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DEFENSE HEALTH BOARD MEETING

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Monday, August 8, 2011

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Hotel Murano
Venice Ballroom 3-4
1320 Broadway
Tacoma, Washington 98402

The above-entitled meeting was convened, pursuant to notice, at 9:32 a.m.

PARTICIPANTS

DEFENSE HEALTH BOARD MEMBERS:

MAJOR GENERAL (Ret.) GEORGE K. ANDERSON, M.D.
M. ROSS BULLOCK, M.D., Ph.D.
Vice Admiral (Ret.) RICHARD H. CARMONA, MD, MPH, FACS, Vice President
REVEREND ROBERT GLENN CERTAIN, Dmin
REAR ADMIRAL PETER J. DELANY, Ph.D.
NANCY W. DICKEY, MD, Chair
EVE HIGGINBOTHAM, M.D.
DAVID ALLEN HOVDA, Ph.D.

COLONEL (Ret.) DONALD JENKINS, M.D., FACS, DMCC
JAY A. JOHANNIGMAN, M.D., FACS, FCCM
GENERAL (Ret.) RICHARD MYERS, Vice

President

DENNIS S. O'LEARY, M.D.

HONORABLE TOGO WEST, JR.

PUBLIC ATTENDEES AND PRESENTERS:

SHARON AIELLO

CAPTAIN JOHN ALVITRE

RICHARD BECKER

CARRIE BERNARD

CAPTAIN REX BROADRICK

COLONEL TOMMY BROWN

DAVY BUSH

COLONEL RUSSELL COLEMAN

DR. LARRY KNAUSS

BRIGADIER GENERAL MARK A. EDIGER

JAY EBBESON

CAPTAIN PAUL HAMMER

MAJOR DAVID HARPER

COLONEL DALLAS HOMAS

CAPTAIN CLINT NOLD

CAPTAIN DAVE KORMAN

DR. KURT KROENKE (telephone)

MAJOR JASON LANE

BOB LEVIN

DR. GEORGE LUDWIG

COLONEL JULIA LYNCH

CAPTAIN TRISTAN MANNING

JOE MENES

CAROLINE MINER

MASTER SERGEANT HAROLD MONTGOMERY

DR. MICHAEL PARKINSON
DR. JOSEPH SILVA
MAJOR ANNE STERLING
CAPTAIN ADAM STOVER
COLONEL DAVID VETTER
MAJOR GENERAL PHILIP VOLPE

DEFENSE HEALTH BOARD STAFF:

ALLEN MIDDLETON, Designated Federal Official
CHRISTINE BADER, Director
COL WAYNE HACHEY, Executive Secretary
MARIANNE COATES
OLIVERA JOVANOVIC
JEN KLEVENOW
LIZ MARTIN
HILLARY PEABODY

SERVICE LIAISONS:

LIEUTENANT COLONEL PATRICK GARMAN, USA, MS
CAPTAIN PATRICK LARABY, MD, MPH, MS, MBA, FACOEM
COMMANDER WILLIAM PADGETT, MC, USN
COMMANDER ERICA SCHWARTZ, USPHS
COLONEL SCOTT STANEK

C-O-N-T-E-N-T-S

P-R-O-C-E-E-D-I-N-G-S

9:32 a.m.

Welcome and Call to Order

CHAIR DICKEY: If everyone will please be seated. I'd like to welcome everyone to this meeting of the Defense Health Board. I'm Nancy Dickey, and I'm president of the Board, and we have several important topics on our agenda.

Before we get started, though, I'd like to remind everyone that we do have some Board members who are calling in, and in order for them to be able to hear you, you must use your microphone. So please be sure you turn your mic on and identify yourself, so they know who they're hearing. With that, Mr. Middleton, would you please call us to order.

MR. MIDDLETON: Thank you, Dr. Dickey. As the Designated Federal Officer for the Defense Health Board Federal Advisory Committee, and a continuing independent scientific advisory board to the Secretary of Defense, the Assistant Secretary of Defense

for Health Affairs, and the Surgeon Generals of the military departments, I hereby call this meeting of the Defense Health Board to order.

Opening Remarks

CHAIR DICKEY: Thank you, Mr. Middleton. Now carrying on the tradition of our board, I'd ask that we stand for one minute of silence, to honor the men and women who serve our country.

(Whereupon, a moment of silence was observed.)

Introductions

CHAIR DICKEY: Thank you. Since this is an open session, before we begin, I'd like to go around the table and have the Board and distinguished guests introduce themselves, and Colonel Hachey, shall we start in your direction?

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

COL HOMAS: I'm Colonel Dallas Homas. I'm the commander of Madigan Army

Medical Center, and the Director of Health Services at Joint Base Lewis-McChord.

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

REV. CERTAIN: Robert Certain, and I'm a retired Air Force chaplain, former combat aviator, prisoner of war in Vietnam and Episcopal priest.

DR. HOVDA: I'm David Hovda. I'm a Professor of Neurosurgery and Molecular and Medical Pharmacology at UCLA. I'm the Director of the UCLA Brain Injury Research Center.

BRIG GEN EDIGER: Hi. I'm Mark Ediger. I'm the Commander of the Air Force Medical Operations Agency, representing the Air Force Surgeon General, Lieutenant General Green.

CAPT HAMMER: I'm Captain Paul Hammer. I'm the Director of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

COL STANEK: Colonel Scott Stanek,

Office of the Assistant Secretary of Defense for Health Affairs, Force Health Protection and Readiness.

CDR SCHWARTZ: Hi. I'm Erica Schwartz. I'm the Preventive Medicine Liaison for the Coast Guard.

CDR PADGETT: Commander Bill Padgett, Marine Corps Liaison.

LTC GARMAN: Lieutenant Colonel Patrick Garman. I'm the Director of the Military Vaccine Agency, and I'm representing the OTSG today also.

CAPT LARABY: I’m Captain Patrick Laraby. I'm the Director for Public Health at the Navy's Bureau of Medicine and Surgery. I'm serving as the Navy liaison today.

DR. SILVA: Joseph Silva, Professor of Internal Medicine, University of California at Davis, and Dean Emeritus, previous member of the Board, guest today.

DR. PARKINSON: Mike Parkinson. I work with health care organizations and employers around innovations and financing in

the delivery of health care as a consultant. Former member of the Board and co-chair with Dr. Silva of the Psych Complementary Alternative Medicine Group, a guest today.

DR. JENKINS: Don Jenkins, Chief of Trauma, Mayo Clinic, Rochester, and the chair of the Trauma and Injury Subcommittee.

DR. HIGGINBOTHAM: Eve Higginbotham, Senior Vice President and Executive Dean for Health Sciences, Howard University in Washington, D.C.

DR. ANDERSON: George Anderson, Board Member, Executive Director of the Association of Military Surgeons of the U.S. and a retired Air Force medical officer.

MG VOLPE: Good morning. I'm Phil Volpe. I'm the commander of the Western Region Medical Command, the Army's Western Region Medical Command, and also the Senior Market Executive for the Multiservice Market Office, TRICARE Puget Sound.

DR. CARMONA: Good morning. I'm Richard Carmona, former Surgeon General and

Vice President, Defense Health Board.

MS. BADER: Good morning. Christine Bader, Director, Defense Health Board.

MR. MIDDLETON: Good morning. I'm Allen Middleton. I'm the Deputy Assistant Secretary of Defense for Health Budgets and Financial Policy, and the Designated Federal Official for the Defense Health Board.

CHAIR DICKEY: And I'm Nancy Dickey. I'm the President of the Texas A&M Health Science Center, and President of the Defense Health Board. Thank you. Well, let's see. We usually want to go down. Have you got a microphone we can share?

MS. BERNARD: Good morning. I'm Carrie Bernard. I'm Madigan Army Medical Center’s Media Relations Officer.

MR. EBBESON: Good morning. I'm Jay Ebbeson. I'm the Director of Strategic Communication for Madigan.

MS. AIELLO: Good morning. My name is Sharon Aiello. I'm the Public Affairs

Officer for the Western Regional Medical Command.

MR. LEVIN: Good morning. I'm Bob Levin with the city's Community and Economic Development Department, Private Capital Division Manager.

DR. KNAUSS: Good morning. I'm Larry Knauss, child psychologist at Madigan.

DR. LUDWIG: Good morning. I'm George Ludwig. I'm the Deputy Principal Assistant for Research and Technology at the U.S. Army Medical Research and Materiel Command.

COL COLEMAN: Good morning. Russ Coleman, Commander, U.S. Army Medical Materiel Development Activity, MRMC.

MR. BUSH: Good morning. I'm Davy Bush. I'm the regional analyst for the Military Vaccine Agency.

MSG MONTGOMERY: Harold Montgomery. I'm the senior medic with the Army 75th Ranger Regiment.

MAJ STERLING: Major Anne Sterling,

Executive Officer, Madigan Army Medical Center.

MAJ LANE: Major Jason Lane, Executive Officer from Madigan Army Medical Center.

CAPT (RET) BECKER: Good morning, Richard Becker, Service Area Director for Western Washington with TriWest Healthcare Alliance.

MR. MENES: Good morning. I'm Joe Menes, Public Affairs Officer for the National Center for Telehealth and Technology.

MS. COATES: Good morning. Marianne Coates, contracted consultant for the Defense Health Board in communications.

MS. KLEVENOW: Jen Klevenow, DHB support staff.

MS. JOVANOVIC: Good morning. I'm Olivera Jovanovic, Senior Analyst, DHB, contracted support staff.

MS. MARTIN: Good morning. I'm Liz Martin, analyst, DHB support staff, contracted.

MS. PEABODY: Good morning. Hillary Peabody, also an analyst with the DHB, contracted support staff.

CHAIR DICKEY: Thank you, everyone. We're delighted to have our guests with us today, and appreciate all of our liaisons as well. I think with that, Ms. Bader, would you like to provide some administrative remarks?

Administrative Remarks

MS. BADER: Sure. May I ask Dr. Delany and General Myers, are you on line?

(Chorus of yeses.)

MS. BADER: Fantastic. Is anybody else on the line?

HON. WEST: Togo West, good morning.

MS. BADER: Excellent. Good morning, sir. Thank you for joining us.

DR. JOHANNIGMAN: Jay Johannigman.

MS. BADER: Good morning, Jay. Thank you very much for joining as well. Okay. With that, I'd like to make some administrative remarks. Good morning and

welcome to this meeting of the Defense Health Board.

Of course, I'd like to thank the hotel for helping with the meeting arrangements, as well as some of the contract staff that have already introduced themselves, Jen Klevenow, Jessica Santos, Lisa Jarrett, as well as Liz Martin, Hillary Peabody and Olivera Jovanovic, who worked very, very hard to put these meetings together, as well as Jean Ward.

I'd also like to thank all of today's speakers, who also have worked diligently to prepare the briefings for the Defense Health Board this morning.

I will ask that everyone please sign the Board attendance sheets on the table outside, and kindly indicate any recent change to your contact information, if it is not accurately reflected on the roster.

For those who are not seated at the table here this morning, handouts are provided on the table in the back of the room.

Restrooms are located just outside of the meeting room, and for telephone, fax and messages, please see Jen Klevenow, who introduced herself earlier today.

Because this is an open session and the meeting is being transcribed, please ensure that you state your name clearly before you speak, and use the microphones so that our transcriber can accurately record your questions and your comments. I will also ask that specifically today, so that the folks who have so generously offered their time to dial in can hear you clearly. That would be very important today.

Refreshments will be available for both morning and afternoon sessions, and we will have a working lunch for Board Members, liaisons and invited guests. For others looking for lunch options, the hotel restaurant is open for lunch, and there are other dining options in the local area.

Please note that short biographies will be read for each of our speakers today,

and more detailed bios can be found in your meeting binders. With that, I will turn the meeting back over to Dr. Dickey. Thank you.

CHAIR DICKEY: Thank you, Ms. Bader. It's my pleasure to introduce the newly-elected Defense Health Board co-vice presidents. On the phone with us this morning, General Richard Myers. Dr. Myers or General Myers, we're glad you're with us, and here at the table, Dr. Richard Carmona.

By majority vote, the Board has elected General Myers to serve as First Vice President, and Dr. Carmona to serve as Second Vice President. The Board is grateful to both of you for your willingness and interest to serve in this capacity. I know we will benefit tremendously from your wisdom, experience and particularly in these roles, your leadership.

So I extend my heartfelt welcome, and look forward to working with both of you.

GEN MYERS: Nancy, Dick Myers. Thank you. It's an honor to serve, and I'm

just sorry I can't be there in person. As I heard all the local folks introduce themselves, we've got some great folks out there in Fort Lewis and McChord area, and I wish I was there to say thank you for their service.

Welcoming Remarks

CHAIR DICKEY: Thank you, General, for that, and again, we do appreciate you being on the phone. That's actually harder duty than being here. I thank all of you for participating in the nominations and the elections as well.

Without further ado, we have a number of extraordinarily important issues to come before us in the next two days, and so if we can, we'll begin our briefings. Under Tab 5, for those of you who have your books in front of you, Major General Volpe is going to give us our first briefing.

He currently serves as the Commanding General of the Western Regional Medical Command, and Senior Market Executive

for TRICARE Puget Sound. He's a board-certified Family Physician, and was commissioned as a Captain in the Medical Corps in 1983, entering the Army through the Health Professions Scholarship Program.

Major General Volpe most recently served as the Deputy Commander, Joint Task Force, National Capital Region Medical at Bethesda Naval Base. That is a mouthful.

General Volpe also served as the co-chair of the Department of Defense Task Force on the Prevention of Suicide by members of the Armed Forces. Without further delay, I present General Philip Volpe, and we're looking forward to your remarks. General.

MG VOLPE: Thank you, Nancy. It's a pleasure to be here. Can everybody hear me okay?

Okay, great. Thank you. Welcome everybody to Tacoma, Washington, the great Pacific Northwest, Puget Sound area. It is indeed a pleasure to be able to give you an overview of the Western Region Medical Command

in this area. I'm joined by my colleague and friend, Colonel Dallas Homas over here, who's the commander of Madigan Army Medical Center and is the Director of Health Services for Joint Base Lewis-McChord, who is the sponsoring, hosting organization for the Defense Health Board.

So thanks for being here, and it's really a privilege and honor to be able to share with you what we're doing in Western Region Medical Command. Dallas will focus on Madigan specifically, and I know we've got a tour tomorrow that includes some of the initiatives and some of the great projects that are going on and his great team over there at Madigan Army Medical Center.

So without any further ado, let's go to the next slide. Western Region Medical Command. We don't start anything without remembering why we exist as a military health organization, what military medicine is and what operational medicine is.

We're here to serve soldiers,

sailors, airmen, Marines and their families anywhere in the world, and that includes our camps, posts and stations, installations wherever we are, and that's what we're about.

We don't start anything without remembering why we have military medicine, and the unique aspects of military medicine, both in deployment in austere locations around the world, and the unique demands on service members and their families. Let's go to the next slide.

Really quickly, here's what I'm going to cover. I'm going to cover the mission, our strategy map, which is very important for us. As you all know, there's always crises and things going on every day, and you could very easily as an organization be swallowed up by the crisis du jour and the hot issue of the day.

