defense for Health Affairs |
| CB | Chemical and Biological |
| CBRN | Chemical, Biological, Radiological, and Nuclear |
| CCCD | Chemical Casualty Care Division |
| CTSB | Critical Task Selection Board |
| CTSS | Critical Task Selection Survey |
| DASD/FHP&R | Deputy Assistant Secretary of Defense for Force Health Protection and Readiness |
| DMRTI | Defense Medical Readiness Training Institute |
| DoD | Department of Defense |
| EPRC | Emergency Preparedness and Response Course |
| FCBC | Field Management of Chemical and Biological Casualties Course |
| FHPC | Force Health Protection Council |
| FN | Foreign National |
| HM-CBRNE | Hospital Management of Chemical, Biological, Radiological/ Nuclear, and Explosive Incidents Course |
| ITRO | Interservice Training Review Organization |
| MCBC | Management of Chemical and Biological Casualties Course |
| MRMC | U. S. Army Medical Research and Materiel Command |
| NDAA | National Defense Authorization Act |
| OPMED | Operational Medicine Division |
| OSDHA | Office of the Secretary of Defense for Health Affairs |
| POI | Programs of Instruction |
| PHS | Public Health Service |
| SEP | Student Evaluation Plan |
| TRADOC | Training and Doctrine Command |
| USA | United States Army |
| USAF | United States Air Force |
| USAMRIID | United States Army Medical Research Institute of Infectious Disease |
| USAMRICD | United States Army Medical Research Institute of Chemical Defense |
| USN | United States Navy |
| WMD | Weapons of Mass Destruction |