

UNITED STATES DEPARTMENT OF DEFENSE

DEFENSE HEALTH BOARD

CORE BOARD MEETING

Herndon, Virginia

Tuesday, March 8, 2011

1 PARTICIPANTS:

2 Core Board Members:

3 MAJOR GENERAL (Ret.) GEORGE K. ANDERSON, M.D.

4 CHRISTINE E. BADER, Director

5 M. ROSS BULLOCK, M.D., Ph.D.

6 RICHARD H. CARMONA, M.D.

7 JOHN DAVID CLEMENTS, Ph.D.

8 GUY L. CLIFTON, M.D.

9 NANCY W. DICKEY, M.D.

10 FRANCIS A. ENNIS, M.D.

11 ROBERT FRANK, Ph.D.

12 JOHN V. GANDY, III, M.D.

13 DAVID ALLEN HOVDA, Ph.D.

14 DONALD JENKINS, M.D.

15 JAY A. JOHANNIGMAN, M.D.

16 EDWARD L. KAPLAN, M.D.

17 WAYNE M. LEDNAR, M.D.

18 RUSSELL V. LUEPKER, M.D.

19 THOMAS J. MASON, Ph.D.

20 GENERAL (Ret.) RICHARD MYERS

21 DENNIS S. O'LEARY

22 MICHAEL N. OXMAN, M.D.

1 PARTICIPANTS (CONT'D):

2 JOSEPH E. PARISI, M.D.

3 MICHAEL D. PARKINSON, M.D.

4 GREGORY A. POLAND, M.D.

5 CHARLES RICE

6 ADIL E. SHAMOO, Ph.D.

7 JOSEPH SILVA, JR., M.D.

8 Designated Federal Officer:

9 ALLEN MIDDLETON

10 Ex-Officio Members:

11 REAR ADMIRAL ALI S. KHAN, M.D.

12 RICK ERDTMANN, M.D.

13 Service Liaison Officers:

14 GROUP CAPTAIN ALAN COWAN

15 LIEUTENANT COLONEL NANCY K. FAGAN

16 LIEUTENANT COLONEL MELETIOS J. FOTINOS

17 LIEUTENANT COLONEL PHILIP GOULD

18 COLONEL WAYNE HACHEY

19 COLONEL MICHAEL KRUKAR

20 CAPTAIN ROGER LEE

21 COLONEL ROBERT L. MOTT

22 CAPTAIN NEAL NAITO

1 PARTICIPANTS (CONT'D):

2 COMMANDER WILLIAM PADGETT

3 COMMANDER ERICA SCHWARTZ

4 COMMANDER CATHERINE SLAUNWHITE

5 Board Staff:

6 MARIANNE COATES

7 OLIVERA JOVANOVIC

8 JEN KLEVENOW

9 ELIZABETH MARTIN

10 HILLARY PEABODY

11 Additional Invitees:

12 COLONEL VIRGIL T. DEAL

13 CHARLES FOGELMAN

14 CAPTAIN PAUL HAMMER

15 JOHN HOLCOMB

16 HOWARD JAFFE

17 KENNETH KIZER

18 COLONEL JOANNE McPHERSON

19 MAJOR GENERAL DOUGLAS ROBB

20 JONATHAN WOODSON

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## 1 P R O C E E D I N G S

2 (9:00 a.m.)

3 DR. DICKEY: Welcome, everyone, to this  
4 meeting of the Defense Health Board. And I want  
5 to extend a special welcome to our new Board  
6 members. We have several important topics for our  
7 agenda today, so we're going to get started. Mr.  
8 Middleton, would you please call the meeting to  
9 order?

10 MR. MIDDLETON: Thank you, Dr. Dickey.  
11 As a designated federal official for the Defense  
12 Health Board, the Federal Advisory Committee, and  
13 a continuing independent scientific advisory to  
14 the Secretary of Defense via the assistant  
15 secretary of defense for health affairs and the  
16 surgeons general of the military departments, I  
17 hereby call this meeting of the Defense Health  
18 Board to order.

19 DR. DICKEY: Thank you, Mr. Middleton.  
20 And now carrying on the tradition of the Board,  
21 I'd like us to stand for one minute of silence to  
22 honor those that we're here to serve.

1 (Moment of silence.)

2 DR. DICKEY: Thank you. Since this is  
3 an open session, before we begin I'd like to go  
4 around the table and have the Board and  
5 distinguished guests introduce themselves and  
6 would request that the new Board members tell us  
7 just a little bit about yourselves to put your  
8 representation in perspective, I guess. I'm Nancy  
9 Dickey, I'm presiding over this meeting, and I am  
10 the President of the Texas A&M Health Science  
11 Center.

12 MR. MIDDLETON: I'm Allen Middleton, the  
13 deputy assistant secretary for health budgets and  
14 financial policy and the designated federal  
15 official for the Defense Health Board.

16 MR. HACHEY: Wayne Hachey, executive  
17 secretary, Defense Health Board.

18 DR. GANDY: I'm John Gandy. I'm an  
19 emergency medicine physician, retired Air Force,  
20 and a member of the Committee on Tactical Combat  
21 Casualty Care.

22 MR. RICE: I'm Charles Rice, the

1 president of the uniform services, University of  
2 the Health Sciences in Bethesda.

3 DR. ANDERSON: George Anderson, retired  
4 Air Force medical officer, executive director of  
5 AMSUS, which is the Society of the Federal Health  
6 Agencies.

7 DR. BULLOCK: Ross Bullock, director of  
8 Neurotrauma Care of the University of Miami, and  
9 president of the U.S. National Neurotrauma  
10 Society.

11 DR. DELANY: I'm Pete Delany. I'm the  
12 director for the Center for Behavioral Health  
13 Statistics and Quality at the Substance Abuse and  
14 Mental Health Services Administration.

15 DR. HOVDA: I'm Dave Hovda. I'm a  
16 professor of neurosurgery and of molecular and  
17 medical pharmacology, and the director of the UCLA  
18 Brain Injury Research Center, and the president of  
19 the International Neurotrauma Society.

20 DR. JENKINS: Don Jenkins, retired Air  
21 Force trauma director, St. Mary's Hospital,  
22 Rochester, Minnesota, and I'm with the Trauma and

1 Injury Subcommittee.

2 DR. TRAVIS: Tom Travis, deputy surgeon  
3 general, United States Air Force.

4 DR. OXMAN: Mike Oxman, professor of  
5 medicine and pathology at the University of  
6 California San Diego, a retiring Board member and  
7 a member of the Infectious Diseases Subcommittee.

8 DR. PARKINSON: Mike Parkinson, I'm a  
9 friend of Mike Oxman's. I am former Air Force  
10 preventative medicine physician, was one of the  
11 founders of Luminosic Consumer Directed Health  
12 Plan acquired by WellPoint, president of the  
13 American College of Preventative Medicine, and now  
14 working with health care organizations on  
15 innovation.

16 DR. SHAMOO: Adil Shamoo, professor,  
17 University of Maryland School of Medicine and  
18 Medical Ethics Subcommittee.

19 DR. SILVA: Joe Silva, professor of  
20 internal medicine, University of California Davis,  
21 and dean emeritus, and outgoing Board member, and  
22 a member of the Infectious Disease Subcommittee.



1                   MR. KAPLAN: Ed Kaplan, professor of  
2                   pediatrics, University of Minnesota Medical School  
3                   in Minneapolis, an outgoing Board member.

4                   DR. BUTLER: Hi, Frank Butler, retired  
5                   Navy and Technical Combat Casualty Care Committee.

6                   MR. DEAL: Tom Deal, command surgeon for  
7                   U.S. Special Operations Command.

8                   DR. KRUKAR: Good morning, Michael  
9                   Krukar, director of the Military Vaccine Agency.

10                  DR. MOTT: Bob Mott, preventative  
11                  medicine staff officer at Army Surgeon General's  
12                  Office and the Army Liaison to the Board.

13                  DR. PADGETT: Commander Bill Padgett,  
14                  Headquarters, Marine Corps Health Services.

15                  DR. JAFFE: I'm Harold Jaffee. I'm a  
16                  liaison member, I'm the associate director for  
17                  science at the Centers for Disease Control and  
18                  Prevention in Atlanta.

19                  DR. SLAUNWHITE: Good morning, I'm  
20                  Commander Cathy Slaunwhite, I'm a Canadian Forces  
21                  general practitioner in a liaison role at the  
22                  embassy in Washington, D.C.

1 DR. COWAN: Alan Cowan, I'm the British  
2 medical liaison officer with Department of  
3 Defense.

4 DR. SCHWARTS: Hi, I'm Erica Schwartz,  
5 the Coast Guard preventative medicine liaison.

6 DR. HOLCOMB: John Holcomb, professor of  
7 surgery at UT Houston and a member of the Tactical  
8 Combat Casualty Care Committee.

9 DR. FOGELMAN: Good morning, I'm Charlie  
10 Fogelman. I'm chair of the Psychological Health  
11 Subcommittee, and I operate as an independent  
12 consultant and clinical organization development,  
13 leadership development and related activities.

14 DR. CLEMENTS: I'm John Clements. I'm  
15 the chair of microbiology and immunology at Tulane  
16 University School of Medicine, and director of the  
17 Tulane University Center for Infectious Diseases,  
18 and an outgoing Board member.

19 DR. ENNIS: Good morning, I'm Frank  
20 Ennis. I'm a professor of medicine, molecular  
21 genetics, and director of the Infectious Disease  
22 and Vaccine Research Center at the University of

1 Massachusetts Medical Center; I'm an outgoing  
2 Board member.

3 DR. LUEPKER: I'm Russell Luepker and I  
4 am professor of epidemiology and medicine at the  
5 University of Minnesota, and I am an outgoing  
6 Board member.

7 DR. LEDNAR: Wayne Lednar, global chief  
8 medical officer of Dupont, and former co-vice  
9 president of the Defense Health Board.

10 DR. POLAND: Greg Poland, professor of  
11 medicine, director of the Vaccine Research Group  
12 at the Mayo Clinic in Rochester, Minnesota, and  
13 retiring co-vice president.

14 GENERAL ROBB: Doug Robb, Joint Staff  
15 surgeon at the Pentagon.

16 DR. CARMONA: Rich Carmona, a new Board  
17 member, former SFAT Delta, trauma surgeon, and  
18 previously a TCCC member, and United States  
19 Surgeon General.

20 DR. CLIFTON: Guy Clifton, professor of  
21 surgery, Uniform Services University, and civilian  
22 advisor to Tricare Management Activity.

1 DR. O'LEARY: Dennis O'Leary, president  
2 emeritus of the Joint Commission and continuing  
3 Board member.

4 DR. JOHANNIGMAN: Jay Johannigman,  
5 trauma surgery from Cincinnati, Ohio.

6 DR. FRANK: Good morning, my name is Bob  
7 Frank, I'm a new member of the Board and very  
8 pleased to be here. I'm the provost and senior  
9 vice president for Academic Affairs at Kent State  
10 University. Previously I was the dean of public  
11 health and health professions at the University of  
12 Florida, I'm clinically trained as a psychologist,  
13 did my work in rehabilitation in brain injury and  
14 spinal cord injury.

15 MR. MYERS: Dick Myers, Board member,  
16 retired military, involved in a variety of things.

17 MS. BADER: Good morning, Christine  
18 Bader, director of Defense Health Board.

19 DR. WOODSON: Good morning, John  
20 Woodson, assistant secretary of defense for health  
21 affairs.

22 DR. DICKEY: And if we could -- there's

1 a microphone I think we'll pass around for you  
2 there.

3 MS. KLEVENOW: Jen Klevenow, DHB support  
4 staff.

5 MR. LOUGHLIN: Larry Loughlin, dean,  
6 School of Medicine, Uniform Services University.

7 MR. GOULD: Philip Gould, preventative  
8 medicine liaison to the Defense Health Board.

9 MR. ERDTMANN: Good morning, Rick  
10 Erdtmann. I direct the Board on the health of  
11 select populations at the Institute of Medicine.

12 DR. UMHAU: Good morning, William Umhau,  
13 travel medicine, Occupational Health,  
14 Environmental Safety Services, NSAW Fort Meade.

15 DR. PALMER: Good morning, Ben Palmer,  
16 general preventative medicine resident at the  
17 Walter Reed Army Institute of Research.

18 DR. HALL: Good morning, I'm Toni Hall.  
19 I'm the military assistant to Dr. Woodson.

20 DR. DANIEL: Good morning, Chris Daniel,  
21 Navy family physician, and the deputy commander at  
22 the Army Medical Research and Material Command.

1           MR. MALCOM: Good morning, Perry Malcom  
2 with the Rapid Fielding Directorate in OSD.

3           DR. NAITO: Good morning, Neal Naito,  
4 director of Public Health, Navy Medicine, and Navy  
5 Liaison to the Defense Health Board.

6           MS. BELTRA: Good morning, Linda Beltra.  
7 I'm the BUMED Trauma Care Advisory Board lead  
8 officer.

9           MR. LEE: Good morning, I'm Major Roger  
10 Lee. I work for the Joint Staff surgeon and the  
11 J-4 Health Services Board Division in the  
12 Pentagon. I'm the Joint Staff liaison to the  
13 Defense Health Board.

14          MS. COATES: Good morning, Marianne  
15 Coates, I'm the contracted consultant for  
16 communications for the Defense Health Board.

17          MS. JOVANOVIC: Good morning, I'm  
18 Olivera Jovanovic. I'm senior analyst at the  
19 Defense Health Board, CCSI contractor.

20          MS. MCPHERSON: Hi, Colonel McPherson, I  
21 assist Colonel Bader with the Defense Health Board  
22 and work with Dr. Clifton on the project that he's

1 doing for Health Affairs.

2 MS. MARTIN: I'm Liz Martin, I am also  
3 DHB support staff contracted.

4 MS. PEABODY: Good morning, Hillary  
5 Peabody, also DHB support staff, contract with  
6 CTA.

7 DR. DICKEY: Thank you, everyone. We  
8 are pleased to have everyone here with us today  
9 and look forward to a productive day. We're also  
10 extremely honored to welcome a distinguished  
11 guest, Dr. Jonathan Woodson, the assistant  
12 secretary of defense for health affairs and  
13 director of Tricare Management Activity. In this  
14 role, he administers the military health system  
15 budget and serves as the principal advisor to the  
16 Secretary of Defense for Health Issues. Dr.  
17 Woodson ensures the effective execution of the  
18 Department of Defense's medical mission. He  
19 oversees the development of medical policies,  
20 analyses and recommendations to the Secretary of  
21 Defense, and the under secretary for personnel and  
22 readiness, and issues guidance to DOD components

1 on medical matters.

2 Dr. Woodson also serves as the principal  
3 advisor to the under secretary for personnel and  
4 readiness on matters pertaining to chemical,  
5 biological, radiologic and nuclear medical defense  
6 programs and deployment issues concerning forced  
7 health.

8 Dr. Woodson co-chairs the Armed Services  
9 Biomedical Research Evaluation and Management  
10 Committee, which facilitates oversight of the DOD  
11 biomedical research. In addition, he exercises  
12 authority, direction and control over the Uniform  
13 Services University of Health Sciences, the Armed  
14 Forces Radiobiology Research Institute, the  
15 Defense Center of Excellence for Psychological  
16 Health and Traumatic Brain Injury, the Armed  
17 Forces Institute of Pathology, and the Armed  
18 Services Blood Program Office. As TMA director,  
19 Dr. Woodson is responsible for managing all  
20 Tricare health and medical resources, and  
21 supervising and administering Tricare medical and  
22 dental programs, which serve more than 9.6 million



1 beneficiaries.

2 Dr. Woodson also oversees the Tricare  
3 budget, information technology systems,  
4 contracting process, and directs Tricare regional  
5 offices. In addition, he manages the Defense  
6 Health Program and the DOD Unified Medical Program  
7 as Tricare director.

8 Prior to his appointment by President  
9 Obama, Dr. Woodson served as associate dean for  
10 diversity and multicultural affairs and professor  
11 of surgery at the Boston University School of  
12 Medicine, and senior attending vascular surgeon at  
13 Boston Medical Center.

14 Dr. Woodson holds the rank of brigadier  
15 general in the U.S. Army Reserve, and served as  
16 assistant surgeon general to the Reserve Affairs,  
17 Force Structure and Mobilization in the Office of  
18 the Surgeon General, and is deputy commander of  
19 the Army Reserve Medical Command.

20 Dr. Woodson's military awards and  
21 declarations include the Legion of Merit, the  
22 Bronze Star Medal, the Meritorious Service Medal

1 with oak leaf cluster. In 2007, he was named one  
2 of the top vascular surgeons in Boston, and in  
3 2008, was listed as one of the top surgeons in the  
4 U.S. Dr. Woodson is the recipient of the 2009  
5 Gold Humanism and Medicine Award from the  
6 Association of American Medical Colleges. And in  
7 your spare time -- I am extraordinarily pleased to  
8 present to you Dr. Jonathan Woodson. Dr. Woodson.

9 DR. WOODSON: Thank you, Dr. Dickey, for  
10 that very, very kind introduction. You know, I  
11 always say that if my mother and father were alive  
12 and in the room today, it would be the kind of  
13 thing that my father -- that kind of bio would be  
14 the kind of thing that my father would be pleased  
15 to hear, but only my mother would believe, and so,  
16 you know, thank God for mothers that will believe  
17 anything of their kids.

18 I can't tell you what an honor and  
19 privilege it is to be here today, to be in this  
20 room of committed citizens with great specialty,  
21 intellect and abilities to assist us in the job  
22 that we need to do, improving the care for

1       servicemen and women. So I want to thank you all  
2       for your dedicated service first and foremost.

3               And I appreciate the sacrifices that all  
4       of you make to be part of this endeavor, taking  
5       time away from your professions, coming,  
6       deliberating, helping us sort through the thorny  
7       issues that are involved with the care of  
8       servicemen and women. So thank you so much for  
9       your contributions.

10              I also want to acknowledge the fact that  
11       I know it's a time of transition for the Board,  
12       that there are new members coming on and old  
13       members leaving, and so I want to acknowledge the  
14       contributions of the members that are leaving,  
15       welcome the new members into the fold. I think  
16       you should find this an exciting endeavor, and it  
17       is very, very important work, I can't stress that  
18       enough.

19              I just want to briefly talk about three  
20       things this morning, and they are, particularly  
21       for the new Board members, the historical context  
22       of military medicine and its contribution to

1 society, the military health system strategic  
2 framework, and then the issue of what this Board  
3 can do to engender, facilitate, grow trust in the  
4 military and military medicine as a whole, which I  
5 think is a very important issue.

6 Now, I've only had eight weeks on this  
7 job and I'm learning every day, there's no doubt  
8 about it, and so I'm going to talk a little bit  
9 also about some lessons learned. But before I  
10 begin that, I want to let you know that when I  
11 walked in the conference hall today, I was  
12 immediately taken back because I ran into some old  
13 friends. And I need to tell the stories of my  
14 connection with a few folks here because it also  
15 tells very important lessons in terms of the  
16 importance of the military and the connection to,  
17 how can I say, the civilian world, but more  
18 importantly, what is so great about the military,  
19 which is the people you meet.

20 And I'm going to pick on Dr. Deal, Tom  
21 Deal over there to begin with, because I ran into  
22 him first during my mobilization to Desert Storm,

1 and I had been snatched up at the last minute and  
2 sent initially to Walter Reed, and then overseas.

3 And, you know, I ran into someone  
4 recently, they were sort of talking about the  
5 issues that we never follow our doctrine, and I  
6 told a little story about my experience in Desert  
7 Storm, where I got there as a young surgeon, and  
8 we knew the war was going to progress rapidly, and  
9 so they gave us some trays of equipment and said  
10 kind of go follow the war, and that was the  
11 beginning of forward surgical teams, but the issue  
12 was really that, at that time, things had moved so  
13 quickly, we eventually made our way back to the  
14 86th EVAC Hospital at that time, and Tom Deal was  
15 the chief of professional services there, and we  
16 kind of dragged our sorry rear ends into the 86th,  
17 having been out in the desert for a few days, and  
18 Tom took us under his wing, and he provided such a  
19 great role model for leadership at the battalion  
20 level, and I want to thank you so much for that  
21 initial experience.

22 More stories about Tom later, and maybe

1 some of them can't be told in mixed company, but  
2 Tom has really grown and served as hospital  
3 commander and now SOCOM commander in that special  
4 operations community, which we can't say enough  
5 about in terms of what they contribute to  
6 innovation in medicine, and, of course, their  
7 courage and spirit in terms of the jobs that they  
8 do.

9 I want to turn next to this side of the  
10 room and talk about John Holcomb. John and I have  
11 crossed paths over the years, but a seminal story  
12 there is, during open salvos days of OIF-1, I was  
13 in charge of a combat support hospital at that  
14 time, I had been snatched up again sort of  
15 unceremoniously and quickly to be sent over to  
16 help bring a combat support hospital that was  
17 struggling a little bit up to full mission, combat  
18 readiness mission, and the war started, and we  
19 were trying to solve problems every day, and John  
20 came by to see me, it was really in the first  
21 days, first week of the war, and we sat down and  
22 talked about trauma care, and I knew already that

1 John was on the right track. He was talking about  
2 making sure that we could learn from our  
3 experience as quickly as possible, to make  
4 improvements in care, and get it back to the field  
5 so that we could save as many lives as possible.

6 And I want to publicly acknowledge John  
7 for his work in terms of the trauma registry and  
8 the joint theater trauma system, which has  
9 contributed so much in terms of improvement and  
10 care that, in fact, we are now setting the  
11 standard for the civilian world, and this is a  
12 point that I'll return to a little bit later.

13 I want to turn up here to the table to  
14 Jay Johannigman. Jay and I also, over the course  
15 of years, have intersected. I was at Landstuhl  
16 one year, another mobilization, having come back  
17 from down range, and I had been up all night  
18 taking care of patients, and Jay came in on a  
19 flight, a CCAT mission, and we had a chance to  
20 talk in the ICU, and we were talking about sort of  
21 a wonderful experience that we had individually in  
22 terms of serving our country in uniform.

1           I confided in him that the Air Force had  
2       taken a chance on me, and I had been the first  
3       Army officer to go through CCAT training, and we  
4       talked about that experience, but it migrated  
5       really into the issue of how do we tell the story  
6       to the civilian community, and more importantly,  
7       how do we get senior mentors involved with  
8       teaching young surgeons what needed to be done.  
9       So it was the ying and the yang, how do we improve  
10      care in the military, how do we tell the story,  
11      and also how do we hone the experience in the  
12      civilian community to catalyze and accelerate the  
13      care and the change that needed to be made as we  
14      were delivering care to trauma victims.

15           Well, to make a long story short, John  
16      and I had this conversation, I mean Jay and I had  
17      this conversation, and Jay being the kind of  
18      person he is that you meet so often in the  
19      military, didn't let it go there, he seized on the  
20      idea and he organized what we call now the Senior  
21      Mentor's Program, which has been so successful in  
22      creating that important nexus between the civilian



1 world and the military mentoring that has worked  
2 so well at Landstuhl. And we've now had a number  
3 of senior surgical mentors go over and provide  
4 valuable experience.

5 I could go on with a few other folks in  
6 this room, but I won't do that. I want to get to  
7 a couple of other comments, and that really brings  
8 me to this issue of the important work you do in  
9 terms of the historical context. Military  
10 medicine, through the experience of war, has  
11 always contributed to improvements in care in the  
12 civilian world, and you can go back as far as you  
13 want, you know.

14 Hippocrates once said that if you want  
15 to be a surgeon, you should go to war. The phrase  
16 is a little bit different in the actual  
17 translation, but the idea was that he knew that  
18 the experience of war, in fact, contributed to  
19 improving the strategies for care that eventually  
20 would go back into the civilian population.

21 And you can look at experiences in the  
22 Civil War, you can look at experiences from

1 Letterman's work, Walter Reed's work, World War I  
2 in fielding labs and transfusion, World War II in  
3 Vietnam transport and the like, and many, many,  
4 many other improvements have found its way into  
5 the civilian world. So the important issue is  
6 that we inform civilian practice.

7 Over the last 10 years, this has been  
8 very true, and we have looked at improvements in  
9 transfusion and resuscitation, hemostatis, and the  
10 management of brain trauma, and we're still  
11 looking at producing even further advances, of  
12 course, in the management of brain injury. So  
13 what you do on the Defense Health Board is of  
14 vital interest not only to the military, but to  
15 the civilian practice and advancement of medicine,  
16 as well.

17 I just want to transition right now to  
18 the issue of the military health system strategic  
19 aim so you can frame how we look at things in the  
20 work you do. You know, we have a strategic aim  
21 that is borrowed from Don Berwick's Institute for  
22 Health Care Improvement, the so-called Triple Aim,

1 and we've added to it this concept of readiness,  
2 because, of course, that's at the core of what we  
3 do in terms of being mission ready and supporting  
4 national defense, but it includes improvement in  
5 population health, improvement in the experience  
6 of care, and being good stewards of cost, being  
7 good stewards of the public resources.

8 We accept this mission wholeheartedly  
9 because it is important, and it's important in  
10 terms of the priorities of the nation. And you  
11 are going to be important in terms of determining  
12 what works, what works well, and how to be  
13 efficient with, indeed, that care.

14 The last issue I want to address is that  
15 the work you do helps build trust. Trust is so  
16 important in terms of medicine in general, but  
17 it's really important in terms of military  
18 medicine, because if we do it right, if we get the  
19 best evidence about what works and what does not,  
20 we can make sound decisions, and we build trust  
21 with the service members that we serve who go in  
22 harm's way and pay the ultimate price of any

1 operation that we're in.

2 We also build trust with the leaders of  
3 the country, the Congress, the President, senior  
4 leaders within the Department of Defense, and we  
5 build trust, of course, with the civilian  
6 community, again, because we add to their  
7 competencies based upon what we learn.

8 So the work you do is extraordinarily  
9 important. And I can't say enough about how  
10 honored I am to be here to listen and learn from  
11 you. I look forward to interacting with all of  
12 you over the next months and years as we try and  
13 shape what should be the research program, and, in  
14 fact, answer very difficult questions. So I'm  
15 going to stop there, and again, thank you so much  
16 for your service to this important effort.

17 DR. DICKEY: Thank you, Dr. Woodson.  
18 We're grateful for your dedicated support. We do  
19 look forward to working with you, and we're  
20 appreciative of the time that you're going to  
21 spend with us this morning listening to at least a  
22 bit of our deliberations, and hopefully

1 contributing. From the bio I read, you clearly  
2 have insights that would help us move forward. We  
3 appreciate your assisting the department with  
4 optimizing health safety and mission readiness.  
5 And before we continue, Ms. Bader is going to  
6 provide us some administrative remarks. Ms.  
7 Bader.

8 MS. BADER: Sure, thank you, Dr. Dickey.  
9 Good morning and welcome, everyone. Good morning,  
10 Dr. Woodson. Just a few administrative remarks,  
11 I'd like to thank the Washington Dulles Hotel and  
12 the Defense Health Board staff for assisting in  
13 arranging this meeting.

14 For everybody, for the folks on the  
15 Board and the folks in the audience, as well,  
16 please ensure you sign the Board attendance sheets  
17 on the table outside, and indicate if there's any  
18 changes in your contact information.

19 For those who are not seated at the  
20 table, there are handouts available at the table  
21 in the back of the room. Because this is an open  
22 session, it is being transcribed. Please ensure

1 you use a microphone and state your name prior to  
2 speaking.

3 Refreshments will be available for both  
4 the morning and the afternoon sessions, and we  
5 will have a catered working lunch for the Board  
6 members and guests. For those other folks looking  
7 for lunch options, the hotel restaurant is open,  
8 and there are multiple restaurants within a one  
9 mile radius of the hotel.

