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DEFENSE HEALTH BOARD MEETING

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P R O C E E D I N G S

DR. POLAND: Good morning, everybody. Welcome to this meeting of the Defense Health Board, and I want to extend a special welcome to a number of our new board members who are around the table. I haven't even gotten to meet all of them but certainly know them by name and by reputation. We have a number of important topics on our agenda today, so we'll get started and I'll ask Ms. Embrey to call the meeting to order.

MS. EMBREY: Thank you, Dr. Poland. As the Designated Federal Official for the Defense Health Board, a Federal Advisory Committee and a continuing independent scientific advisory body 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. Poland?

DR. POLAND: Thank you. We started a tradition of our board, and that is at the beginning of each meeting I would ask that all of

us stand for 1 minute of silence to honor those who we are here to serve, the men and women of our armed forces.

(Minute of silence.)

DR. POLAND: Thank you all very much. We have a number of distinguished guests with us this morning but I particularly want to acknowledge Mr. Bob Foster and Admiral Smith. And I would also like to provide an update on one of our board members, Brigadier General Retired Dr. Bill Fox whom a number of you met. He was on our board for several meetings and is a member on the Panel On the Care of Individuals with Amputational and Functional Limb Loss. As most of you are aware, Bill was seriously injured in an IED blast in Iraq last year while carrying out a mission for Project HOPE and I'm happy to report that his condition has dramatically as we hear it and he has enthusiastically expressed the desire to return to the board so that he can share his thoughts and make continuing contributions toward improving health care for our wounded service

members particularly given his new perspective and his unfortunate experience. He is especially hopeful to be able to give input and to contribute in the area of traumatic brain injury and looks forward to returning to the board in the near future, and when he does if you'd please give him a warm welcome as I know you will.

I'd like to remind everybody that this is an open session and as we start I'd like to go around the table and have the board and distinguished guests introduce themselves. For the new core board and subcommittee members, if you could just give us three or four sentences about yourself so we can begin to know you and what your skill sets and experience have been. I'll ask Ms. Embry to start.

MS. EMBRY: I'm Ellen Embry. In my day job I'm the Deputy Assistant Secretary of Defense for Health Affairs with a focus on force health protection and readiness, and I'm the Designated Federal Official for this board and its committees.

DR. WILENSKY: My name is Gail Wilensky. I'm a Senior Fellow at Project HOPE. I finished a stint a short time ago as the co-chair for a congressionally mandated taskforce on the future of military health care. I was also privileged to be one of the commissioners on the President's Commission on the Care of Returning Wounded Warriors, the so-called Dole-Shalala Commission, and earlier in the decade co-chaired a taskforce that the president set up to improve health care for our nation's veterans which focused on trying to better align the transition from active duty to veteran status. I am delighted to have an opportunity to make use of the knowledge and experience I gained in these various taskforce activities with the Defense Health Board which I had the pleasure to speak before twice when we were presenting our interim and final report last year. So it's a pleasure to be on this side of the fence.

MR. LEDNAR: I'm Wayne Lednar. I'm the Global Chief Medical Officer for DuPont.

COLONEL CERTAIN: I'm Robert Certain. I'm an Episcopal Priest in Marietta, Georgia.

DR. JAMES: Jim James. I'm with the American Medical Association. I was 26 years with the Army Medical Department, retiring as the Medical Center Commander back there in 1996 in El Paso. Following that I was with the dark side doing managed care, went on to Miami Dade where I was the Public Health Director during anthrax, 9/11, and those things, and from there went to the American Medical Association where I've been for about 5 to 6 years focusing on educational programs and disaster response and the editor in chief of the newly published "Disaster Medicine and Public Health Preparedness" journal. Thank you.

DR. WALKER: I'm David Walker, Professor and Chair of the Department of Pathology, University of Texas Medical Branch at Galveston.

DR. DETRE: Thomas Detre, a psychiatrist interested in psychopharmacology and research, former President of the University of Pittsburgh

Medical Center.

DR. SILVA: I'm Joseph Silva, Professor of Medicine and Microbiology and Dean Emeritus of the School of Medicine, University of California, Davis.

DR. BENJAMIN: I'm Richardean Benjamin, the Chair of the School of Nursing at Old Dominion University in Norfolk, Virginia. My background is in psychiatric mental- health nursing and I also had some experience in psychiatric epidemiology. Dr. Detre is from a place where I completed my fellowship at the Western Psychiatric Institute and Clinic in Pittsburgh.

DR. OXMAN: I'm Dr. Mike Oxman, a Professor of Medicine and Pathology at the University of California in San Diego, a board member, and a virologist.

REAR ADMIRAL SMITH: I'm Dave Smith. I'm the Joint Staff Surgeon and Medical Adviser to the Chairman.

DR. BLAZER: I'm Dan Blazer. I'm a psychiatrist in epidemiology from Duke. By the

way, we won a football game this year so I just wanted to get that on the board. I want that in the record, by the way. I have been on the board. I may be one of the longest-term members, perhaps one of the first mental-health people who's been on this board and it came at a very important time, and I also served on the Taskforce on Mental Health. It's good to see other mental-health people here.

DR. KAPLAN: I'm Ed Kaplan, Professor of Pediatrics at the University of Minnesota Medical School, in Minneapolis, and a board member.

GROUP CAPTAIN: Good morning. I'm Group Captain Alan Cowan. I'm the British Liaison Officer to two organizations. The first is the Veterans Administration where I spent part of my week, and the balance is with Ms. Embrey's staff in FHPNR where I spend probably the larger part of my week looking broadly at the whole deployment health field and looking at what goes on in the veterans' area to see what U.K. can learn and what we can share with you, and equally looking at what

goes on in the active population to see what's good and what's bad there and how we do better. I've been here 2 weeks, so treat me gently.

LIEUTENANT COLONEL GOULD: Phil Gould, Chief of Preventive Medicine at the Air Force's Medical Operations Agency, soon to be the Air Force AFMSA Support Activity.

LIEUTENANT COLONEL BLEDSOE: Yolanda Bledsoe, Joint Staff Health Services Support Division. So, sitting in for Colonel Silva but work with Admiral Smith over there.

COLONEL MOTT: Bob Mott, preventive medicine at the Army Surgeon General's Office. I've been there for about 2 months. Before that I was the Director of the Division of Preventive Medicine at the Walter Reed Army Institute of Research. I first came to the AFEB as a resident back in 1995, so it's very nice to be on the board.

COMMANDER SCHWARTZ: Erica Schwartz, the Coast Guard Preventive Medicine Liaison at Coast Guard headquarters.

CAPTAIN NAITO: Neil Naito, Director, Public Health, Navy Medicine.

COMMANDER SLAUNWHITE: I'm Commander Cathy Slaunwhite. I'm a general practitioner by training and a medical officer in the Canadian Forces, and I have been at the Canadian Embassy in a liaison role since July of last year.

MAJOR GENERAL ANDERSON: George Anderson. I'm a new subcommittee member in health care delivery, served in the United States Air Force for 30 years, flight surgeon specialist in aerospace medicine and preventive medicine. I'm currently the Executive Director of AMSUS, the Association of Military Surgeons of the U.S., and a publisher of "Military Medicine," the journal.

DR. MULLICK: Florabel Mullick, Director, Armed Forces Institute of Pathology and the Executive Secretary of the Defense Health Board Subcommittee on Pathology and Laboratories.

DR. BLAZEK: I'm Bill Blazek. I'm a Jesuit scholastic from Georgetown University joining the Medical Ethics Subcommittee and I

serve presently at the Center for Clinical Bioethics at Georgetown. I'm an practicing internist and I'm a retread infantryman.

MS. SHINSEKI: I'm Patty Shinseki and I sit on the Panel for Amputee and Limb Loss. I am really a military spouse of 38 years and my husband is an amputee, so I am hopefully bringing the perspective of the family and the spouses in recovery and rehabilitation. I also chair the Military Child Education Coalition's initiative called Living in a New Normal: Supporting Children Through Trauma and Loss.

DR. KELLY: I'm Jim Kelly. I'm a neurologist at the University of Colorado School of Medicine with a career interest in traumatic brain injury. I chair the Traumatic Brain Injury External Advisory Subcommittee, and I'll be giving a report to the board this morning.

DR. HALPERIN: Bill Halperin, board member. I'm Chair of the Department of Preventive Medicine at the New Jersey Medical School in Newark, and Chair of the Department of

Quantitative Methods in the School of Public Health in Newark.

DR. SHAMOO: Adil Shamoo, board member, Professor of Biological Chemistry and Molecular Biology. I'm a bioethicist.

DR. ERDMAN: My name is Rick Erdman. I'm the Staff Liaison Member from the Institute of Medicine, part of the National Academies. I'm a former military officer, Army, preventive medicine trained. Just happy to be here.

DR. PARISI: Good morning. I'm Joseph Parisi. I'm a pathologist at the Mayo Clinic in Rochester, Minnesota, where my specialty is neuropathology. I'm a board member and Chair of the Subcommittee on Pathology and Laboratory Services for the Defense Health Board, and it's a pleasure to be here.

DR. PARKINSON: Good morning. I'm Mike Parkinson. I am a board member and Chair of the newly formed Health Care Delivery Subcommittee. I spent 20 years in the Air Force, a lot of time thinking about how to reorganize the direct

delivery system and the purchase care in my latter years. I was one of the founders of Lumenos, one of the nation's consumer-driven health plans that was acquired by WellPoint and served 2 years as the medical director with WellPoint.

DR. O'LEARY: I'm Dennis O'Leary, a new board member and I'm very pleased to be here. I'm retired from the Joint Commission and I served as president there for 21 years. The Joint Commission has historically had a long relationship with the Department of Defense. Before I was at the Joint Commission I was at George Washington Medical Center as the Medical Director of the University Hospital and Dean for Clinical Affairs and Professor of Medicine. I'm really looking forward to this experience.

MR. DUBOIS: I'm Ray DuBois. I am a resident senior adviser at the Center for Strategic and International Studies here in Washington. I am a new member of the NCR BRAC Health Systems Advisory Committee. And some of you may remember that I was the fellow you brought

you BRAC, as it were, having designed and managed the BRAC process in the department, BRAC 2005/2006. I was also the former Director of Administration and Management of the Office of the Secretary of Defense otherwise known on good days as the mayor of the Pentagon and had been for over a year the Acting Under Secretary of the Army.

MR. UNTERMEYER: Good morning. I'm Chase Untermeyer. I'm a new member of the board. I am in private business in Houston but I've had a military connection going back exactly 40 years. About this time 40 years ago I was a junior officer abroad a destroyer in Vietnam, and in later years in the Reagan administration I was Assistant Secretary of the Navy for Manpower and Reserve Affairs in which I dealt quite extensively on the subject of the Naval Health Care System. And then most recently I was U.S. Ambassador in Qatar where of course we have major military operations, primarily the Al-Uedid Air Base, and it was great thrill to be reconnected to the military and try to help the Central Command in

whatever way I can lend assistance. So I'm most grateful for this further chance to serve.

COLONEL GIBSON: I'm Roger Gibson. I'm Executive Secretary for the Defense Health Board.

DR. POLAND: My name is Greg Poland. I'm President of the Board and Professor of Medicine and Infectious Diseases at the Mayo Clinic in Rochester, Minnesota, with a long military family connection with virtually all of the males in my family having served many of them for their entire careers in the Marine Corps, and most recently a son who's now at the Air Force Academy and I'm pleased to report just finished basic training and is a Cadet Fourth Class in good standing, and I told him he'd better maintain that.

CAPTAIN BUTLER: Good morning. My name is Frank Butler, a 30-year medical officer currently serving as Chairman of the Tactical Combat Casualty Care Committee which we'll be talking about shortly.

COLONEL CORDTS: Good morning. Paul

Cordts. I'm Director of Health Policy and Services at the Office of the Army Surgeon General.

MR. CAMPBELL: Good morning. I'm Stuart Campbell and I'm the U.K. Liaison Officer at the Office of the Army Surgeon General.

DR. COHOON: Barbara Cohoon. I'm the Deputy Director of the National Military Family Association. I handle health care for them and I have my doctorate in health policy.

MR. MONFORT: I'm Charles Monfort, former Deputy Assistant Secretary of Defense for Health Affairs and now a consultant on health care.

COMMANDER CLASS: I'm John Class, Deputy Director for Government Relations, Health Affairs, at the Military Officers Association.

DR. KRUKAR: I'm Michael Krukar, a preventive medicine resident at Uniformed Services.

MR. MOORE: Thomas Moore, also a preventive medicine resident at USIS.

MR. RUSSELL: Kevin Russell, new director of GEIS and Deputy Director of the Armed Forces Health Surveillance Center.

MR. BALABAN: I'm Carey Balaban. I'm Professor of Otolaryngology and Neurobiology Communication Science and Disorders and Bioengineering at the University of Pittsburgh. I'm also Director of the Center for National Preparedness.

MS. EICK: Angie Eick, Deputy Scientific Director at the Armed Forces Health Surveillance Center.

MR. RIDGELY: I'm Rabold Ridgely, 30 years at the Armed Forces Institute of Pathology.

MR. LUKEY: I'm Brian Lukey from Medical Research Materiel Command.

MR. FOSTER: I'm Bob Foster. I work for the Under Secretary of Defense for Acquisition. I'm the guy who's responsible for medical research in the Department of Defense.

MR. MARTIN: I'm Chris Martin. I'm a research fellow at the Armed Forces Health

Surveillance Center.

MS. NYALTRO: I'm Jody Nyaltro, and I'm the Washington representative for Gold Star Wives.

MS. KIDD: I'm Silvia Kidd. I'm Director of Family Programs for the Association of the United States Army.

MS. JEFTS: Barbara Jefts, Healthcare Delivery Division Chief at JTF CAPMED.

MR. BIDDLE: Tim Biddle, Deputy Chief, Medical Center, National Security Agency.

DR. THOMPSON: I'm Donald Thompson, a preventive physician. I work at the Department of Defense Inspector General's office.

MR. BURNETT: Dan Burnett. I'm Director, General Preventive Medicine Residents at USIS.

MR. COURTNEY: I'm Bill Courtney. I'm the Chair of the Public Health Department at the School of Aerospace Medicine, formerly known as AFIOH.

MR. SKVORAK: I'm John Skvorak. I'm Commander, USAMRID, at Fort Dietrich.

DR. KITCHEN: Lynn Kitchen, Deputy Director, Military Infectious Disease Research Program. I am an infectious disease physician.

LIEUTENANT COLONEL JAFFEE: I'm Mike Jaffee. I'm the National Director of the Defense and Veteran's Brain Injury Center and I'm serving as the DOD liaison to the Subcommittee on Traumatic Brain Injury as well as the Subcommittee on the TBI Family Caregiver Program.

MR. WIGGINTON: I'm George Wigginton. I'm national account director with Merck and Company with responsibility for DOD and VA.

COMMANDER FEEKS: I'm Commander Ed Feeks, Preventive Medicine Officer at Headquarters, Marine Corps.

DR. POLAND: We've already gone around, so any of the new board members who came a bit later, if you'd please introduce yourselves.

MR. FOGELMAN: My name is Charles Fogelman, and I'm on the Psychological Health External Subcommittee. If you want a lot more detail, I can tell you that I'm the guy who

thought it was a lot shorter walk from the subway than it actually was.

MS. JARRETT: Lisa Jarrett, CCSI contractor, Defense Health Board.

COMMANDER EICHERT: Commander Eichert, also at CCSI.

DR. MILLER: Mark Miller, Associate Director for Research and Director of Epidemiology and Population Studies at the Fogerty International Center, NIH, with background in mathematical modeling and computational biology of infectious diseases and vaccine development.

DR. POLAND: Did we have anybody else join us who has not introduced themselves?

For the new board members, typically what we'll do, and you'll see this repeatedly, is we'll have a briefing that may be informational, it may be a question to the board, or it may be a report of activities. When our board was smaller we would then have discussion and we'll still have that. It was hard to stay on time then and I'm suspecting it will be a little harder with a

larger board, so forgive me if I have to cut discussion short in the interests of getting through the amount of material we typically do at our semiannual meetings. Roger, I think you have some other comments to make.

COLONEL GIBSON: I want to thank the Sheraton Crystal City Hotel for helping with the arrangements for this meeting and my staff with Ms. Jarrett in the lead for arranging the meeting and arranging your travel, et cetera, and of course to Ms. Ward back home who is ever present and very diligent in her efforts.

One of the requirements of a Federal Advisory Committee is signing the attendance roster, so please do that. It's important that we keep track of the folks who come to this meeting. For those of you note seated at the table, we have handouts for all of the presentations today. Administration, bathrooms outside to the left. We have light refreshments at the end of the hallway. Take another left and there's a room there with coffee and light refreshments.

For those of you who need telephone, fax, et cetera, see Ms. Jarrett. And because this is an open meeting, it's being transcribed. So it is important for our court reporter to know who says what and when. So please introduce yourself if you have any comments so that she can capture the name as part of the discussion. And speak clearly into the microphones. I notice we have a couple of them that are a little problematic, so try to speak as clearly as you can into the microphone.

CME credits are offered for this meeting. The forms for the board members are in the books. We have additional forms. Ms. Jarrett can provide details on that.

Finally, the next meeting is tentatively scheduled for December of this year. The board will decide on exact dates and location during the administrative session and at that meeting we'll receive again updates from our subcommittees. As Dr. Poland discussed, the core board sits in a strategic position to take questions from the

Department of Defense. We have a series of subcommittees, several subcommittees, and as those questions come in they will be assigned to subcommittees for due diligence, research, discussion, before coming back to the board for deliberation of reports and recommendations. With that, back to you, sir.

DR. POLAND: A couple of other things. If I could ask the new members of the core board or subcommittee to have lunch with me in the same room that we'll have lunch in, but if we wouldn't mind sitting together so I can sort of get to know you a little bit and answer questions about the board, that would be nice. Also in the notebook under Tab 1 are brief bios on our new members. Finally, I'd like to acknowledge and thank Ms. Embrey and Colonel Gibson. This evening for the current board members there will be an award ceremony, the Secretary of Defense Award for Outstanding Achievement for our board members which I think is an appropriate recognition of the time and effort that you've put in. And as I

understand it, Dr. Cassells will present those at our dinner meeting so be sure that you do attend that.

COLONEL GIBSON: I'll pass around a roster to sign up for the meeting tonight.

DR. POLAND: Our first speaker this morning is retired Capitan Dr. Frank Butler who's currently serving as a medical consultant to the Navy Medical Lessons Learn Center, as well as an Adjunct Professor of Military and Emergency Medicine. As Chairman of the Committee on Tactical Combat Casualty Care, he will provide the board with an update on the Trauma and Injury Subcommittee and brief the board on combat casualty care. The Trauma and Injury Subcommittee has just recently stood up, but its members have been meeting for some time and discussing issues associated with combat casualty care. The board believes trauma and injury treatment and prevention should be a DOD core competency and is thrilled to have the members of this subcommittee participate in ensuring that such efforts

optimally meet the needs of our service members. His presentation slides can be found under Tab 2 of the meeting binders. Dr. Butler, the floor is yours.

CAPTAIN BUTLER: Thanks. I'd like to start with just a brief word of explanation about why the ophthalmologist in the crowd is up here talking about trauma as opposed to the usual eye trauma which is corneal abrasions and things like that. I started my Navy career, I spent 4 years as a Navy SEAL platoon officer and when I went back to medical school I was fortunate enough to be able to spend the majority of my 26 years in Navy medicine supporting our SEALs and our other Special Operations forces. So that leads you down some different roads and this is one of the roads that it led down.

If you are shot in the Washington, D.C. area, the good news is when you go to the emergency room this is what your care will be like. It will be air conditioned unless you're in Florida and there's a hurricane. The lights will

be on. You'll have a skilled trauma team. You'll have all of the equipment that you could imagine at the service of your trauma team, and you will receive the best trauma care in the world.

Take a second to picture yourself in the setting where our combat medics have to take care of combat trauma. This is a shrapnel wound to the hip. It's a little tough to tell from the perspective. The setting, I took this picture at 8,000 feet in the Hindu Kush in 2003. This is where our medics were having to sustain these casualties, treat them with only the equipment they carried in on their backs in the dark and wait for the helicopter that was going to be delayed for 10 hours because of the snow storm. So it's intuitive that we have to have a somewhat different set of management strategies for this circumstance. The problem has been that this has sometimes been difficult to do and I want to show you a dramatic example of how it's been difficult to make this transition from the civilian mindset to where our combat medics live. This is a paper

that was written by a young Army major in World War II and it dealt with tourniquets. He said, We believe that the strap and buckle tourniquet that the Army is issuing us right now does not work and needs to be replaced. That's really straightforward advice, and this was published in the Army Medical Department Journal. So fast-forward if you will 25 years to the Vietnam War. In the aftermath of that war, we realized that over 2,500 deaths had occurred in casualties who had no other injuries except for extremity trauma. They bled to death from their arms or legs when a tourniquet would have saved them. So in those 25 years between World War II and Vietnam we've not been able to sort this out.

So you think this is a painful lesson. We've got it now. Wrong. In the mid-1990s, the same strap and buckle tourniquet that was being issued in World War II was still being issued. Worse, we were sending our medics to civilian trauma care courses where the doctrine was not to use tourniquets. So we give them tourniquets and

we send them to courses where they're told not to use them. Not surprisingly, when the war started, we had some issues. A few papers that came out looking at the epidemiology of trauma deaths at the start of the war had some bad numbers. When I was at the Special Operations Command as a surgeon, in 2004 I directed that we look at all of our first 82 casualties. We went to the Armed Forces Institute of Pathology and the people there helped us tremendously. We pulled all 82 of those autopsy reports to see who could have been saved and who was unavoidably going to die from their injuries. So what we found was that of the 82 deaths that we reviewed, 12 of them were potentially survivable injuries and three could have been saved with nothing more high tech than a tourniquet on their arm or leg, and this is a picture of one of these soldiers. This gentleman bled to death from a wound below his knee and you will see that this was in 2004, we did not have tourniquets. These guys tore up T-shirts and used paint brushes out of their ammo kit to try to

construct a field-expedient tourniquet.

Another paper that came out more recently but still focuses on the 2004 period was published by Al Beekley from Madigan, a trauma surgeon at the Combat Support Hospital in Iraq. They looked at 165 casualties with extremity trauma and found that a little less than half of them had tourniquets, there were seven deaths in this cohort, and four of those seven deaths could have been prevented with nothing more than a tourniquet.

Those are really not acceptable numbers. Back in the early 1990s the special operations community put together a research project where we started to rethink this and try to say, What can we do better? How can we save these preventable deaths? We drew heavily on the data that was generated by the Army. Colonel Ron Bellamy was a trauma surgeon in Vietnam. We looked at his data and we looked at number like this, 9 percent of the killed in action from Vietnam had only extremity wounds, savable lives. Likewise,

tension pneumothorax, 5 percent of the killed in action were people who had a tension pneumothorax which is easily treatable. Some other causes of death there was really nothing we could do about. If you're shot in the head, sadly you're shot in the head and there's nothing the medic can do to help you, so we focused on the preventable deaths that were out there.

As the three principles of tactical combat casualty care, we had to bear in mind that when you're in hospital emergency room, the casualty, the patient, is the mission. When you're out in the field, you have the casualty and the mission. The mission doesn't go away because you've got a casualty. You've got to deal with both the casualty and your tactical flow at the same time. So we have to treat the casualty but we have to bear in mind that we want to prevent additional casualties and we have a job to do for our boss out there which was important enough for him to put young men and women's lives at risk to start with. We've got to get that job done.

One of the first things that developed was the concept that we had to look at the timing of the interventions. You don't stop and do a complete ATLS secondary survey while there's still a gunfight going on. There are things that are appropriate to do for care under fire, there are things that are appropriate to do once the fighting has stopped but you're still in the field waiting for the helicopter. And then there are some additional things that you can do once you're on the helicopter, and this is a great example of this. This is a well-known picture of Sergeant Major Brad Cassells. He was wounded 14 times, but you see his weapon here. He was still in the middle of a gunfight and sometimes the tactical issues take precedence over the casualty issues.

With this research effort we had a tremendous team from both the military and tons of civilian trauma experts come in. We decided that tourniquets were something that despite the civilian teachings at the time we had to go back into and advocate for very heavily. Our medics

have to be able to put needles in chests and decompress tension pneumothorax. If you have somebody who's unconscious, don't try to intubate them, just put a nasopharyngeal airway in there. That will probably do very well. When you look at the risks of having a 19-year-old medic who doesn't do a lot of trauma care do his first intubation in the dark on the battlefield, it's a very dicey proposition. If you do have somebody who's shot in the face and a nasopharyngeal airway is not enough, then what he really needs is a surgical airway and so that restructured the way that we teach airway. Technically appropriate fluid resuscitation, don't start I.V.'s on everybody because it takes time and it uses up your precious supplies. If you don't need an I.V., you don't get an I.V. We used a different fluid than the civilians used because of our prolonged evacuation time, battlefield antibiotics, better analgesia, combining the tactics with the medicine, basing the casualty response to the individual tactical scenario that

you had to deal with. And lastly and very importantly, getting combat medics to the table, not just the doctors who've never been out in the field.

In 1996 those came out. Some of you were here at some of the eagerly briefings. Sort of sat there. The only people who really did anything with these guidelines were the SEALs and the Rangers. But they liked them very much and after about 5 years the Special Operations Command had started to use them more and we realized we needed a way to update these guidelines. Nothing is medicine is static and that includes the prehospital part of it as well. So we took U.S. SOCOM money and an offer of help from the Navy Operational Medicine Institute and founded the Committee on Tactical Combat Casualty Care. Even though it was a Navy-run organization, we had people from all services. We had trauma surgeons, we have emergency medicine docs, critical care physicians, operational physicians, medical educators, and the combat medical personnel who

actually were going to use these techniques and put them all at the table.

It's worth just briefly mentioning some of the people who we have on the committee. We had Admiral Carmona when he was the Surgeon General of the U.S. Not everybody knows that he was an old Special Forces medic, but he offered to help us. We had the Chairman of the American College of Surgeons Committee on Trauma, five members of his Committee on Trauma. We had the trauma consultants for the Army and the Air Force Surgeons General, command surgeons from U.S. SOCOM, a senior enlisted medical adviser for SOCOM, the command surgeon and the senior medic for the Rangers, and several trauma directors for level one trauma centers. So it's a good mix of professional expertise, and we all would sit around the table like this and just hash these issue out.

