UNITED STATES DEPARTMENT OF DEFENSE

DEFENSE HEALTH BOARD

BOARD MEETING

Arlington, Virginia

Tuesday, June 14, 2011

PARTICIPANTS:

Board Members:

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

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

VICE ADMIRAL (Ret.) RICHARD H. CARMONA, M.D.

ROBERT GLENN CERTAIN, Ph.D.

NANCY W. DICKEY, M.D.

ROBERT FRANK, Ph.D.

GENERAL (Ret.) FREDERICK FRANKS

JOHN V. GANDY, III, M.D.

EVE HIGGINBOTHAM, M.D.

DAVID ALLEN HOVDA, Ph.D.

JAY A. JOHANNIGMAN, M.D.

GENERAL (Ret.) RICHARD MYERS

DENNIS S. O'LEARY, M.D.

Service Liaison Officers:

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COLONEL PHILIP GOULD

MAJOR ROGER LEE

COLONEL ROBERT L. MOTT

COMMANDER WILLIAM PADGETT

COMMANDER ERICA SCHWARTZ

CAPTAIN PATRICK LARABY

Additional Attendees:

PARTICIPANTS (CONT'D):

MAJOR GENERAL KIM SINISCALCHI

ERIC ALLELY, M.D.

CAPTAIN (Ret.) KATHY BEASLEY

COLONEL PETER BENSON

FRANK K. BUTLER, JR., M.D.

LIEUTENANT COLONEL GREG CANTY

SALVATORE CIRONE

JOHN DAVID CLEMENTS, Ph.D.

RANDY CULPEPPER

DANIELLE DAVIS

MICHAEL DINNEEN, M.D.

CHARLES FOGELMAN, Ph.D.

SLOAN GIBSON

CAPTAIN KURT HENRY

LIEUTENANT COLONEL RUSS S. KOTWAL

KURT KROENKE, M.D.

CLIFFORD LANE, M.D.

PARTICIPANTS (CONT'D):

LEONARD G. LITTON

WARREN LOCKETTE, M.D.

VICE ADMIRAL JOHN MATECZUN

MICHAEL D. PARKINSON, M.D.

CHARMAINE RICHMAN, Ph.D.

MAJOR BRANDI RITTER

COLONEL COLLEEN SHULL

JOSEPH SILVA, JR., M.D.

COLONEL HARRY SLIFE

WILLIAM UMHAU, M.D.

JONATHAN WOODSON, M.D.

DHB Staff:

ALLEN MIDDLETON, Designated Federal Officer

CHRISTINE E. BADER, Director

COLONEL WAYNE E. HACHEY, Executive Secretary

CAMILLE GAVIOLA, Deputy Director

MARIANNE COATES

OLIVERA JOVANOVIC

JEN KLEVENOW

ELIZABETH MARTIN

HILLARY PEABODY

PARTICIPANTS (CONT'D):

JESSICA SANTOS

KAREN TRIPLETT

Court Reporter:

STEVE GARLAND

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P R O C E E D I N G S

(9:33 a.m.)

DR. DICKEY: I'd like to welcome everyone to this meeting of the Defense Health Board. We have several important topics on the agenda for today so let's get started. Mr. Middleton, if you'd call the meeting to order.

MR. MIDDLETON: Thank you, Dr. Dickey. As the Designated Federal Officer for the Defense Health Board, a Federal Advisory Committee and a Continuing Independent Scientific Advisory Board to the Secretary of Defense via the Assistant Secretary of Defense for Health Affairs and the Surgeons General of the Military Departments, I hereby call this meeting of the Defense Health Board to order.

DR. DICKEY: Thank you, Mr. Middleton. Now carrying on the tradition of our Board, I ask that we stand for a minute of silence to honor those we are to serve, the men and women who serve our country.

(Moment of silence.)

DR. DICKEY: Thank you. Since this is an open session, before we begin I'd like to go around the table and have the Board and distinguished guests introduce themselves. I'm Nancy Dickey. I am a family physician by training, President of the Texas A&M Health Science Center and Chair of your Defense Health Board.

DR. WOODSON: Jonathan Woodson, Assistant Secretary of Defense for Health Affairs.

MS. BADER: Christine Bader, Director of the Defense Health Board.

DR. LOCKETTE: Warren Lockette, Deputy Assistant Secretary for Health Affairs.

GEN MYERS: Dick Myers, Core Board Member.

DR. FRANK: Good morning. I'm Bob Frank. I'm Provost and Senior Vice President for Academic Affairs at Kent State University.

DR. CARMONA: Rich Carmona, Board Member, former Surgeon General.

DR. JOHANNIGMAN: Jay Johannigman,

Trauma Surgeon, Cincinnati, Ohio.

DR. O'LEARY: Dennis O'Leary, Board Member, President Emeritus of the Joint Commission.

DR. HOVDA: Dave Hovda, Board Member. I'm a Professor of Neurosurgery and Molecular Pharmacology and Director of UCLA's Brain Injury Research Center.

DR. FOGELMAN: Charlie Fogelman. I'm Chair of the Psychological Health Subcommittee of the Board.

DR. LANE: Cliff Lane, National Institute of Allergy and Infectious Diseases at the National Institutes of Health.

DR. CLEMENTS: John Clements, Tulane University School of Medicine in New Orleans, and I'm on the Infectious Disease Subcommittee.

CAPT LARABY: Captain Patrick Laraby, Director for Public Health for the U.S. Navy's Bureau of Medicine and Surgery.

CDR PADGETT: Bill Padgett, Headquarters, Marine Corps Health Services.

COL MOTT: Bob Mott, Preventive Medicine, Army OTSG.

DR. ALLELY: Eric Allely, Joint Surgeon's Office over at the National Guard Bureau here representing Major General Martin.

MAJ LEE: Major Roger Lee, representing the Joint Staff Surgeon, and I'm the Joint Staff Liaison.

DR. PARKINSON: Mike Parkinson, former Board Member, and here to present one of the reports to the Board today.

DR. SILVA: Joe Silva, former Board Member and will present one of the reports today. I'm Dean Emeritus at UC-Davis School of Medicine and Professor of International Medicine and Immunology.

DR. BUTLER: Frank Butler, former Command Surgeon at the U.S. Special Operations Command and Chair of the Committee on Tactical Combat Casualty Care.

DR. BULLOCK: Ross Bullock, Professor of Neurosurgery, University of Miami and Core Board

Member.

DR. CERTAIN: Robert Certain, retired Air Force Chaplain and Member of the Defense Health Board.

DR. HIGGENBOTHAM: I'm Eve Higgenbotham, Senior Vice President and Executive Dean for Health Sciences at Howard University. I'm an Ophthalmologist and a Glaucoma Specialist.

DR. GANDY: I'm John Gandy. I'm an Emergency Medicine Physician retired from the Air Force and also a Member of the TCCC Committee.

DR. ANDERSON: George Anderson, Board Member, retired Air Force Medical Officer.

GEN FRANKS: Fred Franks, Board Member, U.S. Army retired.

MG SINISCALCHI: Good morning. Kim Siniscalchi representing the Air Force Surgeon General, General Bruce Green.

COL HACHEY: Wayne Hachey, Executive Secretary of the Defense Health Board.

MR. MIDDLETON: I'm Allen Middleton, the Designated Federal Official for the Defense Health

Board and the Deputy Assistant Secretary for Health Budgets and Financial Policy.

COL BENSON: Colonel Peter Benson. I'm the Deputy Chief of Staff Surgeon for the U.S. Army Special Operations Command at Fort Bragg.

MS. DAVIS: Danielle Davis. I'm the Administrative Secretary for the Committee on Tactical Combat Casualty Care.

COL SHULL: My name is Colonel Colleen Shull. I from the Defense Materiel Program Office at Fort Detrick. I'm the Chief of Staff there.

MAJ RITTER: Major Brandi Ritter. I'm with the Defense Medical Materiel Program Office, Head of Joint Medical Test and Evaluation.

CAPT BEASLEY: Kathy Beasley, Retired Navy Captain, Military Officer's Association and Deputy Director of Government Relations.

MR. CIRONE: I'm Sal Cirone. I'm a Staff Officer in the Office of the Assistant Secretary of Defense for Health Affairs.

DR. RICHMAN: I'm Charmaine Richman. I'm a Product Manager at the United States Army

Medical Materiel Development Activity.

LTC CANTY: Lieutenant Colonel Greg Canty, Office of the Surgeon General, also Health Promotion and Risk Reduction Task Force.

DR. UMHAU: William Biff Umhau, Family Medicine, Occupational Health Environmental Safety Services at NSA, Fort Meade.

CAPT HENRY: Captain Kurt Henry, Director, Clinical Operations BUMED.

COL SLIFE: Colonel Harry Slife, Deputy for Research and Technology, Fort Detrick, Medical Research and Materiel Command.

MS. PEABODY: Hillary Peabody, Support Staff of the Defense Health Board.

MS. MARTIN: Elizabeth Martin, also DHB Support Staff.

MS. JOVANOVIC: Olivera Jovanovic.

MS. GAVIOLA: Camille Gaviola.

DR. DICKEY: Thank you. Before we continue the morning session, Ms. Bader would like to provide some administrative remarks.

MS. BADER: Good morning, everyone, and

thank you very much for your attendance here today at this meeting of the Defense Health Board. I would like to start by introducing, although she had already introduced herself, a new member of our staff, Camille Gaviola, who is a retired Air Force Lieutenant Colonel and we welcome her to the Defense Health Board. I would also like to thank the Renaissance Arlington Capitol View Hotel for helping with these meeting arrangements and for all of the speakers who have worked very hard to prepare their briefings for the Board as well as the Defense Health Board Staff.

Please sign the Board attendance sheets on the table outside of this room if you have not already done so and kindly indicate any recent change to your contact information if it is not reflected on the roster. For those who are not seated at the tables, handouts are provided on the table in the back of the room so that everyone can have the handouts and follow along if they choose. Rest rooms are located just outside of the meeting rooms, and for telephone, fax, copies or messages,

please see Jen Klevenow or Jessica Santos. Jessica is in the front of the room there in the black suit. Jen is outside at the table, and they can assist you with any logistical needs that you may have.

Because this is an open session in accordance with FACA and it is being transcribed, please state your name before you speak and use the microphones so that the transcriptionist can accurately record what you are saying. Refreshments will be available for both the morning and the afternoon sessions and we will have a working lunch here for Board members, Federal Agency Liaisons, Service Liaisons, DHB staff and special guests.

For those who are looking for lunch options, the hotel restaurant is open for lunch and there are several dining options all within a short walking distance of the hotel. If you need further information, please either see either Jen Klevenow or the front desk hotel staff. Please note that short biographies will be read for each

of our speakers today and more detailed bios can be found in your meeting binders under Tab 3. Thank you very much.

DR. DICKEY: Thank you, Ms. Bader. We have a lot of work to do and a lot of interesting work to do. We appreciate all of you being here and sharing your time with us. Our first briefing today is going to be delivered by Dr. Charles Fogelman, Chair of the Psychological Health External Advisory Subcommittee, Dr. Joseph Silva, and Dr. Michael Parkinson.

Dr. Fogelman is the Executive Coach in Leadership Development and Management Consultant of Paladin Coaching Services where he advises professionals from various fields on issues pertaining to leadership and organizational development as well as strategic planning and implementation.

Dr. Silva serves as Professor of Internal Medicine within the Division of Infectious Diseases and Immunology at the University of California-Davis School of Medicine,

previously having served as Dean of the Medical School and Chair of Internal Medicine. In addition to academic positions, Dr. Silva's prior appointments include serving as a consultant for Kaiser Permanente Hospital and the U.S. Air Force Medical Corps at Wilford Hall Medical Center and subsequently in the Air Force Reserves.

Dr. Parkinson serves as President of the American College of Preventive Medicine. His previous positions include Executive Vice President and Chief Health and Medical Officer of Lumenos, a pioneer of consumer-driven health plans and a subsidiary of WellPoint where he was responsible for the development and implementation of an integrated, incentivized health improvement strategy employing evidence-based prevention, care management, account-based benefit designs, employer partnership and consumer engagement. A retired Air Force Colonel, Dr. Parkinson also served as the Deputy Director of Air Force Medical Operations and Chief of Preventive Medicine.

Dr. Fogelman is going to provide an

overview of the subcommittee's findings and proposed recommendations that were included in its draft report pertaining to psychotropic medication and complementary and alternative medicine. Board Members may find the presentation slides under Tab 5. Dr. Fogelman, welcome, and we look forward to hearing from you.

DR. FOGELMAN: I'm quite loud, as you know. I'm perfectly happy to speak loudly and I guess I'll do that. When you asked me if I needed a microphone, I thought you meant did I need a lapel microphone.

Happy Flag Day, everybody. I'm wearing one of my flag ties for this purpose. And although I'm not going to do what I was briefly intending to do because of what are soon to be the pressures of time, I have something that I'd be happy to share with people if you want to come over to where I'm sitting or perhaps I can show it to you later if you want it read. This is a one and a half page article by Isaac Asimov, the science-fiction writer. It's a speech he gave in

1991 about "The Star-Spangled Banner" and it is really one of my favorite things on the subject of flags and so on.

We have an hour and 15 minutes. Is that right?

DR. DICKEY: Yes, sir. That includes not only the presentation, but questions and answers, Dr. Fogelman.

DR. FOGELMAN: I understand. Also I think we have somebody calling in at 10:00. Think Dr. Kroenke is going to call in at 10:00. So if we hear ding-a-lings up there, it's welcoming him because he was one of the active people on the committee.

Let's see. What have we got here? That's me. I'm the first guy, Mike Parkinson has been identified, and Joe Silva. That just tells you what slides are coming. This tells you what is the big thing we're going to be talking about. I'll come back to this. That's continuing about the big thing we're going to talk about. You may know some of us. Some of us are in the room.

This is the current membership of the committee. We have recently been enlarged in all senses of the word by the addition of Dr. Bullock and Dr. Hovda, who make us more of a TBI Committee as well even though we're not.

Don't point that thing at me. Now it's on after I was practicing my outside voice and everything?

I'll tell you about this. The question which was at the beginning which I'll come back to before I go forward was presented to the Board now about a year ago. The previous administration of the Board decided that the best way to deal with what was a very large and very complicated question was to create two specific work groups, one for each half of the question: One on the use of complementary and alternative medicine in theater, and the other on the use of psychotropic drugs. The first meeting of -- was that really our first meeting in November, Mike? The first meeting of the work groups actually took place together and some members of the Psychological

Health Subcommittee attended that as well. As time progressed, both Dr. Parkinson's and Dr. Silva's appointments on the Board expired so that the work was then transferred as a whole to the Psychological Health Subcommittee, but all the people previously involved continued to be involved. I'm sorry that on that list we don't have the other members of the work group. I'd like to acknowledge them, but since I can't remember all of their names, maybe Mike, you have a better memory than I, when you get up here if you can do it.

Since Dr. Silva and Dr. Parkinson were really the Chairs of the work groups and moved most of the work forward enough though it was formally placed within the Psychological Health Subcommittee, in a few moments I'm going to ask Dr. Parkinson and Dr. Silva to come up and give an overview and present the report, which may be the real reason I skipped through there. We don't have a slide that tells us what else. Is there an ANAM slide now? Will I find an ANAM slide? No?

I'll tell you what we're going to do next and then we'll do this. The next task of our subcommittee, we're meeting on Thursday to begin to tackle this, we have been presented a question a numbers of years ago even before we were stood up about the ANAM, which is the Automated Neurocognitive -- somebody help me here. Well, I apologize for the frailty of my memory at my advanced age, but it's an automated neurocognitive instrument, which is used, I think, currently before and after deployment, maybe just before. We have a question about that and about its efficacy, and we're going to start to wrestle with that on Thursday with the hope and expectation that it will just take us several months to finish it because I know it's a matter of some importance that the Department get our recommendations about it.

To the task at hand, I'm not going to make you read the slides or your handouts. A very long series of questions was asked about the questions of the use of psychotropic medication

and the use of complementary and alternative medicine. Over the course of the meetings we decided to try to make something that we could put our hands and heads around rather than to try to answer everything. As Dr. Parkinson will talk about, we did try to focus it a little more because in the end we decided that to try to respond to the entire formal question would have been difficult to say the least. So you'll hear a report which is based on focusing everything down and trying to come up with, please do not laugh when I say this, a few findings and recommendations.

This is an interim report. These are not our final recommendations for the Board to vote on, but they will almost surely be 98 percent concordant with what the eventual wording will be. I doubt that we'll have any other findings or conclusions and we may reword some, but that also depends on what the guidance of the Board might be over the course of the morning.

Dr. Dickey, I don't know what the

formality is about requesting a vote on an interim report, so if you'd just have in mind whatever it is you want when we're done, we can proceed.

I'd like now to turn the lectern over to Dr. Parkinson with some comments from Dr. Silva. Dr. Parkinson will walk us through the rest of this.

DR. PARKINSON: Thank you. Thanks, Dr. Fogelman, very much.

Good morning, everybody, Dr. Woodson, Dr. Dickey, and all the distinguished Members of the Board. Thank you very much for your support of this initiative and we hope that what we bring you today in an interim report is useful for early action by the Department in some key areas that we on the committee felt were low-hanging fruit and some areas where we can build on the considerable success of the Department already in improving the psychological health and the response to psychological health among our troops.

Let me say at the outset I want to thank also the tremendous support from DoD Staff, from

the Services, both the consultants and the various agencies, and TMA that over the last duration of months has generated a tremendous volume of information which had led to a very comprehensive and we hope very useful report for the Department. But because of the volume of that material and because of the way in which it's organized, we want to make sure that we did an excellent job on the editing and the final preparation of that report. And as Dr. Fogelman indicated, we wanted nonetheless to bring you the findings and recommendations for consideration and discussion with the Board today.

The scoping of the issue, which is really what we spent a lot of our time on very early because we were given many, many questions and concerns in both the broad area of psychotropic medications and the broad area of complementary and alternative medicine which together would make up a textbook of DSM-IV, and so we scoped it in such a way that we could give practical advice around what issues we saw to be

of near-term concerns to the Department. The blending under Dr. Fogelman's leadership, last process comment, was a real credit to him in bringing together the expertise of the Psychological Health Subcommittee with those of us who were former Members of the previous Board who were designated to co-lead, myself and Dr. Silva. So from a systems point of view it was a challenge, but it worked very well and I'm very pleased to report that.

You can see here that the charge to the Board was essentially these four elements, and as we scoped it we said we wanted to have a priority on the in-theater operational aspects of this issue. We wanted to talk a little bit about the transitions, realizing that much of the Department's work recently has been about transitions of care and what happens after the troops come home. We wanted to get a broader understanding of the most common mental health conditions seen in theater and the status of optimal-based, evidence-based therapies being

deployed in the Department for the treatment of those conditions.

We know there was a lot of emphasis on clinical practice guideline development and the Board was very interested in looking at what's happened to those guidelines since they've been developed, and who's providing what type of care to whom, where, scope of practice issues. None of these issues, by the way, are unique to military medicine. Those of us who wear civilian hats see these in our institutions in the practice of medicine every day.

A lot of discussion both on the question about the role of primary care, about medical technicians, about the use of psychiatrists in theater, what's the most appropriate scope for these various people to add to their expertise and improvement? What is the in-theater availability of the recordkeeping systems so that bodies such as ours or the public at large or DoD policymakers and clinical leaders can know how to improve the system? What is a framework, a systematic

framework, that can be used or should be used to disseminate in a timely fashion operational breakthroughs, whether it be in research or practice in teaching? Is it there so that we're able to do that? And peripherally to look at the ongoing issues around mental health and stigma, which was secondary.

I mentioned before that we blended the two work groups. It worked out very well. You saw the series of meetings that we conducted. And as I mentioned, Dr. Kurt Kroenke, who did a lot of our work on evidence-based health care or evidence-based practice versus evidence-informed practice, this is an issue that's come up in the media somewhat, it was critical in that regard, Kurt's going to be joining us by phone here in a few minutes.

What I'm going to do is we tried to boil this down into five categories of findings and recommendations. Those categories are: The prevalence of psychological health conditions, the prevalence of psychotropic drug use, complementary

and alternative medicine, clinical practice guidelines, and, finally, education and training related to all these issues. I'm going to just make a brief comment. Dr. Silva will provide comments to kind of frame the context of our work and the challenges that we see in the report and going forward.

Not surprisingly, psychological stress from 10 years' worth of war, repeated deployments, is not something new or something that is unanticipated. It should be predicted and it was predictable. It was important to note and the committee felt strongly that we had to say despite these multiple repeated and perhaps in many ways unprecedented stressors, the majority of military members and their families have weathered it well. They have not suffered adverse psychological effects requiring medical or mental health care on an ongoing basis. However, the precise prevalence and treatment of psychological health problems among Service members particularly in theater is difficult to estimate due to inadequate data

collection. We'll have some recommendations around that area.

Number four, we are aware that across the Department there are efforts underway to improve psychological health screening and to foster psychological health and resiliency as assets that need to be developed and sustained. Indeed, many of the efforts that Dr. Fogelman mentioned that the Department has been engaged in over the last three to five years specifically have been targeted toward these concerns, so it's not as if our report is done in a vacuum. Hopefully it's informed with a lot of contextual material in the report itself that individuals will be able to see the level of effort.

Specifically, since 2009, the committee noted that psychological health staffing has doubled and troops have reported better access to care, particularly in theater. Nonetheless, improvements can be made in both initial military training and continuing operationally relevant -- the key here is "operationally relevant" --

professional development. We'll talk more about that in the recommendations.

Number six, the importance of sleep problems is reflected in pharmacy data indicating that sleep medications are the predominate prescription psychotropic drug used in theater. We'll have some recommendations regarding sleep as kind of a sentinel indicator, if you will, that should be triggering certain types of reactions, particularly in military populations perhaps going forward. There was some suggestion about the overuse of pain medications in some of the lay and civilian media that we might have seen in reports that led up to this report. What the committee found was that pain is among the most common problems reported by Service members as it is among the civilian population. Pain increases the risk of psychological conditions such as PTSD and depression and can make such conditions more difficult to treat, and obviously that there is an appropriate use for pain medications, including opioids, in the right setting.

So our recommendations related to the prevalence of these psychological health conditions is that the DoD --

MS. BADER: Excuse me, Dr. Parkinson?

DR. PARKINSON: Yes?

MS. BADER: General Myers has a question.

DR. PARKINSON: General Myers? Yes, sir.

GEN MYERS: Dr. Parkinson, before we leave the preliminary findings, under 2, "Despite these exposures, the majority of military members," is that a data-driven finding? I mean, how did you determine that the majority (inaudible)?

DR. PARKINSON: Right. I'd welcome Dr. Fogelman and others to join in here.

DR. FOGELMAN: The short is yes and also something else. We had lots of firsthand reports, including from people who treated lots of folks in theater and also who treated families, but there were data which will appear in the full report

which you'll get, I guess, over the course -- one hopes over the course of the summer to support that. There may be 15, 18, 20 appendices of data, but the short answer is yes.

GEN MYERS: I guess the question is, this is hard to get -- my guess is it's hard to get good data here because people aren't willing to come forward in many cases.

DR. FOGELMAN: Yes.

GEN MYERS: And then maybe a secondary question is did you determine any difference Active Duty and Guard and Reserve in this area? Because again, my guess is the Guard and Reserve data is really difficult to access.

DR. FOGELMAN: That's absolutely correct.

GEN MYERS: And if it is, should we mention it in the report if we think we have a incomplete piece here?

DR. FOGELMAN: Well, I think that's correct, and I think we were actually surprised that we found some data which were about Guard and

Reserve which were able to be wrestled with. It was certainly not complete in any way. As Dr. Parkinson said, overall the data were way less than perfect, way less than complete, and way less than satisfactory in many ways, for many reasons, all of which you can imagine: The means of data collection, the different sets of people and organizations which are collecting data, different methods of reporting, different periods of reporting. I don't think that we would assert that it was an easy conclusion to reach or one which one would stake one's life, but we were pretty comfortable with the statement about a majority, meaning more than half. We would have liked to have made statements much more precise than that, but we were really quite comfortable by saying more than half.

DR. PARKINSON: General Myers, there are really three sources of information that from the outset we looked for: One is traditional clinical diagnostic information that you might get from a medical encounter; one is surveys both in-theater

and post-theater; and third is the wide body of work related to what the Department's already done in psychological health, PTSD, et cetera; and the fourth is actually psychotropic medication use, which obviously could be an indicator to the degree that people have access to medical care that's related to that. In the report we go into considerable detail in each case contrasting what we found in the departmental data sources. Was the information adequate from a methodological standpoint? Was it benchmarked against where we could find good civilian data of its equivalent or even civilian data of people in like stressor conditions?

A classic example would be the use of psychotropic medication. There has been an epidemic in the civilian sector of psychotropic medications, many of whom probably are young members who are coming in with those types of medications out of adolescence. So in other words, in every case we use that framework of looking at the DoD source where it existed,

benchmarking it against the civilian source and benchmarking it against a subset of civilian source if there was something that looked like a stressed population similar. So again, based on all of that and dialogue with the committee, they felt that we don't want to lose the message here that for the vast majority, at least greater than 50 percent, a majority of individuals, despite the stressors, despite the repeated deployments, despite the duration, that the numbers that we see do not give evidence to the fact that there is a significantly increased prevalence of these conditions in the population that require medical or mental health treatment.

Now, again, the way it's worded, "that require medical and mental health treatment," we get a lot of issues. The report heard a lot about the stigma, about people afraid to come forward. The stigma is reflected in other things -- please, Dr. Silva, weigh in here -- but about coding issues, how something is coded in a medical record. The use of V-codes versus ICD-9 or CPT

codes. You know, these are all issues that are not new to military medicine, but they are in military medicine just as they are in the civilian sector.

So there's a little color commentary and I apologize that you don't have the whole report in front of you, but that's methodologically what's behind that dialogue at the committee level.

DR. SILVA: I liked the way my two colleagues summarized it. General Franks, you hit it right on the head. We felt comfortable getting data from the last 2.5 years, that the data was far more robust than what we had in the beginning of both theaters. It's a very complicated question you ask. Comparing it to some civilian similar like situations on the use of these agents, we don't believe there's been an increase and that we feel fairly comfortable with. But there is a sub rosa problem here that exists in our society: Drugs they get at the PX, the highly caffeinated drinks, the family sends them drugs,

they can purchase things on the local scene. So there are a lot of things we can't get a handle on. But in our final report I suspect we'll be developing very strong language that the Department of Defense continue to improve its systems to monitor or at least know what's in the pipeline pre-deployment, deployment and post-deployment.

DR. DICKEY: Are there other questions before Dr. Parkinson moves on to recommendations? Dr. Frank?

DR. FRANK: Why would you compare it to civilian populations that are stressed? Why aren't you just comparing it to community populations? I'm not quite sure I understand that point.

DR. PARKINSON: Well, again, the members of our committee, if you were to go over kind of the folks we had on it and in terms of the access to the databases that they were aware of, and, as you might imagine, there's not necessarily a good match for either one of those data sets that

you're talking about, so a lot of it came on like one of these things, you know. If there was data like that that we had available and a member of the committee was aware of it, we brought in folks and the NIH and other places, that would have been another population. But again, the nature of wartime versus post-traumatic events, someone was in a fire, whatever could be the numbers, we looked for whatever sources we could. And even at this stage if you're aware of or you think of a relevant, comprehensive, useful database that you think that we might not have been able to access, please let us know. I mean, that's -- again, this is an interim report. As I said, we spent on [sic] a very fast track looking at large amounts of data, but if there's one that you think that we've overlooked when you see the final report, please let us know.

GEN FRANKS: Excuse me. Not to prolong this, but something General Myers said, is it not possible that there is a population, though, that is suffering from adverse psychological effects,

but does not currently require medical or mental health care?

DR. PARKINSON: Absolutely.

GEN FRANKS: That they haven't either come forward yet or it hasn't gotten severe enough yet, and that these effects sometimes take a while to manifest themselves depending on numbers of deployments, time after deployments, a family situation, that sort of thing?

DR. PARKINSON: Right. Yes, sir, General Franks. I don't want the committee or the Board to misread the scope of this particular finding. What we are not saying is there's not significant psychological health problems among certain subsets or members who've been in the military for the last 10 years with frequent deployments. What we're saying, as a population group as a whole that looking -- that we're not seeing that in terms of the ways that we're asked to look at that, which is the traditional way, you look at the prevalence of psychological conditions in a population. So we have studies that look at

PTSD in theater. I think the number is 3 to 6 percent. We have self-reported data of 17 percent from the MHAT survey of people think that they are stressed out or that they self-report medication use of 10 to 17 percent. We look at DoD databases that suggest that the number's only 4 percent in the actual clinical interactions that are prescribed. So somewhere between 4 and 17 percent using traditional measures of medical epidemiology and survey methodology, with all of the mess, frankly, that comes with comparing different populations in different settings, is the right number as it relates to traditionally defined psychological stress.

And so you're absolutely right, there are subsets; a lot of the work by the Army looking at the Mental Health Advisory Team data. Depending on your MOS they have higher levels of stress related to other people. People were forward deployed in infantry units had a higher level of stress than those who were supply. I mean, again, I'm not an Army person, but we looked

at those; there are subsets within that. Clearly there are subsets in terms of care-seeking behavior in the Guard and Reserve, access issues, stigma issues, coding issues. All of those are explored in the report. I don't want to indicate that because this recommendation at the macro level suggests that the highest level where we look at these things that we don't see large numbers in the way that we'd expect for a duration of this type that there aren't issues. And that's a lot of the work that has happened in other DoD reports which are, frankly, very well described for particular subsets.