10 Please note that we will verbalize short  
11 bios for everybody prior to their speaking this  
12 morning and this afternoon, and more detailed bios  
13 can be found in your binders and at the back of  
14 the room. Dr. Dickey.

15 DR. DICKEY: Thank you very much. Now,  
16 if we can, we'll proceed to some interesting  
17 briefings and a couple of action items. Our first  
18 briefings of the day are going to be delivered by  
19 Dr. John Holcomb and Dr. Frank Butler.

20 Dr. Holcomb currently serves as the  
21 University of Texas chancellor's health fellow for  
22 trauma and injury and vice chair of surgery. In

1 2008, the American Heart Association recognized  
2 his leadership in this field with the award of  
3 Lifetime Achievement in Trauma Resuscitation  
4 Science. Dr. Holcomb's contributions to trauma  
5 medicine include increased hemorrhage control  
6 through dressings, tourniquets and intravenous  
7 methods, as well as trauma informatics and  
8 systems. While serving in the U.S. Army, Dr.  
9 Holcomb made significant contributions to the  
10 understanding and treatment of injured patients in  
11 war zones, as well as civilian trauma. Dr.  
12 Holcomb is the past commander of the United States  
13 Army Institute of Surgical Research at Brook Army  
14 Medical Center in San Antonio, and has served as  
15 the director of the Joint Trauma Training Center,  
16 trauma advisor to the USSOCOM and to the trauma  
17 consultant for the Army Surgeon General. He's  
18 also been recognized by the American College of  
19 Surgery's Committee on Trauma with a service award  
20 for outstanding scientific contributions to the  
21 surgery of trauma and dedication to the care of  
22 wounded warriors.

1           Joining Dr. Holcomb is Dr. Butler, a  
2 former Navy Seal who helped develop many of the  
3 diving techniques and procedures used by Navy  
4 SEALs today, including closed circuit oxygen  
5 diving exposure limits and decompression  
6 procedures for complex multilevel mixed gas diving  
7 operations conducted from submarines.

8           He's previously served as the director  
9 of biomedical research for the Naval Special  
10 Warfare Command, as the task force surgeon for  
11 Joint Special Operations Counterterrorist Task  
12 Force in Afghanistan, and was the first Navy  
13 medical officer selected to be the command surgeon  
14 at the U.S. Special Operations Command. He now  
15 serves as the chairman of the Committee for TC3.  
16 Dr. Holcomb will begin by presenting his findings  
17 regarding improvised explosive device blasts  
18 during Operation Enduring Freedom, which were  
19 collected from a recent trip to Landstuhl Regional  
20 Medical Center in Germany. And after that, Dr.  
21 Butler will present to decision briefs for our  
22 deliberation and vote regarding TC3 training for



1 the military and the proposed research,  
2 development, training and evaluation priorities  
3 for battlefield trauma.

4 The slides for both these presentations  
5 can be found under Tab 4, and without further ado,  
6 Dr. Holcomb.

7 DR. HOLCOMB: Thank you, Dr. Dickey.  
8 May we present from the seat here, is that okay,  
9 or how would you --

10 DR. DICKEY: Wherever you're  
11 comfortable.

12 DR. HOLCOMB: I'm fine right here if  
13 that's all right with you all, all right. Well,  
14 Dr. Dickey and Dr. Woodson, thank you, I really  
15 appreciate being here and the opportunity to  
16 present these data. And, Dr. Woodson, the program  
17 that you and Dr. Johannigman put together, the  
18 senior visiting surgeon, is actually what I  
19 participated with, and these slides come from my  
20 two weeks in Landstuhl in December from 11 to 26.  
21 The next slide, please.

22 You know, I retired from the Army two

1 and a half years ago, and had the opportunity to  
2 go back over and take care of combat casualties in  
3 December. This program is actually described in  
4 the New England Journal of Medicine article from  
5 2007. And really this is information for the  
6 group.

7 What I wanted to present is something I  
8 had never seen before. I've seen specific  
9 injuries like this. You're pointing at something,  
10 sir.

11 DR. SHAMOO: Turn this on.

12 DR. HOLCOMB: I have a mic on already.  
13 If you look at this next slide, the next slide,  
14 please, and I notice it's graphic, I apologize for  
15 that. Those of you who have cared for combat  
16 casualties have seen injuries like this before.  
17 The first one I saw was in 1993 in Somalia.

18 What is new about this is that this is  
19 now a normal injury coming out of Afghanistan. On  
20 December 14th, I sat in Landstuhl's intensive care  
21 unit. There were eight Marines in the ICU, and  
22 those eight Marines had one leg and four

1 testicles. I first cared for combat casualties  
2 starting in 1989 through 2008. And again, I just  
3 want to emphasize, we've seen these injuries  
4 before, but not them over and over and over and  
5 over again, and that's what's new.

6 This was described this weekend in the  
7 Washington Post by Dr. David Brown. And this  
8 injury pattern is on the cover of the Stars and  
9 Stripes, in the European edition today.

10 If you go to the next slide, the  
11 amputation rate has been quoted, there's a lot of  
12 things been said about it. We published a paper  
13 in 2008 in the Journal of Orthopedic Trauma which  
14 went back to Vietnam, categorized the injuries in  
15 the standard fashion, and the amputation rate in  
16 most wars is about 7 percent, give or take a  
17 percentage or 2, and it hasn't changed really  
18 since the early days of Vietnam, through 2006 data  
19 from the Joint Theatre Trauma Registry. So the  
20 first half of the war, 2001 through 2006, had the  
21 same amputation rate as in Vietnam. That number  
22 of 6 to 7 percent is important to remember as we

1 move through this. Next slide, please.

2 I would emphasize that all these data  
3 were put together in about four or five days from  
4 the Joint Theatre Trauma Registry, as discussed by  
5 Dr. Woodson, allows us to look at trends and put  
6 together data, to turn that raw data into  
7 information so that people can act on it.

8 This slide shows a two-year trend of  
9 Marines and Army injured casualties coming to  
10 Landstuhl. The top line is the total between the  
11 two. And it really shows that diurnal variation  
12 coming out of Afghanistan in relation to weather,  
13 which you can see is a general trend upwards with  
14 the total number of Marines and soldiers going up  
15 starting in February/March of 2010. Next slide.

16 We then look at the number of those  
17 admissions to Landstuhl, and that's the  
18 denominator now, of Army and Marine casualties,  
19 and these are the numbers that are admitted with  
20 amputations, so with a major amputation, any major  
21 amputation. These are not toes and fingers, but  
22 above the wrist and above the ankle. And you can

1 see the steady rise in the Marine casualties  
2 starting in that early 2010 time frame, with the  
3 Army casualties being relatively stable at that 6  
4 to 7 percent, which is the red line across the  
5 bottom of the graph, right across here, that's  
6 that 6 to 7 percent that we mentioned earlier.  
7 There are occasional spikes from one month to the  
8 other, but what the data show here is an  
9 increasing trend. Next slide.

10 Specifically to that injury pattern,  
11 documented by the picture earlier, are the number  
12 of double amputations. So the double amputations  
13 rate, if you look back to September, '10, is about  
14 19 percent, and if you go farther back, that's  
15 been relatively stable. Double amputations have  
16 happened, they do happen, they're relatively  
17 unusual.

18 What the difference is over that last 4  
19 months of 2010 is, the double amputation rate goes  
20 from 19 to 75 percent. So of -- now the  
21 denominator is all amputations. So the double  
22 amputation rate goes from 19 to 75 percent. Of

1 all soldiers and Marines with amputations, the  
2 double amputation rate has gone from 19 to 75  
3 percent, a 200 percent increase, ladies and  
4 gentleman, unheard of, never seen before in a  
5 consistent pattern. Next slide.

6 Published in 2009 is a paper describing  
7 the rate of injury to the genitalia, testicles and  
8 penis. Between .5 and 4 percent of all war  
9 injuries, a single -- a pretty small, brief time  
10 period at a combat support hospital in 2007,  
11 although admitting 3,500, almost 3,600 casualties  
12 in that 6-month period. This is in Iraq, at the  
13 combat support hospital in Baghdad, a pretty busy  
14 time frame, as you all remember. And it comes up  
15 with a 4.7 percent rate, so pretty normal, a  
16 review of the literature, and for current combat  
17 casualties wearing typical modern body armor.  
18 Next slide.

19 Again, if you look at -- that's that red  
20 line, about 4-1/2 percent going across, you note  
21 that there's a little bit of variation from month  
22 to month, but if you average out this segment, it

1 comes to almost exactly that 4 percent, then you  
2 see an increase, along with that high bilateral  
3 amputation rate, as you would expect. So over the  
4 last 7 months of 2010, 175 percent increase in  
5 injuries to testicles and penis.

6 I will tell you that during my two weeks  
7 observation period, many of those casualties had  
8 lost both testicles and had significant injuries  
9 to the penis. Almost all of them had injuries to  
10 the testicles, and most of them bilateral  
11 injuries. Next slide.

12 So in summary, amputation rates, largely  
13 in Marines, has increased from 6 to 18 percent, a  
14 200 percent increase over baseline. The double  
15 amputation rate extremely devastating injuries,  
16 some of these not unusual at all, hip  
17 disarticulations, increased from 19 to 75 percent  
18 over 4 months, almost a 300 percent increase, and  
19 has continued on anecdotally in January and  
20 February, has not abated. The amputation rate in  
21 December, the month I had the opportunity to serve  
22 in Landstuhl in my 2 weeks, but going for that

1 whole month, the amputation rate in December of  
2 all admitted Marines to Landstuhl was 38 percent,  
3 of all admitted Marines was 38 percent.

4 Injuries to the genitalia also increased  
5 dramatically, 175 percent. These are extremely  
6 disabling injuries, both physically and  
7 emotionally.

8 Again, the emotional impact on the  
9 casualties themselves, the families, and not to be  
10 underestimated on the providers, the docs and the  
11 nurses and medics caring for these, is tremendous.  
12 I've never seen anything like it. I've never seen  
13 anything like the impact on the providers, and I  
14 think that that's something that this group really  
15 ought to think about and talk about. Next slide.

16 So what's the medical response? The  
17 Army Surgeon General has established a Rapid  
18 Response Task Force, they're looking at this  
19 injury -- this specific injury. Dr. Butler is on  
20 that committee, and others in the room, as well.  
21 Tactical Combat Casualty Care is aware, we briefed  
22 these slides at the TC3 meeting last month,



1 looking at interventions to improve truncal and  
2 groin hemorrhage control. Tourniquets work really  
3 well, but you can't get many tourniquets above  
4 some of these injuries, you have to get up and get  
5 into the groin. Improved fluid resuscitation,  
6 blood products need to go on helicopters now. Red  
7 cells and plasma need to go on helicopters now.  
8 The Brits have a beautiful team that's doing this  
9 and we need to do exactly the same thing.

10 CASEVAC issues with plasma and red  
11 cells, you can't resuscitate these patients with  
12 crystalloid, it makes them worse. The Joint  
13 Theatre Trauma System, from a system point of  
14 view, is making sure we have GU -- genitalia  
15 urinary -- capability forward, guidelines changing  
16 for surgical management of these specific injury  
17 patterns, new simulations, talking to guys before  
18 they get over there so they understand what  
19 they're about to see. There's been a conference  
20 on optimal management of this industry pattern.

21 Compassion fatigue and PTSD, I'm a  
22 trauma surgeon, this is a touchy-feely comment for

1 a trauma surgeon. This is a real problem and I  
2 think we really need to address this. And then we  
3 need to track these rates with the registry so we  
4 can see what all of these interventions are doing,  
5 if anything, on improving care. I will tell you  
6 that the line leadership up and down is aware and  
7 have seen these slides. Thank you very much,  
8 ma'am.

9 DR. DICKEY: Thank you, Dr. Holcomb.  
10 Are there any questions for Dr. Holcomb before we  
11 move on to Dr. Butler? Dr. Poland.

12 DR. POLAND: Greg Poland. John, thanks  
13 for that report. It made me wonder a little bit,  
14 sort of going back one more level, what the  
15 epidemiology of these injuries are, are they  
16 soldiers who are primarily on foot patrol versus  
17 vehicle, and if so, is somebody attending to the  
18 idea of, you know, maybe operational doctrine  
19 needs to be changed, in part, maybe you don't need  
20 that foot patrol, but you could use a vehicle or a  
21 robot or something else.

22 DR. HOLCOMB: Yeah, Dr. Poland, I think

1       that's a great question. Obviously, you know, the  
2       tactics and operational issues probably outside  
3       the purview a little bit of this forum. Many of  
4       -- this has been reported to be a dismantled  
5       injury pattern, TTPs -- tactics, techniques and  
6       procedures -- outside the purview I think of this  
7       group, but that's the reason that last bullet up  
8       there about line leadership is aware from top to  
9       bottom.

10               DR. POLAND: I was just wondering, is  
11       there any formal mechanism by which they're  
12       evaluating that?

13               DR. HOLCOMB: General Robb, do you have  
14       a comment there?

15               GENERAL ROBB: Yes. I just had the  
16       opportunity to actually walk the turf with the  
17       surgeon generals three weeks ago; went to Bastion,  
18       Kandahar, Dwyer, Kabul and Bagram. And in all the  
19       locations we brought up this specific topic about  
20       the severity of the trauma. The actual numbers of  
21       folks getting injured has not necessarily  
22       increased, but the severity of the trauma and the

1 number of multiple amputations has increased. So  
2 the senior commanders, two-star, three-star and  
3 four-star levels at RC South, RC Southwest, RC  
4 East, and also ISAF commander is all aware.

5 To talk to you about the nature of the  
6 injury, especially when you're talking in RC  
7 Southwest, which is the Marines' area of  
8 responsibility, when you talk to the commander  
9 down there, the enemy has laid a battlefield, they  
10 are digging in, I use the sense that they are  
11 digging in. It is -- we pushed south and took  
12 care of that area down there, and it was a tough  
13 summer last year. So now they're getting, I don't  
14 want to use the word desperate, but they're going  
15 to get even more cruel, so to speak. So as we  
16 push north up the valley, which is primarily  
17 what's going to happen this summer, it's going to  
18 be a tough fight.

19 The general down there describes these  
20 aren't IEDs, these are IED minefields, and that's  
21 why you're seeing so many of these injuries. And  
22 so the enemy has had -- I mean, it's a cheap

1        weapon for them, and they have the resources to  
2        lay these down.

3                    If you look at the topography of the  
4        battlefield down there, again, it's a narrow  
5        valley, okay, it's a farming area, and it's hard  
6        to explain, but it's trellises, it's a series of  
7        dikes, it's a series of canals, so basically  
8        you're going hedgerow to hedgerow to hedgerow. So  
9        it's a perfect set-up for the enemy to do what  
10       they need to do. So it's going to be a tough  
11       fight, and again, the commanders are aware, and  
12       they're looking at opportunities.

13                   A couple things that they're looking at,  
14        one is using canines, dogs. You know, there's not  
15        enough dogs in the inventory to do that, but they  
16        are pushing dogs out there to, again, alert to  
17        where these are. But again, it's a slow fight,  
18        and the density is pretty thick. And number two,  
19        one of the small things we're looking at is the  
20        Brits, and I think some of us have shared with you  
21        the Brits are using actually a silk underwear,  
22        combination of silk and/or silk and Kevlar, but

1 primarily the silk, to at least try to decrease  
2 the blast and the small particle injury to the  
3 testicles, which is not to save the testicle from  
4 a traumatic injury, but to save it from future  
5 infection from what we call the microparticles in  
6 there.

7 So there are some personal protective  
8 equipment we're looking at, looking at canines,  
9 again, looking at engineering principals, and  
10 they're taking a hard look at their TTP's, but,  
11 you know, topography is what it is.

12 The reason why you're seeing multi, one  
13 is, they're dismounted; and then number two is why  
14 are you seeing the third injury, which is to the  
15 arm, is because as they walk, they walk like this.  
16 So this is -- and this is how they walk, so that's  
17 why you're seeing one, two, and then usually  
18 whatever their non-dominant hand is. So hopefully  
19 that helps answer your question there.

20 But again, the line leadership is aware.  
21 And again, very important that we take this JTTR  
22 and JTTS data, and that will be talked in front of

1 the second MTF commander and said here's the data,  
2 so again, that work that you all are doing is  
3 very, very important. Thank you.

4 DR. DICKEY: Thank you. Dr. Woodson.

5 DR. WOODSON: Just a quick question for  
6 General Robb and Dr. Holcomb. This recommendation  
7 you made about red cells and plasma on the  
8 helicopters, Dr. Robb, how difficult a logistic  
9 and training requirement would that be to put that  
10 in action if it's going to save additional lives?

11 GENERAL ROBB: Sir, I'm sorry.

12 DR. WOODSON: I did that on purpose.

13 GENERAL ROBB: I got it, noted, and it  
14 will reflect.

15 DR. WOODSON: I heard a recommendation  
16 from Dr. Holcomb about red cells and plasma on  
17 helicopters. We can talk about this offline, but  
18 the issue is, there's a training requirement --

19 GENERAL ROBB: Yes, sir.

20 DR. WOODSON: -- and a policy set of  
21 issues that we need to work up for that.

22 DR. HOLCOMB: Yes, sir. Can I make a

1 comment on that? Maybe Dr. Robb can follow. But  
2 this is done in several places in the United  
3 States, there is a training requirement, it's  
4 doable. We put blood and plasma in our ED two  
5 years ago, we tracked the outcome of our patients,  
6 it's dramatically improved the outcome of our  
7 patients, it is the primary resuscitative fluid.

8 I was on call yesterday, and none of my  
9 trauma patients got any crystalloid. What we've  
10 shown is, it makes our patients and hemorrhagic  
11 shock worse. You can give crystalloid patients  
12 who aren't in shock, it doesn't matter, you can  
13 give them Kool-aid, they're in shock, they do  
14 better, absolutely. With data representing at one  
15 of our biggest national meetings next month, using  
16 plasma and red cells is the primary resuscitative  
17 fluid.

18 The pre-hospital environment is an  
19 extension of the emergency department. And so it  
20 is absolutely logical, and we'll do these in the  
21 next two months, put those products on our  
22 helicopters. We transport 2,500 trauma patients a



1 year on 5 helicopters, every one of them within  
2 the next couple of months will be resuscitated  
3 with plasma and red cells.

4 Don Jenkins, at his location, has been  
5 doing this for the last two years; in Cleveland  
6 they've been doing this. This is done in pockets  
7 around the country, and this is an opportunity to  
8 -- and the Brits have been doing this for the last  
9 couple of years with their teams down in the  
10 valley, as well in Afghanistan with their Merck  
11 teams. There's hesitation about to do this. This  
12 is the right thing to do. We can put nurses on  
13 those birds and docs on those birds right now.  
14 Paramedics are hard to come by, they're harder for  
15 the military to grow, but this is something I  
16 think -- an improvement in care that could be done  
17 very quickly in theater.

18 GENERAL ROBB: And that's, in fact, my  
19 first to do list, was actually this morning based  
20 on the conversation we had, is this evolving  
21 concept of putting, again, (inaudible) and plasma  
22 on helicopters for initial trauma resuscitation.

1           We have had a very lively and  
2     intellectual discussion, although we're calling it  
3     tactical critical combat -- tactical critical care  
4     transport, and that's level two to level three,  
5     which is post-resuscitative patient, and the whole  
6     concept of, we've done kind of a pick up game with  
7     flight docs and nurses out there from the sending  
8     units, this last round we put 18 critical care  
9     nurses in theater to augment, again, the basic  
10    medic in the back, and we're seeing the advantages  
11    of that. We had a couple of groups in there that  
12    went in, primarily a guard unit that went in,  
13    let's go back to point of entry, but that also  
14    transport tactical critical care, EMTP level,  
15    coming out of the guard unit. To kind of validate  
16    the concept that Colonel Holcomb kind of predicted  
17    back in 2006, because I still have the original  
18    slide, that we need to step our game up in the  
19    back of that helicopter from point of injury, but  
20    also post-resuscitative.

21           So the Army's moving forward on that. I  
22    don't want to get in front of their headlights,

1 but I know they're aggressively pursuing the  
2 training piece to the Army medic in that  
3 helicopter, which, again, we have emerging data  
4 that shows that's probably the direction we need  
5 to go.

6 And then also we're looking at the  
7 transport of patients post resuscitative  
8 aggressively from the Joint Staff level. Air  
9 Force has already conceptually actually trained a  
10 couple of teams called the Tactical Critical Care  
11 Transport Teams, CNRA, and then also a doc  
12 primarily, an intensivist and/or an ER doc, much  
13 along the lines of the Merck, but, again, to work  
14 what we call hub and spoke for some of these more  
15 critical patients.

16 And then how do we then push, you've got  
17 to have the level of provider to push those  
18 products in the back of that aircraft. The Army  
19 proceeds with their EMTPs, and the Air Force is  
20 going to proceed with this, and we're going to  
21 have a joint solution for this critical care. We  
22 will have those providers back to be able to push

1 that and the training, too. Hopefully we're going  
2 to do them parallel and not post op on that.

3 I know Special Forces guys have already  
4 been in that discussion of pushing blood products  
5 from almost the point of injury forward, so we've  
6 already had requests sent out there.

7 DR. WOODSON: Thank you.

8 DR. DICKEY: Any additional questions?

9 Yes, Doctor.

10 DR. LUEPKER: Russell Luepker. We heard  
11 yesterday from Dr. Butler that they are being more  
12 successful in saving people in the field. Is part  
13 of this really the result of being better at  
14 bringing people back alive?

15 DR. HALCOMB: That's a great question.  
16 So what you're asking is, are there decreased  
17 deaths, decreased KIAs, and these guys are coming  
18 in, we're having (inaudible), so this is, sir, an  
19 opportunity I think to put together the AFIP data  
20 and the JTTR data, which still really hasn't  
21 happened very well, and it's an opportunity for  
22 improvement, to have a sound epidemiologic

1 discussion of KIAs, data wounds and case mortality  
2 rates. When I talked to Colonel Eastridge, who is  
3 at the JTTR down in San Antonio, over the last six  
4 months, the KIA rate has risen, and the injured  
5 severity score has risen. The data wounds rate is  
6 flat or decreased a little bit. So from an  
7 epidemiologic point of view, this is a more severe  
8 injury, causing more deaths, and more devastation,  
9 and more morbidity. It's the exact question that  
10 should be asked of these data, a great question.

11 DR. DICKEY: Thank you, Dr. Holcomb,  
12 very much, I appreciate it. Without further  
13 delay, I want to present Dr. Butler, he has a  
14 couple of decisional briefs.

15 DR. BUTLER: Thanks very much. If we  
16 can get the slides back up, next slide. I just  
17 want to, in the interest of time, sort of give you  
18 a quick look at what we're asking the Board to do  
19 today. Number one is a reemphasis and a perhaps  
20 better targeted emphasis on TC3 training for  
21 reasons which I'll show you. And then second, an  
22 endorsement from the Board of the battlefield

1 trauma care research priorities that the TC3 group  
2 has assembled over the last six months. So this  
3 group is used to hearing good news stories about  
4 TC3. Again, let me go back one more time and show  
5 you what we had at the start of this war. This is  
6 a Marine casualty, shot in the leg, not one of  
7 these awful amputation injuries that Dr. Holcomb  
8 is talking about, this is just shot in the leg,  
9 femoral bleeding, no self-aid, no buddy aid,  
10 because they weren't doing that.

11 The corpsman shows up 10 minutes later,  
12 a little bit late, to stop the bleeding, attempted  
13 to use a hemostatic agent, didn't work, went  
14 directly from the hemostatic agent to starting an  
15 IV so he could give him the crystalloid that Dr.  
16 Holcomb was talking about, didn't work, and they  
17 finally had an afterthought, hey, why don't we put  
18 on a tourniquet, and they did, but it was too  
19 late, and this casualty died, and that's how it  
20 happens.

21 You know, without the intervention of  
22 all of the people that have helped us over the

1 years with TC3, the acceptable number for this to  
2 happen in our Armed Services is exactly zero.

3 So 2005 was a pivotal year for TC3, and  
4 I mentioned that there wasn't much TC3 at the  
5 start of the war. What happened in 2005? Well,  
6 the first thing that happened was, Dr. Holcomb  
7 went and led the team that did a causes of death  
8 analysis on special operations forces and found  
9 that we had about a 15 percent preventable death  
10 rate. That data was quickly shown to General  
11 Brown, the four star at SOCOM, and he quickly  
12 implemented a fast track training and equipping  
13 program for TC3.

14 ISR, the Institute of Surgical Research,  
15 published the first report saying these are the  
16 good tourniquets, so we knew which tourniquets to  
17 buy. And General Robb, when he was at CENTCOM,  
18 was tracking all this and said, hey, if you come  
19 into CENTCOM, bring a tourniquet and a hemostatic  
20 agent. So, wow, great things, a lot of energy.

21 Let's fast forward to a trauma  
22 teleconference that happened last summer that I

1 was participating in. A 23-year-old male, gunshot  
2 wound to the left infraclavicular area, with  
3 external compressible hemorrhage, pre-hospital.  
4 He went steadily downhill, continued to bleed, he  
5 was in pretty severe shock when he showed up at  
6 the ER, but his bleeding had slowed down, as it  
7 will, and so the ER staff noted that, boy, the  
8 hemorrhage sure picked up when they started to  
9 resuscitate this individual. The people at the  
10 level three noted that all of his injuries were  
11 extrapleural, this was external hemorrhage. So I  
12 asked the question, who used Combat Gauze on this  
13 casualty, nobody pre-hospital, nobody in the  
14 emergency department. So, you know, I think the  
15 lesson learned is this, which we now have in our  
16 curriculum, Combat Gauze, it doesn't work if you  
17 don't use it.

18 So we can work hard at this level to put  
19 all these great tools in the guys' toolkits; if  
20 they don't take them out of their pocket and out  
21 of their kit and put them on their casualty, it  
22 doesn't help us.



1           Okay, so how does that lead into what we  
2    need for the Board to do? Well, two years ago,  
3    the Board got this interim briefing that said,  
4    hey, as best we can tell right now, about 20  
5    percent of our fatalities have died a preventable  
6    death, but interim data from the rangers and the  
7    Army special mission units reported 0 preventable  
8    deaths in those units. And again, these are the  
9    only -- two of the only three units that were  
10   using TC3 from the start of the war.

11           So that interim briefing to the TC3  
12   Committee and the Board resulted in this memo of  
13   August of 2009, and the Board said, hey, let's  
14   train everybody in TC3, and let's get out there  
15   and capture this data on the TC3 card and the  
16   pre-hospital trauma registry, and the JTTR so that  
17   we can document what we've done so we can know  
18   what to do better. And, you know, the services,  
19   again, respect the Board immensely. SOCOM and the  
20   Army were pretty much on board already, I really  
21   think as a direct result of the Board.

22           The Navy Surgeon General sent out a

1 letter in March saying, yes, do it. The Air Force  
2 Surgeon General sent out a letter in August  
3 saying, yes, do it. The Marine Corps Commandant  
4 sent out a message in January of this year saying,  
5 yes, do it. So there is no dispute from the  
6 services on the concepts.