That group was responsible for the updates which came out in 2003 and 2006, and the major innovations with the updates were the new

hemostatic agents at the time, Heem Con and Quick Clot. Intraosseous infusion devices. It's sometimes really hard to start an I.V. on somebody in shock, but you always know where his sternum is and we are now fielding these intraosseous devices. They've had great success. We need antibiotics but they don't have to be intraveneous. The fourth- generation floroquinalones have excellent coverage and good bio availability when taken orally. We changed our fluid resuscitation strategy based on a joint conference held by the Army and the Navy and now do hypotensive resuscitation with Hextend. We changed our antibiotic from what it had been previously. Thanks to the work of John Holcomb and others at the Institute of Surgical Research we started to develop a better appreciation for how our casualties were getting hypothermic and how that was contributing to the coagulopathy of trauma that was increasing the mortality rate. That is something also that we can turn around, and actually Health Affairs signed that out as a

policy letter and it's now being practiced on the battlefield. We are wrapping these casualties up even when they're shot in Iraq to keep them from getting hypothermic. Lastly, management of wounded hostile combatants. That is a very sensitive topic and that needs to be done correctly and we've published some guidelines for that.

As I mentioned, when these guidelines first came out it was SEALs and Rangers and just a few unit-based initiatives in the Army, largely in the Special Forces community, and the Marine Corps. One of the big steps that happened was the Army 91W school picked up these concepts in the year 2000 so the Army was a little bit ahead of the game than the other services but it wasn't really until the war started that SOCOM, the PJs, the Marines, the Coast Guard, and the Navy had a policy statement saying that, yes, we are going to use these guidelines, the early reports coming in from the war are indicating that they're working. At this point they were already also used by the

FBI, the CIA, Canada, and most of our NATO allies. So the visibility has increased over what it used to be. That's helped from the standpoint of the committee's support. Mr. Thresher from the Army's Surgeon General's Office in the fall of 2007 said we would like to help fund your activities and we liked for him to help fund our activities too and so we are now jointly supported by the Army and the Navy Surgeons General. With the increasing visibility and the joint applicability, Navy medicine asked the question in October 2007 should the committee be located somewhere other than Echelon 5 Navy Command. Maybe it needs to be at a more senior command and a place with joint representation. So this presented to Ms. Embrey staff and Admiral Smith's staff and on 3 March we got the notice that we were going to be relocated. Colonel Gibson came down and talked to us at our April meeting and said you guys now belong to the Defense Health Board.

That's what has happened. I would like

to use the remaining 5 minutes to show you some of the evidence that's coming in. I know this is a group that wants to see evidence so let's go back and look at tourniquets. Did we do the right thing or the wrong thing by pushing tourniquets when the civilian sector at the time wasn't? So this is the tourniquet that we're using. The combat application tourniquet is in widest use. These are two other varieties that have also been used with some success. So these are an example of where tourniquets are invaluable and this happened again to my unit when I was in Afghanistan. We had a guy who was in a vehicle that was struck by a rocket-propelled grenade. There were three casualties. Our corpsman went in, pulled the casualties out of the burning car. One had fatal abdominal wounds and died. Two others had severe lower-extremity bleeding, and both got tourniquets and both survived without any complications from the tourniquets. In the drive on Baghdad, one of the Army battalion surgeons who was there said that tourniquets played a decisive

role in quickly and effectively stopping hemorrhage under fire and keeping the soldiers alive until they got to the hospital. And given the battle conditions under which these casualties occurred, there's no way for these guys to sit there and try to hold direct pressure on these bleeding extremities as their unit is maneuvering.

The Israelis published a bit larger study in 2003 looking at 91 battlefield applications with good success as you see here and very few complications. Most of them were minor and transient peripheral neuropathies. A large tourniquet paper just came out this year from the combat support in Baghdad by Colonel Craig from BAMSE. He was at the combat support in Baghdad with 232 patients with tourniquets on 309 limbs, no amputations, many lives saved was what they concluded at the end of that paper. And again, a very low incidence of transient nerve palsies.

I'm going to skip ahead to this slide. What are the combat medics saying about this? In a paper from Madigan, of the medics that they had

trained in TC3 who had gone to war and actually treated casualties, 99 percent said that their TC3 training was a major help in managing their casualties. Al Beekley in publishing his lessons learned from the war paper highlighted 19 major advances in medical care that had come out of the war and nine of those were related to tactical combat casualty care. John Holcomb and Howard Champion documented that the survival of our casualties is the highest in this conflict it's ever been and they list tactical combat casualty care as one of the major factors. A special supplement published in AMSIS, the Navy Surgeon General directed review of this topic and found that all the military was using TC3, numerous reports of lives saved with no conceptual deficiencies.

The last two slides. This slide is from Dr. Jeff Salamon. He is the prehospital chair for the American College of Surgeon's Committee on Trauma and they are the people who publish the PHTLS manual and endorse their recommendations,

and he wrote this letter to Secretary Cassells on his own initiative congratulating the military for the tremendous advances that have been made and the lives that have been saved using tactical combat casualty care.

Then lastly, this came from the Army Medical Center and School. These are the people who run their combat medic training and they say tactical combat casualty care has revolutionized the way that we manage casualties in the prehospital tactical setting. So in the interest of time and not running over Dr. Poland's time limit here, I am not going to cover the new changes that have just been recommended. They are in our handouts. There are eight changes that have been recommended at the April and July meetings of the committee. It would be glad to take any questions.

DR. POLAND: Thank you, Dr. Butler. We've got 2 or 3 minutes for questions from any of the board members.

DR. KAPLAN: The purpose of the board is

to approve, make suggestions. The action to be taken by the board is to make suggestions, approve the report. What exactly do you expect us --

DR. POLAND: Today is just an informational briefing.

DR. KAPLAN: And ultimately will this come back to the board for detailed discussion?

COLONEL GIBSON: Thank you, Dr. Kaplan. I'll make sure I use your name when we're making these discussions.

DR. KAPLAN: Thank you, Dr. Gibson.

COLONEL GIBSON: Let me explain just a little bit about the organizational construct here. Because this combat casualty care group has civilian experts on it, for them to operate they need to fall under a federal advisory committee. Otherwise we run into issues with the Federal Advisory Committee Act. The Department of Defense and this board absolutely agree that trauma care is a core competence of the board. You will receive periodic updates from not only the TC3 group but the Subcommittee in Trauma and Injury

which has a broader scope to include prevention issues. As those come forward, the board will look at those guidelines, discuss them, deliberate them in open session, and then they become products of the board.

DR. KAPLAN: Just one follow-up. It would appear that we're going to eventually run into the issue of uniformity across services again. That ultimately will come up for discussion or not?

COLONEL GIBSON: I believe Frank can address that right now. This group has representatives from all services and it's a consensus-building product. Not only that, but they're writing the manual.

COLONEL BUTLER: Yes, sir. In concept, all of the services agree. In execution there are some differences. For example, I think special ops is the only group that provides pulse oximiters for their combat medics which is one of our recommendations. Not everybody carries battlefield antibiotics for the medics. I believe

the Marines do not. The Army does I think. In some cases Colonel Paul Cordts has been working to try to help get that used as appropriate in the Army medical kits. So there are some differences in implementation across the services.

DR. POLAND: Other questions?

MR. DUBOIS: Dr. Butler, does your group address the composition of a corpsman or a medic's kit that he takes to the field? I was an enlisted man in Vietnam in 1968 and 1969 and when I also got involved with Desert Storm 23 or 24 years later, I found that the kit had not changed appreciably at all. Are you working on this issue today?

COLONEL BUTLER: We provide a list of some basic things that we think should be in the kit. We have no authority to provide oversight for anybody's kit. For example, when we changed the recommendations for hemostatic agents, the U.S. Special Operations Command a month later changed their kit for the medics to conform to that. Colonel Cordts has been working feverishly

to try to make the appropriate changes to the Army kits. So we do send all of the recommended items that we discuss to the services for consideration for adding to their kits. Again it's a service decision and we just recommend.

MS. EMBREY: If I could comment on that a little bit, medical logistics is an area that we are putting a great deal of focus on right now in terms of improving the entire supply chain management from peacetime to wartime including identifying the kit assemblage and identification. A separate topic then, what a first responder does and so the Tactical Combat Casualty Care Group has been providing input on how the first responder should be trained, what techniques, what tactics, and what we can use to improve outcomes at the first responder level.

We changed a lot of capability when we moved forward our forward surgical teams in this current war and that changed outcomes as well, but if not for the work of Dr. Butler and his team, we wouldn't have the positive outcomes that we have

now for the current conflict. So thank you for your work, Frank, and I'm glad you have a forum now to bring your recommendations that gives it the weight that will get the attention that it deserves so that we can address these through policy rather than marketing.

COLONEL BUTLER: Yes, ma'am. Thank you. Sir, another good example about your question, in the most- recent guidelines that I went to Ms. Embrey, Colonel Gibson, and Dr. Poland, the old kits had 2-inch needles for treatment of tension pneumothorax. There are about four papers that have come out since the war started saying that these needles are two short. There's one dramatic paper that was published from AFIP that has a picture of a person with a tension pneumothorax and a 2-inch needle that's been inserted into his chest wall that stops just short of the pleural space and the person died. So we're now recommending using the 8-centimeter 3-1/4-inch needles and that's been pretty well supported in the recent literature.

DR. POLAND: One more question.

DR. OXMAN: I have always been struck by the differences in the applications by the different services and some of those are justified by the different missions and conditions but many of them are not. It would seem to me that a logical procedure would be if something that's recommended by this group is not implemented then there has to be or there should be a requirement for an explanation as to why that happens rather than just the passive situation where it doesn't happen. Is there any way of doing that and is that in the works?

COLONEL GIBSON: This is a federal advisory committee. We advise, we recommend, we scold, but we cannot mandate or order anything.

MS. EMBREY: That doesn't mean those who hear it can't do something about it.

DR. POLAND: And I think it's important to point out that it was a multiservice consensus and evidence- driven process. Dr. Butler, thank you very much.

COLONEL BUTLER: Thank you.

(Applause)

DR. POLAND: Our next speaker is Colonel Michael Jaffee, the National Director of the Defense and Veterans Brain Injury Center which is the primary operational traumatic brain injury component of the Defense Centers of Excellence. He'll provide the board with an update on the Traumatic Brain Injury Family Caregiver's Panel. As you recall, this panel is congressionally directed to develop curricula for family caregivers of traumatic brain injury victims and they've been hard at work. I might also add that Ms. Shinseki who sits on our board is also a member of that and perhaps afterwards, Pat, if you have any comments that you want to make. His presentation slides are found under Tab 3 of your meeting binders and he'll provide us with an update of the activities as well as the timeline for when the curricula can be expected and we have allotted 30 minutes for this.

LIEUTENANT COLONEL JAFFEE: Thank you

for the opportunity to provide this update and I again wanted to recognize Ms. Barbara Cohoon who's one of our very valued and active members who is here joining us today as well.

DR. POLAND: I think you'll have to speak louder or hold that up maybe toward you.

LIEUTENANT COLONEL JAFFEE: Again I appreciate the opportunity to provide this briefing, and I was recognizing again Ms. Barbara Cohoon who is a very valued and active member of the committee who has also joined us here today.

What I'm going to do during in this brief period of time is quickly review the purpose of why this committee was stood up. This is different than some of the other committees that are part of the Defense Health Board. It is assigned a particular task or initiative as opposed to providing policy recommendations or guidance. The last time they had a formal meeting was back in June. I'm going to report on the outcomes from that meeting. At the same time the panel convened an open town hall. I want tell you

about what happened with that and talk about the timeline and the next steps on the project.

Again this whole initiative came about from an congressional act from the National Defense Authorizations Act in 2007 which mandated a 15-member panel be convened to develop a curriculum aimed at family caregivers of those who suffer from traumatic brain injury who are members or former members of the armed services.

DVBIC's role in this is to provide programmatic and logistical support to the committee to ensure the development of the curricula according to the congressional mandate, helping out with content accuracy, and helping to provide a forum for implementation, evaluation, and ongoing support for the Family Caregiver Education Program.

The tasks of the panel for the last meeting that we had was to conduct a review of the literature on family care-giving for persons with TBI in both military and civilian populations, provide guidance to the writers who will be

synthesizing this information to develop a consistent curricula for this education, and recommend mechanisms for dissemination throughout both the DOD and the Department of Veterans Affairs.

From the June meeting, a couple of goals were set out ahead of time. One was to have a chairperson appointed of the committee, approve a definition of family caregiver because that definition helps drive and focus the further efforts, and to develop an actual outline of the content for the curriculum to give the writers guidance as they press forward, establish work plans for how this is going to be developed and rolled out, and to hold a town hall meeting. From the June meeting, we are proud that Ann Mosner from the Mayo Clinic who runs the TBI Model Systems Program there was selected as the chairperson of this committee. The committee went with the following definition for family caregiver: any family member or support persons relied upon by the service member or veteran with

traumatic brain injury who assumes primary responsibility for ensuring the needed level of care and overall well-being of that service member or veteran.

The content was decided to be subdivided into four different modules. Module one currently is being referred to as a TBI 101 type of module which would cover the basic information aimed at patients and families, that being brain anatomy and physiology, understanding TBI and the spectrum of TBI. Module two focuses more on the symptoms and their management that the families and their patients would be following, focusing on the physical, cognitive, and emotional sequeli and guidance to their adaptation. Module three will be focusing on the caregiver needs, resources, and tools, things that could be of direct benefit to the caregivers. An outline and draft has already been prepared. And the fourth module was something that was very important to the members. They wanted some education for family caregivers to understand the military and veterans' health

care system and benefits programs, challenging tasks. I think we're hoping to provide some guidance for families on that. We do have some very good people who've taken the initiative to try and synthesize a lot of that information together from our colleagues with the VA as well as the DOD.

There was discussion made about the optimal ways for curriculum dissemination. It is very much desired that this will be developed in a multimedia format using web, print, CDs, other appropriate technologies. We were fortunate to have joining in that discussion representatives from the DOD's only Center of Excellence for Medical Multimedia. That center is currently located on the grounds of the U.S. Air Force Academy.

The topic of credentialing was broached at this meeting. This was a question that had come to the committee previous to the meeting and there was a question whether the curriculum would lead to credentialing of family providers. There

was a significant discussion on this issue, but after consideration and response to these questions, it was the consensus of the committee that they felt that certification would imply that the individual had obtained skills that were validated and observed by a medical professional, and going along that line, that particular requirement was felt to be a bit beyond the scope of the intent and goals of this curriculum. And it was also pointed out that other organizations that trained civilians had moved away from using the word certification and instead providing a certificate of course completion.

The town hall meeting was held on the evening following the first day of the two-day meeting. In addition to the broad representation which was brought to the table by the committee itself, the town hall was another public opportunity to bring in more input. There was wide dissemination and advertisement of this. It was a web-streamed event. The record remained open for comment following the town hall through

the end of June. The website is actually still available for viewing and it will be so until September 17.

Thirty people attended the town hall in person. There were a number of other people who joined in via the webcast. The people chose to speak de novo testimony as opposed to responding. Of note, there were four members of the audience who were known survivors of TBI, and there was a broad variety of representatives who were in attendance at this meeting to include professional organizations, patient advocacy organizations, other federal agencies, even representation from the congressional office.

The outcomes and some of the inputs that were derived from this town hall, I'm just going to bullet some of the more pertinent inputs and points that were made. Family caregivers from prior conflicts made it clear that they wanted an opportunity to mentor today's family caregivers. The desire was to make sure that in all the curriculums that we develop, we emphasize a hope

of recovery, that hope should permeate throughout the curriculum. One way of doing that and to connect with people was felt to provide success stories of service members from diverse backgrounds who went through a varieties of injuries and are doing well; providing information on the course of recovery; again the point was made to make sure that tools and information was given to families and to be able to navigate the health and benefit systems. TBI survivors wanted more assistance in obtaining meaningful work. The point was made that we want to be given opportunities more than just being relegated to the mailroom or being given lower-level types of things which reminds to inform the panel as a sidebar that since this panel let, the Department of Labor has rolled out the America's Heroes at Work program in cooperation and partnership with the Defense and Veterans Brain Injury Center and the Defense Centers of Excellence, a program aimed at employers to integrate survivors of TBI and psychological health conditions into meaningful

roles in the workforce.

Families also mentioned that the real burnout factor that they can suffer and wanted strategies to help prevent that. The point was made that not everyone may have a family caregiver and that needs to be recognized and acknowledged. And the point was made that the term mild TBI creates confusion for some family members who are continuing to suffer sequeli because the term mild may imply that it's really not very serious and the families indicate that it does cause some issues for them.

I want to conclude by reviewing the work plan of how things are proceeding forward. In the summer and fall and right now, our health education writers, panel members, and staff are writing and editing the four modules of the curriculum. The panel will be reconvening on the November 13 and 14. At that point the panel will be approving the curriculum, selecting the evaluation metrics, identifying sites to test it out, and target the populations for the pilot

initiatives. It is planned that we can present the entire curriculum and make that available to the members of the Defense Health Board at the December meeting. In February we want to begin pilot testing of the curriculum at at least two sites. In March we're going to review the curriculum based on feedback from the pilot with the goal of doing a much broader and wider dissemination in April, doing a final evaluation in May, and being able to do a final report in August. I do want to remind the board of the long-term plan when this happens. It is planned that this subpanel of the Defense Health Board would stand down and that the following, monitoring, and revisions to this plan would then fall to the TBI subcommittee of the Defense Health Board. Again what we're driving for is the benefits of this curricula would provide uniform resources for caregivers in a consistent and concise message, giving tools for coping, giving some hope, while navigating life post-TBI and navigating the DOD and VA systems. It is hoped

that the curriculum be informative and accurate, provide management skills, not be overwhelming but be user friends, teaching effective communication skills, and based on real-life experience. I thank you for your time.

DR. POLAND: I want thank you for your work and emphasize the importance that this board attaches to what has become a signature would of this war and hence a signature opportunity for us to really get this right and do this right. I know there will be some questions. Colonel Gibson, I'll ask him to start and then we'll move around.

COLONEL GIBSON: Recently I've been learning a lot more about caregivers, not only what's going on within the Department of Defense, but within the other agencies. I was hoping to get some comment, some opinion from you and Dr. Cohoon with respect to your feelings about this effort to develop a curriculum for TBI family caregivers and how that might transcend the issue of caregivers in general for other not only

traumatic type wound care but other caregivers across the board including cancer victims and heart, et cetera. Do you have any comment?

LIEUTENANT COLONEL JAFFEE: One of the I think valuable aspects of the process that's been followed is the coming together of a variety of individuals, both members of the panel itself and bringing in the feedback. So we're really seeing I think a convergence and collaboration between federal agencies, between the VA, between the DOD, between patient advocacy, between professional groups. So I'm hoping that that might serve as a model and a springboard. And there are certain commonalities which are emerging such as navigating the benefit system and issues of respite and the need for burnout and those types of resources. So I do think that there are a lot of commonalities that could be used as a springboard for other types of family caregiver needs and initiatives as well as the setting I think of a very positive precedent of trying to bring all the stakeholders together to come up

with a combined collaborative effort. So hopefully I think the committee will be very proud to think or hope that this could help inspire future efforts and initiatives.

DR. BLAZER: Just a couple of comments. One is among the groups of caregivers for different disorders, probably one of the best-organized and most effective is the group for Alzheimer's disease which is actually very close to the kind of difficulties I think that people will be working with the traumatic brain injuries. My second comment, I realize how difficult it is to put together modules, but I cannot emphasize enough how important I think getting that module in as good a position as possible is.

DR. WILENSKY: Thank you. You mentioned that part of the guidance will be navigating through the DOD and the VA. I wanted to just follow that up a little bit by asking whether there's been commitment by both DOD and VA to use the same curricula once you have it developed. It's one thing to help get through both sides, but

you really want to have the individuals in both agencies using the same curricula. At least that would be a much stronger way to have uniformity.

LIEUTENANT COLONEL JAFFEE: I agree. We are fortunate to have some of the VA leaders in this who are participating as members of the panel. They have expressed that commitment. One of the values of the Defense and Veterans Brain Injury Center although I'm a member of the DOD and I'm wearing the uniform, the V stands for veterans and so the DVBIC is a collaboration between the VA and the DOD where we do work a lot together to come up with common aspects and resources. So a lot of the dissemination is actually going to be through the VA facilities and the polytrauma centers at the DVBIC. So I think that we are seeing that collaboration and it's my understanding and belief that the VA will be using the same curriculum that they helped develop.

DR. POLAND: A couple of questions. One is in that module four, and I'm sure you've thought of it, but I think it's imperative that we

develop some way that there's a one-stop shop or person or contact for family caregivers and not expend their time and energy in the myriad of people that they get shuffled to, and I hope that will be front and center of that module four.

LIEUTENANT COLONEL JAFFEE: I think that's the goal and the vision. There are efforts underway. Perhaps some of my other DOD colleagues can follow-up on this comment, but my understanding is that a lot of those efforts are already underway including a website which is being tested which his geared toward family members to help navigate these benefits which would be incorporated into this curriculum. I think a lot of people share that vision.

DR. POLAND: Second, I have a couple of suggestions. I agree with this issue of designating it as "mild" rather than saying it's a traumatic brain injury, stage one through three or something like that, and I'm glad to see that emphasis.

The last suggestion I have is in your

work plan flow, and I know there are a number of expert people on the committee, but I wonder in prior to pilot testing if there might be the opportunity to send that curriculum to some external content experts outside of the subcommittee and get their comments and read on that and then pilot it and then move forward from there.

LIEUTENANT COLONEL JAFFEE: I'm sure that could be done especially with the contacts and current components of the committee who have linkages to academia and other experts. That would probably be a worthwhile endeavor.

DR. POLAND: I'm going to try to get around Mike and then I think there's another comment over here.

DR. PARKINSON: Michael, excellent presentation and the group is to be commended. I have to admit personally I begin to get urticaria when I see the word curriculum versus words like competencies, skill sets. My response on this is that next-generation learning as you all know is

really all about how do I personalize and acquire the competencies to be able to better adapt and to help. As you get into the dissemination mode, please think strongly about getting away from traditional PowerPoint slide flat content into simulations, into gradual acquisition of skills, into social networking which is the ability to link people online to similar family needs either electronically or virtually, technologies that exist today, that really are important if this thing is to be successful. We want to create a vibrant, connected community of DOD family members and caregivers who can on a moment's notice turn for support, for competence acquisition, and for information. Yes, there's part of that, there's curriculum about the physiology of TBI or mild TBI. It is a minor part. So as we go through this, it's very important as we talk about these things that we get right into the practical skill sets, how do we role model, how do we practice, how do we improve those using advanced technologies and competence acquisition which is

what I think our folks are looking for. So it's in there, but I just want to make sure that at the end of the day I think that's what our family members want.

DR. POLAND: Ms. Shinseki?

MS. SHINSEKI: Just a very small comment. I would like to also recommend that in the dissemination of information and in the development of the coursework that we address the needs of the children who are also part of the family, and they are definitely affected by the caregiving and by the intense stress that a family undergoes. Thank you.

DR. POLAND: Dr. Halperin?

DR. COHOON: Patty, you and I talked and actually the children piece is going to be expanded. We've asked for that. Then as far as how to maybe have their own piece as far as getting information, there is a section already in there as far as to be cognizant of the impact on this as far as children, and I also asked for that to be expanded and have been told that will be

expanded.

DR. HALPERIN: I noticed that one of the slides is that not everyone has a family caregiver. With compliments to all the work and I hope and I'm sure it will be successful, there is at the margin the prospect of failure, that is, no family caregiver. The person and the family is unable to navigate the VA/DOC benefit system. Family can't absorb or have resources to take care of the member and the person becomes homeless, et cetera. Is there a crisis module when things are just falling apart that you're planning?

DR. COHOON: Yes, that is also included in that, and then we've also asked for it to be expanded further with those particular pieces. There is a section that talks about planning ahead and making sure that you've put some things as far as what may happen in the future. And there's also a section on opting out as far as what your plans are there if you find that this is not working for you and what your resources. Then there's also a section there as far as in between

when you're experiencing stress or compassion fatigue, what it looks like, what you can do to help yourself with resources that are there.

DR. POLAND: Dr. James and then Dr. Oxman.

DR. JAMES: The program looks fantastic but over time a lot of this is going to evolve into the civilian sector of medical care, both the patient, the family especially, and children. How do we get these efforts better integrated into the greater civilian sector so there isn't a dichotomous now you have it, now you don't?

LIEUTENANT COLONEL JAFFEE: I think that speaks to a lot of the collaboration between the DOD and some of the civilian agencies. That very topic has been discussed between DDVIC and the CDC who helps provide educational materials and fact sheets for civilian providers and families, and we have been collaborating with them and we share with one another in developing products. So I imagine that we would encourage them to use this product as they saw fit. Again, as you also

pointed out or what I was hearing is things might change and advice may change so there needs to be a plan for periodic monitoring and evaluation and updating as our understanding further evolves as well.

If I could quickly respond to Dr. Parkinson, the idea of competencies was very much discussed and I think informs a lot of development. Our reports that we make to Congress and to the board use the word curricula because that's how the law was passed down to us. And the multimedia aspect I think is very important. We were very pleased to learn about a lot of the options for interactivity through the Center of Excellent for Medical Multimedia and I think the vision is to make it as interactive and user friendly as possible using all those modalities.

DR. POLAND: Dr. Oxman?

DR. OXMAN: Colonel Jaffee, are you approaching in any way the problem of the legal restrictions on the VA providing any care and resources to anybody but the veteran?

LIEUTENANT COLONEL JAFFEE: No, because we're developing a curriculum which could be used for family members of anyone. And again, if we make it public domain and anyone else wanted to use that curriculum, we would allow them to do so.

DR. POLAND: Let me ask Ms. Embrey to make a comment about the transcendent aspect that goes above and beyond TBI that I think will be important to board members.

MS. EMBREY: Mike, thank you very much for your comments. This briefing is focused on what the DVBIC and the Defense Center of Excellence together with the VA are developing for the families. Inside the Department of Defense there is an elaborate management initiative addressing multiple requirements for our wounded, ill, and injured service members and their families. What I wanted to say is that when it comes to family support, children, adults, caregivers and so forth, there is a series of specific initiatives that have been undertaken in terms of identifying benefit packages associated

with different tiers of injuries, the most severe to the most mild and everything in between. Right now there is a significant effort to create resource centers in each service tied together into a single resource center that allows anybody whether you're in or out of the Department of Defense, Veterans Affairs or any other place to tap into that resource center to get information that you need.