DR. FOGELMAN: Charles Fogelman. We decided fairly early on to try to focus mostly on what we knew about theater or immediately before or immediately after deployment, which was a massive enough set of data and number of people to go through as it was. We didn't go as far as talking to the VA, for example, because that was a much later thing. I think you're both absolutely right that there is unquestionably a set of the

population who are going to show up with symptoms later. In some ways, the current clinical definition of PTSD might indicate that some people aren't diagnosable or don't meet the criteria until after they're out. The concern is real. We focused a little bit more narrowly.

DR. PARKINSON: Yeah, I want to reemphasize again what Dr. Fogelman just said is we did not specifically look at long-term effects related -- in the VA system or in the civilian sector related to the treatment of these disorders. And the focus of our report in dialogue back with the defense leadership was, yes, let's begin to focus on the operational setting and the ecology around the operational setting. In that regard, that's what this report reflects.

DR. WOODSON: Jon Woodson.

DR. PARKINSON: Yes, sir?

DR. WOODSON: I would make a recommendation then since this is an interim report that you do look at the VA and here's the

reason why, particularly as it relates to the Guard and Reserve. We know that there are Guard and Reserve personnel who come back and have behavioral health issues and seek treatment at the Veterans Administration. Remember, Guard and Reserve are interesting folks. When they get that DD-214 they become veterans and, in fact, they can receive care for military Service-associated mental health and physical health issues, and they do go to the VA. The issue is, and we're trying to solve this problem, is getting the information from the VA back to DoD, particularly when they may be remobilized.

The point I'm making is that I think particularly for the Guard and Reserve you need to contact the Veterans Administration and see what kind of information you can get because that may be a population that would be excluded from your data analysis if you don't do that.

DR. PARKINSON: Yes, sir. Related to this section of the report, we felt that what would be very useful is essentially a bottoms-up,

systematic, and comprehensive review of an integrated functional model around appropriate psychological health, particularly in the operational setting, and the model is both integrated with line and medical in a traditional military sense, a prevention, self-care, buddy care, unit care, field echelon care moving up to someone who might be considered for psychotropic medication rather than jumping right into a clinical model with psychotropic medication. And we think the creation of that model, which exists in various places around the Department, but has not been standardized or integrated or deployed, would be very, very important in a prevention, detection, and treatment mode. Certainly we've done a lot of work over the last 5 to 10 years, but we could not identify where that model exists or where it's currently deployed in any systematic way.

The second recommendation is that much the way we treat basic first-aid for trainees, psychological first-aid for predictable combat

stress may be best provided at the self- and buddy-care level. Operationalizing self- and buddy-care models for predictable stressors that occur at predictable times either around events or periods during deployment should be standardized, formatted, and deployed. Peer-to-peer training prior to deployment should augment personal resiliency training. Use the same models we know work in the military for other things and use it for psychological health.

Uniform coding practices, particularly in the medical record, for the diagnosis and treatment of psychological health disorders with a particular emphasis on in-theater practical deployment, surveillance, and quality improvement purposes. The committee heard multiple times from multiple people that coding practices are non-standardized in theater and that, not surprisingly, access to the automated medical record -- AHLTA -- is not uniform. And, therefore, the lack of uniformity both in the practices themselves and in the technology to be

able to capture data create de novo problems in getting a good picture of what's happening real time in theater.

Number four, DoD should incorporate point-of-care guidelines, decision support tools, and guidance that could be integrated into the medical and mental health care workflow. Training remains essential, particularly to providers in theater who may not have ready access to those automated decision support tools. Many of us on the committee work in the quality improvement area, and what's been shown again and again and again is that training with embedded decision support and electronic health records does not work very well. And so what we did not see is embedded decision support tools when there is access to an electronic medical record, particularly for such a prevalent and common group of disorders like sleep, stress, anxiety, depression, PTSD, et cetera. There is work toward that, but we think that that can be accelerated.

Number five, analogous to the Task Force

on Pain, DoD should establish a Task Force on Sleep to identify emerging scientific findings and define best operational and medical practices to optimize performance and readiness. There are many things that the military does uniquely in the military and even more uniquely in operational settings. If sleep -- and Ambien® is the most prevalent psychologic medication used in theater and it's, frankly, given out many times just reflexively, at least through anecdotes. We need a Sleep Task Force that looks at what is the role of sleep, circadian rhythm, and ways that we can operationalize that among troops that feel constantly under stress. The committee felt there are other models yet again that DoD has deployed in other areas that could be deployed in this area.

In the area of psychotropic medication drug use itself, the findings were the following: That DoD lacks a unified pharmacy database that reflects medication from pre-deployment, deployment and post-deployment settings, as Dr.

Silva mentioned; MHS data systems are inadequate to detect important clinical and pharmacy data in a timely fashion. Let me explain that it's not that MHS hasn't invested considerable resources into data systems, absolutely, and they are commended for it. But the timeliness of that information and the accuracy of that information for meaningful quality improvement -- and you'll hear us refer again and again to the TC3 model where the surveillance is real-time, rapidly reviewed studies, then brought into a quality improvement model to dramatically impact a widely prevalent condition -- we saw as a very promising model that to date we have not deployed in the area of mental health and resiliency.

The AHLTA system is not sufficiently linked with pharmacy information. It was very difficult to track for all the diagnoses in theater what were the drugs prescribed for a given ICD-9 or CPT diagnosis. The MHS Pharmacoeconomic Center has identified these areas as limiting and is working to identify data structure for improved

in-theater data collection. Again, a theme. What the committee found was not necessarily new. It was known to many people and we're working on it. But again, if we need an exclamation point, linking the clinical information with the pharmaceutical, the psychotherapy, and CAM interventions where they're appropriate, and we'll talk more about that in a minute as it is very important, to improve quality of care and outcomes.

Number two, there has been a trend toward increased use of psychotropic drugs in theater over the past three years. Dr. Silva mentioned that from 2008 on, the data has been better than prior to 2008, and when we look at that data, this is all detailed in exhausting detail in the report, there has been an increase in the use of common psychotropic drugs operationally in theater -- sleep, antidepressants, sedative hypnotics, antidepressants [sic], antianxiolytic agents, et cetera, et cetera -- in much the same way they're

being, frankly, prescribed an awful lot in the civilian sector, and there's much discussion in there as well. Not surprisingly, clinical practice patterns in the military come from clinical practice patterns we learned in the civilian sector. So parsing out what is appropriate and what is not given, in my case looking at employer data in the civilian sector where these drugs are always the number one or two in the employer's drug spend, is difficult. But this trend has been noted. It is real. The question is whether or not we believe it's appropriate or not.

Finding number three. There does not appear to be an inappropriate increase in the use of psychotropic medication given the detection of the stressors that we've seen and the increase in the prevalence of the conditions these drugs are designed to treat.

Number four, we noted that Service members can receive medications through multiple routes with varying degrees of documentation. We

identified at least four routes of medication access in in-theater, some of which are documented through the PEC and through DoD systems, others are not. We discussed it in much more detail, but it needs to be better clarified and documented.

Number five, on the issue of polypharmacy, the use of multiple psychotropic medications may be appropriate in select individuals. Polypharmacy is by itself not necessarily a bad thing. It can constitute a balanced approach to optimize functioning. Close monitoring, however, is required with multiple drugs to optimize treatment and minimize side effects. Individual clinical and population level MHS data systems currently do not comprehensively detect polypharmacy, adverse drug-drug interactions, or potential for abuse, particularly in theater.

Number six, some off-label use of psychotropic medications is appropriate based on available information and evidence. However, DoD lacks a consistent policy or approach for

off-label use of drugs.

Dr. Kroenke, I don't know if Kurt is on the phone now, but Dr. Kroenke has done an awful lot of work and there is a tremendous amount of information about the appropriate use of off-label FDA drugs, if you will, using a hierarchy of evidence and informed methodologies, and that discussion is in the report for DoD's review.

Number seven, there may be -- and this may be understated in my personal view -- an underuse of alternative treatment strategies, particularly in the area of mindfulness and mindfulness training, acupuncture both self and other ways of administering acupuncture, perhaps even deploying it in a field setting. There may be opportunities that can underemphasize the use of psychotropic medications and increase more self-reliance.

And number eight, there is a lack of uniform access to medications in theater. We oftentimes heard that depending on what theater you're in that they may have not had access to a

particular drug because while it may have been on formulary, it wasn't available, or because the Service psychiatrist who had come in put one drug on it versus another.

The recommendations in this section are the following. The committee wanted to make the point that healthy lifestyles even in wartime, proper nutrition, sleep hygiene, are at the cornerstone of any important psychological health and resiliency strategy and, again, need to be reemphasized. DoD should review and modify existing policies and practices for capturing, tracking, and monitoring prescription drug data -- we talked about that -- as well as sources of untracked drugs. Drugs can be sent, prescription drugs, by well-meaning family members or other individuals. After going through the PEC process to make sure that they're on the right drugs and they have 180-day supply, they can bring additional supplies with them in theater. If they're coming in from the civilian sector they may have seen multiple doctors that we don't have access to the

medical records. There certainly may be certain types of nutrition and supplement stores available in theater that have agents in them that may have psychotropics. So a wide variety of sources, although we think we're capturing it, we have no idea of the capture, what proportion that is, of total drug use in theater. DoD should standardize and ensure that it's definition of polypharmacy is consistent with general use in civilian practice and, again, a little more enlightened use of the term.

Why don't I stop there, Dr. Dickey, for comments or questions about that general section and prevalence of psychotropic drugs? And I welcome from Dr. Silva, Dr. Fogelman, or Dr. O'Leary any comments in this section.

DR. DICKEY: Dr. Anderson?

DR. ANDERSON: George Anderson. I noticed on a couple of slides and particularly in this last recommendation you talk about the importance of sleep and sleep hygiene. I wonder if you could expand a little on that and if you

actually looked at rest in the concept of crew rest in addition to sleep.

DR. PARKINSON: One of the discussions that we had, General Anderson, was on taking a military operational perspective. As many of you know, Dr. Anderson served in the Air Force. We talked about circadian rhythm and sleep/rest cycles, peak performance, much of what was done at the School of Aerospace Medicine. That type of broader perspective for operational issues relating to rest, cognitive functioning, sleep, sleep therapy, early return, we did not see that effort and that's why the answer is no, we didn't see that and we're recommending that. Is that fair?

DR. ANDERSON: We might come back to that issue. You'd better look at it.

DR. FOGELMAN: Right. That's why we recommended a Task Force on Sleep, but really that was just a marker for those types of things. And while we have a lot of good work in the Department that's going on, again, distilling that down in

the context of the current conflicts, what can I operationally do rather than reaching for an Ambien® or a TMC where basically that's the most prevalent medication just because that's what we do? You go to see a provider, what do you get? Your provider's going to write you a prescription. We're trying to get out of that mode and, again, not saying that that's -- we don't have whole documentation, but if you look at the macro picture, prevalence of sleep, sleep medications are way up there. Is that the best model? And the operational focus. And, again, I'll come back to TC3 again because there's a lot of ways that you treat trauma in the civilian sector in terms of the operational tempo and the operational framework. What is it about trauma treatment that's different in the military? What about sleep treatment should be different in the military?

DR. DICKEY: Before I go on to other questions, let me ask you if any of the other members, Dr. Fogelman or Dr. Silva, have quick

comments you want to make that might actually offset any of the questions that are about to come? If not, we'll open it up to questions from the group.

DR. SILVA: Chairwoman Dickey, I don't have any. I think the questions fleshed out some of the things I was interested in.

But as a sidebar, we were very impressed with the new research coming out of the NIH in terms of the Institute of Alternative Medicine and are now starting to take a very complicated set of modalities and picking them off, trying to do randomized double-blind, duh, duh, duh. And I think there is a huge role for the military to continue on this path to stress warrior resistance, mindfulness, the buddy system. These are very powerful techniques. Of course, in their Basic Training they're taught how to act under stress, incredible stresses. You know, in some ways we have a very successful Army. The failure rate is very low. So that's only my sidebar comment.

DR. DICKEY: Charles?

DR. FOGELMAN: In response to what General Anderson said, were you referring to the recent development and expansion of, I forget the full name, respite centers that exist in theater which have just begun to be deployed and utilized in the last year? There are no hard data about that, and that's not just about sleep. It is largely about sleep, but if there were hard data about that, we would have reported it. Rather, we chose to reflect the need for that and the possible activities about that in, one, the recommendation about having a Task Force on Sleep so that it can be more comprehensive and thorough, and also when we talk about healthy lifestyles it's embedded in that as well. I'm not talking about this specific operational activity, but we would hope that a Task Force on Sleep would address that.

DR. ANDERSON: That all fits together beautifully. I was really aiming for what Dr. Parkinson responded, there's a rather broad body

of knowledge that's been in the scientific literature on human performance and that should be the reason for doing some of these things that you're talking about in an operational environment. So I hope it all comes with appropriate proof eventually.

DR. DICKEY: Dr. Higgenbotham?

DR. HIGGENBOTHAM: Eve Higgenbotham. I'm sure it's embedded, but certainly I would imagine that adherence is certainly challenged in the theater compared to the private sector and certainly when you consider polypharmacy it would be enormously challenged. And to what extent are you focusing on adherence in your analysis and to what extent that's going to be one of your actions that you're going to pay some attention to?

DR. PARKINSON: That's an excellent question and clinically very appropriate. And from our current review of the data systems it would be very hard to review the data and determine. And I'll tell you, we do the civilian sector, too. It's hard also in the civilian

sector. The fact that something is prescribed doesn't mean it's picked up and it doesn't mean it's taken.

But having said that, that's another effort that probably in our amended report we need to speak a little more to. The adherence issue is almost a second-order issue and we didn't get to it that much. I think it was because of the limitations of the data system that we saw originally to link a diagnosis to a treatment, and then to follow on that treatment for adherence over a longer period of time was almost a second-order question, but it's important and we appreciate that comment.

DR. DICKEY: Dr. Woodson?

DR. WOODSON: Thank you very much. Jon Woodson. A comment and a question. The comment is that since we began activities in Afghanistan and Iraq, a lot of things have changed. Currently, we do significant screening before Servicemen and women go overseas for psychological health and medication to, hopefully, prevent

issues downrange. The question I have is whether or not the panel is really examining appropriateness of applying civilian standards of practice as it relates to medication use to the military. Some of it is unproven. It's kind of the best practice, but it's unproven in terms of which psychotropic agents to use or which combinations to use. One of the observations I've made, and I recently returned from theater, is that we need to ask the hard question as to whether or not the standard of practice as it's done in the civilian world is appropriate for the military, and then what's the best evidence for that practice. Could you comment on that?

DR. PARKINSON: Excellent, excellent comment and very, very thoughtful, extended dialogue in our committee about this issue. Those of you around the table know better than anybody outside this room probably, the use, abuse, and the hope of terms like "evidence-based medicine."

And to your point, Dr. Woodson, whose evidence based on what patients, in what setting

for what? And I'm saying this as a primary care physician, not as a psychiatrist, but when you actually look at the data, for example, of how well do psychotropic drugs actually work for the conditions they're prescribed for versus a lot of the good work of Dr. Kroenke and others versus, A, watchful waiting, B, supportive care, cognitive behavioral therapy, which still basically is the cornerstone of how we do resiliency and coping skills -- which, by the way, the panel felt strongly -- what is the operational equivalent in a military setting of focused, impactful cognitive behavioral therapy/psychotherapy? Where is that work being done?

So you're spot on the target here in saying that we were empowered but also crippled by the level of what is civilian standard of care. And as long as there is a military department that is overseen by civilians, as we should be, that becomes informative, but it's certainly not prescriptive. Again, I'm going to come back to TC3. What they treat trauma with at George

Washington Hospital may not be the way that you need to treat it in theater. It's a baseline, but it's not the ceiling. So that that level of effort when we talk about a systematic, bottoms-up review of what we currently do end-to-end about I can't sleep in theater, I'm restless, all of which go back to the Civil War and beyond as common conditions in combat, do we have that focus in a very linear, progressive, stepwise manner at all levels to look at what is a militarily relevant and impactful clinical practice parameter as opposed to stealing it out of what DSM-IV says? I couldn't agree with you more and we talked at length about that. I'd encourage anybody, Dr. O'Leary or anyone, to comment on that. We had the right people around the table talk to this issue, sir, but you're absolutely right.

DR. DICKEY: I believe we have Dr. Kroenke on the phone. Dr. Kroenke, do you care to add anything to the comments you've heard?

DR. KROENKE: I couldn't really hear most of what's been said, so I'd be happy to

answer if there's any questions. The audio's not very good.

DR. DICKEY: And our apologies for that. If there are specific questions, we'll try to relay them to Dr. Kroenke.

I think that the reference to TC3 is important in that it's less that TC3 bases its recommendations for care on what we do here than what we're finding is the steps forward in the military have tremendous lessons for what we do in the civilian sector, and perhaps that's the same directionality that we ought to have in psychological health and in some of the CAM interventions.

DR. FOGELMAN: That's absolutely correct. And in my personal view, the two major things that we say out of all the findings are, one, to try to create a psychological analogue to TC3 in the sense that there is activity, treatment, and intervention in theater or wherever, but in theater for the purpose of this conversation, data gathered from that, data looked

at, processed, understood, published in one direction and put into some data store, like the Trauma Registry, as an analogue, and then put back into theater very quickly and then emphasized as a lead, as a model for the community at large. That's one. I guess maybe three. And establishing a panel on sleep disorders is, in my view, the second most important thing. And third is having in each Service who are responsible for complementary and alternative medicine just as there are psychological consultants.

DR. DICKEY: Are there any other questions before Dr. Parkinson moves on to complementary and alternative medicine?

DR. PARKINSON: We'll now summarize the entirety of complementary and alternative medicine in two slides. I'm just kidding. But that was the scope issues that we dealt with on the committee, but we took the charge with relish.

The findings there, there is growing evidence of the effectiveness of selected complementary and alternative medicine modalities

which may be a practical alternative treatment choice or an adjunct to prescription medications. Those specifically are mindfulness, mind-body training, as well as acupuncture. And, again, it's not that the Department is not doing anything in these areas, but they're doing it selectively, local sites, certain individuals, but not a full-scale commitment and deployment.

Number two, on a transition issue CAM modalities are typically not a covered benefit under TRICARE despite some being available in varying degrees at multiple military treatment facilities. Again, it's dependent on the facility whether or not you can access these services. If they were successful for you in theater or were successful for you in a location, it's unclear whether or not you could continue them in another setting under the current TRICARE benefit.

The recommendations in this section again include DoD should conduct and support militarily relevant studies to measure the effectiveness of CAM approaches.

To Dr. Woodson, the fact that I did it in a controlled trial at the University of Pittsburgh is interesting, but it may not be at all useful to the level of need that DoD has and the information and the resources you have versus psychotropic medications or in combination with psychotropic medications for the management of common psychological symptoms and conditions with either high prevalence and/or operational concerns.

Number two [sic], DoD should encourage the Services to create complementary and alternative medicine consultants just as they currently have in other more traditional specialties of medicine.

Number three, DoD should ensure that any CAM treatments that are recommended in "The Clinical Practice Guidelines" are part of the TRICARE benefit and that uniformed providers are trained in these techniques where appropriate.

Why don't I stop there, Dr. Dickey, for any questions or comments?

DR. DICKEY: Are there questions or comments regarding that before he moves on to findings and clinical practice guidelines.

DR. PARKINSON: Dr. Dickey, can I ask you to ask Dr. Kroenke just for any comments generally about the interface between psychotropic medications and CAM? He probably is one of the more informed people in this area and I'd like the richness of his expertise to be shared with the Board.

DR. DICKEY: Dr. Kroenke, the question is if you could share a few comments about the interface between CAM and psychotropic interventions in the arena that was studied by the committee.

DR. KROENKE: In terms of psychologic disorders, the ones that require treatment, the two most prevalent and relevant are depression and PTSD. So if you look at currently available treatments, the strongest evidence base is for both antidepressants or certain types of psychotherapies, like cognitive behavioral

therapy. If you look at the role of complementary and alternative medicine and what the evidence is for psychological disorders, there is some preliminary data for mindfulness-based types of interventions. Obviously the strength is not as great as for either cognitive behavioral therapies or antidepressants.

In terms of herbal sorts of treatments, which is an important issue because that's what's also widely available to individuals through stores and so forth, the evidence base again tends to be modest for a couple types of medications for depression, which is like St. John's Wort, SAM-e, and omega-3 fatty acids. However, they haven't been tested head to head with standard kinds of treatments and they obviously don't have to go through FDA regulations. So, in summary, for depression that is modest evidence for both mindfulness treatment and several types of herbal treatments, although it's not as strong as either antidepressants or psychotropic treatments.

As far as PTSD, which is the other

disorder, to date there is much less evidence for these complementary and alternative medicines for PTSD than studies that have been done for depression. So all we can say for PTSD is that probably in terms of either herbal medications there would be not enough evidence for it in terms of things like mindfulness-based treatments. Whatever there is it's preliminary and has not been as well studied for depression.

And then finally, in terms of the other complementary and alternative medicines like acupuncture, that's been better studied for pain, so there you wouldn't be competing with psychotropic medicines, but you'd say what's the role of acupuncture versus things like analgesics and opiates?

DR. PARKINSON: Thank you, Kurt, for that. This is Mike. The reason that I asked for him to give some color to this section of the report, I could identify six or seven timely, topical research issues that the Department could be doing today to look at the use of these

modalities either in a self-administered, buddy-administered field setting. And what we find is there's a lot of activity going on in this area, but it's typically outside of theater at the center at NICoE with one or two individuals. And it's a kind of commitment, but pushing this forward in an operational concern and looking at practical applied research and deployment methodologies, because it's not going to be done by Pfizer and it's not going to be done by NIH. So there is a niche here going back to General Anderson's concern that that type of approach, which is what we've heard from TC3, we should be picking off three or four or five of those issues and putting them right front and center for a military model to ask is there a bigger role for mindfulness training in theater that a buddy can help somebody else to do in a kind of peer-to-peer cognitive behavioral therapy, a peer-to- peer self-administered or a personally administered acupuncture methodology? It might be interesting. At any rate, that's why I wanted the color. Thank

you very much for that.

On clinical practice guidelines, believe me, folks, we're coming toward the end here so bear with us. The DoD has initiated some promising integrated line and medical protocols for identifying and rapidly addressing psychological health issues in theater. We don't have time to go into it today, but this TEAMS concept and the TEAMS work which is still in development, we came to it relatively late, probably my omission, but that is very promising and reflective of the type of recommendation that the committee made about an integrated line leadership, line-level operational and medical collaboration to address these issues. Again, the message here is good work, stay the course, accelerate.

The 2010 DoD and VA Clinical Practice Guidelines for PTSD is a significant contribution to the acute psychological health of Service members. However, a systematic means to evaluate and readjust the Guidelines' practicability and

usefulness in theater does not appear to be in place. Again, from experience in the civilian sector, it takes a lot of work, in many cases two to three years, to form a clinical practice guideline. Then what? Unless it's embedded in AHLTA, unless it's got a systematic update, review, operational research piece that informs it along military lines, it will be of limited effectiveness. It is uncertain how well these Guidelines are disseminated and implemented currently. And, again, to be fair, some of them have just been developed relatively recently.

The next point the committee wanted to make is that provider training alone is absolutely insufficient for ensuring that CPGs are deployed and utilized appropriately. Policy, line, and in-field systems and support are required to ensure optimization of care.

Based on those findings, the recommendations are made. Better integration of line and medical approaches, again a recurring theme. We saw some promising signs of that in the

TEAMS concept. In-context description of appropriate clinical pathways for common psychological health issues should be made available at point of care. What do we mean by "in context?" Dr. Woodson, to your point exactly, seeing somebody in an outpatient clinic who says they're stressed at the University of Pittsburgh is not contextually useful for somebody who was forward deployed in Afghanistan. What are the sentinel events we should be looking for in that individual be they common or be they different from the types of things we expect to see in someone who can't sleep in Pittsburgh? That's the type of issue we're trying to get at within context.

Number three -- and, again, could be very well modeled by scenarios and simulation training. It's the Pareto rule [sic], 80 percent of what you're going to see of these things, let's train for it.

Number three, DoD should prioritize the Psychological Health Research and Practice

Guidelines so that they're evidence-informed as they're actually conducted in applied field operations in garrison care. This should include systematic application of quality improvement techniques. DoD should develop a framework for determining the effectiveness and utility of all interventions, rapid dissemination of these data, and rapid turnaround. Again, it's not original with us. We're stealing the thunder from the TC3.

I'll stop there, Dr. Dickey, for this section. Again, I hope you're following in the play book here, which is the interim report in your guidelines, with more color commentary.

DR. DICKEY: Questions or comments about the Clinical Practice Guidelines section? General Franks?

GEN FRANKS: Fred Franks. I'll go back to the Reserve Component issue that was mentioned in Dr. Woodson's recommendation to include that dimension in the overall report. I know from the United States Army well over half of the total Army, when the Reserve Component is released from

Active Duty, they do not have access to a military treatment facility. Most oftentimes their treatment is either in the VA or a civilian health care provider. And if it's not covered under TRICARE, they don't even go because they can't afford it possibly. And sometimes they have difficulty connecting psychological issues to their Active Duty time if there's a time lapse in manifestation of the issues.

I really believe that throughout the report here we ought to have a recognition of the different health care systems available to members of the Services' Reserve Components after they're released from Active Duty and what that might say to us about the psychological health issues.

DR. PARKINSON: General Franks, I'd agree with you. The committee discussed these issues. We're aware of the varying levels of access to care and concerns, and we can highlight it more in the findings and recommendations. It's not that we didn't discuss it, but we would basically, again, use this feedback to strengthen

that aspect of the report.

Let me tell you, however, that we did specifically address how does good practice that begins if I'm deployed in Afghanistan, that continues when I come to Fort Bragg, that when I go back to my home in Peoria, Illinois, how are those disseminated? That's called a Clinical Practice Guideline that started in the military, just as many good medical practices start in the military, that diffuses in terms of the clinical and the health care system and there's a wraparound to make sure that in the TRICARE benefit that those are allowed and encouraged. So we speak to the TRICARE benefits standardization, particularly in areas where it's a little weak, in evidence-based or evidence-informed complementary and alternative medicine techniques in psychological health. We speak about the DoD/VA CPGs, those were deliberate that they're across the whole system. But the issue of how you disseminate those through the civilian standards or civilian practices, and, again, that's another

issue, if these are effective, if we've done the upfront studies that show that they work, if we made a CPG and embedded it in our EMR, it should be embedded at UPMC when I go back to Pittsburgh so that anybody in that system who uses EPIC is able to access the same CPGs. There is a system to do this if we kind of get behind it. But I just wanted to say we talked about these things. They're in the report in pixels, but we need to pull it out specifically (inaudible) the Guard and Reserve.

DR. FOGELMAN: Yes, yes, a thousand times, yes.

DR. WOODSON: If I could make one comment, Jon Woodson again, actually a couple of things. Number one, you may know that we have added probably in excess of 2,800 behavioral health specialists to the TRICARE network to, in fact, meet the mental health needs of not only Servicemen and women, but other beneficiaries, families as well. And that says one thing, and, of course, we've doubled the budget related to

this. But the one thing that we clearly need to do and spend more time on is mentoring, advising, and coaching the civilian behavioral health specialists in the culturally relevant delivery of services to Servicemen and women. So what I'm saying is that, you know, like most of the civilian population, they're disconnected from the military and they don't understand actually what goes on. What was it like to be in the combat zone and what were the real stressors, particularly if Servicemen and women are having delayed reaction? So we've developed outreach mechanisms to behavioral health specialists who would deliver services to Servicemen and women and their families, which, again, are a unique community to try and help them understand what the particular stressors are, what they should be asking about and probing for in order to get to the point of making the right diagnosis, and trying to develop the right therapies.

This is difficult because you can't force them to do it. We've got incentivize them

to do it, but that is an area where we're trying to put a lot of effort to make sure that we have the right behavioral health specialists trained in the appropriate way to treat our community.

DR. PARKINSON: Yes, sir. As if on cue, you led into the training section, and we know in the first finding -- yes, Dr. Dickey, go ahead.

DR. DICKEY: We have another question from Dr. Higgenbotham.

DR. PARKINSON: Oh, I'm sorry. I'm sorry.

DR. HIGGENBOTHAM: Yes. This is Eve Higgenbotham. I was actually thinking along the same path, and as a medical educator, I mean, it would be great if we could have military medicine embedded more in our educational process because these young primary care providers are graduating with really no understanding of military medicine. I know this is probably tangential to the conversation, but I think we have so many of our Wounded Warriors coming back and our veterans that I think it's time that we really formally embed

this information into our educational programs.

DR. DICKEY: I think the other place that you can formally outreach, and it certainly doesn't approach 100 percent, but you can probably identify the organizations that represent the majority in both primary care and behavioral health organizations so these topics formally and repeatedly go on their curricula. We also know, physicians at least, that if you tell us it's on the test, we spend a little more time looking at it. So those are all ways that we may be able to have some impact in terms of enhancing that flow of information back and forth.

DR. PARKINSON: Dr. O'Leary and Dr. Dickey will know that the increasing emphasis on maintenance and certification, this could become a vehicle where modules built for MOC at least for the physician segment, and you could do it for psychologists and continuing education, could just be shrink-wrapped essentially and plugged in every couple of years to bridge that cultural gap.

DR. DICKEY: No pun intended, right,

shrink-wrapped?

DR. PARKINSON: Exactly right. Thank you.

DR. DICKEY: Okay. Move on to training.

DR. PARKINSON: That leads us into the training module. And, again, I'll wrap this up and then turn it over to Dr. Silva for some closing comments.

We noted a variety of increase in the number and quality of trained psychological behavioral health personnel, Dr. Woodson mentioned 2,800, as well as the training of psychological behavioral health personnel has really increased along two major axes -- three major axes really, which is [sic] independent duty technicians and corpsmen, primary care providers, and also psychiatric providers. However, once again the education is not standardized across Services, it's not standardized by profession or scope of practice. And standardization, given what we know, we would recommend that that be something to be pursued posthaste essentially.