So if you don't have a strategic underpinning and a road map and a strategic charter, you could sort of get lost, jumping from crisis to crisis to crisis, and never

really get to the root causes and the long-term solutions that you need to have in place for being a continuously improving organization and team.

So we are going to spend a little time on the strategy map, show you our battle rhythm, our strategic battle rhythm, which is very important to us in Western Region. I'll give you an overview of the hospitals. I have 11 medical treatment facilities in the 20 state region in the West, and that's what we cover at our headquarters.

Then I'm also going to talk a little about the Puget Sound Multiservice Market Office, and all the players that are involved in that. We have a great team.

I've been here a year and a half now, just absolutely impressed on how all of the service leaders, Army, Navy, Air Force and the Coast Guard and the Washington National Guard and the VA come together in a quarterly meeting over here, and collaborate and help each other out and solve problems.

We partner very closely, all of us, with the managed care support contractor, TriWest, who provides a great service, and then the local hospitals and medical assets in Tacoma-Seattle area and Puget Sound on the civilian side that we partner with.

Then talk about the key initiatives, and then just some closing thoughts. Okay, next slide.

Okay. Our mission statement. Really clear right up front. This has changed recently. This has just been changed about three months ago, because we wanted to make sure that we included interdisciplinary, world class and patient-centered health care services. This is probably the biggest transformational change that's going on in military medicine.

Specifically in the Western Region, I know I could speak to for sure, is this patient-centered approach to health care, and including the patients on a lot of decision-making in their health and well-being, as well

as a team approach to their health care, rather than just the very stovepiped individual, patient-provider relationship, a more, a closer team approach to that.

So we are converting to a patient-centered medical home. I'll talk to you about that in a second. But we want to include that what we exist for is for our forces, and then those who serve at our installations and communities and everything.

But I want to make sure that it's Service members first, and then also their magnificent family members, who provide a tremendous amount of support, so that Service members can do what they love doing. Then we support the community, including retirees, veterans, et cetera.

What we really want to do is convert from being an intervention organization that just focuses on health care when people are sick, and move the curve towards prevention. We should be looking and using our health care resources to optimize

unit performance, prevent disease and injury, and enhance health and well-being.

So that's why you see that in that mission statement. We've always done intervention services, but moving that curve to the prevention side is really going to be the key to health and wellness in the future, while maintaining the quality for intervention services, using multiple modalities.

You can see our vision statement. We're a team of teams. I've got a lot of teams out here that we are partnered with in our Western Region, and we all work together and we all figure out the solutions and the way ahead and maneuver back and forth and share resources, et cetera.

We make sure that we understand the word "trust" in our vision is absolutely essential to everything we do in health care. Serving beyond the call of duty, strengthening the health of the force, preventing disease and caring for our wounded, ill and injured service members On the bottom is a command

philosophy that I have in Western Region, that all my MTF commanders have embraced, because not only are we a team of teams, but remember four key words, that we're ready for whatever comes at us today or tomorrow.

Relevant for the future means we're willing to change, look at ourselves hard and change for the future, being responsive to our stakeholders, and then of course making sure that we're responsible to our patients specifically, but to each other, too, as colleagues. Okay, next slide.

This is the strategy map that I was talking about. You could see it has a mission and vision at the top, and this is pretty complex and there's a lot of words in here. But let me talk to this just briefly here.

This is our means. It's a means, ways and ends model of looking strategically at yourself as an organization. So the mission and vision are at the top. We have some strategic themes that we look at every single week as we're operating, and this is

really what we're trying to achieve. These are the ends.

If we do these six things well, we're doing our mission well, and they are: ensure healthy warriors, families and communities; optimize care and transition of the wounded ill and injured warriors; provide ready, deployable medical warriors and capabilities.

I have about 16,000 staff throughout the Western Region Medical Command. Three-fourths of them are civilian personnel, being DoD civilians and contractors, Army civilians and contractors, and the other one-fourth are uniform people just like myself, who have to be prepared.

I mean their job is to be prepared to be deployed and support our forces everywhere in the world. We deploy a lot, just about everyone, throughout, that's on active duty, throughout our region has deployed at least once and many have deployed multiple times.

So we take that very seriously. Sustain a confident, competent, resilient medical force. That's very important. Provider resiliency is very important, and we're doing pretty well on that around Western Regional Medical Command. Create enthusiastic and engaged patients. We're not satisfied with satisfied patients. We want raving fans, and that's what we're trying to build at our installations.

It's about building this trust in Army medicine, but also making sure that we're attending to what we need to do with patients and changing the model, again for prevention and well-being. The goal there is that our patients make appointments when they feel great, and they want to stay that way; not just when they become ill and injured.

This is our strategic charter for the future. Behind this is a slew of pages that have a whole bunch of metrics to see how we're doing and measure ourselves with in each of these areas.

But the key to this is that we keep one eye on today and one eye on tomorrow. The eye today is how are we using today's resources to accomplish these ends and this mission? It's using today's resources to accomplish today's mission.

That's what we do every single day. That's what all the commanders do at all the MTFs and all of our staffs. We have the mission today and we have to accomplish that with the resources we have, with priorities, et cetera, et cetera that we have.

Then we also have to do an assessment of ourselves. How well are we doing at reaching these ends and accomplishing our mission, and what do we need to change for the future? Facilities, materials, training, leader development, organizational design, funding personnel, the mix of personnel, policies, legislative change. I mean all of those kinds of things.

And that's how we assess ourselves. So again, one eye on today, one eye on

tomorrow. So we're in this continual cycle that sort of never ends, on how we're executing our mission. Okay, next slide.

This is important too. Because of that balanced score card I showed you, we have to have a battle rhythm to look at. We can't just do it one time and never look at it again. So here's our battle rhythm. If you follow the scale at the bottom here, this is one fiscal year, starting 1 October ending 30 September.

We start off every year by doing a Balanced Scorecard Review, our strategic imperatives and initiatives, what's coming up in the horizon the next year that we know about, et cetera, and do we have the right initiatives in place and are we on the right path for the future.

We try to look out anywhere from two to three to five years. It's very hard to look out beyond that, because there's a lot of unknown out there, and there's just too many assumptions that just are not clear enough to

look beyond that, at my level in the Western Region.

So we took a hard look at the Balanced Scorecard. Then we get all of our commanders together. We review those strategic initiatives and they brief back how they're going to implement them at their locations, and what their challenges are to implement them.

Part of that is what's called the SAMB, the Semi-Annual Mission Brief. It's a slide packet of about 40 slides. It's nothing but metrics that look at everything like quality of care, readiness and access to care. It looks at, you know, a whole host of things, implementing the initiatives from last year, where we are. Just a lot of metrics. Budget execution, performance.

Because what we're trying to do here is tie strategy, business planning, resources and performance. Those four areas we're trying to tie together, because they're all linked. They're intricately linked, okay.

So then we do the semi-annual mission briefs. What the semi-annual mission briefs do is they give me a snapshot on where I am today at each hospital.

Each hospital does one of those, and we're in the midst of doing those right now. I just had half the MTFs do it last week; the other half are doing it this week. It's about a two and a half, three hour briefing with every MTF commander and they do it twice a year. It's a snapshot of the organization.

It gives us a common operating picture on where they are today. Then we design our business plans around how we've been performing and what we need to do to change, because those business plans that get approved are for the upcoming year.

Then we look in the summertime. This is where we are right now in the summer time here, doing these semi-annual mission briefs. We do another snapshot. So in a complete year, we meet about four times with

all the commanders at a strategic level.

This gives us a good battle rhythm for staying focused on the long-term, mid-term things that we need to do in the organization. This has been very handy. I'm absolutely surprised on the difference between the briefs on this year versus a year ago, and where we've gone.

Quality of care and access to care is up. Enrollment is up. Patient satisfaction is up. I mean there's a whole bunch of things that we're doing really, really well So I'm really thrilled about this and where we are right now. Okay, next slide.

So here's Western Region Medical Command in the green that you see here. This is the whole Army Medical Command you see, and you can see the MEDCOM, the three-star, Lieutenant General Schoomaker's headquarters in San Antonio, the AMEDD Center and School is one command; DENTCOM is another command.

Medical Research Materiel Command, General Dillman is there. Public Health

Command we have at Aberdeen Proving Ground, and the Warrior Transition Command in Crystal City. These are other commands.

All the other commands are the five regional commands. So we have our European Regional Command, commanded by Brigadier General Nigel West; we have a Pacific Regional Medical Command, commanded by Brigadier General Keith Gallagher. Tripler Army Medical Center is a hub hospital there, and obviously Landstuhl Medical Center is the hub there in European Command.

Then CONUS is split into three regions. This is a transformation. We used to be four regions, but we split into three regions. About a year and a half, two years ago we started executing this, and lined up with the TRICARE regions is what we did in the Army.

So there's Northern Region, Southern Region and Western Region, and although the size is much larger for surface area-wise in Western Region, they're about the

same enrolled population, each of those regions. But it just requires that I have to travel longer distances to get out to the hospitals than my fellow commanders here.

This is Brigadier General Joe Caravalho in command of the Northern Region. Major General Ted Wong is in command of the Southern Region. I've been in command about a year and a half here. The hub hospital for -- well, we're not really using hub hospitals so much, because we have such diverse hospitals in here.

But you can see Northern Region and Southern Region here, and for us, the major medical center is Madigan Army Medical Center, which you'll get to see tomorrow, get a briefing from Dallas here shortly. That's really the hub, the most advanced Army teaching hospital the most staff, the most capabilities and specialty care and subspecialty care that we have.

Then we have another medical center in El Paso, William Beaumont Army Medical

Center, which is growing large because Fort Bliss is the largest growing installation. It's three times the size as what it was ten years ago, population-wise. So we're growing that medical center leaps and bounds right now.

If you go on Fort Bliss, there's construction all over the place. They also have had a significant transformation. Then I have other MTFs I'll show you on the next slide. But that gives you a snapshot. My headquarters is at Joint Base Lewis-McChord in a separate building on the other side of the installation from where Madigan is.

Then I have a portion of my headquarters down at Fort Bliss called the Readiness Division. Everybody in this division links with all the reserve units and National Guard units. It's my connection as the Western Region commander to all of the Reserve and National Guard that's out there, and they follow the Patch chart for the R4 gen cycle, what units are going to mobilize and

demobilize, when we've got deployments.

We also monitor the active duty units, the active component units that are also in the region, when they're going to deploy and come back, and we look at medical readiness and IDES, the Integrated Disability Evaluation System, the medically non-ready and the medical management cells that I'll talk about in a second, and the Warrior Transition operations. So that's what that Readiness Division monitors. It's our connection to the line side, if you will, the FORCECOM side in the Army.

Now the thing about Western Region, one of the nice things is that it's fairly new. Western Region was only four states two years ago. It was Alaska, Washington, Oregon and California, and it was embedded into Madigan, and everyone was dual-hatted. They had a job in Madigan and a job in Western Region, and that was Western Region.

So what we've done in the past really year and a half, two years, is we

separated out, created a brand new headquarters on Joint Base Lewis-McChord for Western Region, and then expanded and included the other 16 states.

Then we're also growing, because with BRAC, growing the Army, global repositioning, all of the changes from the last ten years, the Western Region is the only growing region in the Army. All the others have shrunk.

Our biggest challenge is keeping up with the growth, because as you know, facilities lags a little bit and the manning documents lag a little bit and all of that. So that's been our biggest challenge, but we're doing pretty well in that area. Next slide.

Okay. So here is a day in Western Region. I'll go through the hospitals on the next slide. There's Fort Wainwright up in Fairbanks. We support them. We have a hospital there, Bassett Army Community Hospital, and we have a clinic that's under

that hospital in Anchorage at Joint Base Elmendorf-Richardson, for the soldiers.

We have a BCT, a brigade combat team at Wainwright, a brigade combat team at Richardson. Then the hospital that supports us is the Air Force Hospital, Elmendorf Air Force Hospital. They do a great job supporting all our family members. Those assigned in Anchorage are enrolled to the Air Force Hospital down there, and the Service members Active Duty are enrolled through our clinic.

So we work very closely as a team, and they have a VA clinic that's built into that Air Force Hospital at Elmendorf. So it's great teamwork, great support that we get at both locations. Then we provide support to Eielson Air Force Base up in the Fairbanks area. It's a great partnership.

Every time I travel to either one, I always visit the Air Force base, the Air Force commander and staff, make sure that we're all talking and communicating and we're

all in this together.

We also support a small clinic way out on the border here at Fort Greeley, Alaska. I went and visited in December of last year, minus 44 degrees. It was a really religious experience.

Okay. Joint Base Lewis-McChord, this is a great location up here. We're going to talk more about that. Dallas is going to really talk about what Madigan does, as the Director of Health Services. But we have a great partnership and I'll talk a little bit about the Multiservice Market Office in a second there.

But that's the largest installation we have. Overall it's the second largest. At the end of all the moves and modularity, it will be the second largest installation active duty-wise, in the Army behind Fort Bragg, North Carolina. So Madigan is pretty much engulfed in a lot of the initiatives that are going on in that area.

At our hospital out in Fort Irwin,

California, we own a community hospital in the desert. Really, in the desert, the National Training Center, is where we bring all our brigade combat teams to train. There is no network out there. There's no community out there. It's in the desert, but we have to run a hospital.

What's unique about that is there's a minimum staffing you need to run a hospital. So even though it's inefficient because there's not enough patients to run the hospital, you still have to have that staffing. I mean there's a minimum number of run it. So we are not as productive on paper at that location as you would see in a hospital in another area.

You need two general surgeons to keep the operating room available, someone on call every other night to be able to respond. Even though the ORs aren't being used every night and every day, you know, that kind of OR utilization inefficiency and stuff.

We have a clinic out at the

Presidio/Monterey that falls under Madigan. Madigan and Dallas Homas provides oversight for that out in the Presidio, and it provides support to the Naval Postgraduate School and other things in the area, active duty. We have a pediatric clinic out there for kids. Then we enroll to the network family. Most of the family members are enrolled through the network out there.

Fort Carson, Colorado has a large hospital out there. It's a troop base, FORCECOM installation, multiple brigade combat teams out there, very heavily engaged. They're in Colorado Springs, right near the Air Force Academy. It's also a Multiservice Market Office, and it's run by the Air Force in that Multiservice Market Office, and the commander at the clinic up at the Air Force Academy runs that market area.

We have Peterson Air Force Base also that we support. You can do Purchase Care pretty easily out there. It's a great location.

Then we've got Fort Riley, which is about the same size as Fort Carson. But Manhattan, Kansas and Junction City, Kansas does not have as much network and resources as Fort Carson has. So it's a different kind of an organization, and we have to approach things a little different. The VA in Fort Carson is located mostly in Denver, but they have resources down in Colorado Springs. But in the Fort Riley area, the VHA is in Topeka, and the VDA is in Wichita, Kansas. The same VA helps support the area around Fort Leavenworth, where I have a health clinic. That health clinic supports our combined Arms Schoolhouse training, our doctrine center

So there's a lot of things going on at Fort Leavenworth. We have a health clinic. They use capabilities in Kansas City and in and around community hospitals, to get the specialty and subspecialty support.