As I understand it, the department is planning to roll out that center beginning next month in October. Monday. We'll see. I'm not going to put them on the spot, but it's going to be real soon now. But what I would say to you is that this whole idea of helping people navigate the stovepipes of knowledge between and among the military departments as well as in Veterans Affairs, it is daunting for a family that is also dealing with physical injuries and mental injuries. So this resource center has been set up to do this, and what Mike is talking about here is that which is specific to TBI. As you all know,

TBI is something that affects people with other injuries as well, so they're not just coping with traumatic brain injury problems, there may be other physical issues. So although this is focused on TBI, there is a larger family support program being designed and implemented together with the VA. I wanted to make sure you were aware of that, number one, and number two, I would like to offer to you at your next meeting a broad briefing from the senior oversight committee management who can characterize how the DOD and the VA have been collaborating on a series of specific eight broad areas of improvement in both agencies to handle transition, to handle care and coordination, to handle traumatic brain injury and mental-health challenges, to handle benefits and pay and personnel problem issues. So there are a number of initiatives that are being focused on over the last 2 years at the very senior levels of both departments, of the VA and DOD. So I wanted to make sure that you knew that that was going on and that we arranged to have someone come and

brief you on this because this is just a TBI, mental-health, DVBIC initiative which is responsive to congressional direction and the panel that was formed to get family support and input on how we could improve that specific area, but it's much bigger, much bigger.

DR. POLAND: Colonel Jaffee, thank you. Just to reiterate what I heard in terms of concerns and suggestions from the board is that there be an informed and passionate advocate contact in that module for the change in terminology away from mild, review of the curriculum by outside subject-matter experts, the inclusion of children in the curriculum, and I think very important, Dr. Parkinson's comments about moving beyond just curriculum to competencies, and we'll look for those elements then when you come back to us in December. Thank you very much.

Let me also recognize and introduce Secretary West. He just joined a briefing or so back. Secretary West, if you could just introduce

yourself and give us a brief background about yourself for the board. Did anybody else come in who wasn't part of the initial introductions?

SECRETARY WEST: Thank you, Mister Chairman. I'm Togo West. I think what I bring to this is that at one time I was a soldier and at another time I reported to soldiers as Secretary of the Army and then later as Secretary of Veterans Affairs. Since you gave me this opportunity to introduce myself, two comments. I've heard you make that point before about being careful when we deal with VA's role in matters, that they not be hamstrung by a rather ancient legislative prohibition. But as you know as well as I do, those words tend to have a chilling effect, that VA can only provide assistance by law to veterans when in fact over the history of the program we've provided assistance to lots of people other than veterans, veterans' families, veterans' benefits. The real point you're making is when we tailor programs like this to make sure that we make it possible for VA to do everything

it needs to do to make it successful, and I don't think that's a problem.

Secondly, I'm very glad that the fact that many of these veterans, these service members do not have a family caregiver, because the fact is, and I think the response made it clear, that's not acceptable. Even as we design a program, to note that someone may not fit our definition is not to allow us to avoid the obligation to make sure that there's a provision made whether it's training for how to find one. I took your point, Ellen, to be that that's part of the larger VA/DOD program. Thank you for the opportunity.

DR. POLAND: Thank you. We'll take now a brief break. Set your watches for 10:15. Dr. Kelly, I think you'll be up first and ready to go by then. Thank you.

(Recess)

DR. POLAND: Our next speaker is Dr. Jim Kelly, professor of neurosurgery and physical medicine and rehabilitation at the University of Colorado School of Medicine, Associate Director of

the Colorado Area Health Education Center System, and Chairman of the Traumatic Brain Injury External Advisory Subcommittee. He'll provide an update on the activities of this subcommittee and the slides for his briefing are also found under Tab 3. I want to point out the fact that the board has two subcommittees working on TBI issues which relates to the importance and concern that both the DOD and the board feel about this subject. Dr. Kelly, I think we have also allotted 30 minutes for this.

DR. KELLY: Thank you, Dr. Poland. Ms. Embrey, Mr. West, board members, thank you for allowing me this opportunity. The slides that you have have been minimally modified. As you'll see, I couldn't send some of the pictures that I'll show you. They couldn't be sent by electronic email, or at least maybe I couldn't figure out how to do that.

What I would like to do first is show you the list of the wonderful subcommittee members that we have and explain just in a minute who they

are, where they are. Dr. Ross Bullock is at now the University of Miami, had been at the Medical College of Virginia, Virginia Commonwealth University. Many of you may remember his career there. Dr. Guy Clifton, University of Texas, David Hovda, UCLA, Grant Iverson, University of British Columbia. He is an American but he's working up there in Canada now. Gene Langlois who is at the CDC. James Lockey at the University of Cincinnati. You don't have on your page I think Michael McCrea, a neuropsychologist at the Medical College of Wisconsin. Here with us today is Dr. Joseph Parisi from Mayo Rochester. Bill Perry, the past President of the National Academy of Neuropsychology and at UCSD. Dr. Alan Ropper at Harvard. Dr. William Snider at the University of North Carolina, Chapel Hill. And Gail Whiteneck who's near me out there in Colorado at Craig Rehabilitation Hospital. I also wanted to mention here on this screen the passing of a wonderful mentor of mine and perhaps many of us in this room, Professor Brian Jennett, a neurosurgeon from

the University of Glasgow. Professor Jennett died earlier this year as you can see after a very long and storied career. This wonderful man took me on a tour of the University of Glasgow and the Royal College of Physicians and Surgeons when I visited just a few years ago. This is him standing in front of the residence -- the professors who are also chairmen at the universities in Europe as you may know where they were offered housing in this magnificent facility. He was eager to tell me about the University of Glasgow which was founded many, many years before Columbus discovered America. He was very proud of his institution. I should also mention that Professor Jennett and I and others co-authored a paper on a term minimally conscious state back in 2002. This was a wonderful opportunity for me. Those of you who studied medicine and trauma certainly know the Glasgow coma scale, the Glasgow outcome scale, and the term which he coined persistent vegetative state all of which were among his many contributions over this long career. It was

wonderful and we mourn his passing. Professor Jennett in his last peer-reviewed publication that I can find said, "It is important not to assume that because a patient is classified as only mildly injured, he has not sustained any brain damage," to the point that was made earlier perhaps.

The problem that you know we have presently is largely happening in the geography of Iraq we've come to know so well, the OIF current phase with many explosions, and this is just one picture that many of you in the room certainly are familiar with with the IED or rocket- propelled grenades or other explosive devices that are injuring our military personnel. I just want to make one mention of blast injury. This is a slide prepared by Dr. Debbie Warden and her colleagues with Mike Jaffee at DVBIC. The blast injury as you may know, traumatic brain injury, both of them said to be the signature injuries, there's direct exposure to overpressurization wave roughly at the speed of sound in the air. There's a secondary

impact from flying debris. There's a tertiary injury in terms of the actual movement of the person's body up against something often. And then there can be burn and inhalation of gases as all components of this injury. Mild traumatic brain injury is certainly the common denominator, if you will, of that. And I also would like to point out the importance of addressing the concern which another committee and other groups are dealing with of posttraumatic stress disorder. Here we have near Balad in a PTSD or acute stress disorder type counseling room in Iraq a rocket that actually landed and did not explode in the facility where individuals were being cared for for stress disorder. So the fear and the issues of distress that occur amongst our military as well as bodily injury certainly overlap and need to be addressed.

The TBI External Advisory Subcommittee first met for its organizational meeting on Rockville, Maryland, in April of this year. We had an overview of your operations as a board, an

overview of the Defense Centers of Excellence. There were administrative and government employee business concerns and the ethics briefing that you're all familiar with. Then the idea of us getting together as a group for the first time and brainstorming as to what the issues were that we would need to address, and I'll go into that shortly. Then there was the business of electing chairmen which ended up naming me.

The next meeting was on June 10 at Walter Reed Army Medical Center. I asked for it to be specifically there so that we could get a tour of the facility knowing that as it exists now it will be decommissioned before long and I wanted members of the subcommittee to be familiar with it before then. I wanted an overview from DVBIC which was nicely provided. There was an overview of the pre- and postdeplomentt health assessments which we can go into in more detail if you like. And then we heard about a head- to-head comparison of neuropsychological tests. There are computer-based neuropsychological assessments

available in this country and there's a study up and running now comparing one against the other.

We also had a discussion about the congressional directed Medical Research Program. We had a presentation by a panel of military personnel involved with TBI clinical care in theater, in intermediate stages, and in rehabilitation programs here in the U.S. Then one action item that was decided on at that particular time was that one member of the TBI subcommittee will attend each of these meetings in the future to report to you and to answer questions.

Things that have happened in the meantime that I and others have engaged in as members of this subcommittee, we attended the DCOE summit. I believe it was the second such summit in San Antonio in June of this year. WETA here in Arlington taped a video broadcast which I'm told is now available on the web but I haven't seen it on this very issue of traumatic brain injury. I and others participated in that. The United States Army had a grant to develop TBI education

modules for health professionals. Several members of the subcommittee have been engaging in that process either by remote by telephone or in person here in the Washington area in the last few months. And one other meeting that I attended was for the National Area Health Education Center organization annual meeting which was held in Denver this year. We learned recently that the VA and HRSA, the federal agency, have agreed with the memorandum of understanding to share educational modules across areas of health concern, traumatic brain injury being the one that actually pushed this forward, so that now we have a listing of all of what are VA educational modules and traumatic brain injury that can then be routed through a different federal agency which is an umbrella over Health Education Centers nationwide. If you're not familiar with that system, I should mention Area Health Education Centers came into existence due a federal law back in 1972 and 48 states currently have these nonprofit bridges from communities to academic health centers in their

states. So what we have is a route, a conduit, for education on traumatic brain injury from federal agencies, in this case the VA, to the AHECs nationwide where I'm told the majority of our veterans still obtain health care, it's in the vicinity of 70 percent of our veterans I'm told, get their health care outside of a VA and largely now in the current conflict in rural America. And those AHECs were specifically federally designed to go to small-town America, rural America, and in underserved areas in order to increase the level of sophistication and health education not just for physicians but all health providers. So we have an opportunity here to link to the AHECs nationwide to get these education modules and other curricula as they were called earlier out to health professionals nationwide.

There has also been a Psychological Health and TBI Standardization Committee. There have been to my knowledge two meetings of this group looking at the very issues of definition, how do you define mild TBI and so forth. And then

the DVBIC sponsored an update consensus conference on the clinical practice guideline for mild traumatic brain injury which has been used in Iraq and Afghanistan since 2006 when it was first created and rolled out.

Future topics that the subcommittee intends to address would be to advise regarding traumatic brain injury research priorities for any future initiatives, request information regarding the financial liability for the diagnosis of traumatic brain injury and its care. Those of on the subcommittee who work in the private sector are acutely aware of the costs associated with making this diagnosis and the often long-term care necessary and we are curious about how that works in the military systems; open discussions regarding acute stress disorder and PTSD and in that vein we will include that as part of our upcoming meeting. You've already heard from Colonel Charles Hogue I believe it was the very last gathering of the board, and so he will be offering a presentation on his research to us at

the next meeting.

We want to inquire most as to the use of electronic medical records especially in the field. We understand that that hasn't been working as well as it could and we would like to understand better how it might work better and what observations and contributions our subcommittee can make. There is also additional opportunity now to update and standardize the use of MACE, the military acute concussion evaluation. I should mention that within that is a mental status test which we have found in the sports community quite useful in detecting the cognitive effects of concussion. It has been used for many years in the military. It is actually a component of the MACE, that mental status test is, and so it's now being validated in the acute military setting in theater.

Our next meeting will be very soon. Here I've asked for it to occur at the National Naval Medical Center so once again our subcommittee gets a feel for what happens at that

level of care. We will have the presentation on PTSD research by Colonel Hogue. We will discuss the deployment-related health assessments and TBI screening both at the military and VA levels. We also intend to take on a little bit more detailed discussion of the computerized neuropsychological testing. I can share with you some of my concerns if anybody has questions about the sensitivity and lack of specificity of these kinds of tests and how they can be misunderstood in the settings in which they're being used currently. We also intend to look into the joint theater trauma system in more detail and understand that better with the identification of mild TBI and the care that's provided in theater. We need to hear more about psychological health and TBI research in combination. And we have to have a better understanding of the organizational structure of related military TBI programs of which there are quite a few as we look around.

That's my contact information. You have that in your handout under the subcommittee

listing. But at this point let me end my formal presentation and ask for questions.

DR. POLAND: Thank you very much. We have an opportunity for questions. Dr. Lednar?

DR. LEDNAR: Dr. Kelly, first thanks for the leadership that you're bringing to this issue and the subcommittee. Our legacy in medicine has in my view unfortunately created this divide in our approach to patients, separating their mental health and psychological needs across a very wide chasm from more medical/surgical approaches. Clearly we want to provide good care to the patient, to the soldier, for example. Do you have any impression so far in the work of our committee about how DOD is doing in terms of bringing together both the mental health and the neurologic perspectives into a single well- coordinated care plan?

DR. KELLY: I think that first of all the standing up of the DCOE for psychological health and TBI is a big step in that direction. There is an acknowledgement specially by General

Sutton that the brain is the organ of the mind and to separate the two is failed thinking, frankly. So this idea of Descartes years ago, we need to move beyond that. We need to understand that mind and brain are really the same. When injured or when affected in any significant and/or severe way, we need to understand the pathopsychology better, we need to understand the treatments better. I can tell you as a clinician taking care of concussion patients many of whom have in certain settings stress disorder or PTSD, the treatments are essentially the same. So if we're treating the individual we have to take into consideration the effect on mentation and behavior and emotion. I think that there's a good understanding at least amongst the members of the subcommittee with regard to that particular concern and I see the Department of Defense specifically and DVBIC's role for many years helping explain that to lots of other people. I understand the concerns and I see how there is still some distinction being made, but I think the

closer we get to each other and understand each other's perspectives for mental health and neurology specifically the better we'll be able to handle this situation and care for those individuals.

DR. LEDNAR: Just one follow-on, and that is there may be some important observations your subcommittee has that will be very important to feed into the Health- Care Delivery Subcommittee discussions because we want to organize the delivery of care to provide quality care as you're seeing it.

DR. KELLY: Yes. Thank you.

COLONEL GIBSON: Let me add one quick caveat to that. The Traumatic Brain Injury Subcommittee, the Psychological Health Subcommittee, and the Amputee Patient Care panel have all conceptually agreed to having combined meetings as you can well imagine. We've just discussed the two issues in general, but with respect to amputees, their risk for TBI is considerably higher than the average. So meeting

together and adding our trauma folks as well is doable in concept. It's just the matter of getting everybody together in the same place at the same time.

DR. KAPLAN: My premise may be wrong, but one gets the impression that perhaps the action on the ground particularly in Iraq is not as intense as it was at the time when these issues were initially brought before the Defense Health Board at this point. If that premise is correct, does this offer an "advantage" in terms of field testing? Should this offer of better advantage for field testing and discussion of the various programs that you've outlined for us? If my premise is wrong, I apologize.

DR. KELLY: If I understand your question, it's have the incidence of traumatic brain injury declined in recent times and does that offer an opportunity for investigation that we didn't have before?

DR. KAPLAN: Yes.

DR. KELLY: I'll defer to Colonel

Jaffee. Colonel Jaffee, is it true that the incidents have really declined? I'm not sure that that's in fact the case.

DR. KAPLAN: That was just a premise. I don't know whether it's even true or not, but if it is, I'd be interested in your thoughts about it.

LIEUTENANT COLONEL JAFFEE: When we hear about things that are happening in theater and the decreased violence, I think the numbers that are most affected are the moderate to severe injuries. One of the biggest challenges faced by the DOD is the largest percentage of injuries which would be classified as concussion or mild TBI and those numbers seem to be fairly across the board when you look at the incidents or percentages of that. That's really where a lot of the policy challenges that we're faced with lie and that's where we're hoping a lot of the advice and counsel from the Defense Health Board will help us. So as far as managing those concussions, I think that is very much still a challenge for the DOD even if the

more severe injuries happen to be waning at a particular point in time.

DR. KELLY: If I could also just add to that. My understanding unless it's changed, about half of all traumatic brain injuries seen currently in the active military population is related to a blast and half is everything else. It's motor-vehicle collisions, falls, and assaults and so forth, very little in the way of penetrating injury because of the protective devices, but some of that as well. So when I see clinically blast survivors, I am startled by the numbers of exposures that they've had, upwards of 100 for certain individuals who have been there for a 15-month deployment as they protect these convoys back and forth in parts of Iraq. They often are very remote but sometimes right there in the vehicle they're destroyed and they get through that after the small-arms fire and go back the next day in a different vehicle on the exact same road doing the exact same thing. So you can imagine the combination of anxiety state and the

effect that has on brain function plus the biomechanical factors some of which we really are just now coming to understand.

And I think as Mike Jaffee is suggesting, as far as we can see things are pretty stable in terms of numbers, and of course because of the complexities involved in trying to do research in that setting and validate instruments, you can fully appreciate how difficult that is and I'm not sure that even reducing the incidents really addresses that.

DR. POLAND: Dr. Blazer?

DR. BLAZER: Dr. Kelly, thanks for your presentation and for your attention to this important category of patients. Proceeding from the conversation about a milder form of TBI and just turning attention for a moment to the more severe categories, I would just like to mention to the board that in the patients who have suffered catastrophic neurologic problems, and you alluded to the persistent vegetative state just in introducing your talk, I think it would be

interesting for the Ethics Subcommittee to be involved in any conversations about the moral status of a person who is given that diagnosis, and that's just a comment. Thank you.

DR. KELLY: I'd be happy to do that. Thank you for that. I should point out, by the way, that the term minimally conscious state which Professor Jennett and I authored and coined that term in meetings in Aspen years ago, there is a center that is affiliated with DVBIC is my understanding. Is it up yet, Mike, or is it coming up, in Pittsburgh, not Pittsburgh, but in Pennsylvania, intended to be treating those individuals who have severe traumatic brain injury and are in a minimally conscious state?

LIEUTENANT COLONEL JAFFEE: Right. There was an international panel that was put together of both national and international experts on optimal treatment for the minimally conscious population. There was consideration for us establishing a center for that population. With the back and forth that has happened, those

recommendations are being passed along to the VA to bolster the technical aspects of their current emerging consciousness programs to the four polytrauma centers and what is going to be built or what has been authorized is a high-tech assisted-living program for those individuals who still need full-time nursing care utilizing the best in assistive technology. So emerging consciousness is going to be a partnership with the VA and we're going to do what we can with this combined initiative toward high-tech assisted living.

DR. POLAND: Dr. Parisi?

DR. PARISI: As a neuropathologist, I have more than a passing in this topic and I have to applaud your efforts, Dr. Kelly. I think you're doing a wonderful job with this subcommittee. I do want to emphasize though that this is a very unique injury and it provides a unique opportunity to advance our basic understanding of the pathophysiology and I'm delighted to hear that there are studies that are

underway at AFIP to try to define at least the pathologic features of these disorders.

DR. KELLY: Thanks, Dr. Parisi. We'll look forward to that.

DR. POLAND: Thank you very much.

DR. KELLY: Dr. Poland, thank you.

DR. POLAND: I do want to acknowledge that a couple of board members, Dr. Pierce Garnder, Pierce if you could raise your hand, joined us who's an associate dean at Stonybrook and also still involved with the Fogerty Center at NIH. And Dr. Joe Kelley who is the Deputy Assistant Secretary for Clinical and Program Policy, OSD Health affairs. Thank you, gentlemen, for being able to join us. Our next speaker is Dr. Mike Parkinson who's President of the American College of Preventive Medicine, a member of the core board, and Chairman of the Health Care Delivery Subcommittee. Several and multiple new members have been appointed to the Health Care Delivery Subcommittee and they have a number of issues to discuss and deliberate, and they will

facilitate the discussions regarding health care best practices. Dr. Parkinson is going to provide an update on the subcommittee and best practices in the Health Care External Advisory Group. I might just add, it's probably obvious, but undergirding or perhaps superseding everything this board talks about is the ability of DOD to efficiently and in a cost-effect way deliver quality health care. So this is a primo issue for the board. Mike?

DR. PARKINSON: Thank you, Dr. Poland, and good morning everyone. On a little bit of a lighter note, first, I'm not going to do any death by PowerPoint. You don't have any slides in your presentation under Tab 4. This is a developmental informational brief. We want your feedback at the high-level concepts of what we're developing here as a roadmap going forward.

On a personal note, let me just give you reflections over the last 2 weeks. I've had the privilege to address both major parties in the silly season, in Denver and in St. Paul. The most

recent engagement was yesterday when I addressed the Ohio delegation and was informed that the starting time at 8:30 had been pushed back to about 7:15 because we had a special speaker, so I said fine. I just have a 10-minute blurb on health and health care reform in general on behalf of this organization called the Partnership to Fight Chronic Disease. I will tell you about that in a minute. The speaker turned out to be Karl Rove. Karl Rove gives one hell a stem-winding speech particularly at things like the Republican National Convention. After he spoke very eloquently and very engaged to an audience that in that particular setting very passionate about what he had to say to learn his message, I was supposed to get up and give a talk on health care. I said what in the world? I got up and I said, ladies and gentlemen, thank you for the invitation this morning. I must admit though that speaking after Karl Rove at a Republican National Convention is a little bit like going to the finest restaurant in town, ordering Chateau Briand, and then being told

that you're having Jell-O for desert. It's an interesting time.

I'm delighted that the department and the good work of Gail Wilensky and the task force that reported to Congress can now be moved forward in a systematic way that brings value not only to the Department of Defense but, frankly, to our nation. What I'd like to walk you through a little bit is what's happened since the release of that letter which is Tab 4, July 11, directing or asking that Dr. Poland and the DHB set up a process to deliver on the Health Care Delivery Subcommittee of the DHB.

You have in the attachments in your book a list of the current members some of whom are here at this meeting of the newly created Health Care Delivery Task Force. Many of them you will recognize as leaders in health care delivery and health thinking. There are additional members that may be added to that group. I'll Roger in a few minutes for an update of the logistics and the formation of the committee itself. We are

planning for an initial meeting on October 20. That's the latest date that we're circling in on, so that's the practical logistics.

What myself, Dr. Wayne Lednar, and Dr. Poland have tried to do in the intervening weeks since the letter was released was to develop what would be a concept of operations for the committee itself and for the step-by- step process that we would use to bring value to what is a very broad charge. So let me at a very high level walk through some of those principles because the document itself is probably about 90 percent there. I'm not satisfied with it yet, and I don't want to waste the time of either the subcommittee or of the full DHB before going forward. But let me just give you some of the flavors that I think are important to inform this effort and then invite Dr. Poland's commentary, Dr. Lednar, and the full committee.

The first is that the subcommittee believes that the military health system can serve as a national model for health care delivery best

practices, provide standards based on a population health optimization construct, and serve as an example for existing best practices in the civilian or government sector. The notion of this committee would be both aspirational and transformational. It would not necessarily be constricted by either the recommendations of the MHS task force which had a deliverable back to Congress in a set period of time as we discussed during Dr. Wilensky's report to the full board at one of our past meetings, but it would certainly be informed by those recommendations and informed by existing civilian best practices. But as anybody knows who looks at the U.S. health care system is if your goal is to duplicate a civilian system that has 35 percent pure waste, inefficiency, and ineffective care, than it probably is not the goal for the military health system to emulate but, rather, to learn from and move beyond. So the first thing we wanted to do was to have frank dialogue with Dr. Cassells, Ms. Embrey, and the leadership of the DOD about the

role, the charge, and the aspirations, if you will, of the overall vision.

The External Advisory Group of the subcommittee believes that the MHS can represent a national model for health and health care transformation informed by but not limited to what may be "current best practice" in the private or non-DOD governmental health and health care related sectors. So that we thought was very important to say up front and get buy in.

We certainly want to use as our true north the charge from the Military Health Service task force which talked about the DOD developing a strategic plan for better integration of the direct care system and the purchase care system. The DOD currently, Dr. Cassells and staff, is working on a strategic plan strategic plan in direct response to Dr. Wilensky's task force that will be one of the first missions of the Subcommittee on Health Care Delivery, to review that strategic plan, provide feedback to the DOD as to whether it nor it meets its mark, and then

interface that with what will be the scope and mission of the Health Care Delivery task force.

We envision, and by we at this point it's the staff, it's also Dr. Lednar and Dr. Poland, that in order to bring value to our effort, we almost have to step back for a minute and define two axes of health and health care continuum which is one axis defined by health behaviors and the supporting healthy communities that lead to this behaviors, acute care, acute episodic care, chronic disease, surgical decision support, inpatient care, rehabilitative care, hospice, end-of-life compassionate care. We're not defining the scope in terms of what happens at an MTF or what happens in a TRICARE contract. It's the needs of the military beneficiaries which frankly should serve as a model for others who might want to learn from an organization that has as its core values fitness, performance, transparency, efficiency, optimization, just as we do a military operation. That's the first axis.

The second axis, however, which makes

those real is what we call the health system infrastructure continuum. It's the IT. It's the programs and policies and leadership structures. It's organization. It's metrics. It's personnel. It's training. It's best business practices that may or may not be optimal business practices. So in our processes, what we want to bring to you is a roadmap, a CONOPS, a concept of operations, for how the committee will go deliberately over one continuum alternately with another continuum, because you can talk all you want about wellness programs or for that matter doing better monitoring of people on Coumadin to prevent strike admissions in the emergency room, but if you don't talk about infrastructure to support those evidence-based practices, we won't get there which is something I think we see time and time again at the board where we articulate best practices and we don't get into the weeds enough to be of support to the DOD in terms of infrastructure support to get to those optimizations.

The final major construct in the

document that will be coming forward to the members of the subcommittee and to the full board is that within each one of those core building blocks which are really functional in nature, they're not defined by the existing laws or statutes or practices, they'll be informed by that, but what is the process whereby we want to look at for example informed surgical decision support in a country where a third of all surgery is unnecessary? How are we going to get there to look at how we bring value back to the DOD? First, review existing MHS service metrics and where DOD stands relevant to civilian best practice benchmarks where they exist. Number two is provide to the committee in advance the relevant DOD benchmarks and civilian benchmarks in advance of our sessions. There will be pre-work before our meetings so that we understand the lay of the land before we actually convene. Number three, pre-work, working with DOD staff and the expert panel members and identify to the committee existing best practices that you are aware of in

that continuum sector that we're talking about at that meeting. Is the best practice here? Is the best practice perhaps in the U.K.? Is the best practice in a work site health clinic that DOD doesn't own, operate, or even have? So what we want to do is to find for the group what are existing best practices.