7           So you're thinking, okay, so, Frank,  
8 what's the problem, why are you telling us this.  
9 Well, first, some new information. The interim  
10 data that I mentioned before has now been turned  
11 into a manuscript. It has been submitted for  
12 publication. It documents the experience from the  
13 ranges who have trained everybody in the regiment  
14 since 1997, and TC3. Their incidents of  
15 preventable death is 3 percent. The U.S.  
16 military, the last good data that we have, still  
17 says 20 percent. So this is Russ Kotwal's  
18 manuscript, and when it's published, it will be  
19 the lowest preventable death rate ever reported in  
20 modern warfare. So I think that is something to  
21 highlight as a model of how this can be made to  
22 work. On the bad news side again, the Army

1 Medical Research and Material Command held a fluid  
2 resuscitation conference in January, and there  
3 were lots of points of view and some divergence of  
4 thought, but one thing every single person there  
5 agreed on was that the era of large volume  
6 crystalloid resuscitation is gone.

7 I mean there was not a single voice  
8 raised in support of large volume crystalloid  
9 resuscitation, and yet multiple participants noted  
10 that that's what was being used in Theatre still,  
11 right now.

12 We had Marty Schreiber, the deployed  
13 director of the JTTS, come and brief us on 16  
14 November, and he said, hey, guys, if you think  
15 Hextend is being used out there, you're wrong.

16 The Institute of Surgical Research is  
17 doing a study where they go out and they have  
18 physician investigators looking at the  
19 pre-hospital interventions that have been done as  
20 each casualty arrives at the level three. And  
21 Major Lairet's data, and sorry this is a little  
22 bit small, basically he found that 87 percent of

1 the people arriving at the hospital were still  
2 getting crystalloid. He also found that almost  
3 half of the casualties had a wool blanket for  
4 hypothermia prevention, totally the wrong thing to  
5 use. Only 15 percent of these individuals had any  
6 pre-hospital care documentation. So what is the  
7 disconnect? If everybody agrees on the concept,  
8 how come it's not happening? Well, it's  
9 execution, you know, and I think that this is a  
10 lesson that all of us that have been in the  
11 military really know, but when we -- when the Navy  
12 Surgeon General says, teach this at the Marine  
13 Corps schoolhouse, which the Navy, interestingly,  
14 runs, what does that buy us?

15 Every single new person coming in learns  
16 about Hextend, learns about TC3, okay, that's  
17 good, but what about all the guys who are in the  
18 service already, how do they get it? So, you  
19 know, we need to go back and we need to relook at  
20 this.

21 We also have a problem with the fact  
22 that the physicians are still being taught non-TC3

1 trauma interventions for pre-hospital trauma care,  
2 and who leads the corpsmen and the medics when  
3 they get into theater and into battle? The  
4 physicians, sometimes the nurses, sometimes the  
5 PAs.

6 So often times, those individuals will  
7 bring a different perspective to their medics, and  
8 that will undo the training that they got in TC3.  
9 Now, we've seen this happen over and over and over  
10 again. We've had instances of flight surgeons  
11 taking off the tourniquet that the medic put on,  
12 and almost physical altercations as the medic  
13 tried to protect his patient from the physician.  
14 So this is a bad situation.

15 The combat leaders need to be involved.  
16 I've had combat leaders criticize corpsmen for  
17 putting on a tourniquet instead of starting an IV,  
18 which the combat leaders have always been taught  
19 is the right thing to do.

20 So what we need to do is to go back and  
21 send another memo to the services, to the service  
22 chiefs really, not the surgeons general, and say,

1 look, we need for the doctors to know what their  
2 medics are doing, everybody going out into the  
3 field with a combatant unit or to a field hospital  
4 needs to know TC3, likewise, the combat leaders,  
5 likewise the PAs and the nurses.

6 And as many people have pointed out, you  
7 can write a letter, it's not going to happen  
8 unless you go back and check for implementation.  
9 So it needs to go on the unit commander's status  
10 report so that somebody checks to see if they  
11 really did the things that you recommend.

12 So we also need to document our  
13 outcomes. This has been emphasized, but it's  
14 still not happening well. We have lots of tools  
15 that we can use to document outcomes, the JTTR,  
16 the pre-hospital trauma registry, the Armed Forces  
17 medical examiner, we need to bring all those  
18 things together and really make them an effective  
19 report card for what's happening on the  
20 battlefield. So stop, comments.

21 DR. DICKEY: Dr. Lednar.

22 DR. LEDNAR: Dr. Butler and Dr. Holcomb,

1     thank you for this brief.  As I -- Frank,  
2     especially to sit and reflect on what you've just  
3     shared, it seems like a lot of the right things  
4     have happened at kind of a sandwich end.  At the  
5     beginning, based on data, it was sort of know and  
6     have data to show that you can really reduce  
7     preventable mortality.

8             At the top, you've got the tops of the  
9     services sending out very clear guidance about  
10    what to do.  For the new trainees, the training is  
11    reflecting the TCCC guidelines.  But we have a  
12    management system that's ineffective.  We've got  
13    the middle that is, in fact, corrupting the good  
14    things happening at both ends.

15            So this really is a management system  
16    issue, and it's -- one way to think about going  
17    into it is, are the deploying physicians and  
18    nurses, many of whom are in the Guard and Reserve,  
19    are they fit for duty, are they fit for task, are  
20    they trained in what is the current doctrine, not  
21    from a medical school 20 years ago, not from local  
22    EMS training which may not reflect the greatest

1 insight, are they fit for their military task or  
2 not? We clearly do that for immunizations, we  
3 need to do that for training, because lives will  
4 depend on it.

5 DR. DICKEY: Thank you, Dr. Lednar.  
6 Yes, I'm sorry, Don, yeah -- Ed, I'm sorry.

7 MR. KAPLAN: Ed Kaplan. Neither of you  
8 -- well, first of all, that's a very impressive  
9 report that you've presented today. Neither of  
10 you mentioned what has happened to the incidents  
11 of morbidity in the way of infection with this new  
12 wave of injuries as you've shown us. Could you  
13 comment a little bit about that and tell us if or  
14 how it's changed at all?

15 DR. HOLCOMB: We actually just put  
16 together -- Dr. Duane Hospenthal, who's the Army  
17 Surgeon General ID consultant, in collaboration  
18 with his partners across the Navy and Air Force,  
19 and about 30 other co-authors, I think today, or  
20 yesterday, sent a large document to the Surgical  
21 Infection Society describing optimal management,  
22 prevention, and treatment, diagnosis, et cetera,



1 of multiple different areas of the combatant based  
2 upon specific injury patterns and what we should  
3 do with them. For that specific injury pattern  
4 that I've discussed, what is interesting is that  
5 the gram negatives and positives are no different  
6 than any other wound, there's just more tissue  
7 there.

8           There does seem to be an increased  
9 instance of fungal infections and increased mucour  
10 infections in this large body of devitalized  
11 tissue, and that's what the ID guys are really  
12 working on right now, they're working on that very  
13 intently. We were seeing tissue and having the ID  
14 guys make rounds with this daily in Landstuhl and  
15 addressing that specific issue. It's an evolving  
16 subject, people are all over this question.

17           There does seem to be a different  
18 infection pattern, and I think it just may be just  
19 because of the large amount of exposed tissue.

20           DR. BUTLER: And I will add to John's  
21 answer on that, we have Dr. Hospenthal and Dr.  
22 Clint Murray, who's chief of infectious diseases

1 at BAMSI, coming to brief at the next meeting,  
2 using the ranger pre-hospital trauma registry.  
3 They've got pretty good outcomes on who got  
4 antibiotics and how it impacted on the infection  
5 rate. And we look forward to having them come to  
6 the next meeting.

7 DR. DICKEY: Good. Dr. Shamoo.

8 DR. SHAMOO: You said 97 percent of them  
9 in hospital data receive crystalloids in this  
10 data?

11 DR. BUTLER: No, sir, pre-hospital.

12 DR. SHAMOO: Oh, pre-hospital, okay, I  
13 misunderstood. Thank you.

14 DR. DICKEY: Dr. Johannigman?

15 DR. JOHANNIGMAN: I'd like to follow up  
16 on the use of antibiotics, because those pictures  
17 were -- I was deployed, and it speaks to this  
18 whole process, because we need to be data driven  
19 and we need to be able to see outcomes, because I  
20 can tell you, we would have knock down drag out  
21 fights at the OR table among ourselves when we  
22 were debriding these horrific wounds about the

1 role that antibiotics do or don't play.

2 Some of us feel that it's a matter of  
3 physical debridement, others feel that  
4 prophylactic antibiotics, when you see that wound  
5 at Bagram, are very important. Thankfully, we do  
6 have something we call CPGs. The CPG needs  
7 clinical practice guidelines, need not only to be  
8 updated with Hospenthal's data, but they need to  
9 be rigorously followed by all across all different  
10 levels of the theater, because my own personal  
11 take is, the reason you're seeing nucor back home  
12 at BAMSI is because they've had every antibiotic  
13 in God's world applied in the field. That's a  
14 sense, but not data driven. It's an incredibly  
15 important process that, in my estimation, is both  
16 the civilian and as a military surgeon, only the  
17 military can solve because it does have the proper  
18 tools in place to look at this in a data driven,  
19 forward looking process, but it's a hugely  
20 important question and one which I think that the  
21 epidemiologist and the infectious disease  
22 specialist on this committee are particular well

1 prepared to look at and address, and I think the  
2 call for data ought to be forwarded to this  
3 committee and the expertise at this table.

4 DR. DICKEY: Thank you, Jay. Dr.  
5 Bullock.

6 DR. BULLOCK: It seems to me that the  
7 most controversial area of the TC3 recommendations  
8 is the use of blood and crystalloid versus colloid  
9 before, I'm sorry, blood and, you know what I'm  
10 saying. So the issue is, do we have the logistics  
11 in place to be able to provide that at the same  
12 time that the endorsement of TC3 policy is made?  
13 That's a huge -- isn't that a huge undertaking?

14 DR. BUTLER: And we are getting into  
15 that in the next section, yes, sir.

16 DR. DICKEY: Dr. Parkinson.

17 DR. PARKINSON: Yes, Frank, Mike  
18 Parkinson. Just philosophically, and this is  
19 probably coming in the perspective of a "vintage  
20 Board member," I don't like to use "old," but the  
21 working relationships between the DHB and its  
22 expanded scope and how this body works

1       constructively with Dr. Woodson and everything  
2       above Dr. Woodson. I mean, historically, the DHB  
3       doesn't write letters to the SECDEF, kind of  
4       pounding on the table that everyone has got to get  
5       this training, and I'm not saying that's what the  
6       memo does, Frank, but I think we have to think  
7       through a little bit what is the reputation and  
8       the approach of the DHB, particularly when this is  
9       a generic problem.

10                You're going to hear very briefly from  
11       Dr. Silva and myself about another major issue,  
12       the signature battle of every war is combat  
13       stress, and that's been there since the Greek  
14       days, as well march syndrome in the Civil War. So  
15       how do we go about taking an evidence-based  
16       approach that is rapid cycle to improve health,  
17       reduce unnecessary deaths and disease, and to get  
18       it into an ongoing fashion so that we don't have  
19       memos over the transom with more and more  
20       exclamation points at the end?

21                Frankly speaking, any good health  
22       system, and we know it doesn't happen, should have

1 a rapid evidence based testing, you know,  
2 implementation and development cycle. And it's  
3 generally taken 30 to 50 years in any medical  
4 practice to actually introduce an evidence based  
5 practice. Coronary artery disease, it took us 40  
6 years not to chop off women's breasts and total  
7 mastectomy even when we had evidence that a  
8 lumpectomy would probably work as well.

9 So I would just urge us to think a  
10 little bit about the best practice when really, if  
11 anybody, the military should be doing this today,  
12 and maybe do a root cause analysis as to how we  
13 can do this systematically better, not speaking  
14 against the action here, but to think about  
15 developing a process, because you're going to hear  
16 this in spades with every single issue that comes  
17 up before this body, as we've heard over the last  
18 four years.

19 DR. DICKEY: If I can get you to back up  
20 one slide. Dr. Woodson, did you want to say  
21 something?

22 DR. WOODSON: I did.

1 DR. DICKEY: And then we'll talk  
2 process.

3 DR. WOODSON: Thank you all for your  
4 comments and presentation of this data. And I do  
5 want to echo one point that's being made and throw  
6 out something, that sometimes in trying to get new  
7 ideas implemented, if you lob it to the highest  
8 level, it actually creates more difficulty in  
9 terms of getting it implemented.

10 I just came from a series of briefings  
11 in which I had to provide some information to the  
12 SECDEF, and the issues of them understanding the  
13 nuance of what is required when you try and do  
14 those kinds of briefings on these sorts of issues  
15 becomes difficult and it brings a whole lot of  
16 other individuals into play.

17 Having said that, what I would hope is  
18 that you could work with me. Having been there, I  
19 understand something about the system, and can  
20 interpret the science. One of the things that  
21 you're talking about is that we don't routinely  
22 update our training processes to incorporate new

1 information.

2           And by the way, one of the biggest  
3 challenges we have today is taking information and  
4 moving it to useable knowledge. That entails a  
5 number of steps that you've got to get in line and  
6 get it right in order to make sure that  
7 information gets to useable knowledge. A lot of  
8 information being generated out there, it doesn't  
9 always get to be useable knowledge, and that  
10 includes the way we train. So as I'm sitting here  
11 sort of free wielding and thinking, I'm saying  
12 that one of the issues that we have is getting the  
13 just in time training as the surgeon is deploying,  
14 particularly if they're coming from the Reserve  
15 component, what sort of fundamental train up  
16 program do we need to have to make sure that they  
17 understand the new knowledge that's out there?

18           And let's be honest about this, the  
19 issue is that we rely on basic talent, meaning  
20 that they're trained as a general surgeon, but  
21 some of them are not trauma surgeons, obviously,  
22 and we owe it to them and to the system to do



1       that.

2                   Now, one of the things that will help us  
3       as we go forward is, of course, the MedC on the  
4       listed end, which is a joint operation to train  
5       the medics, so they'll be hearing all the same  
6       information.

7                   But as you said, someone said the  
8       sandwich approach at the lower end, and the new  
9       people understand it, and the high end policy  
10      people, we probably understand it, but what we've  
11      got to do is spend our effort in that middle  
12      section to get that information to useable  
13      knowledge and then get a dissemination strategy  
14      that's appropriate. And I would encourage you to  
15      work with me rather than --

16                  DR. BUTLER: And, sir, I'm just looking  
17      at the slide again, I did a really bad job on this  
18      slide. I actually meant for the DHB memo to go to  
19      you and for you to write the memo to P&R and  
20      SECDEF, and the slide didn't say that, and that's  
21      my fault.

22                  DR. WOODSON: I might write a memo to

1 the SGs or talk with the SGs, I meet them every  
2 week before I send it up.

3 DR. BUTLER: But one of the things I'll  
4 just say is, the question comes up all the time,  
5 who owns level one trauma care in the DOD, anyone?

6 DR. WOODSON: Well, the question is who  
7 executes on it or who -- I own ultimately  
8 everything. Of course, the services execute,  
9 their job is to man, train and equip, and  
10 certainly execute, so I don't know if that answers  
11 your question, but I own everything.

12 DR. BUTLER: Well, so when it first got  
13 implemented -- TC3 first got implemented in the  
14 Seals, it was Ray Smith, the Seal Admiral who did  
15 it; when it first got implemented in the Rangers,  
16 it was Colonel McChrystal, the line commander, who  
17 did it; when it got implemented in SOCOM, it was  
18 General Brown, the line commander, who did it. So  
19 in terms of what specific equipment is bought and  
20 what specific pre-deployment training an  
21 individual in a Special Ops unit gets, that is a  
22 U.S. SOCOM four star decision. And so those are

1 the people that we have to reach out to if we're  
2 going to really impact level one to the optimal  
3 level.

4 DR. WOODSON: Well, I would just caution  
5 you to be a little careful. What you say, in  
6 part, is true. SOCOM is organized differently,  
7 and I know Colonel Deal is sitting right to your  
8 side there, and he can talk to that sort of in  
9 expert fashion. But I think the message is, we  
10 need to take a SOCOM-like approach with more rapid  
11 cycle change. And again, this issue of turning  
12 information into knowledge and fielding it, SOCOM  
13 has certain advantages that perhaps the rest of  
14 the force doesn't, and being innovative in some  
15 ways.

16 DR. DICKEY: Dr. Holcomb.

17 DR. HOLCOMB: Dr. Woodson, I would just  
18 echo Dr. Butler's comments. And I know as  
19 previous commander, you understand unit status  
20 reports with red, yellow, green, you know, what's  
21 the status. There's a memo out that says  
22 everybody deploying will have TC3 training or pre-

1 deployment trauma training, but there's no  
2 follow-up, and I guarantee that the service  
3 chiefs, the surgeons general and on and on don't  
4 know how many of their docs, nurses and medics  
5 actually got that pre-deployment trauma training.

6           And so if I can make a suggestion, that  
7 we use the systems in place, as said earlier, that  
8 line commanders, and every commander in the whole  
9 DOD, uses some sort of USR to track their  
10 helicopters, tanks, weapons, et cetera. We should  
11 do the same thing for training, and we should do a  
12 U.S. armed training down to the lowest levels, and  
13 to have that come back to you at red, yellow,  
14 green.

15           When Dr. Butler, through the TC3, did  
16 that with the individual first-aid kit, you know  
17 that kit that goes on your body armor, most of the  
18 -- all of the services were red, and when we  
19 showed that to them, they had a heart attack, you  
20 know, because no commander likes red, red is bad,  
21 and they fixed red and turned it to green pretty  
22 quickly, and, you know, that's the way commanders

1 work, as you know, sir.

2 DR. DICKEY: Lots of questions. Let me  
3 ask a question. Dr. Butler, the slide previous to  
4 this has a number of recommendations, you have a  
5 little bit more presentation you want to make, and  
6 then there are some additional recommendations.  
7 Is that right?

8 DR. BUTLER: Well, this is -- the first  
9 group of slides was one of the decision packages.  
10 This leads into the second decision package.

11 DR. DICKEY: So, members of the Board,  
12 there are two decisions to make here. You've kind  
13 of heard the discussion and the presentation  
14 leading up to the first decision line. Can we  
15 back the slides up one? I'm not sure who's  
16 controlling the slides. No, the other way. I'm  
17 not sure what happened. It's -- there you go,  
18 okay.

19 This is decision point one. We have  
20 been asked to take action on this. And so if we  
21 can direct our discussion I think to this slide,  
22 and then we'll go on, Dr. Butler, with the

1 remainder of your presentation and your second set  
2 of recommendations?

3 DR. BUTLER: Yes, ma'am, with the one  
4 modification that I --

5 DR. DICKEY: Correct, that this should  
6 be to Dr. Woodson --

7 DR. BUTLER: This should go to Dr.  
8 Woodson, and then Dr. Woodson makes the decision  
9 about the appropriate people and the line chain of  
10 command are to send it to.

11 DR. DICKEY: Yes, sir. So you have  
12 heard the recommendation from your trauma  
13 committee. Is there a discussion about this?  
14 Yes, Dr. Gandy.

15 DR. GANDY: This is John Gandy. Just a  
16 couple of things. The second bullet there is the  
17 one that I've seen most recently as being the  
18 biggest problem, the medical department personnel.  
19 I have an opportunity to do recurring training  
20 with combat medics pretty much on a monthly basis  
21 from all services in several different countries,  
22 and they understand TCCC. They know it backwards

1 and forwards. They know the science behind it,  
2 they know the papers that have been published,  
3 they understand it. But when they go get a local  
4 medical authority, wherever they are in  
5 Afghanistan or wherever they happen to be, that  
6 tells them, don't give pain medicine because it  
7 messes up my examination, don't give Hextend, that  
8 stuff is expensive, you know, no blood, blood is  
9 given by physicians, et cetera, or when you have  
10 doctors that go through the same training who just  
11 recently finished their internship who tell you,  
12 well, I don't believe that, and the medic says,  
13 here, let me show you the papers, I don't want to  
14 see the papers, you know, I trained at so-and-so  
15 and this is how we do it there, that's where I'm  
16 seeing the biggest disconnect.

17 I think the top people, like you say,  
18 get it. The ground level medics get it. Don't  
19 give certain types of pain medicine, you know,  
20 don't give fentanyl lollipops, don't give  
21 ketamine. Even though we know if we can break  
22 that pain cycle early, we'll have much less

1 incidents of PTSD, we're still giving that IM  
2 morphine because it's easy to account for and easy  
3 to use. It doesn't work, but we use it all the  
4 time.

5 So, like I say, I think right in that  
6 middle area is where we're really right now  
7 missing the boat on getting the information to the  
8 junior physicians, nurses, PAs in that little area  
9 who, obviously, well trained, smart people, they  
10 just haven't been exposed necessarily in their  
11 training process to this information like the  
12 medics have. Thanks.

13 DR. DICKEY: Dr. Anderson.

14 DR. ANDERSON: George Anderson. I would  
15 urge the Board to accept the body of this work and  
16 the recommendation. It's fortunate that Dr.  
17 Woodson is with us this morning. I sense from his  
18 comments that he's receptive already to this  
19 concept and is prepared to interpret it and ask us  
20 if we need to do more work, so I urge approval.

21 DR. DICKEY: Dr. Anderson, could I  
22 suggest that --



1 DR. ANDERSON: So moved.

2 DR. DICKEY: Thank you. I've heard a  
3 motion that the Defense Health Board send a memo  
4 to the assistant secretary for his appropriate  
5 dissemination, including the recommendations that  
6 are on the slide before you. And I know Dr.  
7 Woodson is taking notes over here, not on this  
8 slide, but I think coming out in the verbal  
9 discussion was a strong recommendation in some  
10 form of tracking, that once the training occurs,  
11 tracking of implementation be included. We have a  
12 motion. Is there a second to that?

13 DR. O'LEARY: Second.

14 DR. DICKEY: Seconded by Dr. O'Leary.  
15 Is there further discussion on the  
16 recommendations?

17 Hearing none, members of the Board, all  
18 in favor of the recommendations on the slide in  
19 front of you going to the Assistant Secretary,  
20 please say aye.

21 (Chorus of Ayes)

22 DR. DICKEY: Opposed, same sign. Are

1       there any abstentions?

2                   Dr. Butler, Dr. Holcomb, thank you for  
3       excellent forward progress.  And now, Dr. Butler,  
4       I think you have some additional presentation and  
5       an additional action item.

6                   DR. BUTLER:  Yes, ma'am.  So about a  
7       year and a half ago, the TC3 committee and the  
8       Trauma and Injury Subcommittee came to the Board  
9       with a suggested list of battlefield trauma care  
10      research issues, and we made the mistake of  
11      ranking them in a numerical, prioritized order,  
12      and the Board, quite correctly said, gee, Frank,  
13      this is great, you showed us your projects, but we  
14      haven't seen everybody else's projects, so we  
15      can't make any kind of a comparative analysis.

16                  So we've learned -- what we've done is  
17      to go back and come out with an updated list.  And  
18      we had these in absolutely no prioritized order,  
19      we make no comparative value statements about  
20      whatever else the DOD is doing, we're just saying  
21      if you are asking for our opinion about the things  
22      which have the most potential benefit to help your

1 servicemen and women when they're injured, this is  
2 our list, and however we should package that to go  
3 forward, we recommend that we do so.

4 Now, there are 23 topics on this, and  
5 I'm going to try to be very brief. There is a  
6 narrative for each of these in your handouts that  
7 goes into a little bit more detail. But starting  
8 with tranexamic acid, this has been shown in one  
9 large study to help with non-compressible  
10 hemorrhage, we would like a better look at that  
11 agent in the subset of patients who have  
12 non-compressible hemorrhage.

13 We've talked about freeze dried plasma,  
14 the Germans have been using this for several  
15 years. What they've not done is share any  
16 outcomes data with us. We would very much like to  
17 have that outcome data. Colonel Deal has worked  
18 very hard to get it from the German SG, we'd like  
19 to continue to work hard to get it.

20 Prospective studies looking at plasma  
21 alone for pre-hospital trauma resuscitation, it  
22 helps your clotting. The Mayo Clinic came and

1 presented to us at the last TC3 meeting, they're  
2 now using it exclusively, and they're finding that  
3 it's helping with their coagulation studies,  
4 there's a lot of thought that it will help with  
5 TBI, and so we need to capture all of this data.

6 I know Dr. Holcomb is getting ready to do this at  
7 Memorial Herman in Houston, we just need the data.

8 Ketamine is an analgesic agent that will  
9 not suppress your respirations or cause the same  
10 type of depression that you get from narcotics.  
11 Maybe that's a better choice for battlefield  
12 analgesia. We've talked extensively about  
13 pre-hospital care documentation and data basing.  
14 You can't tell how well you did if you don't have  
15 a score card, and this is our score card.

16 Enhanced electronic TC3 training, you  
17 know, it's really tough to get 100 rangers in a  
18 classroom, we need to be better at doing this  
19 electronically. Truncal tourniquets, Dr. Holcomb  
20 talked about how hard it was to get a tourniquet  
21 on some of these high amputations. There has  
22 recently been developed a truncal tourniquet, and

1     what this is is basically a C clamp that you can  
2     place over the iliac vessels or the high femoral  
3     vessels and tighten down, that's in theater right  
4     now. We need data on whether or not it is  
5     working.

6             We really support the study that's being  
7     done at the Institute of Surgical Research, where  
8     they have the physician investigators looking at  
9     what's been done pre- hospital. Major Lairet is  
10    doing a fabulous job with that. I just want to  
11    voice support for his study.

12            Monitor driven pre-hospital fluid  
13    resuscitation, who says systolic blood pressure is  
14    the parameter that we want to resuscitate to? So  
15    what are our other options and what outcome data  
16    do we have to show that these other options work  
17    better? That study is hopefully underway at  
18    Memorial Herman now. There are now new hemostatic  
19    agents on the market, Celox Gauze and Chitogauze,  
20    do they work better than Combat Gauze? We have no  
21    studies from ISR to say they do or don't, but I  
22    will tell you that units are using them, and we

1 don't know what to tell them because it hasn't  
2 been tested.

3           The same thing for new tourniquets. The  
4 most difficult technical thing that our medics do  
5 is a surgical airway. We need to be better at  
6 training surgical airways, and we need to have  
7 research that shows us how best to do that for our  
8 medics.

9           We talked about this yesterday, we need  
10 to know exactly the cause of death for every  
11 fatality that we've had in this war and what could  
12 have been done to prevent it. Dr. Holcomb did the  
13 landmark study that was published in 2007, but  
14 actually done starting in 2004, and that really  
15 drove TC3 into the special operations community,  
16 and we need to do that for all of our deaths.

17           TC3 started treating traumatic brain  
18 injury with special measures relating to  
19 oxygenation and fluid resuscitation in 2003, maybe  
20 we could do better. We need to have somebody take  
21 a look at this and tell us how exactly we could do  
22 better. We've heard a lot about the Merck teams,

1     you know, it's not just having a doc on board,  
2     it's not just giving blood, these guys also give  
3     tranexamic acid, they do rapid sequence  
4     intubation, they use ketamine instead of morphine,  
5     they cross-clamp aortas, so which of those  
6     interventions makes the difference, we don't know.  
7     We've invited them to the TC3 meeting in April to  
8     try to help and tease that out.

9             There are more and more things on the  
10    market now for hypothermia prevention. We need to  
11    do comparative studies to see which is better.  
12    You know, amazingly, 10 years into the war, there  
13    is no formal data on what combat medics, corpsmen  
14    and PJ's think about the equipment that we, the  
15    doctors and the services give them. So this is a  
16    project that we've actually started now. We would  
17    like for the Board to support the Defense Medical  
18    Material Program Office, as they support us, to  
19    try to get these answers back from our medics.

20            Focused analysis of the JTTR data  
21    regarding specific interventions, again, the  
22    largest combat trauma registry in the world, it's

1 an incredible goldmine, most of that gold is still  
2 in the ground, and it's going to stay there unless  
3 some researcher goes out there and digs it out and  
4 analyzes it appropriately.