Accordingly, our recommendations are basic training courses for all providers. When we take that family doc, who as HPSP comes out of -- I'll pick on Pittsburgh because I live there -- the UPMC Family Medicine Program, and they put on a uniform, what do they know about the unique military stressors and the treatment and the models and the CPGs and medical record integration so that we treat those people differently than they did just seeing somebody in a clinic in the city? These courses should provide integrated protocols for managing stress reactions and related comorbidities, including content online leadership. How is that important? What is [sic] unit and self-practices? Psychotropic medications, psychotherapy, militarily relevant CBT, what does that look like? And effective CAM modalities?

The way we measure education is by competencies. Professional competencies must be consistently maintained and updated to reflect best evidence and continued professional

supervision should be available. Specific training with defined specialty-specific scope of practice for the treatment of psychological conditions in theater should be developed, deployed, and updated based on new evidence derived from civilian and militarily focused operational studies.

TC3, what happens with TC3? It goes back where? It goes to the corpsman or the technician right back into the field, short cycle time, small closed loop. DoD should optimize the use of existing educational tools, teletechnologies, and mobile apps for training all levels of care. These tools are there. It's embedding and really shooting out the information we need along with the systems of support care. And again, web-based self-management tools and strategies to educate and guide Service members.

A little aside here. What can we use about mobile applications [sic]? The average troop or soldier today has got a lot of electronics on them. What are the things that employers are

deploying for the release of stress and productivity and resiliency around mindfulness training that is embodied and enabled with technical applications? The early versions of this were looking on the computer, monitoring your own respirations, and inducing the relaxation response. These are things that can be very much done in a military operational way with the resources and the thinkers that you've got in DoD. So we were out there a bit, but we're trying to be constructive in a way to think what are scalable solutions here that aside from getting more mental health providers looking face-to-face to a soldier?

Yes, Dr. Fogelman?

DR. FOGELMAN: Mike's last comment is important. We're looking at this from a very high and broad perspective at the 100,000-foot level, trying nonetheless to have an impact on what might happen on the ground. It's not that there aren't many programs, like there's the Center for Deployment Psychology [sic], for example, which

provides these things, but that somehow it didn't seem systematic, tied together, or linked to the civilian world, and that's why we tried to be very large about it rather than talk about particular kinds of things.

DR. PARKINSON: Is there discussion on this section, Dr. Dickey? Dennis?

DR. O'LEARY: One of the issues that was discussed on the committee is not reflected here and that is in Recommendation 2 where it says, "Professional competencies must be consistently maintained and updated." We need to insert the word "assessed, maintained, and updated." This, you know, gets really to the heart of maintenance and certification which is under the aegis of the American Board of Medical Specialties. You have to measure, you know, to make sure whatever it is you want to maintain and update over time.

DR. PARKINSON: Thank you. General Myers?

GEN MYERS: On your interim finding on Training Number 1, where you talked about the

increased number and quality of trained providers, did the work group make any judgment on the adequacy of the numbers of providers?

DR. PARKINSON: No, we didn't, sir, and a couple of reasons. I think that's kind of an obvious question. Why? Because, and, again, I could be -- I don't want to misspeak for the group, but whatever the metrics used for adequacy are, anything from a professional to population ratio type of stuff, it certainly is dependent on mode of practice. Is it something that's enabled by technologies versus the traditional face-to-face visit? But it speaks directly to what we think the Department should be doing: looking at systemic models to leverage the providers they do have to perhaps be more effective in the interactions and engagements that they do have. That's something we didn't look at, again, in terms of aggregate numbers, but it assumes that we have a preferred model to which we would apply that. Again, more is generally better, but to the degree that we've not been able

to access for all the reasons we outlined in the other sections, we didn't really have the time to look at that in any detail.

You have one slide on the way forward and I'll let that speak for itself. Again, because of the timeliness of this report and the importance of it, we wanted to bring it to you today in an interim fashion. I want to turn it over to Dr. Silva for some global context and comments related to the overall effort.

DR. SILVA: Thank you, Mike, and thank you to the Board. Joe Silva. I'm not going to make a lot of comments. I'll just make a few.

I looked at this when I went to the meetings, and I had some family issues this year so I haven't made all of them and both Charles and Michael have done the heavy lifting, so I could look back at this report. I have no ownership except for a few lines. But I think for this audience it's a very simple equation. You have the numerator and it's stress in whatever form. You have interdominators, three or four things that

we can influence as a committee, how to reduce the stress, sleep studies, very important. Are we allowing access to health care providers? Who are they? Are they all equipped? Are we giving these providers the agents necessary to reduce that stress and get a better performing warrior? I mean, that's the denominator.

And then that equals what? It equals success. And we don't have a lot of good data systems to know where we're failing and how we can improve them. But this is the start of tackling a very difficult issue and we really have a lot of writing to do yet, so thank you.

DR. DICKEY: First, I think we have to thank this group for an extraordinary amount of work that was done over a relatively short period of time as they have outlined for you. The extraordinary amount of work is really just kind of outlined. There is a huge amount of work yet to be done. The Board does need to act upon the recommendations, the preliminary report of the subcommittee, in order for that report to move

forward. And it is extraordinarily detailed so I'm going to open it up. My guess is we can do everything from simply recommending the acceptance of the report which you have both in written copy and nicely condensed onto your PowerPoints or we can try to go through page by page if you have suggestions or changes you wanted to make before this group takes action. So what are your wishes? And doing something with this report stands between you and the break.

Dr. Carmona.

DR. CARMONA: Richard Carmona. One question, prior to answering your question is one of the things that has become apparent to me in all of this work, which I think is extraordinary that we are getting as granular as we need to be. But even if we eventually move and identify the absolute best practices in military medicine for dealing with psychological problems, the other side of the issue is the change of the culture, acceptance, destigmatization. Because the problem is, even if we lay this all out and it's perfect,

and I've had these discussions with George Casey before I left, with Mike Mullen when I got involved a few years ago, with General Franks, and I sat on a group that Admiral Mullen and General Casey brought together, the thing that really perplexed me most is even with these best practices, how do we change the culture in uniform that allows acceptance of this? I mean, right down to the company level where it was my opinion we need to make a recommendation that possibly even in the OERs we hold officers accountable for battle readiness for their troops, which usually is physical readiness, but we don't do anything for mental readiness.

And possibly we need to be thinking about how can we begin to change the culture and, if you will, empower right down to the squad leader, company commander, and right up to the division battalion, all of the levels, that this has to be taken seriously and is part of their evaluative process as well? So I filled it out as well because I really do think that unless we

focus on that as well, we'll be wasting our time with all these best practices because it will take generations before it permeates and really is acted upon.

DR. DICKEY: Excellent. Excellent comment. And I'm going to jot that down as I think one of the things that may come about even as we take action on this report would be additional arenas that we believe this subcommittee or some working group will be continually reporting back to us. I think the references we heard throughout the discussion this morning are that this is in many ways a mirror of TC3, and we certainly don't think a single report from TC3 is the be-all and end-all. It's a continuous update of we've identified this, we've changed that, here's the impact, and we'll be back next time you're here. So I think addressing the stigmatization issue within the military infrastructure and how to change that culture is clearly one of the issues that needs to be on the yet to be addressed concerns.

What is your desire? Do you have enough concerns that you'd like to go back to the beginning and kind of flip page by page? Or are you satisfied that the report generally identifies what you want to have done and are prepared to adopt it with the knowledge that this group would see this back repeatedly?

General Anderson and General Myers, please.

DR. ANDERSON: I would move that we accept the report as an interim report as it is described. I would like to add a footnote, though. I had one other series of thought as we went through this. There were comments about line programs and the chaplain was mentioned. I would not want us to go through and discuss this anymore, but I think those areas need to be very clearly included in the report so that we understand. When you have a section on Clinical Practice Guidelines and it mentions line programs and you're talking about training, there are some things -- there are some implications of this that

need to be very clearly stated. So with that footnote, as I said, I would move acceptance of this as an interim report with the understanding that you had some very good feedback here today.

DR. DICKEY: I have a motion. Is there a second to the report as presented?

DR. O'LEARY: I agree with George.

DR. DICKEY: Seconded by Dr. O'Leary. General Myers.

GEN MYERS: Dick Myers. I think I'm just going to agree with George on his couple of points there. I would also add that I would think the work group would like any editorial comments we have on the report if they're nonsubstantial. If they're substantial we ought to debate it right now; otherwise, we ought to adopt the report. That would be my recommendation.

DR. DICKEY: Okay. So you have before you a motion and a second and word of support to approve the report as presented to you. Editorial comments can be forwarded on, but substantial changes should be debated now. So now is your

time.

Since I don't have Vice Chairs yet I'm going to perhaps wander off of Robert's Rules for just a moment. I want to go back to something General Myers -- I think it was General Myers -- brought up earlier, very early in the report where you conclude that -- sorry, I'm looking for it. It's Interim Findings, Prevalence of Psychological Health Conditions: "Despite these exposures, the majority of military members and likely their families have not suffered adverse psychological effects requiring medical or mental health care."

Yes, I'm very concerned about that statement. Perhaps what we heard verbally was, "have not suffered substantially greater psychological effects than comparable civilian populations," but I just -- and I, unlike most of you around the table, have not been in uniform and have not been in combat. But from my minimal exposure in my practice, I don't think I can support that statement. I think they certainly have psychological impact.

Now, whether we know how to identify them, whether we know how to treat them, or whether they are any worse than policemen and firemen and EMTs, I'm not sure. But I think the majority of military members and families, in fact, have adverse psychological effects. And the question is how to identify them, how to appropriately treat them, and how to make sure that they don't negatively impact their ability to move forward in life.

Am I being nitpicky?

DR. ANDERSON: George Anderson. Dr. Dickey, I absolutely support what you're saying there. And I think that that one needs to be reordered and I don't think the group, this study group can, you know, get the exact right wording today. But that's one thing that should be looked at.

Also, just that word "suffer." "Suffer" is by and large an undefined word. So my counsel would be just don't use that word. Find better words for this. And I think the group can do

that, and Dr. Fogelman and Dr. Parkinson.

DR. DICKEY: Dr. Woodson?

DR. WOODSON: Just a point that might help clarify that statement for the committee to look at is that I would suggest, based upon my experience, that the majority do suffer particularly acute adjustment reactions, whether it's in the family or whether it's in the Service member, but it may not rise to the level of a diagnosable long-term impairment that is treatable. And so I think in your statement you need to draw the distinction between those conditions that we consider long-term problems -- or longer term problems that require treatment and are ascribed specific diagnoses as opposed to those that may be acute adjustment reactions. Because I agree, anybody who comes back from theater has that period of time when they've got to try and readjust to coming home and that's probably quite common.

DR. DICKEY: Thank you. Dr. Certain?

DR. CERTAIN: Robert Certain. Maybe try

a phrase here that might help us because my experience, personal experience, which is anecdotal, I admit, is that the adverse effects show up years down the line. So I would suggest that it read -- that line perhaps would read better this way, "Despite these exposures, the majority of military members and their families do not appear to have experienced immediate, adverse psychological effects requiring medical and mental health care." And that leaves it open for further investigation down the road through the VA system probably and civilian medical care.

DR. DICKEY: I find that (inaudible) my concern.

DR. PARKINSON: I think it's fine. Yeah, I like it, also. Again, finding number two follows on finding number one. I'll just tell you it basically says yes, there is a broad prevalence of predictable -- and that's what we wanted to say. So the two were meant to kind of travel together, but I think the very helpful comments made by the Board are extremely constructive and

actually closer to what I think we meant to say. Is that fair, Joe?

DR. SILVA: Yeah, I agree.

DR. DICKEY: Okay. You have a motion and a second to approve the interim report with one amendment to which I heard general support. Are there other specific issues anyone wants to raise?

GEN FRANKS: I don't know where to insert this, but the discussion on Reserve Component, I think I would feel better or more comfortable anyway if there were to be some visibility that perhaps these issues may manifest themselves differently in their Reserve Component. Members of the Armed Forces, after they're released from Active Duty and they fall into a health care system that is quite different than the one available to active members, I'm not quite sure where to put that.

DR. FOGELMAN: We can certainly say that, but we tried to be as circumscribed as we could because as soon as we started talking about

larger things and longer things, a whole world opened up that would have prevented us from reporting anything. So what you say is exactly correct and we were certainly talking about Guard and Reserve. We can put in a sentence. We can put in a sentence about how there's an insufficiency of providers in rural areas. We can put in a sentence about telemental health. We can put in all sorts of things, but each of those is an independent item which deserves independent presentation and may or may not be worked on in the department generally and is not necessarily directly in the scope of the report as we put it. I don't mean to say you're wrong; you're right. But I think we're limited and I would not want it to have -- not want the report to have an extremely large and increasing list of things. Not to dismiss anything that you're saying but the question is how does it fit within the boundaries of this report?

DR. DICKEY: A suggestion has been made by Ms. Bader that if you look to the last page of

the report, "The Way Ahead," there are some changes that will probably need to be made to that paragraph anyway, and that would be an appropriate place to include the issue of wanting to assure that we look at any differences that may exist between Guard, Reservist, and Active Duty. It's also a good place to include the stigmatization and culture issues that Dr. Carmona raised and possibly the issues of the line training that might need to be there.

GEN FRANKS: Perfect.

DR. DICKEY: And if we say, “for example,” then this doesn't have to be an exhausting list -- exhaustive list. Rather, we realize as you study an issue, other issues will arise. So that would be a place, General Franks, to put that in place.

Anybody on the committee have a concern with that?

All right. Motion and a second to approve the report, an amendment made to the summary of prevalence, and some suggestions for minor modifications to "The Way Ahead" with those

changes in place. All in favor say aye.

GROUP: Aye.

DR. DICKEY: Oppose, no. Any abstentions? Again, I hope you will take back to your work groups and subcommittees our thanks for a tremendous amount of work done to get this going. And the references to TC3 suggest that we will probably see multiple reports back on this issue and, hopefully, the same immense advances that we've seen in combat casualty care.

It is, according to my schedule, time for a short break. We should resume at 11:30, if possible.

(Recess)

DR. DICKEY: I want to welcome everybody back. While we gather people back to the table, General Frank tells me that -- I'll get this straight, Dr. Frank, General Franks (Laughter) -- today is the Army's 236th birthday.

(Applause)

DR. DICKEY: I asked him if that meant he was providing cake but he said no. (Laughter)

Our next briefing is going to be given by Dr. Frank Butler. Dr. Butler is the Chair of the Tactical Combat Casualty Care (TC3) that we heard a lot about in the last session. It's a work group of the Trauma and Injury Subcommittee. A former Navy SEAL, he helped develop many of the diving techniques and procedures used by Navy SEALs today, including closed-circuit oxygen diving exposure limits and decompression procedures for complex multi-level, mixed gas diving operations conducted for submarines. I would contend if you can say all of that without having to take a breath you're probably halfway there. Right? (Laughter)

Dr. Butler has previously served as the Director of Biomedical Research for the Naval Special Warfare Command, the Task Force Surgeon for a Joint Special Operations Counterterrorist Task Force in Afghanistan, and was the first Navy Medical Officer selected to be the Command Surgeon of the U.S. Special Operations Command. He's going to give us an information update regarding

potential changes to the Tactical Combat Casualty Care Guidelines concerning tranexamic acid. Dr. Butler will--- I'm a family doc, Dr. Butler. I don't think we use that.

(Laughter)

Dr. Butler will also present two topics for a vote in regard to tactical evacuation care, the guidelines, and the in-theater use of dried plasma. His slides will be found under Tab 6. Dr. Butler, it's all yours. I hope you can say those words better than I just did. (Laughter)

DR. BUTLER: Thanks, Dr. Dickey. It is a pleasure, as always, to be back with the Board.

I would like to take a second to introduce two additional members of the audience. Colonel Tom Deal, stand up. In the back is the U.S. Special Operations Command Surgeon. He is one of our great leaders in Special Operations Medicine. He is retiring tomorrow, and he came up to be with the Defense Health Board today because he feels so strongly about these points.

(Applause)

So, also, Dr. Tony Pusateri is here. Tony runs the Hemorrhage Control arm of the Army Medical Research and Material Command. Tony was one of the very early researchers on haemostatic agents, so we owe him a lot. And he's here to help keep me straight during these two discussions.

Thanks also to Dr. Parkinson and the Psychological Health Group for the positive feedback there. I will pass those comments on to the group.

I'd like to start out with a discussion of TACEVAC care. And to delineate in this context I am speaking specifically about point of injury to first medical treatment facility. There is a lot of variation in the terminology for en route care, but for our purposes today, so that you don't get confused and I don't get confused, MEDEVAC is a designated air ambulance. It's got a Red Cross. It does not have offensive weaponry and it doesn't have much armor. A CASEVAC platform is a technical aircraft. It does not

have a Red Cross. It does have big guns and it does have armor. In those contexts today we're going to be speaking of both of those types of evacuation.

So you'll be interested to learn that there are three very distinct paradigms for evacuation care right now in theatre. The Army model is called “DustOff,” and it uses an HH-60. Think medium-sized helicopter and one EMT basic flight medic. The Air Force model is call sign “Pedro.” They also use HH-60s largely, although they do have some 53s. Think bigger helicopter. Relatively new to the scene, but important to the discussion, is our British Allies showing up with the MERT model, Medical Emergency Response Team, and this was at the initiative of the Emergency Medicine Advisor for the British Defense Minister. This is a remarkable platform. They work off of a 47. Think big helicopter.

The team is headed by an emergency medicine or a critical care physician. They have two EMT paramedic attendants and a critical care

nurse. Routinely they give plasma and packed red cells in flight when needed. Routinely they do advanced airways, rapid sequence intubation, ketamine analgesia when needed. They will put in a chest tube while you're flying. Multiple times they have opened chests and cross-clamped aortas in flight; pretty amazing capability. They were the first people in-theater to be using tranexamic acid. But point of emphasis is there is only one of these. There's only one team in-theater the last I heard. Maybe that's changed. But point of agreement, I have not heard anybody dispute this, if there is a critical casualty and you have the MERT available, you send the MERT. I have not talked to anybody in-theater who has been making decisions about how to pick these casualties up that doesn't use the MERT if it's available.

So I'm going to bring this a little closer to home for you. These are two cases out of the recent every-Thursday video teleconference. You've heard me speak of this

many times. These are very recent cases. A 21-year-old male, dismounted IED blast. His injuries included a lacerated spleen, a transected colon, a lacerated liver, a pancreatic contusion, a perforation of his diaphragm, multiple rib fractures, a scapula fracture, and bilateral upper extremity injuries. He had a C-A-T® tourniquet to his right arm by the ground medic. He was in severe pain and agitation during the flight. When he showed up at Bastion, he was in shock. He had a blood pressure of 70 palpable. His base excess was 8, pretty significant shock. His postoperative course was complicated by anuric renal failure and a mucormycosis infection. And when he was last discussed by the group he was undergoing dialysis at Walter Reed.

The care provided to this injured warrior in the air was this: He was flown by the Army MEDEVAC system. He had one EMT basic qualified medic for all these injuries. And Bob Mabry makes the point that a patient like this would overwhelm a community emergency room, you

know, much less an EMT basic. So during his flight, 20 to 30 minutes possibly, he got no IV. He got no interosseous access. He was given no plasma. He was given no blood. He was given no Hextend®. He got no analgesia. There was no documentation of how long he was in flight. There was no documentation of whether or not he was treated to prevent hypothermia or given antibiotics.

In contrast, a 24-year-old male, slightly later than the first patient, was in a dismounted IED blast. He lost both lower extremities. He had severe injuries to his right hand. He had significant groin injuries, shrapnel peppering of the face. The ground medic put two tourniquets on his right leg. He was picked up by the MERT. They put a C-A-T® tourniquet on his other leg. He was intubated with rapid sequence intubation. He got three interosseous lines started. He was given three units of fresh frozen plasma, three units of packed red cells, and a gram of tranexamic acid. Stunning disparity in

the care.

And I will tell you that there were really three things that coalesced to bring this to the committee so that we could bring it to you. One was a recurring number of these cases with this type of disparity in care. Second was the Army Surgeon General's Task Force on Dismounted Complex Blast Injuries. That group looked at this issue and I think that you will see this represented in General Schoomaker's report when it comes out. The third thing was Bob Mabry, a member of the committee. The pre-hospital guy at the Joint Theatre Trauma System went over to do a three-month tour as the Director of Evacuation Care in Theatre. And he came back with a comprehensive and amazing report that I would commend for your reading if you haven't had a chance to look at it.

So that precipitated a meeting. Our meeting in Dallas was largely focused on TACEVAC issues. And we went over all of these aspects of care with the Committee and the Trauma and Injury

Subcommittee and these were the recommendations that emerged. The first is for the U.S. to develop an advanced TACEVAC capability and we'll just come right out and say patterned after the British MERT. If the Brits leave, we have no MERT. Not one right now. It should be manned with critical care trained and experienced personnel. We should use the most capable aircraft available for these evacuations for the critical patients, routinely give red blood cells and plasma in flight, advanced airways as indicated, IV medications, whatever other advanced interventions.

What we're not doing is recommending any changes to the system. What the Brits don't have is any data that shows improved outcomes from the MERT. It's compelling and we have addressed that with our British colleagues. There may be some forthcoming in the future, but we don't -- it's too soon to change the system, but it's time to start taking a look at the model.

When we look at the outcomes it will be

important to look at the injury severity subgroups because when you look at the MERT, always bear in mind that they are sent for the worst casualties. So if their mortality is the same as DustOff, that's a huge win for that model when you adjust it for severity. And again, we have to think beyond Afghanistan. That's a mature theatre. The Special Ops folks that these individuals represent are operating all over the planet in 60 countries right now. So think beyond Afghanistan.

You know, there is just no question that you'd like to have a larger air frame if possible. A 45 would be great. A 53 would be great. Now the CV-22s. We have a squadron of these guys right down the road from me at Hurlburt now. These are incredibly capable aircraft and they would be good as well.

So who has said we think this is a good idea? There is an urgent need statement that was submitted by one of the surgeons supporting the Marine Corps that was submitted that said that they recommended the -- they used a MERT-like

platform as their terminology. I will say that that has not made it up to the command level at the Headquarters of the Marine Corps. It apparently did not get approved by the in-theatre chain of command, so I don't know the politics behind that, but I have the original document and we know that it was at least initiated. Dr. Mabry came back from his tour as the Deployed Evacuation Care Director and said, hey, we need to take a look at this model. We don't need to change the system yet, but we need to take a look at this model. The Surgeon General's Task Force echoed that. And most recently the TC3 Committee and the Trauma and Injury Subcommittee have echoed that as well.

So those preceding recommendations speak to a special team that would go on a special aircraft. The comments that I'm going to make now apply more generally to the TACEVAC system. So SecDef has directed a 60-minute max for TACEVAC time from point of entry to the hospital. Is that going to be enough to save your life? It depends

on how badly you're injured. I think we should take that as a maximum, but it doesn't mean that if there's not -- if there's a way to get you to the hospital in 20 minutes we should try to get you to the hospital in 20 minutes. And again, think beyond Afghanistan. Some of the places that the Special Ops guys are, TACEVAC is a dramatic challenge, Africa, other places in the Middle East.

So what if you have multiple casualties and there is still hostile fire at the location where the casualty is? Will the air ambulance with the big Red Cross fly in to get that casualty? With some exceptions, possibly; generally, no. Terrific book, “We Were Solders Once and Young” written by General Moore, a dramatic depiction of that type of a problem. So if you are supporting forces out there, you always want to try to have an air ambulance, a MEDEVAC chopper on call, but you've got plan B and plan C, too, right? I mean, if there's a gunfight going on and you need an aircraft to go in and get your

injured soldiers out, then you need to have a plan. And it may mean tapping into another unit or another agency, but those kinds of things are imminently doable.

We did this when I was with the Task Force in 2003. We had a whole planning matrix and depending on condition A -- gunfight, no gunfight, altitude, weather, day, night -- you know, we knew right which aircraft to go to. So we need to improve the planning for adverse conditions.

In-flight care providers that meet or exceed the civilian standard, and Bob Mabry has championed this amazingly well. He defines that primarily as a critical care flight-trained paramedic. But there's no reason that a nurse, physician, or P.A. with the same training couldn't do it. But the critical part is the critical care and the flight trained. You can't take a vanilla corpsman or a vanilla doctor, put them on a helicopter, and expect him to do a good job for your casualty. It's not necessarily what their background trains them to do.

There should be at least two of these per platform if you are transporting a critical casualty. The MERT has four. We're not sure if there's good data to say you need four, but maybe two, and at least one per critical casualty. I will add as a point here General Schoomaker just bought off on that to -- it's a very expensive proposition to say we're going to go from EMT basic to EMT paramedic on all of our platforms, but he just rogered up for that. The program is in development, but this is a great, great step forward for the Army.

Routine availability of packed red cells and plasma. We're going to talk a lot more about crystalloid and plasma in the next session so I won't dwell on this except to say this is what they do for you when you get to the hospital. It is definitive care of hemorrhagic shock and there's no reason you can't do it on the helicopter. The MERT team is doing it all the time.

Pre-deployment trauma experience for

TACEVAC providers. So you're a Ranger medic. You've got a million things to learn. You've got to be a member of the unit. You've got to learn to assault objectives. It's all you can do to learn basic TC3. But if you are a person whose main job is trauma care in the air, you should have a much more intense focus on trauma care in the air. Spend some time at C-STARS. You know, spend some time with Dr. Johannigman. Go to MIMS. I mean, there are remarkable opportunities out there and everybody that flies in those helicopters with critical patients ought to be in those trauma centers all the time pre-deployment. I mean, that is their job. And as the psych health folks were talking about, we need to start tracking this as part of the unit's report card. This is a critical thing.

The standard protocol for TACEVAC care. It is wildly variable the care that you will receive from one unit to another unit to another unit in theater now. We have a tactical evacuation section in the TC3 guidelines. I won't

tell you that we have all the answers, but we're looking for them all the time. And if there is going to be another group that Health Affairs or CENTCOM or whoever decides should have ownership of that, that's great. But there needs to be a group that has ownership of it and does evidence-based updates all the time because this is changing rapidly as we'll talk about in the next couple of sessions.

Oversight of TACEVAC care in theater, one of Bob Mabry's big points. You wouldn't have somebody who wasn't qualified to run your Neurological ICU. You wouldn't have somebody that wasn't qualified to run your Cardiac Critical Care Unit. Why would you have somebody who doesn't have EMS experience running your EMS system in theater? We need an EMS cell both in theater and as part of the home team for the Joint Theatre Trauma System. This group has heard way too much about the importance of documenting care. Again, if you don't know what you did, then you can't tell what you need to do better. So all of these

things you have heard on numerous occasions.

Physician oversight in TACEVAC units. This speaks to the memo that this group approved at the last meeting. It is unbelievable that right now in theater we have a team where the offensive tackles know the plays and the coaches don't. Doctors do not routinely get TC3 in theater, and we're going to talk about one of the negative things that has happened as a result of that in the next session. But if you're going to be out there in theater and you're going to be supervising people who care for trauma patients, then you need to know how to care for trauma patients. It doesn't seem like a big jump.

There should be a standardization of care in TACEVAC and our Air Force reps at the meeting brought this out. Nobody is saying that each Service has to recreate this capability, but somebody needs to have ownership of it and it needs to be standardized across the board. You know, a Marine should not get care that is not just as good as a Special Ops person over here or

an 82nd Airborne guy over there.

Process improvement. It's really tough to do process improvement if there are no records. And over and over again on the Thursday conferences there's no pre-hospital data. That should be a flag and that should be something that goes back to the Unit Commander to say, hey, guys, let's do this better.

So in summary, you know, what we would do is take these recommendations and offer them for your consideration. They were made by the TC3 Committee and unanimously endorsed by the Trauma and Injury Subcommittee. And I will take some questions.

I have to show you this picture. Master Sergeant Montgomery called me to task for showing too many SEAL pictures and not enough Ranger pictures. So I will emphasize that this brief is replete with Ranger pictures thanks to Master Sergeant Montgomery.

And questions, please.

DR. DICKEY: You're too good, Frank.

You just got it all.

Dr. Carmona.

DR. CARMONA: Frank, Rich Carmona. You and the TCCC really have done an extraordinary job of coordinating a lot of science and moving it forward in a quick fashion. One of the additional benefits, of course, of what you're doing is that this information will also eventually permeate into the civilian system, which is why we have the best EMS system in the world today because it's based on military medicine beginning with the Second World War, Korea, and especially Vietnam.

I think it's interesting that many of the things that you're pointing out, like how we resuscitate and some of the fluids that we use, for instance, which are still used widely in the United States, you have to counter to what Canon spoke about 100 years ago, for instance, in how we resuscitate. And you know, now we're getting a better understanding of this hypotensive resuscitation.

One of the things I specifically want to

comment on, though, is the MERT program, which I think is good, but I think it's important that you pointed out that we don't have the evidence yet, but that intuitively it seems that way. But it goes back to parallels that I learned after Vietnam when we were putting together the U.S. EMS system, that in the beginning when we had mobile intensive care units, everybody thought there has to be a physician on every one of those things. And we actually found that physicians were counterproductive in the field and they actually were more of an impediment than an assistance. So I think it's good that we lead with this information, that we don't have all the information, and as good as the British system seems to be, the bottom line is, are the outcomes going to be improved based on the configuration that they're using? Could we do it just with well-trained, you know, advanced medical persons in the field? And those questions are still before us. And the second part of that, of course, is if we don't have the data, we'll never

be able to make the decision, so making sure we have all of those reports.