Then Fort Leonard Wood, this area out in the middle of Missouri, is one of our basic training sites. So they don't have a large

enrolled population. They have a large population, but most of their health care is due to transient personnel that are rotating through there, and it's very hard to maintain continuity of care when someone's only on the ground for four to five months, and then the whole population changes over. But it's a basic training site. It's also an advanced individual training site. Not a lot of training, it's a TRADOC installation, not a FORCECOM installation. So it's a different model of delivering health care there.

Then we have Fort Bliss. I told you about that. That converted. It was a TRADOC installation. It converted to a FORCECOM installation. It used to be where we trained our air defense artillery folks, but now there's brigade combat teams there, and we support that. That's growing, the largest growing installation in the Army, and we're getting a new hospital that has been designed. I think ground breaking is this month That's an interesting market area too out there,

because it's an under-served area of the country, El Paso, Texas. Ninety-eight percent of all the civilian providers are signed up in the TRICARE network. So there's not a lot of ways to expand the network, other than bringing people in from the outside in that market area, and that's what we're trying to do there. It's also a hard place for us to hire personnel. They support White Sands Missile Range, a very unique post. We have a clinic that's up there. Then we also have Fort Huachuca, which has a health center. But we use Tucson and other surrounding community support for our patients in there. But that's also a schoolhouse. That's our intelligence school, where the intelligence enlisted get training.

So that's just a quick snapshot to show you our area. I'm physically at Joint Base Lewis-McChord about five or six days a month. I spend most of my time on the road, visiting these various sites and making sure we're staying on track and enjoying all the

great things that they're doing out there to serve their senior commanders in the communities, and the units that are out there. Next slide.

That's just a snapshot, showing you all these. William Beaumont at Fort Bliss, I talked about a little bit. Bassett up in Alaska, a great -- a new hospital. We're building the new William Beaumont right now, ground breaking. Bassett was just occupied, just built and occupied. Just about two and half, three years ago, we started occupying a brand new hospital. A very nice hospital up there.

Madigan Army Medical Center, you'll see tomorrow. A phenomenal Army medical center built in the early 1990's, and is just a magnificent facility, and it's also undergoing change as we speak with new initiatives, and Dallas will talk about those.

Evans Army Community Hospital, right by Cheyenne Mountain out at Fort Carson, Colorado. It's the only military hospital in

that market area. But it supports Peterson and the Air Force Academy, and we work together in the Multiservice Market Office there.

Then Irwin Army Community Hospital at Fort Riley, Kansas I told you about. That's a very old hospital in the 1950's, and it's got its new hospital is halfway built. New design, new hospital, and is being built with the patient-centered medical home in mind, because there's some unique facility attributes to those facilities with the patient-centered medical home. So that's going up, and they'll occupy that probably in about two and a half years from now. That new hospital that's being built right next door. Then this will be leveled most likely.

Raymond Bliss Army Health Clinic at Fort Huachuca. Incident back in June. That's where the fires came. The Arizona fires that were going on actually reached the installation, the border of the installation, and the commander there got their medical

personnel together and quickly designed a plan to do tailgate medicine and move everything to a remote site. They did a great job and great planning on that. We were able to move anywhere in Arizona. We could have set up in any parking lot and still done emergency services, urgent care services and a lot of other services out there. So they did a great job on that.

Weed Army Community Hospital. We're right in the design of a new hospital for that. That's the one that's at Fort Irwin in the desert, sits by itself out there, and they're doing an absolutely magnificent job there too. The continuity of care that's provided is phenomenal there, too, and the quality of care, of course. But it's tough to run a hospital when you've got two general surgeons, one orthopedic surgeon and a couple of OB/GYNs as your surgical specialties, and you're running operating rooms, and then you have your step-down unit and your wards and those kind of things out there. But we do it.

Now it has to be ready for trauma, because there's high risk training going on there all the time. So there's always an OR open and available while the other one is being used for routine cases. We have a trauma system in place where we can send patients to a trauma center in Los Angeles, or Las Vegas. Then there's Munson Army Community Hospital, excuse me, Health Center, at Fort Leavenworth. That's what that looks like, and I'll talk to you about a new design here in a second. Then here's Leonard Wood Army Community Hospital at Fort Leonard Wood, Missouri. Again, this is a TRADOC hospital. It has a construction project going on to expand its outpatient facilities. We're doing more and more stuff as outpatients, less and less inpatient care.

Our staffing is based on our occupancy rate. But we're seeing our in patient census slowly dropping despite increasing enrollment and a greater patient population to capture, that would potentially be inpatients. So we're relooking at that in

our balanced scorecard, and look to see do we need to convert inpatient space to outpatient space, and do we need to start decreasing our inpatient staffing.

We do hospitalize a lot of the VA's patients in our facilities. That's a win-win for all of us, especially in our graduate medical education centers, William Beaumont and at Madigan. Okay, next slide.

TRICARE Puget Sound. Just absolutely phenomenal. I am so impressed by the teamwork and partnership. We support Naval Hospital Oak Harbor. We support the Naval Hospital at Bremerton out there. I just went to the Bremerton change of command last week. It was great being there.

We support the 62nd Medical Squadron at McChord Field, part of Joint Base Lewis-McChord, and we help provide a clinic and support for Madigan for all the airmen and their families that are at Joint Base Lewis-McChord. That's working really, really well.

What's really impressive about the

medical squadron there, they have a 90 percent PCM continuity. I'm trying to replicate them all over Western Region right now, because it's one of the highest I've seen. They do a great job out there.

Then we also support and have included, even though they're outside of Puget Sound, is Fairchild. Fairchild Air Force Base is out in Spokane. I just visited there two months ago. I went out there to visit, meet with the commander and the VA in Spokane to make sure we're partnering. They’re part of our TRICARE Puget Sound. We include them as a team member, and we provide some support to them too out there. The VA Puget Sound is a partner here, as well as the Coast Guard in Seattle is a partner. They're sitting members on our Multiservice Market Office meetings, quarterly meetings that we have. Of course, Madigan is at the hub, and provides a lot of support, because it's the major medical center that's out there.

We send consultants and experts in

their field at the beck and call of any of these facilities, if they need professional development, consultation, quality assurance or a staff assistance visit. Madigan provides those capabilities to all of these folks, regardless.

The Washington National Guard also sits on there. So we're connected to the Washington National Guard. Then of course TriWest is also a sitting member on our council for the Puget Sound area, and Humana provides services as well to our area.

Great teamwork, absolutely phenomenal. It's one of the most cooperative and advanced market areas, I think, in DoD. It's just, you know, really looking at mission. Okay, next slide.

Okay. This is how they're aligned in the Puget Sound. We're sitting right down here at Tacoma right now, right on the A there on Tacoma. You can see Joint Base Lewis-McChord and the VA in Seattle, the American Lakes Club right across the highway from Joint

Base Lewis-McChord.

The 62nd is there. Madigan, Bremerton, Oak Harbor, you can see that they're all over the other, and then 300 miles to the east is Fairchild Air Force Base, and we include them in there. They have a great team out there, too, in their facility. Everett, you know, is there. Okay, next slide.

Okay. Key issues. I'm not going to go into a lot of detail, but hopefully it will spawn some questions. I know Dallas will talk specifically about Madigan. So let's talk about pain management. We are heavily embracing pain management. We know that pain management in the United States of America has not been done well in our nation, and is becoming more and more of a specialty in and of itself.

We are moving forward with pain management. We are establishing an Integrated Pain Management Center at Madigan Army Medical Center. That's going to be the hub for the

region, and we also have a council that we are just now starting in the Puget Sound area. It includes the Multiservice Market Office partners, the VA and Bastyr University, which are experts in using complementary and alternative medicine up in Seattle. So we've included them, and we're trying to leverage a lot of the knowledge and experience, research and academics out there, to bring in a lot of those other modalities that historically have not been part of our military health system, because we believe using these other modalities will decrease the use and overuse of pharmaceuticals, quite frankly, for chronic pain management, opiate pharmaceuticals in particular.

We're establishing a consortium, a council in Puget Sound, and we are putting in telemedicine units so we can do teleconsultation from any of the hospitals I have in Western Region, right into Madigan, for to get expert advice on pain management, better pain management using various

modalities.

Okay. TBI, concussive injury. We know Service members are going to be exposed to explosive devices, and those concussive injuries, either penetrating or non-penetrating, are something we're learning every day more and more about.

I know the Defense Centers of Excellence is established and working towards protocols and research and leveraging academia. We've got the National Intrepid Center of Excellence for Traumatic Brain Injury and Psychological Health at Bethesda that we use for a referral basis.

We have, I'm going to show you a slide. We have a center, if you will, at Madigan, that provides a full scope of services, inpatient and outpatient, for all levels of traumatic brain injury. So we're moving ahead on that, and more and more I think we're starting to collaborate and use the knowledge that other people have learned out there, to get this thing rolling.

There's a move right now, too, to set up a collaborative council effort here, through the Madigan Foundation and some of the other bodies that are out here. The VA is very interested in creating some sort of TBI Center West, if you will, like the one out east in Bethesda, at this location. The VA is very concerned about the number of veterans and retirees out there that have been exposed, past and present, and new coming on the horizon, and ongoing care and doing this collaborative effort with our academic partners on the west coast, eight clinical partners on the west coast.

Readiness, Soldier Services, I'll show you a slide on that. I'll show you a slide on comprehensive behavioral health, and partnerships are collaborative efforts. As you can tell, one of our strategic directives is to establish partnerships, because we can't do this ourselves alone.

So we, whether we partner with the other Services in their areas or the VA,

TriWest or the local community, we are always looking to establish partnerships and collaborative efforts.

I'll talk about patient-centered medical home. Next slide. Okay. So patient-centered medical home. We are implementing those. We should be done in about another two years. It's a long process to convert our historical way of delivering primary care services at enrollment sites to the new way, which is a patient-centered medical home team approach to health care.

Here's us doing our ribbon-cutting ceremony over by Fort Leonard Wood. We're starting to set up some clinics off-post in communities where Service member families live, and we have one here. We did a ribbon-cutting in Puyallup, outside of Joint Base Lewis-McChord, because we had a lot of Service members there, and in that market area, we could serve them closer to their homes.

We have plans for doing future ones too, depending on business case analysis, and

market analysis of where our families live. We're also doing Soldier Service Medical Home that Colonel Dallas Homas will talk about. How do you enroll Service members to sites where they also get the benefit of continuity and a collaborative approach? Because our Service members, believe it or not, have less continuity of care than our family members, and we have to reverse that and fix that. So Colonel Homas will talk about an initiative on what they're doing at Joint Base Lewis-McChord on that.

So this is a great news story. We're going to march forward. We have strategic plans in place, and we have a whole line of operations list and a common operating picture month to month on how much progress that we're making. We're going to get certified, NCQA certified, at each of the locations as we go through. The civilian organization that certifies patient-centered medical homes sites, using the same standards that any civilian community has. Next slide.

Comprehensive pain management. I already talked about this, and I'll talk about it right at the end. One of our challenges is including complementary alternative medicine modalities into mainstream medicine. Historically, we have not done that well. But we have a lot of the academics and the research that shows the benefit. We have tools that do a measurement based with patients that are functionally better using certain modalities, and it decreases their requirement for chronic opiate use and other things. So this is good news, and we are moving forward on this. This is using, you know, yoga and medical massage and acupuncture and biofeedback, all of those kinds of modalities, that we have to build those capabilities more in our system. Next slide.

Readiness. This is huge. I mean, Soldier Readiness Services, making sure soldiers are fit, healthy, ready to perform. When I say soldiers, I really mean all Service members, because we always operate in a joint

environment when we're deployed. But that they're also resilient and resistant to injury and sickness by the immunizations we give them, the training techniques, both physically and psychologically. So this is a big part.

Then we also do soldier readiness processing for mobilizing and demobilizing units. We have learned a great deal. You know, we don't have a long history, because the Reserve Component was a strategic Reserve, and when they became an operational Reserve and we used them more frequently, we didn't have everything in lockstep like we have with the active component. We've learned a tremendous amount by mobilizing and demobilizing Service members in the Reserve component, and I feel really good, because we did a number of reviews of our SRP sites, not only at Joint Base Lewis-McChord but around the region, and we helped influence the Army EXORD that changed policy and procedure, so that Service members are better taken care of.

Because the most important part for

any Reserve component soldier, the most important part of any deployment, is the demobilization point, because that's where they get their DD Form 214, and that's where all their future benefits and all of those things. That's the part we didn't focus on.

We thought that they would want, and they do want, that getting them home to their families is more important first than doing the paperwork, and we were wrong. You've got to do the paperwork right first, and then you can get them home to their families, because it is so important.

It gives them all their benefits, their knowledge of where to go, all the different benefits programs, and how to leverage the system if they're having a problem.

So we spent a lot more time doing that and slowed down the demobilization process now to 14 days. It was five to seven days a year ago. We got the Army to change it to 14 days, so we could spend more time with

them at our installations. That's a good news story for our Reserve Component soldiers.

Integrated Disability Evaluation System. I'm not going to talk a lot about that, but it was implemented. We have a challenge with that. We have a challenge today. That's my biggest challenge today, is a smooth, operating Integrated Disability Evaluation System. It's because we're learning as we go.

We changed from a legacy system to the new system. We converted half our MTFs around the new system, the integrated system with the VA, and the other half are just converting now. It will take us another year or two to get to a steady state. But we are learning a lot of lessons and applying those throughout the enterprise.

This is a system that's made for soldiers. It's not made for readiness, it's not made for units. It's not made for the Defense Department. It's made for the soldier, the sailor, the airman, Marine, for

their due benefits due to disability by serving our nation, soldiers, sailors, airmen, Marines. So it's built around them, and it's very complex, as you could imagine. I mean doing their entire physicals, all of the medical conditions we evaluate. They have claimed conditions. They have the rights to seek legal rebuttal and appeals and those things. So it's a pretty methodical, long process, because at the end, we want to be separating them with some certainty about their disability, and making sure they're getting their due benefit from that, and that it's a fair and open system.

The Warrior Transition Units, we're doing great in Warrior Transition Units. That's phenomenal. I mean, anyone who's had a chance where, you know, we had it by Fort Carson there, the Warrior Games this past May, where all the soldiers, sailors, airmen, Marines came in, wounded warriors, Purple Heart folks, severely injured and stuff, and it was just fantastic.

We provided some support out of Evans Army Community Hospital there. But the Olympic Committee helps us run that at the Olympic training site, and that is one of the most inspirational things you will ever see and ever witness in your life.

We are really doing well in helping them regain their life back, and reorient their lives and set them up for success in the future, before we transition them either back to duty or, if they elect to transition out of the Service, on that. We have made phenomenal strides and we're going to continue to make phenomenal strides. Okay, next slide.

This is the traumatic brain injury program site that we have in Western Region across the hub. Category 1 is Joint Base Lewis-McChord, inpatient and outpatient care. Full spectrum traumatic brain injuries, severity there. At other sites, I have a combination of Category 2 and 3, which is some services for mild -- mild and some moderate kind of cases out there, and mostly outpatient

cases at these locations.