5 Dr. Reed suggested that we use veress  
6 needles for needle thoracostomy instead of the  
7 three and a half inch, 14 gauge needles that we're  
8 using now. It provides a little bit of extra  
9 protection, it has a spring-loaded end that's a  
10 blunt tip that may give us better outcomes.

11 The medics want better suction devices  
12 to use on the battlefield. We need better metrics  
13 to tell us -- I mean is it passing a test, is it  
14 doing a dummy, is it -- in one of the simulation  
15 labs like they have out at 29 Palms, how do we  
16 measure who's really learned TC3 and who hasn't?

17 Spinal cord protection, we tried to do a  
18 relook at spinal cord protection to bring to the  
19 Board about a year and a half ago. The data on  
20 how to treat suspected spinal cord injuries is  
21 remarkably unhelpful, and we could not come to an  
22 agreement on what things to bring to your



1 consideration, so that remains an unresolved  
2 issue, but that's an area that is ripe for  
3 research.

4 And I think we all understand about  
5 enhanced pelvic protection after Dr. Holcomb's  
6 presentation. So that's a lot. And what we hope  
7 to do is just to take the handout that we sent as  
8 a read ahead and have the Defense Health Board  
9 forward that to Health Affairs and have Health  
10 Affairs send it to the services for their  
11 consideration. Questions?

12 DR. DICKEY: Questions for Dr. Butler?  
13 Any questions or comments for Dr. Butler? Dr.  
14 Butler, many of these seem to be research, we just  
15 don't know kinds of comparators and so forth, but  
16 several comments have been made yesterday and  
17 today about battlefield analgesia. And if you go  
18 back to your second slide I guess that talks about  
19 ketamine, is that one where you need more data or  
20 where you perceive the data is available and you  
21 are prepared to recommend a change in either what  
22 people carry or what they're trained to use?

1 DR. BUTLER: Well, that's a great  
2 question. There's this incredible -- in 2007, Dr.  
3 Maybury from ISR put together a first responder  
4 conference, and we sent out invitations to all the  
5 services that said come and tell us your problems  
6 about battlefield trauma care. One of the biggest  
7 things that came out of that conference was that  
8 IM morphine doesn't work very well on the  
9 battlefield. Well, we knew that, but now we've  
10 heard it again, so what are our alternatives?  
11 Well, IV morphine was recommended in the original  
12 TC3 paper, that's still a good option, but people  
13 are a little leery of doing that. Dr. Kotwal and  
14 Kevin O'Connor wrote a phenomenal paper detailing  
15 the pre-hospital use of oral transmucosa fentanyl  
16 in rangers, and that drove the TC3 committee to  
17 say, hey, here's a fast acting, very effective  
18 analgesic option that you don't need to start an  
19 IV to administer.

20 Everybody has been leery about that  
21 because of the black box warning. Well, we've  
22 reviewed the published literature, we've gone to

1 the FDA, we said send us every single adverse  
2 event that you've had with these agents, this  
3 particular drug, and they finally sent us one  
4 year, which we analyzed at a TC3 meeting, it does  
5 not have relevance to the combat situation. I  
6 mean it's a narcotic, it has the same problems as  
7 other narcotics, and especially it has the same  
8 problem as IM morphine, if you give somebody 10  
9 milligrams, they're still screaming, another 10  
10 minutes you give them 10 more, they're still  
11 screaming, another 10 minutes you give them 10  
12 more, when it all kicks in and they get fluid  
13 resuscitated, these people are overdosed, that's  
14 all over the place.

15 So if we're not going to use IV  
16 morphine, if we're not going to use oral  
17 transmucosal fentanyl, what are we going to use?  
18 I mean, the Holbrook paper said if you don't give  
19 these guys good pain relief, they're going to have  
20 more PTSD, and nobody has really responded to  
21 that. So sorry, long answer to a short question.

22 DR. DICKEY: Dr. Anderson.

1 DR. ANDERSON: George Anderson; a great  
2 presentation again, a wonderful list. I take it  
3 from your comments that you're in contact with the  
4 individuals and organizations that work at  
5 research, test, development and evaluation  
6 processes that would help to solve these problems.  
7 And in the spirit of Dr. Woodson owns it all, I'm  
8 sure that it would be easy for us to endorse this  
9 list and forward it to him and onto the surgeons  
10 general and so on, but I'm curious about, and this  
11 is for you, too, Dr. Holcomb, about your  
12 perceptions about the responsibilities of this  
13 Board as we look at priorities.

14 And it looks to me like a daunting task  
15 to come with a list and then for us to get our  
16 minds around trying to fold this in appropriately  
17 with all of the research requirements for medical  
18 research in the DOD, so maybe you could talk a  
19 little bit to how you, as really powerful leaders  
20 in this arena, could perhaps challenge us a little  
21 bit on how we ought to process this and then get  
22 it on to Dr. Woodson.

1 DR. HOLCOMB: Well, Dr. Butler is  
2 looking at me. As a retired officer who spent  
3 eight years at Medical Research and Material  
4 Command, I'm extremely biased from my background  
5 as a trauma surgeon, let me just preface those  
6 remarks.

7 There's a lot of research that goes on  
8 and has gone on for the last 10 years now that  
9 we've been at war. A lot of it doesn't have to do  
10 with combat casualties, and that's okay. From my  
11 biased viewpoint, 10 years into a war, I'm not  
12 sure that we're funding research for the combat  
13 casualty the way we should be.

14 You know, we all kind of around here  
15 have thought, if I was king for a day -- there  
16 actually have been some kings for longer than a  
17 day around here I guess, but if I was king for a  
18 day, I'd take an epidemiologic viewpoint of this  
19 and look at the slice of the pie, how big is the  
20 slice of the pie, and that's where I'd go, and  
21 that's not what's done.

22 What Dr. Butler has presented is,

1       although the slice of the pie, there are no  
2       numbers up there, we're all smart enough to see  
3       that there's some prioritization up there.

4               DR. DICKEY:  Dr. Butler, do you care to  
5       weigh in?

6               DR. BUTLER:  You know, the Special Ops  
7       R&D Medical Program, which is arguably the most  
8       successful R&D -- Medical R&D Program in the DOD,  
9       got started because the Seal line commander said,  
10      look, you know, I have these guys coming in from  
11      the labs telling me the research that they think  
12      they need to do, and when I tell them the research  
13      that I'm interested in, they go back to the  
14      research that they think they need to do, he said,  
15      I want my own program, I want it designed to be --  
16      to go for the low hanging fruit, to bring me the  
17      things that I need to go to war, to do it fast and  
18      for a reasonable cost, yes, sir.

19              So that evolved into the Naval Special  
20      Warfare Biomedical Research Program, which evolved  
21      into the program which Colonel Deal now runs at  
22      SOCOM.  Admiral LeMoyne extended that to everybody

1 in the U.S. Special Operations Command. The total  
2 DOD medical research budget is how much, a lot.  
3 Tom's research budget is a couple of million, and  
4 it is incredibly productive, because it is line  
5 driven, it is customer responsive, if we don't get  
6 answers back to our operators quickly, we hear  
7 about it.

8 DR. DICKEY: Dr. Lednar.

9 DR. LEDNAR: Wayne Lednar. I had a  
10 similar thought to Dr. Anderson. It seems like in  
11 the list of slides, there are a number of very  
12 important questions to answer with data. Some of  
13 them might be, in fact, closer to an answer than  
14 others because of activities that have gone on.  
15 Some of them are more critical because they really  
16 effect the near term clinical outcome. So I guess  
17 what would be helpful I think to the Board is a  
18 way to, as Dr. Anderson said, process this list  
19 into a set of priorities, some of which are, you  
20 know, with a little bit of effort, we can get  
21 there quickly.

22 This is really important because the

1 life will be saved with the answer to this  
2 question, and to sort of make that list  
3 projectized or staged in some way, and then the  
4 highly disciplined execution, again, with Dr.  
5 Woodson's formidable task of owning it all.

6 Across DOD, there is an awful lot of  
7 medical R&D activity going on, and no matter where  
8 it's going on, at SOCOM or elsewhere, is it really  
9 reflecting the highest set of priorities in Dr.  
10 Woodson's view of what DOD needs? So it's sort of  
11 a research management challenge to know what's  
12 going on, and then to see that the energies and  
13 the resources are being applied in a way that  
14 really gets it done.

15 DR. DICKEY: Are you suggesting -- Dr.  
16 Butler's committee brought this for action today.  
17 I'm hearing you suggest maybe we should take one  
18 more shot at trying to, as a Board and with input  
19 from our experts, prioritize the list?

20 DR. LEDNAR: Yes, ma'am.

21 DR. DICKEY: Okay.

22 DR. LEDNAR: And if I can also suggest



1 that any suggestions on how to improve execution,  
2 follow-up and execution would be very informative.

3 DR. DICKEY: I may come back to you and  
4 ask that it's a formal motion. General Robb.

5 GENERAL ROBB: Or another way to look at  
6 it is, have Dr. Woodson's peeps get together with  
7 his peeps with this list after we push it forward  
8 and have them sorted out in a different form, I  
9 think in a more, you know, resource focused  
10 environment, you know, with MMRC, with the surgeon  
11 generals, and then with your committee, and I  
12 think we would probably get there faster than if  
13 we tried to do it in here. And then it would also  
14 be based on where the other parties are, and then  
15 you can put them into cue, so that's just a  
16 suggestion.

17 DR. DICKEY: Yes, sir.

18 MR. DANIEL: Chris Daniel, deputy  
19 commander at MMRC. I'm not sure to the extent --  
20 and I think that was a great suggestion General  
21 Robb made. I think that -- I know that there have  
22 been some communication with the Combat Casualty

1 Care Program at MMRC which, between the Army  
2 Program and the Defense Health Program, the  
3 largest percentage certainly -- obviously not  
4 including SOCOM, with a small percentage, but very  
5 productive, but the largest percentage of combat  
6 casualty care research, and for that matter, the  
7 military medical research.

8 But I agree, we would certainly welcome  
9 the opportunity, rather than arbitrarily just  
10 providing us a list, many of these things that you  
11 talked about, there are some efforts already.

12 Certainly we talked about the ketamine,  
13 in addition to the use of ketamine itself, looking  
14 at (inaudible) S-ketamine, which may have some  
15 less -- some of the same positive effect with  
16 perhaps some of the less disassociative reactions.  
17 So there's a lot of efforts in many of these  
18 things already gone on, I can't speak to how many  
19 of the 23 and what level, but I agree, some sort  
20 of prioritization and discussion of, you know,  
21 where is the low hanging fruit, where are the  
22 things that are going to continue to need a lot of

1 work.

2           Again, I know that there's a lot of  
3 money dedicated to many of these 23, if not almost  
4 all of them already, but we're certainly -- I can  
5 say that Colonel Hack and the members of the Joint  
6 Program Committee and certainly the Army that are  
7 in this area would be very happy to hear this, but  
8 it certainly would be useful in some way, again,  
9 have it prioritized, and again, looking at the  
10 bigger balance that Dr. Woodson is responsible for  
11 and that we execute, certainly in the context of  
12 all the other things that we're working on, we're  
13 more than happy to try to tackle as much in all of  
14 this as we can, but in the out years, there's only  
15 so much fiscal resources available for that, but  
16 we certainly want to do everything we can to  
17 tackle as much of this as we can.

18           DR. DICKEY: Thank you. Dr. Holcomb.

19           DR. HOLCOMB: Captain Daniel, you  
20 understood the nuances of some of my comments  
21 intimately, it's nice to see you. I would  
22 suggest, you know, we came -- to use Dr. Butler's

1 words, a year and a half ago with a prioritized  
2 list, and you guys sent Frank way away and said  
3 come back with a non-prioritized list, so we came  
4 back with a non-prioritized list, I'd hate to see  
5 that cycle keep going. I think we all caught  
6 that.

7 I think there's no question that sending  
8 a list of topics to you, sir, Dr. Woodson, and  
9 then working with the services research commands,  
10 the Medical Research and Material Command with  
11 Captain Butler and others, and maybe come back and  
12 reporting progress on this list, almost like,  
13 again, and I hearken back to the unit's status  
14 report thing, you know, what is the progress on  
15 this list of things that we spent a fair amount of  
16 time going over that list.

17 It's a decent list, it covers a lot of  
18 ground. There are some really low-hanging fruit  
19 that, with some resources applied to existing  
20 data, could come up with some rapidly useful  
21 information. There's some longer term projects  
22 there. But I think the emphasis on the list would

1 be correct, and if we come back and report maybe  
2 where that progress is being made, might be a  
3 reasonable recommendation.

4 DR. BUTLER: And if I could add to Dr.  
5 Holcomb's comments, we send this list and all  
6 working iterations of this list to all of our  
7 contacts in military medical research. Let's be  
8 honest, it makes a difference if a recommendation  
9 comes from these guys over here who you don't  
10 really know, and if the recommendation comes from  
11 the Defense Health Board and Dr. Woodson, and so  
12 that's the difference.

13 I mean if it comes from us, it's, you  
14 know, another thing -- a stack this high on  
15 Colonel Hack's desk. If it comes from Dr. Woodson  
16 and the Defense Health Board, maybe it gets moved  
17 out of that stack.

18 DR. DICKEY: Okay. Dr. Jenkins.

19 DR. JENKINS: A couple of points of  
20 emphasis. If I'm not mistaken, there are about  
21 seven different colors of research money out  
22 there, we're talking about one. There's about

1       \$300 million, Captain, if I'm not mistaken, that's  
2       been dedicated to combat casualty care, and this  
3       may be an opportunity lost, because that 300  
4       million is about to be finalized in terms of being  
5       doled out for projects that didn't have this level  
6       of influence of prioritization about them.

7                The other thing that seems to me that  
8       I'll emphasis again that may be put in different  
9       terms than Dr. Holcomb put it, but there really  
10      needs to be a deliverable at the end of the day.  
11      This can't be open ended money to go and do a  
12      research project that doesn't have a deliverable  
13      back to the Department of Defense. And I'm  
14      concerned that if we don't act pretty quickly,  
15      there will be a tremendous opportunity lost in  
16      terms of combat casualty care research dollars.

17               DR. DICKEY: Dr. Jenkins is one of the  
18      sitting members of the Board. Do I take that  
19      positive statement as perhaps a recommendation or  
20      a motion to approve the forwarding of a memo to  
21      the assistant secretary regarding these  
22      priorities?

1 DR. JENKINS: Indeed you interpret that  
2 correctly.

3 DR. DICKEY: I thought I did. We now  
4 have a motion to advance this list of  
5 recommendations and follow up by the Board so that  
6 we know where things are going. Dr. Anderson.

7 DR. ANDERSON: Yeah, I would second that  
8 and just add actually the follow up part is a  
9 process for this newly formed Board. And I sense  
10 certainly the acceptance of this from your  
11 presentations and, Dr. Butler, from your  
12 recommendations. Also, others in the room here, I  
13 also see Rick Erdtmann here from the IOM, and the  
14 IOM has a great deal of interest in this area  
15 also. So I would urge the Board to accept this  
16 recommendation and this motion, and also to put in  
17 place a follow-up process so that we will hear not  
18 only back from this particular set of briefings,  
19 but from others who might be interested even from  
20 the private sector, from civilian medicine.

21 DR. DICKEY: Dr. Jenkins, is that  
22 addition acceptable? All right. You have,

1 members of the Board, before you a motion to send  
2 a memo to the Assistant Secretary for his  
3 dissemination and utilization as appropriate a  
4 list of pre-hospital trauma care projects,  
5 recommending they be pursued as high priority  
6 research projects, and that this Board develop a  
7 process of regular follow up to see the status of  
8 that research. Is there discussion on that  
9 motion?

10 If not, all in favor, say aye.

11 GROUP: Aye.

12 DR. DICKEY: Opposed, say no. Anybody  
13 abstaining? Thank you.

14 And with that, you have bought for  
15 yourself a brief break.

16 DR. FOGELMAN: Dr. Dickey --

17 DR. DICKEY: Yes, there you are, Dr.  
18 Fogelman.

19 DR. FOGELMAN: -- I want to take  
20 advantage of the recency effect, a kind of  
21 psychological principal before everybody leaves.

22 DR. DICKEY: Please, stop me so I can



1       thank our presenters before we take a break.

2                   DR. FOGELMAN:   Now I'm embarrassed.

3       Both of our recent presenters and several other  
4       people talked about psychological issues.  You  
5       talked about care for the caregivers to make the  
6       most general statement, and people have talked  
7       about introduction of chemical agents to cut off  
8       the trajectory of PTSD.  I'd just like to point  
9       out that I, we, and our committee are eager to  
10      help with this, and can help with this, and I just  
11      don't want it to be off the agenda because all the  
12      medical stuff is -- takes away a lot of the  
13      energy, as it should.

14                   DR. DICKEY:   But just --

15                   DR. FOGELMAN:  Remember that we're here,  
16      too.

17                   DR. DICKEY:   Thank you very much.  I do  
18      want to thank Dr. Butler, Dr. Holcomb, and your  
19      Committee for the tremendous work that you've  
20      done.  The brief discussion that's gotten this  
21      morning is not indicative of our level of  
22      interest, rather of our limited time.  I'm not

1       sure, Dr. Woodson, how long you'll stay with us,  
2       but we're greatly appreciative of you being here  
3       for this piece of the discussion. Dr. Lednar,  
4       between now and break.

5               DR. LEDNAR: Wayne Lednar. If I can  
6       just reinforce one comment that Dr. Fogelman just  
7       made. In other situations and other clinical  
8       outcomes, there's evidence to show that taking  
9       care of the patient, including their psychological  
10      health needs, improves clinical outcomes, medical,  
11      surgical outcomes.

12             If you think in terms of sustainability  
13      of our care providers, on the battlefield, back in  
14      referral centers like Landstuhl or BAMSI, and the  
15      psychological toll of providing care for these  
16      devastating injuries, we need to support them.  
17      And the kind of issues that Dr. Fogelman is  
18      raising for us and can address are just critical  
19      forced multipliers. So I really would endorse his  
20      keeping -- his suggestion to keep that on the  
21      radar screen.

22             DR. DICKEY: Thank you, Dr. Lednar. We

1 are running a little bit behind, but the  
2 discussion I think was well worth it. Let's take  
3 a break and be back here at 11:15. We have a  
4 number of other briefings to go. Thank you.

5 (Recess)

6 MS. BADER: Excuse me, can everybody  
7 please take their seats so we can reconvene the  
8 meeting?

9 DR. DICKEY: Thank you. And again,  
10 thank our presenters from excellent discussion  
11 this morning.

12 Our next presentation will be given by  
13 Dr. Michael Parkinson and Dr. Joseph Silva. Dr.  
14 Parkinson serves as president of the American  
15 College of Preventive Medicine. His previous  
16 positions include executive vice president and  
17 chief health and medical officer of Luminos, a  
18 pioneer consumer-driven health plans and a  
19 subsidiary of WellPoint. There he is responsible  
20 for the development and implementation of an  
21 integrated and incentivized health improvement  
22 strategy employing evidence-based prevention, care

1 management, account-based benefit designs,  
2 employer partnership and consumer engagement.

3 A retired Air Force colonel, Dr.  
4 Parkinson also served as the deputy director of  
5 the of the Air Force Medical Operations and chief  
6 of preventive medicine.

7 Joining him in the presentation, Dr.  
8 Silva currently serves as professor of internal  
9 medicine within the Division of Infectious  
10 Diseases and Immunology at the University of  
11 California Davis School of Medicine. He  
12 previously served as dean of the Medical School  
13 and chairman of internal medicine. In addition to  
14 his academic position, Dr. Silva's prior  
15 appointments include serving as a consultant for  
16 Kaiser Permanente Hospital and staff physician at  
17 the U.S. Air Force Medical Center in Lackland Air  
18 Force Base.

19 Dr. Silva also served in the U.S. Air  
20 Force Medical Corps at Wilford Hall Medical Center  
21 and, subsequently, in the U.S. Air Force Active  
22 Reserves.

1           Dr. Parkinson had chaired the DHB  
2 Complimentary and Alternative Medicine Work Group,  
3 and Dr. Silva has served as chair of the  
4 Psychotropic Medical Work Group. And they're  
5 going to provide an update regarding the  
6 activities of the work group. Since the last  
7 meeting of the Board, their presentation slides  
8 can be found under tab 5.

9           Dr. Parkinson and Dr. Silva.

10           DR. SILVA: Thank you, Madam President.  
11 I'll start it off and cover the first three  
12 slides. I like to point out that we only --

13           DR. ENNIS: You said that again.

14           DR. SILVA: What did I say?

15           DR. ENNIS: Three hundred slides.

16           DR. SILVA: Oh, did I say 300? I'm  
17 sorry, the first three slides. See, when you  
18 become Dean, you don't have a count any longer.  
19 Anyhow -- we only got formed as a committee in  
20 November, so what you're going to hear is about  
21 four months of pretty intensive work by staff and  
22 Mike Parkinson and myself. We had to get to get

1 up to speed on the topics also, and we are getting  
2 there, and you're going -- this is a progress  
3 report without any final end points, so some are  
4 starting to jell.

5 We owe a great degree of thanks to Dr.  
6 Charles Fogelman as, after we had our first  
7 committee meeting, we realized that a lot of  
8 expertise existed, and I really started to  
9 consider some of these issues, or had considered  
10 them in his committee. And so we came together as  
11 three different units, and I think that allowed  
12 for us to really generate a lot of data that we're  
13 in the process of looking over and trying to form  
14 recommendations.

15 Can I have the next slide, please? Oh,  
16 I have to work it, I'm sorry.

17 Oh, we were going to do this before, but  
18 this slide says it all. This popped up, Mike, I  
19 thought you were going to get it. Okay?

20 DR. PARKINSON: Well, this was, to say  
21 how topical this is, this was yesterday's  
22 Doonesbury. We'll let you just read it here for a

1 minute.

2 DR. SILVA: Actually, at about the end I  
3 said this states it all what the conundrum is.  
4 We've been at war for over 10 years. We will  
5 review some of the background charges. Given our  
6 committee, it took us some time to sort it out,  
7 but I want to review these with the Defense Health  
8 Board.

9 In a broad way, we were to review and  
10 provide recommendations on DOD's use of a  
11 complementary and alternative medicine -- I think  
12 you all recognize the employment of CAMs is very  
13 common not only in the military but throughout  
14 societies in the world; it's an enormous  
15 multibillion-dollar budget -- examine and provide  
16 recommendations on prescription practices and use  
17 of psychotropic medications in DOD. All right,  
18 being a simple charge, you will hear from Dr.  
19 Parkinson how complicated it is to analyze these  
20 pipelines of acquirement of drugs, put them into  
21 theater, monitor their use, and then also decide  
22 who's going to be maintained on them when they

1 return out of theater.

2 Consider issues that would all have been  
3 ensure our patients' safety and quality of care.  
4 Again, many of our warriors have been in theater  
5 multiple times and multiple assignments, and so  
6 that adds to all the psychological stress. Take  
7 into account the context of specific  
8 military-unique challenges -- it's already stated  
9 here -- increased military operations, the tempo,  
10 the separations, deployment stress, sleep  
11 deprivation, et cetera, and these are all very  
12 important factors.

13 Next slide. The scopes of interest are  
14 discussed in or shown in the next two slides.  
15 That is what's employed in theater or once  
16 deployed and in operational settings may be  
17 different than what is occurring state-side or  
18 when they return. Service members are engaged in  
19 peacekeeping missions preparing to deploy or  
20 between deployments. Their utilization of drugs  
21 can be an off- again-on-again phenomena;  
22 monitoring that is going to be very difficult.



1           What are the most common mental health  
2 conditions in theater? What kind of handle does  
3 the Department of Defense have on the whole issue?  
4 What are the evidence- based optimal therapies  
5 that should be provided? And psychiatrists from  
6 the active military were very useful in giving us  
7 insights into what the variability is in  
8 prescribing these agents by theater.

9           Should we develop guidelines  
10 pre-deployment as to what drugs are going to be  
11 recommended once they get into theater? Who's  
12 providing these drugs? A very simple question.  
13 And are they trained to give it? And some of the  
14 things we heard in Trauma presentation now that  
15 sometimes people on the bottom of the rung --  
16 psychologists, pharmacists -- are more  
17 knowledgeable than people in the field that are  
18 recommending these drugs. There's a huge  
19 education factor that's going to come into play  
20 here, too.

21           Next slide. There are some protocols  
22 out there that seem to be somewhat uniform between

1 the psychiatrists and other primary care  
2 physicians using these agents. There's a  
3 variability of medical records in theater, so this  
4 is not a simple analysis. The existing framework  
5 for dissemination of knowledge and awareness is  
6 there, but it's not being disseminated very  
7 widely. There are excellent courses that are  
8 ongoing again aimed more at lower-level providers  
9 and psychiatrists. But we know a lot of these  
10 agents are being described -- prescribed by others  
11 out in the field with other specialties than  
12 medicine.

13 And it became quite apparent that  
14 there's a stigma of declaring if you have a  
15 psychological illness and are on these agents.  
16 And because of that kind of pall around a  
17 diagnosis, we may never get our handle on the  
18 problem overall because the troops in theater do  
19 obtain drugs outside DOD referral line for  
20 prescribing and obtaining drugs, and that's going  
21 to be a real tough one to get our hands on.

22 So those are the main areas that we're

1 struggling with, and we'll tell you how we've gone  
2 about it and what kind of data we've been  
3 assessing, and we've had tremendous help from  
4 everyone in the Department of Defense when we've  
5 asked them some very tough questions.

6 Mike?

7 DR. PARKINSON: Thank you, Joe. Yeah,  
8 the three meetings that we've had today have been  
9 -- I would describe them as very intense in terms  
10 of the volume and the repetitiveness of the  
11 information that the committee has been asked for,  
12 received, and has reviewed.

13 As background particularly for the new  
14 Board members, this came as a question to the DHB  
15 in November with a request for response by 31  
16 March; that it's unusual in the relatively short  
17 cycle time, but it also is not uncommon in the  
18 increasing scrutiny that Dr. Woodson alluded to  
19 today from Congress, The New York Times,  
20 Doonesbury, and so this is the reason I think,  
21 when he mentioned the third pillar, what he wants  
22 to establish is trust with the American people and

1 with Congress. And so you are welcome to the  
2 point of the spear, so to speak.

3 So with the help of Christine Bader and  
4 the Psychological Health Subcommittee chair by Dr.  
5 Fogelman, we got right at this, and I commend all  
6 the members of the committee who made time to come  
7 together physically for what is essentially five  
8 working days and in very short order.

9 So to give you some flavor of the types  
10 of topics that we reviewed, and let's go to the  
11 meetings themselves, the original request came  
12 with a cover letter and essentially four pages of  
13 single-spaced questions underneath the broad  
14 categories of psychotropic medication use and  
15 complimentary and alternative medicine. So a  
16 major part of our effort was to scope the question  
17 in a way that we believe would be most useful for  
18 the Department, because otherwise it could have  
19 been an entire psychiatry and CAM textbook,  
20 frankly.

21 So you can see that we've relied on some  
22 of the best resources, both internal DOD and

1 nationally, including the NIH Center on  
2 Complementary and Alternative Medicine, which  
3 we've had excellent support from the military  
4 service psychiatrists giving their both global and  
5 in-theater perspective on the use of psychotropic  
6 drugs and CAM, as it relates to common combat  
7 stressors, PTSD, other types of psychological  
8 conditions in and near theater after deployment.