DR. BUTLER: Yes, sir. A couple of comments. The paramedic part, I mean, Bob Mabry has a paper that's not out yet. I look forward to sending it to you when it does come out. It was a natural study where a group that flew critical care flight paramedics replaced a group that did EMT basics. Mortality doubled. Doubled with the EMT basics. So that gives us EMT basic-EMT paramedic contrast in 48-hour survival.

Now, that doesn't answer the question about physicians. And in fact, as you point out, we have the study from the Canadians. The Lieberman study said, hey, put docs on there. They do worse. Well, we're going to talk in the next session. If the docs are in there, jumping in there and starting IVs and giving them large volume crystalloid, we know exactly why they're doing worse. You know, the doctors are doing what doctors are taught to do in ATLS, which is to some extent wrong. And we're going to get into that

significantly in the next session.

So I think probably the best thing that the MERT team does, I mean, I heard Don Jenkins say multiple times these MERT patients are showing up at the E.R. with normal blood pressure and a base excess of zero. These guys are resuscitated, you know, pre-hospital. So, you know, it may be the blood and not the person giving it.

DR. CARMONA: Frank, I think the other thing that was pointed out in some of the earlier things we discussed this morning with psychological aspects, the best practices for military medicine may, in fact, be very different than what we do in the civilian world. Most of the people that we're dealing with that are injured in theater are young, healthy people who are able to physiologically compensate under extraordinary circumstances, whereas we look at the trauma population outside from the very young to the very old, it's really a very different population with a different set of variables imposed upon them. And I think that in the past

we always adopted the civilian standards and said, okay, this works, let's take it to the combat theater. I think now we may be finding that this is a different cohort under different circumstances and that military medicine may need, in fact, a different set of protocols that are optimally efficient and effective in reducing morbidity and mortality.

DR. BUTLER: Right.

DR. DICKEY: Frank, you mentioned that we talked about data gathering a great deal. Are we making any progress in terms of having data in a meaningful manner? I guess there are two or three or four competing systems out there. Worst, of course, is simply not collecting any and some variations thereon. So are we making progress?

DR. BUTLER: It is a real honor to have Lieutenant Colonel Russ Kotwal, who is the person who has done more than anybody else to push the pre-hospital data collection forward, here with us. He can probably answer that question better than I can.

LTC KOTWAL: Russ Kotwal, (inaudible) U.S. Army, Special Operations Command.

DR. DICKEY: Could we get you to come to one of the microphones, sir?

LTC KOTWAL: Ma'am, as you know, I've been working with Ms. Meckler and her staff at the Rural and Community Health Institute there at Texas A&M in developing our pre-hospital trauma registry over the last few years. So initially what we had was we had a very rudimentary database that we implemented prior to this conflict back in 2000, just collecting data on training exercises. Then once 2001 came about, we still collected the things that we had before battle injuries specifically. From 2001 until now, we've collected all the battle injuries that we've had and gone back and retrieved all the autopsies as well from most of our guys or all of our guys. With it, what was very notable, and the paper will come out in August, August 15th, but pretty much what we had was we had no died of wounds and no killed in action as a result of not taking action

at the point of injury. And so there was also no died of wounds from infection and there was only one died of wounds from something that occurred at level two that could have been preventable.

And so from our standpoint what we did and what was kind of interesting is that there are a few of us that were followers of TC3 from the onset back in 1996. I was a medical student at the time that John Hagmann was up at USUHS at the time, but then went off to the unit. We implemented TC3 in detail and so had that knowledge base. And I think one of the keys was actually small unit leadership. And I heard several folks talking about that in reference to the psychological applications as well. Small unit leaders is what made TC3 what it was throughout the U.S. Army Special Operations Command.

And so as physicians, we can make recommendations, but it's not until the Commanders take that program and make it their own. And so my goal back in the '90s was to sell this to the

Commanders to make it their program. And one of the key parts, and I say this in the paper as well, is a guy by the name of McChrystal, who was the original Commander at that time back in the 1990s. And what he did was he came up with a basic big four and one of those four was actually medical training. And so by doing that what he did was he enabled his subordinate Commanders to then emphasize TC3. By doing all of that before the conflict occurred and by taking the lessons from Somalia and from what Captain Butler wrote in TC3, I think that, yes, Rangers sacrificed in Somalia, but I think that sacrifice generated a greater savings in OEF and OIF over the last decade, which was proven with our data with the PHDR.

So what we're doing with the PHDR as far as the long term is I'm still trying to push that globally throughout the military. We did a supplementary program with the 101st through 2nd PCT. Went out and over the last year gathered data and Colonel Mike Wort is the Brigade Surgeon.

We're going to be going over that data later on this week. As a matter of fact, I also met with Sierra Nevada Corporation just recently as they are very interested in looking at electronic and telemedicine fixes for this as well. And so I've got a meeting right now that's going to be occurring in College Station actually on Thursday as we talk with folks from RT and also from Sierra Nevada Corporation. Then on Friday, we have a meeting with representatives from OTSG as well as MEDCOM as we're talking about the way ahead and possibly spiral development to the PHDR.

And I apologize, that was a long answer to your question.

DR. BUTLER: Nope.

DR. DICKEY: Dr. Woodson.

DR. WOODSON: Thank you very much for both of those reports. As I mentioned before, I recently came back from theater and had an opportunity to look at and assess the TACEVAC strategy and examine sort of our legacy system against Pedro and MERT. And I must admit I've had

an interest in this topic for some time dating back to when I was trained in CCATT and deployed forward in OIF 1. And I knew that there were some changes that need to be made.

Just a couple of comments. Number one, I fully endorse and have talked with the Surgeon Generals about the upgrading of the skills of the forward-deployed medics in regards to medical evacuation, TACEVAC. I think, though, that what we need to understand is that not all kinetic situations and theaters are the same. And so we have to be careful about developing a strategy which provides our basic upgraded capabilities for tactical evacuation without over committing in some sense to specific platforms. What I mean by this is that if you take Afghanistan for now, we can talk about point of injury to first echelon of care and then there's also a requirement for transport of very sick, ill, and injured Servicemen and women between facilities, which is also a part of that TACEVAC as far as I'm concerned. And then there's the strategic

evacuation set of issues.

You take a platform like MERT on a CH-47. That can't land everywhere and certainly the Osprey can't land everywhere under all of the tactical situations. So we have to create a platform and a strategy, which I think uses currently the Blackhawk in the inventory as the basic aircraft because it's just a lot more agile. And then you have to build on that. Well, what are you trying to achieve? To send an advanced medical team where pickup and bringing to definitive care may be more appropriate than spending time in the field, particularly under certain tactical situations trying to resuscitate an individual is probably a better strategy to get them out of there. So every situation isn't right. But having said that, I wholeheartedly endorse the need to upgrade the skills because that natural experiment with that National Guard Unit that was deployed really did show that we could have improved outcomes.

The final piece that I think needs the

discussion is, again, what are the right personnel? I wholeheartedly think that we need better medical control, meaning that we have to have people who understand pre-hospital systems and can give directions to either intensive care, critical care, nurses, and paramedics. I don't know that you always will have enough physicians to deploy in that manner. And so the issue is about medical control is very important.

The last piece is when I went to theater I took my IT person with me. And the reason I took my IT person with me is I know we need to do a better job of capturing that pre-hospital data, that very important data from the point of injury to inform what we do and transform what we do as we try and improve care. So we're working on that very hard right now.

DR. BUTLER: Yes, sir. And to follow up with what you're saying, I didn't mention and should have, that the MERT has primarily flown out of Bastion, which, as things would have it, is where the Marines are currently experiencing this

significant increase in dismounted IED blasts. So it's absolutely right that, you know, most trauma patients will do well no matter what helicopter picks them up. But the MERT has flown out of Bastion and has picked up a lot of the Marines who have gotten into these dismounted complex blast injuries.

DR. DICKEY: Other questions? Dr. Johannigman.

DR. JOHANNIGMAN: Combining on those last two comments, the flexibility of the platform having been there, the MERT currently is focused on pre-hospital, but there are times when we would have loved to have had the MERT make that trip from Bastion to Bagram. And now, you know, the Air Force does have the tactic teams that are flowing in to try to do that mission. But as the Secretary said, it's really -- is it the intervention or the provider, which interventions, and timeliness? Because the other thing that we saw with the MERT teams is sometimes because they were only a single platform, because they were

CH-47, sometimes there would be a delay holding that casualty out there waiting for a MERT team to get there rather than to immediately transport them to a level three. So the other piece of data that's going to be critical, just as it is in the U.S. EMS system, is what are the times and times to intervention that are going to make the difference? Is it the doc or the timing of those interventions?

DR. BUTLER: Right. And not to jump ahead too far into our tranexamic acid discussion, but if you look at the results of the CRASH 2 Part B, I mean, it is critical to get tranexamic onboard. And we'll talk about those data shortly.

DR. DICKEY: Other questions? Go ahead.

DR. BUTLER: Okay. So let me jump into dry plasma. And to set the stage, I think we all know here that hemorrhage is the leading cause of potentially preventable death in combat. I think we would all agree that if your blood is not clotting well that that increases the risk of hemorrhagic death. I hope that soon, if not now,

you'll all agree that crystalloids and colloids dilute the existing clotting factors that you have current or have presently in your blood and that plasma replaces clotting factors lost through hemorrhage. Packed red cells do not, crystalloids do not, colloids do not. I think those are statements of fact.

I think it's important, and we're going to look at some data shortly, but as focused as we are in TBI, I will tell you that the literature is growing that says coagulopathy worsens outcomes in TBI casualties as well as those with uncontrolled hemorrhage. And we're going to look at some metrics shortly.

So these are not sick people. Why would they be coagulopathic on the battlefield? Well, because perhaps you have allowed them to get hypothermic and when you get hypothermic your clotting enzymes don't work as well. Perhaps you've given them two liters of lactated ringers and diluted the clotting factors that they have left in their intravascular system. Perhaps they

took aspirin or Motrin® before they went out on the mission and now their platelets are all ineffective. Perhaps they're acidotic if they're already in shock. And it's important to note that there is an intrinsic coagulopathy as well, probably caused by tissue markers or the body's own system. There is something about being injured that kicks the fibrinolytic system into hyper drive in some patients.

So one of the dramatic advances in care of trauma patients realized from the U.S. experience in Afghanistan and Iraq has been the use of higher ratios of plasma to red blood cells in casualties requiring massive transfusions. And in some papers lately, even if they don't need massive transfusions, the outcomes are better. And this has, as they say, gone viral. It went straight from the military to the civilian sector. They're doing it all over the place now. This is a great example of how things have -- how our experience in the war is helping our civilian colleagues as well.

I want to take a second and talk about large volume crystalloids. I talked to Colonel Deal, who took ATLS last week and they're still teaching 2 liters of lactated ringers. I will tell you that this is a dying standard of care. There is a growing body of evidence that I am about to show you, some of that says that pre-hospital fluid resuscitation with large volume crystalloid worsens outcomes. There have been no randomized control trials of lactated ringers or normal saline that have shown benefits in outcomes. And I'll pause here for somebody to correct me on that point.

So why are the outcomes worse? Well, if you read the literature they'll hold up several theories. You're on scene longer because you stopped to start an IV. You dilute clotting factors, as we talked about, or you pump up the blood pressure in somebody who still has an unrepaired vascular injury and you cause more blood to become extravasated and you finish bleeding to death. In contrast, if you give

pre-hospital plasma that is just an extension of the definitive resuscitation you're going to get when you show up at the hospital.

All right. So why is this a big deal? Well, we had Major Julio Lairet from the ISR come and talk about the study that is ongoing at the Institute of Surgical Research. Would you be interested to know that of the people that show up at a military hospital in theater right now, if they have an IV 87 percent of them have large volume crystalloid resuscitation? I'll pause again for anybody to argue that point. I mean, it is the first time it has ever been really well documented. You know, why is that happening? Probably because the coaches tell the players no, no, no, no, no. Don't use those techniques; use the large volume crystalloid like it teaches in ATLS.

Okay. Data driven. This is the first time I've ever shown these next two slides and I do want to give you guys a walk through some of the data. So let's say that you are severely

injured and this is your baseline chance of survival. So what are the modifiers of your chances of living through your injury? Well, if you have a coagulopathy, you have a 600 percent increase in your chance of dying, Niles' paper. If you live in a remote area -- this is a paper from Australia where they've got some serious remote areas -- a remote area alone causes a 428 percent increase in your chance of mortality.

Now, think for a second about our Special Ops brothers here who are out operating somewhere in Africa. Remote area? Yeah. So they know that their soldiers have a higher chance of dying because they are in a remote area. This is just a way to document it from the civilian sector.

If you have polytrauma and you have blunt head trauma with coagulopathy, you have a 291 percent increased mortality. If you look specifically at early deaths, as Mitra did, if you have a coagulopathy you have a 245 percent chance of increased mortality in the early period. If

you look just at large volume crystalloid, and in this case they actually used predetermined cutoffs for their levels of crystalloid -- this is a Ley paper from this year -- just the fact that you've got 1.5 liters of crystalloid doubles your chances of dying. Wow. So isn't it good that we're teaching all these guys to start IVs and running all this fluid?

The Haut paper found that the act of starting an IV and running in any fluids caused a 44 percent increase in mortality, and the Bickell paper, going back to '94, found that if you did large volume crystalloid in patients with penetrating trauma that you increase their chances of dying by 29 percent. So where are the papers that show the benefit of large volume crystalloid? I promise you if I had them I would put them up here as a counter, but I don't.

So this we've known and been talking about for a long time. This next slide is sort of an awakening for our group as well. With the emphasis on traumatic brain injury, as we were

preparing to do the Freeze Dried Plasma talk for this group and going through the literature, it was amazing the association between coagulopathy and traumatic brain injury outcomes. So we mentioned that if you have blunt head trauma and a coagulopathy you almost triple your chances of dying. If you've been taking anti-platelet agents you have an almost triple increase and a Grade III or IV intracranial hemorrhage. If you're taking aspirin or ibuprofen as we tell our soldiers not to do -- but we don't kid ourselves, there are some guys out there doing it -- you almost triple your chances of an intracranial bleed. In this study, if you have a coagulopathy you have a 41 percent chance of increasing the progression of intracranial hemorrhage. Wow. Wow.

So let's sum it up. Large volume crystalloids increase mortality, worsen coagulopathy of trauma and outcomes in traumatic brain injury. Other than that they're great.

And that, again, is what your troops are carrying right now. Hypotensive resuscitation

with Hextend®, better logistically. It reduces the weight a lot. But I will tell you that we don't have hard data that says the survival is improved over lactated ringers. We've got the Ogilvie study and the Proctor studies which say it may be a little bit better, but it's pretty soft and those are very well-criticized studies. It does not treat coagulopathy. We do know that it doesn't cause coagulopathy in the dose that we recommend. That did come out of the Proctor and Ogilvie studies.

So liquid plasma. No question about it, it is the standard of care for treating coagulopathy and it increases survival unquestionably as part of damage control resuscitation when given with red blood cells.

Okay, so that's some background. Is there anybody that agrees with the concept of let's give people plasma instead of large volume crystalloids pre-hospital? Well, yeah, a few. We'll start off with the Mayo Clinic. They're doing it right now. We'll start off with Memorial

Hermann in Houston, John Holcomb's hospital. They're doing it right now. We'll add the U.S. Special Operations Command. They'd like to be doing it very soon. The U.S. Special Operations Command, the Army Surgeon General's DCBI Task Force has endorsed this concept. The Army Special Missions Unit, the Navy Special Missions Unit, these are the gentlemen that rounded up Mr. bin Laden here last month. Those guys would very much like to have dry plasma and are on record as saying that. The Army Institute of Surgical Research, the TC3 Committee, the Trauma and Injury Subcommittee, and, by the way, the French, German, and British militaries who are already doing it.

So some quotes here that will place this in perspective for you. This is a quote from an abstract that's been accepted for ATACCC, Advanced Technology Applications for Combat Casualty Care. That is a conference that comes up in August. Great conference if you have a chance to go. He is describing the Houston experience of putting thawed plasma in the ED. So you don't have to

dial 1-800-BLOODBANK and wait for it to show up. Forty-two minutes instead of 83 minutes for infusion and they showed an increase in their 30-day survival: 86 percent versus 75 percent.

The Mayo Clinic. I stole these slides from Dr. Jenkins. They say that the current evidence supports increased ratio of plasma PRBCs and early use of plasma and trauma. They have successfully implemented pre-hospital thawed plasma into our rural Level I trauma system. The initial results, and they only had about 15, 20 patients when they presented at the meeting, what they've not shown is an increase in survival yet. What they have observed is a pretty consistent improvement in their coagulation status. And for those of you who speak coagulation, INR 2.7 at point of injury, 1.7 at the ED. That's good if it holds up through the study.

So why aren't we doing it already? Well, because liquid plasma is not logistically feasible for Ranger medics or Special Forces medics. It has to be handled appropriately.

Dried plasma, though, is an option. And it's probably the best option for groups that can't -- that don't have access to blood banking and can't carry liquid plasma. Dried plasma contains approximately the same levels of clotting proteins as liquid proteins. It depends to some extent on how you dilute it, but there are some papers out that talk about how you can do that and preserve the clotting factors. Again, the French, the German, and the Brits are doing it now. I'll tell you, I have not seen any data from their experience. There is some data that has been submitted for publication with the French product, but I have not been given access to it yet.

So is the U.S. doing anything to come up with an FDA-approved dry plasma product? You bet. We don't have one now, but HemCon is supported by the Army Medical Research and Materiel Command. They have a product called LYP for lyophilized plasma. It is currently in Phase I trials. They are supposed to finish up in a few months. The Entegrion product -- Entegrion is supported by

Office of Naval Research. It is a spray dried product which they advertise as being better. They have an IND that's about completed. They have not yet entered Phase I. Essentially, the same thing for Velico, which is significantly different in that they are trying to sell the system. So if Commander Padgett has a hospital, they would sell him their system and you would then go on and make your own freeze-dried plasma as opposed to buying it off the shelf.

FDA approval is not imminent. We think we're talking 2015 or beyond. We need a solution now. Again, think beyond Afghanistan. Short transport to the hospital there, we could give it. And most of our platforms, if we had liquid plasma and made the logistic effort to give it, but think about those guys in other places.

A quick look at the foreign products. The French freeze-dried plasma has been around since '94. One downside for that is that it's pool plasma. In general, the blood bankers don't like pooled anything. And they did hold it for

eight weeks to retest before releasing it, but now they have a pathogen intercept technology and they have suspended the quarantine. Notable that the price for this stuff is $800 a unit. That might put it out of reach for the military, depending.

The German freeze-dried plasma is a product called LyoPlas; different in that it is single donor. It's quarantined for four months until the donor is retested after four months. It is very alkaline as supplied and it's much cheaper at $100 a unit.

So how can we represent the Line Commander's interest in freeze-dried plasma? Where is it on their radar screen? This is a letter from Admiral Eric Olson to Dr. Rice when he was Acting Health Affairs. "I am requesting a waiver to the health care policy regarding non-FDA approved blood products." Basically, it says we need German freeze-dried plasma now. And this is the handwritten note from Admiral Olson to Dr. Rice, "Thank you for your full consideration of this request. This is a real lifesaver with very

low risk."

The Army Surgeon General's quote on this, note the letters in red, basically he says: I fully support your request from a clinical perspective. Medically, this is the right thing to do. However, I have no easy way around the regulatory considerations. He points out that neither of these products are necessarily going to bring their products to market in the U.S. and that's a real problem.

A quote from Mike Dubick at the Institute of Surgical Research, this was from the conference that was held a year and a half ago in Dallas, "The consensus of discussants at the USAISR-sponsored symposium on pre-hospital fluid resuscitation overwhelmingly favored the development of a dried plasma product."

Don Jenkins: If I had FDP, logistically, I would use it. I would put it on the helicopters and I'd put it on my ALS ambulances.

So the recommendation from the committee

and the Trauma and Injury Subcommittee was that the Department take all necessary steps to expedite the fielding of a dried plasma product to ground medics and to air medical evacuation platforms that don't have liquid plasma and packed red blood cells. Not everybody has access to blood banks.

So what are steps that could be taken? Well, first, we could conduct expedited studies in trauma systems using pre-hospital liquid plasma as the primary resuscitation fluid. Potential question from you to me: Hey, Frank, show me the data that says if you use plasma alone as a pre-hospital resuscitation fluid, show me that's been proven to improve outcomes. I will tell you there is no data like that. But there should be. One way or the other we should know.

The next thing is we need to just not think about mortality. We need to look at indicators such as improvement of coagulation status, improvement in their reduction and their shock, as well as TBI outcome markers as outcome

measures. Coagulopathy is incredibly important in TBI and we need to capture that as part of our metrics. So kudos to both MRMC and ONR for supporting the development and fielding of an FDA-approved dried plasma product. I think we need to tell them that that's important and to please continue.

The top slide here or this top bullet is probably the most important bullet in the dried plasma presentation. A lot of argument back and forth about how do we go forward? How do we get a presidential waiver to use foreign products? How about this? And I will give credit to an individual on Colonel Deal's staff for suggesting this particular route. We have a U.S. product that has an IND in place, an investigational new drug request in place that has just finished Phase I of their trials. So the next step, assuming that they did well, and as far as we know they have, why don't we have a military arm of the Phase II trials where we take this drug with full consent? We don't have to get a waiver of

informed consent. I think we should get informed consent. From units that want to use this, we should explain to them. You know, we give you a large volume of crystalloid. Do you want to take a look at those slides again? Or we give you dried plasma.

So that is a real option. I don't see why we couldn't do that. It is completely coloring within the lines. I think we need to gather data on the French and German products. They've been out there for a long time. We need to know what their experience is and we don't right now. And there may be other options for the use of freeze-dried plasma that might include an exception to policy if none of the other options work out so that we could go out and buy these European dried plasma products.

I know there are some questions now. Sir.

DR. BULLOCK: Thanks so much for a really clear expose. I mean, it seems like it's a huge unmet need that you put the finger on here.

So two things that come into my mind. So the first is that, you know, the issue of freeze-dried plasma, surely that's an FDA -- FDA is a big limiting factor in all this. They've been involved in a dialogue with trying to move this forward. What's their view about how to move this forward as quickly as possible?

DR. BUTLER: You know, the FDA is not really in the business of moving things forward as quickly as possible.

DR. JOHANNIGMAN: They are incredibly -- I'm sorry to interrupt, but right now they are incredibly conservative in anything. In the last 5 years there has been an almost 180-degree turnabout of the FDA's approach. They are so risk aversive right now in any of these trials, but I think what my counter is going to be is, Frank, you provided that data. How strong is that lay study? Because what we actually need -- what needs to be part of this discussion is now the objective evidence that the current standard of care has been documented to lead to increased

risk. Two hundred-fold increased risk in mortality so that that would prompt a look at alternative agents. And if you base your look and your IND in soldiers based upon, well, yeah, it's a risk business we're in, but right now a 200 percent increase using our current operational standards is probably something that we might be able to ameliorate.

DR. ANDERSON: I'm not familiar with Ley's paper.

DR. BUTLER: So Ley's paper, the Bickell paper I thought was compelling way back when. Large volume crystalloids has never been part of TC3, both because we don't want the medic to have -- literally, these guys were carrying 20 pounds of lactated ringers in their packs back in the day. You know, some of you guys might remember that. And we've had medics come to the meeting and say the best thing TC3 ever did was tourniquets. Second best was getting rid of that 20 pounds of lactated ringers in my bag. It's a huge thing when you're talking maneuver elements.

So large volume crystalloids have never been part of TC3. Starch continues to be accepted by everybody who has looked at this seriously, but not taught to anybody who takes advanced trauma life support as their basis for trauma. And what course do we send all of our military physicians to as their basis for trauma care? ATLS.

DR. ANDERSON: So to follow up on Dr. Johannigman's question. I haven't read these papers either, but sometimes the intent of the paper is an association as opposed to a risk analysis. And I think, again, if you look at what IOM -- you guys have been briefing at the IOM as well -- this is an area where another scientific approach is probably necessary. I mean, the question I would have here is what's the power of proof in this area? And it sounds to me like there is a major lack of data right now supporting a risk analysis kind of an approach in the medical literature. So one idea here is if you're not actually doing the scientific research yourself, is to call for that research. This might be a place where going to

the IOM would be a good idea.

Do you have a comment on that, Frank?

DR. BUTLER: Yes, sir. With your help we've done that. That was in our research recommendations that the Board looked at six months ago, to look at pre-hospital resuscitation. Anything that you want to do pre-hospital is not well supported by the data if you're looking for improvements in outcomes. So, and initially, the answer in TC3 was to do nothing. To do nothing. And that was shot down by the trauma community. No, we're going to do something. But again, there is no data that supports strongly any pre-hospital fluid strategy right now.

DR. CARMONA: Frank, just a quick comment. Historically, unfortunately, I've been around long enough to have seen these things change. If you remember in the 18 Deltas during Vietnam, Special Operations Forces in general, we actually tried colloid resuscitation in the field back then. We were carrying albumin and anything else that we could find and we put in. And if you

remember, back then, as it is today, most of what we did was anecdotal. It really wasn't based on science. It was based on somebody's idea that this was the best thing. That worked well for a while. Unfortunately, then we had the concept of shock lung or Da Nang lung and then increased cerebral edema. So people said, well, we better not do that anymore because it appears that using colloid too early is causing unintended consequences that ultimately increase morbidity and mortality. So we stopped doing it again. But there was no data. There really wasn't a lot of cumulative data that helped us.

And I think the point that you made is we really need to drive this. Right now we have anecdotal information that freeze-dried and other methods of resuscitation maintain hypotensive resuscitation and so on are good. But that's not new either. Canon reported that back in 1903 and we kind of ignored them for all the years. So I think it's time that we do gather the data once and for all and vigorously use that data to

demonstrate that there are better ways to do these resuscitations. And I believe that as opposed to what I said earlier about a different military standard, I think this standard would be applicable across the board for all resuscitation once it's adopted because the civilian world is still struggling with this as well.

DR. BUTLER: One of the things that is -- I mean, as we rush toward freeze-dried plasma, as important as the agent may be, how much of the agent that we give. And I have not seen any good data in humans that addresses that issue. There is emerging some data from Mass General and from Harvard that looks at swine models. But humans? I mean, in the hospital you get plasma and red blood cells as much as you need. They're watching your blood pressure and you just keep pumping it in. I don't think we can extrapolate from that practice to saying that we can do the same thing with plasma.

DR. PUSATERI: On your last slide you talked about the lack of evidence on pre-hospital

use of plasma. This doesn't give us any information now, but I just want to let you know that two weeks ago we closed a program announcement under the MRMC (inaudible) for pre-hospital plasma and got nine responses. So we're expecting full proposals very soon.

DR. BUTLER: That's great news. MRMC has --

DR. DICKEY: Dr. Bullock? Oh, I'm sorry.

DR. BULLOCK: I just want to make one other point about recombinant factor VII because the military, in particular during the height of the Iraq campaigns, have more experience than anybody using pre-hospital factor VII in TBI patients specifically, these types of patients that you're mentioning here with the multiple injuries and shock. And that data hasn't really been written. Do you know when we can expect to see that? Because that's a game changer, is the use of recombinant factor VII.

DR. BUTLER: The press had a field day

with recombinant factor VIIa and it was because it was an off-label use. So let's take a step back. This group is sophisticated enough to know the FDA licensing process. Number of drugs in the U.S. market that are approved by the FDA specifically for the use of treating combat trauma on the battlefield, zero. So everything we do out there is off-label. So more to the question is -- and that's what the press focused on, but it's not the real question. The real question is does it cause an increase in venous occlusive events? And it would take an anecdote event or two and say look at this, this is awful.

From a practical standpoint, factor VIIa, if you're going to use it in the field, costs $7,000 a pop and has to be refrigerated.

DR. DICKEY: The interchange is hard to keep up with.

DR. BUTLER: If we could use your comment, Dr. Bullock, to look quickly at tranexamic acid, there is no vote on this issue, but we hope that there may be for the next

meeting. And I wanted to just show you some of the background data.

As opposed to factor VIIa, which is a procoagulant, it makes you clot when you're not clotting. This is an anti-fibrinolytic, which in the natural process of clot formation and clot dissolution. This stops the clot dissolution.

So CRASH-2 came out last summer, a prospective, randomized trial using this agent in trauma patients, over 20,000 patients in 40 countries. And it was found to significantly reduce mortality, all causes of mortality from 16 percent to 14.5 percent. It reduced death from bleeding from 5.7 to 4.9 percent. So the DoD took its first look at tranexamic acid in the aftermath of the first CRASH-2 paper, and this is from the Army Institute of Surgical Research information paper. They note that the loading dose was 1 gram over 10 minutes IV. It's FDA approved for dental procedures in hemophiliacs, not exactly combat trauma. Also approved for hypermenorrhea. It has been noted to increase cerebral ischemia and

subarachnoid hemorrhage.

They did note that this was a randomized, double-blinded placebo-controlled trial, the highest level of clinical evidence and a quite large one at that. They did no subgroup analysis in the original paper for patients requiring massive transfusion or TBI -- or patients with TBI. The price was right. Instead of $7,000 we're talking $80. Now we're talking. It's been used for a year by the U.K. forces. By their math it might have saved 23 of 1,500 preventable deaths in OIF and OEF. I would argue with that number, but we're going to talk about it some more.

Comments about the paper? You know, John Holcomb noted that in a drug that was supposed to decrease bleeding, 50 percent of the people didn't even need a transfusion. The inclusion criteria were "patients with significant hemorrhage or at risk of significant hemorrhage." Wow. Well, you know, that's anybody on the battlefield, right? Yeah. So it was a

problematic inclusion criteria.