Madigan is our referral site and hub for our particular region. Then there's some other ones that have Category 4, which are very, very mild traumatic brain injury patients, one-time concussion, concussive injury, where their symptoms have resolved and we track them and follow them, and we have some centers at these locations that monitor them, see how they're doing and those kind of things, before we put them back in action and those kind of things.

We're doing well, given the knowledge and the extent of where we are. But we certainly need to do better in this, and this collaborative effort in DoD, with all of our research and academic partners in the United States, I think, is going to be great. We're doing better on this year after year.

What we really need to continue doing is a lot of these clinical practice guidelines, protocols, algorithms, and get the benefits of some of the new research that's

coming out in certain areas, that give us a more definitive understanding of traumatic brain injury and execution. Next slide.

Comprehensive behavioral system of care. Complex slide, don't bother reading it. There's five touchpoints. That's all you need to know. We're trying to take behavioral health and pull it into mainstream health care. There should be no difference between behavioral health and physical health, and we're trying to make it part of our health care system and reduce the stigma.

We believe if everybody gets it as part of their evaluation, it will help reduce the stigma in our area. So everybody gets a touchpoint. Before they get deployed, they get a behavioral health screen. They get it while they're deployed, before they come back. They get another behavioral health screen with some screening tools that we're using, and we keep honing them more and more, when they redeploy, within the first 30 days.

Then we do it again, after their

reintegration period, when they do their PDHRA 90 to 180 days. Then the fifth touchpoint is once annually, or at the periodic health assessment that we give. So everybody gets some sort of behavioral health exam. If you deploy, you get a little more, before, during and after the deployment.

Every soldier gets it. All officers, all non-commissioned officers, all junior enlisted. We're getting more and more data out of this, and more and more understanding of how to apportion risk level, low risk, medium risk, high risk, and then what are our actions that we take at those risk levels. Next slide.

Partnerships and collaborations. I told you about the joint bases that we're operating. The VA community clinics you see here, Fort Bliss, Fort Wainwright. We have the VA embedded into these hospitals. That's an example of that, and then these are projects that are going on, to see if we're going to embed our DoD facilities into the VA,

when they build their next hospital in those areas. So we're working with the VA on the future, too.

I told you about the Integrated Disability Evaluation System. The two ideal, best practice locations are at Fort Riley and Fort Carson, where the VA has placed their assets in our hospital. One-stop shopping; all VDA and VHA assets are sitting right there, DoD and VA, for Service members going through the disability evaluation system.

Electronic health records, we're supporting that. We developed a network care tracker here between TriWest and Madigan, and we're trying to socialize that up through TMA, to be used. That is a referral authorization system, when we send people out on referrals, to get better appointments and tracking.

It will be part of the tracking system and the enterprise that we're implementing now, which does very good tracking. This does the appointing, though, the initial appointing really quickly. Like

in minutes, the patient can have their appointment and the institution can know, and it's all paperless. No faxing or anything like that, which is great.

Then the Virtual Lifetime Electronic Record. The VLER does it out in Spokane. They're using it out there at Fairchild, and we're starting to use it now at Madigan and in the Puget Sound area, and we're hoping that that will show some benefit in integrating DoD-VA health records. Then at Puget Sound, I talked about the Pain Management Council. Next slide.

Okay. Here's our challenges, final thoughts. Complementary alternative medicine is a challenge, because we don't have a lot of business processes for including those modalities into mainstream medicine. So where we keep pushing up the chain of command, and trying to make sure that we're building those things the right way.

How do you code for these things? How do you get personnel accountability? How

do you write the job description? All of those things for modalities that we historically have not had in military medicine before.

Our adjudication system for disability is where we believe we need to move. We currently have a dual adjudication system, IES, and what we feel is that we should be moving towards one adjudication system. It will be better for the soldier, better for everybody, better for DoD. It's a win-win right across the line.

Web-based personal health record. We've got to do that, where patients can access their own health record on a web-based program. But we have an enormous amount of patients that are coming into our facilities, just to get a copy of their record. Then we print it out or photocopy it and give it to them, because they have a right to it.

We've got to go to a web-based system, where they could just go in, just like we do with our financial accounts and banks

and everything else, and download it and even send it to someone if we want, like a second opinion or send it to a civilian provider or something, and email it on some sort of web-based system.

Shift to prevention. We need to do business process shifts, where we're getting credit for doing prevention. Historically, medicine in America has been very good for intervention services; has not paid well and credited well for taking time to do prevention and wellness and health. We need to do more of that.

Inpatient over structure. I told you about that already. By the trends I'm seeing, we've got to really consider hard whether we need to decrease our inpatient beds at some point, our inpatient staffing, because it's really hard to pay for that staff and not fill the beds with patients.

Virtual behavior. We're using a lot of virtual care in the Western Region. We are really moving out. We'll probably use it

more than anybody else. We're doing virtual behavioral health care, where providers at one installation could do behavioral health screening through Service members at another installation, and we think that's the way of the future.

It's very difficult to do that from state to state, though, because the states run medical licensures and all that stuff. It's amazing now that a patient could go to a doctor in one state and get care, but the doctor can't come to the patient to get care, because they're licensed in the other state, and they've got to -- you know, it's too complex for me.

But anyway, we've got to break down those barriers, so we can better leverage the resources and assets across state lines, to do what we need to do. Then Unified Medical Command, we think that that's a good thing, because it's really because of standardization, integration and unity of effort. We always feel in Western Region that

we could still do it by components; the Service medical structures stay in place.

But we got it to a point where we're doing joint business planning at certain market areas and stuff, and not individual service business planning. We've got to work closely together, be more integrated. Standardization, you know, the same physical exam forms and PHA, put the same -- the data in the same readiness forms. We're all measuring dental readiness the same way, but there's separate service systems that have to be used.

There's a whole bunch of things that we could leverage that would make us more efficient and better serve all Service members, soldiers, sailors, airmen and Marines, and really get unity of effort, and really make it a health care system on there. Okay, next slide.

I think I'm out of time. I don't have a lot of time for questions. I'll wait until Dallas is done, and then we can answer

questions then. Are there any hot questions that anybody has for me?

(No response.)

MG VOLPE: Okay. Thank you all very much. Appreciate it.

CHAIR DICKEY: Thank you very much, General Volpe. Wow. A lot of information, a great deal of useful information. I want to express our gratitude for your hospitality here, and providing an opportunity for us to become better acquainted with the Western Regional Medical Command.

I know somebody had an awful lot of geography, and they said yeah, but there's not a lot of people there. I'm familiar with that. West Texas is like that. So it doesn't make managing it any easier, though, when you've got that much space, and we're looking forward to learning more about the Command while we're here.

We're also honored to have with us Colonel Dallas Homas. He's serving as the commander of Madigan Health Care. His

previous assignment was the Chief of Clinical Operations, Western Regional Medical Command, Joint Base Lewis-McChord, Washington.

He's a graduate of the U.S. Military Academy at West Point, and was deployed to Afghanistan in support of Operation Enduring Freedom, serving the combined Joint Task Force 76th Command Surgeon, and to Iraq in support of Operation Iraqi Freedom, serving as the Multinational Forces and Corps Iraq Command Surgeon.

His Postgraduate training includes general surgery and plastic surgery residencies at Fitzsimmons in Aurora, Colorado, as well as a hand surgery fellowship at Walter Reed Army Medical Center in Washington, D.C. His information is also under Tab 5, just behind the material that you just were following with General Volpe, and without further delay, although I can keep talking until I get this microphone plugged in, we are delighted to hear about the Western Medical Command. Colonel Homas.

Commander’s Overview

COL HOMAS: Ladies and gentlemen, thank you so much for the opportunity to brief you this morning, and share with you some insights into my command at Madigan. As she said, I'm the commander of Madigan and the Director of Health Services for Joint Base Lewis-McChord. Next slide, please.

My itinerary or agenda is very similar to General Volpe's, and for the sake of time, we'll just walk through the brief. Next slide.

The first thing I want to do is just quickly look at the itinerary for tomorrow. I know the Defense Health Board is going to be coming out and visiting us at Madigan. We're very pleased to receive you there. These are the six sites. You have a hard copy with the time line and the formal itinerary.

But please, as you review this, if there's any place that you don't think is worth your time, or if there's something on

this list that you, you know, in addition you would like to see, please let me know. We'll certainly accommodate and make that happen for you tomorrow.

I want to offer my apologies in advance tomorrow when you actually come to Madigan. I will not receive you personally, but Colonel Karen O'Brien, my deputy commander, will receive you, because I will be tied up with the Joint Commission, who is coming to Madigan tomorrow to survey us. So that's a pleasant opportunity to spend time with them.

(Laughter.)

COL HOMAS: But I will. I will break away from the Joint Commission as possible, to come and interface with the Defense Health Board, based on your agenda tomorrow. Next slide, please.

So, Madigan. To cut to the chase, on this slide I would just say that we think values are at the heart of everything we do, and as you see at the bottom here, I believe

that we are a values-based and standards-driven team, that delivers the highest quality health care possible to all of our beneficiaries, as we execute our variety of missions, which I'll get into.

Our team is mostly civilian, 70 percent civilian as General Volpe stated for the region. So combining the efforts of our uniformed personnel and our civilian personnel in one collaborative team is such an important aspect of what we do. Next slide, please.

Similarly, I'm not going to walk through the balanced scorecard. But we at Madigan also have a balanced scorecard, again, trying to be strategically focused, while dealing with the crises every day and the delivery of health care on a day-to-day basis.

Our scorecard is very nicely nested with General Volpe's scorecard at the region, and is nested with the AMEDD balanced scorecard as well. Next slide, please.

So a little bit about Madigan. Madigan started out during World War II as a

field hospital. You can see the picture there. It was some three and a half miles' worth of corridor, and it was designed intentionally that way to protect the hospital's operations against air attack from Japan.

We still utilize very much of that facility today. It was renamed after Colonel Patrick Madigan, who was the father of Army Neuropsychiatry in 1973. He was a career Army officer and veteran of both world wars, World War I and World War II. Next slide, please.

This is what the nursing tower at Madigan looks like today, and the inpatient tower. You can see it's shadowed by the Medical Mall, where the outpatient clinics are located. We're currently the second largest medical treatment facility in the Army's inventory.

We sort of -- we are tied for first place with Womack Medical Center out at Fort Bragg. That's based on enrollment. We currently have approximately 109, 110 thousand

enrollees, moving to a target state of 122,000 enrollees, and Womack is sort of neck and neck with us, or we're neck and neck with them.

We are honored, truly honored to serve 36,000 soldiers and airmen that are stationed at Joint Base Lewis-McChord, and I'm going to take you into some detail on who those individuals are in just a bit. We have five facilities currently in Washington, in the form of Madigan Medical Center here. Then we have four outpatient clinics, satellites, that we'll get to in a future slide.

We also have health care support responsibilities at Umatilla Chemical Munitions Depot in Oregon. We have two facilities in California, the Presidio/Monterey Clinic that you already heard spoken about, as well as the community-based Warrior Transition Unit, which is based out of Sacramento, California.

We are a certified Level 2 trauma center. We recently had a survey by the National Trauma Committee, and I'm very proud

to say that during the outbrief, the reviewer said that we were the epitome of a Level 2 trauma center, and that their biggest challenge was to find anything that we could improve upon for the outbrief. So I'm very proud of that.

We have 243 staffed beds, inpatient beds that we need to fill more of, as General Volpe spoke to. Our capacity is 259 beds, if we needed to surge with inpatient capability. We are a leader in support for the war effort, deployment and readiness of the force.

We remain a nation at war, and with 36,000 troops on Joint Base Lewis-McChord, we have our mission of deploying and redeploying, reintegrating the Active Component force. In addition to that, we're also a mobilization and demobilization platform for both National Guard Units and Army Reserve Units. So they're all flowing through Joint Base Lewis-McChord as a dominant power projection platform for our nation during this time of war.

We are connected with our community. Lieutenant General Scaparrotti, the I Corps commander, very actively engaged in the Community Connector Program. Every brigade-size element has a designated city, to which they are connected, and our city happens to be Tacoma, Madigan City, and we are engaged in. One of the ways we're engaged is through continued participation in the Tacoma Trauma Trust, where we take civilian trauma, car accidents off of I-5, gunshots, stabbings, what have you from the city, and then treat them at Madigan on a rotating basis, with two other hospitals that are part of that Trust. We employ a lot of people from the area. Next slide, please.

So here we are. You can see our current enrollment is about approaching 110,000. The target enrollment for this community-based medical home in Puyallup, that you heard General Volpe speak of, the target enrollment is 8,200. We have a second community-based medical home that will open in

the South Sound area, in Olympia, Washington, which will open in the next month or two, with the same targeted enrollment.

So we will push up above 120,000 total enrolled. We have more than 5,200 staff to provide services to that enrolled population, and you can see our annual operating budget approaches $450 million a year. Next slide, please.

And so this is a day in the life of Madigan. If you can remember the numbers from General Volpe's slides for the region, these numbers represent anywhere, you know, typically one-fourth to one-third of the workload that's being performed in the Western Region is done right here at Madigan.

I'll draw your attention to the 4,500 clinic visits a day, 39 admissions, 40, we got as high as 53, 55 surgical procedures in a day, and you can see we have 243 staffed beds, and again, our inpatient census is a little low.

We have a huge training mission.

I'm going to have a slide dedicated to that, you know, coming up soon. But on any given day, we have nearly 550 people in training. Nurses, docs, medics, all comers. So we have a very large training mission. Next slide, please.

This is who we serve. This is, I think, such a source of pride for me, because on Joint Base Lewis-McChord, we have some 13 brigade equivalents. Thirteen. That's a huge amount of combat power that is located right down the street from this hotel, to include 50 percent, three of six active component Stryker brigade combat teams are right here in Tacoma.

We have a Fires brigade, former artillery. We have engineers. We have combat aviation, an attack aviation brigade. We've got a Special Forces group based out of here. We've got Special Ops aviation based out of here, a Ranger battalion based out here, and on and on, all married to a C-17 Wing.

So when we talk about the ability to project combat power for this nation during

a time of war, this is why I say we are a dominant power projection platform for this nation, right here, just a few miles down the road.

The other thing, I'll draw your attention to this ROTC patch. Every year, every ROTC cadet in the nation trains, does their summer training rotation right here at Joint Base Lewis-McChord. So we are building the bench, preparing the next generation of officers, right here, and Madigan has the privilege of providing the health care for all of this.

So what an honor that is, particularly during a time of war, where defense of our nation is so critical. Next slide, please.

We really enjoy a tradition of excellence. You can see here, as far as the personnel piece, we have a lot of accolades that we can speak to. Sixteen specialty care consultants through the Army Surgeon General, and you can just read the list here. For the

sake of time, I won't go through those.

And on any given day, we have nearly 100 people, soldiers, deployed forward in either Afghanistan or Iraq, in support of the war effort, which provides a challenge for us, as far as continuity of care and stability. All of this adds turbulence to our day-to-day operation certainly.

Uniquely, we have a headquarters for the Army Central Simulation Committee, and we want to talk about that a little bit. We do have the da Vinci®7 Robotic Surgical System here, being used by a number of our operative services. We have a very active refractive eye surgery program.