9 We also heard a lot about emerging  
10 technologies like field acupuncture for the use of  
11 combat stress -- Captain Robert Koffman -- and we  
12 began to look at both EMR as it was available and  
13 DOD-wide pharmacology databases. And I think our  
14 review is going to be mixed on both for a variety  
15 of reasons that will come out in the report. But  
16 we've looked at every possible stone and rock the  
17 DOD has as it relates to pharmacy and electronic  
18 medical record data, and I would say without  
19 tipping our hand is that we're disappointed even a  
20 decade later that, from the line of sight of the  
21 individual service member before, during and after  
22 deployment, I can't tell what Captain Parkinson

1 got, why he got it, and what he has in his pocket  
2 at any given time.

3 We've identified at least four sources  
4 of possible psychotropic medications that might  
5 come to an individual member while in theater, and  
6 it's hard to capture exactly whether or not we  
7 have an overabundance, an underabundance, what is  
8 the prevalence of the psychological condition, and  
9 what is the prevalence of the coding of those  
10 conditions and the prevalence of the treatment of  
11 those conditions with approved or not approved  
12 uses of psychotropic drugs, which is the exact  
13 questions that the Department is asking us. So  
14 we're challenged, and you'll see some findings  
15 going forward in that general area.

16 We've asked a lot of the  
17 Pharmacoeconomic Center. We've reviewed all  
18 existing policies coming out of the department  
19 concerning deployment-related reviews of  
20 medications, some of the other databases that the  
21 Department uses like P-Mart -- I forget what it  
22 all stands for, but the pre-deployment screening.

1 We've also looked at issues of scope of practice  
2 as it relates to who is allowed to prescribe  
3 medications, psychotropic medications as it  
4 relates to that.

5 We've also looked at DCoE, which is an  
6 intimate area to Dr. Fogelman in terms of what  
7 they do and what they fund. As I said,  
8 complementary and alternative medicine has had  
9 very promising practices in both the broad area  
10 defined as "mindfulness," which is the ability of  
11 individuals to self-generate curing capability, if  
12 you will, for common stressors; self/buddy care,  
13 the types of things we use in simple first aid and  
14 others might be very appropriate; using an  
15 integrated approach to both self/buddy care,  
16 application of field CAM, training and resiliency  
17 in mindfulness, perhaps, as a basic PPE before a  
18 person goes to combat. These are all things that  
19 are on our screen.

20 We're informed by broader DOD-wide and  
21 things like the Army Behavioral Health Initiative  
22 which also puts it in the broader context of in a,

1     you know, personal resilience and family  
2     resilience longer term. So this is really just an  
3     update report. We're confident that we will have  
4     a rough first draft to the full committee sometime  
5     after this meeting which we can then review and  
6     transmit to the full Board by the June meeting for  
7     its consideration.

8             So that concludes our report, and we're  
9     open for questions or comments.

10            DR. DICKEY: This is an informational  
11     report for the Board. The questions, comments?  
12     Dr. Lednar.

13            DR. LEDNAR: Dr. Parkinson and Dr.  
14     Silva, for, certainly, for the Board, great thanks  
15     to you for taking on this challenge and moving it  
16     so rapidly forward.

17            This may be a question that's a little  
18     bit too early to get a sense of, but Mike had  
19     mentioned that there were multiple sources of some  
20     of these therapies in theater, and is there a  
21     thought that these sources could be not only  
22     understood but managed, controlled in sort of a



1 cohesive way.

2 Dr. Fogelman, please weigh in here, too,  
3 as well. We don't know. Some of them clearly are  
4 traditional medical models of someone comes in  
5 with symptoms and I record the diagnosis. I then  
6 match that to a prescription, and I should be able  
7 to track that pretty well, standard medical  
8 practice. But with people coming in and out of  
9 theater with access to multiple sources of  
10 prescription drugs, everything from getting a  
11 package from home that might have sleeping pills  
12 in it, and, anecdotally, and it's just anecdotal,  
13 there is that going on which I think leads to your  
14 Doonesbury cartoon.

15 Now, I'm not always going to way where  
16 there's smoke there's fire, but we certainly  
17 understand from the service psychiatrist and  
18 others who are now seeing -- Dr. Koffman is in the  
19 process of almost a detox program for some 30-plus  
20 individuals on 13 or more prescription drugs who  
21 have either in-theater or near-theater  
22 experiences.

1           I think Kurt Kroenke on our committee  
2    said it best: We have got to get out of the  
3    symptom treatment into whole person treatment,  
4    because if we go from provider to provider to  
5    provider -- and, by the way, this is exactly what  
6    I see in the civilian practice -- there's not a  
7    single company I go to where I review their  
8    database that the number one drug for all their  
9    employees and their families is a psychotropic,  
10   that they're all on antidepressants or some  
11   ambient or sleeping pills because they are  
12   relentlessly marketed.

13           Number two is some version of statins,  
14   and number three is some version of GERD drugs.  
15   And they're all lifestyle drugs. So what we want  
16   to come up with is an operational,  
17   militarily-relevant way to treat the signature  
18   combat injury of any war, which is not double  
19   amputations, frankly, it's combat stress. And so  
20   before, when Dr. Fogelman was making his comments  
21   and we were making ours, is what we want to do is  
22   to learn a best-practice model from TCCC. I'm not

1     sure it's there yet, but somewhere between combat  
2     stress which affects probably 90 percent in terms  
3     of what you actually feel when you're in combat,  
4     and the types of things we're talking about TCCC,  
5     we've got an integrated model. And we've got to  
6     get our handle around it.

7             I think you'll get some good  
8     information, but -- and we'll be as confident as  
9     we can in the prevalence of both the conditions  
10    and their treatment -- but I think there'll be  
11    some questions remaining about how exact our  
12    information is. I will tell you that the ranges  
13    in terms of what we track going through DOD  
14    formulary versus what an MHAT survey, for example,  
15    which is the survey instrument asked of people in  
16    theater about what types of drugs they're actually  
17    taking. There's a big variance, and so the  
18    question is how, for the delta, where do those  
19    drugs come from?

20            DR. FOGELMAN: I agree completely with  
21    what Mike said. I also had quite substantial  
22    optimism that we can get more of a handle on it,

1 Wayne, and get on top of it and in front of it,  
2 particularly as we move toward a more systematic  
3 model. And knowing the military's commitment to  
4 being out front of many things and having been  
5 behind this, I think there'll be a desire to catch  
6 up and move ahead, and I think we can take  
7 advantage of that, and we'll probably make  
8 recommendations to that effect.

9 Do you think that's right, Mike?

10 DR. PARKINSON: (Nodding)

11 DR. DICKEY: Other comments or  
12 questions? If not, we thank both of you for  
13 taking on the issue with the fairly short time  
14 frame and providing us with this update. We'll  
15 look forward to your next report.

16 Our next speaker is Dr. Adil Shamoo,  
17 former chair of the Medical Ethics Subcommittee.  
18 Dr. Shamoo is a professor at the University of  
19 Maryland School of Medicine and was the former  
20 chair of the Department of Biochemistry and  
21 Molecular Biology. In addition, he serves as  
22 professor of epidemiology and preventive medicine,

1 and a member of the graduate faculty of Applied  
2 Professional Ethics affiliated with the Center for  
3 Biomedical Ethics at the University of Maryland,  
4 and guest faculty for the Applied Research Ethics  
5 Program at Sarah Lawrence College.

6 Dr. Shamoo is the founder and  
7 editor-in-chief of Accountability in Research and  
8 has been providing training, education, and  
9 workshops in human research protections, patient  
10 recruitment, and responsible conduct in research.  
11 He's providing an overview of the Medical Ethics  
12 Subcommittee, and you can find his presentation  
13 slides under tab 6 of the meeting binder.

14 Dr. Shamoo?

15 DR. SHAMOO: Thank you. This most of  
16 you have heard most of the presentation, I'm going  
17 to be quick of the most of the slide. There is  
18 really only one brand new slide, so bear with me.

19 Just to be sure, we all know that the  
20 Medical Ethics Subcommittee is relatively young,  
21 and that's all I will say about it. We used to  
22 have membership of the committee, we have a charge

1 the recent activity will tell you, active issues  
2 and potential issues, and the new slide will be  
3 about potential issues.

4 Members of the committee prior, we all  
5 know who they are, there are about five of them.  
6 Subcommittee official charge has addressed issues  
7 pertaining to moral values as they apply to  
8 medicine and their practical application in  
9 clinical settings, and then review the latest  
10 development in medical ethics in general and see  
11 how they pertain to DOD function.

12 This was the question we were asked just  
13 recently, how can military medical professionals  
14 most appropriately balance their obligations to  
15 their patients against their obligation as  
16 military officers to help commanders maintain  
17 military readiness, and how much latitude should  
18 military medical professionals be given to refuse  
19 participation in medical procedures or medical  
20 operations with which they have ethical  
21 reservations or disagreements? Basically do they  
22 have the right to refuse on moral grounds?

1           We had one meeting on December 2nd, and  
2       these are the briefers from various point of view  
3       of the DOD and outside world dealing with these  
4       issues, and we still need at least one more day of  
5       briefing, eventually. These are the people. We  
6       discussed on that day of do our loyalties -- what  
7       are the medical ethical code in the civilian  
8       world, and what's the military law governing these  
9       issues and the belief system and moral influence  
10      on it? And support. Is there support for  
11      providers handling difficult ethical dilemma? And  
12      is there any ethics training for military health  
13      care providers? -- which, to my knowledge, there  
14      isn't much.

15           The potential issues that, officially I  
16      guess, we've been asked, is ethics education for  
17      medical personnel within the military health  
18      system and then ethics primer for board members,  
19      and that, of course, probably we will wait 10  
20      years for that to happen. Board members won't sit  
21      a few hours to listen to one kind of trainings,  
22      but nevertheless -- but as some of you heard

1       yesterday in the comments of the old Board to the  
2       new Board, you should be proactive. And part of  
3       that being proactive, the subcommittee, for  
4       example, has another four or five issues,  
5       probably, they want to address, two of them really  
6       at the top. One of them is relevant to what Dr.  
7       Parkinson and Silva just talked about: Ethics of  
8       enhancement drugs to military personnel and the  
9       other is the issue of use of obtaining and using  
10      genetic information in the military.

11               And I'll be glad to answer any question.

12               DR. DICKEY: Thank you for that  
13      overview, Dr. Shamoo. Are there any questions or  
14      comments regarding the Medical Ethics Subcommittee  
15      or the presentation you just heard?

16               All right, thank you again, Doctor. Our  
17      next speaker this morning is Captain Paul Hammer.  
18      I could ask all of you to note that a new set of  
19      slides has been passed out, so he'll be  
20      referencing the slides that were left on the table  
21      for you this morning, not the ones behind tab 7.

22               Dr. Hammer is the director of the



1 Defense Centers of Excellence for Psychological  
2 Health and Traumatic Brain Injury. Previously, he  
3 served as the director of the Naval Center for  
4 Combat and Operational Stress Control at the Naval  
5 Medical Center in San Diego, California.

6 The mission of the NCCOSC is to improve  
7 the psychological health of Navy and Marine Corps  
8 forces through programs that aid research, educate  
9 service members, build resilience and promote best  
10 practices in the treatment of post-traumatic  
11 stress disorder and TBI. Captain Hammer has  
12 personally trained thousands of service members in  
13 operational stress control, psychological health,  
14 and traumatic brain injury topics. I may take you  
15 back to my university, sir, we could use some of  
16 that there.

17 Captain Hammer deployed to Iraq twice  
18 and provided direct care to warriors in the combat  
19 environment treating marines and sailors suffering  
20 from acute combat stress reactions, and he  
21 directed the mental health activities of over 2  
22 dozen caregivers for 33,000 service members. He's

1 led interventions following suicides, training  
2 accidents, and natural and man-made disasters. He  
3 led the psychiatric intervention at the Korean  
4 Airlines crash in Guam in 1997 and the Joint Task  
5 Force Mental Health interventions following  
6 Hurricane Mitch.

7 This past year Captain Hammer was  
8 deployed in support of the Joint Task Force in  
9 Haiti. He's going to provide the information  
10 briefing regarding the DCoE's current initiatives  
11 and efforts, and, as I said, his presentation is  
12 in a handout provided to you this morning.

13 Captain Hammer?

14 CAPTAIN HAMMER: Thank you, and I  
15 realize that it's lunch after me, right?

16 DR. DICKEY: Yes, sir.

17 CAPTAIN HAMMER: All right, I'll go  
18 quick. I'm here to talk about DCoE and to give  
19 you all an update. And this is my first  
20 presentation before the Defense Health Board, so  
21 if it is not right, let me know and I'll correct  
22 it for the next time.

1           This is what I'm going to talk about, a  
2     little bit about our history, about LoA No. 2, the  
3     Line of Action No. 2, what our congressional  
4     intent was in trying to get DCoE refocused on what  
5     our mission and vision should be, and then a  
6     little bit about our strategic planning and the  
7     way forward and what we've got planned.

8           It's important, I think, to put it into  
9     context so we understand where DCoE came from and  
10    what it's all about. And I think that part of our  
11    problem has been in, you know it's sort of timely  
12    what we're having this presentation now,  
13    especially given the government accounting office  
14    report that just came out this week, or this past  
15    week, regarding -- and I love the title --  
16    Management Weakness is a DCoE. It's like, oh,  
17    great. Thank you very much, welcome to D.C.

18           But I think it's important to put it  
19    into context. And if I take you back to the  
20    winter or the early part of 2007 when in February  
21    The Washington Post came out with a series of  
22    articles outlining difficulties in wounded warrior

1 care in military medicine, and in particular  
2 citing a lot of the issues that occurred at Walter  
3 Reed. Along with that there were several other  
4 task forces that were ongoing to deal with  
5 particularly mental health issues and TBI. So  
6 what you had was the DOD Mental Health Task Force  
7 was created in 2006.

8 You had the Independent Review Group,  
9 which was chartered in order to look at wounded  
10 warrior care. We had the Presidential Commission  
11 which was ongoing, the task force on returning  
12 GWOT heroes, and what happened is that generated  
13 over 400 different recommendations on how to  
14 improve wounded warrior care. Over 300 of those  
15 400 related directly to traumatic brain injury and  
16 psychological health issues. So the vast  
17 majority, you know, some were like fix the  
18 disability evaluation system, and, but there are  
19 huge amounts related to psychological health and  
20 traumatic brain injury.

21 So in order to deal with this, the  
22 Department said, well, okay, what are we going to

1 do? Well, let's establish a Senior Oversight  
2 Committee. So they had the Deputy Secretary of  
3 Defense and the Deputy Secretary of the VA get  
4 together to establish the Senior Oversight  
5 Committee, and from that they had other  
6 committees. And they came up with eight lines of  
7 action, and they divided up all those  
8 recommendations among these different lines of  
9 action.

10 So you had the disability system, you  
11 had case management, you had facilities, you had  
12 sort of a clean sheet and you had a number of  
13 different things. But LoA #2 was probably the one  
14 where the majority of effort went into that. So,  
15 and what they did with LoA #2 was assign that to  
16 Lubeck and Ellen Embrey, one representative from  
17 the VA and one from DOD, to look at what are we  
18 going to do to fix these problems. And Congress  
19 appropriated \$900 million towards doing that in  
20 the 2007-2008 appropriation.

21 In order to figure that out, Ms. Embrey  
22 said, "I need representatives from each of the

1 service," and I was, happened to be one of those  
2 representatives that came, and we created a thing  
3 called the Red Cell. And those of you that have  
4 military experience know that in any military  
5 exercise you have the enemy force which is the Red  
6 Cell. And I think we were the enemy of everybody,  
7 because nobody was going to like what we were  
8 going to have to say about what we wanted to do.

9           So we formed the Red Cell, and what we  
10 did was we said, okay, and we had a lot of  
11 pressure from Congress at the time to get the  
12 money spent, get it out the door, do things fast,  
13 let's go. Why aren't you doing this? Why isn't  
14 that money spent? What's going on?

15           We decided that we would solicit  
16 programs from each of the services in five basic  
17 areas: Access to care, quality of care,  
18 transitions in care, surveillance, and then sort  
19 of an odd catch-all was resilience because that  
20 was a big thing: What are we doing to train  
21 people in resilience, and how are we doing that?

22           And one of those things, one of those

1 recommendations, in fact several of the  
2 recommendations were: Thou shalt establish a  
3 defense centers of excellence for psychological  
4 health and traumatic brain injury. And that's how  
5 DCoE came to be established.

6 DCoE was established in the 2008  
7 National Defense Authorization Act. There are  
8 three sections that are relevant: 1618, 1621, and  
9 1622. You can basically combine 21 and 22 into,  
10 you know, substitute TBI for PH, or PTSD, or  
11 whatever you wanted to put in there. 1618 was a  
12 section that said: The Department of Defense  
13 shall have a program of doing all these things,  
14 and it listed all the various things to address  
15 traumatic brain injury and PTSD that they were  
16 concerned with.

17 And so that's how DCoE came to be. It  
18 was stood up in late 2008, and General Sutton was  
19 the first director. And then over the course  
20 there's been a lot of pressure on DCoE to be all  
21 things to everybody. Part of the problem was is  
22 that DCoE put itself out, I think, when you read

1 our current, the way it stand now in our  
2 documentation, mission, and vision. We're  
3 supposed to lead the nation in resilience,  
4 recovery, reintegration for warriors and their  
5 families in all areas related to psychological  
6 health and traumatic brain injury. And that's a  
7 difficult vision to sort of live up to.

8 And our mission to validate, oversee,  
9 identify and facilitate, prevention, resilience,  
10 screening, treatment, outreach, rehabilitation,  
11 reintegration and every other adjective you can  
12 throw in there about psychological health and TBI,  
13 is a difficult thing to live up to. We were  
14 supposed to become all things PH and TBI sometimes  
15 to all people, and it became a difficult task to  
16 overcome.

17 So what we've begun recently is to look  
18 at more strategic planning to focus our business  
19 practices and our business focus on what is it we  
20 really do have control over and what can we really  
21 do? What is it that -- what's -- who's our core  
22 customer, and what do we really need to focus on



1 and what do we need to do?

2 One major thing was, is try to get the  
3 leadership structure down to something that's a  
4 little more manageable. We created an Executive  
5 Steering Committee with basically five of us. I'm  
6 the director. We have a chief of staff, we have a  
7 deputy director for VA, a deputy director for  
8 psychological health, and one for TBI. And those  
9 are the ones that comprise the leadership  
10 organization at DCoE now.

11 Everybody else that was in the mix that  
12 was as part of the leadership is an advisor,  
13 including the subdirectors and the component  
14 centers. And that's our structure now as to how  
15 we organize ourselves with the Executive Steering  
16 Committee, and then I've got a -- these are the  
17 subdirectors with training and education research,  
18 TBI standards of care, psychological health  
19 standards of care, resilience, and prevention.  
20 Then under the chief of staff we put all of our  
21 support structure in terms of the business  
22 functions and admin organization functions.

1           We have done a thorough scrub of all of  
2   our contracts to really get control over what's  
3   going on with managing the amount of money that  
4   we're spending and what we're doing on our  
5   contracts. We have six component centers, and we  
6   are looking at realigning those in a more  
7   appropriate way within the Department of Defense  
8   and within particular organizations that where  
9   they might have a more natural home, where we  
10   don't have to manage them; all we have to do is  
11   have the relationship to take those best  
12   practices, to take the information they provide  
13   and do what we're supposed to do which is be the  
14   integrator of information and feed it out to the  
15   places where it can be executed.

16           We have the Center for Deployment  
17   Psychology which does a lot of training for  
18   psychologists in particular, but other mental  
19   health professionals in combat stress and  
20   evidence-based case for deployment-related  
21   disorders such as PTSD.

22           The Center for Study of Traumatic Stress

1 is housed at USHUS, and that is basically the  
2 academic center for bench research on  
3 post-traumatic stress disorder.

4 Defense and Veterans Brain Injury Center  
5 addresses TBI in a number of centers both within  
6 the VA and within the Department of Defense  
7 throughout MTFs throughout both organizations.

8 The other, Deployment Health Clinical  
9 Center, which has a major focus in putting  
10 evidence-based therapy and psychological  
11 assistance in a primary care setting.

12 We have the National Center for  
13 Telehealth and Technology which develops  
14 innovative products to bring telehealth and  
15 technology to the psychological health realm, and  
16 we have the National Intrepid Center of Excellence  
17 which no longer belongs to us, but we still --  
18 they're still on our books because we fund them.  
19 But they now, because they're a clinical  
20 organization, they have been reassigned to the  
21 National Military Medical Center at Bethesda. So  
22 they belong now to that MTF because they are a

1 clinical program primarily.

2           What we decided to do is to refocus what  
3 we're trying to do, and this is our customer value  
4 proposition, because our customer is the services.  
5 The primary representative of our customers are  
6 the surgeons general for each of the services.  
7 And this is our value proposition; this is what we  
8 think we bring to the table. But we are the  
9 principal integrator and authority on  
10 psychological health and TBI knowledge and  
11 standards for the DOD.

12           It's up to us to bring that knowledge  
13 out there and be the integrator. We're uniquely  
14 positioned to accelerate improvements in PH/TBI  
15 outcomes and policy impacting the continuum of  
16 care and further reducing variability across the  
17 services.

18           And our goal is to get the knowledge and  
19 information out there to a what is often a very  
20 fractured and stovepiped, or rice-bowled --  
21 whatever analogy you want to use -- organization.  
22 They're doing great things here in one location

1 and not so great things in another location,  
2 something different here. This place in theater  
3 does one thing, and this place is doing a  
4 different thing. We need to bring that knowledge  
5 up to a higher level and disseminate it out  
6 DOD-wide.

7 And we decided that we have a couple of  
8 core competencies and core propositions that we  
9 need to put out there. What do we do? Well, the  
10 first thing is we do psychological health and TBI  
11 programs, things like in-theater protocols;  
12 things like in-theater protocols, Co- Occurring  
13 Conditions Toolkit, a document that we can give to  
14 psychological health or primary care providers  
15 about what do you do with somebody with a TB, and  
16 evidence-based stuff that's out there that we can  
17 get made consistent across the services; policy  
18 guidance for management of concussion and mTBI in  
19 a deployed setting making sure that everybody is  
20 consistently evaluating TBIs in a common way.

21 Facilitating research. One of the  
22 things that we did earlier on was have a consensus

1 conference to develop common data elements that we  
2 can start to collect information regarding a  
3 traumatic brain injury and psychological health;  
4 guidelines for training providers in  
5 evidence-based therapy for PTSD. One of the  
6 difficulties is that you'll find, particularly in  
7 the mental health realm, is it's like herding  
8 cats. Psychiatrists and psychologists are cats.  
9 They want to do their own thing, and it's  
10 difficult to get them on board with being  
11 consistent with what everybody else is doing.

12 Cognitive rehabilitation research  
13 efforts. There are several trials with DVBIC and  
14 a number of other trials looking at what is the  
15 realm of cognitive rehabilitation therapy, what's  
16 the best thing, and how do we do it.

17 Knowledge in psychological health and  
18 TBI. Web-based case studies to get it out there  
19 on what do you do and how do you treat mTBI.  
20 There's a drug therapy monitoring project to  
21 demonstrate, you know what do we do with  
22 monitoring drug therapy, and we've also recently

1 created a PH/TBI collaborative network in order to  
2 foster research activities and get knowledge out  
3 there. One example would be the DOD/VA integrated  
4 mental health strategy which DCoE has 17 of the 28  
5 tasks DCoE is responsible is the lead agency for  
6 carrying those out.

7 Doing program evaluation. Taking the  
8 latest snake oil salesman that has come from  
9 whatever congressman's district and evaluating  
10 that stuff and say, is this real? Is this  
11 evidence-based? That's a role that DCoE can play  
12 that a lot of other people, you know, sort of stop  
13 the proponents shopping around of DOD to say,  
14 where, you know, can we get somebody to get a  
15 really good call on whether or not this is real or  
16 not?

17 And then training awareness conferences.  
18 We hold four major conferences on suicide  
19 prevention, mild traumatic brain injury,  
20 resilience, and trauma spectrum. And those we put  
21 out as ways of getting information out there, and  
22 then we are part of a NATO mTBI work group to

1 again standardize what do we do for mTBI, not only  
2 across the services but across NATO as well.

3 I like simple slides. As you can see,  
4 I'm in the Navy. I am not in the Army with the  
5 Quad Slides and as much text as you can cram on  
6 the PowerPoint as possible. I had to give my Army  
7 friends a good hard time here. But I like to keep  
8 it simple. This is our way forward, and this is  
9 what my task is as director to do: Number 1, get  
10 organized and get people moving forward. One of  
11 the problems that I think we've had at DCoE  
12 recently is, you know, if you ever watched the  
13 Olympic swimming competition, did you ever notice  
14 how the, you know, the Michael Phelps of the  
15 world just seem to glide along and they're barely  
16 moving their arms, and they just seem to go fast.  
17 And then you get an amateur swimmer, and they're  
18 churning along in the water and their arms are  
19 flailing, and that's what I think we've been  
20 doing.

21 We haven't been making much forward  
22 progress because we haven't been efficient and



1 organized, so it's get organized, get people  
2 focused on moving forward. We need to complete  
3 developing our strategy, and that was a big  
4 criticism of the GAO report, is what's our  
5 strategy, and what you do every day, is that lined  
6 up with what your strategy's supposed to be?  
7 There's a disconnect there, and again that's  
8 getting people focused so that at, you know, 9:15  
9 on Tuesday morning answering that e-mail or doing  
10 that activity is going to move you forward to  
11 getting where you want to go. That's what I have  
12 to do to the organization. We're starting to get  
13 there.

14 We need to focus on execution. Meetings  
15 are great, conferences are fun, but we've got to  
16 focus on getting results and making things happen  
17 out there in the field, out there in the MTFs, out  
18 there in theater, out there in the world. We need  
19 to make progress and get things focused so we're  
20 moving forward, and that's one of the  
21 difficulties.

22 And the last thing is deliver quality

1 products, is deliver stuff that people say, wow,  
2 this is really good. This is really useful. This  
3 is something I can really hang my hat on. That's  
4 what we've got to do. That's my plan on the way  
5 forward, and if you want to talk about, okay.  
6 let's get down into specifics, I'm happy to do  
7 that and answer any questions. But I will give  
8 you the caveat that I've only been in the job a  
9 month, so there's still plenty of work to do.

10 Are there any questions?

11 DR. DICKEY: Dr. Kaplan?

12 DR. KAPLAN: Thank you.

13 DR. DICKEY: Yes, go ahead.

14 DR. KAPLAN: Ed Kaplan. Maybe I missed  
15 it, but you mentioned about your concentration on  
16 suicide prevention. Recently there was,  
17 obviously, the report on suicide prevention that  
18 was published and came through here with some  
19 members of the Board on it. Are the two of you  
20 working together, or do you know that each other  
21 exists or --

22 CAPTAIN HAMMER: Who's the other that

1       you're referring to?

2                   DR. KAPLAN:   The people that published  
3       the suicide prevention report.

4                   MS. BADER:   Captain Hammer, I think Dr.  
5       Kaplan's talking about the task force and the  
6       prevention of suicide by members of the Armed  
7       Forces.