Step number four is the actual meeting. So the pre-work would be benchmarking internal to DOD, external benchmarking external to DOD, recognition of existing best practices where they exist. Number four is the meeting to convene the meeting and look at all of those issues in a single meeting. Number five, obviously is to issue preliminary findings in a report in that element and then insist working with staff that it married up to previous reports and findings as it relates to the military health system so that we cannot have a spine that is disconnected from the periphery with reports coming in that don't fit the health care continuum or the health information infrastructure continuum. Often times

we find disparate recommendations coming out that aren't really aligned.

Finally, provide feedback on a regular basis through Colonel Gibson and the team back to the committee on what is the progress we've made toward implementation of what we consider to be a breakthrough transformational best practice that the committee itself recommended through the DHB to the ASD for Health Affairs.

Thank you for listening to this. I thought if I talked it through rather than showed it on a slide that we can understand the construct because many of us have been involved in transforming large system know that it is very difficult. It can be done. But we have to do it in a systematic way that is reproducible and likely to succeed. So that's why are spending some time in getting the blueprint down as to how this Health Care Delivery Subcommittee should work so that we can meet the goals that really started with the congressional charge to Dr. Wilensky's task force.

With that let me turn over perhaps a reaction to Dr. Wilensky, a little unfair, and to Dr. Poland and turn it over to you, Greg, for discussion.

DR. POLAND: Let me make a couple of comments and then I'll ask Gail and Wayne to make a few comments. Mike has heard me say some of these. I think this is possibly the most important opportunity the board has ever had to weigh in to anything health related. It informs and transcends I believe everything that DHB does. I think it also is nonnegotiable. This is something that in my opinion the nation owes to service members and I think the tenor that you're hearing from us as we plan this will transmit all the way through everything we've done.

The next point I think is that this is a critical competency for force readiness and we dare not ignore this. One can find interesting quotes going back to General Washington saying that as young men, now it's now young men and women, contemplate service to their nation, they

will look to see how wounded soldiers were treated, and I think we should be informed by that viewpoint. I think it's also fair to say as Mike pointed out, no one has this right yet. So it is both a challenge and an opportunity. There is a competency to innovation and transformation and I think we will try to bring that into these efforts. Don Berwick will be serving on the subcommittee as I understand it. Don has a compass that I've stolen from him many times that shows that truth north in this regard is the patient focus and we'll try to keep that in mind.

Finally, I want to make one point. I hope I won't surprise Mike because I haven't said this to him yet. Some of the recommendations may not necessarily be consensus driven. Some of them will, but not all of them. I'd like you to recall the words of Blaise Pascual who said that consensus can sometimes be mediocrity in disguise and is the opinion of the least clever. Given that no one has it right yet, I don't think we'll always have among the board full consensus on some

of these recommendations because as Mike said, they are intended to be aspirational and transformational in the true dictionary sense of those words. Mike, I commend you for taking on such a large role and again impress upon the board the singular opportunity that this challenge presents for us. Might I ask Gail and Wayne to make a few comments and then we'll move on?

DR. WILENSKY: It's been extremely gratifying to recognize the seriousness with which the recommendations of the task force have been regarded by Dr. Cassells and by the senior oversight group that has been put together by the various surgeons general and now by the charge to your subcommittee in terms of putting some of these directives into action. The focus on the integration of the direct care and the purchase care and how that can be used to provide best practices in the delivery of efficiently produced high-quality care is something that I think really will be very important not just to the military, that is its first obligation, but potentially to

the nation as we struggle more broadly to try to understand best delivery. It's I think particularly important that the military because of its use of purchase care and the direct care system which as many of you have heard me say is both the great strength of the military, but it also the big challenge because it requires an integration. But frankly it is that integration which makes it so much more relevant for the country as a whole.

There are many things that you can learn from a direct delivery system that shows what systems can do in terms of providing either more efficient or high-quality care and there are a number of systems, both the VA through the government, Kaiser and a number of other systems in the private sector, but the fact of the matter is the vast majority of physicians are in groups that are fewer than nine, about 70 percent that are in four or fewer. Most of us do not as patients or potential patients belong to these systems of care. So my mind what really is the

leadership that the military can provide not only in terms of leading the way for providing care for our its members and their families, and that's every bit as important, but it is really to show how the integration of a direct delivery and of a purchase care system which is much closer to what the rest of us have can allow us to get to a point where we are having both slower growth in spending and higher value in terms of the services that are received.

It is a very daunting challenge. It is not just trying to get the right incentives in place, but a lot of it now, my other area of activity, I'm trying to press the Congress forward on the notion of a Center for Comparative Clinical Effectiveness, has been the realization of how much we don't know in terms of what works when for whom and under what circumstances and that without that kind of information even the best intentions will make it very hard to achieve the kind of improved value and quality of care that we all want. But it's a big issue for us as a country

and I think it really is capturing us at a moment where there are forces on the right and left that are looking at these issues. It's a little hard in the middle of the silly season as you phrased it correctly to recognize that and it will be hard for the next few months, but there are very important common elements in both health care plans as it relates to the delivery system, very large differences as it relates to expanding insurance coverage, but very common elements and that's precisely the area where I think that the military and the subcommittee in particular can provide leadership.

So for the 15 of us, and there are several in this room, and General Myers who is also a new member who devoted a fulsome year to try and produce this report, it is truly gratifying to see the seriousness with which this board but particularly the Department of Defense have taken in that. It doesn't always happen that way with task forces.

DR. LEDNAR: I guess I'd just share a

couple of thoughts. One is that I think we should stop for a moment and just reflect on the fact that DOD and VA have defined high quality and delivered it in ways that have instructed the entire nation and other nations around the world and we should feel very good about that. So I think we have a structure that is up to the challenge but it needs some perspective, it needs some advice, it needs not just hope, it needs a plan that can be executed. So this while it's daunting is entirely doable, and as Dr. Poland said, in fact there's a moral imperative to succeed here.

A couple of thoughts I think that have occurred as Mike, Greg, and I have started to sort of kick the tires about how we can help to move Dr. Wilensky's and General Meyers's task force plans forward, one is that we're talking here not just about individual patient medical treatment, we're talking about population health management and those two sources of expertise, medical expertise are not the same and they need to come

together in an effective way. Our goal is not just good clinical care, it's also that the mission of DOD can get accomplished, mission focused, and we don't hear that enough in the delivery of medical care, that it's not just that one's coronary arteries are now more patent than they were before we stuck a catheter into them, but that the patient got better and not just clinically, but able to perform tasks of daily living and work, and we need to do that at the individual and also at the group level.

So this approach in medical care delivery has to have perspectives of metrics that get at what is this accomplishing and it's got to be more than just spend less, it's got to be more than just clinical outcomes, and clearly more data delivered in best practices ways, but did it make a difference. So there's going to be some need to innovate, and innovate and transform are two words that have continuously been popping in the discussions over the last 6 to 8 weeks. In fact, shame on us if we don't take the opportunity that

Dr. Cassells has presented and really deliver a plan to build on the thoughts from throughout the private sector and the VA and the military sector on how to do this well.

I guess I'd just close with one other thought. This is partly a personal sense but I think it should be transformed into a Health Care Delivery Subcommittee reality. That is we should have world-class inpatients. We need to get there. And when we think about clinical practice guidelines and the experience today of how long it takes for science-derived best practices to find their way into day-to-day patient care, we cannot tolerate 7 years or some even say 18 years before the science converts into day-to-day practice. None of us should tolerate that and we should have a system ensure that it doesn't occur.

DR. POLAND: Thank you, Wayne. Roger?

COLONEL GIBSON: Just a couple comments on administration associated with this. One comment, yes, difficult job, lots of work to do, and to make it harder it's going to be a moving

target because DOD will move forward. They have a Senior Oversight Council with lines of action associated with this. They will be doing things as this group continues to move, but health care it's evolving. It's an iterative process. We stood this subcommittee up, this Health Care Delivery Subcommittee, in 2007 knowing full well that the Task Force on the Future of Military Health Care would provide a set of recommendations that would need care and feeding, would push this board to get involved to get involved to make sure that things are followed up through the department, and in particular these issues of best practice. So we've put it in place and had a small number of members. Since that time we've appointed 17 members to this subcommittee four of whom are currently core board members. As core board members, any of you who wish to serve on this subcommittee may do so. We have two additional pending members and we're expecting to hear about their appointments shortly. These appointments were confirmed just in the last 20

days. So we're moving forward on that.

I would also say, and Mr. DuBois may want to comment, that National Capital Region BRAC and the initiatives going on there with Joint Task Force MEDCAP or CAPMED presents an opportunity for a test bed for many of the initiatives that may come out of this.

DR. POLAND: Dr. O'Leary?

DR. O'LEARY: This is an enormously important initiative obviously and huge in scope. I would just offer a little caution about the illusion of the benefits of best practices. My organization tracked best practices and they're like gossamer, because something that works there is not necessarily going to work here. It's not to say that there are not some gold out there, but if you're really interested in something, you need to find out why it worked there and to make it work here, is that going to be compatible with your mission, with your principles, with what you're trying to do. So best practices is a nice sounding term but it is not the Holy Grail. There

is going to be much more gold in leadership and principles, innovation, understanding what you're trying to do. There's nothing to say that you won't be able to build something better than anyone else has built.

I would go back to things like the importance of evidence-based design. We're experiencing a major hospital-building boom in this country and I would say close to 95 percent of the hospitals that are being built are being built just like they were before against the face of a huge base of evidence-based design to say that there are a lot of things you can do and do differently that have immediately translations into improving patient safety and health care quality. So I would gravitate more to the world of evidence than to the world of best practice in my own personal opinion.

DR. PARKINSON: Dr. Poland, one final comment if I may on Dr. O'Leary's comment is that I think the evolution -- and you see the wonderful makeup of our colleagues, many of you are

international leaders in this area, the notion of how do you internalize a sense of cultural competency, values in a system, grow leadership, and this notion Paul Batalden and his team and others have pioneered, the microsystem of care that empowers patients not to being patients they don't need to be and staff to be a team and all those types of things are inherent to the value. So the best practices language, Dennis, comes as much out of the wording all the way back to the congressional language that filtered down. So we're really involved with that.

The final comment, Greg, is that several years ago Dr. Dan Fox who is with the Millbank Foundation had a wonderful historical analogy. He said race relations in the United States took a major leap forward when General Eisenhower directed the Department of Defense to integrate and to get rid of the vestiges of racism. He said there is no reason why the clear-thinking people in the Department of Defense with a value-based system around optimal performance at all stages of

life can't begin to add value and reshape in a very, very ineffective health care system new values with this type of effort and he actually believed that. So the conversation I had today is good for all of us to hear because in the aspirational transformational vein that we're charging forth with here, I think we should settle for nothing less realizing that there's a lot of economic, political old thinking along the way that we may have to change. But with that, thank you very much.

DR. POLAND: Thank you, Mike. We have two briefings for the board actually recommended by Dr. Parkinson, and I commend you, Mike, for suggesting it, to better understand for the board members how some of the financing and other aspects of this works. Our first speaker will be Colonel Jim Black who serves as the Senior Medical Director at TRICARE Management Activity. He'll provide the board with an introduction to TRICARE. We're calling it TRICARE 101. And how the DOD delivers health care through their partnerships

with civilian health care systems. We do this, and I recognize some of the board members have a lot of experience and expertise with TRICARE, others don't, so we'll try to give everybody the same background here. I think it's clear that health care delivery issues are of paramount importance to DHB's future direction. I think Colonel Black's slides are under Tab 5.

COLONEL BLACK: Thank you very much. TMA is the TRICARE Management Activity and I've been there all of 6 weeks. So last week when I was asked to give this briefing, I said I should be giving the briefing and not giving the briefing. They said, Jim, it's like when you were a resident and you'll see one, do one, teach one, where we're sort of eliminating see one step, weaning the process a little bit. So in any event, here we go. Just an overview of what I'll be talking about. I'll try to make up for the fact that Dr. Parkinson didn't have any slides with my briefing.

What is TRICARE? We use the word all

the time so I think one of the key words here is it's a health care system with military health care as the backbone partnering with a civilian network of providers and facilities serving those great folks. Every organization has to have a vision and a mission, and this is ours. I think on the mission where it says providing health support, that's anywhere, anytime. Just a little bit more about the TRICARE system. I was told that the entitlement program for someone simple like me means it's law. So TRICARE is in law. It has a consistent benefit throughout the program. I can say in my time at TMA, there are all sorts of regulations and policy manuals. It's amazing the amount of stuff out there that tells you how the program works.

Obviously, which was a little surprising to me, Congress says a lot about what is in the benefit, and they may say some things aren't part of the benefit like cosmetic surgery or biatric surgery, those types of things are not a TRICARE benefit, although they may be performed at an MTF

especially it's part of the training program. And obviously the congressional interest is focusing on access and high quality care. I think that last phase there at the bottom, families, because again when it comes to retention that families and especially spouses have a very important say in that decision.

Besides TMA in providing high-quality care, force health protection is also one of its missions. Part of this is keeping people fit especially service members so that they're fit to fight. Being sure our medics are trained to deploy and take care of our troops that are in harm's way. Being sure that our senior leaders have medical capability in the event of a crisis be it humanitarian or a disaster like Katrina or any kind of conflict. That last one there is that when a member is deployed, we want to be sure that their family is being taken care of stateside. And certainly today with instant access, they can find out very quickly if that's not happening, and certainly that can have an adverse impact on the

mission.

Any military briefing wouldn't be complete without a wiring diagram. I think this is correct because chemists will start looking at things, solid lines, dotted lines, slashed lines, slashed dotted lines, so I tried to make it as simple as possible, but in any event, the president, secretary of defense, office of the secretary of defense, defense secretary of defense for health affairs is Dr. Cassells. That's where the policy comes down to TMA which provides guidance to the services on executing those policies. You can see that's a dotted line so the medical service departments work for the services, but when it comes to medical issues, many of those policies and guidance come through health affairs and TMA.

As far as TMA is concerned, you can see Dr. Cassells is the director and the deputy director is General Granger. The chief medical officer is Dr. Kelly. Then you can see the other areas there in TMA. TRO stands for the TRICARE

Regional Office and I'll talk a little bit more about that in another slide. TRICARE Area Offices are to the TRO equivalents overseas, so there's Europe, Latin America, Canada, and the Pacific. I'm under the chief medical officer probably somewhere where the black curtain is I would suspect.

There are three regions and there are three contractors as you can see there. This is what the contractors are responsible for and they work with the TROs under the guidance of TMA. This shows the three regions and again the three contractors in the TROs. Each of the TROs are located in those regions. I think in the west it's in San Diego. I don't know why it's not in Minot.

Just some facts and figures that may be impressive. I'll talk a little bit more about what prime enrollee means. When you look at the bottom number there, I would suspect that like everything in health care, it continues to go up and up which is obviously a concern to our senior

leaders.

Here's what happens in 1 week in the military health system. These are pretty impressive numbers. Again when you get down to the bottom, when I say that I said that's a lot of zeroes for a week, but to provide that amount of care it takes a lot of money.

Here are some of the DOD health care programs. Don't worry, I'm not going to go into go into great deal on all of these, but I just want to highlight what they are. Some of these have evolved from when originally TRICARE came out in response to various needs. These are the three basic TRICARE options. Prime is an HMO type, TRICARE Extra is the preferred provider organization type, and then standard is the typical fee for service. TRICARE Prime is really the most affordable and the most comprehensive. Enrollment is required but there is no enrollment fee. These are some of the features of Prime. If you're located near a military treatment facility, MTF, you can get enrolled in Prime, or if the

regional contractor has set a Prime network, you can get enrolled in Prime there. Again you're assigned to a PCM who helps manage your care. These are the eligible beneficiaries for TRICARE Prime. For active-duty members, they don't really have a choice. They're automatically enrolled as Prime.

In the previous slide it talked about access. From what I understand is law so it has to be done, but I can tell you that with the current situation with a lot of folks deployed, providers and nurses and technicians, sometimes it's tough meeting those access standards. So we give money to the MTFs to hire contractors which in some places in the middle of New Mexico or whatever may be a little difficult and more of a challenge. And also even if you're in a more provider-rich environment, you're competing with other health care organizations that may have little deeper pockets. In any event, we have a challenge and I think folks are responding to it and really doing the best they can in sometimes

trying situations.

Extra again is the preferred provider option. In this one you need to see a TRICARE network provider, and there are a few more details there. Standard again is the fee for service. In this case you don't necessarily have to see a network provider, but you just have to see one of the authorized providers and the options that the provider may have in regard to the claims.

One slide puts it all together. You can see Prime, nothing. Extra has annual deductibles, some co- pays, et cetera. In any event, you can see how Prime is really the most affordable of the options. This is the let's make it simple for Jim Black slide, freedom of choice, Prime not to much, more as you go up to Standard, access to military treatment facilities, there's greater with Prime, cost greater with Standard. I can understand that.

I think this rolled out with TRICARE about 10 or so years ago. When you roll out things you realize maybe there are other things

pop up that we need to address. Again, not every active-duty member is going to be near an MTF and so we want to be sure that for medial-readiness reasons, et cetera, and for deployment readiness, we need to be sure that they get the care they need. There's TRICARE Prime Remote. Those are the criteria to be eligible for it. Apparently the Zip codes are already determined so when you go on the website you just put in your Zip code and it will tell you whether you qualify of not. Also it can be available for the active-duty family members if their sponsor is in a remote location, but it's only available in the 50 United States.

There's TRICARE Prime Overseas. Again it's the same kind of benefits that TRICARE Prime Stateside has. It makes it easier to transfer between regions from Europe. If you're going to west region, TRIWEST, your enrollment, and you do have that point of service option overseas. Then there's TRICARE Global Remove Overseas which I don't really know too much about, but again there

are folks assigned to remote overseas locations which kind of makes sense. But it will be partnered with International SOS which I really didn't know too much about, but there will be another slide to talk about that organization. In any event, there's a license of (off mike) and qualified physicians who have been identified that members can go to for their care.

So here it is. I think in looking at their website, it's a 24-hour operation. They have several thousand physicians, nurses, and technicians, aeromedical specialists and DOD has contracted them to provide this service. TRICARE For Life. When TRICARE first came out, when you turned 65 and were eligible for Medicare, you were no longer eligible for TRICARE. That got the retirees a little stirred up and so I think in 2001 Congress responded to that concern and so enacted TRICARE For Life. There's a whole slew of things that you have to think about. Besides being in enrollment, also Part A and Part B you have to be enrolled in, but you have to pay the

Part B medical premium and not the hospital Part A.

This goes into what Medicare will pay for and TRICARE won't, what TRICARE will pay for and Medicare won't. If neither of them will pay, you have to pay for it. The one thing that I really want to focus on is the bottom bullet which is TRICARE Plus because TRICARE For Life you're only eligible for space A care at our MTFs. TRICARE Plus is a program that if there's capacity at the MTF, you can be enrolled for primary care appointments, but it's really up to the discretion of the MTF commander if they have that capacity. It's a way at least for the folks with TRICARE For Life do have an opportunity to try to get at least their primary care done at an MTF but it doesn't guarantee them specialty care at the MTF. Again I think this is one of our more popular programs, the pharmacy program.

As everyone knows, pharmacy is many times an expensive choice some patients have to make, but for our program, the generics is not an

equivalent, then you go to brand name. If they're nonformulary you need the medical necessity and prior authorizations. Sometimes they may have limits on how much they give you and for how long. But the MTF pharmacies have a uniform formulary that to dispense just generic and formulary medications. You can see why this would be a popular program, that if you get your medications at the MTF pharmacy there is no cost. Even the NMOP, the mail-order pharmacy is very reasonable. Even if you go to the retail network, even though you can get a 30-day supply, it's still pretty reasonable. So when you look at that you can see why sometimes people will drive hundreds of miles to come to an MTF pharmacy to get their medications. I'm not sure what year these numbers came from for commercial organizations, et cetera, but in any event, just for comparison, I would suspect for any length in the past they've only gone up, but you can still see TRICARE payments are still low and have been low for many years.

To rapidly go through some of these

other programs, there's the TRICARE dental program for family members. Again you pay your premium. There's a retiree dental program. Again you pay a premium. There's TRICARE Reserve Select so if you're a reservist you do have an opportunity if you elect to to be part of this program. Again there's a premium payment and you can see the bullet there what the premium payments are, and then the qualifications for the TRICARE Reserve Select. This gives the reserve component a health care option versus many times they will have TRICARE when they're activated on active duty and when they're demobilized they have no health care plan so this gives them an option.

Again this program here is when you are separated from the service your TRICARE benefits end. Congress decided that we need at least some kind of transitional program, so for up to 180 days you can still get the TRICARE basic options depending on what you have for that 180 days. For involuntary separation, and example would be if you're passed over for promotion a couple of times

or if there's a reduction in force and you wanted to stay in but you can't, at least for that period of time you do have a continuum of health care.

This program is not actually a TRICARE program but it was something Congress decided to do. It's managed by a contractor and even if you were on the previous program, the TAMP program, when that ends you can still start the continued health care benefit program. As you can see, the premiums there, I don't know how that compares to the civilian world as far as premiums are concerned. It probably seems pretty reasonable. But again an option that someone can look at as their transitioning into their civilian job and civilian health care that they're able to join.

I think this is the last one and this one is a program for service members who have special needs family members. This augments the TRICARE Benefit Program. There are various benefits that it covers like rehabilitative services and certain assistive technology devices and things of that sort. You can see what the

benefit allowance is. There is I think a payment and it's based on grade or rank. If I remember correctly, I think for a junior enlisted it was $25 a month, so for that program it's very reasonable.

That's kind of quick down and dirty. If you wanted basic, I guess you picked the right person because that's about all my TRICARE knowledge. But in any event, if there are any questions anyone may have you can ask Dr. Kelly.

MR. UNTERMEYER: Colonel Black, under what circumstances would a retiree use TRICARE versus VA versus Medicare?

COLONEL BLACK: I think for the VA it's going to be service connected. I think the VA is only going to provide care for a service-connected condition. So if you have hypertension and that wasn't service connected, then I don't think the VA is going to provide that care. Medicare is 65 and over, so I think Medicare is the first payor, help me Dr. Kelly, and then TRICARE For Life is a wraparound to the Medicare benefit.

DR. KELLY: Once you're eligible for Medicare, then the TRICARE For Life program will provide a supplemental insurance so that there is essentially no cost for services that are covered by both Medicare and TRICARE which is most, but there are a few exceptions. People who have a choice, if they're VA DOD so you're a retiree, if it's service connected there's no cost share most of the time in the VA. However, other things, you have a cost share that's based on a needs assessment and your income. So you could have a service-connected disability that the VA would cover, you could go to the VA for that. They probably would treat you for other things too, but then there would be cost shares associated with that. Whereas the cost shares if you're in the military health care system are more clearly defined. Some of that depends on where you are. If you're in a location where there are no military facility and you're going to have to use Standard, you know that there's a 20-percent cost share. If there's VA care it's probably less than

that. So it's actually site specific, disease specific, person specific, on whether or not you would choose that and we have benefit advisers who work with people to make sure that they know what the benefits are so that they can make an intelligent choice.

DR. POLAND: Dr. Halperin?

DR. HALPERIN: Just to understand the system a little bit better. Are there mandated health benefits in TRICARE? For example, HPV immunization or screening for ovarian cancer, things that are sometimes included and sometimes excluded from the normal Blue Cross/Blue Shield kind of thing?

DR. KELLY: For active-duty people we have the ability to mandate where you can't say no. For the retirees, for the family members, essentially all of the immunizations that are recommended are covered including up to -- there are technical details about the varicella vaccines because of how it's given that it has been a frustration, but it is a covered benefit, so all

of those are covered. We actually have some studies to look at some pilot programs to see about providing without cost share certain preventive services. Those should within the next year hit the street for those people. But the active duty and the active-duty family members don't have a cost share. The retirees for that small period between the time you retire and the time you turn 65 do.

DR. POLAND: Dr. Lednar?

DR. LEDNAR: A substantial part of our military fighting strength is in the Reserve and the National Guard. Your description around TRICARE described active duty, what's available for the Reserves, also retirees. Can you say a word about what are we doing to support the needs for those in the National Guard if anything?

COLONEL BLACK: I think when I said Reserve I was really talking about the Reserve component which includes not only Reservists but also National Guardsmen. So when you see Reserve, that really is the Reserve component that has

those two in it.

DR. LEDNAR: Then would it be fair to say that this federal thought process around the Reserve component would apply to the National Guard elements which really are under the authority of the individual states? So this would be a uniform program that's available to National Guard folks wherever they're located?

DR. KELLY: Yes.

DR. LEDNAR: And no?

DR. KELLY: There are some states, and I believe Maryland is one of them, that has actually has actually two parts of the National Guard. They have a part that can be federalized, and they have part that's strictly a state militia. The constitution allows that. And so that state part does not fall under this kind of health care policy. But any of the ones who could be federalized do fall under the same rules and it is for the National Guard and the Reserve forces.

DR. POLAND: Go ahead, Dr. Wilensky.

DR. WILENSKY: To continue the response

that Dr. Kelly just made, one of the recommendations of the task force had been to assess how well the changes that were introduced in the last couple of years for the Reservists broadly speaking affected their access to health and therefore their military readiness. A lot of change has occurred. It is very early yet to be able to assess whether or not it has done what the Congress it had done or hoped it had done. So sometime in the next 2 or 3 years it will be important to go back, assess whether or not the Reservists are improved in terms of their military readiness as a result of this or accessing health care in a way that makes it more effective, but it's hard to tell now because we're in the midst of the change.

DR. KELLY: Yes, ma'am, and I would just add to that that actually we were directed to reevaluate the cost shares that we had because fewer people were taking that than were projected and so we are going to be lowering those cost shares for the Reserve Select program as we go

out. We don't have big data, but we know that not as many took the program as we thought.

DR. POLAND: One more question and then we need to stop.

DR. FOGELMAN: Could you speak to mental-health coverage and behavioral-health coverage? Is it similar to, different from, somatic coverage? How is it managed? What are the limitations on it?

COLONEL BLACK: Dr. Kelly?

DR. KELLY: It is similar for outpatient services. In most cases we think of people who are enrolled have to have a referral in mental health before you go to specialty care. However, in mental health you're allowed eight visits before you have to get a referral. If you need more than eight visits, that needs to go in and be evaluated.