Again, our target population served there is the Warfighter. So that warriors do not have to go into combat with eyeglasses, which get dusty and scratched up and impair vision. So we offer a lot of refractive eye surgery to troops that are getting ready to go out the door to combat.

We are the hub for the region's

Interdisciplinary Pain Management Service, and you can come visit that tomorrow, if you think that's of value to you. Additionally, in this area, a sort of decreasing number and scale of Warrior Transition Units.

We have a very large Warrior Transition Battalion, which pretty much steady state is about 700 warriors in transition, 450 of which are located right here at Joint Base Lewis-McChord, and then 250 are in that community based Warrior Transition Unit, based out of Sacramento, California. So those are the warriors that are living in their homes, and we manage out of that headquarters in California. Next slide, please.

Continuing with our tradition of excellence, we had a bunch of originals that came out here, TeamSTEPPS, if you've heard of that, is a method of communications that mandates communications amongst team members, whether it be on the inpatient ward, the labor deck, serving ORs, where it's mandated that there's a pause.

The operating surgeon will say we're all in agreement we're doing a left knee arthroscopy today. Everybody agrees, and anybody in the chain can stop what they perceive to be an unsafe action, to include, you know, the E-4 scrub tech, if need be. So we're tracking that. We've rolled that out across our organization, with more than 3,000 members of our team trained in that, TeamSTEPPS.

We have the Safe Patient Handling, with the recent installation of some 124 hydraulic lifts, to prevent employee injuries. We have the simulators, and we are a national leader in simulation, which we'll get to. The electronic referral management process, that General Volpe spoke to, is very, very effective.

You can see our organizational awards; recognized by the Heart and Stroke Association, repeatedly recognized as one of the 100 most wired hospitals in the nation. The award for our Medical Military Simulation

Training Center, where we train our combat medics before they deploy into theater, which is also on your tour itinerary for tomorrow, was unanimously voted as best in the nation out of 214 sites that were considered. We also are pleased that we're so environmentally friendly, and you can see we have a LEED Gold clinic in our new WTB, and you can see that. You can just read that. You don't need me to read that for you. Next slide, please.

As far as education, I spoke briefly about that. We have 34 graduate medical education training programs that are continuously operating at Madigan. You can see that we have interns, residents, fellows, LPN students, nurse anesthetist students, scrub tech students. We host some 550 medical students and their clerkships throughout the course of the year, and on and on.

We're very proud of this statistic, which I think rivals any training institution in the country, with a 94 percent first time board examination pass rate. Recently, our

emergency medicine training program was ranked number one in the country, beating out programs across the nation, civilian and military, based on its performance on the annual In-service Training Exam, number one in the nation. Next slide please.

So here we go with the simulation. We were just reaccredited at the highest level by the American College of Surgeons, and we are the first and only simulation center in the Department of Defense to receive such a high level of accreditation, and we are only one of less than 20 such centers across the nation, and that's part of your tour as well tomorrow. We're very proud of this center. Next slide.

So some of our key initiatives. General Volpe spoke to you about the patient-centered medical home. I'm going to speak to you a little bit about the soldier-centered medical home and my initiative there, our initiative. I want to share this program with you, of how, as the Director of Health

Services for the installation, not just running my hospital, how we get after wellness in the community here at Joint Base Lewis-McChord.

They do that through this thing called the HARP, which I'm going to talk about. I want to share with you a little bit about behavioral health, and what we're doing here in Tacoma, and perhaps get your thoughts on that as well.

The pain management piece we'll review, and then the Virtual Lifetime Electronic Record, the partnership sharing of the electronic medical records with the VA. We are a pilot site here at Madigan to get the kinks worked out of that system. Next slide, please.

So here are two of our community-based medical homes. Similarly, we're transforming all of our clinic areas in the hospital building to be more patient-centered, to get after this approach. But here are two of the sites. Again, this one's already open

in Puyallup; this one will open soon, with a targeted enrollment of 8,200 beneficiaries each.

This one, currently the enrollment's up to about 2,000, and absolute rave reviews across the board from those beneficiaries receiving care there. It's where they live, it's where they shop. They can go, grab lunch, see the doctor, go to the bank, go pick up their prescriptions and go home, all within 10-15 minutes of where they live. What a great concept, and again, it's very well-received. Next slide.

So my thought was that boy, we have 36,000 troops on Joint Base Lewis-McChord, and I'll tell you that where they receive their care is basically through their battalion aid stations. Anybody that's ever served understands that reality. Those battalion aid stations are typically run by a physician's assistant, with occasional oversight by the staff surgeon belonging to that brigade.

They don't want to send their

soldiers to Madigan. I came from that side. I know that to send a soldier to Madigan to get an appointment, to have an appointment with a doc, shuts down half a day or a day. They have to fight to find parking and the whole thing.

So the same concept of taking healthcare out to where our beneficiaries live and work and have lunch and all that, same concept. Why don’t we do that and take healthcare right to the brigade areas. At Fort Lewis, they call that the "banana belt," where all these brigade combat team headquarters are located.

Why don't we establish soldier-centered medical homes in the brigade area, so that if they need to go from the motor pool and see the doc, it's right there. It's the building next door, and we take our doctors, our providers, the ones in blue, behavioral health providers, physical therapy, PEBLOs, to help work through the disability process.

Primary care partnered up. The key

to this concept is a partnering between the brigade, the MTOE, the war-fighting side of the medical department, and the brick and mortar, stay at home, post-based health care, right. So I've got all the guys who are in the journal club, and publishing in peer-reviewed journals, and are sort of on the cutting edge of knowledge in the field.

Sending them down to the points where the war fighters live and work, and delivering healthcare. They are partnering with their providers, who are, by nature of the business, more removed from academia, and provide that.

Regarding physical therapy, during my time as a division surgeon, as a Corps surgeon, you know, I saw that most of the traumatic injuries that our troops get or are suffering from, and they don't want to go to the medical center, because it takes too much time. So what if we were able to bring that to them, in a soldier-centered approach?

I think it would enhance readiness;

it would enhance collaboration between the TDA side and the MTOE side. It would promote a sharing of those cultures with one another, so that we understand better what each is going through, and ultimately it will enhance unit readiness to fight. Next slide.

So as far as taking wellness initiatives out to the community, across Joint Base Lewis-McChord, one of my biggest things is, you know, how do you make sure, how do you enhance a 19 year-old, newly-married dependent spouse living in a remote set of quarters on Joint Base Lewis-McChord? How does she have any idea of the myriad of programs that exist? You know, literally more than 100 programs that exist to serve her, the children, the soldier, they don't know about. So how do you do it?

So the way we do it is through this thing called the HARP, the Health and Resiliency Board, which is nested under the same verbiage and concept as the Comprehensive Soldier Fitness Program put out by the Army.

It came out of the 357, BA 357 in the Pentagon.

So we have the same LOOs. Lines of Operation physical, spiritual, behavioral, social, and family. Those are the five pillars of comprehensive soldier fitness. Then as we looked at it, we said we really should have something on environmental health, and then we should have something on the wellness multipliers, like the Safety Office, EO, EEO, things like that.

They're all set up in these Lines of Operation, and it's chaired by a general officer, on a monthly basis, where all the players come, to include all the brigade commanders and brigade command sergeants major.

So that leadership is being educated on the myriad programs that exist out there in a very systematic way. Every month, they're getting laid out, so that they can then take that information, that knowledge, to their formations, and hopefully get that word

out on how people can access the programs. Next slide.

Now that leaves three of these lines of effort. We have the physical, the environmental health, and the behavioral health Lines of Operations. So we brief the programs, the various programs. We educate people, pass out cards, pass out refrigerator magnets, whatever it is, so that commanders and command sergeants major know what assets, what programs exist for their people.

Then they are then held responsible for getting that data percolated down through their ranks. Ultimately, the goal of this, here it is, is to communicate services and programs to commanders and command teams, with the goal of improving the overall health and resiliency of the community at large, right, through those approaches, through that approach. Okay. Next slide, please.

So a little bit about behavioral health. We have a very, very active behavioral health program, and you can see

here that we have 168 total credentialed licensed providers of different types, psychiatrists, psychologists, social workers, and licensed counselors. We have liaisons that we push out to each brigade on Joint Base Lewis-McChord, establishing that habitual relationship.

They know that when Dr. Jones comes down, you know, he's their doc when it comes to behavioral health, establishing those habitual relationships. We have a walk-in clinic with kiosks where you can just come in. You don't have to have an appointment, sign in and you're seen same day, which is very well utilized.

A number of programs here that are targeting both soldiers and family members, to enhance wellness from a behavioral health perspective. Madigan developed this thing called the D-RAT or the Down-Range Assessment Tool for behavioral health. What that is is a -- it's a one sheet that is sent to the unit in-theater, and 90 days -- you cannot fill it

out before you hit the 90 days, before redeployment mark.

So in that final one to three months that you're in combat, the first-line leadership, your platoon leader, your platoon sergeant, goes through and says Specialist Homas. Okay, yes. He got Article 15'd while we were here. We know he's having trouble at home with his relationship. Specialist Johnson, he's repeatedly shown up late for work. We think he's got drug abuse problems.

It is a commander's tool to assess risk down range, Down-Range Assessment Tool, performed by leadership in combat, which is then communicated back to us and my behavior health team at Madigan. So that when we receive these guys off the plane, we already know who the chain of command is tracking as having a higher level of risk.

They're immediately embraced, pulled in and assessed by a licensed professional then, right, to see what level of intervention is or is not needed. So this is

one thing that was an innovation that came out of Madigan.

We also conduct platoon level debriefings. So if a platoon's 30 or 40 men and women, we go to them shortly after they've redeployed, and we debrief them from a behavioral health perspective, face to face, and then a number of other initiatives, the five touchpoints that General Volpe spoke of.

We're tracking all of those. We're executing with all those touchpoints, and we're innovating. Again, we came up with this one. This is Touchpoint 2 on that big complicated chart that's hard to read.

This past year, we've had nearly 93,000 behavioral health encounters at Madigan and that is way up from the year before. But what happened is 18,000 troops came back from combat. I was one of them. I came back. I got home in March of 2010, and 18,000 of my brothers and sisters from 1st Corps came home over the summer months there of 2010.

So we've had this huge spike, and

now what we're doing is we're tracking, to see what that volume does. So they've been back for a year, getting a lot of behavioral healthcare. Let's see what happens, now that they're in dwell, right. They're not on a patch chart for the most part, and we're going to see what happens to this demand on the behavior health system.

So yes, we've seen an increased utilization. We'll follow that trend line. We have seen a reduction overall in stigma. I don't think we'd get 93,000 encounters if stigma was alive and well. We have interviewed over 4,000 soldiers with regards to stigma, and it is alive and well in some ranks.

The most prevalent, you've got to remember, was company grade officers. Let me make sure. Somebody’s nodding yes. Am I recalling that correctly? Right. Company grade officers, some captains.

We encountered some captains that are still concerned about their career, if

they seek behavioral health for a need that they have. So we will have to come up with a way of targeting them, so that they don't feel compelled to not seek care for that concern. Next slide, please.

Pain management. Again, you're going to see it tomorrow. These are the list of disciplines that we are going to put into our interdisciplinary pain management clinic. I thought CNN just released, in fact, I watched it on an airplane flying back from Kansas City just this past weekend, a compelling documentary on drug use. Drug abuse of prescription drugs in America, specifically oxycontin, which you know, is at everybody's pen tip as far as writing a prescription for pain meds. The street value of ten Percocet, unbelievable.

So we're really -- we are -- of all new initiatives, this is my number one new initiative to get after, and we'll show you how we're doing that tomorrow when you visit us. We basically cleaned out one entire deck

for the -- that's for the Navy guys in the room --

(Laughter.)

COL HOMAS: One entire deck of our inpatient tower that's going to be dealt with, to this initiative, pain management. Then we're going to monitor the outcomes, with a focus on what is the individual's functional status, the quality of life, the incidence of depression, anxiety, and their opioid use, and we have a software package called CPAIN, to help us monitor the outcomes of all these modalities, and again, trying to get after one of those challenges that General Volpe spoke of, you know, because we're not reimbursed for these alternative modalities.

So if we could document outcomes showing benefit, then I think that's the first step in changing that problem in America. Next slide, please.

So the challenges. You've already heard them. General Volpe spoke to them. Basically, facilities, you know. A lot of

growth has occurred on Joint Base Lewis-McChord. Madigan hasn't changed in size, you know. There are -- we are ever working on optimizing our use of space, and utilizing all those corridors in old Madigan or the Madigan Annex, the World War II building.

There are two MILCON projects on the books that are being actively worked by the Health Facilities Planning Agency, which I believe to be of huge benefit to Madigan, should they get put into the POM cycle. IDES spoke about that briefly.

We want to accelerate that process. IDES is not a readiness process. It's not about getting units ready. Its focus is taking care of soldiers, and making sure that their needs are met.

So by virtue of that, by virtue of the fact that soldiers can appeal and request second opinions and, you know, every step of the path is focused on maximal benefit to the soldier, it's not a speedy process. We're looking at, always looking at ways to move

that through.

We're really looking at enhancing partnerships with the VA here. We have a very collaborative relationship. Again, of all the places I've been stationed, second to none. I mean, the desire of agencies in this Puget Sound area to work together is unprecedented in my experience.

As far as my low inpatient census, problematic. I mean, I've got a lot of staff beds and how am I working to fill them? Well again, through increasing that partnership with the VA, increasing our enrollment to retirees. You know, the usage of military healthcare by soldiers is up about 400 percent from a decade ago.

So soldiers tend to be young, healthy guys, who need a limited amount of care. Not a whole lot of complex, inpatient healthcare is needed by soldiers, sailors, airmen, marines, coastguardsmen. So you know, we're trying to open up enrollment to retirees.

We will continue to participate in this Tacoma Trauma Trust, which costs us a significant amount of money to deliver trauma care, acute care, to civilian victims, that don't always pay. But we will continue, because the value of doing that is so much greater. The educational benefit that our residents get, our surgical residents get in management of trauma, as well as the partnership with Tacoma and the healthcare community in this area. We will continue to participate in that Trust.

We're actively looking at the potential of returning open heart surgery to the operating rooms at Madigan. Currently, the vast majority of our open hearts are done at Tacoma General for a number of reasons, and we're looking at that and dissecting that, and trying to facilitate or work a way to bring open heart surgery back to Madigan, again to help get after that challenge. Next slide, please.

I think our healthcare has caught

up to some degree. Do we have a minute or two for questions?

CHAIR DICKEY: Let me, while you're thinking of some questions; ask if any of our Board Members on the phone have any questions.

GEN MYERS: General Myers. I don't have any.

CHAIR DICKEY: How about anybody here at the table, for either General Volpe or for the Colonel? Amazing amounts of information, and I'm looking forward to seeing some of the simulated training. Several of us around the table are involved in medical education, and I think that the military was the initiator of a lot of the activities we now do in simulators. So it would be fun to see some of the world class facilities I know you have. If there are not comments or questions, allow me to thank both of you for your presentations. I know we are eager and excited to actually see the facilities and meet some of your team tomorrow.

I want to thank you for speaking

with the Board today. A tremendous amount of information you've provided for us, and again, comment that we will look forward to seeing you tomorrow, and in between your Joint Commission visits. But we did bring the President Emeritus. That ought to be worth something.