8                   CAPTAIN HAMMER:  Right.  Actually, many  
9       of my people were on that committee that actually  
10      --

11                   MS. BADER:   Yes.

12                   CAPTAIN HAMMER:  -- in fact I think my  
13      people did most of the work on that -- well, a lot  
14      of the work, let me size --

15                   MS. BADER:   I think Colonel McPherson  
16      would beg to differ.  She was the executive --

17                   CAPTAIN HAMMER:  I actually had a lot of  
18      people doing work on that.

19                   MS. BADER:   Yes.

20                   DR. KAPLAN:   I'm sorry I raised the  
21      point.

22                   MS. BADER:   No, no, no, that's fine.

1 And they are working together.

2 CAPTAIN HAMMER: I get a little  
3 pugnacious because I, you know, the month I've  
4 been here it's sort of beat up DCoE month. And  
5 then it's like, okay, I've had enough, I'm not  
6 taking any more. We've got to move forward, you  
7 know.

8 DR. DICKEY: Dr. Parkinson, on the --

9 DR. PARKINSON: Yes, Mike Parkinson.  
10 Just to kind of say that, you know, in our efforts  
11 with, you know, the CAM and Psychotropic Drug  
12 Working Group and the Psychologic Health  
13 Subcommittee, there's been some very good, I  
14 think, seminal work from the members of your team  
15 and others and things like that. I assume that  
16 your team is involved in the DOD/VA, CPG as it  
17 relates to PTSD. But we're going -- I'm going to  
18 lay forward a theme here is that we can't afford  
19 to learn lessons for trauma care and not apply  
20 them to psychological health and vice versa.  
21 They're not different models, so we have got to  
22 begin to think about --

1           CAPTAIN HAMMER: Trauma care, you mean  
2 surgical trauma?

3           DR. PARKINSON: Exactly.

4           CAPTAIN HAMMER: Okay.

5           DR. PARKINSON: How do we define a best  
6 practice? How do we research rapid  
7 psycho-prototype and deploy in a standardized  
8 fashion life-preserving and resiliency- preserving  
9 --

10          CAPTAIN HAMMER: Mm-hmm.

11          DR. PARKINSON: -- skills in our troops.

12          CAPTAIN HAMMER: You bet.

13          DR. PARKINSON: And I think you're going  
14 to hear this theme in our report, and I'm saying  
15 that it's not because I need to hear it but  
16 because I think the DHB as our outgoing member as  
17 we leave, and we leave behind this, it's not  
18 psychological health and trauma combat casualty  
19 care, it's end to end. And that's what, you know,  
20 our goal is to create.

21          CAPTAIN HAMMER: You bet.

22          DR. PARKINSON: And that's the same

1 vision you have, sir, so --

2 CAPTAIN HAMMER: You bet. Let me --

3 DR. PARKINSON: -- I just point to the

4 --

5 CAPTAIN HAMMER: I will respond that I  
6 deployed in 2004 as a -- with the Marines in  
7 Fallujah, actually TQ in Fallujah, but I was in  
8 Fallujah for the battle. And what I noticed at  
9 that time was the -- it was a -- it eventually got  
10 morphed into the Joint Theater of Trauma record,  
11 but at the time it was NHRC was with the Marines  
12 during the combat trauma record.

13 And I was fascinated because I looked at  
14 this thing, and who was wearing -- were you  
15 wearing eye protection, and how much, you know,  
16 all that stuff. Where's the wound, all kinds of  
17 different stuff.

18 So what I did was I thought, hey, wait a  
19 minute. Why aren't we doing this? "We" meaning  
20 the mental health professionals, you know. Why  
21 aren't we recording what the experiences are, and  
22 is there a place for that to be in there?

1           So I got back in 2005, and it's like,  
2   well, I, you know, I was just a, you know, a  
3   worker bee at that point. But then I got assigned  
4   to 1st Marine Division and ended up going back as  
5   1MEF as the MEF psychiatrist in charge of our Al  
6   Anbar. And I'm like, wow, now I got people  
7   working for me and let's create the database, and  
8   let's start doing that thing.

9           Unfortunately, it died because I left,  
10   and the guy that followed on me didn't agree with  
11   what I was doing and didn't like it and was lazy  
12   or, I don't know. I mean who -- you know, pick a  
13   reason. It died. And, you know, actually we're  
14   about to publish with NHRC the first of that  
15   database because I brought back 2600 encounter  
16   records of a lot of different stuff from what we  
17   were seeing and looked at things like diagnosis of  
18   acute stress disorder. And we have the identified  
19   data so that we can go back and look at how many  
20   of those that we diagnosed with acute stress  
21   disorder later on. A couple of years later now  
22   we've got PTSD, and that's one of the things we're

1 looking at in that particular dataset.

2 That's the kind of stuff we need to look  
3 at is what are we doing there. And you're right,  
4 we need to go to school and I'm already working  
5 with General Robb about this, about how do we go  
6 to school to replicate in the mental health world  
7 what the surgeons have done within the Institute  
8 of Surgical Research and the cycle of -- what's  
9 the --

10 MAJOR GENERAL ROBB: Translational  
11 research.

12 CAPTAIN HAMMER: Translational research,  
13 to get stuff out there very quickly and not be  
14 hampered by, well, we need to do a study, and  
15 let's do the five-year plan and that sort of  
16 thing. So I'm on board with that, definitely.

17 DR. DICKEY: Colonel McPherson, did you  
18 want to add something?

19 COLONEL MCPHERSON: I just want to  
20 answer Dr. Kaplan's question. DCoE was not on  
21 the task force, and the task force is -- the  
22 response to the report is being worked by a Dr.



1 Climan in OSD. I do know, however, that he is  
2 working with DCoE and that I've gotten some rules,  
3 my updates to pass to my task force from Dr.  
4 Bates, who is a member of DCoE.

5 CAPTAIN HAMMER: Yeah.

6 DR. DICKEY: Thank you, Colonel.  
7 General Robb?

8 MAJOR GENERAL ROBB: Yes. I'd like to  
9 actually piggyback on Captain Hammer's  
10 presentation here. As the DCoE comes out of its  
11 suspended animation as I've called it, with the  
12 dynamic leadership of Captain Hammer, what -- what  
13 we have described again with excellent  
14 presentation again from our folks when we were  
15 talking about psychotropics or whether we're  
16 talking about psychological health is where is the  
17 center of gravity for psychological health, TBI,  
18 and for PTSD? And so -- and then follow-on rehab.  
19 And so much as the ISR became the center of  
20 gravity for en route care, TCCC, (inaudible)  
21 surgery and resuscitation and actually rehab, the  
22 vision, as you saw with Captain Hammer's, is that

1       that'll be the center of gravity that will bring  
2       in the academic world, that will bring in again  
3       the centers of excellence. I use that word  
4       loosely, I prefer to call them portfolios. But to  
5       be the integrator, again I call it the center of  
6       gravity.

7                   We have been in a lot of, already,  
8       discussion, and this is going to fall in again  
9       what you guys were talking about with psychotropic  
10      in TCCC. But creating this joint theater, you  
11      know, call it neurotrauma system --

12                   CAPTAIN HAMMER: Well, they won't -- the  
13      CENTCOM --

14                   MAJOR GENERAL ROBB: -- TBD.

15                   CAPTAIN HAMMER: The CENTCOM guys don't  
16      like that yet, so.

17                   MAJOR GENERAL ROBB: Yeah. They'll get  
18      over it. (Laughter) So anyway, so, but anyway,  
19      working with U.S.

20                   Central Command but to develop again a  
21      psychological health trauma system for the theater  
22      much modeled after the JTTS system -- and again,

1 in fact, we may be sitting in some of those same  
2 centers of gravities. And so they will be the  
3 assimilators of the CPGs. They will push this  
4 stuff out rapidly. They will -- and again if you  
5 want to talk a little bit about this is important,  
6 because this group understands this -- talk a  
7 little bit about your vision or the collection of  
8 the data, the JTTR alike entity for neuropsych  
9 world in the deployed environment.

10 CAPTAIN HAMMER: Well, one of the things  
11 we're going to do is go to school on TBI, and  
12 because it's so discrete that's an easier thing to  
13 do than to try to capture PTSD or, you know,  
14 psychological trauma incidents. I think they're  
15 going to be a little more difficult.

16 We have a neurologist that's going to be  
17 going into theater very shortly, like within a  
18 couple of weeks, who would become sort of the  
19 theater neurotrauma person that we tag. Her job  
20 is to help us with the -- to develop and further  
21 cement the use of the blast event, concussion -- I  
22 forget what the "I" is -- report. Incident

1 report. So BECIR, Blast Event Concussion Incident  
2 Report.

3 And the idea is that this is the tool  
4 that solidifies the actual execution of the  
5 directive-type memorandum from the Secretary of  
6 Defense saying this is how you will treat or deal  
7 with a blast event. So the idea is that we have a  
8 data collection tool which gets fed back to us.

9 We are the -- it goes through JTAPIC, so it's part  
10 of the whole trauma system in terms of  
11 understanding how we prevent and treat injuries.  
12 But we look at it from the subject matter expert  
13 point of view, collect, you know, clean up the  
14 data and then feed it out to the services, and  
15 then take any lessons learned from that data, not  
16 only the actual data points themselves but the  
17 observations and analysis that go along with the  
18 person that's in theater that has that you know,  
19 can tell us what's going on.

20 And, in addition, the person in the  
21 theater is there who can help us execute the CPGs  
22 that might result from that as a sort of a

1 feedback loop. They can also take what best  
2 practices, one of the things that this Colonel  
3 Grimes that's going in, one of the things that  
4 I've assigned her to do is look at what are the  
5 best practices in the recuperation centers. And  
6 again, we're focused on TBI for the time being  
7 because it's a discrete entity with a blast event  
8 that we can really, you know, nail down, and then  
9 go to school from that in terms of what we do with  
10 the psychological health aspect of things.

11 So that's the genesis of the system in  
12 terms of looking at as rapidly as we can, and that  
13 data system already exists. The BECIR is a module  
14 in the event reporting that the line commanders  
15 have to report. And they're also working on  
16 modifying that system so that you cannot close out  
17 your significant activity report until you  
18 complete the BECIR if certain fields are filled  
19 out, you know, "yes." So if it's a blast event,  
20 you know, Corporal Schmuckatelli will not be able  
21 to close that out until they do the BECIR. So  
22 right now they're still doing stubby pencil and

1 Excel spreadsheets and that sort of thing. And  
2 the BECIR compliance is about 13 percent of all  
3 the total.

4 And I've asked Jamie, let's see if we  
5 can get it up over 50 percent, and that's the  
6 90-day goal for the next 90 days.

7 DR. DICKEY: Will that data collection,  
8 not unlike the trauma registry, be used throughout  
9 the war zone, or will it only be used by one small  
10 unit?

11 CAPTAIN HAMMER: Oh, no. That's theater  
12 -- that's actually DOD-wide.

13 DR. DICKEY: Okay, thank you. Dr.  
14 Lednar.

15 DR. LEDNAR: Wayne Lednar. Captain  
16 Hammer, welcome to your challenging leadership  
17 assignment.

18 CAPTAIN HAMMER: Thank you.

19 DR. LEDNAR: We will look forward to  
20 great success. You mention on Slide 12 about a  
21 toolkit, the co-occurring conditions toolkit. And  
22 for me that was a sort of a memory jog about the

1 reminder that patients often have more than one  
2 issue, health issue.

3 CAPTAIN HAMMER: Right.

4 DR. LEDNAR: Medical and psychological,  
5 and how we really need to keep both in view and  
6 manage both.

7 One aspect, coming up to the population  
8 level that I frequently see and maybe Dr.  
9 Parkinson has a view on this, is that when data  
10 are summarized for large groups, we tend to  
11 retreat to the univariate data summarization which  
12 tends to separate the psychological health issues  
13 from the medical/surgical issues. And I think  
14 that if there are ways that in your data  
15 summarization you can find ways to really bring to  
16 the surface the importance of the co- occurrence,  
17 the co-morbid, and how to manage both well to the  
18 benefit of both, that would be a real advantage to  
19 us all.

20 CAPTAIN HAMMER: We're working on it.  
21 That's a major task for us.

22 DR. DICKEY: General Myers.

1                   GENERAL MYERS: Thank you for your  
2 presentation, Captain Hammer. We've had other  
3 DCoE briefings. This is probably the most -- this  
4 is the best one we've had to date, It looks like  
5 we have a way forward.

6                   A couple of questions: Are you familiar  
7 with this MIT collaboration initiative?

8                   CAPTAIN HAMMER: Yes, sir. I actually  
9 spoke with their people last week.

10                  GENERAL MYERS: You ought to be tied at  
11 the hip with them so they don't wander off and  
12 that they can be helpful, I think.

13                  CAPTAIN HAMMER: Yes, sir.

14                  GENERAL MYERS: So I'm glad you're tied  
15 to, if -- I think your customer-value proposition  
16 is terrific, and that's what it is all about. But  
17 principal integrator and authority, knowledge  
18 standards, and then I look at your org. chart, and  
19 you've got a lot of military folks there that I  
20 assume will turn over. So over time are you --  
21 I'll just ask you, are you going to be concerned?  
22 How do you maintain your status as the integrator



1 and have that corporate knowledge at the DCoE when  
2 people are vulnerable to being reassigned  
3 somewhere else? How do --

4 CAPTAIN HAMMER: Yes, sir. In our org  
5 chart in terms of the subject matter expertise  
6 that we have on board -- and I apologize if I  
7 don't have the superb command of the numbers right  
8 now -- but we have roughly the ball park of about  
9 30 military folks and in the ball park of 90 or  
10 more civilians. And most of them are contractors  
11 right now.

12 One of the things that we're dealing  
13 with is trying to juggle several different  
14 competing demands with SecDef efficiencies, you  
15 know, reducing some of our footprint while at the  
16 same time get the hiring going to get GS-civilian,  
17 government civilians, in place and hire into those  
18 positions in the org chart that we have. That was  
19 only the higher level in the org chart.

20 GENERAL MYERS: Right. I understood  
21 that. That's all I'm asking.

22 CAPTAIN HAMMER: Yeah, but they're a

1 relatively small amount of military folks; the  
2 vast majority are, hopefully, will be  
3 GS-government civilians who will be, you know,  
4 stable for the long term.

5 GENERAL MYERS: Well, I for one would be  
6 interested as a board member that, if you have  
7 trouble hiring the right people -- I mean, this is  
8 -- we can't wait till tomorrow. We should be  
9 doing this today, so if this is tied up in  
10 efficiencies and we can't get the right people,  
11 then we're making a huge mistake.

12 CAPTAIN HAMMER: Well, I don't want to  
13 rat out my bosses here, but --

14 GENERAL MYERS: No, that's fair, rat  
15 them out, that's what we're here for.

16 CAPTAIN HAMMER: -- right now it's --  
17 right now it's, you know, there's a number of  
18 different competing things going on right now, and  
19 I think, you know, we need to -- we need to get  
20 going on that, I agree.

21 GENERAL MYERS: Right.

22 CAPTAIN HAMMER: It's just, you know,

1 I'm trying to juggle several different things.

2 GENERAL MYERS: You know, it's something  
3 that the Board might like at a next meeting see  
4 how are we doing? How was your hiring? What's  
5 your percent? I'd like to know the percent of  
6 your manning that you got on board, and are they  
7 competent.

8 CAPTAIN HAMMER: Yeah, I'm happy to come  
9 back and give a more detailed --

10 GENERAL MYERS: Yeah, I'd like to hear  
11 that. I think that's, at least as one board  
12 member -- and the last question is -- and this is  
13 always the tricky one -- how do you evaluate your  
14 authority to be the integrator and to develop the  
15 knowledge and standards, in other words, that the  
16 services are going to listen to you? Because my  
17 experience is that the services don't. They  
18 operate in their own little worlds, and so how --  
19 and we've seen that on other issues -- so how are  
20 you going to -- you're the authority. Can you --

21 DR. SHAMOO: Well, we have congressional  
22 authority by, you know, Congress made a law --

1                   GENERAL MYERS:  Yeah.  That doesn't hack  
2    it, okay.

3                   CAPTAIN HAMMER:  Well, but --

4                   GENERAL MYERS:  I'm saying I see the --  
5    I read, I've read a couple of the bills.  That is  
6    not going to get it done, so you have to be able  
7    to walk into the room of the surgeons --

8                   CAPTAIN HAMMER:  You're right.

9                   GENERAL MYERS:  -- and have the  
10   authority to say, okay, here's what we've been  
11   studying, and we don't need a vote, but here's  
12   kind of how we're going to do it.  Or if you need  
13   a vote, we'll be back where we are today.

14                  CAPTAIN HAMMER:  Right.

15                  GENERAL MYERS:  So how do you -- I mean,  
16   I'm just --

17                  CAPTAIN HAMMER:  I see that not so much  
18   as an authority issue -- as an authority as in,  
19   you know, these are really smart guys that, you  
20   know, know what they're doing, and, you know, have  
21   a research background.

22                  GENERAL MYERS:  Right.

1           CAPTAIN HAMMER: That sort of thing. I  
2     mean because there are two aspects. If -- and  
3     this is Paul Hammer's opinion on this. If the  
4     services and leadership are going outside us, the  
5     military medicine authorities who are in the  
6     position then -- and there was a certain amount  
7     that's on them, but there's also a significant  
8     amount of blame that's on us -- we have a customer  
9     service problem from our point of view if our  
10    leadership is saying, you know, my surgeon or my  
11    guy, I'm not going to listen to him. I'm going to  
12    go talk to the big expert at, you know, MIT or  
13    wherever. That's a problem on us that we have to  
14    address.

15           I don't have an easy answer for that  
16    other than doing my best to provide the best  
17    possible value in customer service. But it also  
18    means that I am in the face of the leadership  
19    saying, what do you need?

20           GENERAL MYERS: Right.

21           CAPTAIN HAMMER: And what can we -- what  
22    are we not providing, and being very honest with

1       them about, you know, what you're asking is the  
2       impossible. I know you want to take care of your  
3       marines, I know you want to take care of your  
4       soldiers and sailors but, you know, running around  
5       to, you know, talk to every possible person in the  
6       world and, you know, having them bombard us with  
7       proposals is not going to do it. You know,  
8       getting focused and having them feel comfortable  
9       that it's handled, okay, you're working on it.  
10      And we're making progress, and we're doing it  
11      rather than churning around in the water and not  
12      making, you know, not moving forward.

13                So it's a complicated process, but I  
14      think you earn the authority, ultimately. And,  
15      you know, we have it by Congress and they give --  
16      they throw a lot of money at us, okay. We can  
17      hire people and do that, but ultimately, you know,  
18      I've got to earn that trust of, you know, like Dr.  
19      Woodson talks about, a humble trust.

20                GENERAL MYERS: I guess I was making  
21      light of the congressional authority here, but  
22      it's in the implementation that this all counts.

1           CAPTAIN HAMMER: Yes, sir.

2           GENERAL MYERS: And Congress can only go  
3 so far in that, then it takes the rest of us --  
4 well, not me anymore, but people like General Robb  
5 and others to kind of get on with business, so  
6 that's a good answer. Thank you.

7           DR. DICKEY: General, I think that you  
8 make a very good point, though, and one of the  
9 things that this group can do is not only follow  
10 up -- and I notice Ms. Bader made a note for us  
11 -- but much like the message we'll be sending to  
12 Secretary Woodson, the opportunity to suggest that  
13 he use his imprimatur to make sure that it's not a  
14 naval issue or a airman's issue but it's across  
15 all services. And I think the rapid sequence  
16 change is something that we can also share with  
17 civilians.

18           SPEAKER: Absolutely.

19           DR. DICKEY: The military does it better  
20 than we do. Dr. Hovda.

21           DR. HOVDA: Dave Hovda. Captain Hammer,  
22 excellent report. I'm a friend of DCoE, so I'm --

1 CAPTAIN HAMMER: Thank you.

2 DR. HOVDA: -- so don't worry about  
3 that. I have three general comments that may  
4 help. One is, the first, is that I think MIT is a  
5 fine junior college. (Laughter) And there are a  
6 number of centers throughout the United States,  
7 academic centers that have given an enormous  
8 amount of effort to understanding my traumatic  
9 brain injury, and I would encourage you to contact  
10 either Dr. Ross Bullock, who's president of the  
11 National Neurotrauma Society to help you with  
12 that. Those people I can tell you by my own  
13 experience are very enthusiastic, want to help,  
14 and I think through that expertise to support your  
15 mission actually gives you the inherent authority  
16 by at least the world experts that I think are  
17 involved here in the United States.

18 The second is that I really can't stress  
19 more important your mission with regards to the  
20 database. This data -- this whole problem needs  
21 to be data-driven --

22 CAPTAIN HAMMER: Mm-hmm.



1 DR. HOVDA: -- like all of our science.  
2 But this has been a real problem. This is a  
3 problem in the National Football League when we  
4 asked the National Football League how many  
5 concussions they had. I was informed in 2000 that  
6 the concussion didn't happen in the National  
7 Football League, and it was so wonderful this last  
8 year to see that recommendation be changed and how  
9 they were going to treat that. So data is really  
10 important to take.

11 The other is something that Charlie has  
12 brought up and others have brought up in this  
13 room, and that is now that there's excellent  
14 science to suggest that the concept of  
15 post-traumatic stress and traumatic brain injury  
16 are not mutually exclusive, and that there is  
17 excellent neuroscience saying that mild traumatic  
18 brain injury does not necessarily cause  
19 post-traumatic stress but now we know the  
20 neurobiology that sets the brain up to acquire  
21 post- traumatic stress. So that there's a window  
22 of opportunity here for research or applications

1 can be presented. I think that that should be  
2 really taken advantage of.

3 So when they brought us all together as  
4 stakeholders about four years ago, I can remember  
5 us being separated. We weren't allowed to talk to  
6 people that did post-traumatic stress --

7 CAPTAIN HAMMER: Yeah.

8 DR. HOVDA: -- if we were traumatic  
9 brain injury people. And that -- that really was  
10 a problem, and I thought that I encourage you to  
11 be not only data driven but also to accept the  
12 center of action as a fundamental principle.

13 And, finally, I think that -- I think  
14 it's quite right to tag TBI first for your  
15 database because it's a -- unfortunately, it's a  
16 nice marker. It's something that starts that you  
17 know exactly where it starts, and at least it's a  
18 starting point that you can be at.

19 But we, the more that you and DCoE begin  
20 to think of traumatic brain injury as a disease  
21 process that lasts throughout somebody's life as  
22 opposed to something that's going to happen that

1     you're going to recover from, is I think that will  
2     add a lot more of an understanding of how we can  
3     protect individuals as they go on through their  
4     career.

5             Thank you very much for your report.

6             CAPTAIN HAMMER: Thank you, sir. I  
7     wanted to add a comment to your comment about the  
8     data. And, you know, it's maddening sometimes to  
9     try to get stuff done within this, you know, huge  
10    system, but one of the things that has been  
11    frustrating to me that, you know, I sort of want  
12    to take advantage of this new position is that 10,  
13    15 years from now when people ask us, well, you  
14    had this, you know, interesting thing, this long  
15    war with this TBI thing and all the, you know,  
16    traumatic stress and exposure, so what did you  
17    learn about PTSD and TBI?

18            And if we say, "we" being the whole  
19    system, say, yeah, you know we had a real hard  
20    time getting the database through the ATO process,  
21    and, you know, DMs couldn't it, and, ah, we --  
22    that's not acceptable, you know? That's -- we've

1 squandered an opportunity to really understand and  
2 learn something that can go forward to the next  
3 generation. So I mean, that's, you know, we have  
4 got to work quickly to take advantage of the  
5 opportunity that we have now, and the data thing  
6 is a core thing to do that.

7 DR. DICKEY: Dr. Fogelman?

8 DR. FOGELMAN: Did you just call on me,  
9 Nancy?

10 DR. DICKEY: I did, Charles.

11 DR. FOGELMAN: Captain Hammer, thank you  
12 so much for your beginning efforts. I'm mindful  
13 also that we're on the way to lunch, and I'm  
14 mindful that you are in the job only for a month  
15 and that you are bigger and in better shape than I  
16 am. And so I --

17 CAPTAIN HAMMER: You may be hungrier,  
18 though.

19 DR. FOGELMAN: No, what I'm not -- what  
20 I mean is I'm not going to try to beat you up.

21 CAPTAIN HAMMER: Oh, okay.

22 DR. FOGELMAN: Though I would certainly

1 beat up the history of your organization, and I  
2 only want to say this: The psychological health  
3 now, the Psychological Health and Traumatic Brain  
4 Injury Subcommittee of this Board has a charter  
5 responsibility to be helpful to DCoE and to offer  
6 advice and to interact with it on a systematic  
7 and, I would argue, a frequent basis. And I want  
8 you to know that in our view we have not even  
9 remotely been taking sufficient advantage of.

10 For example, there are people in our  
11 subcommittee who are experts at organizational  
12 development and redevelopment, experts in  
13 strategic planning as well as all of the clinical  
14 things. And just as there are several people who  
15 said -- I know General Myers might have spoken  
16 about this and several others had -- that the  
17 Board has responsibility and wants to be informed.  
18 A useful conduit of that is our committee, and a  
19 useful set of assistance to you are the members of  
20 the subcommittee which now will include Dr. Hovda,  
21 Dr. Bullock, and several other folks.

22 So I just want to register that, and I

1 want to say this about the JAO report. I am, as  
2 everybody in this room knows, very much given to  
3 making jokes as well. The JAO is not in my  
4 experience given to hyperbole, and their statement  
5 and their description and their title of their  
6 report is appropriate. I believe completely and  
7 honor your commitment to making that better; but  
8 it is a very, very serious issue and a very, very  
9 serious problem which ought to be fixed and fixed  
10 well and soon. And I encourage you in that and  
11 offer our help in that.

12 CAPTAIN HAMMER: Thank you. I  
13 appreciate it.

14 DR. DICKEY: Dr. Jenkins.

15 DR. JENKINS: Paul, a fantastic report.  
16 I'm sorry you had to hold back and not really tell  
17 us --

18 CAPTAIN HAMMER: How I really felt.

19 DR. JENKINS: Just an innocent question.  
20 Is it possible that there is a coalition best  
21 practice that's already out there? I know our  
22 Dutch colleagues don't deploy for more than seven

1 weeks at a time, citing that that's the limit of  
2 human tolerance for, you know, combat stress, et  
3 cetera. And I just wonder if your group has any  
4 interaction with our coalition partners have their  
5 experiences in this that might be beneficial.

6 CAPTAIN HAMMER: Yeah, actually we do.  
7 You know, in our resilience and prevention  
8 directorate, they've been involved and, you know,  
9 there's a lot of good practices out there. It's  
10 figuring out what's the best practice, what works  
11 best in particular context that's difficult. I  
12 mean, for example, the U.K. has the TRIM program  
13 which is a peer response program when there's a --  
14 some sort of a traumatic or psychologically  
15 traumatic incident. Yeah, we can look at, you  
16 know, what are the Dutch doing and what are the  
17 various folks doing?

18 Like you mentioned, we're on that NATO  
19 TBI consortium, so there's a lot of interaction  
20 that we have with other folks. It's finding the  
21 mechanism and the structure within the  
22 organization to evaluate and process and make

1 those things work so that, you know, you have a  
2 thoughtful and consistent way of doing these  
3 things rather than, oh, my gosh, maybe it's a good  
4 idea, and off we go with a herd to go look at that  
5 good idea, and then the herd goes this way, it's  
6 stop, let's be thoughtful, let's be scientific,  
7 let's be organized about how we look at and  
8 evaluate these things and sort through them.

9 But, yeah, we do have great connections,  
10 and that's a good suggestion. Thanks.

11 DR. DICKEY: Dr. Kizer?

12 DR. KIZER: Captain Hammer, this should  
13 be an easy question, but in the --

14 CAPTAIN HAMMER: We meet again.

15 DR. KIZER: We meet again, and I guess  
16 since last week it's now five weeks that you've  
17 been on the job.

18 CAPTAIN HAMMER: That's right.

19 DR. KIZER: But in the interest of  
20 keeping it simple and as you distill through all  
21 of the churning and organizational stuff that's  
22 been going on and all the activities, but as the,



1        what, fourth now director of the Institute and  
2        being mindful of the amounts of money that have  
3        been spent in this area, if you had to distill  
4        through all of this, what are the two or three  
5        most important things that DCoE has done to  
6        actually improve the psychological care or the  
7        care of our wounded warriors?