DR. FOGELMAN: You mean reviewed? And if so, by whom?

DR. KELLY: It would be the primary-care manager. Getting the feedback from the

mental-health provider to see why they were there. We normally require a referral for anyone who is sent out to specialty care.

DR. FOGELMAN: Using what standards in mental and behavioral health to make those decisions about whether more than eight visits are appropriate?

DR. KELLY: It would depend on the diagnosis, the treatment, the individual. You're asking for a list and I'm not going to give you a list off the top of my head.

DR. FOGELMAN: I honestly was asking conceptually, but I guess the Psychological Services Subcommittee will talk about that.

COLONEL GIBSON: We can go into this in the Psychological Health Subcommittee.

DR. POLAND: Colonel Black, thank you very much.

COLONEL BLACK: Thank you, and thank you, Dr. Kelly.

DR. POLAND: I'm pleased to present our next speaker, Mr. Al Middleton who serves as the

Acting Deputy Assistant Secretary of Defense for Health Budgets and Financial Policy as well as Acting Chief Officer of TRICARE Management Activity. In this capacity he serves as the principal staff assistant and adviser to the ASD for Health Affairs and for of the departments' financial policies, programs, and activities for the military health system. His bio and slides are also under Tab 5, and we have also allotted 30 minutes for this presentation.

SECRETARY MIDDLETON: Thank you very much. For some of you this will be a review of material that you've seen before in various forms. I'm sure Dr. Wilensky could actually give this presentation she's seen it so many times, and for some of you this may be new information. We have a fair amount of material to cover in 30 minutes and I'll try to be judicious with your time and leave some time for questions as well. I'm going to talk about these basic things. I'll go through these topically and explain where we are from a financial perspective in the military health

system.

Organizational relationships, you've probably seen some of these charts before. My responsibility falls on the left-hand side as the principal financial adviser to the Assistant Secretary Dr. Cassells and also as the chief financial officer for the TRICARE Management Activity, and we work in relationship with our colleagues in the services on the financial, and I'll show you some information on the financial flows as well later in the presentation. You've seen this before. This is our mission. We tie ourselves to these things, and I'll look at our goals and objectives as we go forward.

Our military system is comprised of three basic components. I think some of you have seen this presentation. We developed this some time ago to show how we moved from our peacetime system to get ready to go to war and then our ability to meet the wartime requirements as a military health system.

This is a snapshot of where we are.

This contains all the vital information that you'll need to understand how big a system it is. The current total obligation budget authority including all of our components, and I'll detail those components later in the presentation for the military health system is approximately $44 billion on an annual basis. We have approximately 62 inpatient facilities, over a thousand outpatient facilities, dental and veterinary services in various clinics of different kinds. We operate with about 132,000 in the military health system and that includes both the military and the civilian forces. And we serve about 9.2 million beneficiaries. That would be both the active duty, their dependents, retirees, survivors of retirees and the dependents of those folks, so fairly large system, a global system, care provided or paid for essentially around the globe. So it's a big, complicated system. In fact, the TRICARE management at the MHS conference last year in my comments I think I accurately portrayed this as probably the most complex health system in the

world.

Let me talk a little bit about beneficiaries and benefits. I know you just had a presentation about that. This gives you a breakdown of the categories of people of our 9.2 million beneficiaries. As we trend that out over the years as you look out, the projections are that that stays in that same ballpark. Some years it gets to 9.1, others it goes to 9.2. Of course, contingency situations, recruitment, retention, all of those will play a factor in what our ultimate and over the years what our total population is, but you can see the general population. The Medicare eligibles, and I'll talk a little bit at the end of the presentation about how we finance. Someone asked the question earlier about TRICARE For Life. I'll talk briefly about TRICARE For Life and how we finance that. It's a fairly unique way in which we finance that health care for our folks who are Medicare eligible. Sometimes we think of that as being over 65. Really it's all Medicare eligibles, and

we have over 100,000 people who are under the age of 65 who are beneficiaries of ours who are Medicare eligible for other medical conditions and disabilities.

This may be a little bit of an eye chart, but it'll give you an idea of how this benefit evolved, and I think that's an important story. One of the key issues that Dr. Wilensky and her folks, General Corley and the co-chairs and the members of the task force dealt with was how we're going to deal with financing the benefit long term. The euphemism that we used a couple years ago in our proposal was sustain the benefit. I'm not so sure that's the right euphemism to use, but it's how do we sustain ourselves over the long haul at an ever-increasing rate, and I'll show you some dollar figures to show you the rate of growth in the military health system and how that impacts on the military, the Department of Defense. But you can see a fairly long-term increase in benefits over time starting out with the 1950s and then of course with the implementation of Medicare

in 1966, and then the implementation therefore of what we called CHAMPUS at the time, TRICARE now. You see a big benefit change in 2001 principally driven by a couple of things. The TRICARE For Life benefit for the folks who are Medicare eligible was a big-ticket item for the department and a big cost for the department in several different ways, and I'll explain how that gets financed. The catastrophic cap was reduced. We lost the ability to use nonavailability statements in some legislation about that period of time. That all created an increase. So if you look at the trend of dollars for the military health system you can see this gigantic jump starting in about 2001 to get us to about $44 billion. It was $19 just about 6, 7, to 8 years ago, so a big jump.

I'll say a little bit about the financial resources. I apologize, we have two slides in there that are the same so let me skip to the second one. Let me talk a little bit about the Defense Health Program appropriation. The

Defense Health Program is distinct from the unified medical budget. The unified medical budget includes the Defense Health Program. The Defense Health Program is an appropriation by Congress separate and distinct from the rest of the department, and that's an important distinction because under fiscal law we're unable to exchange dollars between different appropriations without congressional approval so the money that we get is the money that we get and so we have to live within that confined budget. It's important for you to understand as you get further along into the Defense Health Board programs and the subcommittees that the DHP is an appropriation. It includes our operations and maintenance dollars, ONM dollars, our procurement dollars for equipment and systems over $250,000, and our research and development, testing, and evaluation dollars that we manage. We may carry money over on the ONM side from year to year but not more than -- it was 2 percent, this year they've reduced it to 1 percent for us. We'd like

to get that turned around and we might need your help to do that. Also part of the uniform budget is the Defense Health Program Military Personnel Accounts in programming which is the out years.

As we look at our fiscal program, we have essentially three things going on at the same time. We have the execution year, the fiscal year that we're end and we'll end that in about 26 days, we'll end this fiscal year. That's the execution year. We have the budget year which is the president's budget year which will be FY09 starting 1 October. Then we have the out years, FY10 to FY15. Those are what the call the programming years. So if you think about it, we have spending, defending, and pretending. But in the pretending stage of this, all people are dollars. So in FY15 from a programming spectrum I'm just a dollar and Colonel Gibson dollar, and in the programming years we can convert those military to civilian, to contractors. We can move those dollars around. In the execution year we can't, and in the budget year once the president

submits his budget we're pretty well locked into what we're going to have. So there's not a lot of change that goes on in that. But in the programming cycle, a source of funding, you think of people not being funds, in the programming years they really are funds.

We have military medical construction and I'll give you a little more detail about that later on. The Medicare Eligible Retiree Fund, I'll talk a little bit about how we finance the folks who are Medicare eligible. We do get a lot of supplemental appropriations, the global war on terror being the most obvious. Lots and lots of money. Billions of dollars coming into the Defense Health Program to help buy down the bills for our people who are deployed and so we can bring care back into the facilities using contractors or overhire civilians or anything else we can do in order to pay for that care that goes downtown.

We also have hurricane relief, Hurricane Katrina being obviously one. We don't know if

there will be a call for Gustav or not. But in Hurricane Katrina as you all know because Keesler Air Force Base hospital, the 81st Medical Group was essentially wiped off of the Biloxi Peninsula down there and had to be rebuilt, and that took a lot of money so we get money from that. Then things like pandemic influenza. As we look at the avian flu going forward, there are supplemental dollars that come in to allow us to buy Tamiflu and vaccines and other things like that.

Currency fluctuation is one of the areas where we do have reprogramming. We were unable to spend all of our money and it's not lost to the Treasury which is usually the thinking that goes on. The department has an enormous amount of currency fluctuation as it buys and sells commodities and issues and things around the globe. We are able to contribute to that fund along the way. We like not to do that because that's money lost to us, but we are able to use that as well. We can actually receive money if we can show that we have costs in that area. And we

have special programs, the emergency AIDS relief program for the president. Then we have a DOD incentive fund. The Department of Defense and the Department of Veterans Affairs puts money in every year. It's $15 million minimum. We can put more in against initiatives. We have two different kinds of programs for incentives. One is to deal with local issues so that local commanders have access to a pot of money to do local missions with their local VAs to bring care back in, to do better care, quality care, those kinds of things. We have also another program where we can actually do global kinds of things where we want to share things at the enterprise level, so that's an opportunity for us to get money into our programs as well. We get grants and research dollars of course. We get gifts like the Fisher House. We are able to take those on and certainly for the Center for the Intrepid as you know built the San Antonio down at Fort Sam Houston, and also as you know is building the Center of Excellence out at Bethesda next to Walter Reed National Military

Medical Center. It's going to be a magnificent source of service for our wounded warriors. Then we get some line funding primarily through readiness issues and service-funded medical personnel, headquarters functions and things like that. So all of that goes into the pot of money that we construe as our $44 billion.

Just to give you an idea of what these dollars mean for those of you who are not familiar with this, and I'll go through this quickly. It's in your materials. I think we made it readable enough that you can look at it at your convenience. The operations and maintenance really takes care of the worldwide operations of the medical, dental, and veterinary services. It takes care of the management activities, occupational and industrial health. It takes care of the information-management portions of it that are not procurement. For medical research we have Central IM/IT projects. It takes care of a lot of the Air Force initiatives like disease surveillance. And they have a pilot vision. I'm

sure the Air Force folks can tell you about their supervision example. Plus we get a lot of dollars from the Congress on the congressionally directed research programs. The House mark this year which I don't think is top secret is nearly a billion dollars in medical research. A lot of money, including a lot for psychological health and traumatic brain injury which I know you know is a big issue for us. A lot of dollars. It's House marked. It's got to go through full committee and it's got to go through the process, but the mark is fairly substantial. Then procurement is just for those items over $250,000, big-ticket items that we have to buy, most of the equipment, but expensive medical equipment or information-management technology systems which are considered to be under procurement.

To show you how the funds flow, people want to know how the money comes. Congress appropriates of course, OMB apportions. The comptroller in the Department of Defense then allots us money on a quarterly basis. We then

receive the money in the TRICARE Management Activity. After we are able to analyze the requirements we issue the money to the service surgeons and then to the TRICARE financial operations to pay the private-sector care bills and then the services distribute the money down through their intermediate commands and down to the MTF level, so that's how the money flows down from us on down.

To give you an idea of the size of the current budget, this is as of last week or so what our appropriations looked like to get to that $44 billion I was talking about, you can see the relative size at the very, very top at the ONM side of the Army, Navy, and Air Force, and that gives you a pretty good idea of the size of their accounts, with the Army obviously being the largest at about $6 billion, the Air Force being the smallest at $2.7 billion. In the TRICARE Management Activity, about $12 billion of that or so goes out toward the purchased care to buy care that's provided downtown, either the care that's

referred downtown or for those people who decide to use our Standard benefit who go downtown to get their medical care. You can see the rest of the accounts. MILPERS is what's the personnel cost of the military personnel, military construction are those large projects like building new hospitals and clinics, and you can get an idea of what that's going to be. We have some money in the TRICARE management too to handle BRAC this year. We have BRAC expenses that we're managing out of the TRICARE Management Activity. The medical and clinical components of BRAC come under our office in health budgets and financial policy. The MERCHCF is the money that we pay for the folks who are Medicare eligible. Then there are some MILPERS costs that we reimburse the facilities for care that they provide to the (off mike) you can see the size of the facilities, 62 on the left-hand side, 62 inpatient facilities and various clinics, et cetera, and how many people. That's the bill until we get to 132,000 people who are out there. You notice that does include

contractors, and there is a sizeable number of contractors who work in our facilities, and that's growing as we provide more capability particularly in the mental-health area where we try to find contractors and other people who will come in and provide services in our facilities.

I'll give you a bit about the structure. You can see about 79 percent of the budget goes toward patient care and the rest of it goes into these Budget Activity Groups, and I can go through those very quickly to save some time for questions, but that's the total amount for the ONM piece of the budget for FY08, about $25.3 billion.

Quickly I'll go through these budgets that we manage through seven Budget Activity Groups. These are just pockets where we keep money. It's important to note one thing. Once Congress appropriates the money into the Defense Health Program, it specifies in the appropriations law how much money goes into bag one which is the care that's provided at the MTFs. No money can come out of that bag, Budget Activity Group,

without congressional approval. We pay this on a perspective payment system. We have a value premise that we work with with the services to say based on the workload they produce, here's the funding that they get. So it is a perspective, it's not just here's your money and we'll see you. We try to manage the money, work with them with the money going forward to create a financial mechanism for the TRICARE system that emphasizes the value measures that we're looking for. It's based on productivity. The facilities build business plans. We do base it on market value. And we compute it at the MTF level, we allocate those dollars out down to the service level and then they make those adjustments as they give their money to the facilities.

This year we've added some pay for performance. At midyear we did some quality adjustments based on the HEDIS-like measures of this year. We sent out about $7.2 million on that basis. We did it at the end of the year a couple weeks ago another $50-some million based on

additional measures and metrics so that there's an incentive across the spectrum. We used to calculate everything based on productivity. We tried to move that to more value based where the numerator of that quotient is more about productivity plus quality of care plus customer satisfaction, so we try to calculate some value in each of those and give that out as an incentive for the facilities to earn more money based on the outcomes. We used to be simply a productivity-based system. Value was productivity over cost. That's not the way to do it. We wanted to add more quality issues and not just productivity as well as customer satisfaction. So this is the direction that Dr. Cassells has taken us to and it's probably the right approach.

I wanted to go back to private-sector care. This is bag two. As I mentioned, we cannot take money out of bag one and move it anywhere. We also are restricted by Congress from putting money into bag two. In other words, we can't take it out of bag one which is the direct-care system,

we can't put it into the private-sector system. That causes us to have some budget anomalies that are difficult sometimes to deal with, that we have to then if you think about it, if all the money you had in that bag was all the money you can have in that bag, that means you have to fill that bag up right up front because you can't take the risk because you can't add money to it. That requires us to keep money in bag two for a long period of time. For example, this summer have this every year in our finances in our claims, we have a summer bump. As the TRICARE system turns its people over we always see a summer bump. This year we saw the summer bump and then we saw another trend, so we're seeing an emerging trend of increasing private-sector care. I've got to hold that money back until I make sure that we don't need any more because if I needed any more I have no way to go get it. So we have some budget anomalies that Congress restricts our hands a little bit on that we have to deal with.

I want to show you some cost drivers in

private- sector care. There are several factors, and the task force was briefed on this on several occasions, that are going on here. As you can see on the right-hand side, the curve for private-sector care, you can see the relative workload through 2007 in the TRICARE system versus private-sector care. So you're seeing a slight flat line on the TRICARE system. Workload is relatively flat. It's a little bit up in 2008, so there are (off mike) that go across, but it's relatively flat. But you can see there's a big increase since 2004 in the workload that's going downtown that's being bought on the purchased-care side and that's driven by several factors one of which is the benefit. The benefit that we offer and I think that was briefed to you in terms of the co-pays and deductibles is by any measure generous. You can argue on which side of that scale generosity is on, but it's generous. So what we find and have found, as private-sector care insurance premiums have increased over time that TRICARE as a benefit particularly for our

retirees, our working-age retirees, has become much more attractive. So what it's done is it has acted like a magnet to bring folks back into the TRICARE system. So they're dropping their other health insurance and coming back to us which is certainly their perfectly legitimate right to do so. But we're seeing that new user effect. We're also see the utilization effect. Utilization of the services in private-sector care has increased. Our co-pay of $12 if you're in Prime and go downtown, a reasonably low deductible cost, et cetera, really has not been a disincentive for utilization either. For those of you who work in the commercial sector, you may have seen that in the commercial sector where you've seen deductibles increasing, you've seen co-pays increasing, and that may have had a mitigating effect on your patients in terms of -- we haven't seen that effect. We've continued to see inflation like all of you in the civilian sector. We are not insulated from inflation any more than you are. We've seen new benefits that have been

added to our program, and I showed you that slide earlier about all the benefits that have been added, and the Congress and the department have argued for those benefits and have won those benefits fair and square, but they don't come at no cost. There's pressure on the system because of the increasing benefits.

What we've seen is a shifting of workload from the TRICARE system really to the private care system as well as an increase in the private-sector care system as people become more used to private-sector care. If you go back 10 years ago when TRICARE started, there was a great resistance to being forced out into private-sector care. People didn't understand it. They didn't want to go downtown. They didn't have out-of-pocket costs. They didn't want enrollment fees. But a decade later now in 2008, we're getting pretty accustomed to it and so beneficiaries are getting used to it and the commercial industry has responded to it, so access is good, quality is good, customer service is good

as well. So we're in a competitive environment for where the workload is going to go. Those of you who are on the business panel, we'll begin to see more and more of this as you get to move forward in your panel and understand some of the pressures that are on the system going forward. This is to give you an idea on the market share analysis that gives you a snapshot of how we've lost a little market share compared to others.

The war is going on. We all understand that. All of us understood this in 2003. There's been a lot of pressure on this system. We've had a lot of deployments. A lot of the readiness platforms have lost people. Those are our most-capable facilities, the larger facilities with all the specialties, those are the ones who get deployed the most. There's been pressure on the system so we've lost a little bit of market share and that's continued to increase our costs.

Again a graphic way of looking at that, you can see the cost structure. We've continued to put money into the direct-care system to

sustain it as best we can through the supplementals. They get a fair amount of money in supplementals to sustain that workload and we've been successful in sustaining that workload but it's still driven increasing costs to the department. So as you look out in the out years, and this is an issue that I think we're relying upon your voice on, is in the out years as we look out to 2015ish or so, we start to look like about 12 percent of the department's top line. Of the total budget in the Department of Defense, we're going to go from about 4 percent not that many years ago to about 12 percent. Those are dollars that are not being used for other sources in the department and those are dollars, frankly, that we have to be very judicious about because we are using other people's money. These are dollars that 5 years ago were programmed for other purposes. So where we can be as efficient as we can be, where we can get the most amount of care, quality and customer satisfaction out of every dollar, that's where we need to be as an

organization and as a military health system because it is going to be enormous pressure. And I don't think we're going to be divorced from -- all of you have heard David Walker, the former comptroller speak. He's very eloquent I know. He and Warren Buffett got into a debate I guess not long ago up in Omaha or some place about this issue. Buffett has a different view of it, Walker has a different view, about entitlements in this nation about where we're going and where we're going to be in 4, 5, 6 years on entitlements in this country. The military health benefit is by definition an entitlement although our budget is scored as discretionary, unfortunately, by all the Department of Defense's budget it is scored discretionary and that's an important distinction. Therefore it is subject to come other pressures. Our benefit is scored as discretionary as well even though it's an entitlement. Therefore, the kinds of pressures on entitlements that are going to cause this next administration that comes on to have to look at all of the entitlements in this

country, we're not going to be immune from that and there are going to be those kinds of pressures on the department and we're going to have be reactive to those. We're hoping that you can provide advice and the business panel can provide advice going forward and what we can do, where we can be. The Task Force on the Future of Military Health Care laid out some options for some savings around the benefit and other areas about where we could be efficient. The Quadrennial Commission on Compensation also came out with recommendations and if you haven't seen that we can certainly share that with you on the benefit structure. They got to a simple place, a different route, interesting how they got there. But there are pressures here and we're going to need your advice going forward.

I'll just go through the bags. Consolidated health, as you can see, it's not a very big budget activity groups but it handles things like the MEPs stations, our occupational health issues which are very important, all of the

veterinary services which are managed by the Army, of course, the Air Medical Evacuation Program, and the Armed Forces Institute of Pathology.

Information management is what it is. It's a big account, over a billion dollars, but it handles all of the central accounts for things like AHLTA, and I know you've probably been briefed on ALHTA or will be briefed on ALHTA, our electronic health records and some of the challenges we face there as well as a bunch of other programs. Some of these are ongoing, some are successes, some are still works in progress going forward.

Management activities. These are headquarters activities, again, not a big account, $270 million. This is where we pay for all of the headquarters functions. Education and training, half a billion dollars, handles our HPSP and our FAP programs, and pays for the university, Dr. Rice's university up in Bethesda, so that's an important account to us. We think that will grow in time. We're looking at increasing

scholarships, I think you're all aware of that, in trying to increase our ability to pay folks so that they will be attracted to our service. And base OPS is how we maintain our facilities. It's built on some models going forward. The Walter Reed situation back last year allowed us to put a lot more emphasis on keeping our facilities up to speed even though -- nothing to do with the Walter Reed Hospital and everything to do with its housing situation, it really did allow us to put a spotlight on our facilities and get those things up to speed. We're putting more money in there and we're getting great support from the department to do that and some military construction as well.

I'll give you a little bit about MILCON. This is what our program looks like in FY08. You can see on the left-hand side the facilities that we're going to be doing and the kinds of things that we're going to be doing there. Although it's releasable publicly in terms of the details, we were able in the programming cycle for FY10 and

beyond to put some more money into MILCON. So assuming it gets through all the various wickets, we think we'll have some pretty good construction projects going forward to really revamp some of our very aging facilities. If you've been out to some of our older places, as you know, we're building a new Fort Belvoir under BRAC, but Fort Belvoir is the second-oldest in the Army, not the oldest, and there are others that are right behind it.

In your material I think sent over to Roger you should see a thing that looks like this. It's a BRAC newsletter. We think that's important. This is a document that we put out that tells you about BRAC, what's going on in BRAC both in San Antonio and in the National Capital Area. We have a brand-new project officer there, Colonel Sue Baker, who I've known for a number of years. It gives you the timeline and our own assessment of where we are, green or yellow, and maybe red some day if we're not getting the job done. But you can see what we're going to do in

the National Capital Area. We've had the groundbreaking for Walter Reed with the president and Fort Belvoir is under construction if you've been out at Fort Belvoir recently out by, a big crocodile tear, the golf course is no longer there, by the main gate. It's a great facility. San Antonio is doing the same thing. We're having a great new clinic down there and a joint facility with the Air Force and the Army down in San Antonio.

This is an important account. This is how we financed the retirees, the Medicare eligibles. Most of those are over 65. But essentially it's how we pay for the care going forward and how it was done. It was established in 2001. This is important, it recognized both the accrued and the future liability of costs. It didn't simply say we'll deal with it in the year of execution. It actually began to think about it differently. As the business panel gets to work, this may be something that you might want to consider for all retiree health care going

forward, to do it in an accrual fashion where actually the liability is assumed in the future so it's not lost on the Treasury. How it happens is the Department of the Treasury when they calculated the liability for retiree care it was half a trillion dollars and despite our best efforts we couldn't find anybody to write that check. So what they decided to do was have the Treasury put in about half a billion a year into this account as an obligation of the taxpayer into the account. Then each year when the military people -- remember I mentioned that all people are dollars in the out years? When the military people buy -- military services buy their people, attached to every one of those costs per officer or per enlisted is a little bit of money that goes into the account for their future liability for health care so that the fund continues to grow over time. Then the Treasury actually sells bonds and things that we actually get interest off of. All that goes that into the account. Then what we pull out of that is based on an actuarial estimate

of how much workload it's going to be done that's then reconciled against actual workload about 2 years later. So that's how it works and that's a pretty creative way. This is actually how the retiree account works in some respects. So it's a pretty creative way in which we finance. We don't do that for other people. We do that for our Medicare eligibles. It's a pretty creative way and I look forward to working with the business panel on understanding that more for those of you who would like to get into that.

Current financial issues. Obviously we have a budget year execution for the wounded warrior and wounded in transition. You all know those situations. PH/TBI is a big issue for us. How we baseline the -- just because the war ends doesn't mean these young men and women who were injured go away. We've got to find a way to sustain that level of financing so we can sustain that care for as long as they need it and we got to get there. We're not there yet. We're working on it. In MHS transformation, obviously our

electronic health records are an issue. We continue to work with DOD/VA sharing. We want to move to performance-based culture. That's my value proposition with productivity, quality, and customer satisfaction. We want to move in that direction. We have a new entity named JMTFCAPMED that's going to handle essentially Carlisle to Quantico and everything in between. That's standing up. We've got to find out financial ways to give them the information they need to make their leadership decisions. BRAC implementation I mentioned on both San Antonio and National Capital area, plus the collocation of headquarters. All of the medical headquarters have to move together some place. We have to figure that out and where we're going to go with that. We have to do that by 15 September 2011.

Then sustaining the benefit over time. What are we going to do about the benefit? Are we going to leave it the same? Are we going to try to change it? Are we going to make modifications? Look at the task force recommendations. Look at

the Quadrennial Compensation Review Commission. Look at other alternatives going forward. We're out of budget cycles to do it. We can't do it in any current budget cycle. So the next administration that comes in in January is really going to have to deal with this and I think your advice to that next administration whoever the ASD is, whoever the PSAD is, whoever the DASDs are, is going to be very important as well as to the USDPNR, but most importantly to the services and to the joint staff so that they get behind this 100 percent, either we all get behind this or we just simply don't do it. And that's it. That's a lot of slides and I apologize. Thank you.

DR. POLAND: It takes a lot of talent to take something that complex and break it down into understandable parts. I think we also have to change that old saw to something more like a billion here, a billion there, pretty soon it's real money. Thank you for helping us to keep us on time. I'm sure there will be a number of questions here. Let me start with Dr. Silva.

DR. SILVA: Thank you. I agree. That was a wonderful presentation. I think you've stated the value what it's costing quite accurately. It is a tremendous benefit that our military gets. And compared to civilian rates as a couple of the experts here know, this is pretty cheap.

The one question I had is that the military enjoys a large cadre of allied health people. What percent of our outpatient visits are seen by medics, corpsmen, nurse practitioners, et cetera? The civilian community just doesn't have that capability and that may be one of the reasons you can offer care that is still relatively inexpensive. So thank you for the presentation.

SECRETARY MIDDLETON: Thank you, sir.

DR. POLAND: Ms. Shinseki?

MS. SHINSEKI: A very quick question. Thank you very much for your wonderful presentation. Is it within your purview to assess the reimbursement rate for TRICARE services among the private sector? Because we are hearing from

beneficiaries that access to care may be challenged because of that issue.