The rate of transfusion was the same between the two groups. Only 48 percent of these individuals had any surgery at all. The difference in mortality due to bleeding was small, 0.8 percent. John notes that hours one through three after injury is where all the benefit was. And we're going to come back to that.

Bryan Cotton mentioned, among other things, that he wasn't surprised to see that the drug would not have a dramatic effect in the number of units transfused in such a general population. You know, we're not focusing on patients with massive hemorrhage. This is at risk of hemorrhage. I thought a good criticism was there is no subgroup analysis on patients arriving in shock. Here's a trauma patient without any mention of injury severity score, base deficit, or lactate. That's a little tough to add up. And he also notes that we're not talking about big numbers.

Important, though, if you look at the

TXA in the overall study, it was administered 2.8 to 2.9 hours after the injury, given to those at risk of hemorrhage. Most people were not in shock. There was really no -- I mean, they didn't delineate what the protocol should be for use after this study. And so last July, the Joint Theater Trauma System Director's Conference looked at this, reviewed the data, and decided to not decide.

So fast forward to about three months ago. They went back and did a subgroup analysis of the 20,000+ patients and looked at timing and focused just on deaths from bleeding. And they found that there was a significant reduction in death due to bleeding if tranexamic acid was given within one hour. It's a 30 percent reduction in mortality -- 32 percent reduction in mortality. If it's given between 1 and 3 hours, it's a 20 percent reduction in mortality. Those are nice numbers.

Question 2, Part B, quotes a Cochrane review and the Cochrane review said that

tranexamic acid safely reduces mortality in bleeding trauma patients without increasing the risk of adverse events. So hopefully that will address all of the concerns about increase in venous thromboembolism.

The conclusion of the authors was our results strongly endorse the importance of early administration of tranexamic acid in bleeding trauma patients and suggests that trauma systems be configured to facilitate this recommendation. And I will tell you that there is a CPG that has been crafted and should be approved soon for in-hospital use of tranexamic acid. So when the TC3 Committee looked at it, our perspective was a little bit different. We're asking should medics be using it on the helicopters, you know, in Africa, you know? Is there a pre-hospital place for this?

And Joe DuBose came in. He is an Air Force Trauma Surgeon currently at Maryland at the Shock Trauma Center there. This is a study that will be breaking soon that I want for you all to

know about. It's the MATATERS study, and I always get this wrong: Military Application of Tranexamic Acid in Traumatic and Emergency and Resuscitative Surgery. Joe would be proud.

So basically, they're looking at it in combat and they're working out of Bastion. And they looked from January 9 to December 10, and looked at 24-hour mortality and 28-day mortality, blood product use, and complications. They had 411 patients picked up by the MERT, 8 from Dwyer, 477 from other locations. In all, they had 293 patients that got tranexamic acid and 603 that did not. Those are pretty good size numbers.

And I'll just show you this bottom figure. If you look at the mass of transfusion patients, so think of these as the patients in shock pre-hospital, the 28-day improvement and survival, if you got tranexamic acid your mortality was 13.6; if you didn't, your mortality was 27.6; significant at the.003 level.

So Joe has been one of the real leaders, along with our British colleagues, in looking at

this. I think this is a rigorous analysis. And we are hopefully going to be having a vote on this and some other related issues at the August meeting. And I just have to say -- I had to show one SEAL picture. (Laughter)

So the moral is, yes, you can run and, yes, you can hide. Just not forever.

So questions about tranexamic acid or any of the previous things?

DR. DICKEY: Dr. Butler has presented three separate topics for us, two of which require some action on our part. So let me repeat his question. Are there any questions or comments regarding tranexamic acid discussion which does not require action on our part?

Okay. Then I'll ask you if you have really good bifocals, in the right-hand corner of the slides they're numbered. And in Slides 9 through 23 there's a series of recommendations on TACEVAC. Frank, do these sum up to a recommendation or do we need to kind of go through these one at a time?

DR. BUTLER: I have tried to capture the essence of the recommendation and the bolded text at the start. And what is underneath is meant to be descriptive.

DR. DICKEY: So I would take that to say the first recommendation is that the U.S. develop an advanced TACEVAC capability. There are then several slides that discuss what that means. I'm going to suggest that takes us through -- up to optimizing TACEVAC response time.

DR. BUTLER: Yes, ma'am.

DR. DICKEY: The recommendation before you is that the U.S. begin to develop an advanced TACEVAC capability based on the MERT model insofar as possible, though not necessarily exact copy of that.

DR. CARMONA: So moved.

DR. DICKEY: It is moved. Do you want to do these one at a time? It may be the easiest. Okay. It has been moved that we accept that recommendation. Is there a second?

GEN MYERS: Second.

DR. DICKEY: It's been seconded by Dr. Myers -- Colonel Myers -- General Myers. I'm sorry, I'll get this title right yet, General. Is there further discussion?

If not, all in favor of that recommendation, please say aye.

GROUP: Aye.

DR. DICKEY: Opposed, no. Any abstentions? All right. Frank, the next one would then be that we optimize TACEVAC response time. And does that carry us -- does that include the in-flight care providers and hostile fire evacuation or are those separate?

DR. BUTLER: No, ma'am. Those are separate.

DR. CERTAIN: This is on page 7 of the verbiage report?

DR. DICKEY: I'm looking. Well, it might be easier to look at --

DR. CERTAIN: (inaudible) on page 7, it might be easier to keep track.

SPEAKER: Slide 13.

DR. DICKEY: Slide 13 or page 7 of the -- that might be easier, Dr. Certain. So optimizing TACEVAC response times. Note the SecDef has directed 60-minute response times and it's my understanding that currently we're averaging closer to 40 minutes. Is there any discussion about the recommendation to optimize TACEVAC response times?

DR. CARMONA: Rich Carmona.

REPORTER: I'm sorry. Can you put your microphone on?

DR. CARMONA: Yeah. Rich Carmona. Frank, you know, we've always gone by the tenet of the golden hour. So SecDef says 60 minutes, also. What's your thought on timing?

DR. BUTLER: I think that the golden hour is an interesting statistic. I think it might not have relevance for a specific critical patient. I think if you can get them to the hospital in 20 minutes you should do that.

DR. CARMONA: So, in fact, I mean, I'm agreeing with you. But rather than some arbitrary

time limit, as quickly as possible?

DR. BUTLER: Yes, sir.

DR. CARMONA: Okay.

DR. DICKEY: Question with that regard. Dr. Woodson and I were having an aside here. Part of the concern is as you take that first recommendation we just adopted, which is to move towards an advanced capability, sometimes the less advanced capability will shorten your response time whereas somebody's got to write the algorithm, if you will, that says if I can get him out of here on a less advanced platform quicker, I may not -- I probably shouldn't wait on the advanced capability. So is that balanced in here at someplace?

DR. BUTLER: I think that is a great point. That's where you want Dr. Benson or Dr. Kotwal making that decision for you. It's something that we train our medics to do to look at the different response times.

For example, if you had a patient who had both legs blown off, but had tourniquets in

place and was not actively bleeding and was talking to you, maybe you do have time for a -- maybe you wouldn't have to send in the MERT team. It is very situationally dependent. As I mentioned, we had a big matrix that looked at all of the factors that might impact on CASEVAC circumstances and worked off of that matrix. So I would say that it's situationally dependent.

DR. DICKEY: Dr. Carmona.

DR. CARMONA: Rich Carmona. An additional comment on that. What was interesting post-Vietnam as we started to roll out both ALS providers and advanced practice providers in the military and as they learned more, the time in the field went up and mortality went up as well even though you've got smarter people taking care. And so we recognize now that really in almost all cases, notwithstanding what Frank said, is that no matter what your level of sophistication, even if you're the trauma surgeon in the field, once you have an airway and hemorrhage control, you've got to get them moving quickly. And if you can do

that en route, that's even better.

DR. DICKEY: We made the comment that we haven't fixed this in the civilian sector either. Scoop and go versus hang out and see how long you can take to stabilize.

General.

DR. ANDERSON: So, Dr. Butler, if you take the SecDef 60-minute max just as it is stated, that can be viewed as a resource statement. In other words, that's -- he wants to have the resources in place to make sure that you can respond in 60 minutes. I'm sure that the SecDef would agree that as quick as possible would be the right thing to do. So your wording should be like that, I think. The problem is, you know, with Dr. Woodson's statement about airframes as well, you have to be real careful about how you build in a huge resource requirement into this. In other words, if you said it's 20 minutes, then you have to think about helicopter basing and all of that. So from your operational experience it would be nice to be sure that the wording is

appropriate to allow reasonable resourcing.

DR. BUTLER: Yeah. General, I understand. Maybe that would be -- maybe it would be more acceptable if we added optimized TACEVAC response time and mission planning because we understand that there are always going to be restraints on resources.

DR. ANDERSON: Yeah.

DR. BUTLER: Constraints on resources.

DR. ANDERSON: Yeah.

DR. BUTLER: And the important thing is, is that you look at all the resources that you have and figure out how I can do this best. In other words, you shouldn't say, okay, I've got a 6-by here. I can drive this guy to the hospital and make it in 55 minutes when I could have him evacuated by helicopter in 20 minutes.

DR. ANDERSON: The immediate comeback -- George Anderson -- is you've got it, Frank. But that's the kind of wording that you need --

DR. BUTLER: Yes, sir.

DR. ANDERSON: -- in the report and the

motion here.

DR. DICKEY: So can I take that as a motion to approve this recommendation with some editing to suggest that there has to be a balance between resource requirements and time maximization?

DR. CARMONA: So moved.

DR. DICKEY: It's been moved by Dr. Carmona.

DR. ANDERSON: Right. And just to further that, the key there was optimize in mission planning. And there are resource implications to that, but the operational thing is the mission planning.

DR. DICKEY: Okay. Is there a second to that?

GEN FRANKS: Second.

DR. DICKEY: Seconded by General Franks. Is there discussion?

All in favor say aye.

GROUP: Aye.

DR. DICKEY: Opposed, no. Any

abstentions? Okay. The third recommendation, hostile fire evacuation option with a number of subsets here. Are there any questions or a motion to accept?

DR. CARMONA: So moved.

DR. DICKEY: It's been moved by Dr. Carmona.

DR. O'LEARY: Second.

DR. DICKEY: Seconded by Dr. O'Leary. Any further discussion?

All in favor say aye.

GROUP: Aye.

DR. DICKEY: Opposed, no. Any abstentions? Thank you.

Fourth recommendation, in-flight care providers that meet or exceed the civilian standard.

Dr. Butler, I think I heard you say that you already have the verbal go-ahead to move in the direction of at least the paramedic. Is this recommendation is still important for being able to --

DR. BUTLER: It is because I think it reinforces General Schoomaker's recommendation. I think it also sets the bar for the other Services. Right now it's Army-specific.

DR. DICKEY: Okay. So your recommendation is to -- in-flight care providers that meet or exceed civilian standard with several bullets to specifically define that and at least one per critical casualty.

Do I hear a recommendation?

DR. CARMONA: Rich Carmona. Just for discussion. Frank, on the issue of meet or exceeds the civilian, I know where you're trying to go with this, but being that we know that the military medicine standard may turn out to be different than civilian, do we want to include some wording to include that also so that we're not directly tied into what the civilians have come up with? Again, not that that's necessarily bad, but just that in our discussion it's come out that it may be that there's a different standard for military medicine.

DR. BUTLER: That's a great point. You could incorporate the first three bullets into the recommendation and just say specifically a critical care flight-trained paramedic nurse or doctor.

DR. DICKEY: I think that's much more defined, and I think as often as possible I prefer not to find us trying to create conflict between whose standards are higher or lower. So to the degree that that is truly the goal you're going after, I think that's much more defensible and definable.

DR. BUTLER: And I don't want to leave the physician assistants out. But I don't know of many places that use physician assistants as medical attendants in CASEVAC platforms.

GEN FRANKS: You're after increasing battlefield survivability as opposed to meeting civilian standards. I mean --

DR. DICKEY: Correct.

DR. BUTLER: Yes, sir.

DR. DICKEY: Doctor?

GEN FRANKS: And unique requirements of the battlefield and the trauma and the treatment by adding these types of qualified medical personnel on a medical or TACEVAC flight.

DR. BUTLER: Yes, sir. And I will --

GEN FRANKS: To increase survivability, not necessarily to meet a civilian standard.

DR. BUTLER: I get those words from Bob Mabry, and I think his point was the civilians are sending these critical care flight paramedics to pick up relatively mildly injured people who have been in a car crash. We're sending an EMT-B to pick up somebody who has had three arms blown -- or two arms and a leg blown off and has traumatic brain injury and a big hole in his chest. So, his point is our casualties are much worse. We should have at least meet and probably exceed the civilian standard.

But, you know, maybe it would be better, rather than say civilian standards, just put those three bullets, you know? To have either a critical care flight-trained paramedic, doctor, or

nurse on the platform.

DR. DICKEY: So, why not just leave that civilian? So it says, "that meet or exceed the standard of critical care-trained flight paramedic, critical care-trained flight nurse, or critical care-capable flight-trained physician." Then you have actually given yourself some options. So as long as they bring the skill set of those people, you're not necessarily looking for the initials after their name, you're looking for a skill set.

DR. CARMONA: Rich Carmona again.

DR. DICKEY: You're --

DR. CARMONA: What about a more general term not excluding what you said, but based -- evidence-based optimal configuration of personnel? That doesn't limit us. Because what if we wanted to use PAs in the future and they're not listed today? So again, I'm trying to make it as a wide an option as possible for our military medical commanders to make that decision. And yet, as Nancy pointed out earlier, not appear that we're

competing with the civilian sector as far as a standard.

DR. DICKEY: Check your mic there because your red light's not coming on.

DR. CARMONA: It's kind of flashing on and off.

DR. DICKEY: You've burned it out.

DR. CARMONA: Yeah. (Laughter)

DR. ANDERSON: (inaudible) put another quarter in.

DR. DICKEY: Okay. Doctor?

DR. ALLELY: Yeah, Dr. Eric Allely. Hey, Frank, this was great. I appreciate the presentation. I've got a question, though, and that's just because I'm an Army flight surgeon.

Do you mean everybody? I mean, when you say CASEVAC -- you said CASEVAC, somebody says CASEVAC. In flight. I mean, this would be fabulous. If I could make this happen, if I was God and all these positions appeared and we could actually populate all of our flight medics, I mean, and put all of our UH 60s with this kind of

capability. I mean, is your recommendation is that no patient should be moved in the air with a -- with medical treatment capability short of this? Because I think that's a great limiting problem for me.

DR. BUTLER: See, I think that's a great point. And it's important to realize that there's patient movement that occurs on aircraft or vehicles or boats of opportunity. I think that maybe at the start of this, we should pin that down by saying, "designated MEDEVAC units," to exclude groups like the 160th, you know? I mean, these guys are tactical, they're doing what they're doing, and it's not necessarily picking up casualties. But if we're talking the 48th Air Ambulance Company, yes, that is what they do, trauma care in the air is their mission. So, I would maybe -- designated MEDEVAC units would be the right way to qualify that.

DR. ALLELY: I -- again, Dr. Allely. I think that would be great, again, to get to. But I just -- again, I'm not familiar with how this is

going to move forward and where it moves for this system. But I think there is, at least from the Army's perspective, a huge manpower problem when that comes -- if that comes to be. You know, we need to explore what the consequences are of that.

And my suggestion would be rather than getting into the weeds about trying to describe what those capabilities are exactly, that maybe the recommendation would be from this Board to have a manpower study done, the goal being to optimize -- to maximize this kind of care, and to try to determine what that means exactly in terms of which platforms get it, which platforms don't. And then it goes into the whole toolkit we have in terms of air evacuation, you know, what we use and when we use it. Because obviously you're not going to do the MERT everyplace either, right? You're not going to have that everywhere. But we have to figure out a way to elegantly scale the system and the capabilities to meet the operational requirements and the manpower capabilities that we have. Does that make sense?

DR. BUTLER: I think that our group was convinced by Bob Mabry's study which, again, apologies to this group. I hope that it was sent out in your read-ahead package. It was certainly referenced in the position paper. But that study has been done. The answer is in, again, comparing paramedic versus EMT-B. General Schoomaker was convinced enough to already green-light it as an Army program. It is compelling data.

DR. ALLELY: Oh, that's great. I mean, I just -- one I haven't seen. I'm convinced of the data, that it's better. But that is, you know, I woke up and -- believing that. I just -- it will be interesting to see how that plays out in manpower having been on the other end of the problem. And I look forward to my being smarter about the issue. So, thanks.

DR. DICKEY: I think I hear the concern being raised. I'm not sure how to change the language, and I don't believe I yet have a motion on the table. The concern is that the data suggests that it needs to be critical care-trained

flight paramedic or higher level of training. But we may or may not have the personnel, the workforce to be able to actually meet that standard. Is that what I'm hearing you say?

DR. ALLELY: Well, this is Dr. Allely again. We certainly don't now. That doesn't mean we don't develop a training program that gets us there. I know that's the intent. And I'm just concerned about language coming out of the Board that isn't at least -- doesn't at least tip the hat to the concept that there is a timeline that has to be figured out here, that it's obviously not going to happen tomorrow, and it may not happen next year. But -- so that's the kind of stuff that has to be worked out, you know, into the system.

I mean, I just came back from deployment two months ago, and working very closely with my MEDEVAC group, I mean, we had folks over there who were just barely EMT-B. I mean, I wish I could say it was better than that, but it's not. And so -- and we're struggling even to get there. And so

notwithstanding the Army Surgeon General's recommendation, reality has a role as well.

And so, all I'm looking for, I guess, is maybe some language that says we're not smart enough yet to know exactly how to employ this, to make this happen. We know it's a better idea, and we need to just not put the stamp of the Defense Health Board on something that may not be as easily reached as maybe an interim position. That's all. That would be my -- the minority report from this end of the table.

DR. DICKEY: Dr. Anderson?

DR. ANDERSON: Actually, if you look forward to some of your other recommendations, sir, I think we're going to run into the same trap on some of those. And that is, you know, personally I'm eager to -- and by the way, this is George Anderson speaking. I'm eager to be supportive of this improvement in clinical care. But we have to worry, I think, a little bit from a process standpoint about the Defense Health Board appearing to set a standard of care when we don't

have the full science for it.

I'm looking ahead. I mean, there are resource implications as well, but particularly when we get to the next one on the cells and the plasma. You know, I would certainly support what's been presented in terms of your report, the same thing on the professionals and the commitment to train better, and so on. But I don't think we have the full data set at this point to be sure that we're on a rational ground for having a Defense Health Board position on it.

So, we may want to find some other way of supporting you than one-by-one recommendation support on these areas that may need a little more work.

DR. BUTLER: Right. If I could answer that.

DR. DICKEY: Yes.

DR. BUTLER: I don't know how many of these papers were sent out to the Board as read-aheads, but we do have a good study on the relative impact on outcomes from paramedics versus

EMT basics. It's there, the study has been done, it's not going to get any better. It's really not going to get any better.

With respect to the red cells, I think that there is remarkable data on the in-hospital experience. This is the standard of care when you get to our hospital. What we're doing is moving that standard of care forward a little bit. And there is no argument in the military, if you look at the CPG right now for theater trauma care it says packed red cells and plasma one-to-one. That's all we're saying.

DR. ANDERSON: Yeah, I guess to just come back from that -- George Anderson again -- I'm compelled to say we may get wrapped around the axle a little bit on trying to approve all this. I would like to see something like a Defense Health Board statement that says we fully accept this report and would encourage steps aimed at assuring that these standards are met as soon as possible. You understand what I'm trying to say here is, I think there is some pretty severe

resource implications here that deserve some more study.

DR. DICKEY: Let me give you an option here because you're currently on item number 4 of 12, and we know several of these are going to have the same sort of implications.

We have another meeting on the books for not quite eight weeks from now, not quite two months from now. It may be exactly eight weeks. So, one of the things we could ask is if you want to go through and see if there are select ones of these that you're very comfortable with and want to vote today versus select ones of these you'd like to ask Dr. Butler to go back and say can you massage the language a bit to come back with the goal being what you have said here, but some interim that allows us to appear to be responsible in our recommendations. And it would -- I mean, by mid-August you will have a second crack at this. So that would be one way to address that, George.

You're -- oh, good. And TC3 has another

meeting before our August meeting, really. Bless your hearts. And they have one with our August meeting? No, it's with our November meeting. Okay, I was going to say. Man, you are a meeting group.

DR. BUTLER: And we don't want to be time hogs, but we have four recommendations for you potentially to vote on coming up from our next meeting, so this would be in addition to those.

DR. DICKEY: We understand, but we also understand that we want our recommendations to carry weight. If we go forward irresponsibly and there's no way that they can honestly be carried out, then that invites people to sift through what we do and decide they'll pick this one and not that one.

On the other hand, if we've got a day and a half here, we can continue to craft the language if you want to try to get that done here today. So, ladies and gentlemen, it's your Board. Do you want to send this back and ask that they take Recommendations 4 and some of the others and

try to come back to us with goals and interim steps? Do you want to continue to try to craft language here? What are your wishes?

DR. BULLOCK: Well, I just want to, you know, endorse your view. I think we have to be careful. We have to keep our powder dry. We have to not get down into the nitty-gritty detail that might embarrass logisticians, you know, when it comes to providing this level of expertise on each and every MEDEVAC, CASEVAC mission. So I mean, I think the broad principles we absolutely agree with that, but we have to get the wording better, in my view.

DR. DICKEY: Okay. I'm interpreting both George and Dr. Bullock as saying the same thing. If I don't hear any objection, I will take that as a recommendation to Dr. Butler to take back the actions -- the recommendations we don't take action on.

Let me ask the question differently then. Are there any of the remaining recommendations that you are comfortable that you

would like to pull out and take action on today, 4 through 12?

Question, Frank, while people are looking through. Number 7, standard protocols for TACEVAC care, do those currently exist and the issue is recommending that all Services embrace those? Or are those things that need yet to be developed?

DR. BUTLER: Right. In the sense that the Board has looked at the TC3 recommendations and endorsed those in prior meetings, they're out there. They're just not being followed.

DR. DICKEY: And number 9, the TCCC card and the NATO card and the Joint Trauma Registry all currently exist. Again, they simply are hit or miss in terms of who follows them, correct?

DR. BUTLER: Correct. And the lack of a central strong statement has led to some things. I will use as an example, last week I got a phone call from a lady from the Air Force Surgeon General's office saying, I want to use the TC3 card, but it's an Army form and the Army says I

can't use it for my Air Force people because it's an Army form. So I said, huh, how about we do this? So I took the original card that the Rangers had sent me and I said, okay, this has no Army form stamp on it. This is the Rangers, can you use this? Yes, thank you very much.

So, we did that. But, again, it is hard to change the military culture on all levels. And, you know, to the extent that this group makes a strong statement, we have a chance at doing it. And don't kid yourselves, because we tell the military they've got to do this, it's still not going to get done unless somebody drives the point home, unless we have Line Commanders that execute it.

DR. DICKEY: George?

DR. ANDERSON: Well, as I look through those, that one would be one that would be very easy to approve, number 9. It would approve documentation of the TACEVAC card. And certainly that's something we would like to do in the context of gathering the data and forwarding the

studies.

But, again, the implications of that, it goes back through the Commanders and the operational organizations. I just wonder how we can be most effective in helping you achieve what you want to achieve with that, Frank. So, you know, I mean, I'd be very quick to approve number 9. But then I don't understand exactly how that's going to be operationalized and how the Defense Health Board itself enters into that.

DR. DICKEY: Dr. Butler?

DR. BUTLER: You know, I think, sir, your comment leads us back to the issue of who owns level 1 trauma care. And the Line Commanders will tell you, they own level 1 trauma care. So, if you want to change ALTA, you can talk to the Service Surgeons General.

If you want to get a pre-hospital unit-based trauma registry, you have to be talking to the heads of the Services. And, you know, we have actually worked through this process with the Army. The other Services, not yet, to my

knowledge.

DR. GANDY: You know, just looking through all this together, if you just look at all the recommendations, you know, it all comes back to the first recommendation, which is we need to develop an advanced TACEVAC care capability. In other words, an EMTB standard is not good enough for our guys when they've got polytrauma. We need guys out there that can take care of people better than that.

And if you look at everything else, under it, it's basically guys who've already thought about this, how to fix it and how to develop a system. So what they're doing is saying we need this and this is the blueprint, you know, of things that need to change to make that system work. So you can't just have highly skilled providers without the training and the oversight and the equipment and the tools to do it with, you know.

So I guess, you know, a lot of these recommendations come because Dr. Mabry's already

thought about this a lot of hours. And he already has a plan to get enough paramedic-trained guys in the next five years and the funding and how it's going to work and where they're going to go and who is going to do the oversight, et cetera. So a lot of these come because they've already thought about it. But the real recommendation is to, you know -- do we want to endorse an advanced TACEVAC capability because we know from that study that it saves lives?

DR. BUTLER: To echo what John's saying, the Joint Theater Trauma System sent Bob Mabry into theater to look at the tactical evacuation care issue. So he was their designated person to go in and fix this. He came back and spoke to not just the Joint Theater Trauma System, but to the TC3 group, which includes the trauma consultants for all three Surgeons General. And these recommendations passed unanimously through all the trauma consultants.

So, I don't know how much better the look is going to get. I would say that the

wording can certainly be changed. The principles are not going to change. I think the principles are, these are our recommendations and, you know, whatever your decision is. But certainly the wording could be better.

I think that your point about the mission planning, optimizing response time and mission planning, that's a good change and easy to do and stays with the intent. But to go back and undo these recommendations, I would just say if they're wrong, and you think they're wrong, then defeat them and let's move on.

DR. DICKEY: I haven't heard Dr. Carmona.

DR. CARMONA: Rich Carmona again. I think all of the recommendations are reasonable, but I think maybe what we need is a qualifying statement as we lead into these, one that relates to logistics, as we pointed out, that we don't want to put people into embarrassing situations as far as trying to ramp up too quickly to support.

The second being that somewhere maybe a

qualifier that states, you know, that these standards are in evolution, they're not fixed, and that we're continuing to look for best evidence as we move forward, and there can be changes in the future. But I think what Frank has presented certainly is a very good point of departure. If we qualify it then, then I think it meets some of the concerns that my colleagues have expressed already.

DR. DICKEY: I don't want to put words in your mouth --

DR. CARMONA: Please.

DR. DICKEY: -- but are you recommending then that we approve all of the existing recommendations with a qualifying statement that this is a work in progress and the goal is X and that the following appear to be current best practices, which will be under continuous evaluation?

DR. CARMONA: Yes, that's true. And add in the logistical part as well so that nobody feels something is being imposed on them acutely

to ramp up, you know, a bunch of 18 Deltas and new medics at any level or nurses or docs. And because as Frank has pointed out, I think this has been fairly well vetted by the Service Chiefs, Surgeon Generals, and so on.

So I think that the platform is a good one, but I think what we're doing is footnoting this and giving a little more granularity to our thought process. So that when somebody looks at it in six months or a year, they see that we've done our due diligence and that we recognize that some challenges still remain, but we want to move forward.

DR. DICKEY: And I will simply add a comment to that and say there are some of these things that I personally do want to see mandated. I've been on the Board, this is now the beginning of my third year. We've been talking about documentation since my very first meeting. There's good data from some of the branches, but not all. And so, at some point it's time to say get with the program. Okay? It should no longer

be optional. So, I'm not sure we get that flavor in there.

General Myers?

GEN MYERS: I have a question as -- maybe it's for Dr. Butler. But are we actually mandating something or are we just recommending something?

DR. DICKEY: Recommending.

GEN MYERS: If we're recommending, then I'm not so worried about how the logisticians feel about it. I don't think it -- in my view, that's irrelevant. We're the Defense Health Board. We make recommendations. How it's implemented is the Services' problem. Let them deal with it.

DR. DICKEY: Okay.

GEN MYERS: I mean, we give them our best judgment and we -- and then we leave.

DR. DICKEY: Dr. O'Leary.

DR. O'LEARY: I am certainly happy with Mr. Carmona's [sic] suggestion, but if we are still debating in some fashion the who question out of these recommendations, then that's 4, 6, 8, and

10. And everything else, I think, seems to be perfectly all right with everybody.

So I think we should either move them all or move them all with the exception of those four.

DR. DICKEY: Four, 6, 8, and 10, take your pick. I'm looking for a definitive motion.

GEN MYERS: I move to adopt them all.

DR. DICKEY: All right, you have a motion --

SPEAKER: Second that.

DR. DICKEY: You have a motion and a second to adopt the 12 recommendations -- actually, 4 through 12 because you've already taken action on the first 3 as recommendations to move forward. Is there further discussion? It's amazing if you have people who get hungry enough, what they'll do. (Laughter)

Okay. It was actually a lunch that was timed very specifically, and so it's going to be a little over-dried -- no. Motion and second before you to adopt recommendations 4 through 12.

Is there further discussion? If not, all in favor say aye.

GROUP: Aye.

DR. DICKEY: Opposed, no? And we'll even take a shot at some language that lets them know we understand that these are goals to get to, not to do tomorrow. Recommendations, absolutely. Except if they keep ignoring us, we're going to come out with stronger language, right?

We have one more --

DR. JOHANNIGMAN: They do so at their own peril.

DR. DICKEY: All right. On page -- oh, okay. Now the last recommendation from TCCC is on the freeze-dried plasma. It's on page 8 of the written material -- position paper and it's just before the references.

This recommendation is that we should -- Department of Defense should take all necessary steps to expedite the fielding of dried plasma to Ground Medic Corpsman, Pararescuemen, and Air Medical Evacuation Platforms with a number of

bullets setting forth how that might be done.

DR. CARMONA: So moved.

DR. DICKEY: It's moved by Dr. Carmona, who has got his mic -- no, he doesn't. Seconded by Dr. O'Leary. Is there further discussion?

All in favor, please say, aye.

GROUP: Aye.