8                    CAPTAIN HAMMER: Well, actually, we have  
9        done some pretty good stuff. Probably one of the  
10       most important things is collaborating with the  
11       revision of the PTSD, CPGs. DCoE was part of  
12       that. Putting out clinical practice guidelines or  
13       clinical guidance -- I don't know if its a formal  
14       CPG for dealing with mild TBI. The directive-  
15       type memorandum from the Secretary of Defense on  
16       how to treat, how to deal with concussion and TBI  
17       in theater, that was driving in large part by a  
18       lot of the folks in DCoE on the TBI side. So  
19       those are just a few things.

20                    We've done a lot. I think one of the  
21       criticisms of DCoE has been conferences, and, you  
22       know, holding conferences or not in action. I

1 would push back -- yeah, that's true, but holding  
2 conferences to get consensus to put information  
3 out to bring the right people together, you know,  
4 we all go to conferences. This is a conference.  
5 I mean, you know, when we really thing about it,  
6 it's finding common ground, so I think some of  
7 those things are good.

8           And even the recent, you know, two weeks  
9 into the job I went to our resilience conference.  
10 One of the most important things that did was that  
11 60 percent of the people there were not clinical  
12 people, and that's where a lot of the impact,  
13 particularly with the psychological health stuff,  
14 has to happen. It isn't psychiatrists and  
15 psychologists and social workers; it's sergeants  
16 and corporals and doing, you know -- somebody, I  
17 think it was Dr. -- I think you mentioned the peer  
18 support and what are you doing there?

19           I mean, one of the -- I mean, I -- it  
20 drives me nuts the way we do suicide prevention,  
21 the global "we," not, you know, we as, you know,  
22 we have stand downs and, you know, all the

1 psychiatrists and psychologists and social workers  
2 and chaplains and everybody talk about it. The  
3 guy that's going to prevent a suicide is not me;  
4 the guy that prevents a suicide is your buddy  
5 who's the other 19-year-old who says, wait a  
6 minute, that's a stupid idea, let's not do that.

7           And, you know, and the way we do suicide  
8 prevention, you know, I liken it to, you know, if  
9 I did a cardiac prevention program and said, hey,  
10 if you have crushing substernal chest pain, go to  
11 the ER. That's my program. What do you think?  
12 Pretty good, huh? But that's the way we do  
13 suicide prevention: If you're in crisis, get  
14 help. Really? How about never getting into a  
15 crisis? That would prevent a lot of suicides, you  
16 know, and that's -- the kind of thing is really  
17 having an impact, not in the academic community  
18 but in the line community with corporals and  
19 sergeants and petty officers and those guys.  
20 Those are the people that are going to prevent  
21 suicides, and those are the people that's going to  
22 do resilience. And those are the people that are

1 actually going to do the DTM stuff to say you got  
2 your bell rung, let's pull you out. That's the  
3 guy that's going to do it, and we have to have an  
4 impact on that guy, and we can have all the  
5 conferences and all the stuff, but that's where we  
6 have to have our impact.

7 So rant over.

8 DR. DICKEY: I think that's a great  
9 place to thank you again for the presentation. I  
10 think we're all energized by your commitment to  
11 DCoE. I look forward to hearing back from you  
12 frequently --

13 CAPTAIN HAMMER: Yes, ma'am.

14 DR. DICKEY: -- and how we can help you  
15 advance it. I hope you carry all that enthusiasm  
16 into the rapid cycling of good answers.

17 CAPTAIN HAMMER: All right, thank you,  
18 ma'am.

19 DR. DICKEY: Thank you, sir. We're  
20 going now break for a working lunch to include  
21 board members, federal agency liaison, service  
22 liaisons, and DHB staff. For distinguished guests

1 and speakers a catered lunch will be provided as  
2 well. We'll reconvene at promptly at 1:15 since  
3 some of you have already talked to me about the  
4 fact that you planned planes based on our estimate  
5 of a 2:15 adjournment. So if we can break at this  
6 time for lunch, and watch your watches, try to be  
7 back promptly for a start at 1:15.

8 (Whereupon, at 12:30 p.m., a  
9 luncheon recess was taken.)

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1 U.S. Special Operations Command. Prior to this  
2 position he served in a number of staff positions  
3 in Special Operations Command including the 7th  
4 Special Forces Group, the Joint Special Operations  
5 Command, and the U.S. Army Special Operations  
6 Command. Colonel Deal has commanded hospitals  
7 both in the field and in garrison, has served as  
8 chief of surgery, and his slides can be found  
9 under tab 8. He was the first one, you'll  
10 remember, that Secretary Woodson point to his  
11 stories this morning.

12 So, Colonel Deal.

13 COLONEL DEAL: Oh, thank you for that.  
14 Folks, happy to be here today, and I am Tom Deal  
15 with Special Operations Command. My boss is  
16 Admiral Eric Olsen down there, and as combatant  
17 command surgeon my other boss is across the table  
18 there, Major General Robb. And I'm going to try  
19 and tell you a little something about what a SOCOM  
20 is and about what some of our clinical concerns  
21 are.

22 I think as Admiral Olsen offered in his

1 testimony last week that SOCOM was created by  
2 Congress. It came out of the rescue attempt  
3 Desert One where one of my mentors put together a  
4 gallant rescue mission that didn't turn out so  
5 well. There were a couple of commissions that  
6 looked at things after that and reorganized with a  
7 couple of pieces of legislation what's now come to  
8 be known as U.S. Special Operations Command.

9 Now, what was there before that? Well,  
10 there were things like Green Beret medics, the  
11 embodiment of which is in the expertise of Medical  
12 Sergeant Carmona across there. Woowah, sir, your  
13 fan club at Fort Bragg is alive and well.

14 We've been organized now as an  
15 overarching agency to provide the jointness for  
16 the service components that comprise now the  
17 little less than 60,000 folks within Special  
18 Operations Command. It sort of stacks up much  
19 like the others. I think under Title 10, United  
20 States Code Section 167 -- scared that I can  
21 remember that -- we do have service like  
22 responsibilities as far as organize, train, and



1 equip, which sometimes takes our level of command  
2 down at Tampa. As we've kind of joked, we've  
3 reached our highest level of irrelevancy. Admiral  
4 would shoot me for saying that, but we are  
5 primarily focused on the organize, train, equip  
6 mode most days of the week, and sort of the  
7 organize, train, equip mode is to provide fully  
8 capable Special Operations Forces for the National  
9 Command Authority.

10           These are sort of our corps tasks I  
11 think I saw in CGSOC one day. I was holding forth  
12 on my view of indirect and direct action as sort  
13 of corps mission. Someone more current in SOF  
14 doctrine reminded that I needed to go back to the  
15 books and look at what's evolved since I left.

16           These are the teams that we have. The  
17 mostly Green outfit is headquartered at Fort  
18 Bragg, United Special Operations Command, sort of  
19 the legacy outfit of the five Active-Duty Special  
20 Forces groups. It's about 2,200 guys, Green  
21 Berets, whatever you want to call them. Now two  
22 reserve component National Guard groups go along

1 with that, Army Rangers, 160th Special Operations  
2 Aviation Regiment, Civil Affairs, the School  
3 House, PSYOPS, Naval Special Warfare Command,  
4 Think SEALs, and Special Boat. Air Force Special  
5 Operations Command over at Herbert, I think  
6 gunships NH53s, and all those things that you need  
7 as far as air frames and air commandos to make  
8 some of these operations really work.

9 On the far right is Joint Special  
10 Operations Command. They never go anywhere, they  
11 make PowerPoint slides and through lots of states  
12 or something like that. And then newest to the  
13 group is Marine Special Operations Command at Camp  
14 Lejeune, and I understood that the request to  
15 rename the Marine Raiders has not been received  
16 favorably. More to follow on that.

17 Recently added to the family are theater  
18 Special Operations Commands, and that's usually a  
19 one- or two-star billet in support of the  
20 geographical commander in that theater of  
21 operations. And I think we have surgeons with  
22 five of these now to include -- yeah, to include

1 at NATO headquarters. And these sort of homilies  
2 that go along with life in USSOCOM, and I think we  
3 in the medical business sort of focus more on the  
4 first one than any of the others and yeah, we  
5 can't get by without the rest of the family.

6 Our planning is a little different than  
7 when I'd been a planner for 44th Medical Brigade,  
8 opportunistic, yeah, we're certainly that,  
9 particularly for early entry forces or for  
10 whenever we are there not in a mature theater of  
11 operations such as Iraq or Afghanistan.

12 Medical planning considerations, I think  
13 I spoke once at Joint Forces Command on a medical  
14 planning conference, and I just sort of summarized  
15 it. When you're hosting a social event for  
16 Department of Defense, and you're going to invite  
17 SOCOM, please don't count on us to bring a SOCOM  
18 hospital ship, convent support hospital strategic  
19 air evacuation because we don't have any of those.  
20 Please bring those for us.

21 The one thing we do have and I think it  
22 goes back to probably when we were before SOCOM,

1       OSS were putting Jed Bird teams into various  
2       unpleasant places. They wanted to know what about  
3       to get shot. Well, it would be nice to have a  
4       medicus really as well trained as we can get a  
5       medic. So I think that at the top of that list  
6       the Special Operations medical sergeant 18 delta,  
7       depending on the training sequence it might take  
8       over two years to train one of those guys, and  
9       they're probably pretty good practitioners of care  
10      of battlefield trauma in addition to some garrison  
11      care.

12               The Corps has kind of been distilled out  
13      of this over the last decade as the 26-week SOCOM  
14      or Special Operations Combat Medic folks is  
15      essentially all on trauma care. Twenty-six week  
16      at our school house, the Joint Special Operations  
17      Medical Training Center. And again, we don't have  
18      a combat support hospital. We sort of finish up  
19      at small forward surgical teams of which we have a  
20      few in various SOCOM elements.

21               This is kind of what the aid station  
22      looks like, a few operations medics. This is a

1 ODA, Special Operational Detachment alpha 12-man  
2 team. It's two medics with some indigenous folks  
3 trying to patch up some shrapnel wounds. No  
4 thoracotomies, thank you, no laparotomies, no  
5 craniotomies.

6 We do have a few surgical teams and  
7 essentially think split Army FST, something like  
8 that usually actually even smaller than that,  
9 prepared to do just basic lifesaving surgical  
10 interventions. And, by the way, we've got some  
11 actions currently working with Army/Navy to,  
12 hopefully, beg for a few more.

13 We've also tried to emulate the  
14 successes of the Air Force CCAT teams with having  
15 a few dedicated to our efforts. And a hybrid of  
16 this, this is in our support brigade inside USASOC  
17 is deployed in a bunch of places. It has what a  
18 forward surgical team does not have and makes a  
19 nice host for a split forward surgical team  
20 whenever one is split off from big Army or big  
21 Navy and applied to a SOF mission.

22 Our vets have been one of our fortes for

1 decades, and they come in very handy in getting  
2 out with indigenous personnel. You can -- well, a  
3 lot of hearts and minds, if you take care of the  
4 village chiefs, dog, water buffalo, camel, horse,  
5 whatever.

6 We've invested heavily in a human  
7 performance program. I've been involved with it  
8 for about two years before it really hit me. A  
9 couple of our operators approached the boss on one  
10 of his visits out -- well, this was to Fort Bragg  
11 in, then, one of the site, and complaining about  
12 lack of rehab assets. And after I spoke to the  
13 folks in charge and fully staffed, it kind of  
14 focused me on that what some of our guys expected  
15 was the professional sports model for not only  
16 training before you go to war but in  
17 rehabilitation after you come back from war.  
18 We've invested in linking with some of the folks  
19 who provide those services to professional sports  
20 teams, and we hope that whenever our guys have  
21 rejoined the unit after an injury they'll be able  
22 to avail themselves of pretty much that same kind

1 of focus intensity, immediacy, in duration of  
2 rehabilitation.

3 This is just sort of the basics of our  
4 human performance program. It focuses on telling  
5 the operator where he's at athletically, when he  
6 gets there, and how hoe can get to where he wants  
7 to go.

8 Getting into what are our concerns in  
9 SOCOM, I think we are the most avid fans of the  
10 emerging conversations in damage control  
11 resuscitation. Certainly, before the Maddicks  
12 article in 1994 on IV fluids our enchantment with  
13 forward surgical teams was borne out of embracing  
14 damage control surgery. Now that we're looking at  
15 damage control resuscitation, it certainly does  
16 have a certain charm and cache for our  
17 highly-trained medics. We're trying to train,  
18 research, and equip to the scenario of, okay,  
19 you're a highly-trained Special Operations medic;  
20 you and your team have just been inserted into an  
21 immature theater or where there ain't even no  
22 theater. One of the guys takes a bullet in pick

1 your favorite body cavity.

2           You know that there's no MedEvac, there  
3 may be a MedE-Yak, or an oxcart, which is your  
4 only way of getting Bubba out to something that  
5 looks like a surgeon sometime in the next 24 to 72  
6 hours. Are there now tools that perhaps we were  
7 not so cognizant of 15 years ago that will  
8 facilitate your keeping him alive? Things that  
9 have come out recently, recently in the last 15  
10 years, battlefield dressings that are  
11 hemostatically active, we're asking ourselves, are  
12 there things that you can do to help Bubba out if  
13 he's got penetrating or closed head trauma? Would  
14 procoagulants combined with selective cerebral  
15 cooling be of benefit? We're certainly looking  
16 aggressively at every means of controlling  
17 non-compressible hemorrhage.

18           Another focus of ours, I think I helped  
19 unload a Ranger off a helicopter in 2003 as it  
20 left the combat support hospital, was being  
21 brought to the mobile aeromedical staging facility  
22 who had no vital signs. And the physician



1 attending him during that flight was not at all  
2 familiar with a Black Hawk helicopter or any of  
3 the monitoring devices in the back of it. Folks  
4 were unaware that the Ranger had no pulse when he  
5 was taken off the helicopter. That was one of our  
6 introductions, and then a similar event the next  
7 spring, and then observing that none of those  
8 events were recorded in any of the quality  
9 assurance data that was being collected or not at  
10 that time.

11 As I think we began conversations in  
12 earnest with Fort Rucker in 2004 about how to  
13 improve critical care in theater, I think there  
14 are a number of groups. General Robb's is  
15 probably the -- has the widest charter and is most  
16 aggressive in working these issue now, and so a  
17 lot has taken place even since I threw these  
18 slides together.

19 I think, sir, if I could paraphrase what  
20 I -- we're thinking the same thing in our  
21 conversations this morning -- but what I like to  
22 focus on is not so much picking up the wounded

1 from point of injury, but the clinical task that  
2 we think has not really been addressed well is the  
3 care of the post-op ventilator-dependent,  
4 intubated casualty.

5 MAJOR GENERAL ROBB: May I?

6 COLONEL DEAL: Yeah, please.

7 MAJOR GENERAL ROBB: (inaudible) and  
8 that's the issue that we've been chartered at the  
9 Joint Staff to work is formalizing the joint  
10 requirement for the tactical critical care  
11 transport, which would post-resuscitative,  
12 post-damage control resuscitation, post-damage  
13 control surgery from a Roll 2 or a Roll 3 to  
14 another Roll 3 or host nation. And so that's --  
15 we're working aggressively on that to be teams in  
16 this next rotation that will augment the critical  
17 care nurses as we start to formalize this, teams  
18 for the next rotation, yes.

19 COLONEL DEAL: I'll flatter myself to  
20 think that great minds think alike on that. And  
21 sort of as we've synopsized it an air frame, it's  
22 tough doing ICU stuff in the back of a Black Hawk,

1 or as a country music fellow often once offered:  
2 You can't roller skate in a buffalo herd. It's  
3 nice to have white light stand up and walk around  
4 the capability casualty, walk around the casualty  
5 space to work in. If you really want to do that  
6 in a Black Hawk, you may be outside the aircraft.

7 We have something called the SOCOM care  
8 coalition that's providing advocacy and oversight  
9 for about 3,800 of our convalescent sick and  
10 wounded now. The thing that I get out of them  
11 most often is that it sure would be nice for the  
12 physical disability evaluation system to move  
13 forward to something to something that results in  
14 a rapid, fair and just adjudication of the service  
15 member service and move onto compensation or  
16 whatever. But a lot of other bodies are looking  
17 at that. We certainly have an interest in it.

18 I'll follow on to what Colonel Holcomb  
19 was saying this morning. We've been in  
20 conversations before where it's okay to spend  
21 \$53,000 for a computerized peg leg from Auto Back  
22 in Germany, but it's not okay to spend \$6,000 for

1 a urologist and a needle to fund a couple of  
2 dedicated spermatozoa in what's left of a fragment  
3 of a testicle and get those two cells to move on  
4 to fulfill the generation's destiny. So some  
5 reform to facilitate funding of those efforts, if  
6 it palatable to the right governing bodies would  
7 be desired at least by some.

8           Access to information. We're constantly  
9 going to any of the data warehouses that examine  
10 these issues and saying, hey, what can you tell me  
11 about SOCOM, or what can you tell me about  
12 NAVSPECWARCOM. And I think we've made some real  
13 progress in the last year or so. TBI is a good  
14 example of that. It's hard to parse out sometimes  
15 what our data are, although I got some last night  
16 from some of our colleagues that is very helpful.

17           Specifics that what we'd like will  
18 confuse you on TBI. We're looking for the same  
19 things anyone else is, a good blast dosimeter that  
20 can be read in real time by a team leader, by a  
21 team medic, or even by the individual. We've got  
22 about a hundred of those now from one university

1       that DARPA is working with that we think are going  
2       to have great promise. And then, if perhaps in  
3       another year or so there are Kunkel data to go  
4       along with that that tell us that, wow, this  
5       reading on this blast dosimeter means that Bubba  
6       really had taken a lick and needs to take a knee  
7       for three days or a week, or be evacuated out of  
8       theater would be really spiffy.

9               Also for RBI we've been through our  
10       SOCOM care coalition following long-term treatment  
11       for some of our folks. Sure would be good to know  
12       what works and what does not work there with  
13       greater scientific rigor.

14              Whoops. I'm just going to quit right  
15       there on last word on pain management. I've been  
16       working closely with General Thomas's pain  
17       management task force. We are real advocates -- I  
18       don't say advocates -- we're using a lot of  
19       fentanyl lollipops, oral transmucosal fentanyl  
20       citrate with great success. I sure would like to  
21       move beyond that, though.

22              We think ketamine holds great promise as

1 far as pain management of a single or maybe two  
2 extremities. We've been great fans of constant  
3 infusion pumps hooked into all them catheters. We  
4 certainly would like to see all of our folks who  
5 would benefit from such interventions early on to  
6 be able to benefit from that. We feel like -- and  
7 I think the main guy who's moving this is working  
8 on paper -- that that will probably result in a  
9 reduced incidence of complex regional pain  
10 syndromes.

11 And follow on what earlier conversations  
12 for polypharmacy, when we look at what we doing in  
13 human performance, it would be nice to be able to  
14 say you can take drugs A, D, and C, and we can say  
15 with confidence it's not going to detriment your  
16 performance either in firing a weapon or  
17 administering the uniform code of military  
18 justice. But getting data out of each of those  
19 pharmacologic options for what it means for  
20 short-term memory retention for your ability to  
21 communicate we think is a lot of ground here that  
22 still needs to be plowed.

1                   With that I'll shut up and wait for your  
2                   questions.

3                   DR. DICKEY: Thank you very much,  
4                   Colonel Deal. Are there questions or comments for  
5                   Colonel Deal?

6                   Dr. Parkinson?

7                   DR. PARKINSON: Yes, sir, thank you very  
8                   much. Just on that last point. Having  
9                   operationally relevant research which the military  
10                  has historically done in selective environments  
11                  like aerospace medicine or submarine medicine,  
12                  because the environments are abnormal that's  
13                  something that we kind of know how to do on  
14                  vibration and hypoxia, and so we have structures  
15                  to do that.

16                  When it comes to the use of psychotropic  
17                  agents in combat which is part of the question  
18                  that Dr. Silva and I were asked: What is the  
19                  operational impact of using psychotropic drugs,  
20                  you know, even to design the types of trials that  
21                  you would want even if you could find the types of  
22                  side-effect profiles that we're talking about and

1       then operationally test decrement in performance  
2       around firing or, you know, taking a hill or  
3       whatever it might be, if you have any thoughts  
4       about how to do that. I'll tell you it's -- the  
5       magnitude of the challenge epidemiologically and  
6       cost-wise is huge. I mean, that's just my  
7       thumbnail impression, that's not a finding of the  
8       group.

9                    But you're onto it, but we do it in  
10       other areas, and we do it in selective areas as it  
11       relates to environmental exposure to things that  
12       are known and predicted. But when it comes to  
13       pharmacologic deployments issues, then you got the  
14       whole FDA involved if you want to do that. And we  
15       know, going back to anthrax, that the Department  
16       probably rightly does not have a big stomach for  
17       off-label use of a lot of things. So et cetera,  
18       et cetera.

19                   Any enlightenment you can shed for our  
20       committee would be helpful. Thank you.

21                   COLONEL DEAL: We looked at with Army  
22       aviation the question of maybe we could ask some



1 of our guys who normally address shooting  
2 scenarios that are really quite high tech from  
3 where they began 30 years ago where you had the  
4 sort of motion picture laser point weapons, your  
5 test, your ability to engage, discriminate good  
6 guys and bad guys, hostage takers, rescuers,  
7 victims with your weapon is tested.

8 How about we test that with, you know,  
9 Ambien the night before? How about we test it  
10 with modafinil? A lot of folks have looked at the  
11 human research subject's protection stuff on that,  
12 and it's hard to get animal data. I can't get  
13 mice to go through those shooting houses as yet,  
14 so it just -- that conversation is now seven years  
15 old, and I don't think any progress has been made.

16 DR. DICKEY: Thank you for an excellent  
17 update, and we'll look forward to continuing to  
18 work with you, Colonel.

19 Our next speaker is Commander William  
20 Padgett. Commander Padgett serves as a preventive  
21 medicine officer at headquarters, Marine Corps  
22 Health Services. He has deployed during Operation

1 Iraqi Freedom and supported casualty evacuation  
2 missions throughout Iraq during operations.

3 Commander Padgett's previous positions  
4 include Marine Aircraft Group 29 Surgeon, branch  
5 head for the Environmental Chamber of the Research  
6 and Engineering Human Systems Department at the  
7 U.S. Naval -- some of these titles are just  
8 reeling. I'm not sure where to breathe --  
9 Environmental Chamber of the Research and  
10 Engineering Human Systems Department at the U.S.  
11 Naval Air Systems Command where Commander Padgett  
12 also worked on readiness policy and procedures to  
13 include population and deployment health as well  
14 as individual medical readiness and clinic flight  
15 surgeon.

16 Commander Padgett's briefing slides may  
17 be found under tab 9 of your briefing binders.  
18 Colonel Padgett.

19 COLONEL PADGETT: Thank you very much.  
20 I'm here to represent the United States Marine  
21 Corps. We work for line officers who consider  
22 themselves the Expeditionary Force in Readiness,

1 202,000 Marines from all aspects of American life;  
2 about 20,000 of them right now are deployed to  
3 Afghanistan; another 11,000 are deployed to  
4 different areas like Djibouti and theater security  
5 cooperation areas.

6 The Marines consider themselves the 9-11  
7 force, and they feel like they are always working  
8 to be ready to go anywhere. And right now I can  
9 guarantee and the newspapers have shown that we  
10 have marines in the Mediterranean hanging out to  
11 see what they need to do. We're one of the first  
12 groups that got to Haiti, Pakistan, and then the  
13 Magellan Star, and we took that back from the  
14 pirates.

15 The big thing to remember about the  
16 Marine Corps with its 202,000 people is they  
17 consider themselves a middleweight fighter. They  
18 are fast, agile, but they have a hard punch, and  
19 everything they do is based on this Marine  
20 Air/Ground Task Force which means they have air,  
21 ground, and logistics all under one commanding  
22 office that allows them to move up and down the

1 spectrum of things that we ask them to do. So we  
2 went into Iraq with a MEB, a brigade. Most of the  
3 time we're floating these MEUs, Marine  
4 Expeditionary Units, floating out there, and their  
5 theory is we can get there fast and get in there  
6 with what we have available and then flow in other  
7 forces as necessary to deal with the situation  
8 that's there.

9 But the other key sort of like a Special  
10 Ops talked about is the Marines don't carry a lot  
11 with them. So once they've got that beachhead in  
12 there, it's the joint follow-on services that we  
13 also need to be looking for.

14 So this is a Marine Corps strategy going  
15 forward, so we fought a land war for 10 years not  
16 where we thought we were going to be. I think  
17 they've done a very good job of it, and we still  
18 have Afghanistan that we are addressing. It has  
19 not come off the horizon, but going forward the  
20 Marine Corps is going to operation maneuver from  
21 the sea. We're going to fight in little areas;  
22 we're going to be floating out there, and when

1 something happens, we can pop ashore, ship to  
2 objective maneuver and go forward.

3 A question becomes how does Navy  
4 medicine and all these things we talk about here  
5 keep up with the small distributed forces bounding  
6 here and there and a lot of the topics that have  
7 been covered here today TCCC, the Centers of  
8 Excellence, are things that help us leverage the  
9 small Marine Corps footprint into a larger  
10 footprint. Out of those 202,000 Marines, there  
11 are 6,300 Navy medicine personnel that Navy  
12 medicine has gratefully given up for the  
13 expeditionary medical care. The key thing to  
14 remember, though, is that's 5,700 corpsmen and 300  
15 physicians covering this group of people that are  
16 out there.

17 Now, when we're garrison care, Navy  
18 medicine is sitting there in garrison taking care  
19 of us; but once we do these operational forward  
20 things, the number of medical providers you have  
21 available, obviously, we need the joint arena to  
22 be able to handle the cases.

1           And I'll switch, go through these pretty  
2 quickly, but this is -- we have a new commandant,  
3 General Amos, a flight guy so I like that, took  
4 over recently and put out his four priorities and  
5 again, number one priority is we have a battle to  
6 fight in Afghanistan and presentations are shown  
7 that it's near and dear to our hearts about what's  
8 going on there.

9           The second thing is we're doing a total  
10 force relook at the Marine Corps to make sure  
11 we're ready for the future years, and again that's  
12 where we're going back to our operational maneuver  
13 from the sea concepts and how does that fit into  
14 the arena pictures.

15           Better educate and train our marines, so  
16 basically, again, since we're doing distributed  
17 ops and basically having small units all over the  
18 place, they need to be prepared to make the right  
19 decisions and do the right things, and we need to  
20 know kind of what they're going to do. So we're  
21 -- a lot of emphasis on the education that we can  
22 trust that O3 to be out there and do what we would

1 expect without an 04 or 05 right on top of them  
2 telling them this is what you need to do in this  
3 situation.

4           And then last but not least is number  
5 four is keep faith with our Marines, our sailors,  
6 and our families. And the commandant, people who  
7 worked with him when he was the assistant  
8 commandant know that that is his -- it's Marines  
9 for life, and there is no loss of awareness on  
10 them that 2014 maybe when we get to come out of  
11 this long ground war, but we've got decades  
12 afterwards of Marine medical issues that are going  
13 to have to be continued to be done, and his focus  
14 is to make sure that that stays on the radar. We  
15 don't just move back into getting ready for the  
16 next war kind of situation.