SECRETARY MIDDLETON: Yes. The Director of the TRICARE Management Activity, Dr. Cassells, has the authority to modify the reimbursement rates. We are as you know by law tied almost completely to the Medicare rates. Our rates are tied to Medicare rates. For example, when Medicare went through its issue a few weeks ago with whether or not they were going to decrease the reimbursement rates, we were right behind them, and if they had, we would have. Fortunately that didn't happen and smart people did smart things. But we are tied to that.

We can increase those up to 15 percent, but it has to be predicated on data. In other words, it really has to be a fairly sophisticated analysis of whether there is a true need to do that because we get a lot of pressure. People write in and say if you don't, I'm going to -- and all those kinds of things. But we do have the authority to do that, to actually increase the

rates above what we call TRICARE maximum allowable charges, we can go above that, but it has to be predicated. So yes, Dr. Cassells does have the authority case by case to look at that.

DR. POLAND: Dr. Parkinson?

DR. PARKINSON: Full disclosure. Colonel Middleton was my boss, so I learned anything about economics from him years ago. Stepping back a minute to the broader charge to the Health Care Delivery Task Force, what you're hearing is that the majority of care that DOD acquires, they acquire it increasingly from purchasing it from the civilian sector.

SECRETARY MIDDLETON: Seventy percent of all the care we provide is purchased care.

DR. PARKINSON: That makes us the biggest single purchaser absent Medicare in the country of civilian health care. Just having spent my last 7 years working with major corporations, no one comes even close. The department I would posit has not used its purchasing power in innovative ways at a time when

literally you can go to meetings every week to talk about the broken reimbursement system for the way we reimburse physicians, physician assistants, hospitals, and health care systems. So as you go home and as you go back to these meetings, Ms. Shinseki's point is spot on, if you have to go a Medicare rate and you have an intermediary contractor who nicks a few point off that rate, you have an eroding primary care physician base in this country with physicians rapidly leaving practice and they give an option between taking a TRICARE patient at 10 percent less or 3 percent less or whatever and any administrative hassles, guess what, I believe in patriotism, but we cannot have an noncompetitive practice out there. So with $12 billion of purchasing power and with CMS often times slow to innovate around innovative payment mechanisms, I'll throw this out, what is the role for us to think about? Not to comment on now. But to think about innovative payment mechanisms that combine wellness, prevention, episode grouping, a baseline different way of

thinking? That's our opportunity here and what I think Colonel Middleton is asking us for is the leadership and creative thinking with this new charge.

So it's a wonderful time. It's absolutely appropriate that we go through those buckets and learn the current practices while we have the freedom to suggest alternatives in a way that perhaps even guidance to CMS can't.

SECRETARY MIDDLETON: There is no question about that. If there were a time when the Defense Health Board could come forward and make some strong suggestions, I think we're seeing the convergence of lots of issues. We're seeing the cost increases, we're seeing the war pressure, frankly, the Walter Reed situation, all of these are converging as enormous pressures on this system and if ever there was a time for creative thinking to think outside the box, Dr. Granger right now is considering a pay for health care. In other words, we would reduce your premium if you could meet certain wellness standards, if you

are hypertensive and you control it, if you were diabetic and controlled it. Where we are on that and how we get there, we're going to need a lot of thinking and we're going to need lots of leadership. Frankly, there's only so much we can push in the department, but this body with the prestige of your position and your positions in the civilian industry have an opportunity to really help us push this down the road. So we're looking for ideas. We're like (off mike) looking for ideas. We're looking for good ideas. We're looking for practical ideas of things we can implement.

DR. POLAND: Dr. Lednar and then Dr. Shamoo.

DR. LEDNAR: Just to follow-up on what Dr. Parkinson was pursuing, DOD is a major purchaser. When you look at the number of visits and hospitalizations and health care utilization, it's extraordinary. You've got an arrangement now with three health plan vendors supporting the three regions across the U.S. My question is,

have you looked at access to care to see that it's adequate knowing that in certain specialties like psychiatry, especially child psychiatry, it gets pretty thin out there?

SECRETARY MIDDLETON: Yes.

DR. LEDNAR: And I'm also thinking about the comment this morning that a portion of this care is provided in rural, I'll call it medically underserved areas of the country. With that understanding, have you gone back to the three health plan vendors and expected them to strengthen their networks to better support DOD?

SECRETARY MIDDLETON: Absolutely. Yes, sir. Absolutely. The access to care is a critical component of the way in which they're evaluated. That has a lot to do with how they do their networks. How they do their networks says a lot about how effective they are in their negotiation with the providers to get the right rates at the right places at the right time. Rural areas are always going to be an issue for us not -- good negotiation or good networks, but

because they're just not there. One of the things we're seeing, and I have to brief this afternoon, is a spotlight-stop light chart for the Under Secretary of Defense and it's red. It's red because we're seeing this jump since the beginning of August of increasing costs in one service and we think it's because, we don't have all the data to look at, we're a little bit behind in the data, because of the mental-health issue. We think it's because what we're doing is we're finding opportunities to buy health care downtown at more cost than we can provide it because we don't have the capability and the reason is because of access. I think we finally turned the curve and said it's not about cost. It's about getting these young men and women care. When they come back and they have psychological problems and they issues, it's about getting them the care. It's not about standing in line. It's not waiting for a month. It's getting them the care, and if the care is in the MTF, great, if the care is in the network, okay, more expensive, but it's not about

how much it costs. So we're seeing this bump. It's causing my unit costs to go up and that's why I've got to brief on it. But access is part of the evaluation process as is network development for how we assess the contracts. And as you know, we're in the procurement for the next generation of contracts right now. It's underway today out in the -- to procure the next series of contracts. What's interesting is that we have brought to the table a lot more vendors, a lot more people. We used to have the same usual suspects. We've got a lot more different new names on the table now who've come on to bid on this. Now how it comes out is beyond my ability to forecast, but it is indeed absolutely part of the equation. I'd ask General Kelly or Admiral Smith if they wanted to comment on that as well. They're as close to this as I am as far as the importance of access.

DR. POLAND: Let me go ahead and ask Dr. Shamoo for last comment and then we need to break for lunch.

DR. SHAMOO: Very small bookkeeping. Is

the $44 billion part of the regular annual DOD budget appropriation?

SECRETARY MIDDLETON: It is part of the Defense top line, the total of the department's budget, but it is -- much of it, not all of it, not all $44 billion because some of that is people, some of those are dollars and people. But the ONM procurement and research and development funds that are received are received as a separate appropriation.

DR. SHAMOO: Over and above the regular DOD annual budget appropriation?

SECRETARY MIDDLETON: Right. I'll give you an example of that for one second. In FY2007, last fiscal year, the Department of Defense had an appropriation. The Defense Health Program did not have an appropriation. We went through the entire year with a continuing resolution and ended up with a joint resolution. We never had an appropriation for FY07. The Department of Defense did have an appropriation. So while we're counted as part of the top line, it's a separate piece of

money. It can't be commingled.

REAR ADMIRAL SMITH: But when you hear what the defense budget is, these dollars are included in it.

SECRETARY MIDDLETON: In the defense budget. Yes, sir.

DR. POLAND: Again thank you very much.

SECRETARY MIDDLETON: You're welcome. Thank you.

DR. POLAND: We're going to break for lunch now. Board members, distinguished guests and speakers, lunch will be provided outside to your left and all the way around where we had our coffee break and breakfast. If we could, let the new board members go through first. We'll take a back table. I'd like to eat lunch with the new board members and have a brief discussion. Colonel Gibson, do you want to make a comment?

COLONEL GIBSON: For the rest of you, there are a lot of places to eat outside this hotel. Crystal City has a number of them including part of the underground Crystal City

stuff. So we'll see you back at?

DR. POLAND: Right at 1:15 we'll start. We're going to move one briefing scheduled for tomorrow into this afternoon so we'll start right at 1:15. Thank you.

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

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

(1:23 p.m.)

DR. POLAND: Our first speaker this afternoon is Dr. Kenneth Kizer, Chairman of the Board of Medsphere Systems Corporation, a leading commercial provider of open- source information technology for the health care industry. Previously he served as the Under Secretary for Health in the U.S. Department of Veterans Affairs. He's also the Chairman of the NCR BRAC Advisory Panel and will provide an update on the National Capital Region BRAC Health Systems Advisory Committee. I understand the subcommittee has only met once and is developing a business plan to address the complex issues associated with restructuring military health care within the National Capital Region. Their efforts will help to develop a functional model for military health care across the military health system. His briefing slides are not available to us, and we'll turn it over to you. We have scheduled about 15 minutes for this.

DR. KIZER: Thank you, Dr. Poland. There are no slides, so don't feel like you're looking something in vain, and this will not take 15 minutes.

As the subcommittee we have met once, our first meeting was just a few weeks ago. At that meeting we had a lot of the obligatory orientation that goes with these committees. I agreed to serve as chair and Ray DuBois is the vice chair. I think probably the most notable thing from the purposes of this meeting is that we did start discussing the issues. I think we were convinced that there are some incredible opportunities here and so we're anxious to get more into the meat of the matter than we were at that first meeting. We did identify three team leads or at least as an initial infrastructure to help guide our subsequent deliberations. Paul Carleton was the team lead on looking at the integrated health care delivery system. Nancy Adams agreed to look at the work force realignment issues. And Philip Tobey to look at the major

facility construction projects. With that we charged Colonel Gibson and others with providing some information for our next meeting at which time we expect to actually start deliberating the issues and getting more into the meat as I said. With that I will be happy to hear your editorial comments or try to respond to your questions or not respond as may be more appropriate.

DR. POLAND: It's early on in this effort, obviously, so are there any comments, questions, points the board would like to make? Dr. Wilensky?

DR. WILENSKY: Could you share a little more if it's already been determined some of the workforce issues that you think are likely to dominate your discussions or Nancy's going forward?

DR. KIZER: We tossed around some things. We actually didn't focus that much on workforce in this first discussion. We focused more on what the assets were and what the current relationships were, what future relationships

might be, and I think workforce is a subject that, one, we needed a lot more information on before we got into it, but it's something that will be dealt with more down the road.

MR. DUBOIS: Gail, I think the particular aspects of the workforce issues pertain to the movement of civilian personnel of both contractor and otherwise from Walter Reed Army Medical Center to the new Walter Reed National Military Medical Center. As you know, there have been a number of comments mostly critical made of what happened at Walter Reed with respect to the civilian nonprofessional workforce and I will say for the record that Congress didn't help us in that regard when it came to contracting out the nonprofessional aspects of support to the Walter Reed Army Medical Center although I think we've overcome some of that. But the movement to Bethesda clearly presents some issues with respect to the civilian workforce in particular.

DR. KIZER: Ray's comments obviously reflect his particular knowledge and familiarity

with the issue. The committee itself has not had an opportunity hear what all the issues are to talk about them.

COLONEL GIBSON: Let me frame this just a little bit. The first meeting that occurred was primarily in orientation meeting. As you know, as a federal advisory committee, members cannot start to deliberate until they're fully appointed and have filled out all the paperwork, et cetera. That was one of the things we accomplished at this meeting. Then got some baseline briefings from Admiral Madison the Joint Task Force CAPMED on the issues and started to develop a business plan which will fill in in much, much more detail. Admiral Madison pointed out something that I found incredibly interesting. In their pursuit of how to do this, they started looking for civilian models on how to merge if you will a series of health care providers in an area and they found that there really is no model. When the major health care providers in the United States come into an area they just buy the hospitals, fire the

administrative and leadership staff and replace them with their folks. That's not going to work obviously for the Department of Defense in the National Capital Region. So there's a lot of work to do, and as I said, they're just getting started.

DR. KIZER: The comment I would make here and I didn't belabor it during the meeting was that while there may not be many good civilian models, there is a very large experience in both local facility integration and network creation and integration in the VA and that is an experience that needs to be looked at much more closely than was done.

DR. POLAND: New members of the board will begin to see the way in which the meeting moves along. I'm going to now give three updates and this is true of all the different task forces, subcommittees, et cetera. As they do their at our meetings, they'll provide updates as to what they're doing and answer questions. I am going to move the Deployment Health Research Center

external review forward to today and we may move one other presentation potentially forward. I don't know if I should take something like this from a Special Forces guy. It's the other end. I'm going to give a brief update on the Vaccine Safety and Effectiveness Working Group report. You'll recall that DOD had requested that we form a work group that had these objectives associated with them, to look at DOD postlicensure vaccine safety, effectiveness, and surveillance studies; review and discuss the published and more importantly unpublished data with regard to DOD vaccine research; discuss future vaccine safety, effectiveness, and surveillance studies. Note that the focus is entirely on FDA-approved vaccines, so we weren't looking at experimental or not yet licensed vaccines. And really what this work group was to do was to provide guidance and advice on what studies should be done, what the priorities would be, and identify research gaps research gaps in areas that we thought needed further development.

We've had just the first meeting. DHB attendees included myself, Dr. Kaplan, Dr. Silva, Dr. Miller, and Dr. Walker. We met at USIS in the very beginning of June. We received briefings from Colonel Randy Anderson who was then heading up MILVAX, Dr. Tyler Smith from the Defense Health Research Center, Colonel Phil Pitman, Angela Eick, Commander Kevin Russell from NHRC, and Colonel Renata Engler from Walter Reed through the VHCs. It's maybe a little hard to read on some of this. Is this the right slide set? That should be red. I just used a format of red, yellow, and green, green meaning that they had met certain objectives, yellow meaning that they had achieved some of them, and red meaning there had been little or no progress.

Specific issues that we identified and will further talk about were the need for enhanced interactions, coordination, and collaborative efforts across DOD with regard to vaccine surveillance. It's still the case that you can't necessarily, and I've had personal experience with

this, try to understand for example influenza immunization rates. It turns out that things that are done on board ship don't necessarily make it to the granddaddy of databases, et cetera; the need for external validation of vaccine research initiatives. In particular, most of our meeting was spent not surprisingly talking about anthrax and smallpox and to some degree influenza vaccine, much of this driven by vaccine recipient concern over long- term safety, potential reproductive health effects, hospitalization rates, et cetera. And this issue of reproductive health really did stand out as an important issue in terms of research initiatives.

We did talk about the ACAM 2000 vaccine which is being stockpiled and the coming though not yet -- has adenovirus vaccine been licensed? Not yet. We also reviewed this group in its former iteration called the AFEB, the Infectious Disease Subcommittee and at the time I happened to chair that, did what was called a DOD-wide review of vaccine policy and procedures. I bring it up

because we had multiple meetings over more than a year. We had an outside contractor and some significant money to really dig into this. This resulted in a published monograph and series of 12 recommendations that I'll take you very quickly through unless questions come up.

One, that policies and practice ensure the ready supply to the military of vaccines essential to the mission be developed. And we indicated that there had been a lot of progress in terms of MILVAX and Health Affairs monitoring the supply situation and engaging other DOD entities as needed, that the adenovirus vaccine project was funded and well underway. As members of the board know, there have been repeated delays in that subsequently. But we did comment that new vaccine development was inadequately funded and slow, and we had made the recommendation about thinking more about a DOD-owned manufacturing facility and that had not been implemented beyond the rare pilot plan.

Recommendation two was that DOD further

develop and expand efforts toward standardized computerized recordkeeping and tracking of all administered vaccines to all persons including the ability to rapidly access that information and to standardize that not only across services but across the different types of facilities that were used. Substantial progress had been made in that regard. We did note some areas for work that needed to be done. I mentioned the Navy shipboard system and the synchronization efforts, the ability to track family members and retirees, the ability to exchange electronic immunization records, and to give retirees and separate personnel access to their immunization records which as you might imagine is an issue when they then go into the civilian health sector.

Recommendation three was that each service measure and report up-to-date immunization rates as really key indicators of medical care delivery and force readiness. We indicated that some progress had been made here. Immunization rates as indicators of troop readiness were for

the most part available and tracked, but there still needed to be work on immunization rates of communities based on age or underlying risk factors that would call for a certain vaccine.

Recommendation four was that they consider the concept, and at the time we articulated it as a Vaccine and Immunobiologics Oversight Board, and in particular, remember this was 1999, that there be increased involvement of Reserves and National Guard in the planning and implementation of immunization programs. We felt this one had been achieved, and in particular, MILVAX had performed an admiral job in synchronizing and coordinating programs among the armed services to include the Active Reserve and Guard components. And as you all know as we have traveled together through anthrax and smallpox, they did just a superlative job in managing those programs.

Recommendation five was to develop and disseminate a joint instruction and in particular address issues regarding IND vaccines, a policy

for introducing new vaccines, how informed consent would be obtained, how we would revise recordkeeping requirements, reduce differences between services, and an increasing issue as the next cohort gets to the age of enlistment or enrollment into the military where they are often well immunized and do we really need to spend money overimmunizing them, if you will. Again, that had been achieved. A new joint instruction was developed and was disseminated in 2006 and we thought that in particular the Air Force and the Army had done an excellent job of screening basic trainees for preexisting immunity to these vaccine-preventable diseases and that the Navy and Marine Corps, we were less sure about the Coast Guard because I don't think we had a Coast Guard rep there at the time, needed to catch up in that regard.

Recommendation six was to look at whether current procedures and resources were sufficient to ensure appropriate personnel were aware of current official policy. As we went

through that process, it became obvious that as people rotated through various tours, they might have an old joint instruction, they might be unaware of new changes, and that had clear impact on what was or was not done. Again we thought that substantial progress had been made here primarily due to MILVAX. But there was still some ongoing, as will always be the case, efforts to educate providers, medics, troops, and other beneficiaries and families.

We also recommended that DOD commit to fully informing every service member of the health risks, personal and military benefits, and proper use of all vaccines and other countermeasures, in particular risk- communication materials, VIS statements, off-label use policies, and risk-communication research. Again I can only give the highest commendation possible to MILVAX, and at the time, Colonel Grabenstein who really did a bang-up job in doing this.

Recommendation eight was to address the issue of standardized training and proficiency of

immunization delivery practice, and again I'll just say that Immunization University here we thought was a very novel and creative effort to do this. In fact, they had set the bar now and civilian entities are trying to catch up in that regard. We did think -- and again this will be ongoing because the pool keeps changing, expand the training the effort to reach all immunizers and adopt and enforce explicit criteria for training.

Nine was to develop a vaccine policy and practice statement for the use of vaccines in humanitarian issues. So we were a little bit ahead of the curve in 1998 and 1999 as we looked at this. Just to tell you a bit of an anecdotal story, in my father's first tour in Vietnam, they went through one area, brought Navy medics with them and provided at the time smallpox and polio immunization in a village and it was not too long afterward that the NVA came through and identified everybody who had an immunization mark and amputated their arm. So it's just one of the many

kinds of issues, that being pretty dramatic, of how we have to think through how we might use vaccines particularly if there's a schedule associated with them in humanitarian missions, and that's an ongoing issue that will be dealt with by another subcommittee.

Number 10, maintaining the current centralized procurement system while providing flexibility at the local level. Again, we thought that a lot of progress had been made in that regard.

Eleven, that DOD continue to participate in the development of a comprehensive pandemic influenza planning document. Again, we were pretty ahead of the curve when I look at this in retrospect. And devise, disseminate, and test a DOD-wide plan. Again, substantial progress has been made there and there is now a Select Subcommittee on Pandemic Influenza.

Then lastly, that there be a review of vaccine policy, practice, and use recommendations every 2 to 3 years. We made the point that since

the last joint instruction came out in 2006, now is an appropriate time to do that, but that's pretty much the cycle anyway and they're on course for that.

So our overall assessment, we gave them a letter grade that DOD deserved a letter grade of A for all the work that had gone into this. They had made substantial practice in virtually all areas identified in 1999. We did see a few more opportunities and that is to further enhance the electronic immunization tracking system, develop a humanitarian and stability vaccine policy, ensure the availability of all vaccines, the poster child for this being adenovirus, and that they maybe more formally incorporate the great work that they had done in training by engaging in something like vaccinator certification.

Next steps, we anticipate another two to three meetings. This first meeting was introductory primarily for us to get briefings and hear about what was going on and hear about unpublished research that we hadn't had access to.

The next steps I think will be that we will have some meetings focused around particular vaccines that have been proximate stimuli, if you will, for a lot of this work, and those would include anthrax and smallpox. And the larger agenda being this overall coordination and management of vaccine surveillance efforts.

I will stop there on this point and entertain any questions or comments you might have.

DR. OXMAN: I know this focus has been on FDA- approved and licensed vaccines, but there are some situations that are unique to the military, and adenovirus is a good example where there may never be a large enough general public interest to stimulate the development of vaccines that would be used widely and FDA licensed.

DR. POLAND: Just to check in with you here, Mike, the adenovirus vaccine will be licensed before it's used.

DR. OXMAN: I understand that. That's adenovirus and 7, is it?

DR. POLAND: Four and seven.

DR. OXMAN: Four and seven, common adenoviruses. But not dealing with new adenoviruses.

DR. POLAND: So your point is really about IND- level vaccines?

DR. OXMAN: Right, and I think if the military doesn't stimulate interest and investment in that, nobody else will.

DR. POLAND: I think that's a fair point. Hemorrhagic fever vaccines would be another example. There are mechanisms by which those vaccines can be used under emergency authorization or under the order of the president. Those are difficult to today's world. They've not yet proven necessary. But I think your point is a good one both in terms of how do you stimulate if you will orphan vaccine development, and then how do you use those. Mike Parkinson I think had a question, and then Dr. Blazer.

DR. PARKINSON: Thank you for the update. I would agree that it's an A. I think

it's fantastic. But I ask myself as we're going through the 12 recommendations what environmental factors or forces are now emergent in this area that weren't there 10 years ago? There are at least a couple as you go forward to think about. One is there was an area where you noted some improvement could be made and that is in the layperson's knowledge, beliefs, and attitudes about vaccination. If anything, as you know better than anybody, we've lost ground. We're having outbreaks of vaccine-preventable disease. We have spotty exemption policies all around the country. I dare say that they might be a little different as to the way they're implemented. They might read the same in policy, but the way they're implemented across DOD in terms of exemptions to vaccination. And now that we're using more and more Guard and Reserve where we even have less day-to-day control perhaps over the knowledge and attitude than the traditional active duty, that's certainly an area that we should look at.

The other whole thing that I've

appreciated as someone who is a preventive medicine officer, our whole awareness of the epidemiology and the utility of things like nonvaccine approaches to control disease, isolation, containment, personal hygiene. All of those things which are disease-control measures which are not the administration of the shot.

DR. POLAND: Good point.

DR. PARKINSON: Also the science has advanced tremendously or at least the awareness over the last decade. So as you go forward maybe you can put those in your consideration for the committee.

DR. POLAND: Good points. Thank you, Mike. Dr. Blazer?

DR. BLAZER: Thank you for that update and I look forward to learning a lot from you about the development of vaccines and administration in a military setting.

DR. POLAND: Fascinating topic, actually.

DR. BLAZER: I do have a question about

how you foresee your working group interfacing as response are made to these recommendations vis-à-vis protection of human research subjects, the autonomy question, the informed consent that was already mentioned, how that might be monitored or evaluated.

DR. POLAND: That's a very good question. It's very complex with a lot of nuances and we're going to need help in that regard in terms of advice or recommendations that we would make. I recognize that for most of these vaccines at least in the active-duty forces, they are mandatory vaccines so they get the vaccines. Where it becomes an issue is when there is controversy around the vaccine or the set of vaccines, things like anthrax vaccine, autism and MMR vaccine, overloading the immune system with multiple vaccines, et cetera. Those get harder, and reproductive health, because there you have a concern -- I'm not saying that there's evidence to support this, but there you have a concern where a service member gets a vaccine and the concern of

the family is on their children or the reproductive health of their spouse. So the spouse or child hasn't consented if you will to that vaccine and yet voices concern that they could somehow be harmed by those vaccines. There's a lot of nuance there.

DR. BLAZER: I would welcome being involved in that conversation. Thanks.

COLONEL GIBSON: I just want to be clear on the question of human subjects. The vaccines used by the Department of Defense are FDA-approved vaccines.

DR. POLAND: They're licensed.

COLONEL GIBSON: Even with this issue with adenovirus vaccine, while we established CRADAs to help develop the vaccine, it went through and is going through exactly the same phase one, phase two, phase three types of studies as is every other vaccine that's available through FDA licensure. So we're not talking about DOD doing something internally with respect to development of vaccine or giving it to service

members outside of an FDA-approved product.

DR. POLAND: That needs to be stressed, yes. Ed?

DR. KAPLAN: This is a DOD issue, no question about it. But you mentioned the issues with concern about children getting vaccines and even though this is a DOD issue, I'd like to remind the board that there were actually, and I don't know whether they're scheduled in the future, congressional hearings which didn't exactly promote the use of vaccines particularly in children. Is there some kind of discussion that could take place or could this board provide advice and not on one side or another, but just open a forum for being able to discuss this issue?

DR. POLAND: I'm just looking over at some of the MILVAX folks to ask if you want to make any comment about that because I know you're sensitive to those issues and trying to address them.

LIEUTENANT COLONEL GARMAN: Sponsored by the Department of Health and Human Services they

have started a national task force just on immunizations. It's a government-wide task force and DOD has been part of that and it focuses on a few main areas. One of them is vaccine safety and another one is risk communications. So it's at a national level and it's trying to develop the tools to effectively communicate and to set a research agenda with agencies like NIH, DOD, as far as vaccine safety.

DR. KAPLAN: This sounds like two ships going along in a parallel track. Is it appropriate to have some kind of liaison or communication back and forth or is it an entirely different issue?

LIEUTENANT COLONEL GARMAN: Sitting in on the task force, I think it's entirely appropriate. It's being managed by the National Vaccine Office up at the headquarters of HHS and I'm certain that they wouldn't mind briefing this board on their progress.

DR. POLAND: NIH just released another set of vaccine safety RFAs.

DR. KAPLAN: But if I just may make a comment, they're going along making these and I understand that and we're going along doing what we're doing and there's a considerable amount of overlap, and whether this is redundancy or for a different purpose I don't know, but it seems to me that just as we've tried to make contact with other groups with regard to pandemic influenza and one thing or another --

DR. POLAND: That might actually be a good example. In this case the questions and controversies that come up have to be informed by science and so DOD may do some of that, but a lot of it's going to be done in the civilian sector because of the numbers needed. So that science gets done, disseminated, and then gets translated into how do we educate and how does that inform policy and doctrine. Did I answer your question?