DR. DICKEY: Opposed, no? All right, take a deep breath. You have got a huge amount of work done this morning. Dr. Butler, thank you. You covered an immense amount of material and educated a few of us.

Now, we are going to break for a working lunch in Studio E. The lunch includes Board Members, Federal Agency Liaisons, Service Liaisons, and DHB Staff. For all of the others, recommendations were made for where you could check availability in the area. The Board will reconvene at 2:45? It's now 1:45.

MS. BADER: I think 2:10. Can everyone make it for a half of an hour lunch?

DR. DICKEY: 2:10?

MS. BADER: Is that okay? So we can start to catch up?

DR. DICKEY: We'll make it easy on you, 2:15 will give you 35 minutes. 2:15, and we'll try to talk faster.

(Whereupon, at 1:36 p.m., a luncheon recess was taken.)

A F T E R N O O N S E S S I O N

(2:20 p.m.)

DR. DICKEY: Welcome back, those of us who made it back anyway, right? Our next presentation of the day will be from Mr. Sloan Gibson. Mr. Gibson. Here he comes. We've kept him waiting a while.

Mr. Gibson currently serves as the United Service Organization, USO's, 22nd President. He was selected by the U.S. Board of Governors in September of 2008. Prior to joining the USO, Mr. Gibson spent more than 20 years in the banking sector in Charlotte, North Carolina; Atlanta, Georgia; Nashville, Tennessee; and Birmingham, Alabama. That means you should talk nice and slow so we can understand you.

(Laughter)

Mr. Gibson is also a 1975 graduate of the United States Military Academy at West Point, and his slides are under Tab 7 of your meeting binders. Welcome, Mr. Gibson. And it says here, without further delay. I think we've probably

already imposed enough delay on you. So, we appreciate you being here and being patient with us.

MR. GIBSON: Well, thank you very much. Everybody hear me all right? Maybe other reasons to talk real slow from me today, I find this a little intimidating to be on the program with speakers talking about topics I can't even pronounce much less do I know what they are. So, a little different experience for me, a little different audience than normal.

Our mission at the USO is to lift the spirits of America's troops and families. We do that around the world every single day, everywhere we serve troops. But we ask ourselves a simple question, who needs us most? And we recognize that the answer to that question is different today than it would have been, say, a decade ago.

So, on our short list of who needs us most: Our troops that are foreign deployed serving in harm's way; their families back home that are going through this, all the stresses

associated with repeated deployments. They're on that short list. And, of course, our Wounded Warriors and their families and our families of the fallen.

USO is with our Wounded Warriors and families, really, almost from the moment they arrive in the hospital in Afghanistan. They're in Bagram or Kandahar or Balad. Have been, although we won't be there much longer. We're at Landstuhl with a major presence, where we're welcoming these Wounded Warriors and their families. We visit them at their bedside, help them if they're outpatients. And then when they arrive back home for further treatment and further rehabilitation, we're there at the majority of the military hospitals around the country, as well as here in the National Capitol Region.

So, you think about the USO and it's changing. It's changing to meet some very different and very urgent needs that our Wounded Warriors and our troops and their families face today. It's clear that our Wounded Warriors and

their families have some of the most pressing needs, not just for the outstanding health care and rehabilitation services that they receive from the military's medical facilities. But they also need help and support getting ready for what comes next.

Our outreach to Wounded Warriors and families led us to take a look at the broader process of healing, which includes efforts to help keep families strong, to help these men and women get their heads back into life, to help these troops test their new physical bounds that they have and personal capability. We've seen some of that at the second of the most -- the two Warrior Games we've helped sponsor with the U.S. Olympic Committee out in Colorado Springs. Some amazing scenes there where men and women are accomplishing physical feats you never would have dreamed, that they never would have dreamed they could have accomplished. Helping them with their next steps to find and sustain hope and maintain resilience what, for many of them, is a very long and arduous

recovery, helping them to make plans and helping them build support network for the future. We are well-positioned, as are our partners, to help build some of these early steps in the readjustment process that they will face as they return back home.

To be clear, we are not clinicians. We are not behavior health counselors. We're not family counselors. We're not job placement specialists. But we are and can be conveners building partnerships that help provide the kind of support that our Wounded Warriors and their families need outside of hospitals and rehabilitation facilities.

That's very much in our DNA. If you think back years ago when President Roosevelt created the USO, it was all about bringing together the disparate efforts of six different nonprofit organizations. Over the course of our history, we've continued to build new partnerships as the needs of troops and families change.

Our original bylaws mandate that we

provide "specialized types of related work which may be needed to adequately meet the particular needs of the Members of the Armed Forces." Not exactly eloquent prose, but it makes it pretty clear that the idea is to bring together different organizations to help meet the needs of our troops and families.

We reach out and try to build partnerships with best in class organizations to meet very specific needs. Examples: We will work this summer with the National Military Family Association to deliver family retreats for Wounded Warrior families. We've been partnering for quite some time with Sesame Workshop on programs that are geared specifically to families with young children, families where parents are typically deploying often. We've sent Sesame Street characters around the world to help very young children learn that it's okay to miss mom or dad when they're away. We do other things with Sesame Workshop helping kids cope with changes in their parents when they come home from a deployment or,

in the worst case, when parents don't come home at all; helping to teach these children, give these children coping skills, and to help build resilience and encourage even the youngest of our dependents to talk about how they feel.

We have a great partnership with United Through Reading. Service member walks into a USO center somewhere, selects an age-appropriate children's book, we video record them reading that book to their children back home. And then we get the cards and letters and e-mails from the families talking about how the kids have watched that video 10 times a day every single day for 3 months -- excuse me, for 3 months. It becomes such a powerful connection to their deployed loved one. We did 70,000 of those and we're up to about 200,000 since we started the program. Powerful way to keep families connected.

We work with the Wounded Warrior Project at Landstuhl. And a very robust partnership here in the states, two very important partners of ours -- new partners -- Hire Heroes U.S.A. and the U.S.

Chamber of Commerce. And in the future we'll be working with the American Management Association and Georgetown University. All of those entities helping us prepare Wounded Warriors, helping them build the skills that they're going to need in the civilian workplace and making the connections for future employment. And I'll talk about that some more in just a moment.

We're not the only group that's out there trying to offer some of this assistance, but I would tell you that at least I think that we're probably taking it several steps beyond what you oftentimes find. There's a pretty intensive focus on outcomes and what we do. We're not necessarily interested in activity. We're not necessarily interested in inputs or throughput. We're interested in outcomes.

This year we'll work with Hire Heroes U.S.A. on about a dozen transition workshops that we'll conduct around the country for Wounded Warriors and family members, helping them get ready: resume writing skills, interviewing

skills, some of the things that they need to know as they prepare to enter the civilian workplace, how to translate their experience into experience that's relevant to potential civilian employees. All these programs are taught by Wounded Warriors that can relate very, very closely with these participants.

We augment the workshop, we come in behind the workshop with what we call a Career Opportunity Day we partner with the U.S. Chamber of Commerce on. Tom Donahue and I visited now almost a year ago and agreed that we would partner up to place as many Wounded Warriors or spouses as we possibly could. And not just in good jobs, but in careers. And so we've now done our first few Career Opportunity Days. It's not -- again, not the idea just to help them find work, but to help them find a career. We did our most recent Career Opportunity Day here at Fort Belvoir just last week. We had 42 wounded or injured troops that attended. One-fourth of those left that day with a job offer in their hand. We try to tailor the

types of companies that are participating in the job -- this is not held in a cavernous convention center with hundreds of people, everyone wearing their new Joseph Banks suit. It's a much more intimate kind of affair. The employers that participate are required to bring specific opportunities, specific jobs that they're actually hiring for. This isn't about, you know, just having casual conversations. And you know, so far we're seeing 25 to 35 percent of the participants are walking out the door with a job offer in their hand.

The many -- about a third of the 42 that participation at Fort Belvoir this past week came from the Wounded Warrior Regimen at Quantico. We had 21 employers represented in the group, many of those recruited by the Chamber. A handful of those are USO corporate partners that we've enlisted to participate as well.

Our next Career Opportunity Day will be out at Fort Carson, Colorado, working with the Warrior Transition Unit out there. I tell you,

the first Career Opportunity Day we had there, we had 40 participants. A third received job offers on the spot, and 10 of the 40 accepted their offer on the spot. So 25 percent of the participants walked out the door having accepted a job.

We'll do another half a dozen of these Career Opportunity Days complementing the transition workshops between now and the end of the year. And we'll continue to survey participants, both coming right out of the workshop, right out of the Career Opportunity Days, but then 6 months later, 12 months later, because, again, what we're focused on here are outcomes. It's not seeing how many people we can run through a classroom. It's how many can we place in jobs that they stay in and that become careers for them?

We ask a lot of our partners, including measuring outputs, because we really think that that's what matters. Our mission is to lift spirits, and if we're going to accomplish that we better be measuring what we're doing to make sure

that we're accomplishing it. Then we can use that as feedback to fix or discard programs that don't work. We've -- you know, one of the essential ingredients in all of this, we've learned, is mentoring. And we've been through one or two mentoring partners thus far and we haven't found the right partner yet. So we're looking for the right organization to work with us on training mentors so that we can assign mentors for these men and women and family members as well.

As we looked at all the needs of Wounded Warriors and their families and the magnitude of those needs, we recognized that it was pretty much above and beyond the scope of the USO's normal resourcing capabilities. And so we watched a campaign that we call Operation Enduring Care. The goal there is to raise $100 million over a 5-year period; $25 million to build 2 centers. In fact, we're going to break ground -- it was a treat for me to see Admiral John Mateczun.

It was just over two years ago that I went and paid the first visit on Admiral Mateczun

with this idea. I had been to visit BAMC and been inspired by what I'd seen there, and realized what we were doing here in the National Capitol Region. And thought if somebody's already committed to doing something like that, like we have at the Warrior and Family Support Center at BAMC, if they're already committed to do that, you're great. We'll work with them and help. If not, we should raise our hand. And with a lot of support from my Board, and including my Board Chair down here at the end of the table, we have committed that and we'll actually break ground on the 27th of June down at Fort Belvoir on the first of the two locations. The second location will be at the Naval Medical Center in Bethesda, and really special. And I think some of you have picked up the magazine on the way in, or you've got in front of you, which has got a feature article on these two centers that we're going to build. So you can learn a little bit more about those.

These will be the largest USO centers anywhere in the world: 25,000 square feet in

round numbers, guided very much by evidence-based design principles, much like the hospital next door. The idea is to allow Wounded Warriors and their families to be together outside the hospital as a family, a place of respite, a place of recovery, a place for reintegration.

Before building the centers we went out and actually surveyed Wounded Warriors and family members. We surveyed medical professionals and staff and caregivers to make sure we knew what needed to be designed into these centers. Some of the things that we heard: They had to relate back to daily life. These men and women are anxious for some little touch of normalcy. There needed to be a social center, a social outlet, because that's so much an important part of their complete healing process.

Concerns that many of these troops had with their families, you think about taking care of the Wounded Warriors, their first thought is taking care of their family members, so being able to take care of the families that are there. The

average amputee, as all of you know, spends about 18 months at Walter Reed. You know, that's a long time. I tell people, audiences, when I'm talking about this, think about the last time you had a family member that spent three days in the hospital. How emotionally and physically taxing was that? Now imagine 18 months. That's a real challenge, and we want to make sure that we're focused on taking care of those family members.

So we want the centers to provide some sense of normalcy. Free access to the Internet without some of the restrictions that DoD provides on Internet access, Facebook and all that kind of stuff, which is what these kids want to do. Continuing education, a top priority. In fact, it was number one. A place to take some college courses and other personal development classes. A place to deal with the administration associated either with their condition and their recovery and their either return to their units or transition to a military -- to the civilian community or the administration associated with just life that

continues to go on even though they're there.

Access to seminars to transition for -- to prepare them for their post-military life. A welcoming place after hours, because one of the things that we heard is the nighttime is oftentimes a very difficult time for these men and women. We even got input on lighting and color schemes and things like that, so, to make sure that these were the kind of relaxing places.

We fed all that to our architects to make sure that we've designed the kind of warm and inviting places that can be the very special place for their recovery, a place where families can be together as families, where children can play, meditation gardens, and where they can prepare for what's next in life.

Behind these two centers, we're reaching out to families. I mentioned caregivers just a second ago. Usually mom or dad, brother or sister, husband or wife. We did our first Caregivers Conference down at Fort Bliss, Texas, last year. Our next caregivers -- we had more

than 200 caregivers there from around the country. Our next Caregivers Conference will be at Fort Bragg, North Carolina. We're expecting about 500 participants in that conference from both Fort Bragg and from Camp Lejeune nearby, drawing on experts from across the country and creating the opportunity for caregivers to share their own experiences and working to help keep that family strong so that they can be there for their loved one.

Along with work like this and Caregivers Conferences, work with the National Military Family Association, there are a number of other programs that we deliver that are designed to help really restore and sustain the enthusiasm for life. To provide a break from daily routine, to build that resilience that they're going to need for the recovery. A number of these are physically arduous. We've partnered for three years now with Ride to Recovery, a great organization, 300- to 400-mile bike rides for Wounded Warriors. We've had quadruple amputees

out on these rides before.

I've been out on day one of six-day rides, and I would tell you that it really kicked my butt. These aren't easy. This is hard stuff. And people hear about things like Ride to Recovery and they think, well, that's great physical rehabilitation. But I'm here to tell you, the best place where it works is up here. Because these men and women complete one of these rides and they realize, if I can do this I can do anything. Now that's a powerful lesson for a young Wounded Warrior to carry with them for the rest of their lives.

Rehabbing With the Troops, another program where we connect by Internet through with Wii™ gaming, and we'll get professional sports stars to engage in different Wii™ physical athletic -- physical activity games with Wounded Warriors to encourage them to be active and involved. And they've got programs where they keep track of their hours and their scores and all of those kinds of things as an encouragement to be more

physically active. Team River Runner, a new partnership to get guys and gals out on the whitewater. Warrior Games, I mentioned earlier, 220 Wounded Warriors from all branches of the Service from all over the country, you're familiar with that. That we've partnered with the U.S. Olympic Committee and the Department of Defense, really, since inception.

There are some other programs -- even though all of these, I think, have a lot of emotional wellness component to them, others that target it really more directly. Operation Proper Exit, another partnership of ours, where we send dramatically injured Wounded Warriors back to Iraq to the -- as close as possible to the scene of their injury to get emotional closure around that traumatic experience. And we've all read about men and women going back to Vietnam 30 years later. Well, we're sending Iraq war veterans back 18 months later. And they are life-changing experiences for them.

We work very closely with our great

friend Gary Sinise, Lieutenant Dan Band, and our friends at TriWest Healthcare in the Marine Corps. We've got Gary doing concerts all over the country, where we've been able to fold in a message about emotional wellness and mental health and getting some help if you need it.

We also work with TriWest, have trained many of our staff and volunteers in our centers to recognize the signs that a Service member or family member may not be coping well with stress and how to have a non-threatening conversation with that Service member about getting some help and having a resource to be able to put in their hand and say, there's somebody at this number right now to talk with you.

We've also been there for families of the fallen. We've supported -- many of you probably know the USO has two centers at Dover Air Force Base. We supported every dignified transfer since before 9-11, no matter what time of day or night. We have recently expanded our support there at Dover as many more families come to

observe the final return of their loved ones. We're working with Fisher House Organization and with the command there to provide more support to families.

Also providing some support during the journey. You know, you stop and think about it. Well, the USO happens to be located at the vast majority of the airports that these people are flying out of or through. The first one of those happened as I was standing out on the tarmac with a family one evening. And I handed my business card to the Army Sergeant that was the Casualty Assistance Officer, and I told him, I said, if you -- this family needs any help, you let me know. And I had driven back home during the middle of the night, and the next morning about 6:30 I got out of the shower and my cell phone was ringing and it was that Sergeant. And he said, sir, I've got the family at the airport in Philadelphia. If I take them to the USO, can they go in? And I said, they'll be waiting for you. And that was the germ of the idea, and we've now put in place a

mechanism where we help as many families as we possibly can as they're making that journey. It's not a big thing. It's a little thing. But anything that we can do to help make that journey go a little bit better is plenty.

We work very closely with our good friends at TAPS. I know you all are familiar with that organization, Bonnie Carroll, great friend. We partner with them on Good Grief Camps. This summer, we've got a new venture that we've actually pulled TAPS into. The Warrior Foundation approached us last year. They've been doing camps for children -- primarily inner city children that have lost a parent -- for quite some time. They're called Camp Aaron. And they approached us and said, we'd really like to do some Camp Aarons just for military kids. And so we asked TAPS to come in because of their deep specialty in the military space, and the three of us are partnering together to do four Camp Aarons this summer: Fort Campbell, Fort Hood, Joint Base Lewis-McChord, and Camp Lejeune. So, helping our families of the

fallen as well.

These Wounded Warriors and their families and the families of the fallen, they need us right now. They'll continue to need the support of the American people for many years to come. I was visiting just yesterday with the head of a foundation. And she was expressing her concern about the sustainability of her work, because she knows -- she's primarily focused -- her foundation is primarily focused in the physical healing and emotional wellness space for troops. And she understands how long this tale is going to be that we have to deal with as a society. This is going to be a challenge for us for a long time. It's a concern for us in terms of sustaining that mission and it's a concern for others.

Just before Memorial Day, Admiral Mullen was urging the nation to remember the service and sacrifice of the 1 to 2 percent of the population that have served our country here these last 10 years. This is very much a logical extension of

our mission, helping to build this community of care. But it's going to require the attention of good people all over the country to ensure that our troops and their families are given the chance to succeed in life.

I know from my own experience, these men and women don't want the world. They just want a little bit of what you and I have the opportunity to enjoy. And they deserve every bit of it and much more.

So, even though we delivered some 700 performances and events last year with celebrities, we're not just about entertainment. Even though we hosted at our roughly 160 USO centers around the world some 8 million visits by troops and family members, we're more than just the local USO center down the street or in the local airport. Much more to today's USO.

Proud of the staff and volunteers that make it possible for us to do all the things we do, and the donors that make it possible. Almost 2 million individual donors to the USO, and dozens

and dozens of corporations that help us. Our mission is to lift the spirits of America's troops and families. Our goal is to meet the most important and urgent needs of those men and women and family members that need us the most.

Let me thank you for giving me this opportunity. I really do appreciate the chance to be here. Thank General Myers for helping make the opportunity possible, and for all the passion and wisdom that he brings to the USO organization.

And thank all of you individually for what you do, the service that you continue to provide to help take care of our troops and families. Thank you very much. I'd be glad to answer a question or two, if we've got time, ma'am.

DR. DICKEY: Thank you so much for the presentation, Mr. Gibson. Questions or comments from any of you regarding the presentation or about the USO in general?

I think as we plan our trips it might be useful to include one of the USO facilities he's

describing for us. Surely we'll either get back to BAMC or to the National Center again.

SPEAKER: Sure, fantastic.

MR. GIBSON: Thank you all very much.

DR. DICKEY: Thank you for what you do for us. Our next speaker is Vice Admiral John Mateczun.

He serves as the Commander of the Joint Task Force National Capital Region Medical Center, JTF CapMed. I've accused some others of having some long titles, but.

Previously, he's held the positions of Joint Staff Surgeon and the Medical Advisor to the Chairman of the Joint Chiefs of Staff, as well as U.S. Delegate to the NATO Committee of Chiefs of Medical Services. Present in the Pentagon on 9-11-01, he subsequently served on the Joint Staff during Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom.

Vice Admiral Mateczun's ensuing flag assignments were as Chief of Staff, Bureau of Medicine and Surgery; Commander of the Naval

Medical Center, San Diego; and Deputy Surgeon General of the Navy. He also served as Director of the Military Health System Office of Transformation, and is a member of the congressionally mandated Task Force on the Future of Military Health Care.

John Mateczun's awards include the Navy Distinguished Service Medal, Defense Superior Service Medal with Oak Leaf Cluster, Legion of Merit with three Gold Stars, Bronze Star, Defense Meritorious Service Medal, Meritorious Service Medal with Gold Star, Navy Marine Corps Commendation Medal, Army Commendation Medal, and Navy Marine Corps Achievement Medal.

John Mateczun will present an information brief regarding the integration of the health care services of the National Capitol Region. Admiral, we are honored to have you with us and look forward to your remarks.

VADM MATECZUN: Thank you, it's a real pleasure to be here. Sorry Mr. Gibson left, I wanted to give him a thanks. And I already have,

but just publicly for the great work that the USO has done.

And I'll tell you, it's not hard to give -- it's very hard to give something to the government, believe it or not. And we don't make it easy. He stuck with it and they're going to break ground on this beautiful USO that you see on the cover of that magazine there down at Fort Belvoir. And then soon they're going to break ground on the one out at Bethesda.

Right now, as you'll see, the Bethesda campus is saturated with construction. And so we've sort of had to hold off there, even though it'd be great to have it ready by the time that we opened up.

You know, I was trying to count up the number of times that I've been here over the last three years in this job. I lost count. But this will be, I believe, the last presentation that I'll give to you before the BRAC is over. And so, been focused on the BRAC now for three and a half years and certainly a lot has been accomplished,

but we'll be able to move on into the post-BRAC period here pretty soon.

I want to update you on what's going on in the NSCR, what's happening with the BRAC, talk a little bit about the comprehensive master plan and world-class that you've worked so much on, and then tell you a couple of other things that I know you'll be interested in, and answer any questions you might have.

Background. Gosh, just looking around I don't know how many of you have seen this how many times before. But BRAC -- you know, BRAC, five and a half years ago, you know, the BRAC law, six years is the deadline. And today we are 49 days away from actually starting to move out of Walter Reed -- start the moves out of Walter Reed. So, it's getting pretty close.

The Washington Post articles on Walter Reed in February, Dole-Shalala, the Independent Review Group, met -- had recommendations. And then the Joint Task Force was established in September.

A lot of decisions have been made. Walter Reed and Fort Belvoir will be joined hospitals, a civilian-manning model for both hospitals. And then a lot of emotion about Walter Reed. Walter Reed just had its 100th anniversary a few months back. And it has a very storied and extraordinary history, and there are certainly those that would like to keep it open, would have liked to have kept it open. Some of those were in Congress over on Capitol Hill. And so they proposed some language in the FY09 NDAA that basically said, hey, we're going to say, why don't you just stop for a while and then we'll take a look at it later on?

Well, BRAC is a package, and if you open up one piece of the BRAC package it all opens up. And so, god, I think there were 268 or something BRAC projects, an extraordinary number. And so the administration said, no, can't open up one piece of it. And there was a threat of a Presidential veto. And so, Congress came back and said, okay, you said it was going to be

world-class, prove it. And so they said there was going to be a congressionally mandated committee to take a look at that. The Defense Health Board hosted that committee as a subcommittee. They came back, reviewed everything, came back with their recommendations.

The Department reviewed those recommendations, endorsed what the Defense Health Board Subcommittee had said, sent it back over to Congress and Congress said, okay, codified into law, into statute, the meaning of a world-class medical facility. So when I say we're going on a journey to world-class, I'm required by law to get there. That's not just an inspirational journey, boy, we'd really like to be world-class. We actually have to meet the definition.

And so, last year we -- in '10, about a year ago, we submitted two reports to Congress -- one in April, one in August -- saying this is how we're going to achieve that goal. And then in February, the President's budget included the funding to get to those projects, which I'll talk

about in a little bit.

This is the BRAC kind of update. This is the largest infrastructure investment ever made in the military health system. Right now, $2.4 billion into these two facilities. On the bottom left there you'll see the Walter Reed National Military Medical Center, and it looks like a bunch of buildings. You had a patient that came in the other day and was looking at some of the statistics and said this many square feet, this many dollars. They said, oh, you know, that number of square feet, that's the Mall of the Americas. And so the footprint of that medical center is the Mall of the Americas. It's not just a hospital, it is a monster hospital and it's very, very big.

And you know, it's grown so much, actually, that we're seeing patients at it now. All of these new buildings that are there. But you really have to think about emergencies and the hospital in a whole different way than you did before when you got the Mall of the Americas

instead of a Navy hospital that's there.

Over on the right-hand side you see the Fort Belvoir Community Hospital. It's got the footprint of the Springfield Mall, for those of you who know something about Northern Virginia. It's an aircraft carrier from a parking garage into the middle of the center tower, there, and another one going back out the other way.

Both of them are built on golf courses, if that means anything to you. So, if you want to invest in medical construction in the future, find a golf course today. (Laughter) It may be a good time to purchase.

So, 1.52 million square feet of new construction on the Bethesda campus. And a certain amount of renovation that goes on top of that. Fort Belvoir, 1.47 square feet of new green field construction down there.

So, going really, really well. The outfitting -- I can't tell you how many line items we got, how many pieces of equipment it takes to fill out a hospital. So, I think we manage an

inventory of about 125-, 130,000 stock numbers now. It's pretty busy outfitting these places.

Good news is, we are on track to be able to consolidate the four hospitals here in the National Capitol Region into two and to move into them by the BRAC deadline, the 15th of September.

This gives you a picture of the saturation construction that's on the Bethesda campus. You'll see you're looking at Wisconsin Avenue, the iconic tower there in the middle, and new construction that's on the outside of that.

Those things that are in green are kind of on the front part of the campus, and were part of what we call RFP1. The blue back in the back, they are Warrior Transition and Administration buildings, and I'll talk about each one of these buildings. Over on the right, we see gates, Fisher Houses, and a new Intrepid Center. And so, we are sort of peaked out in terms of the number of construction workers on campus. They are busy finishing the insides of these buildings right now.

That's the medical center, per se. You know, it's not just that we are building new buildings, we're actually fitting new capabilities into this building. We are reorganizing and taking best practice as we go, and we have a certain number of congressionally mandated Centers of Excellence that have to go in there. One of the biggest changes is that we are consolidating the Cancer Centers of Excellence from Walter Reed into a Comprehensive Cancer Center that will be the first Comprehensive Cancer Center within the Department of Defense.

We're working with the National Cancer Institute, which is -- and if you take a look at that front left building, you know, it is literally across the street, across Wisconsin Avenue from that building. So, we have an extraordinary opportunity to partner with the National Institutes of Health. We also have a medical school on this campus, and so the future, I think, of academic medical center collaboration in terms of research and development is very, very

bright along this corridor.

Dr. Varmus, Dr. Harold Varmus, is over at the NCI now. Very interested in working with our patients, being able to -- we're very interested in being able to work with them, so that we have the latest protocols. In fact, in that tower all of the lung cancer protocols that are in use basically today across America were developed in collaboration between the National Naval Medical Center and the NCI. And so, this is a longstanding collaboration which we look forward to building on in the future.

This is that new outpatient building. It's the largest outpatient clinic building now in the military health system. It's extraordinarily large, and you can see some of the capabilities that are there. A lot of it, of course, is about the prosthetics rehabilitation and prosthetic mission that transfers over from Walter Reed. Bethesda doesn't do any of that today. We have at Walter Reed, the MATC, Military Advanced Training Center. This is MATC 2.0. Chuck Scoville who

runs that facility came over. We incorporated all the changes that he's learned in the last two years since they opened up that MATC. And so, it's an extraordinary facility.

You can see that prosthetics lab up in the upper left-hand corner. You don't see on the left-hand side, those are all benches where they can do adjustments. But there's actually a ceramics kiln, a whole area for manufacture that comes just off to the left of that. So, this is probably the leading prosthetics laboratory in the world right now once it opens up.

Right now, the MATC is still running over at Walter Reed. It will pick up its patients and everybody will come over to this new facility when we begin the moves.

So, an extraordinary new capability. It doesn't look like it's very tall. It's actually six stories tall, you know, coming up to the top. It's got a lot of environmental features. We were shooting for LEED Silver, and we achieved LEED Gold with a lot of work. So it's a very

environmentally-friendly building, you know, as we went.

There is no re-circulated air in this building. It is all fresh air circulating. That sky well, that skylight well that you see in the middle of the top of the building is where all of the fresh air comes in. The vents are down at the bottom, draws air in, heats it in a heating wheel, and supplies it to the whole building all the time. So, a very good building. That light well also brings in light, so no matter where you are in the building, coming out of a clinic, you can orient yourself by that light well. So, it's a -- has a lot of evidence-based design features. Truly an extraordinary facility.

Across the way -- this is on the one that's on the right-hand side of the tower and this is attached to the inpatient side. It has 50 intensive care unit beds, 3 new operating rooms, catheterization labs, trauma suites, and where the new emergency room is. This is -- huge capability.

One of the things we've learned is that you have to be able to adjust constantly to meet these schedules. As we were getting ready to move into the ICUs and open them up, we found that we were seeing an increasing number of patients with multiple amputations. And so, in the ICU rather than having wound V.A.C.s, you know, all over the floor we had three suction ports on the booms that are there in the ICU. You can see them kind of on the left-hand side of the critical care picture on the bottom left.

We went back and put in five and six ports. So, manufacture was able to come and adjust that so that we would be able to meet that capability. And so, it is a constant adjustment as you go. You order something and by the time it gets there, you pretty much need to think about can I modify it or will it be ready to go?

So some of the differences between Fort Belvoir and here. This is 50 ICU beds here, there's 10 ICU beds down at Fort Belvoir. Fort Belvoir truly is built as a community hospital and

not a medical center nor would we want to do that. If we want to run an integrated delivery system, there's no need to have medical centers within the same area -- a regional area of health care delivery. The renovations that are going on inside, part of what the Defense Health Board said, and is codified now in a statue, is that single patient rooms are world-class. In fact, every hospital of any significance in the region is moving to single-patient rooms, including Johns Hopkins. We get a lot of questions, you know, sometimes saying, well, isn't Johns Hopkins world-class? You know, can't -- hey, their facility isn't all that great, I've been in it. I've walked around there and I got great care. Well, hey, they're moving to single-patient rooms, I can tell you. They're in an extraordinary expansion mode in terms of their inpatient side. So, that's the standard now. And that's what we have to meet.