(Laughter.)

COL HOMAS: I did ask him to call his friends and maybe help us out a little bit.

(Laughter.)

COL HOMAS: We will be interested in complying with that request.

CHAIR DICKEY: It doesn't sound like you're going to need much help. Thank you, gentlemen, and thank you for hosting us here in the Washington area. I know we're going to learn a lot tomorrow, and thank you for the briefing this morning.

COL HOMAS: Thank you.

(Applause.)

CHAIR DICKEY: Well, you do --

extra thanks to both these gentlemen. They've given us a phenomenal amount of material, but kept us on time. Let's take a short break. We are due to start back at 11:30, and because we do have several Board Members on the phone, I'll ask us to please be timely about that restart. But it gives us about ten minutes for a quick break. Thank you.

(Whereupon, the above-entitled matter went off the record at 11:20 a.m., and resumed at 11:34 a.m.)

CHAIR DICKEY: If I can encourage you to take your seats, so that we can begin. As we're getting ready to welcome back our next -- welcome our next briefing, can I check and see which of our Board Members remain on the line?

DR. JOHANNIGMAN: Jay Johannigman on line.

CHAIR DICKEY: Jay, thank you. General Myers, Dr. Delany? Okay, okay. Jay, we appreciate you being there, and I know a couple of the others are probably returning,

even as we return from the break. Welcome back.

Our next briefing is going to be given by Dr. Donald Jenkins, and by -- so you guys need to give me lessons here. MSG, Master Sergeant?

MSG MONTGOMERY: Yes.

CHAIR DICKEY: How about that?

(Simultaneous speaking.)

CHAIR DICKEY: I told them when they asked me to take this job, I hadn't been in the military. Mr. Montgomery, I apologize. Dr. Jenkins is the Chair of the Trauma and Injury Subcommittee. I'll get to you, Dave -- and a Board Member of the Defense Health Board. He serves as the Chief of Trauma at the Mayo Clinic and Foundation.

Prior to retiring as an Air Force colonel, Dr. Jenkins served as the founding Director of the Joint Theater Trauma System, which was developed by the Department of Defense, to improve the care provided to our wounded servicemen and women in Iraq and

Afghanistan.

He's been honored by the Chairman of the Joint Chiefs of Staff Award as the Physician of the Year in the U.S. Air Force, the Physician of the Year Award at Wilford Hall Medical Center, the Bronze star medal and the Paul Meyers Physician of the Year Award presented by the Air Force Association.

Also participating in the briefing is Master Sergeant Montgomery, currently regimental senior medic for the 75th Ranger Regiment, and has served in the Rangers for over 20 years.

His previous positions include Medical Operations non-commissioned officer, battalion aid station, non-commissioned officer in charge, company senior medic in the 1st Battalion, 75th Ranger Regiment and company senior medic.

He has participated in multiple deployments in Operation ENDURING FREEDOM, Operation IRAQI FREEDOM, Operation UPHOLD DEMOCRACY and Operation DESERT STORM IRISH

GOLD with the 75th Ranger Regiment. We welcome both of you, and Dr. Jenkins, if you would like to start with the Trauma Subcommittee report.

Information Brief: Trauma and Injury Subcommittee/ Committee on Tactical Combat Casualty Care Update

DR. JENKINS: Thank you, Dr. Dickey, and thanks for the privilege of presenting this work. This is a work product that's produced out of the Committee on Tactical Combat Casualty Care, and then vetted through the Trauma and Injury Subcommittee, and I'm here as a spokesperson to talk about some potential advances we can make, and ask for your endorsement.

Briefly, what we'll talk about is resetting our frame and making sure we're all thinking about this from the same perspective, about the potential deaths in-theater that could be prevented and talk about a couple of ways of doing that.

Historically, up to 25 percent of

deaths in the current combat are felt to be potentially preventable. The vast majority of those potentially preventable deaths are due to hemorrhage, and unfortunately, there's quite a few of those deaths, the majority due to hemorrhage, that are not able to be treated with a tourniquet.

When we look at what's in the literature, Journal of Trauma Surgery had a study looking at Armed Forces Medical Examiners Office during two time periods. The first time period was early in the war, '03-'04, and then in 2006.

Again, what you see is that the prevalent cause of death was hemorrhage in about 85 percent, across both time periods, with a non-compressible hemorrhage of the torso coming in right at 50 percent of those deaths, and those at the junction, if you will, in the axilla or at the groin, coming in right at 20 percent.

More recent findings. Colonel Brian Eastridge has just worked, as a part of

his role in Joint Theater Trauma System, as the consultant for trauma to the Surgeon General, has done an update for us. What we see is the term used today is junctional hemorrhage, that's caused the majority of these potentially preventable deaths from hemorrhage.

Those junctional areas, as you see here are in, above the extremities, and apparently include the groin and axilla. This is one of the things that Monty is specifically going to discuss. Additionally, you may recall back in the March meeting, Dr. Holcomb came and presented his experience at Landstuhl, with the significant increase in complex blast injury in the dismounted troops.

Those cases resulted in a significant amount of injuries not amenable to a tourniquet application, and they didn't have a great answer for any of these things. That presentation included this uptake in these cases, where there are multiple amputations. Also, that there are a large increase in

urogenital injuries seen in that patient population.

So at the June meeting, it was recommended that further study of hemorrhage control mechanisms, particularly that of this non-compressible hemorrhage should take priority, and that we are looking for answers to how we could best put these new innovations. What are the innovations being identified that potentially could help us to control some of this most difficult hemorrhage?

So based upon work done with the Committee on Tactical Combat Casualty Care, we think that in fact there may be a few things we can do to address this gap. The treatment options for non-compressible junctional hemorrhage to date really comes down to a combat gauze and direct pressure, which in a lot of these cases can't be accomplished successfully, but because of the transport of those casualties out of the field setting, and through the evacuation chain, and just

sometimes that these injuries are not amenable to any type of care that we have available to us to date.

We think there are a couple of options that can be of benefit, and in fact, when the Committee on Tactical Combat Casualty Care met, the vote to support both of these endeavors was 39 for and 2 against, which is pretty consistent for that group when they get behind something. It's the vast, vast majority of those folks, and at the Trauma Injury Subcommittee level, the voting was unanimous to support both of these endeavors.

VOTE: Combat Ready Clamp™

So at this point, I'll turn this over to Master Sergeant Montgomery, to talk about the Combat Ready Clamp™, and I'll come up and talk about the tranexamic acid when he's done.

MSG MONTGOMERY: Good morning. So I'm glad to speak with you here this morning, and one key thing is we're still defining that

junctional area, as it's depicted in the other slide there. Next slide, please.

So this has been a consistent problem for Tactical Combat Casualty Care across the board from the initial development of TC3 back in the mid- to early 90's, and one of the key things was the Corporal Smith injury from the Rangers in Mogadishu.

That's leading all the way up to present day, where this is a recent injury submitted from Colonel Kragh, depicting the same kind of injuries, high, inguinal high groin injuries, things that are not amenable to tourniquets at all.

A quote from a Marine battalion surgeon forward. Just in six months, over 1,000 IEDs by the 3rd and the 5th Marines, many of these, over 200 casualties and 29 KIA, and many of these Marines had severe amputations that could have benefitted from some sort of proximal tourniquet device.

Also, U.S. Army Medical Research and Materiel Command posted a requirement back

in 2009 for a device of this nature, or something of this nature, looking at compressible hemorrhage that's not amenable to tourniquet location. Essentially, the clamp device that I'll discuss kind of meets all these requirements as well.

The key premise that we ought to look at with Tactical Combat Casualty Care is asking the medic or corpsman to do something that is going to be beneficial to the casualty, and where we're confident that it's going to be beneficial. But then also, that anything that we find that he can use, that it's relatively easy to equip him with it, and easy to train him with.

All right. So I'll go into the Combat Ready Clamp™ here itself. Essentially, the concept, not a new concept. The C-clamp device or some sort of pressure device in a clamping measure like this dates back to Dr. Lister with the Civil War, and several different surgical devices even used today. So it's really not a new idea, but what the

Combat Ready Clamp™ or the CRoC™ does is makes those devices more amenable to us in combat, right, and to work in an aid bag.

So just the basic set up of it assembled, and then in a small bag, and that's basically meeting Army requirements kind of thing. Most of us manage to fold it over pretty easily within the aid bag and it fits with no problem.

All right. So it's FDA-approved for these two locations. So inguinal, direct pressure over a packed inguinal injury site. So right where a wound is, a gunshot wound or heavy shrapnel or an IED-type injury, directly onto the site and then also in the pelvic manner, that includes the external iliac artery. So that's the two FDA sites approved at this point.

The unapproved but theoretical locations that the manufacturer's looking at down the road, and we've tested ourselves but we're not quite ready to make that leap, unless a true casualty presents it and it's

our only option, is abdominal that's on the descending aorta. That's basically occluding all the lower extremity arteries, and then conceptually, an axillary application.

This is going to take some serious development by the manufacturer, because it's going to require turning of the device and a little bit easier application in some ways. Just it's not quite ready for that yet. But theoretically, it could be applied in such a way as well.

All right. So the current fielding is essentially just three units. So the Army Special Mission Unit, the Ranger Regiment and the Navy Special Mission Unit, and then civilian-wise, just the Life Flight® down at Houston.

Human use at this point. Honestly, we have one reported human use, and that was on a local national that was wounded on one of our objectives about two months ago, but we don't have the follow-on data. So we don't really know whether survival or outcome or

anything like that, just because the way the system works, we don't maintain control of those kind of casualties over time.

All right. So equipment maintaining, definitely a medic or corpsman carried device, aid bag. It can be partially broken down, as you can see right here. It breaks down pretty easily within our aid bags at the M-9 type we have there, and fairly light. So pound and a half, about the size of an IV bag or something like that, which we try to pare those down anyway.

All right. So the testing for the most part has been on perfused cadavers, fresh human cadavers at Wake Forest, and then there's a publication pending there. In fact, we use this for all of our Train the Trainers. All the senior medics and docs that we're training the device with and training our medics with, all went and did the actual cadaver study training at Wake Forest.

To be honest, for many of us, it was an eye-opening experience, in the sense

that we had, we had doubts of this concept beforehand. But when we went in there, honestly it was along the lines of it's this simple, really? It's this simple, and this is all we have to do and we can fix this problem.

Some of the proposed testing, this is really more on the training side of the house, is -- things are dropping off already. Training side of the house, where Marine Readiness is looking at the actual corpsmen, training them and evaluating their training, but then also using the Doppler ultrasound to evaluate their effectiveness as a -- through the training and the effectiveness of the device in general.

All right. So potential issues that we have with it. Honestly, stabilization during transport, and the way it looks, your first thought is, is this thing is going to be very difficult to keep in place, especially on a litter or something like that.

Surprisingly, even with the strap on there as well, but surprisingly, once it's

clamped down and with the large metal plate under the buttocks, it actually is fairly stable within itself. It can be additionally stabilized with litter straps or some of the other devices.

So you figure most casualties certainly would be receiving this kind of treatment. We're going to be wrapping them in hypothermic prevention blankets and things of that sort. So I mean, generally the stabilization has not proven the problem that we thought it would in ourselves.

Device impact on pelvic fracture. It's very easy to suspect a pelvic fracture in the field; very difficult to diagnose one for our means. That's one of the concerns, but actually also we're almost thinking along the lines that this could actually help stabilize a pelvic fracture, just don't know yet. So I mean, that's just one of those things. It's out there, out there floating.

Then as with any device or tool or training or whatever, just the clinical

decision-making at the right time, the right place, right patient and all that sort of thing, to apply this. The way we think of this, this is not exclusive to this.

Basically, everything we're asking these medics to do, from the fluid resuscitation to the hemostatics, whatever, there's some sort of clinical decision-making that we're asking them to think about along the way.

So bottom line, this is an FDA-approved product. It's currently fielded by the small, limited number of units there, and we essentially have no other option. The other devices that are similar to this are not amenable to our aid bags at all. I mean we could potentially put something like that on vehicles or aircraft. But by the time you get a patient to that level, he may have bled out already.

My other problem with the current fielding is the small number of units you see there, we aren't seeing these kind of

injuries, all right. We're strike forces going in and straight onto the target and that kind of thing. So we're not patrolling long ranges, and through IED alleys and that kind of thing that many of the other units, especially the marines out in Western Afghanistan are seeing.

They're the ones seeing those kind of injury patterns. So it's definitely got to get in the hands of the right people, and not so much to get that human use, but to save lives out there, all right. Many of the discussions went down the route of not wanting to approve something like this until we do have actual human use.

Well, I don't really want to volunteer one of my rangers for that first human use at all. So it seems to work, doesn't seem to have problems, and the key thing is we don't have any other solution for this.

So looking at the Tactical Field Care section of the Tactical Combat Casualty

Care guidelines, no real changes to the existing text. All we did essentially was just add this portion in Section B for bleeding. So I'll let you read along there.

Kept it, we did keep it relatively generic in the sense that if another device similar to the CRoC comes out any time soon, then we can essentially just evaluate it and add. We don't have to rewrite the entire guideline or anything. So but basically, whenever tourniquets aren't amenable and you can't apply the tourniquets and the hemostatics or bandaging in general isn't working, then this is something to consider.

Then basically it's on the medic and his level of training and clinical understanding, I think, as to what extent we would want to go further with some of the non-approved, non-FDA approved type things. So I mean, that's something for our docs and PAs in the unit to think about, on what they would teach and let their medics do.

So barring any questions, I'll turn

it back over to Dr. Jenkins.

CHAIR DICKEY: Any questions?

DR. HOVDA: (off mic) I have one. This is Dave Hovda from UCLA. I read the report, and looking at the apparatus, we're talking about the external iliac artery. So, we're talking about the placement of this tourniquet above the inguinal ligament?

MSG MONTGOMERY: I'll let you do this one. This was a heated discussion --

(Simultaneous speaking.)

DR. JENKINS: Sure. So the discussion was quite lengthy and animated, Howard Champion and Norm McSwain, discussing you know, the exact placement of the device. You can see by the size of that cone that it's going to sit at -- the way it's designed and how it lays, it sits right at the inguinal ligament.

So there will be some component of femoral artery compression. There will be some component of external iliac artery compression, like just on the other side of

the inguinal ligament.

DR. HOVDA: Okay, thank you.

CHAIR DICKEY: Are there any additional questions? How about any questions from our members on the phone?

PARTICIPANT: You were cut off, so I couldn't hear it.

CHAIR DICKEY: I'm sorry. One more time?

PARTICIPANT: You were cut off. What was your question please?

CHAIR DICKEY: Do any of you on the phone have any questions for Master Sergeant Montgomery?

PARTICIPANT: I have none, thank you.

GEN MYERS: I have none.

DR. JOHANNIGMAN: None from Jay Johannigman.

CHAIR DICKEY: Okay. Thank you very much, and Dr. Jenkins, then, do you want to -- you have two votes. Do you want to separate these and do the votes on each

individual piece?

DR. JENKINS: I think it's wise if we just vote on this right now, and then -- because we're going to switch gears a little bit.