DR. KAPLAN: Yes, I think so. I guess the theme that keeps coming up is duplication and I don't think it's our role to usurp any of the tasks that this other group is going -- nor are

they ours, but it seems that there should be some kind of communication since we're talking about the same things. Roger, is that a crazy idea?

COLONEL GIBSON: Yes.

DR. KAPLAN: I'm not going to buy you a drink tonight, Dr. Gibson.

COLONEL GIBSON: The charge of this board as a federal advisory committee is all things health for DOD. Consequently, the issues of childhood immunizations for DOD beneficiaries is part of your charge. You're limited to DOD beneficiaries. This board has in the past as well as taken questions and issues from the department has asked questions of the department. Is it possible for you to interface with other agencies that are looking more broad scope than just DOD? Certainly, and we could set that up as we go forward. Is this is something that the board as a whole is interested in, then we could pursue that.

DR. POLAND: Ed, if you can help remember, we'll come back to that and address that at our next subcommittee meeting. Pierce?

DR. GARDNER: I think the 1999 committee should be very proud of its deliberations and very pleased.

DR. POLAND: We were.

DR. GARDNER: Ten years later much has happened and I congratulate the Chairman of both. But I would follow-up on Mike Parkinson's comments. It seems to me the thing that's truly changed in the last decade is the voices of antivaccination community have become increasingly loud without really any serious data to back it up. I don't worry at all about redundancy or duplication. The military again has the ability as were talking about earlier today to publish its experience with vaccinations and adverse reactions and it seems to me that's an important function for us to say when nothing bad has happened because the internet sends rumors and misinformation and we have not really figured out an effective way to blunt that. In fact, that we're having to answer all these defensive things suggests that. I would say that the

recommendations are great but we should have some organ or some way to publicize it that life is good and not everything is in danger.

DR. POLAND: That's a good point and the both military and civilian sectors are struggling with that issue.

I'm going to move on to the next brief. I'll now give an update on the biowarfare countermeasures. You'll recall that there is a DOD directive called the DOD Immunization Program for Biologic Warfare Defense where we are tasked with providing the ASD for Health Affairs with advice and recommendations regarding biological warfare countermeasures and that includes research, acquisition, and execution. The task force members who intended this included Dr. Kaplan, Dr. Silva, Dr. Oxman, myself, and Dr. Gardner, and there were a few background things you should know about. One was an April 10 meeting where we heard from DTRA and Force Health Protection and Readiness and we as Medical Logistics, another meeting that occurred April 23

through 24 with MILVAX and representatives from the Vaccine Healthcare Centers, and then finally a meeting July 11 that we just had where we heard briefings from DIA and DARPA.

In terms of the update from DARPA, and I can only give generalities because these were classified briefings and this is an open meeting, we felt that there was a significant and impressive science base that was going on that was pretty far forward looking in the chemical, radiologic, and nuclear areas.

In terms of the Chairman's threat list, we noticed a movement toward something we had been advocating for over the years and that was a matrix-type list that incorporated the intelligence, the capability, the intent, and how things might be changing over time, so we were happy to see a somewhat different format of matrix rather than just we think country X has this

threat or doesn't.

So our overall assessment, and I realize this is general is, but it's the nature of how we have to be in an open meeting, we had some concern with current activity in the biologic science space within DARPA. There were concerns about the timeliness of the Chairman's threat list updates. We're supposed to get them yearly and then comment back in memo form yearly on what those countermeasures should be, and there have been delays in that. The overall result will be that the Infectious Disease Control Subcommittee will write new biowarfare countermeasure recommendations. Questions?

DR. MILLER: Greg, can you comment a bit about the role of BARDA, the HHS component, and how that relates to DARPA, not to much duplication of functions, but complementary aspects?

DR. POLAND: Actually, Mark, that's a good point and I'm a bit embarrassed to say that that didn't come up in the discussions and should have. Given the recent standing up or BARDA and

the amount of dollars they've received, there really was not much discussion about that.

DR. JAMES: In conjunction with that and the previous conversation, I've been involved with a lot of meetings involving BARDA, HHS, Homeland Security, and right now there's an awful lot of interest and activity specifically in the anthrax threat. In looking at that, they're looking at a med kit solution where they put Cipro or doxycycline in every home in the nation. What's not informed is the whole anthrax vaccine approach, and when you try to introduce it, it's obvious that there is a reluctance to go anywhere where immunization is a countermeasure, part one, but part two, there really isn't any DOD informing based on their experiences with the vaccine, et cetera, over time. It's an area where the government is still in three parts divided.

DR. POLAND: And I might also say too that there are appropriate differences between what BARDA does and funds and what DARPA does and funds and our concern was with the kinds of

activities that have to be funded now to have a product that might transition into something BARDA-like 10 or 15 years from now. Pierce?

DR. GARDNER: Stop me if I say something that's beyond what we should talk about, but it seems to me we were repeatedly told about the shortcomings or limitations of surveillance for all the bioterrorism. I don't think that's off limits to say. And we focused I thought more on some of the issues of the potential for various pathogens to be manipulated to become bioterrorism agents particularly as we're now in our Unibomber type or mad scientist type of threat as well as the national lab of an evil empire country. So I thought we had put something on the table to suggest more attention not to necessarily what we know is a threat, but to what could potentially be used to become a threat.

DR. POLAND: You're exactly right, Pierce, and I alluded to it by just saying concerns over the biologic. I guess what we can say is there was some discussion about the

so-called black biology, for example, the ability to manipulate anthrax or smallpox strains to be vaccine resistant or other such things.

DR. GARDNER: Or influenza.

DR. POLAND: Those are the kinds of activities that are likely to be funded at DARPA and not likely to be funded by any other nonmilitary sort of funding agency. So those are the things we have to be looking at now for the threats of the future.

DR. HALPERIN: Was the charge to DHB limited to the infectious or did it include the chemical? Is it just the biologic?

COLONEL GIBSON: The DOD directive that charges the board with this responsibility addresses biological. That said, there's nothing precluding the Department of Defense in engaging in discussions regarding chemical issues as well. And we have an Occupational and Environmental Health Subcommittee that has the type of toxicologic background and expertise to engage in if we so desire.

DR. POLAND: So Bill, there's the specific directive, so it's biologic and in particular the vaccine aspect of it.

DR. PARKINSON: At the risk of putting work on our colleagues or institutions, I wonder of this topic now going on 7 or 8 years post-9/11 wouldn't be politically or even outcome-wise best handled through bringing together an IOM process with a fresh review of what were the risks, what we've done, where we've integrated, where we've not. It seems like it's bigger than any one group to pull together. I don't know, it's something to think about offline a little bit, is it a time to take another gut check in a cross-national, international way almost, what was our intent, are we on target, things to do. Sometimes IOM studies help in that regard, you need a sponsor or you need some money, but just something to throw out in the mix as I listen to the dialogue today.

DR. POLAND: Perhaps particularly when you think about how do you develop an actionable threat matrix, and it's the classic dilemma, what

do you do with constrained resources in a low-probability but high-consequence sort of scenario? It's difficult.

DR. LEDNAR: I had a similar thought to Mike. Maybe it's a homeland security sort of a thought process, but in terms of biological warfare preparation and defense, some of it's relying on our intelligence-gathering capability, we've got funding throughout governmental agencies in bits and pieces. Is there anybody in the United States who knows everything that is being funded by taxpayer money in this area so that we have the best part of the government or private sector working on it in a way that comes together as a package for national security?

DR. POLAND: I know the answer to that is above my pay grade and security classification.

DR. JAMES: I help answer that though, the HHS Science Board, one of their subcommittees is working on accumulating just that packet of information.

DR. POLAND: And DSB does some of that

too, but your point is sort of like who's the point person. Good point.

I'm going to move on to the last one which I don't see up here. The last one I'll tell you about is something we just concluded last week I guess it was.

COLONEL GIBSON: Dr. Poland, the slides are in Tab 12.

DR. POLAND: Thank you. And that is an external review of the Defense Health Research Center. Attendees included myself, Dr. Lednar, Dr. Oxman, Dr. Silva, Dr. Kaplan, and Dr. Halperin. Our task was to provide an external review of the Defense Health Research Center in San Diego. As I said, we just finished this last week, or I should say started it might be a better way to say it. In 1999 there was a National Defense Authorization Act that directed the Secretary of Defense to establish a center devoted to the idea of a longitudinal study, key operative word there, longitudinal study, to evaluate date on the health conditions of members of the armed

forces, and the focus them happened to be upon their return from deployment. That got incorporated into policy which was to conduct epidemiologic studies to investigate findings from surveillance and clinical data, support inquiries from senior policy officials, and to monitor postdeployment health of military populations. There would be collaboration with other federal and nonfederal agencies in conducting these longitudinal epidemiologic studies, and there was a list there of who that might be, and that all epidemiologic research would be managed by unique protocol and external scientific review.

Our members went there. We spent about two- thirds of a day or so with the team out there and heard a number of briefings, it have been 15 or so, sort of rapid- fire, that was designed to give us a taste, a flavor, an overview of what was going on. From that we have some draft recommendations that we'd like to move forward on and bring to the board, and I'll just tell you some of those.

One, and I want to thank Dr. Lednar who also helped articulate some of what you're going to see on these slides, was in the governance and research-management aspect. We thought that DHRC would benefit from a high- level triage system for peer-reviewed vetting of all of the research that they undertake. We had the sense, and this is observational and not so much critical, that there was a hodgepodge of different types of studies that might arise from a variety of areas sometimes based on researchers' interests rather than necessarily following a map of priorities. We also thought that a research administrative structure should be enhanced and in place for things like communicating deadlines and RFAs and disseminating and communicating findings to other sister DOD entities.

We strongly felt the need for a big-picture thread of what studies needed to be done and what priority and with what resources. For example, we might hear a study as we did about the role of combat and its association with

hypertension, some smoking studies, which are important but probably if each of us had to look at postdeployment troops and longitudinal health, those might not be in our top five or 10 or even 15 studies that should be done.

Recommendation two was that there be a research career-development track. It was our impression that while it was a very energetic and productive team, it was a young team and there was a lot of changeover that had occurred. And we noted that previous leadership success, the previous three leaders of this, we noted some common attributes. They were physician epidemiologists with the corresponding skill set and clinical insights, they were senior-level career military officers, and they had external research credibility, that is, they had published in the peer- reviewed journals, they had often gotten peer-reviewed federal grants, et cetera. And this would translate into the need for stable funding, a career ladder, the senior leadership skill set that I mentioned, mentoring, and further

development of graduate program linkages to enhance the productivity and capability of the unit.

Recommendation number three was mission scope and opportunities, and that really needed to be defined. As you could see from the first slide I showed you where it's supposed to be postdeployment longitudinal studies or inquiries from senior public -- it soon leads to the sense of they're trying to be everything to everybody and we may have to better define that particularly when you get to the idea that there are concerns about long-term effects, acute exposures, reproductive and dependent health, it's really the entire breadth of health-related issues. Funding and staff were further issues that we thought needed to be better defined.

Recommendation four was the opportunity to move from hypothesis generating to hypothesis testing. For the most part, at least the studies that we heard about, were cross-sectional and longitudinal cohort studies that I think served

the very important role of generating importance hypotheses and providing some initial information, but how would these findings either be validated in clinical studies or translated into clinical studies and in turn new policies and doctrine?

Then corresponding with this is the research-to- practice idea, that research relevant to military concerns had to be the first priorities and the findings had to be incorporated into an informed, in some cases service- specific and DOD-relevant doctrine and policy. It was impression, and I'll leave it at that level of word, impression, we were only there two-thirds of a day, was that it was not clear that this occurs or if it did occur what that process might be.

Recommendation six was linkages within DOD. Again, we had the impression from the 15 or so studies that we heard about that there were not strong linkages with other DOD assets that could significantly and materially improve the science. For example, there were not strong linkages with the DOD Serum Repository or other DOD databases

that would allow not only for stronger science but in some cases to test the hypotheses that had been generated. Of course, we felt that there was a role for further DHB involvement. Let me just say in the strongest terms possible that this millennium cohort study, and I know I have not gone into a lot of detail about that, but we could answer some questions in the question-and-answer session, offered a singularly important and vital asset to DOD and the nation. This is on the line of something like the Framingham Study or the Women's Health Study. This is unlikely to be funded or duplicated in any other venue, and while this involves military members, something unique about this and almost undoable in the civilian sector was the number of women, minorities, other ethnicities, that could be studied. It was a cross-section of America that couldn't be done probably any other way or at least not as efficiently as it could be done here. As such it offers or really has the potential to offer profound insights into health and the health

experience. We felt that an additional in-depth visit would be invaluable in assisting the Defense Health Research Center in its mission and in providing the level of outside expert review and support that we think they need and deserve.

The overall assessment was that DHRC and the millennium cohort study were unparalleled national treasures is the way we really articulated it. They were a highly dedicated team with a successful history. We sensed aspects of mission creep, lack of a career ladder, not as stable material support, all of which threatened to erode the value and effectiveness of this asset, and we thought that there were members of DHB who would have something to offer in terms of recommendations and expertise. So I'll stop there and ask first for any comments from any of the members who were there. Wayne?

DR. LEDNAR: I'd like to go back to one of the very first points that Dr. Poland made and was that this is a longitudinal cohort. Dr. Kaplan in particular I think has brought to our

attention that as we think about what a longitudinal cohort can tell us about and as we try to respond to the questions on today's agenda, we have the capability to answer questions that will only first emerge in the year 2020. And if we are able to mentally to fast- forward and put ourselves in 2020, what questions would we have that this cohort could be perhaps the only way to answer? With that in mind, what should we be doing in the year 2008 to prepare for that? Ed, did I capture that thought?

DR. POLAND: Just to make the point with the millennium cohort study for those who aren't aware, I think now they are or soon will be up to is it 100,000 service members who will be followed up into 2020 or beyond. Bill, I know you were there. Would you like to make a comment?

DR. HALPERIN: Yes, I think you did a very nice summary of this. I really think that this is a national treasure with great potential like the Nurse's Health Study to answer questions for decades to come some of which may actually

start with earlier results than 2020 since it is prospective and some things have shortened latency. I think there's one issue and it may be because you were being too politic and I'm going to be indelicate, I don't think that the issue is just a matter of career ladder, but given the wide potential of this very, very large prospective cohort study, this entity, this group, really ought to be embedded in an arena, in an institution where there is a lot of epidemiology going on, where there are people with creative ideas that no one person or no small group of researchers can think of. So it's really are they embedded in the right place? Is there a place within DOD where there's a greater accumulation of epidemiologists and clinical researchers and others? Or even conceivably ought it be seconded in a major university?

DR. POLAND: Bill, thank you for making that point, and I don't think it's indelicate. In fact, I think it's critical to the continued success and to mine everything out of this that

this treasure offers. You have brought it up previously, I think it's one of the points that we'll want to dig into on this next visit.

DR. MILLER: I couldn't agree with you more that this is a national treasure and the opportunities that you're mentioning are really quite extraordinary both for research advances in biomedical sciences and population- based health. I would echo, Bill, what you just said. I don't have too much information about the size, scale, and scope of this program, but I have two comments. One is, questions of whether it already has linkages, I'm not aware of any linkages of this research institution with the NIH, for example, and partnerships there that could be envisioned in terms of helping to support the research and offer up effectively the mechanisms to allow civilian- military interactions to foster a research agenda.

The other question or comment I have is related to how research is usually funded. Frequently research can be funded on a very

short-term annual basis like our congressional cycles or how more appropriately it should be funded is longitudinally over longer time periods without guarantees of out year so research can take on a scale and scope that is above and beyond just annual fiscal cycles much like what the NIH has for out-year funding so it transcends the political process. I'm not sure if the stability of the research funding line for this entity is on an annual basis as I suspect it is or if it's longer term.

DR. POLAND: No, it's not annual, but the duration was unclear.

DR. KAPLAN: It's congressionally mandated.

DR. POLAND: The funding does come that way. They fund it through 2015 and they're hoping it to 2020. Is that what I recall?

COLONEL GIBSON: It's funded for a 20-year period as part of a POM so it's annual funding that is fenced, if you will. That's the wrong word, but basically that's what it is. It's

money that's set aside directly for that. In addition to that, and the folks at the Naval Health Research Center who oversee the Deployment Health Research Center from an organizational standpoint are very careful to ensure that when somebody decides that they need to do more in a specific area using these data or add questions, et cetera, that money comes with that. One of the big issues, one of the big concerns that I have with this is mission creep as it relates to funding. It's very easy to add just another couple questions, but it opens up an entirely new set of analysis that eats up people and time.

DR. POLAND: And they themselves articulated that, actually. Dr. Shamoo, you've been patiently waiting.

DR. SHAMOO: Just on the process. Since you overemphasized that these were impressions, did you have with them, since you're making a recommendation on your not so confident impressions, basically, did you have an exit meeting with them telling them these are our

impressions or sent them back your impressions and see how they react to it before your recommendations?

DR. POLAND: Good question. The specific answer, did we have an after-action briefing with them, no, and they are draft recommendations. Nonetheless, we felt pretty confident because they were more or less telling us these things, that these were issues, but I'm saying impression because it's not like we had all the data in front of us and could dig into it for ourselves and we feel the need to do that.

DR. KAPLAN: Bill, I thought it was that they did have certain projects that were in collaboration with university people and so forth. It's not totally within that group. Am I right?

DR. POLAND: That's correct.

DR. HALPERIN: I remember it the way you did. There were certain ideas that evolved that included people at other universities. It's very much a creative ad hoc, if you will, as it should be, but that doesn't negate the idea that being in

context with a lot of people with a lot of diverse ideas would squeeze even more out of it.

DR. ETRE: If I could just make a comment. When you mentioned that you recommended a triage to sort of sort out what the priorities should be for the Department of Defense, it would be perhaps desirable to see also what research goes on at NIH and NSF so that we would not reinvent the umbrella. The public generally supports research but we don't need more redundancies than we already have.

DR. POLAND: It's a superb point. They do have, I've forgotten what they call it, external oversight or something like that, committee that had academics on it. Dan is on it and he can comment about it. I don't think it incorporated, and I may wrong, and Dan correct me if I am, NSF, DARPA, NIH type folks, and it's an excellent suggestion that we'll bear in mind. Dan, do you want to comment?

DR. BLAZER: It's called the Scientific Advisory Committee.

DR. POLAND: Advisory Committee.

DR. BLAZER: We meet once a year. We've actually collaborated with them on some publications, but typically the publications come internally. They're not involving the Scientific Advisory Committee, for some they've involved us. I have somewhat of a conflict of interest so I have to be careful what I say, but I think the recommendations you make are on target. I think this is a very enthusiastic group. I do think this is a fantastic resource. More could be gotten out of it I think than probably has up to this point. That's actually not the fault I think necessary of the investigators who were there. I think it's more just the system that it has to be in.

DR. POLAND: I absolutely agree. I absolutely agree.

DR. BLAZER: But in terms of the composition of the Scientific Advisory Committee, it's sort of like us, for the most part, academics, some who have had some work with the

military, some of whom have not. Obviously about half of them are from the San Diego area. I don't know if that's good or bad.

DR. POLAND: What I'd like to do if the board is willing, and I checked with him in advance, is to see we can't move Dr. Certain's presentation up since we're well on time. It's about 30 to 40 minutes. We have Special Forces guys up here. I'm doing it for two reasons. One, I'm well aware that when we get to the end of the second day, people start rushing for airplanes, et cetera, but I think what he has to say you're not going to hear any place else. It's important. It is even an issue in regard to his wartime experience, and centers around Dr. Certain's service to this nation and his time as a POW. So it's a break from the hard science that we often do to sort of the humanitarian, psychological, sociologic aspects. So that he doesn't feel a conflict of interest, let me just say it. He's written a book which I was privileged to read and I would commend

the book to you. Perhaps he can give some details

about it, but it is at least particularly for me as a kid living through two of my dad's deployments to Vietnam, it was poignant to me and heart rendering in many respects, Bob. So please take the time that you need and then we'll go into administrative session.

COLONEL CERTAIN: All I have to do is figure out how to do this.

COLONEL GIBSON: This briefing would be in the day two group. I would suggest that we take 15 minutes to get everything set up and then come back if that's okay. Make it 10.

SPEAKER: Okay, can you please take your seats? As I mentioned, our last speaker for the day is Rev. Robert Certain. He's the Interim Rector at St. Peter & Paul Episcopal Church in Marietta, Georgia. Rev. Certain left active duty in 1977, and retired as a Chaplain in the Air Force Reserves in 1999. I won't read all his numerous awards and decorations, but I do want you to hear what he has to say, particularly how it

might apply to the health implications for

prisoners of war. And I think -- do we have slides? -- under Tab 13 you'll find his slide set.

REV. CERTAIN: Interesting tab.

SPEAKER: That was not planned.

REV. CERTAIN: No, I'm sure it wasn't. And one change -- my Bishop has psychological problems, too, and I'm no longer the Interim Rector. He's asked me to stay on for an indefinite period of time. He had a weak moment.

"The Unchained Eagle" is the title of the book. This is it? And I just brought that as an example, but if you're interested after you've heard me talk, if you're still interested in reading the book, then you can write to me at the address in the materials you have, and I sell them for a 30 percent discount below Amazon. So -- and I sign the ones you buy from me. I don't sign the ones you buy from them.

All right. POW stuff. I was a B-52 navigator in the -- starting in 1969, and was taught in survival school that when you're

captured, you're required to give this

information: Name, rank, service number, and date of birth. Service number is incorrect by the way; I do have a little bit of sense. And -- but I was also told that if you were ever to be captured, you should have a cover story. Just keep it simple stupid and a few details that you're not likely to forget under torture. Being a B-52 crew member, I was invincible. Being 23, I was invulnerable, and so I didn't have a cover story. That was one of my problems as it got along.

The B-52 Stratofortress is what we flew. Arclight was the codename for most B-52 missions in Southeast Asia and generally involved D-model B-52s. This is a G-model in the picture. I flew one tour in -- of Arclight -- out of Thailand in the fall of 1971, had 50 combat missions in four and a half months, then rotated home, got married, and you know, I was sent back for Bullet Shot. Bullet Shot was the movement of G-model B-52s to Guam to enhance the war effort starting in the spring of 1972. When we started going over,

eventually about 50 airplanes went to Guam. There

were about 100 D-models, about 50 G-models in the theater. For those of you not familiar with the aircraft, it's an eight-engine jet with -- we could carry up to one hundred and eight 500-pound bombs in the D-model, fewer than that in the Gs. We flew -- it's twenty-seven 750-pound bombs in the G-model. We had a crew of six. In the D-model, five crew forward -- five crew members forward, one aft. The tail gunner was in the tail. In the G- and H-models, the tail gunner was actually up front with the rest of the crew, and basically that way the crew -- the crew compartment is from here forward. Everything else is fuel and bomb.

This was -- on the 18th of December, the crew was -- my crew was part of the first night of what was called Linebacker II when President Nixon ordered B-52s to bomb Hanoi to force a treaty to be signed, preferably before Congress came back into session in January. And the reason for that was that while Nixon won an overwhelming victory

in the fall of '72, he lost the Congress. And he

was convinced that funding would be cut off and the prisoners would be left behind, and he didn't want that to happen. Charcoal 1, this is Charcoal cell, this is where we were flying. As Charcoal 1 we were the number one airplane -- each color here is three airplanes, and we would be the number one airplane in a wave of nine aircraft, and we were in the third wave of aircraft -- or fourth -- to come out of Hanoi ahead of Guam into Hanoi. Now if you know your geography, you know Guam is east and we're coming from the west. That's because we crossed into South Vietnam, up through Laos, and up as you can see to the China border, which was right here at about 45 miles from the China border before we turned into the target, which was here on the northeast side of Hanoi here. Needless to say, it was not a real good idea what we were doing. It was really kind of dumb, but necessary because there are all these circles here that are lethal SAM zones, so anything inside of there you're within lethal distance of an SA-2 missile

site. That's an SA-2 missile, about 30 feet long,

looks like a flying telephone pole. And contrary to the typical civilian idea that missiles do not hit you, missiles blow up and you fly into the trash. And this -- it's like a shotgun shell -- it sends out broken pieces of shrapnel in all kinds of directions, and it punctures the airplane. When you have jet engines and you suck a piece of shrapnel into an engine, that engine's gone. We had eight jet engines on the bomber starting the bomb run; we probably had none at the bomb release point because we were hit at 1313 GMT, just 10 seconds short of the bomb release point.

The first night -- over the course of the so- called Christmas war, the eleven nights of bombing of Hanoi, ten airplanes were downed over the city, five more were damaged by surface-to-air missiles and did not make successful landings; however, they did get into Thailand, and the crews were able to eject over friendly territory and were rescued. One of the aircraft a little later

in the week crashed into a lake in the center of

Hanoi, and it's still there as far as I know. This is a fuselage of the airplane and you can -- in the same lake -- and you can see landing gear poking up. My aircraft landed in this rice field north of Hanoi, and that's the monument they built. They built a monument to my aircraft because we were the first B-52 they ever shot down, and I was the first one of my crew to be captured, not something I generally add to my résumé line. And so this is out on the north side of town, out in this rice area. And you'll notice the one thing that is lacking in this picture is trees. You can see some back here along in there. And every time there's a little bit of tree out there, there are also houses, which made a big difference when I was coming down in the parachute because there was no place to hide. So consequently I was captured rather quickly. I hit -- I was shot down at 1313 Greenwich -- ejected within 10 seconds of the first missile strike. The pilot was mortally wounded, the gunner was

killed, the airplane was on fire. We had a full

load of bombs and about 120,000 pounds of jet fuel, and the fire just struck me as a real bad combination. One crew member ejected -- the Defense Officer -- that was a real bad sign. And the pilot who was still alive ordered the crew out, and he and I probably ejected mostly simultaneously. He went up, I went down. The bombardier, in accordance with his procedures, waited until he was sure nobody was coming downstairs to jump through the hole I had made, and then he ejected and managed to evade for about 12 hours before he was captured. When I landed about 15 minutes after I left the aircraft -- we left at 35,000 feet, free-fell for 20,000 -- and when I landed I was surrounded basically by mostly civilians and four militiamen with AK-47s. I was grateful for the militia because they protected me from the civilians because civilians didn't really like me dropping in on them like that. And then -- so I was taken in kind of quickly to the Hanoi Hilton. This was my EW, my Electronics Warfare

Officer. He was taken in with me. I was shown

the pilot -- my pilot's body on the ground so I knew he had died. Early the next morning another B-52 went down. And they were able to capture four men off of that crew so that by noon on the 19th of December, they had six crew members from a B-52, so that basically a full crew.