17           So I was asked to pick one, but when I  
18 asked my office of 12 people what they needed,  
19 there's a lot of stuff out there, a lot of health  
20 challenges facing the Marine Corps. The good news  
21 is that progress is being made in every category,  
22 and application lessons learned can be expected to

1 have significant impact on the services society as  
2 this stuff moves out into the civilian world in  
3 future generations. These are things that the  
4 assistant commandant and the commandant are asking  
5 us to give them answers on all the time. And  
6 again I, you know, the BUMED, the DCoEs, this  
7 Board, I can't do that as an action officer, and  
8 our 12 people can't do that without a lot of  
9 support that's going on from there.

10 Just yesterday they threw some more  
11 curve balls at me. The commandants got the  
12 regenerative medicine. He wants to grow hearts  
13 and wants to know why we're not doing that right  
14 now. And then I learned all about therapeutic  
15 animals versus service animals because we have a  
16 big push that we're going to try to figure that  
17 out going forward.

18 So traumatic brain injury is the thing  
19 that's probably we're trying to execute, and those  
20 people talked about the sandwich technique. You  
21 know, the commandant's got it, the new people have  
22 got it, and now we're trying to see how do we get



1 this out to our MEFs, how do we get this out to  
2 those 300 docs and all the line leaders with 03,  
3 04, and 05 out there that are actually doing  
4 things in Afghanistan and these other places. And  
5 so that's what our office has probably got the  
6 most significant thing that they're doing at this  
7 time in time on top of all that other stuff.

8 TBI is a significant threat to the  
9 combat effectiveness of the Marine Corps. The  
10 incidence of TBI in marines is roughly three times  
11 that seen in civilian population. We'll go over  
12 that slide. That is a Commander Padgett saying  
13 that, so I don't want anybody putting that on The  
14 Washington Post or USA Today. But we'll look at  
15 where those are coming from.

16 The Marine Corps leaders recognize the  
17 significant impact of TBI on the force, and I  
18 think that's impressive. When I was in Iraq in  
19 2003, it was biological and chemical. That's what  
20 we practiced for and had protocols for, and if you  
21 got your bell rung, and I'd have to send you out  
22 of country, okay, go back and do stuff. So just

1 in my time period looking back at now what we're  
2 dealing with, I think we've really put this  
3 information into the execution phase where all  
4 throughout the spectrum people are addressing  
5 that.

6 From DVBIC I pulled off their slides  
7 showing me 26,500 TBI cases since 2000. There's a  
8 lot of caveats you need to go to the website and  
9 see; but this is MHS data, it doesn't pick up VA  
10 data. But there's a nice thing that I see in the  
11 trend which is the lower, the greens and the blue  
12 and -- at the bottom -- and you can see that our  
13 severe, moderate, and penetrating TBI has actually  
14 been stable or even with this you could say is  
15 decreasing. So I think we're seeing good results  
16 of work, and again that's my interpretation as  
17 going forward. And now we've got this increased  
18 mild TBI. Well, if mild TBI stays what we think  
19 it is, most of those people are actually going to  
20 get better, and especially as we start doing the  
21 right things to make sure we're not having  
22 repetitive TBI as we continue to figure out ways

1 to solve them.

2 So when I look at these slides, yep, we  
3 got increasing TBI, but the moderate, severe, the  
4 ones that we know definitely are going to have  
5 life-long issues, it looks like we may have done  
6 something that's at least helping keeping those  
7 numbers stable.

8 This is the Reserve side of the house.  
9 It's 2,600 since the year 2000. Obviously, that  
10 data does not capture everything. Again this is  
11 MHS data. We're not looking at VA data, we're not  
12 looking at civilian care data, but you're still  
13 seeing the exact same sort of trend that we're  
14 increasing our mild TBI reporting and capture, but  
15 it still looks like the severe, moderate, and  
16 penetrating are at least staying stable for us  
17 despite the things we've seen here where it's  
18 gotten a lot more violent on the battlefield.

19 So this is where I got my three times  
20 number. DCD tells me there's a 1,500,000 TBI per  
21 year over the 2002 to 2006, 300,000 population.  
22 So you get about 400 per 100,000 TBI, and then on

1 the active duty on the Marine side you get about  
2 1200 per 100,000. Now, those number are missing  
3 lots of things. Obviously, the CDC data is saying  
4 that I don't have any clue what happened in urgent  
5 cares; I don't have any clue at what happened in  
6 the clinical practice. But what we're seeing is  
7 that TBI is important into the civilian world, and  
8 they're coming up to speed in understanding. They  
9 need to see more of it. We're seeing it in the  
10 sports much more, and the military is dealing with  
11 it as well. So I think we have a good synergy  
12 that's going to come forward and actually make  
13 good results as we go down the road.

14 So basically with TBI there's a lot more  
15 than health going on, and sometimes I get lost in  
16 my little field of just what's t he health side of  
17 the house for. But, you know, the Marines are  
18 definitely and all the Joint Services are  
19 definitely trying to keep them away from the blast  
20 in the first place, see that the UAV programs, the  
21 all-seeing eyes, you've seen the blimps floating  
22 around there, JDO has been stood up basically

1       trying to keep the service members from getting a  
2       blast effect in the first place.  If they're going  
3       to get hit, what can we do to decrease the effect  
4       of the blasts that occurred?  We've got the  
5       enhanced combat helmet that's out there.

6       Brigadier General Fuller worked on this enhanced  
7       combat through PEO soldier.  It potentially could  
8       mitigate some traumatic brain injuries.  We're  
9       seeing it as great potential, so people are doing  
10      a lot of stuff along this TBI besides just the  
11      medical.

12               The Marine Corps has got the MRAP.  You  
13      know that was kind of an interesting story how  
14      that happened, but it's pretty amazing how quickly  
15      that vehicle got out there with Secretary Gates.  
16      There's no failsafe measure that can prevent all  
17      loss of life and limb on this or any other  
18      battlefield, that is the brutal reality of war;  
19      but vehicles like MRAP combined with the right  
20      tactics, techniques and procedures provide the  
21      best protection available against these attacks,  
22      and somebody else had brought up the TTP issues

1 before. Multiple people are looking at it, taking  
2 health information and also from their own view.  
3 And so I've been very impressed with where it's  
4 going.

5 Our other issue is recognition. You  
6 know, how do we get to the 50 meter blast radius.  
7 If there's a blast, and you're within 50 meters,  
8 you have been exposed I think that's the right  
9 steps to move forward, but why wasn't it a  
10 hundred? Why wasn't it 25? How is that affecting  
11 us operationally? How does that affect our TTP on  
12 how we move forward from there? So we've got  
13 recognition. The DTM that came out did a very  
14 good job of making our line leaders agree that TBI  
15 was something that you just don't get your bell  
16 run and go back to work. We're going to capture  
17 and go forward with this.

18 We've got the military acute concussion  
19 evaluation, IED checklist, the director-type  
20 memorandum that again made recognition that this  
21 is out there more built into our everyday  
22 activity. We've got helmet sensors that are in

1 the research stage. I saw SOCOM talked about  
2 that. There's a blast patch that changes colors  
3 after it gets hit that the University of -- I  
4 think it's Pennsylvania, is talking about that.  
5 The newspapers, our phones ring every time one of  
6 the newspapers brings up the biomarkers, you know,  
7 when are you going to get the GFAP or the spectrum  
8 protein breakdown products built into the field  
9 out there?

10 Functional MRI. My understanding is  
11 we're sending MRIs out to Afghanistan pretty soon.  
12 I have questions about helium and all that kind of  
13 stuff, so there's a lot of stuff starting to say  
14 how do we know if there's been exposure? Who  
15 actually have something that needs to then be  
16 taken out of the fight or have certain things done  
17 for them? The neurocognitive assessment tools  
18 we're using, the ANAM, to see if we can compare  
19 before and after going on. So a lot of work in  
20 the recognition stage.

21 Treatment, you know, how is the evidence  
22 collected and analyzed? We've heard lots of talks

1 about that here. How does the information move  
2 from observation to research to evidence-based in  
3 a timely manner? Again this is the commandant's  
4 big thing is, I heard this. How come it's not  
5 there?

6 We have the restoration centers. I know  
7 we have the complimentary and alternative medicine  
8 people here. I'm an M.D., so I'm having a hard  
9 time wrapping my head around this, but we're  
10 getting good response about acupuncture at the  
11 restoration center. We're getting good response  
12 with PT and T.O. They are saying that they're  
13 getting good numbers of people back, so they  
14 actually have a center that takes anybody who they  
15 think has TBI and does a rapid, almost like a  
16 sprint-team kind of thing.

17 Now, when you go back and look through  
18 the literature and stuff in the USPFTs and all  
19 those, what I take away from it is one of the  
20 things they've said has been shown has very strong  
21 evidence is education of what to expect is  
22 probably the best treatment for these TBI are



1 going forward, which is really what these  
2 restoration centers are doing as well. But how do  
3 we sort out all of these different things and  
4 determine what's really our best bang for the buck  
5 and what's really doing the best for our  
6 servicemen.

7           And then the data. So they talked about  
8 the combined information data network exchange,  
9 blast exposure, concussion incident report. That  
10 went online for the Marine Corps in January, I  
11 believe, and that is like he'd said, that's the  
12 DTM says, a blast goes off, I want to know  
13 everybody who was in 50 meters of that, and I need  
14 to be able to track that long term. Right now  
15 that's on the secret side, it doesn't really share  
16 information with our medical side, so we have a  
17 denominator that we're then going to have to work  
18 through the rest of the processes of figuring out  
19 how do we use that data. But at least we're  
20 capturing that data, which is what the DTM asked  
21 for.

22           We use the Medical Readiness Reporting

1 System in the Navy, Marine Corps and Coast Guard.  
2 There's a new module on that that's going to put  
3 the ANAMs and NCATs in there so people can track  
4 who's had the baselines done, and then,  
5 theoretically, it will help track who needs the  
6 follow up because there's been a question, the TBI  
7 data that's going to try to. What we get now is,  
8 hey, you need to go get a referral, but who's  
9 tracking the referral to the systems that are  
10 trying to now move forward to say that we follow  
11 you all the way through your exposure or risk, and  
12 either back to full duty, or where are we going  
13 forward.

14 ALTA VA, the electronic health record  
15 way ahead, everybody's seen we've got a lot of  
16 stovepipes, and when we get this data together, we  
17 should be able to start putting the process  
18 improvements forward very quickly. And I think  
19 good progress has been made, but it's never as  
20 nice as we'd like it to be.

21 The research is the one that just drives  
22 the commandant and the assistant commandant, and

1 probably my boss, Admiral Anderson, nuts, because  
2 as soon as it's in the paper or on the news, they  
3 want to know why we don't have it. And so we are  
4 constantly reminding them of that everybody is  
5 trying to get the anecdotal report to the clinical  
6 as fast as possible, but we need to do it safely,  
7 and here are the groups that are helping us do  
8 this right. And I've been very impressed. I  
9 think people are trying to quickly move things  
10 through in a structured way that we do it safely.  
11 But I don't -- I think we're getting there. It's  
12 just nobody will ever be happy with how fast it  
13 can get there.

14 Long-term consequences are now starting  
15 to float in, and again what happens when this war  
16 is over, are we going to take our eye off the  
17 ball. Commandant's made clear with his fourth  
18 priority that they're marines for life; we're not  
19 taking our eye off this ball. And with groups  
20 like this I've seen the VA and the other services  
21 are very aware as well that we've got a long road  
22 ahead of us that we need to keep our eye on.

1           And the questions that are being asked  
2    is, you know, how does TBI affect cause,  
3    complicate, other conditions. And again, I've  
4    heard that question raised here. That's also  
5    being raised by the commandant and the assistant  
6    commandant and my boss as well.

7           So the way forward, significant assets  
8    are working feverishly to find solutions, and the  
9    Marine Corps has outstanding support from DOD,  
10   BUMED, other services as well as multiple  
11   organizations and progress is being made. And  
12   sometimes we have to remind the commandant and the  
13   assistant commandant of that, that, yes, we've got  
14   a new issue that we can deal with, but again, when  
15   you look at what I was dealing with in 2003 in  
16   concussions where it wasn't on my radar to where  
17   we are nowadays, I think we've made tremendous  
18   forward progress. But we can't rest on those  
19   laurels.

20           Avoiding exposure and minimizing risk  
21    are the key, and the Marine Corps is all over that  
22    trying to keep the marines away from IEDs in the

1 first place, and then figuring out which things,  
2 equipment PPEA can avoid the brain trauma. And  
3 the big issue is we've got to get a clear  
4 understanding of what a case of TBI is, so then we  
5 can start figuring out what the process  
6 improvement and the clinical practice guidelines  
7 are. And so I was happy to hear Captain Hammer  
8 discussing and that's what they're going to start  
9 focusing on and figuring out how to integrate and  
10 spin out like the Institute of Surgical Research  
11 does.

12 That's all I have. Are there any  
13 questions for me?

14 DR. DICKEY: Thank you, Commander, for  
15 an excellent presentation. Are there questions or  
16 comments for Commander Padgett?

17 Dr. Lednar?

18 DR. LEDNAR: A question that, as you  
19 were talking about the expeditionary force  
20 activities, are you getting what you think is  
21 actionable current information to describe some of  
22 the potential infectious threats and environmental

1 hazards in areas where you may be starting to plan  
2 for expeditionary force activity?

3 COLONEL PADGETT: Yes and no, but it is  
4 part of our medical planning. They've changed  
5 their name, but the -- it's not MCI -- Naval  
6 Medical Intelligence or -- those resources are  
7 there, they're part of the planning. We feel  
8 pretty comfortable. It's the pop-up things, the  
9 -- I forget the latest water one in Iraq -- that  
10 will catch us off guards, but even then I feel  
11 like they've got a good response of we recognize  
12 something, what kind of data do we have looking  
13 back? What kind of data were we collecting  
14 prospectively, and what kind of data do we need to  
15 go back and get afterwards?

16 Compared to -- and I was too young for  
17 Desert Storm -- but compared to Desert Storm I  
18 feel like we've got all that information like Dave  
19 said that we can go back and tap. We're still  
20 having issues moving it from this big mass of  
21 information to actionable items, and when I've got  
22 a few seconds with line leadership, that's what I

1 got to come to them. I've got to have, say,  
2 here's the actionable data that pretty much  
3 everybody agrees with, because as soon as we split  
4 they stop paying attention, and here's' the action  
5 that you can do to make movement on that. But,  
6 prospectively, I think we've done a much better  
7 job with the environment (inaudible).

8 DR. DICKEY: Yes, Dr. Anderson.

9 DR. ANDERSON: I'd like to make a quick  
10 comment just for context, and thank you for the  
11 presentation. It's great to hear about the  
12 Marines always. I'm a retired Air Force officer,  
13 but I'm also a Marine dad, so my son served as an  
14 enlisted marine. I used to have these  
15 conversations with my son, and you used to work in  
16 concussion which I like. It is mild TBI, but I,  
17 you know, I talked him about these things, about  
18 injuries and Marines, and in training and in  
19 combat, and pretty soon my son enlightened me  
20 again as he always does. He says, Dad, stop  
21 asking questions like how many young marines  
22 played football in high school. He says, Dad,

1       they all did.  It's just the nature of being a  
2       Marine.

3                   And he also -- he was at 29 Palms.  He  
4       likes to play hockey, so he played on the Marines  
5       roller-blade hockey team while he was at 29 Palms.  
6       So I just, so you understand, and they go rock  
7       climbing and, you know, this is what Marines do,  
8       right?  You know this.

9                   So the context here is  
10      epidemiologically, it's real hard trying to figure  
11      out what the baseline is.  This applies to  
12      soldiers, airmen in some cases as well.  So I wish  
13      you well, but please keep that in context because  
14      we're really talking about a big, big social thing  
15      here in the United States about sports injuries  
16      and so on, and that the Marine Corps service is  
17      certainly an extension of that regardless of  
18      whether they're involved in a blast injury.  So  
19      just a lesson from the Marine dad looking at this  
20      thing and talking to Marines about, you know,  
21      they'll tell you some really wonderful things.  So  
22      thanks for your work.



1 COLONEL PADGETT: And with the MERs  
2 module that's coming on board, the Marine Corps  
3 has recognized t hat it doesn't just start and  
4 stop in theater. So the concept, and it's still  
5 coming on board, is that when you have the  
6 motorcycle accident and have a TBI incident, that  
7 will go into MERs, which means you've already used  
8 up one of your three that the DTM talks about.  
9 And so they are applying it to the safety side as  
10 well. But I agree with you there.

11 DR. ANDERSON: Well, this is the  
12 physical injury part of an occupational medicine  
13 tracking program, so it's got to be there for  
14 everything.

15 DR. DICKEY: Thank you, Commander, very  
16 much for an excellent presentation, keeping us up  
17 to date.

18 Our next speaker is Commander Erica  
19 Schwartz. Commander Schwartz is a board-certified  
20 occupational medicine physician and has been  
21 serving as a preventive medicine office in  
22 clinical epidemiologist at the Coast Guard

1 headquarters since September of 2005. Prior to  
2 her current position she served as a Navy  
3 occupational medicine physician at the Naval  
4 Academy as head of the Naval Health Clinic  
5 Preventive Medicine Department and the  
6 Immunization Department and chief of Occupational  
7 Medicine.

8 In addition, she served as medical unit  
9 leader in the unified area command where she  
10 assisted in developing the unified command medical  
11 concept of operations plans. The slides for  
12 Commander Schwartz are under tab 10.

13 Welcome, Doctor, Commander Schwartz.

14 COMMANDER SCHWARTZ: Thank you. The  
15 volume isn't on.

16 If this isn't working, it's okay.

17 (Video played)

18 COMMANDER SCHWARTZ: So Admiral Tedesco,  
19 who is our chief medical officer, tasked me to do  
20 two things today. One was to provide a very brief  
21 overview of the Coast Guard, and number two was to  
22 give you an update on the Deepwater Horizon event

1 and Coast Water Response. So that video  
2 accomplished task number one so I didn't have to  
3 go through all these slides.

4 So what you saw on the presentation or  
5 the video was the Coast Guard mission. Coast  
6 Guard has a very multitasked platform, but we do  
7 it with a very small force. We have about 40,000  
8 active duty members, 8,000 reservists, and we are  
9 slightly larger than the New York City Police  
10 Department. That's the New York City Police  
11 Department. And yet we're still responsible for  
12 doing multiple missions.

13 One of the unique things about the Coast  
14 Guard is that like our DOD counterparts we are  
15 part of a military service, but unlike our DOD  
16 counterparts we're not part of the Department of  
17 Defense. We are part of the Department of  
18 Homeland Security. But what we try to do because  
19 we are military service is we try to align our  
20 policies with DOD. So that's task number one.

21 Task number two was to talk about the  
22 Deepwater Horizon event. I think that we're all

1        aware that on April 20, 2010, the Deepwater  
2        Horizon oil rig exploded. This resulted in 11  
3        deaths and the largest natural marine accident in  
4        the petroleum industry in history. So what  
5        happened -- here's the time line, this is in your  
6        slides -- from April 20th until about September  
7        19th, there was an unprecedented interagency  
8        response. I'm not going to go through the details  
9        of the slide, but on September 19th what occurred  
10       was the oil well was actually officially killed,  
11       and the Coast Guard, in fact, with other  
12       interagency support, responded to this event  
13       within hours of it occurring.

14                There were over 48,000 personnel, Coast  
15       Guardsmen, DOD folks, we had a huge civilian  
16       response, other federal agencies, over 10,000  
17       vessels of opportunity, and a hundred-plus  
18       aircraft that were involved in this response.  
19       Nearly 14 percent of Coast Guard personnel were  
20       involved in the Deepwater Horizon event, and we  
21       again, we assumed command and control within hours  
22       of this tragic accident.

1           There were both offshore and onshore  
2 activities that we responded to or that we were  
3 involved in. This included in situ burns, beach  
4 cleanup, dispersant application, decontamination  
5 ops, booming and skimming ops.

6           This is a slide that I borrowed from  
7 NIOSH, and basically what it shows is the source  
8 control was the Deepwater Horizon vessel. And it  
9 shows what, where the workers were in terms of how  
10 far away -- you know, in quotes "far away" -- they  
11 were from the source control, and the on-shore  
12 cleanup workers were the furthest away from the  
13 source control. Why this is important is because  
14 NIOSH, when they looked at potential hazards that  
15 the Deepwater Horizon responders may have been  
16 affected by, it really depended on how close they  
17 were to the source control.

18           And again, this slide is borrowed from  
19 NIOSH. The two top issues that we saw at the  
20 Deepwater Horizon event was were heat stress and  
21 fatigue. And as you can see in the slide, there  
22 were other potential hazards which included

1 cardiovascular issues, chemical exposure,  
2 particulate exposures, and there was a significant  
3 complaint of odors down there.

4 Because of the unprecedented nature of  
5 this event, the National Institutes of Health has  
6 pledged around \$10 million to perform a multiyear  
7 cohort study. And as you can see on this slide,  
8 this cohort study is going to look at potential  
9 short and long-term health effects associated with  
10 the workers involved in this event whether its the  
11 federal workers or civilian workers.

12 What the NIH Gulf Study is hoping to  
13 achieve is that they're going to look at various  
14 endpoints. They're going to be looking at  
15 genotoxicity, neurobehavioral effects, cancer,  
16 biological aging, potentially DNA damage and  
17 repair and other biomarkers. This is a very  
18 extensive study. The Coast Guard is working  
19 closely with the NIH to assist what whatever they  
20 need in terms of Coast Guard personnel being  
21 included in this study.

22 In addition to the NIH study, the Coast

1 Guard is working with the National Institutes of  
2 Environmental Health Sciences, NIEHS, to work on a  
3 sort of a sub-cohort study. And what we're  
4 looking to do is that we are looking to do a very  
5 similar study but only looking at Coast Guard  
6 personnel. And what's different about Coast Guard  
7 personnel as compared to the NIH study is that we  
8 actually have pre-spill health information and  
9 post-spill health information on our Coast Guard  
10 population, which I'll show in the next slide.

11 So what we have for Coast Guard  
12 personnel is that we have a comprehensive list of  
13 all of our responders. We created a Deepwater  
14 Horizon survey, a tool which we called an  
15 inventory. And in this tool we discussed, we  
16 asked questions about the time and site, where and  
17 what type of exposures they had, what type of  
18 mission did they perform, what potential health  
19 effects did they have when they were at this  
20 Deepwater Horizon event.

21 Another unique thing that the Coast  
22 Guard has is we have something called the

1 Occupational Medicine and Evaluation Surveillance  
2 Program, OMSEP -- Occupation Medicine Surveillance  
3 Evaluation Program. And this program is basically  
4 where groups of individuals in the Coast Guard are  
5 enrolled in this program, and we do full physical  
6 examinations baseline. We do CBCs, UAs, pulmonary  
7 function test on these individuals, and they get  
8 these exams done periodically. It could be Q2  
9 years, Q5 years, they are pollution investigators,  
10 our hazardous waste employees, our marine  
11 inspectors. It's a cohort of individuals within  
12 the Coast Guard who we have pre-spill information  
13 on. It's very comprehensive. And we also have  
14 post-spill in health information on them, too.

15 In addition, we, like the other military  
16 service, we have an electronic health record, so  
17 we do have data that we feel very confident that  
18 we can look into to look at their pre-health  
19 information and post-health information. We are  
20 sort of hoping to work with the Armed Forces  
21 Health Surveillance Center to look at the Defense  
22 Medical -- DMSS, the Defense Medical Surveillance



1 System, to -- so, hopefully, we can do some  
2 investigation of what type of information is in  
3 there.

4 We did have on about 300 Coast Guard  
5 personnel personal sampling that was done while  
6 they are at the Deepwater Horizon event. And you  
7 can see here that we sampled things like benzene,  
8 xylene, and what we found when we were down there  
9 was that it was negligible, that very low levels,  
10 very negligible amounts of these chemicals.

11 However, we do have them associated with  
12 particular events that they were doing while they  
13 were at the Deepwater Horizon deployment.

14 Also, NIOSH and other agencies took  
15 thousands of samples, area samples, other  
16 personnel sampling on other responders, so we do  
17 have that information that's available not only to  
18 the Coast Guard but also to the public.

19 One of the questions that one of our  
20 researchers was thinking about is that because the  
21 Coast Guard is in the military, we do have  
22 age-required HIV testing every two years. And all

1 of the HIV testing the serum goes to the DOD  
2 serum repository, so it was a thought that perhaps  
3 we might be able to do some adduct -- DNA adduct  
4 studies to look at benzene potentially.

5           There's a lot of thought about how we  
6 can use the data that we have. We are not  
7 researchers within the Coast Guard, but we're  
8 hoping to work with the Armed Forces Health  
9 Surveillance Center with our USHUS counterparts to  
10 be able to look at this information that have  
11 because we have a wealth of information that we  
12 are excited to look at and use to help protect our  
13 Forces. So we wanted to present this information  
14 to the Board to see if there's any additional  
15 ideas that you might have for the Coast Guard as  
16 we move forward to looking at this information and  
17 going forward with our cohort study within NIHS.

18           So that's all I have for you. Do you  
19 have any questions? And I'm trying to get us back  
20 on track with time, I'm sorry, because I'm talking  
21 so fast. But if you have any questions or any  
22 comments, I am here for a couple of minutes.

1 DR. DICKEY: Lots of information for you  
2 from Commander Schwartz. Are there questions?  
3 Questions about great pictures. Great pictures.

4 COMMANDER SCHWARTZ: Thanks.

5 DR. DICKEY: Comments or questions for  
6 the Commander?

7 Thank you again for an excellent update.

8 COMMANDER SCHWARTZ: Thank you.

9 DR. DICKEY: It would look like the  
10 Coast Guard may be the family physicians. You  
11 just do a little bit of everything.

12 I think we've had exceptional briefings  
13 on a wide variety of topics, and for all of you  
14 who have presented for the Board, thank you for  
15 the remaining retiring board members. Thank you  
16 for being with us through this and hopefully  
17 spending our working mealtimes as mentoring  
18 periods. And to the new Board, welcome, and this  
19 but the first.

20 Can I ask, please, Ms. Bader, if you  
21 have any closing remarks?

22 MS. BADER: Sure. Just a quick comment

1 for the folks that are traveling. On the inside  
2 of your binder is a manila envelope. If you would  
3 prefer not to take your binders home, you can just  
4 put your handouts, et cetera, in the manila  
5 envelope.

6 We do have a shuttle to the airport, so  
7 if you'd like to take a shuttle, please work with  
8 Jen Klevenow, and she'll coordinate that for you.

9 And, tentatively, our next meeting is  
10 scheduled for the board members for 14, 15 June.  
11 We're going to work that, as we had spoke earlier,  
12 perhaps combine that with the COCOM Surgeons  
13 Conference. So I spoke to General Robb today and  
14 his staff, and it looks like that's a plan. So  
15 we'll work that. Please mark your calendars.

16 And with that, I will adjourn today's  
17 meeting. Thank you so much for your attendance.

18 (Whereupon, at 2:21 p.m., the  
19 PROCEEDINGS were adjourned.)

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DISTRICT OF COLUMBIA

I, Christine Allen, notary public in and for the District of Columbia, do hereby certify that the forgoing PROCEEDING was duly recorded and thereafter reduced to print under my direction; that the witnesses were sworn to tell the truth under penalty of perjury; that said transcript is a true record of the testimony given by witnesses; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this proceeding was called; and, furthermore, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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Notary Public, in and for the District of Columbia  
My Commission Expires: January 14, 2013