And there are a number of rooms that we're renovating, you can see that on the upper

left. That's one of the single-patient rooms. These are also going to be configured with Smart Suite technology, so that these will be the first hospitals -- Fort Belvoir will have it completely incorporated and we'll phase it in on the Bethesda campus.

So, an integrated IM/IT structure in the room. If a patient walks into the room, an RFID nametag, you walk into their room, it will on their screen tell them who you are and what you do, which is a patient's right to know. Who are you and what are you doing in their room?

It will also be able to have a screen up at the head of the bed, no charts down at the bottom. So clinicians, everybody else coming in will actually walk to the head of the bed to discuss the records with the patients. They will have extraordinary amount of information available. The beds are smart beds. If they fall out of the bed, it's going to send a signal to somebody. There are lifts in many of these rooms now, not just to assist patients in ambulating

into the bathroom, but also to assist staff in lifting them. Our largest occupational injury is back strain from lifting and turning patients that can't do that for themselves.

So, we've incorporated -- and once again, just a huge amount of redesign as we go; 340,000 square feet here being reconfigured. So, a lot of construction going on.

This is the Admin Center. You'll see on the left it's an Olympic-size pool, a 50-meter pool. Everything in the Department is funded through some funding stream or another. And there's, you know, opportunities for people to say, somebody else should pay the bill for that. This is one of the great discussions that we had that I think turned out in a very productive way. So, usually an installation is responsible for building the gym on the installation. And usually it's the staff that uses the gym and the pool.

And there was some sentiment that said, you know, those Wounded Warriors, they probably don't want to be seen out there in public and they

would probably, you know, be better off working out in the physical therapy spaces. So we went and talked to two Wounded Warriors. And they said, whoa, not so fast. What's different, you know, from me and any other soldier or Marine? I want to work out with everybody else. In fact, that's what I do half of my day, if I'm not doing anything else. And I want to do it in a great facility. And so we were able to get the funding here.

This is part of the Healing Campus. It's not solely directed at patients or staff, and we are adjusting to this whole concept of having people that are on our campus for a year or more to go through those phases of intermediate rehabilitation that we never used to do for them.

So, we're adjusting, and that's one of the adjustments, I think, that was really fabulous. It's got an indoor track. You wouldn't believe how much time our Wounded Warriors spend working out. It's one of their resiliency mechanisms and it works as a lot of stress relief.

This is also, for those of you interested in history, that front façade of the building you see in the upper right was the old Naval Research Command. And that's where all of the diving tables, including the saturation diving tables in use today, were developed over the years. So, a lot of history was sitting there as an empty building. It was a historic building, and so we had to preserve the façade. But they've added -- see on that left-hand upper picture -- all of the things that come off of the back of that building.

This is that new Wounded Warrior lodging and this whole concept of intermediate rehabilitation. Part of what we do now is to put people into basically a hotel room, and you live in a hotel room with whoever you're living with for a year. That gets tired pretty quick and -- without pretty committed people. And so you'll see on the bottom right that these are done as 152 suites. So, these are two-bedroom suites with a completely ADA-compliant design.

We also found out that ADA is not one size that fits all. And so, once again, we brought the Wounded Warriors over, and if you'll take a look at that bed that's, you know, on the right-hand side, that upper-left picture there, just a bed. Wounded Warriors -- if you're a Wounded Warrior with a prosthetic, you probably want a higher bed. If you're a Wounded Warrior who is in a wheelchair undergoing limb salvage, you want a lower bed. If you're a Wounded Warrior that has a spouse, you probably want a bigger bed, a wider bed. And so, we are accommodating all of those requirements, trying to put them in.

But it's not just the ADA rules, it's how you apply them in the individual case. So, you know, as people come out of the inpatient facility and move in here as they try to return to activities of daily living, we will be able to accommodate their needs.

But also, they may have a need for a non-medical attendant. And you know, this is something that we are still working with very

much, but that non-medical attendant, should they not be a spouse, will also have the opportunity to live in this suite and be with them. Because just because we did discharge somebody from inpatient doesn't mean that they're ready to go be on their own out here, necessarily.

And so this is an adjustment. We are going to have some of these rehab patients that are on Active Duty for the rest of their career. Just because they have a prosthetic doesn't mean, now, that they're getting out of the Army or the Marine Corps. And so, they're going to be our patients for some time. It's going to take us a while to rehab them, and this is how we're doing it. So I think that this is an extraordinary achievement to that mission. It's really going to be a great place.

Parking, parking, parking. Wow. On the campus, you know, we are actually -- off of the back of our campus is a tangent of the Beltway. So, we live inside the Beltway, which means we're subject to the National Capitol Planning

Commission rules. And we have also got the State Historic Preservation Office for Maryland and a lot of other folks to work through. But they have ratios -- parking ratios that they put up.

We're also right across the street from a Metro station. And so, just let me say, parking is always, you know, an issue. But we're building a lot of parking and we're building more. And we're still probably going to need more parking.

This is what's going on out there at Fort Belvoir. Parking garages on either end. Clinic buildings with those swoops on top, and those swoops are also water collectors. They also cover the heating and cooling equipment that's on the roof. But they collect rainwater, put it into cisterns down in-between the buildings, and we water green spaces with that water that are in-between the buildings. Another one of those evidence-based design features.

This is a beautiful hospital. If you're driving by and you drive by there, you would never think that this is a military hospital in any way,

shape, or form. This is the leading exponent -- proponent of evidence-based design as a hospital in the country. If there was a proven evidence-based design feature at the time, it was included into this design. So this shows you how fitting going on [sic]. It has a number of capabilities, which are not at Fort Belvoir now: specialty care, including radiation oncology. You can see a linear accelerator there and a lot of other new community hospital types of services.

This is the inpatient tower, Building C, so you have those outpatient buildings where all the clinics are and then this inpatient tower. On the inpatient tower, we're really working to finish this. In fact, we've learned from private sector -- we didn't build any hospitals in the military health system for 10 years. We came in with this one.

What we found out is that private sector time is money. We interpret that as time is mission and so in order to finish these projects, we have overlapped things. It used to be we'd do

design for two years and then we'd have a blueprint and, you know, as soon as we finished the blueprint it would be out of date in less then a year. But then we would be beginning construction and we'd have to go back and modify the blueprint. So here we overlapped the design and building and now, at the end, we've learned to overlap construction outfitting and training as we go in order to meet the timelines.

This is a lodging that's going to go in for Wounded Warriors down at Fort Belvoir, 288 rooms. These are not completely -- all of these rooms are not built as ADA-compliant rooms. A lot of ambulatory patients will be here who don't need ADA-compliant rooms and so this is built primarily to accommodate their needs, although there are sufficient ADA rooms should we need them.

These are some of the things that we're doing to get ready for transition. This is a pretty big transition, we've got 9,000 people that work amongst these hospitals and all of them are moving at one point in time. Many of them have

already moved within the Bethesda campus, but we've got about 5,000 people moving out of Walter Reed into these other 2 campuses yet to go.

So we're taking a hard look at the MEDEVACs, how we do that. There will come a point in time when we'll divert the casualty flow, all those C-17s that are coming into Andrews. They will go to Bethesda. We'll begin clinic relocations and then we'll relocate the Wounded Warriors and, lastly, we'll relocate the inpatients.

We've taken a hard look. We've taken a look at casualty estimates, classified casualty estimates from CENTCOM, and we anticipate no detriment to casualty care during the transition.

We had an exercise on Sunday on how to move patients. There's no lack of interest, so for an exercise we had CBS, National Public Radio, and various others show up and watch us, you know, work through the exercise. Best practice out there, we're working with the same people that did the relocation at UCLA. And so, they moved about

350 patients there in 5 hours and so here we anticipate relocating 150 inpatients. Keeping it simple, they'll all move from Walter Reed to Bethesda and we've got a whole plan on the way to do that. So, it's kind of neat.

Okay, that's a lot about the BRAC, so what happens, you know, after the BRAC? Just as a reminder, those things that are in kind of in red, those things that were the older part of the chassis on the medical center, so we're working through what needs to be done with the rest of that.

So we had the comprehensive master plan. It identified the facility projects. Basically, we needed to construct 560,000 square feet while we demolished 325. This adds no new capability or functions, it just provides the space that we needed to, number one, relocate those things out of the inpatient building that we have to, to get to single-patient rooms there, and to get up to current space standards on those things that are already existing.

The Navy's begun the NEPA process. The funding is in the President's budget, and so the projects would begin in '12, they'd be completed by Fiscal Year '18. So that's more work within our working hospital, within a very large working medical center. The good news is we have a way to do it.

We have objectives I've talked to you about before that we're going to work with. A schedule -- this is a little bit about the design concept. You'll see the tower there in the middle, all those things that are behind the tower would basically be demolished and we have to reconstruct that part. It's grown in no necessarily coherent way over the years, so demolish it, take it out, and then put in a building behind it.

National Capitol Planning Commission -- you'll see that the tower building in the middle -- in those two shoulders just off to the left and the right of the tower, from the architectural perspective there's a view shed so that nothing

should exceed the height of those shoulders, so that that new outpatient building and the new inpatient additions are the height of that shoulder, so that it maintains the picture. But as you look up from Wisconsin Avenue, there's a little bit of room back there, but nothing can peek up, if you will, behind those shoulders in this new construction. So it's built to have a portion that stays behind the tower that's a little bit higher, but the rest of the building would be behind those shoulders. So, a very challenging concept, but that's how to finish up.

And what it means for circulation in the Mall of the Americas-size building is basically there's a right-hand side -- you'll see it starts to rationalize the North/South and East/West approaches, so that you're able to get across the campus in a coherent way, and provide patient amenities as we go.

Okay, a couple of other items I wanted to update you on. The National Intrepid Center of Excellence had opened. It's now achieved its full

clinical caseload as of February, so they have at any given point in time 20 patients that are in there. They've worked out their schedule so that each patient and family is now there for just about two and a half weeks as they undergo extensive evaluation and education protocols. Joint Pathology Center became operational on the 1st of April and began its clinical mission. And so AFIP is providing support until the JCP reaches full operating capability. Basically, the staff crosses over between these two until AFIP closes and then there's the transfer of work over to the Joint Pathology Center.

We have Manning Documents approved now for the new hospitals. We're working on finishing the world class operating rooms at Bethesda and the renovations and we are going to have a joint medical network that allows us to, particularly, move images, but it will also provide a common desktop, single log-on, universal directory, all of the other things that we can't do right now. If you're at Walter Reed and you want to look up

somebody in Bethesda, you can't do it. You have to call them and ask them what their e-mail address is.

If you want to move an image from Bethesda to either Andrews or Fort Belvoir, it takes about two hours. I can actually drive an X-ray right now around the region faster than I can move it. Why? It's because you've got a bump across a lot of different protocols, security protocols. You've got to get in to the NIPRNet and compete for broadband space, and then you have to have an assistant administrator pull it out of the other side. It's pretty hard.

So the Joint Medical Network will allow us to actually just look at the image. It's going to be a great improvement. So the BRAC is going on. We're currently on schedule to complete the transition. Casualty care, patient safety remain our top priorities and I tell everyone, I am under no compulsion from my boss, the Deputy Secretary, to do anything that would put casualty care or patient safety at any risk at all.

So we do have a legal obligation to complete the BRAC. However, if casualty care or patient safety were at risk, we would certainly weigh, you know, on the side of maintaining casualty care and patient safety. However, that said, these are such great facilities that we want to get into them as quick as we can. Nobody likes to move. Nobody likes change, but we've all got to and it's going to be much better for our patients after we do it.

We're committed to fulfilling the requirements of the NDAA mandate to make this a world class facility and we are committed to making sure we have the most effective and efficient health care system that we can, after the BRAC is over.

So, that's a lot of update for you. It's been a long journey for the last three and a half years. It's unbelievable to me that there was no steel up on any of these projects three and a half years ago and here we are today. It's been an extraordinary journey and we appreciate all of

the support that you've had. I'd love to answer any questions that you might have about any of these projects.

I see Dr. O'Leary there. You know, Dr. O'Leary, this was --

DR. O'LEARY: This is amazing.

VADM MATECZUN: The Joint Commission -- actually, in the last two months the Joint Commission has been at every one of the MCR hospitals. So they've been to Walter Reed --

DR. O'LEARY: Good.

VADM MATECZUN: -- they've been to Bethesda, and they've come back to look at the new facilities at Bethesda. They were just out at Andrews Air Force Base and last year they were at Fort Belvoir-DeWitt. So they were very laudatory and each of those hospitals got the best marks that its ever had. And so I think sometimes we worry -- we'll lose focus, they'll lose focus. They won't be able to do it. You know, patient safety is at risk. What we found is, you know, it has actually focused us in an extraordinary way as

we move from place to place on those things that are routine. Where's the crash cart? Where all of the other things? How are we taking care of this patient? You know, we've become intensely focused, so we're pretty proud of that.

DR. O'LEARY: Well, the whole idea was to take this organization well beyond what the Joint Commission expected and I think what you have achieved in this relatively brief timeframe is really extraordinary. Of course, there's more work to do, but this is really a very uplifting presentation. We really appreciate it.

DR. HOVDA: Yes, Dave Hovda from UCLA. I can -- having lived through this, I can't tell you what to expect from the perspective of moving down the street, but I can tell you the enthusiasm of the staff of moving patients into a brand new facility. It actually improved the quality of care, we believe, because everybody got excited about making this work and they were going to make this work. And I commend you and your office and you personally for this dedication to make this

happen. This is wonderful.

VADM MATECZUN: Thanks. You know, when we talked with -- when we went out to UCLA and talked to a lot of folks out there, one of our questions was, so is it hard to change a unit, you know, while you're doing this?

And they said, you better change before -- you know, while you're doing it and before because afterwards it gets really hard.

DR. O'LEARY: Yeah, we took it as an opportunity to break some old ruts that were in a lot of departments and a lot of medical services. And we said, you know something? Not only are we going to change buildings, we're going to change the way we provide care for people. And for some of my colleagues who were resistant -- I'm trying to be diplomatic. This was really nice, clean-cut and it was like starting a whole new relationship, so you have a wonderful opportunity.

DR. BULLOCK: What will be the net change in the number of beds with the move?

VADM MATECZUN: The BRAC law kept the

number of beds constant, and so it is 345 beds across the facilities. That's constant. About 345, plus 120. I'm sorry.

DR. DICKEY: Admiral, I apologize. You may have told us, is this a single record between the two hospitals, and the entire Capitol Region? So you talked about the current difficulty of transporting images, what about the medical record itself?

VADM MATECZUN: Well, we already -- we send our electronic health record information to AHLTA servers that have one common repository. So our problem is reaching it in a consistent way. If it depends on where it is in the network and what enclave you have to try to get to, to get to it. What this does is to consolidate all of the data, if you will, in an accessible way.

DR. DICKEY: What about the ability of the veterans versus the military hospitals to talk back and forth?

VADM MATECZUN: The secretaries -- Secretary Shinseki and Secretary Gates -- have

personal initiatives on this. They're getting ready to meet again, with an electronic health record way ahead for both departments.

DR. DICKEY: That will be nationwide?

VADM MATECZUN: Nationwide for the DoD and the DVA.

DR. DICKEY: Great, great. Other questions or comments?

GEN FRANKS: I just want to comment. I echo what the Admiral said. I've had the opportunity to make a kind of a stealth visit up there last Thursday, into the Amputee Care Facility, escorted by Chuck Scoville. The Admiral mentioned it. And I applaud what they've done. Listening to the best what you call evidence-based design for amputee rehab, prosthetic lab computer-assisted rehab environment, firearms training simulator, a pool, probably the best from the prosthetists themselves, glad to build prosthetic devices of anywhere in the country, so I really applaud what they've done.

And from someone who dug the first

shovel full of dirt for that MATC at Walter Reed, I applaud what you all have done up there, Admiral. Thanks a lot for all the amputees.

VADM MATECZUN: We think that we're keeping our covenant with America's sons and daughters that have put their lives at risk for us.

DR. DICKEY: We thank you very much, not only for the presentation, but for the extraordinary leadership you've provided to get through this. Obviously, a huge amount of work has occurred in a very short period of time.

VADM MATECZUN: Thank you. And thank you for the support of the Board. (Applause)

DR. DICKEY: Now let me disappoint you. I would recommend that we forego our break and let each of you to get up and refresh you coffee or tea as you need to. We're still a little behind schedule. If we do that, we'll be a little closer, so if we can go immediately to our next briefing by Mr. Leonard Litton.

Mr. Litton serves as an Operations

Research Analyst for the Director of Operational Readiness and Safety at the office of the Secretary of Defense. In this capacity he provides analyses on various issues pertaining to the Department of Defense's safety and operational readiness programs, including aviation and ground safety programs, as well as enhancement initiatives.

He's currently leading a Department-wide effort to respond to the congressionally mandated final report of the DoD Task Force on the Prevention of Suicide by Members of the Armed Forces. Previously, Mr. Litton served 25 years on Active Duty in the United States Air Force and retired as a Colonel in October 2010. He's going to provide an information brief regarding the Department's response and implementation of the recommendations from the DoD Task Force on Prevention of Suicide by Members of the Armed Forces and his slides are under Tab 9 of your meeting binders.

Mr. Litton, we're delighted to have you

with us and look forward to your update. Thank you.

MR. LITTON: Okay, I'm here just to give you an update on the Department's response to the DoD Task Force Report on Suicide Prevention. Just to familiarize yourselves with the language that came from Congress in the '09 NDAA, if you're not that familiar with it, was that the Secretary of Defense shall establish the Task Force to examine this matter and, 12 months later, the Task Force's task, if you will, was to produce a report on that subject.

OSD Personnel Readiness has been delegated the responsibility to follow through on the back end of this and transmit the report to Congress, which has been done. And then the second bullet there is develop a plan based on those recommendations, basically, if you will, to answer the matter.

The Department feels that the report provided an excellent overview of the suicide issue. It was very comprehensive and really it

has served as a catalyst for a comprehensive review across the Department of all policies and programs that deal with the suicide prevention issue. It can take 49 findings, 13 foundational recommendations, and 76 targeted or more detailed recommendations. The Department felt like this very comprehensive report required a very comprehensive review process.

We didn't feel like we could do this quickly and do it justice, so we devised a charter to regulate the response process and really took it in a phased approach. An initial response to Congress was transmitted on March 2011 that really dealt at a pretty high level -- the 13 foundational recommendations -- and really what we tried to do there was set a vector on whether the Department would look further for improvements.

We're targeting 30 September for our final implementation plan based on those 76 detailed recommendations. And then, if you're familiar with the report, you know that it really talks about a lack of a governance entity -- or

governance structure at the OSD level to provide that strategic direction and oversight for suicide prevention on the Department. And we're targeting the 1st of October to begin that process.

As far as the review process, we have a Tier 1 working group. It's made up of a core group that has seven individuals, six others that advised myself, and a matrix group, really, that comprises stakeholders across the Services and the Department that provide input.

Tier 2, a General Officer's Steering Committee in which we take recommendations to discuss as far as how we're going to move forward on those 76 target recommendations. And then at Tier 3, an executive group chaired by Dr. Stanley the USD(P&R).

Phase I was basically to give a general overview of the report and comment on those 13 foundational recommendations, and provide that to the congressional committees as directed to give them just an overview and, really, a sense that we were working this report and that we were working

it hard.

This is kind of a depiction of the core group of seven members, as I talked about, and really the matrix group of the other stakeholders outside providing input to these recommendations. Really, what we're trying to do is build consensus across the Department and make sure that everyone that has a stake in this report gets their voice heard.

This is a snapshot of basically what the Department evaluated in Phase I. Foundational recommendation number 1, and 5 through 13, the Department said, you know what? We are not totally meeting the intent of that recommendation, we're going to investigate further. For recommendations 2, 3, and 4, the Department decided that we've got the train on the right track, we believe we're meeting the intent of the Task Force's recommendation there and we're going to continue the actions we currently have in place, or planned, to meet the intent.

So what we decided was that we would not

really further investigate those targeted recommendations that were related to 2, 3, and 4. However, for the rest of them, we would continue the investigation.

For Phase II, that's the process we're in now. We're taking each one of those targeted recommendations and vetting them across the core group and the Job Steering Committee to bend them, really, into one of four categories: “Accept For Action,” which means the Department believes we don't meet the full intent of that recommendation and we believe there's more work to be done; “No Further Action Required,” which we believe we've got it down, either the actions we have in place or are going to have in place very soon, are going to meet the intent of that recommendation; category number 3, being “Deferred To Another Department,” which either we didn't fill out -- it was within DoD's purview or it was better executed by another department, we haven't found any of those yet; and category number 4, would being “No Action Directed,” which will be for whatever

reason, resources, whatever the reason may be, we're not going to take any action on that recommendation.

The end state of Phase II, again, will be, hopefully, twofold: An internal Department document that will be in a lot of detail on basically who's doing what, how much it's going to cost, and when we're going to have it done; and then a report to Congress, to congressional committees, as the NDA language requires to let them know where we're moving forward. And it will probably not have as much detail because it's just not needed.

And then, Phase III, the 1st of October to -- you know, if you've read the report, it does recommend an OSD Suicide Prevention Policy Division or Office. To tell you the truth, that concept is really still taking form, but there is going to be a phased oversight entity to meet the intent of that recommendation. Exactly what it's going to be, I can't tell you yet.

As far as the current progress, the

Working Group -- core group -- has met multiple times. The General Steering Committee has met six times to review these recommendations. We've reviewed all the 13 foundational recommendations. At this point, we've reviewed 39 or the 76 target recommendations.

As just kind of an overview, general consensus is emerging on that entity focused on suicide prevention at the OSD level. I think most stakeholders believe that is something that would add value provided that we do it right. I know the Services do have some concerns about getting in too much detail and not infringing upon the unique culture of the four Services and I think most people agree that that's the right approach to take.

A strategic communication effort that would really get at I call it two sides of the coin: one the stigma piece and the other side the wellness piece, so we're attacking that from both sides. Data collection and standardization, we've made a lot of progress there, but there's still a

long way to go -- particularly on a lot of seams and, in particular, between us and the VA.

And then a comprehensive training strategy and plan. The Services moved out smartly as far as training goes, but there are a lot of subgroups that the Task Force report identified that we still need to make sure we're focused on: that they have the right training, that they have the right objectives, and that we make sure that we provide it in the medium that best achieves those objectives and how adults learn. So we think there's some more work to do there.

As a quick overview of where we are with responding to that report, I'd be happy to take your questions, ma'am.

DR. DICKEY: Thank you for that excellent update. Questions, comments? I think we've worn them out.

MR. LITTON: I put everybody to sleep. All right. (Laughter)

DR. DICKEY: I know that most of them are very familiar with the report, so surely that

can't mean they have no concerns about it moving forward? I presume we will continue to get updated reports as you continue moving through the recommendations, as well as the number of them that are in the “Accept For Action,” meaning you're going to continue to develop those. We'll get follow-ups on those?

MR. LITTON: Yes, ma'am.

DR. DICKEY: Dr. Certain.

DR. CERTAIN: I appreciate your response. I was on the Task Force and the Army came out with its report just weeks before ours, and the RAND report's out now. Are they fairly consistent across the board and are able to expand on what you're doing by using the other two reports at the same time?

MR. LITTON: Yes, sir. I have read both reports and there are a number of consistencies, if you will. The findings that your Board, the Task Force found, resonates with the Army report and with RAND's report as well. So we have a matrix that tracks those recommendations as well

and so several of them will be right across the board.

DR. CERTAIN: God bless.

DR. DICKEY: Thank you. Any other questions or comments? Again, we thank you for the work and we recognize that it's a long path ahead.

MR. LITTON: Yes, ma'am. Thank you.

DR. DICKEY: Thank you.

SPEAKER: Dr. Dinneen is not here yet, so we'll have to take a break.

DR. DICKEY: I know I'm going to break your heart. Dr. Dinneen is not here yet --

SPEAKER: There he is.

DR. DICKEY: No, no. We don't have to take a break. (Laughter) So, if you'll stay close so that when he gets here we can convene relatively quickly, let's look at maybe a 10-minute break. Don't go too far.

SPEAKER: Yeah, he's right around the corner.

(Recess)

DR. DICKEY: I want to welcome our last speaker of the day, Dr. Michael Dinneen. Dr. Dinneen, I think we're going to end on an energetic high note, right?

We are going to have the pleasure of hearing from Dr. Dinneen, who is currently serving as the Director of the Office of Strategic Management for Military Health System, a position he assumed after retiring from the U.S. Navy in January of '05. He's responsible for developing and monitoring the implementation of the Strategic Plan for the Military Health System. And as a participant in health policy development, Dr. Dinneen serves on various committees, including those under the Institute of Medicine, the Harvard Health Care Delivery Program, and the Center for the Study of the Presidency and Congress.

He's going to give us an information brief regarding DoD's response to evidence-based metrics established to monitor and improve the performance of the military health system. His slides can be found under Slide 10 in your meeting

binders. We're delighted to have you and look forward to your comments. Thank you.

DR. DINNEEN: So, first of all, there are no slides in Slide 10, but I gave out just two pieces --

DR. DICKEY: But they're all right here.

DR. DINNEEN: -- just two pieces of paper.

DR. DICKEY: See, you guys like him already. There's just two pieces of paper there, right?

DR. DINNEEN: And if folks would like the full set of slides I show you today, I'll be happy to forward those.

It's a great pleasure to be here and I'm so glad Mr. Middleton's here because what I'm going to talk about today, the first section is, really thanks to him, an idea that he had a couple of years ago now, to be able to describe the strategy of the military health system of a single page. And so that page is what you see in your handout and also what you see on the slide up

here.

We've adopted as a vision something we call the “Quadruple Aim.” It defines where we're trying to go as an organization over the next several years. It's adapted from the model that was published by Dr. Don Berwick in Health Affairs in 2007, called the “Triple Aim.” And now, if you read a lot of what's coming out in terms of the national strategy in health, a lot of the Triple Aim concept is throughout many of the writings that are coming out of HHS now. So we feel that that gives us a good alignment with other federal partners as well as where health care is going.

The components of the Quadruple Aim for us, our readiness, which is at the core of our mission. And then it's -- the easy way to remember it is better health, better health care, and lower per capita costs. What I'd like to talk about today is how we're attempting to measure our success in reaching the Quadruple Aim, particularly I'd like to focus in on, in the second and third portion of this, population

health. Because I think that one of the areas that there's been the most dialogue around in the last six months is how do we understand our major transformation from going from health care to health or some would even say sick care to health?

That right now the focus of measurement and the focus of dollars is on taking care of people with severe illness, and yet the focus of being able to keep people healthy and reduce the burden of illness is a harder thing to get our heads around. So I think most of the effort that you'll see in our measures development currently is around measuring population health, particularly psychological health.

And I think that's because it is reflective of the difficulty everybody has in understanding how to measure and improve population health. Now this may be no new news to all the people in the room that are in the field of public health, but for us it's been a real interesting challenge. So I'd like to orient you to this chart. First of all, how many of you have

seen this before?

A few. Okay, so it's all right to orient you. Let me just walk you from left to right on this. On the left you'll see that the very left-hand column is the four elements of the Quadruple Aim: readiness, population health, experience of care, and per capita cost. You'll also see a section called “Learning and Growth,” which is about our ability to have sustainable success.

The next column is called strategic imperative, and where that came from is over the last couple of years the Surgeons General have been meeting with the senior policy leaders -- the Assistant Secretary as well as the DASD -- in quarterly meetings to update our strategic plan and out of that work came a set of strategic imperatives that said, these are the key areas where we need to see significant improvement.

So, in that large area that you would call, for instance, population health, right now we believe the biggest challenge we've got is to

engage patients in healthy behaviors. There are other things we could do in population health, but right now engaging patients in healthy behaviors, particularly increasing activity, reducing rates of obesity, and addressing things like alcohol use and risky behaviors.

In the area of experience of care we felt there was a need to focus in on delivering evidence. Base care, addressing specifically the needs of wounded, ill, and injured, particularly fixing the disability evaluation system, optimizing access to care, and promoting patient centeredness. So, of all the things we could do, the imperatives are those few that actually will get, we believe, the greatest movement towards achieving the Quadruple Aim.

You'll see down at the bottom, we don't talk about the electronic health record directly, we talk about enabling better decisions. Enabling better decisions, physicians and caregivers enabling better decisions on the part of patients. And then fostering innovation and developing our

people.

The next column over is executive sponsor and this has been important. You'll notice that those acronyms stand for committees that are at the two-star level, that are chaired by one of the senior policy people in the organization. So, for instance, Dr. Lockette, who is here, is chairing the Clinical Proponency Steering Committee, the CPSC. That committee has responsibility for oversight of the measures that are beside the CPSC -- monitoring, and then ensuring that there are programs in place to achieve the targets that have been set.

The next column over -- and we'll spend some time on this, hopefully in response to your thoughts -- are the performance measures. The challenge in any organization is to get a set of measures that are somewhat comprehensive, but not overwhelming in number. And we think we're sort of at the limit of what is a reasonable number of measures right now. The measures with the arrows are the ones that were presented just this past

April to the senior leadership for approval to either take the place of a prior measure or fill in a blank, because what we started with, actually, is what we want to accomplish and then we said, how would we measure it.

So we actually went to the imperatives first, developed the measures second, and then this sort of Verizon bars that you see in the middle is how far along are we in the development of each of those measures. If all of the bars are completed, that means we have the concept, we have an algorithm, we have performance data from at least 2 or 3 years, and we have targets set for Fiscal Year '11, '12, and '14.