CHAIR DICKEY: Right. The recommendation coming to you from the TC3 then is to support the implementation of the compression tourniquet. It's not a tourniquet -- device for the use of hemorrhage control. Is there discussion or a motion on the floor?

DR. CARMONA: So moved.

DR. HOVDA: Second.

CHAIR DICKEY: It is moved and seconded by Dr. Hovda, that we approve the recommendation coming forward from TC3. Is there further discussion?

(No response.)

CHAIR DICKEY: Hearing none, all in favor say aye?

(Chorus of ayes.)

CHAIR DICKEY: Opposed, no?

(No response.)

CHAIR DICKEY: And I would assume, because this is part of the solution, but careful follow-up and so forth, that we can perhaps look for some additional information as this thing becomes activated in far more units, and we get some data about the impact.

DR. JENKINS: Absolutely, ma'am. Speaking with some of the folks that are keeping a close eye on this in human use down in Houston, and one of the suggestions I had for them personally is why don't you have a little postcard in the kit, so that every medic that is using this, you know, just ask him four or five questions, check a couple of blocks, and then throw it in the mail.

Go back to, you know, central repository, so we can get the words right from the medic themselves, did it work and how well did it work, difficulties they encountered, issues they might have had. They said in fact they have that postcard in the civilian version of the device, that

they're collecting that info.

So I suspect by the time we meet again, there will be several opportunities for this to have it in use and for us to get a report back.

CHAIR DICKEY: Excellent. Thank you very much. Yes, Dr. Parkinson.

DR. PARKINSON: If I may, Dr. Dickey, just a non-surgeon's curiosity for Don. The simple elegance of the anti-trauma trousers, which are using air and balloons, a technology that has advanced tremendously over the last decade or two, I'm wondering if any of the device manufacturers are looking at selective air balloon pressure, rather than --

My first reaction with this clamp is it's kind of 1890's technology, nuts and bolts and you screw it on. I'm just wondering if there's some next generation stuff out there that could use a masked type of technology or something like that.

DR. JENKINS: Unfortunately, in the

interest of time, we didn't give Monty's entire presentation. There are several other commercially available devices, some of which are pneumatic in nature. Given the field limitations and constraints, et cetera, it was determined by the group that they were not feasible for use.

Yes. But they're used routinely in hospitals, in cardiac cath labs, interventional radiology labs, et cetera for femoral punctures on a regular basis.

CHAIR DICKEY: Okay.

Vote: Tranexamic Acid Use in Theater

DR. JENKINS: Moving on now to tranexamic acid, so if we just go back to the intro comments, actually about 20 percent of the casualties that we talk about bleeding to death from this junctional hemorrhage might have their lives impacted by that Combat Ready Clamp™, there's an entirely other group that has no ability to apply compression to, in what is the equivalent of a torso tourniquet, if you will.

So there are a couple of studies, and I think the information has been floated out for folks to review. Hillary Peabody in the back in the room has every article ever written on tranexamic acid at her disposal. So again, I remind you that we reviewed this topic at length. Each of these discussions was about two hours in length, to get the wording right, et cetera, and it was an interesting discussion all the way around.

I'll try to summarize that as best I can here. The evidence comes from two big trials, well two trials; one big trial and one very convincing trial. So the CRASH-2 information came out late last summer-early fall. There were several meetings held amongst trauma experts and military trauma experts, and we had the discussion at the Committee on Tactical Combat Casualty Care and the Trauma Injury Subcommittee.

And as of June, we were not convinced that TXA was the way to go. We are now convinced of that. The CRASH-2 study,

published in Lancet in 2010; 20,000 patients all cause mortality to decrease, as you can see from 16 percent to less than 15 percent, with a decrease in the risk of bleeding from 5.7 to 4.9 percent.

In a subgroup analysis of those trauma patients, looking at specifically timing, there were about 3,000 deaths and about 1,000 of those deaths were due to bleeding. The risk of death due to bleeding was reduced to 5.3 percent if TXA was given within one hour, and down to 4.8 in that one to three hour time frame. So the one to three hour time frame becomes important in our discussion.

The MATTERS study, this is where it really made the difference to us, because this is care rendered actually to, in this group of patients, I think it's about 1,000 overall. There were dozens and dozens of U.S. soldiers who were injured and cared for by these teams, who received TXA.

So really what it comes down to is

patients who got blood and got or did not get TXA and what were the results. That is, cared for by the same teams, have a similar concept, transfusion strategies, et cetera, all at one hospital in Bastion. Here you go. There's that, like I said, it's about 900 patients overall. 600 got TXA, I'm sorry. 600 did not get TXA; 300 did get TXA.

Massive transfusion numbers, actually more. Massive transfusion represented in this TXA group, and they got about 2.3 grams of TXA in that study. The overall mortality analysis, when you look at this, is that the 24 hour mortality, interestingly, is not affected by the use of TXA.

The result seems to come out at the 28 day mortality and where there is a statistically significant improvement in overall survival. That is borne out especially in patients receiving massive transfusion. So patients requiring massive transfusions, similar mortality rate on Day

1, but half the mortality at Day 28.

So we suspect that there's something more to TXA than its anti-fibrinolytic properties afoot that lend its mortality benefit. Another way of looking at that is that within the -- you start to see the difference really come up at about Day 3, is where this begins. So it's substantial, and this is for the overall cohort. Similarly, at about Day 3 is the breakpoint where you start to see the significant improvement in mortality overall.

And so this was now the concluding statement, based on the framework we've laid out here and the substantial number of these casualties that are dying of unchecked hemorrhage. We have now a drug that appears, you know, quite safe, given in an appropriate timeframe, that it can make a substantial difference, especially for those casualties who are bleeding to death.

It shouldn't be administered outside of the three hour time period, it doesn't

seem to have that benefit. If you look into that CRASH-2 study published in Lancet, it does not have the benefit if administered beyond the three hours. The way that it was dosed in the CRASH-2 trial, was one gram given immediately and one gram over eight hours.

The Bastion experience is somewhat different than that, such that the two doses are given within a very short timeframe, within just a couple of hours of one another. So these have been underway quite some time, and these are the changes that we have proposed, that this section will be added to each of the sections for field care and evacuation care, administering one gram of tranexamic acid as recommended per the manufacturer, in 100 cc's of a crystalloid solution as soon as possible following the injury, but not later than three hours after injury.

Then after fluid treatment, give the second gram of TXA to those casualties. So

our recommendation is that the Defense Health Board view this favorably, and have a vote to support that change in the Tactical Combat Casualty Care or the Tactical Combat Casualty Care guidelines, as well as in the opportunity to begin the use of this immediately.

CHAIR DICKEY: Thank you, Dr. Jenkins, for that presentation. Quick question. Is there an object or a numeric number for massive transfusions, so that if -- or is it really those subjective descriptors that you just went over?

DR. JENKINS: So for the massive transfusion cohort in the MATTERS study, that's ten units in less than 24 hours.

CHAIR DICKEY: Okay. Dr. Silva.

DR. SILVA: Silva, UC-Davis. I know this is a hot topic for a lot of compounds now are temperature variability, and this drug has to be preserved at a lower temperature. How is that handled in the field, where you maybe have an ambient

temperature over 110 degrees? The solution's the mystery.

DR. JENKINS: Yes sir. Every medic, and Monty showed an example of his aid bag, where there are numerous medications that are to be kept in the temperature range of the manufacturer. In fact, I pulled, I can do it right now, pulled the little Motrin bottle out of my computer bag, which has a very tight temperature range in which it's supposed to be stored to maintain its efficacy.

Those soldiers, those medics are carrying numerous medications on their person in those packs, that have the same temperature constraints to it. And these medics are the same medics that administer IV morphine and other IV antibiotics. So they have the training to do that.

Medics know this is about the proper training and education, et cetera, and in fact these medications are being tracked very carefully, certainly those in Bastion would

become one of the items to be reported through the Joint Trauma System in the theater and captured in the Joint Trauma Registry, so that we could look at the success of this as time goes by.

CHAIR DICKEY: Other questions from around the table?

DR. CARMONA: Rich Carmona. Don, great work. Thank you. Just one question. Any thoughts on the positive or negative effects with concomitant blunt head trauma, TBI?

DR. JENKINS: Well again, unfortunately in the interest of time, I didn't present all of Colonel Warren Dorlac's slides here. That is clearly one of the intended benefits, is for those patients who sustain significant brain injury, the development of coagulopathy and the need for massive transfusion portends a poorer outcome for them.

The hope is that we would potentially see some benefit in that brain

injury patient population as well. Again, we don't have another answer for this day. This is a drug that has been available. It literally is taken over the counter in pill form by thousands and thousands of women in the United States on an every day or every -- annual basis, and has a long and safe profile.

Unfortunately, as with any medication or transfusion one might administer to promote clotting, invariably patients have clotting. Sometimes that clotting is not of benefit to them, in terms of pulmonary embolis, you know, deep venous thrombosis, et cetera.

It's aimed at this group of patients that's exsanguinated before they can get to medical treatment by a surgeon, you know, the OR-based facility, which is what they need. This is, we think, one of the few tools that we can actually put in the aid bag, that might make a difference for those casualties.

DR. CARMONA: Thank you.

CHAIR DICKEY: Any questions from our members on the phone?

GEN MYERS: Not here for Myers.

DR. JOHANNIGMAN: Not from Jay Johannigman.

PARTICIPANT: No, the discussion's been very helpful. Thank you.

CHAIR DICKEY: Seeing no further discussion around the table, it is the recommendation of TC3 that the Board approve the proposed addition to the guidelines that are presented in slide 27, and I would entertain a motion for whatever action you choose.

DR. O'LEARY: So moved.

DR. CARMONA: Rich Carmona, so moved.

CHAIR DICKEY: Okay. It's been moved by Dr. O'Leary and seconded, if I may, Dr. Carmona. If there's no further discussion, all in favor of the motion to approve the recommendation of the changes present on Slide 27, please say aye?

(Chorus of ayes.)

CHAIR DICKEY: Opposed, no?

(No response.)

CHAIR DICKEY: Thank you very much, and I believe, sir, you have one more.

DR. JENKINS: With your permission, ma'am, and the indulgence of the Board --

CHAIR DICKEY: Absolutely.

Vote: Needle Decompression

DR. JENKINS: There's really not much literature to go on here, and if this is -- so this next proposed change is actually in keeping with current practice. At this point in time, what's in the Combat Casualty Care guidelines is a note that CPR is futile in that tactical field care setting.

In fact, what we have found is that there's some potential to save a life or two. This has been reported through to us. These are also things seen in autopsy, where at the Armed Forces Medical Examiner's office, they have seen some autopsies of casualties who are KIA, who have tension pneumothorax

physiology in their chest.

So the proposed change, and really this was the shortest of our discussions, would add the statement in the tactical field care phase, "Casualties with torso trauma with no pulse or respiration should have needle decompression performed, to be sure they don't have tension pneumothorax, prior to discontinuing care." So that was step one.

Step two goes to the evacuation care, and we have seen numerous survivors arrive in helicopters, in the back of Humvees with CPR in progress, who have moved through their period of arrest.

So the proposed change to the tactical evacuation care is along the same exact line, that don't give up until you've needle decompressed the chest, and then give permission to perform CPR prior to arrival at the medical treatment facility, not at the expense of compromising the mission or denying life-saving care to other casualties.

So again, this was voted on 39 to two by that group, and we would indulge your endorsement of that, those proposed changes.

CHAIR DICKEY: You have a recommendation from the Committee before you. Do you have any questions or comments, and if not, I would entertain a recommendation for action. While they're thinking, Dr. Jenkins, can I assume that -- I'm trying to figure out how to ask the question.

Obviously, part of the information is the tracking, to see whether or not this has made a difference. We've also talked here some about the combat casualty information sheet, and sometimes it's totally from that and sometimes it's not.

So is there a mechanism like leaving in place the needle if this is attempted, so that if the soldier does not have a successful resuscitation, we'll have data a year from now that says this was attempted X times, successfully Y times?

DR. JENKINS: Yes ma'am. The

statement of practice by the medic is once they place that needle, is to leave it in place, then it can become dislodged. This is one of the situations where at the Office of the Armed Forces Medical Examiner, they are very, very detail-oriented, and they capture every one. They know if someone has attempted to do this or not, even if there's no device left in place.

But the standard would be to leave it in place. There is a place on the medic card, I don't know if you happen to have those with you, Monty. There is a place on the card to specifically cite that you've performed this measure. It is one of the things captured in the Joint Trauma Registry.

CHAIR DICKEY: Other questions for Dr. Jenkins or any recommendation? This is a committee recommendation to the Board.

DR. CARMONA: Move to accept.

CHAIR DICKEY: A motion by Dr. Carmona to accept the recommendations present on page 33.

DR. CARMONA: And 32.

CHAIR DICKEY: I'm sorry, page 32 and 33. You're right. Thank you, sir. I have a motion. Do I have a second?

REV. CERTAIN: Second.

CHAIR DICKEY: Moved and seconded. Is there further discussion on the recommendation?

(No response.)

CHAIR DICKEY: Hearing none, all in favor of the motion to approve the changes to the Trauma Cardiac Arrest Guidelines, those changes are present on Slides 32 and 33. All in favor, please say aye?

(Chorus of ayes.)

CHAIR DICKEY: Opposed, no.

(No response.)

CHAIR DICKEY: Thank you very much, Dr. Jenkins. Work well done, sir. Thank you for your presentation.

DR. JENKINS: Thank you.

CHAIR DICKEY: And Sergeant Montgomery, thank you very much as well for

your valuable contributions and your presentation today. Am I correct, Ms. Bader, we are

MS. BADER: Ahead of schedule.

DR. JENKINS: I apologize for that.

CHAIR DICKEY: It's just like a surgeon. He's ahead of schedule.

(Laughter.)

CHAIR DICKEY: We're now going to break for a working lunch in Venice 2, to include Board members and Service Liaison Officers and the DHB staff, as well as invited guests, lunch -- and speakers as well. We will reconvene promptly at 1:30 to resume the working session of the meeting.

I want to thank all the Board members who have so conscientiously been with us on the phone, and look forward to welcoming you back this afternoon at 1:30 Pacific Time. You are adjourned for lunch.

GEN MYERS: See you at 1:30.

CHAIR DICKEY: Thank you, sir.

GEN MYERS: Thank you.

(Whereupon, at 12:14 p.m., the above-entitled matter went off the record and resumed at 1:29 p.m.)

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

1:29 p.m.

CHAIR DICKEY: If I can encourage all of you to take a seat. Welcome back, and our next briefing of the day -- oh see, actually before I jump to Dr. Silva and Dr. Parkinson, can I ask who we have on the phone right now?

DR. BULLOCK: Yes, hi. This is Dr. Ross Bullock from the University of Miami.

CHAIR DICKEY: Dr. Bullock, welcome.

HON. WEST: Dr. West.

CHAIR DICKEY: Thank you, sir. Dr. Delany, are you back with us yet?

MS. BADER: I think he was doing -- Dr. Delany actually was on the line, and then had to jump off, and he'll dial back in again very shortly.

CHAIR DICKEY: Okay, all right. Welcome, and if you have any difficulty hearing, please let us know. A reminder to everyone to please be sure and use your mics. Always good for the recording, but terribly

important when we have people on telephonically.