They took us in front of the International Press Corps. At that point we'd been interrogated -- I'd been interrogated all night, been roped all night, had been beaten just a little bit because they didn't like my answers. I had said I had to make that cover story up on the way to the ground, and so my cover story was I was just a celestial navigator and that's all I knew was navigating over water. And throughout the interrogation, they kept telling me that if I didn't tell them what they wanted to know, they'd take me where the B-52s were bombing. And I was pretty sure they weren't going to do that because they didn't seem to be real excited going anywhere near B-52s. It was a lot safer in the prison than

it was anywhere in town because we knew where they

were. The picture -- my picture there makes it look like I'm not a real happy camper, but I'd been up all night. I'd been up for about 36 hours, and -- but I was jumping for joy inside of me because my picture was being taken by Europeans. So the International Press Corps. was there and I knew that my picture would be released, my name would be released, and my family would know that I was a prisoner and not in that nebulous state of missing in action or that terrible state of having died in action. So I was pretty thrilled about all of that. And I could have been wondering why Joan Baez was sitting in front of me, but I wasn't. She was there, but I didn't notice.

We were kept in the Hanoi Hilton. This is an overhead sketch of the prison. Back here is where the bad guys were, that is, the older prisoners of war who were hard as nails and very rebellious by this point in their career. And us new guys were kept out, just inside the main gate

here, in what had been interrogation rooms along

in these two wings of the prison. That is until our door fell off one day, overpressure/underpressure had done that. An F-111 dropped a 250 pound bomb on a triple-A gun about a block away. And so the overpressure/underpressure of the bomb drop knocked one of the doors off of our cell, rendering it basically useless for keeping us inside. Although I was a 5 foot 9 inch albino redhead and my cellmate was a 6 foot 2 inch African American, and neither one of us would have passed for locals, we weren't going to go out there on the streets anyway.

But from there we moved into this place here, this little wing. It's what we called the Heartbreak Hotel. It was kind of a torture chamber, a very grim, dark, nasty, dank place filled with rats which loved to crawl on us at night. And we were there for a couple of weeks, and moved back out to another cell out here until mid-January when we were moved to another prison

as they reorganized the prisoners in order of

shoot-down date. There were four prisons still open after Son Te -- after the raid on Son Te -- which didn't rescue anybody but really rattled the North Vietnamese. They closed most of the outlying camps save one up on the China border and three in town. You've heard of the Hanoi Hilton. You've probably heard of the Plantation Gardens. It was called that because with the Big House, Big House here, and this courtyard and kind of shotgun places, it looked like a Southern plantation in a lot of ways. Built by the French and so the Manor House looked a lot like a French Manor House from Southern Louisiana. So it was -- but this was kind of the showoff place. This is where we were taken to have our pictures taken, and this is where the peace committees came
The other prison in town was called -- we called it The Zoo. It had been either a French Officer's quarters at one time and it was also

used as a movie studio at one time. And these are basically the names we gave to the various cell blocks. The Pool, however, was a real swimming

pool. Not one you'd want to get in because the water was nasty, but we would -- and there were walls around all of these various structures to restrict movement and communications. And this is where I spent the last about 80 days. I was only there for 100 and well, about 60 days, 70 days I guess. We were there from mid-January -- the treaty was signed the end of January -- and we were released out of here on the 29th of March.

This is what's left of The Zoo. It doesn't look any better now than it did then. This picture's two or three years old and shows kind of the construction and what it looked like. This was what it looked like in my cell the day before release. That's me there. And we were standing at parade rest, quite frankly to irritate the North Vietnamese. When we realized that the International Press Corps. was coming in, we decided to fall into military formation and then

to behave like military officers because we knew the Vietnamese hated that, and it also gave us a little bit of pride to do so.

The treatment for me was pretty minor. According to Will and Sybil Stockdale's book, "In Love and War," the torture ended in two phases, started when the infamous Hanoi March occurred, which started an international letter-writing campaign demanding better treatment of prisoners of war. And then according to Stockdale's book, the day after Ho Chi Minh died in October '69, the torture ended the next day. So I didn't know that, and so I was prepared -- trying to prepare myself for anything. I was beaten a few times. I had some physical abuse the first little while. I had multiple interrogations heavily for the first several days, and then after that periodically because, like most military organizations, the interrogators were required to fill the training squares. And it was like they were going through the motions of interrogating us, asking us really strange questions like who the commander was at

Guam. And I was just a celestial navigator; I didn't know who the commander was. Always threats of greater harm, they wouldn't let us go home, we

would die over there, to be taken where the B-52s were bombing, et cetera. After the bombing ended in January, we were taken out on a couple of occasions for propaganda films, and we tried to indicate our distaste for that through hand gestures.

Poor hygiene was the name of the game. The place was nasty, filthy. We got baths about once a week or ten days. We couldn't wash our clothes very often, and the toileting facilities were -- well, let's say they weren't much. We had five-gallon buckets in the cells, generally unsanitary living conditions, and terribly unsanitary food. The diet was -- this later becomes, about ten years ago, a fad diet in the United States. A breakfast was half a loaf of French bread and some powdered, reconstituted, powdered milk that came from Poland, very, very sweet. Lunch and dinner was half a loaf of French

bread, a bowl of cabbage soup, and weak hot tea, day in and day out. The only variance was on Sundays when we only got one meal.

I was repatriated in the last group to leave Hanoi on the 29th of March, 1973. I spent about three days in the Philippines, came to a medical facility at Scott Air Force Base in Illinois for a rigorous physical, and then was -- the crew was moved back to Blytheville Air Force Base in Arkansas, our starting point, to be welcomed home by our friends. Our families had met us up at Scott. At that point I was told to go back to Scott because they thought I had malignant lymphoma. I didn't have a clue what that meant except it sounded nasty.

Since the war in Vietnam, medical following of the Vietnam POWs -- and this is very different from World War II or Korea -- has been conducted primarily as a result of the efforts of this one Navy doctor, Robert E. Mitchell, for whom the Center is named now down at Pensacola Naval Air Station in Florida. It became first just a

medical following of the Navy and Marine Corps. former POWs, to make sure they were doing okay over time. That started as soon as repatriation

occurred and then developed from there into a longitudinal study of the effects of incarceration and depravity -- depravation rather, depravity is something, I mean, that's every Navy aviator. The Matched Comparison Group was called in in 1976, so just three years into the process. The Navy -- the Air -- the Army stopped following their former POWs fairly quickly after the first year. There weren't that many of them. There were very few men kept alive in South Vietnam, and very few -- The Army transported north into Hanoi so most of us were aviators from one of the three services that flew jets and bombers with the Army being the smallest of the groups. The Air Force followed us for about three or four years with annual physicals, and then declared us all fit and healthy and sent us home. And so -- they did not do this -- Dr. Mitchell had other ideas. When the Gulf War ended, there were fewer than a dozen men

and women who were held as prisoners, and they were included in the study at that point in '91. And then '94 the USAF POWs from Vietnam were

added, and two years later the Army. We got -- we are funded separately now from the Navy budget, and we are invited to come to Pensacola once a year for an annual physical that generally lasts a day and a half to two days, depending upon the kinds of things that they're poking and prodding for at this time. And then they refer us back to our civilian doctors or VA physicians, wherever we get our primary care.

My concern here on this Board -- and then I'll get to the next 45 minutes or less -- is post-traumatic stress disorder, and I'll try to defang all this stuff from the psychiatric diagnosis. And being a storyteller and not a scientist, I refer to it as the "ghost of Christmas past" that likes to come out and haunt us from time to time. Ten years' home is when I first learned about -- learned intellectually about -- anniversary anxiety. I had no

intellectual hanger for that before. I'd been trained in seminary. I went to seminary as soon as I came home from Vietnam, and I was trained to

do theological reflection, to use that as a lens to ask what's going on in your life, in your relationship with God, and what's God doing in your life. But I was never encouraged or taught or any other way forced to put that lens on my own life, and so I hadn't done that yet. But anniversary anxiety was something I learned about in counseling courses I was taking, and realized that Christmas to Easter was always a difficult -- the worst -- the most difficult time in my life as a young priest. And so I first thought that had to do with my life as a priest, then I began to think about it and realized it was also the bookends for my incarceration. I was shot down a week before Christmas and was released about a week before Holy Week. The other thing that I came to learn over time about the ghost of Christmas past was embedded memory, and that was from -- began to understand that from a study of

neuro-linguistics in the 1980s, and to look at the themes of life and how they play themselves out in people's life over time. And that would be again

to form another way of going back and finding out what the long arm of Vietnam was in my own life. Finally, the effort to exorcise the ghost was completed, at least I hope it was, in 2001 through a specific therapy called EMDR, Eye Movement Desensitization and Redirection, which is kind of a spooky therapy and is probably looked at askance by a number of psychological and psychiatric therapists.

Anniversary anxiety. This was the Christian -- these were the Christian seasons in which I found myself most filled with tension, starting with Advent, the season before Christmas and leading all the way up to Christmas Day. During the -- it was the busiest time of the liturgical year for an Episcopalian, we like to do good, additional instructions, a lot more liturgies, it's -- everything has to go well because that contains the two Holy days where

everybody comes to Church at the same time, Christmas Eve and Easter Day, so it was a very busy and stressful time for a priest, but as I

said also the bookends of incarceration. So I started asking myself the question which one was causing more stress? The final flight that led to my incarceration or was it just daily life as a clergyman? And that was sort of how it went. Now here's what I learned in EMDR therapy and studying the themes of post-traumatic stress disorder. I learned for me anyway that post-traumatic stress did not mean I was reliving the past. My flashbacks didn't have to do with specific events that happened on the 18th of December, 1972, or any of the hundred days that followed that. It had rather to do with the themes of that final mission, and this is what they were. First of all, grave disappointment. This was the day my crew was supposed to go home. We were done. We flew our last mission on the 14th of December, and we were to leave. That was a Thursday and we were to leave Monday for the States, and on the 15th of

December, our orders were cancelled and we were told to stand by. And so we were very disappointed that we were going to have to fly one

more mission. That was the first one. Then there was another theme that occurs in the story or unexpected or uncontrollable events. For instance, as we were taxiing out, we were stopped on the taxiway when there was an earth tremor on Guam. Now you just don't control those all that well, and so there was nothing -- but you have to live through it, you have to adapt to it and go on. Two airplanes ahead of us aborted because of bad airplanes, and the drill was if your airplane was bad, you went to another airplane and you went to the tail of the line and took off at the tail end. And so everybody else moved up one, so as we were taxiing out, somebody's airplane was bad and we moved up one. As we took the active runway and began our taxi, our takeoff, we were notified that somebody else had aborted and we moved up another one. So we went from Charcoal 3 to Charcoal 1, and then as we took off, as we got to the altitude

at which the pilots pressurized the crew cabin, it wouldn't work. It wouldn't pressurize. That was an abortable deal. We could have declared the

airplane broken, but the bombardier got out the repair manual and fixed the problem so we could continue flying. So then we were overcoming these obstacles. We rendezvoused with a tanker, correct beacon code, correct conversation, all that stuff, wrong airplane. We had a visual on him, wrong airplane, talking to a different guy. And so either the airplane we rendezvoused with was putting out the wrong beacon code, or I had made a terrible mistake as the navigator since that was my job to rendezvous with the right one. The other guy with the right one was 50 miles away, and we had to catch up. When we got to the compression point where these nine airplanes were to go from a five-mile separation to a one-mile separation, the two cells behind were scheduled to be at that point at the same at the same altitude. That's not a good thing when you've got six B-52s trying to occupy the same space. Unfortunately,

they discovered it as they approached the space and were able to wiggle around and slow down and speed up and get into proper order. The next

thing we could nothing about -- of course, we're all the SAMS, second most heavily SAM-defended city in the world, next only to Moscow in 1972 -- and so we knew we were going to face that, and we were hoping that our jamming equipment would work and that the fighter escorts that were laying -- had laid down CHAFF and the other aircraft, the ECM aircraft, that were doing other jamming would work. And then we also knew that when we turned down on the bomb run, we'd enter a jet stream with a tail wind of about 90 knots -- that was the good news. The bad news was that after bombs away, we were to turn right back into that jet stream and lose 180 nautical miles of ground speed in about 35 seconds. And so it was a very, very dangerous space and we had all of that to go on and the planning errors. And quite frankly, I hate to tell you, but that mission was planned in the Pentagon, not in the field. It violated SAC

doctrine, it violated the experience of the Navy, the Marine Corps., and the Air Force, flying missions over the Red River Valley, and so it was

not a well-planned mission. They would discover that when we got to the target. And of course the very grave danger that was there, and lots of obstacles to overcome, including fear, including all the things I've just been through. There were vital goals. These goals were the -- for the war-making ability of North Vietnam. There were like 18 targets. We bombed -- we dropped -- 900 airplanes went against those 18 targets, and they were all military targets. Ours was a railroad yard to disrupt the movement of materiel around Vietnam, and so it was important that we take them out. It was more important we drop the bombs because after the first five or six B-52s dropped a load of bombs on a railroad yard, there's nothing left to destroy. But the noise of those airplanes -- of those bombs coming down and the explosions is enough to rattle the nerves of the guys who sign treaties and to get them back to the

table.

Then we were at certain success. As we approached the target, we were 10 seconds, we were

15 seconds out, we were perfect. We were exactly to the second on time. That was my job. I was good. And the bombardier had the target clearly identified, clearly wired, and those bombs were going to leave our airplane on time and hit that target, and we were going to go home. The only problem was as I've told you at 10 seconds to go in the bomb run, we were hit by the first of two SAMs, and within 10 seconds we had ejected from the airplane. The good news was that I did get out of the airplane. The bad news was as I said I ejected at the bomb-release site, and there were eight airplanes behind us, going to be dropping bombs every 15 seconds. And the entire time I was free- falling, they were dropping bombs that were falling on the same line of trajectory I was falling on. I realized that when I wrote the book. Then I got really scared, 30 years later.

Now those are the things -- now here --

this is an event, capital funds campaigns that clergy tend to get into, was the thing where on two occasions as I completed capital funds drives,

I also had to check in with my psychiatrist to get -- to go into better living through chemistry because I'd hit the wall with clinical depression. And I didn't understand how it was connected, and it happened -- the last time that happened was at Easter of 2000, and here are the themes. I don't like doing capital funds drives. I hate looking you right in the eye and saying the Lord has shown me that he wants you to give us $100,000. I can do that pretty well, but I don't like doing it necessarily. And so I don't really like doing it because of all the unexpected, uncontrolled events that occur in people's lives because we're always working with human beings. Now you people are not controllable. There're always planning errors. We plan on things and we goof them up. In that last capital campaign, there were two very important events, and they were scheduled one day after the other and I had to be at both of them.

And when the invitations went out that I had proofread, myself, six or eight times, the invitations had them scheduled at the same time on

the same day in two different places. And so -- and then there was the danger of failure. If you don't succeed, then you have failed. If you don't meet your goals, then you are perceived as a failure. And it's always possible that people will say no and not give. All kinds of obstacles to overcome with people's schedules, with my schedule, with the buying into of the goals, and all the rest of it, but the goals are always vital to the life of the Churches that I've served and important to accomplish. And just as we're getting near success, my anxiety would be at its highest, and I'd start putting out résumés and looking for a place to go. And so I never connected these events. I never connected the anxieties I would feel during capital campaigns, and oh by the way, we always do those between January and April. It's just when they're done in my history. And so all of that was there, and I

never connected to one 8 hour and 40 minute period of time on the 18th of December, 1972, in that last meeting. So the first thing I did in 2000

was start writing the story down, and it was under duress. I was writing it for a psychologist. I was not writing it for myself. And then she would force me to reflect upon the details of the story, and my family, my wife and I would discuss it, and some close friends would discuss it with me in addition to the psychologist at the Vet Center in San Bernardino. And then I got better and the Zoloft was helping and all that stuff. I went off to my physical at Pensacola that summer, and the doctor there said you know Bob, I really think you're suffering from PTSD, and if you're -- and I -- and here's a therapy that you might find helpful because it's really helping some of our guys that are coming through here. And I thought, well, that's very interesting doctor, I'll look into it, and I filed that for about a year. And what happened was on September 11, 2001. All the anxieties came -- rose up in the wrong month of

the year. And that's when I looked into EMDR as a possibility for me, and the EMDR therapist over the next two or three months helped me explore the

themes and connect the dots and to figure out what was going on and amazingly to come up with alternate choices for decision making and thinking. And so finally, when all that was done, life was better and I've had a pretty good career since then. This was a high point in my life. In January of last year, when I officiated at the funeral of President Ford, the -- and what I do, have been doing in the last couple of years is trying to help people take this sort of parable, if you will, in my individual story, and try to understand its themes as they relate to their lives, particularly our combat veterans as they come home to say, you know, there may be something that you experienced over there that if you will take a look at it, you might find a better way of living today. And I use every image I can think of, and try to avoid the psychiatric diagnosis titles because I'm not a psychiatrist and I'm not

a physician. But I am a fellow pilgrim who has experienced something of the long- term affairs effects of having been in combat. And so I think

that every one of us who come out of combat, come out as combat changed. We're different people when we come home than we were when we went, and what we can do -- if we allow it, all the bad stuff that happens to us, all the bad emotions, all the troubling times, all the moral dilemmas, everything else, can hamstring us in our present and our future.

And what we do on the Defense Health Board in psychological health is to try to bring out something different. And what I try to do is to use theological imagery with folks. One of the stories I like to tell, it's like panning for gold. You've got to wash away a lot of mud to find the value in some of the combat experience, and to use the Christian Church, the private confession is a time to rid of -- to find forgiveness and for the guilt that we come home feeling, everything from survivor guilt to the

guilt we have from enjoying killing and destroying and everything in between. And there are a lot of tools that we can use. You have a lot of them in

the Defense Health Board. The Churches and the faith communities of our country have a lot to offer as people address the wounds of the soul, and those of us who are veterans and have been there and come back and have figured it out, at least partially figured it out, can help other pilgrims along the way.

So I thank you for your time. I don't know how much time I took, but I took all the time I was going to. And I appreciate being asked to do this by Dr. Poland, and I really appreciate him taking the first briefing after lunch when we were all sleepy! Thank you. Any rebuttal, questions, comments?

SPEAKER: No rebuttal. Words aren't really adequate, Bob. First how sorry I am that you or any service member would have to go through what you did. At the same time, I have to say flooded with pride in you as an individual and as

a service member and as an American. So thank you for your service and for the journey that you've traveled, which we've gotten a taste of difficult

it is, so thank you for that.

REV. CERTAIN: Thank you. I'm convinced that other people don't have to be as slow and stupid as I have been, and that we can actually do this a lot faster than 30 years for the current generation if we pay attention to them, rather than having them dig it out on their own.

SPEAKER: Boards and commissions and task forces can be slow and stupid some times, too, so I'm depending on you and your experience to be the accelerant in our mission to try to improve the lives of service members. Any comments or questions that anybody would like to make? Please.

QUESTIONER: Thank you for sharing that very personal story, and the one question and comment that I'd like to make is that -- do you think that because of the stigma, and then also the consequences that are associated with a

service person revealing something that has to do with mental health and mental illness, that that prevents people from being open to accessing

treatment more readily? And even the kind of treatment that's being available to them when they come back with some of those issues?

REV. CERTAIN: Well, anecdotally we hear that in recent months, to the point that apparently the Secretary of Defense and the Chief of Staff have encouraged their senior officers to come in, to seek some psychological and psychiatric counseling. From my own part, I wasn't crazy. And besides, I was only there 100 days. I was not a real Vietnam veteran because I was never in Vietnam except as a prisoner. I was there in prison at a time when there was no torture, and it was -- compared to what the long-term prisoners went through, it was kind of like a country club. And our lives were never really threatened. So it took me until 1982 to recognize that I was really a Vietnam veteran, and it was about the same year that the POWs -- my

wife and I hadn't been to a POW reunion in over 20 years -- and that they sought me out and said hey, you B-52 guys need to start coming with us.

You're one of us. And so I was in all kinds of denial. And I think that's one of the defense mechanisms that we have, and so yes, I think that psychiatric designations -- as helpful as I've found them looking back, and as helpful as that psychiatrist and psychologist looking back -- looking forward to going to anybody in the mental health field carried a stigma. The insurance companies clearly think it's a problem you ought to be able to solve on your own because the reimbursement's only 50 percent, whereas for "real" medical problems it's 80, or was in the day. And so there's all kinds of social and economic and structural and stigma attached to the designation. That's unfortunate. I don't know anyway around it. That's why I like to tell stories and see if people connect to the story first, and then tell them how I found some relief. And for me it was three pronged: It was

theological reflection. It was writing therapy, which I didn't realize that's what I was doing until after I did it. And it was psychological

therapy. And it was actually four pronged: And psychotropic medication. So now I can tell the story, get somebody gripped into their own story, and then say here's a combination of things you might want to try because these -- this is what helped me. And then the stigma gets reduced, and they're willing then to do whatever's necessary to get better.

QUESTIONER: Thank you for sharing your story. It's Bill Blazek here. And thank you for your service. A question I have is what sort of medical care did you receive when you were imprisoned, if any, and do you have any comment in the role of physicians or any other healthcare providers while you were in prison?

REV. CERTAIN: Medical care for us in prison was not real good. The -- we were basically on our own. The first time that we had a medic come by the cell was -- it was up into

January. The bombing had stopped and we were in a cell with about seven guys. Alex and I who had been together the whole time and would stay

together the whole time were in a cell with five other guys, all of whom had some kind of festering wound, usually caused by burns in the airplane before they ejected or puncture wounds. Upper ejection seats -- we had a pin holder on our left bicep in our flight suits, and the pins would tend to get jammed or caught on the hatches as we went out. So we had a couple of puncture wounds. All of them were infected. We'd been locked in this cell for a while, and hadn't emptied the honey buckets in about five days, and hadn't bathed in about two weeks, and hadn't washed our clothes in about three. When the kitchen guy came by with lunch one day, he took -- he gasped, put the soup bucket down and told us to open the back window because we needed fresh air, and he refused to come in to serve us our meal. We had to come out and get it. I guess we smelled bad. But as a result of that, the camp commander came by and

gave us a lecture on personal hygiene, and then we gave him a lecture on how we didn't have opportunity for that and we had infections that

couldn't be treated, and that was the first time we saw a medic who came in and cleaned out the infections. Then that was about it. You really had to have some significant medical issue in order to get anybody to come talk to you. That's why some people came home with badly set broke bones and all kinds of scar tissue and stuff growing up around where bones had been set badly, and ligaments had been torn and never properly treated. And some of the old guys were like that. They did, you know, when we came home. U.S. medical care, by the way, took over. We were treated very, very well, and some guys had their limbs re-broken and set properly, surgery to correct dropped ankles and other things. So we were really -- for 1972-1973, got very, very good medical care. And oh, by the way,

they discovered I didn't have malignant lymphoma after all, but that was some ninety days before I got that word. But they looked at everything, trying to find out what the symptoms were all about.

QUESTIONER: If I might? George Anderson. I was one of the flight surgeons down at Brooks in the middle '70s who worked on returning to flying status for many of the POW returnees. This last string of comments from you reminded me of that experience because primarily we were working on orthopedic problems and trying to see if the aviators could pursue their occupation anymore. And of course the problem with that is they went through a full psychological and psychiatric evaluation, but they wanted to get back to flying, and so they weren't going to be telling us a whole lot about what their mental health status was, and these guys were really motivated. And I just want to express to you what that was like. I would go -- I remember one fellow that had extremities broken on

ejection -- he was a high-speed ejectee -- and he wanted to get back to flying jets, and so we took him up to Randolph and put him in a T-38 and made sure he could hold the brakes at mil power so he could operate. That was the test, so the flight

surgeon's watching this. There is no way that guy was going to say anything about his mental health status because he was going to fly again. You might reflect on that.

REV. CERTAIN: Well, exactly. We were fine. We were out. This was our mental state. Yeah, you know, we had nightmares, but doesn't everybody? There was nothing that we chose to take to the doctors. You didn't have any better chance than we did, I'll grant you that. Like I said, we were given more medical care in 1973 than our compatriots who were not shot down, but denial's a big part of it. We don't get affected by this stuff, just ask our wives. They will contradict us. And so, we wanted to get back to work. But I'll have to tell you, what I did; I didn't go back to flying. I was offered any --

the DOD said you could have any job you want as long as you're medically qualified, and I said well, I'm going to seminary. They said well, that's not what we meant. But they sent me anyway, and I should have known something was

wrong because there were times in seminary I would just soon been back in Hanoi because I was in a foreign land in seminary. Seminaries in 1973 were populated by people who didn't like the war in Vietnam or anybody who ever fought there. And the country was glad to be gone -- it shuttered the thing and was struggling through the troubles of President Nixon and the potential of impeachment, and then the change to Gerald Ford as President and all that went with it, the pardon and everything else. So we Vietnam veterans were the lightning rod to a lot of social angst that had developed over -- throughout the 1960s and had -- then was coming to a point in 1973 with President Nixon. So it was not a pleasant place to be, and it wasn't me that was having the problem. It was society. We misinterpreted all the signs -- when

you look at -- you know, hindsight is a wonderful thing. You can look back and you can see signs that we could have made interventions in each other's lives a lot sooner than we did. And what's good now from my perspective is we are --

we seem to be as a country paying closer attention to our Viet -- to our veterans of the current conflicts than we did in Vietnam and looking at them as people who have done the country's bidding. And now what can the country do to reincorporate them fully into normative society -- whatever that is -- and to be productive as they return home and take their uniforms off whether they're active duty, guard, or reserve, because with total force, of course, it's all the same thing. And so I think we're poised in the country at least of being able to capitalize on that greater awareness so that the returning troops and their families and their faith communities and their social clubs and their employers as well as the Department of Defense and the Veterans Administration are in a better position today to

respond quickly and therapeutically to our veterans as they return back to civilian society than we were or could possibly have been in -- from 1968 to 1982 really.

SPEAKER: Again, Bob, thank you. I will

now go into an administrative session, and I'll ask the core Board and subcommittee members, the ex-officio members, the DHB staff, and the service liaisons to remain, and ask the remainder of the group to go ahead and depart. The open session will start tomorrow at 8:30 with registration. We'll try to start right on time tomorrow, and we'll see you then. So thank you and otherwise, the Board is adjourned.

(Whereupon, at 4:30 p.m., the PROCEEDINGS were adjourned.)

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