And then, finally, you'll see -- moving across you'll see what our previous performance was. That was the quarter before April, the current performance and either improvement or decline in performance. Then we have targets set for -- well, the tenor there because we had sort of graded ourselves on last year, but then '11, '12, and '14. And most recently, in response to a

Strategy Management Initiative from the Undersecretary for Personnel and Readiness, we now have a portfolio of initiatives. So, in order to achieve those targets, on the very right hand side of this chart you'll see the set of initiatives that are in place that are intended to move the organization in the direction of achieving these performance targets.

So, for instance, one of these is the patient-centered medical home, which is about five up from the bottom. And you'll see there that it's got a full circle, so that means that if the circle is there it means the initiative has been designed, it's been approved by senior leadership, and it's been funding in the out years through the POM.

So, we're using this mechanism, actually, to align the budget with the strategy and ultimately what we want to show is that each of those initiatives is fully fleshed out and fully funded through the POM. The other thing that's happening as a result of having this

particular way to describe what we're working on, on strategy, is that it's allowing us to align the IM/IT portfolio with our strategic initiatives as well.

So do we have the IM/IT automation to support getting the outcomes we desire from each of these initiatives, which will then drive those improvements in performance? So, a complicated slide, but we've tried to use the design concepts of Dr. Tufte -- if anybody's familiar with that -- so that you can actually reach your own conclusions by looking at this of how well are we doing in achieving our strategy and sort of where are we falling short? Where do we have a long way to go?

What I thought I would do now is actually see if any of you are interested in seeing the data that supports these measures. I know you might be interested in the psychological health measure, but if there are any other measures you'd like to see -- each of the measures is hyperlinked to the actual data which describes

how we're doing and how we've been doing, and how big a problem we've got. If anybody has an idea, I'd be happy to go --

DR. DICKEY: Dr. Dinneen, I think it was maybe one or two meetings ago we heard a very nice presentation about population health, so maybe you can link us to the obesity documentation, particularly for, I presume, it would be the adults.

DR. DINNEEN: Very good, so --

DR. DICKEY: So we've heard about the new enlistees.

DR. DINNEEN: So here is the data. And this is actually an effort to come up with a measure that is actionable. So the rate of obesity itself we had been showing for a couple of quarters, but people sort of said, well, what can you really do about that? That doesn't change that quickly.

On the other hand, what this is showing is that on the left-hand side, what you'll see is folks with a BMI of 25 to 29. And then what you

see for Army/Navy/Air Force under direct care -- actually for all of direct care -- the question is, if somebody has a BMI of 25 to 29, do they have in their record a problem that says this person has a problem called overweight. And in 17 percent of the cases, they have a problem listed.

And then on the other side it's where you have a BMI greater than 30. Do you have a problem in your problem list that says, this person has a problem with their weight? And so, in 54 percent of the cases, we have a problem in the problem list. And in terms of something being actionable, we think this is pretty actionable. So I was recently out at several of our MTFs and I mentioned this -- showed this data to a couple of the doctors and they said, of course, we don't write that down. And I said, how come? And they said, well, if we did we wouldn't know what to do about it and we don't want to insult the patients. And also it's -- you know, many of these people it's -- a BMI is a bad measure, so we really don't consider that a problem.

So we really think that this is actually a useful exercise to engage the dialogue between the health care professionals of whether we're serious about addressing this issue. We talk about the obesity epidemic, but are we going to have a personal conversation with people about whether that's a problem for them?

To give you an example, just to drive it home a little bit further, I was hospitalized about a year and a half ago with an arrhythmia and at that hospitalization, nobody talked to me about my weight. And at that time I was 204 pounds. I'm now about 186 and nobody said anything about my weight and I was pushing obesity at that point. I was 29 on the BMI and, you know, that's a great opportunity to get somebody when they have a life-threatening something to say, you know, you really have got to lose some weight. So we think this is useful and you'll notice that we've signed up for a target of 75 percent this year.

DR. DICKEY: That's not the target of getting you to reduce your weight, it's just the

target of getting the health care provider to list it as a problem?

DR. DINNEEN: Yes. Right. And it's definitely a process measure at this point in time.

DR. DICKEY: Dr. Anderson?

DR. ANDERSON: So, this reminds me of a recent discussion I got involved in on this very issue on obesity, and particularly on BMI.

DR. DINNEEN: Yes.

DR. ANDERSON: So what the experts informed me of is, well, that's not all that great a metric because it's a lagging indicator. What you want to do is drill down and start looking in nutrition and exercise and all the contributing factors. So the question is, you're tracking this, but this very well might be, you know, for you -- obviously you're intention was reached, but for those in the population whose attention isn't reached, you may need to be looking at some secondary indicators that might get you the information earlier.

DR. DINNEEN: Yes, I think that's such a good point. We're in an active collaboration with a number of the health care systems now and one of the ones that's been fascinating is our collaboration with Kaiser Permanente. They have this concept -- I think which, again, they stole from the Institute for Health Care Improvement -- with what they call the “Big Dots” and the “Little Dots.” So we do think that at the enterprise level, looking at a lagging indicator strategically makes sense. But then we have to connect it to the Little Dots, if you will, that are the drivers of those lagging indicators. And we're actually working fairly closely now with the folks at the Population Health Portal to be developing explicitly those cause-effect relationships, so we can actually test the hypothesis of whether the Little Dots actually drive the Big Dots.

DR. ANDERSON: Yeah, and again, George Anderson speaking, but to state the obvious here, your actual programmatic energy needs to go into

those Little Dots.

DR. DINNEEN: Absolutely. And I think that's where you'll see here -- I'd actually like to show you one so that we can show you some of that work applied to population health -- is the second portion of what I'd like to share today, but --

DR. DICKEY: But before you go on, because we've got several questions.

DR. DINNEEN: Sure.

DR. DICKEY: You've obviously wakened the group up. Dr. O'Leary?

DR. O'LEARY: Yeah, I may not be interpreting this correctly, but it seems like in a number of the target areas, the aspirations are quite modest. (Laughter)

DR. DINNEEN: Could you give me an example?

DR. O'LEARY: I mean, like, take the two under Promote Patient Centeredness. You know, where --

DR. DINNEEN: So let's look at

Percentage of Visits (inaudible), their primary care manager. Can I go to that?

DR. O'LEARY: And the satisfaction makeup.

DR. DINNEEN: Let's go to the data here. This has been an enormous effort on the part of the Services to get this to move to 51 percent from approximately 40 percent. And if you look over here where we're now looking at, we're looking at variation on the right-hand side of this. So, in the Army, there's still a number of places where the likelihood that you'll see your primary care provider, if you have an assigned primary care provider, is 20 percent or less. When we started, the numbers were down in the teens in a number of places, even close to Washington, D.C.

You'll notice that the Air Force, that's been working on this issue for longer. They have a number of places that are up in the 80s. They're 78 to 80 percent, so 4 out of 5 times if you come in for primary care, you'll see your

doctor. And the variation is significantly less. The lower cites are in the 40s, so while the enterprise target because it's an average, is modest perhaps, the opportunity exists for -- because we have quite a bit of variation in the organization -- to really see significant change in those places that are very low. And lots of learning to occur between the places that are very high and the ones that are very low.

DR. O'LEARY: I would just observe that if you set your target higher, the opportunity is even greater.

DR. DINNEEN: Well, one of the issues -- and I think it's a very, very good point -- one of the issues we run into, though, is disillusioning people. And that we have in the past set some high targets for things and they were just unobtainable. And people knew that and so at some level it -- I've coached soccer and one of the biggest things that you learn as a soccer coach -- and I don't know if this applies directly, but I think of it on occasion -- is that you set up a

game for the players to play and if you make it too difficult, if it's above their capability, they won't work as hard. But if you make it so it's just out of their reach, they will want to get to that target. And our aspirational goals are very high, but the near-term goals have to be reasonable or we will lose the attention of our folks.

DR. O'LEARY: One last question. How often do you review these targets? And if you are trying to keep nudging people up, do you review the targets every year or every several years?

DR. DINNEEN: We review all the targets once a year and we review the performance once a quarter with the senior leadership. So the last review of the targets was this past November.

DR. DICKEY: Great.

DR. DINNEEN: Although some of the measures are somewhat new.

DR. DICKEY: Dr. Johannigman?

DR. DINNEEN: I was --

DR. DICKEY: Oh, you -- okay.

DR. DINNEEN: Oh, sorry.

DR. DICKEY: Great. Jay?

DR. JOHANNIGMAN: Yeah, it would seem like some of these are excellent opportunities to take it one step further and actually use the medical record and information technologies. I'm puzzled by the lack of reporting of obesity. If I understand correctly, when you report to an MTF you get vital signs, height and weight taken. If those were simply entered into your database, the BMI is calculated and, as a provider, when I come up and see my medical record and step into the room, obesity ought to be -- overweight ought to be flashing in yellow and obesity ought to be flashing in red. And if I'm not compliant, then I should have a red mark on my provider information set because I didn't do this.

I mean, it seems like we're only taking this half of the way and most of this is simply pushing information technology where the medical record is supposed to take us.

DR. DINNEEN: Right. And so, in the

meeting that Dr. Lockette chaired, where this was discussed at the Clinical Proponency Steering Committee, that exact issue came up -- and the CIO was in the room -- and the effort is now underway to do exactly that, to have the height and weight calculated BMI and present that to the provider when the provider sees the patient, so that the provider --

DR. JOHANNIGMAN: Not only that, but if I, as a patient, am in the obese BMI, then the database ought to be looking up my cholesterol. The database ought to be targeting my blood pressure. The database ought to be -- there's a bunch of triggers that ought to occur seamlessly.

You know, we have to take this down the full iteration and it would make it seamless. And I think you will find your providers will embrace that because it makes their life simpler and makes them a more thorough care provider.

DR. DINNEEN: We totally agree. It's all in the execution. Totally agree.

DR. DICKEY: Dr. Carmona?

DR. CARMONA: Just a brief comment about this. Almost a decade ago, the Surgeon Generals and I started working on this issue and one of the things that we found that seems to be repetitive is this: I guess, what I jokingly used to say, the one degree that I needed to be more effective as a Surgeon General was really that of an anthropologist because, ultimately, it comes down to culture.

And what I just heard today was not different than I heard almost a decade ago where -- both on the civilian side and the military side, where people didn't want to put that in. On the civilian side, well, I might get sued if I call somebody fat, plus this BMI doesn't work so well. On the military side it was more of, well, I'm worried about their careers. If I put this in there it could be a problem for promotion. It could be a problem for evaluation. So, again, as we spoke this morning, I see the barriers to entry of all of this good science, ultimately, is breaking a cultural barrier that doesn't allow us

to use the good science for the benefit of the troops.

DR. DICKEY: Interesting point. Good point. So, tell us how we overcome those barriers, Dr. Dinneen?

DR. DINNEEN: I do think your point is well taken. I have a daughter who's a sociologist and, particularly, she continues to remind me that quantitative information has to be linked with qualitative information. And one of the things that I was introduced to not long ago at Kaiser Permanente was they're trying to address this issue of readmissions, which, again, is one of our measures.

What they did at Kaiser Permanente, and they presented at our conference last year, was an ethnography of 600 admissions where what they did is they took the last 600 readmissions and they went to the homes of the patients with a video camera and video recorded what was going on in the home. And they learned that all the fancy discharge planning that was done was not nearly as

critical as what happened after the patient got home. And very specific things about reconciliation and medications, what telephone number they were given to call. And so the cultural barriers are not necessarily as high as you might think, if we get better at understanding at the one level -- at the individual level -- what's going on that leads to some of these outcomes.

What changed me to lose the 20 pounds wasn't the doctor telling me, it was my daughter telling me she was embarrassed to be in public with me. So, I mean, we have to sort of think through what are those barriers.

DR. DICKEY: Ouch.

DR. CARMONA: If I might just make -- Rich Carmona -- one more comment. We chased this for a number of years and until we started looking at the data and saw that one of the primary reasons young men and women were not retained on Active Duty had to do with obesity or the chronic disease associated with obesity, type 2 diabetes,

hypertension, hyperlipidemia, et cetera. So we found it is the most proficient accelerator or a cause of chronic disease.

It wasn't until we got wise, and then scheming with my fellow Surgeons General, that we figured science doesn't sell for science itself, but at the press conference when we spoke of obesity being a national security problem, it got traction. And then, of course, the questions followed.

What do you mean by this being a national security problem? Well, let's look at what's happening with recruitment and retention of both officers and enlisted personnel in the military. Let's look at workforce projections to the future. Let's look at cost of health care as it relates to obesity and chronic disease, both for the military and civilian. And then we started to get traction, but in the midst of two theaters of war, anthrax attacks, and everything else, it was really tough to get traction on this issue. Yet it may be one of the most important

that we have to move forward rapidly, both for cost and quality and care.

DR. DINNEEN: Yes, sir. The thing that comes to mind in that is the leadership we've had in the last few years in getting a much tighter relationship built between ourselves and Personnel and Readiness, and the fact that the partnerships that have to occur to address the population health issues are being built.

The other thing that's been extraordinary the last two years has just been the support we've gotten from Chairman Mullen and from the Secretary of Defense in addressing those issues. But I think it's understanding us as employer that might help us turn that corner -- that cultural corner you're talking about.

Perhaps I could -- if it would be all right if I could go to where we're going in the future, a little bit?

DR. DICKEY: Please.

DR. DINNEEN: And one thing -- this comes from some work we've been doing now with

Kaiser Permanente and what I'd like to show you is a few slides. This, again, is just reminding you of the Triple Aim.

These are measures now that are being proposed to really re-examine what we mean by population health and how we measure it. And this is Matt Stiefel's work from his work in IHI, as well as his work at Kaiser Permanente, so he would say that measuring population health -- and I haven't shown this before, so it's just open critique here, it's just an idea -- is that you really want to measure three different things to understand population health. You want to measure -- going from the bottom to the top -- a risk status, a health risk appraisal, and right now I think we do not in the military health system have a consistent health risk appraisal that we're getting on everybody.

We do the PDHA, PDHRA for Active Duty, but in terms of the total population we serve and then, the on-going measure of disease burden. So, last year we did a one-time look at the rate

of disease, but we should be measuring this on a regular basis so that population health is a combination of preventing illnesses from occurring, but also reducing the burden on the whole population by the diseases that do exist.

And then, third, it would be true outcomes. So are we measuring true outcomes in population health, both mortality and healthy life expectancy? And some of the work that some other systems are doing right now, they're actually getting at all of these measures. Not all at once, but in pieces. And so I'd like to show you a little bit of data about this, but also show you the model on a little bit more of a graphical format.

You'll just notice that experience of care and per capita cost are the other two elements of the Triple Aim, and for us it would add readiness as well.

So, what is population health? What influences? How do we measure it? How do we improve it?

Now this is a little bit busy, but I think it is really a nice way to depict understanding population health, and please stop me if this is common sense to everybody. But it wasn't to me, especially as somebody who is trying to measure this. So, working from left to right, if I could?

We know that we have to think about the genetic endowment, prevention and health promotion, socioeconomic factors, and physical environment as determinants. But then, in the middle, there are the main things that in some ways we can modify: resilience, hopefully; physiological risk factors; and behavioral risk factors. And I like it that we differentiate behavioral from physiological risks. So physiological risk being things like cholesterol. Behavioral things like unhealthy behaviors, people engaging in activities that could get them sick.

And then, as you move across, that moves you into disease and injury which either can result from those things in your environment or

from your behaviors and your risks. We should be able to measure that as an intermediate outcome and then states of health become the true outcome. So, how are we doing in terms of function? And how are we doing in terms of mortality?

And then, finally, as was mentioned when this was presented to conference, the Holy Grail of well-being, well-being being the larger concept of a combination of how I understand my life, how I'm feeling today, if you will, my self evaluation, and then how I evaluate my life in the context of what I expected. So, how I'm experiencing my life, how I'm evaluating my life becomes well-being. A broader concept.

So what's exciting about this to me is that there is the opportunity for us to expand what we have. If you'll notice on your paper there, what we have in population health is really just risky behaviors and screenings. What we need to do, probably, is increase those measures to then look at this other area of disease burden and mortality and healthy life that we have in our

population.

So, years of potential life lost, life expectancy. And what's fascinating is you can actually get to that with Social Security data and there are organizations that are doing it. So what I'm hopefully going to be proposing is that in our population health section, that we expand our measures to include true health outcomes, disease burden, and risk status. And that that's a strategic direction we need to go in if we're really going to be reporting out how we're doing in population health.

So you'll see that it kind of sets up that way. Risk status on the left, disease burden in the middle, health outcomes on the right. And then health outcomes feeding this overarching concept of well-being, as what Matt Stiefel would call the Holy Grail.

And I'd like to talk a little bit about well-being because there's pretty good science in that as well. So, could I just ask if there's any reactions to this as a model? Yes, sir?

DR. CARMONA: I like the model, I just have a question for you. Rich Carmona.

DR. DINNEEN: Yes, sir?

DR. CARMONA: Is, as we look at going from risk status to disease burden, what would you think about including epigenetics between the two? That is, environment influencing the genetic predisposition, which we're finding more about every single day, that epigenetics may prove to be even a lot more important as it relates to the -- you know, the genetic predisposition we know can be modified, but epigenetics is more or less the everyday tinkering of your genetic with on and off switches, and so on. Based on what you're breathing, what you're eating, what your exercise is, and so on.

DR. DINNEEN: That's a great idea, really.

DR. CARMONA: I'll pass that back to Matt today. Yes?

Dr. HIGGENBOTHAM: Eve Higgenbotham. To what extent -- because socioeconomic factors, we

know, is a significant driver in the private sector -- to what extent there is the endurance of those factors within the military health system. Since everyone has health care, are there some, you know, lingering impacters of socioeconomic status? And I guess that's one question.

The other question is whether or not we're minimizing that impact. I guess I'm assuming that it still is an impact if, you know, leaving it out of the individual risk factors in some ways?

DR. DINNEEN: Yes. In fact, in the third section I wanted to actually talk a little bit about that. So it may make sense -- it may introduce that concept right now and then we can come back to this if you want because I am respectful of your time.

So the third section is just the concept of well-being. If you haven't been introduced to this, it's a body of work that is also related to the positive psychology folks, so this is actually a model that is adapted from something Uwe

Reinhardt had -- the health care economist -- that goes from health care production processes leading to health care outcomes and then health being a contributor to well-being production processes, leading to well-being.

It's fairly simple at that level. And if we go to the next page -- I think I gave you this -- all the traditional things we focus on so heavily now that lead to health care production and health care outcomes, but I think we know from the work done by public health folks is that health care only contributes, in terms of health production, about 10 to 20 percent. And that, for instance, healthy behavior is 30 to 40 percent. Childhood development and education and the socioeconomic factors that you were mentioning are significant contributors to health outcomes.

But then, as you move up from -- and this would get so complicated if you tried to put all the feedback loops in, but basically -- so bear with me for a moment.

The folks, Dr. Diener and Dr. Keineman,

have been writing on this issue and have actually been studying for a number of years those things that contribute to or build well-being. And that literature suggests that although all of these contributors are important, it's actually your career, how you spend the majority of your day, that is the biggest contributor to overall well-being and whether you're satisfied and happy in going to work.

And the number that always comes out is that 20 percent of Americans will answer yes to the question, are you pleased about going to work today? The next social is the nature of your intimate relationships, so your family as well as your friends. Income and wealth, it's really about are you worrying about money? Do you have worries about your financial health? Health is the fourth and that's both psychological and physical. And then the fifth is community, and that's really about a sense of belonging to a bigger community that you contribute to.

And one of the things that's the biggest

driver, it turns out in this literature of well-being, is volunteerism. So do you volunteer your time? Do you play on a softball team? Do you contribute to a -- do you coach? Those kinds of -- as builders of well-being.

So, as we -- the reason I wanted to bring this up is that Dr. Stanley has actually published a strategic plan under Secretary of Defense for Personnel and Readiness. And the second of his five goals is actually improving the readiness and well-being of the force and their families. And we are a contributor to that, but now getting back to your question.

Do we have the right policies in place to maximize the well-being -- not the socioeconomic status -- of the force and their families? And so, there actually is some nice work done on this. Derek Bok, former President of Harvard, has written a book called, “The Politics of Happiness,” where he looks at the policy implications of actually trying to increase the well-being -- or they use that synonymously

with "happiness" -- of a population.

And we have a real opportunity in the Department of Defense to say do we have the right alignment of programs, including health, that along with a benefit structure, along with our community programs, what we're doing in our commissaries, what we're doing in our schools to build the well-being of the force and their families?

And so I'm very pleased to say he has authorized the organization to go out and measure well-being, using the standard way it's being measured by Gallup. And Gallup is now involved in this program where they're measuring well-being every day. A thousand people in America, every day, for 25 years. So we'll have data on the Department of Defense probably in about four months. We don't know if we'll use Gallup, but we'll have some well-being measure within about four months.

So I just wanted to kind of put that in context. What we're measuring now: This concept

of population health as including risk factors, disease burden, and overall outcomes. And then, that we're in a broader context of as a health system promoting health to build well-being.

Yes, sir?

DR. CARMONA: Just a comment, and I'd like to hear your opinion. You know, about two years ago, our colleagues at WHO put out the report on the social determinants of health, which gets to what Eve was just mentioning. And although it's amazingly parallel to what you have here, I sense intuitively that the variables within the military are going to be different social determinants, although they would be skewed because most of the people do have a job, and do have an income, but some of the social factors may be different. And, of course, deployments become an issue, where you don't have that on the civilian side.

So, although remarkably similar platforms that you start from, I think there will be variability in the variables that we are going

to look at.

DR. DINNEEN: Right. What's so exciting about this is, if we do do this using the same methodology, we'll be able to benchmark and right now because a significant portion of the United States has had military experience, Gallup has surveyed about 18,000 -- something like that -- military. So we already have some benchmark data, and we look pretty good.

But the more important question is how are we different? And what can we do to actually focus efforts to improve that even more?

DR. FOGELMAN: I want to tell you about something that I'm struck by. When you were talking about career and you said 20 percent of the people like going to work, there is a very powerful Gallup finding, which I use on a regular basis, that only 20 percent in the world answer yes to the following question: At work every day, do you have the opportunity to do what you do best?

DR. DINNEEN: Right. That's in the

survey.

DR. FOGELMAN: Which is -- and I'm really interested to see how that turns out in our population.

DR. ANDERSON: I think one of the things -- if I could just free associate with that for just a moment -- is that we're in the midst now of examining a lot of opportunities for pay for performance in health care. And I think one of the concerns that's raised by the folks that are looking at human motivation is that when you look at folks in the military, they have a real sense of purpose. And if you monetize that, do you risk losing that sense of purpose?

So one of the biggest drivers of saying yes to that question about do I like going to work, is whether the work that you do has purpose. And that's something we need to capitalize on in our organization because a lot of people feel that way that are in the military or the GS side of the house and we want to be careful not to lose that. So I think getting some of this data may help us

make more informed decisions about how we implement these new incentive structures that we know are coming.

DR. DICKEY: George?

DR. ANDERSON: So, from this aspirational high-level goal, if we reel that back to the practical parts of the model dating back to the mid-'90s when TRICARE was being designed, there were some people who thought that in order to enroll in TRICARE Prime, you ought to fill out a health risk appraisal, and that never happened. So, you know, if you get into the force health protection aspects of the system -- this is somewhat of an editorial -- but there's a mandate still there to get back to the things that are within the health and population health domain right here in what might be military health.

So, you know, from that editorial I would say there's still a need to have standardized, you know, health risk appraisal and so on, like that.

DR. DINNEEN: I couldn't -- and I think

that's one of the joys of this job that I have, is that I am able to go out and visit with others. And so, Bellin Health presented some data just last week where they actually showed, this is -- the blue is the Bellin Health risk assessment score and higher is better. So they've worked to get that number to go up. Wouldn't it be great if we in the Department of Defense could show some more sort of data?

DR. ANDERSON: Well, I'm talking about, you know, across the population.

DR. DINNEEN: Right.

DR. ANDERSON: Yeah.

DR. DINNEEN: Exactly. And yet, we've had difficulties because -- and it's been in execution. We didn't have a -- you know, I don't know all the details, but I did work on that for a number of years. But I think we have another opportunity now.

As we have said, one of our aims is population health. One of the aspects is health risk assessment, but let's look at that again and

see if we can get it right.

DR. ANDERSON: Yeah, and understand, I'm not a critic. I'm just saying, there were population health people advising the TRICARE designers 15 and more years ago. And so when you get the Quadruple Aim going, this is pretty fundamental.

DR. DINNEEN: Yes.

DR. ANDERSON: It's actually got to execute now. And, by the way, that's George Anderson speaking.

(Laughter)

DR. DINNEEN: And the other thing that's good now is that a lot of work has been done on health risk assessments by civilians, so there are nonproprietary surveys out there now that we could simply take advantage of and then have benchmarkable data. So, again --

DR. ANDERSON: I'm sorry, but I have to say this. One of the reasons that we could do that back two decades ago was the Services couldn't agree about what the standardized health

risk appraisal was going to be. And we worked real hard in the Air Force to have one and it was just hard to agree.

DR. DINNEEN: It's been very difficult to get almost any of these measures to be agreed across the three Services. (Laughter) But I think leadership is really doing a great job getting there because I couldn't have shown you anything like this three or four years ago.

DR. DICKEY: Dr. Dinneen, if you'll just choose the ones that I score high on, then I'll agree with him. (Laughter) And that's the problem. We all score differently on different ones.

DR. DINNEEN: So that's all I had. It's been a very enjoyable opportunity to dialogue.

DR. ANDERSON: Thank you.

DR. DICKEY: Excellent report and interesting information. We'll look forward to continue to hear updates on this as well.

DR. DINNEEN: And if anybody wants the full set, just ask me. I'll be happy to send it

along if Mr. Middleton says it's okay.

DR. DICKEY: Great. Thank you very much.

DR. FOGELMAN: I just want to say that one of the reasons that we get good attendance at the Psychological Health Subcommittee is because we've arranged for Dr. Dinneen to come every time. Because every time he talks to us, it's one of these wonderful things. So I would suggest that you just bring him back here all the time.

DR. DICKEY: There's about 30 of us around the table, do you suppose you can come give a pep talk at each of our sites? (Laughter) We may have to clone him.

I need to know, is there an overlap between the 20 percent you get to do something meaningful and the 20 percent who like going to work? Yeah. Almost total overlap, I bet.

SPEAKER: Thanks, Mike.

DR. DICKEY: Thank you very much. Well, you have put in a long and, hopefully, productive day. Before we close for the afternoon, Ms. Bader

would you like to give us an administrative comment?

MS. BADER: Sure. Thank you. Thank you, Dr. Dickey. And for those members that are departing today, there's a manila envelope inside your binder, so that you can remove the contents of your notebook and take it with you.

For those that are heading to the airport -- I know some folks have to leave this evening -- there is a shuttle here at the hotel. You can just go to the front desk. And for additional information, always Jen Klevenow is the queen of logistics for the Defense Health Board.

As a reminder, the Board will be meeting in closed session tomorrow to receive a series of classified briefings. Registration is, therefore, closed to the public. Board members and invited guests are kindly requested to convene, those that are staying here, in the lobby -- in the hotel lobby by 7:15 tomorrow morning, at which time we will board the shuttle to the Army National Guard Readiness Center. Registration will begin at 8:00

a.m. at the Center and the meeting will be called to order by 8:15. There will be breakfast in the room that will remain in the room until about 8:35, and then that will be cleared out.

And the breakfast room and the registration room -- everything's being held in the same section of the Army Readiness Center. And I'm going to now turn it over to Jen because I'm sure folks have questions about luggage and taxis and things along those lines for tomorrow.

MS. KLEVENOW: Okay, as Ms. Bader mentioned, we're leaving here at 7:15 tomorrow morning. There is a separate room at the Guard Center for folks to store luggage, for those of you that are going to go to the airport after the meeting tomorrow. Those that do go to the airport as well, we will obtain taxis for you to get to the airport. There won't be a return shuttle back to the hotel for those staying an additional night only because there's just a few of you. For those few, we'll put you in a cab and then you'll be on your way.

We do have lunch planned tomorrow as well. Lunch will be in a separate room on the first floor of the Guard Center. For those of you that are local and are driving in, I do have most of you on the list and reserved parking for you. If you wouldn't mind on your way out, if you could just tap me on the shoulder just to make sure that I have you on the list just to make sure there's no mishaps at the gate tomorrow, that would be appreciated for all of us.

And any questions?

SPEAKER: What if we want to have dinner tonight?

MS. KLEVENOW: Dinner tonight? 6:30 at Café Italia, 21st Street, up about four blocks from here. There's also a shuttle leaving from the hotel lobby at 6:15. Cash payment, $32 to me. Exact change is appreciated.

MS. BADER: And the restaurant is less than a mile, if you choose to walk.

MS. KLEVENOW: Yes. Nice day.

MS. BADER: Yeah, it's a nice day. So

you would just depart the hotel and head towards Crystal City, 32nd Street.

SPEAKER: 32nd or 21st?

MS. BADER: Oh, wait. 23rd, my apology. We'll walk you a little farther. (Laughter) We all need the exercise and we'll improve Mike's metrics. 23rd Street, I apologize.

DR. DICKEY: All right, so everybody's got the logistics for tonight? Everybody's got the logistics for in the morning? Any other questions of concerns? Any other directions?

MS. KLEVENOW: Nope, that's it.

DR. DICKEY: All right. We stand adjourned until tomorrow.

(Whereupon, at 4:39 p.m., the PROCEEDINGS were adjourned.)

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CERTIFICATE OF NOTARY PUBLIC

COMMONWEALTH OF VIRGINIA

I, Stephen K. Garland, notary public in and for the Commonwealth of Virginia, 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.

Notary Public, in and for the Commonwealth of Virginia

My Commission Expires: July 31, 2015

Notary Public Number 258192