So welcome back from lunch, and our next briefing of the day is going to be delivered by our guests, Dr. Michael Parkinson and Dr. Silva. Dr. Parkinson is Principal of P3 Health, which assists employers health and health care organizations in optimizing prevention, performance and productivity.

Prior to his current gig, Dr. Parkinson was the Executive Vice President, Chief Health and Medical Officer of Luminos, a pioneer of consumer-driven health plans and a subsidiary of Wellpoint, where he was responsible for the development and implementation of an integrated, incentivized health improvement strategy, employing evidence-based prevention, care management, account-based benefit designs, employer partnership and consumer engagement.

A retired Air Force colonel, Dr. Parkinson also served as the Deputy Director of Air Force Medical Operations and Chief of

Preventive Medicine. If I can present your partner in crime, Dr. Parkinson, and then we'll let you take off.

Dr. Silva currently serves as a Professor of Internal Medicine within the Division of Infectious Diseases and Immunology at the University of California Davis School of Medicine. He previously served as Dean of the medical school and Chair of Internal Medicine, and he's currently the Dean Emeritus, I believe.

In addition to academic positions, Dr. Silva's prior appointments include serving as a consultant for Kaiser Permanente Hospital, the U.S. Air Force Medical Corps at Wilford Hall Medical Center, and in the Air Force Reserves.

Dr. Parkinson and Dr. Silva will provide an overview of the Psychological Health External Advisory Subcommittee's findings and their proposed recommendations, included in the draft report pertaining to psychotropic medication and complementary and

alternative medicine. Their slides are under Tab 7. Dr. Parkinson, it's all yours.

VOTE: Psychotropic Medication and Complementary Alternative Medicine Use Draft Report

DR. PARKINSON: Thank you, Dr. Dickey, and there are days when going to work I think what I do is a gig.

(Laughter.)

DR. PARKINSON: That's a personal characterization. That's very good. On behalf of Dr. Silva and myself, we're delighted to be back with you. As you recall at your last meeting, we presented the executive summary of the Psychological Health Subcommittee CAM report. At this meeting, you have the entire report in your binder.

I hope you can see by the breadth, the scope and the intensity of the effort, that the Committee took about nine months. I look back at the date, Joe, and it was really about this time last year we got charged with it.

We wanted to get the findings and recommendations to the Board, frankly, for early transmittal to the Department, to begin to think about acting on some of them, as well as to refine them and get the Board's input, which we had done in this report.

So we had a very constructive dialogue at the last meeting. All of your edits have been included in the current draft of the report, and following a very brief summary again at a high level of findings and recommendations, Dr. Silva makes some closing comments, and then we'll open it up for a further discussion and a vote, Dr. Dickey.

Okay. In the last week, there were two other -- two significant studies that caught my attention, that absolutely are aligned with the findings and recommendations of our Committee. The first was this week's *JAMA*, which has a study done by the VA on the use of Risperdal, in addition to anti-depressants for people with PTSD.

It was done at the VA Hospital, and

lo and behold, despite the fact that 20 percent of VA patients are found to be on agents like Risperdal and Seroquel and things like that for anti-depressant resistant PTSD, they found no effect.

Just as an example of this, in the editorial that is by Colonel Hoge in the same issue, who goes on to say that the military must begin to understand the military-unique aspects of stress, and its management across the whole continuum, which is pretty much our finding and recommendation in our report.

No one else will do these studies except the military. Pfizer will not do the study, and just as we heard in the TC3 report earlier about the military-linked research and the rapid prototyping application of four of the techniques, the summary of our work is at the same intensity and depth of knowledge around common combat stressors that can accelerate to things like PTSD and need to be a focus.

The second major study came out in

Health Affairs this week, and basically shows, as we wrote in our report, that the national epidemic of prescription of anti-depressants continues to accelerate, including so much that 70 percent of now all anti-depressants are now prescribed by primary care physicians, and as much as seven percent of all the prescriptions have absolutely no psychological diagnosis anywhere to be found.

So they're increasingly being given out in primary care venues, to people with uncertain diagnoses for unspecified reasons. The reason I say this is relevant is again, the military reflects, both on the provider side and on the member side or the military member, we come from this universe of over-reliance and over-prescription, to a large degree, on psychotropic medications that are generally being increasingly encouraged at the consumer level and the primary care provider level.

So I just thought the timely issuance of those two studies was absolutely

aligned with our findings and recommendations.

Very briefly, I'm going to go -- you've already heard these once, but I just want to show the changes. We focused on these areas as the rest of the report, given an entire laundry list of concerns to the DoD. Our emphasis was on in-theater deployed in operational settings. We focused on the most common mental health conditions in-theater.

What is the evidence of the prevalence? What is the evidence of the use of evidence-based treatments as best we know evidence? What is the current status of DoD and other related clinical practice guidelines, and what are major educational training and competency issues as it relates to military health professionals in both psychotropic medication, CAM and the broader control management of stress-related conditions?

Certainly underlying this is the use and access to medical records in-theater, analysis of those medical records to inform

our work. We spend a considerable amount of time, you'll see it in the full report, all the analyses that we compiled over this period of time.

What are, looking forward, some of the things that we would recommend the Department be able to do? One of the philosophical positions we took is where we identified gaps or deficiencies, rather than shoot the messenger, what are the things we can do in a constructive way now, to build a better outcome going forward?

Our membership of the Committee, again was the entire gamut. We had psychiatrists, we had the Service psychiatrists, we had psychologists, we had internal medicine/primary care, preventive medicine, public health represented, to give the broadest possible perspective relating to this.

Dr. Kroenke, who's joining us in a few minutes. I don't know if Kurt's on the phone, but he was a member of our committee.

He's doing work on the ANAM, among other things. Four days of meetings, a lot of dialogue at the last meeting for DHB.

One of the areas we discussed at length, and I know, General Myers, you're on the phone, is that we did revise the finding, limited primarily to the acute findings around stress-related conditions that require medical treatment, as opposed to the broader finding that was probably overstated, that the prevalence of post-deployment and other chronic-related stressors was not a problem.

It clearly is. Ten to twenty percent of those in infantry units are found to have PTSD. That's a number cited by Colonel Hoge in his article in *JAMA* and others. But we wanted to distinguish the acute treatment in-theater versus more chronic treatment related to that. So that finding was revised in this report.

There was considerable discussion that he wanted us to have and included in this report on what was not a primary thrust of

ours, given the charge. It was the differential access to and ability of the Guard and Reserve members to get treatment for the conditions and broader issues. So that's emphasized in the report, as well as the stigma issues.

Dr. Hoge, and I just -- again, there's a stigma at two levels. One is I'm stigmatized because I have this condition, or am I stigmatized because I went to see a mental health professional. Those two are related, but they're different.

So he calls in his editorial, as we called in the report, for better understanding about what are the values and the thinking and the systems that we might be able to get to, essentially destigmatize it on multiple levels. That is emphasized here again.

The third major principle we incorporated from the discussion was the ongoing and continuing need for better DoD collaboration and integration. We heard a lot of that this morning from General Volpe, in

terms of the multiple facilities where those things happen, the need to have an integrated EMR.

All these things are steps in the right direction, to make it seamless to our service members, whether they're Active Duty, retired, deployed, non-employed, so that it's readily available and they get the care they need.

Again, we have four of these categories of findings. I won't read these verbatim. You can read them here in the report. We've talked about them before. I'll highlight one or two things. One is we should not mistake the tremendous efforts that DoD has made on multiple fronts over a long period of time, to address many of these deficiencies as it relates to unprecedented, prolonged ten years' worth of combat, in a way that now probably doubles the amount of time we spent in World War II.

The nature of the conflict, the duration of the conflict, the uncertainty of

the battlefield and types of weapons that are being used is really kind of unprecedented. With that, there's been tremendous efforts made, and much progress made towards improving access to and coordination of services for those in need.

The staffing, both in-field and back home, you heard today from General Volpe. It's very good to hear some of the roles that you led at Madigan and other places, in terms of increasing the number of mental health professionals.

A lot of our report says even with that, we have a better job we have to do, in terms of standardizing the competencies by level of professional, in terms of what we expect them to be able to do, and on the Service members' side, in terms of what is truly our step therapy approach, if you will. Some was in line guidance, some was in medical guidance, to really make it come together in a uniform way across the DoD.

So we medicalize only those things

that need to be medicalized, and we really make militarily relevant coping skills, which happens in war time, something that's just inherent to our soldiers.

We did find that what we really need, and I keep coming back to this in the report, is the notion of an integrated, bottoms-up model, that begins with self care, buddy care, line integration, line medical support, triage levels of seeing health professionals, so that we frankly don't get into the national trend of primary care docs reaching for a prescription every time they see somebody who's got a stress-related issue, which is largely what we see in some of the Health Affairs data, among other things.

We think those models are already in the military; we just don't apply them to stress in a systematic way. It lives in certain guidance that you can find in some of the appendices in our report. But it's not been systematized, if you will, in a way that we organize, train and equip our troops,

whether Army, Navy, Air Force, Marines.

Even now, the Marines have a great initiative going on. It would be wonderful if that was the same type of initiative we saw going on in the Air Force, as it relates to people. Stress is stress is stress, and having four different versions of the same program probably does not really help us, at the other end, be able to do that.

So certainly the use of our EMRs in-theater, whether or not we can capture accurately both the CPT ICD-9 type codes, and can we link those to pharmacologic or cognitive interventions or others. It would be very useful to improve that in-theater. There's a lot of findings, there's a lot of discussion in your report that talks about the current capabilities of DoD, versus what we'd like to see going forward.

We do think that there's promising use of EMRs in-theater, but unless those EMRs have been embedded decision support, with reminders about step therapy, which is what

EMRs are all about. It's not just to record information; they're to be decision support tools. So we've got CPGs. How can we get them into the EMR?

So that at the point of care, they become the quality assurance vehicle that we want to be able to have. We do think that sleep is a sentinel marker for psychologically related conditions, and the DoD should convene a group on sleep disorders as it relates to military and combat.

That's a sentinel event, and we see the wide use of Ambien, for example, as just treating sleep disorders. What are other non-pharmacologic ways that we might be able to deal with that? Again, just recommendations.

The issue of what are the exact problems of use of psychotropic medications in-theater. The committee spent a very long time doing that. We found that there has been a trend over the last three years to the increased use of psychotropics. It probably is no greater than what we've just see in the

Health Affairs article nationally, where there's a rampant increase in the use of these drugs across the civilian practice.

Two are professional need. There does not have to be an inappropriate use of these drugs, as it relates to the common way that these types of conditions are treated. At least in the civilian sector, but it begs the question of, is there a better military-specific model that we need to build, and that's really where we want to go with this.

We do know that Service members can receive medications from multiple routes, with varying degrees of documentation. That is known in the Department, and the Department is working on that as we speak.

The use of polypharmacy is a term that is not well-defined in a standardized way across the health care industry. Polypharmacy and the multiple use of drugs may be clinically appropriate in some settings. So just labeling something "polypharmacy" doesn't tell you much about it.

We do think that there could be some better standardization of the use of the term and some more descriptive use of the term in a way that would be useful internal to the Department. We do believe, as was noted probably in this particular article in *JAMA* this week about the off label use of some drugs.

It may be appropriate in certain settings, but we do think that for one particular drug, Seroquel in particular, we might look at the DoD's use of Seroquel as it relates to that, and certainly the finding in *JAMA* about Risperdal, which is in the same category of drugs, being not any more effective for PTSD. That's the type of information that buttresses the committee's findings in that regard.

We wanted to remind the Department, not that they needed to be reminded, that the cornerstone of healthy coping skills is healthy lifestyles, and the ability to basically use nutrition, sleep, you know,

moderate use or no use of alcohol, even tobacco cessation. All those things are the cornerstone, and increasingly in corporate America, what you're essentially seeing is that healthy living leads to better operational outcomes.

We clearly are calling for better use of tracking of prescription drug data, off label use. Going quickly to CAM, you saw in the slides again this morning that we called for, particularly in two areas, which is acupuncture and in mindfulness training. Whether you call it the Relaxation Response by Benson or yoga or prayer or meditation, it is very effective, can be a very effective coping skill or maybe a buddy skill.

To be able to help people to acquire in-theater, we should be doing pilots, demonstrations of theater-applied mindfulness, in much the same way as we would do for TC3. That's the type of thing we thought, and certainly at the transition point, particularly for Guard and Reserve, if there

is CAM modality that works for an individual and needs to be assisted by a provider, we need to make sure that's aligned with the TRICARE benefit, so that we have consistency across the thing.

Again, we do think that every service should have a CAM consultant, and that CAM consultants shouldn't be peripheral; it should be embedded. The Department, and particularly in areas of pain management in its clinical practice guideline, has done a very good job in creating an incorporated CAM philosophy and approach. It needs to be broadly applied, to the broad area of stress.

Your full report has a number of relevant clinical practice guidelines that the Department and the VA have jointly collaborated on. Many of them are very promising and are excellent, like the pain management CPG.

It's not clear to the committee, however, how these are practically disseminated, standardized, baked into EMRs

and deployed into training of professionals.

That's not unique to the military. I can tell you in the civilian sector, the fact that you've got a CPG doesn't mean that anybody follows it. So again, this is an area for work for the Department, and the military's very good at implementing things and standardizing, once they get their minds around it. So I think that's very important.

Provide training alone without the embedding in the systems of care. Again, it's that failsafe, what we know about, whether it's preventive services or chronic care disease management. It's got to be baked into the full blown process of care, not just given as a one-off course in San Antonio for people there.

We talked largely about this. DoD should develop a framework for determining the effectiveness and utility of all interventions, rapid dissemination. I mean we should -- I'm a little off the report here, but we should have an expected cycle time for

problem, rapid prototyping, evaluation, deploy.

I think that's pretty much in the work that we saw today from the TC3. Again, they have de facto developed a cycle time expectation for things like this. So it might be something useful to talk about. Because it's happening out there in pixels, but it's not happening in a systematic way.

We found a variety of very excellent training courses by level of health care specialization, whether it's primary care docs, psychiatrists, mental health technicians, IDMTs, by service across service. But we don't find a consistent way that's combat-related stress and the use of psychotropics, and the use of CAM are embedded in a systematic way across those courses.

Hopefully, the framing of this report will help the Department to do that. So for all military providers, if I just come in from UCLA, I was in Family Practice. I go to Fort Bragg. I'm at Pope Air Force Base.

What's different about treating stress there than it was in a clinic overlooking the Pacific Ocean with a lovely academic medical center?

A lot. Is that in my basic training courses? I don't think so. So again, it's there. It's up here. It might be in the CPG somewhere, but translating it into that fresh captain who comes out in the Family Medicine Program who do train in that system and they do go through the military, which is the bulk of our docs.

What does that look like, and what we found is that step approach, that type of -- probably needs to be done. The way you do that, putting on my hat in GME, is to find the competencies. What does an IDMT need to be able to know, do and act upon, in order to their job up to the level of scope of practice.

So developing competencies by career fields should be developed, deployed and updated, based on the data and informed by

things like a TC3 model, for psychological health. And of course, what are they -- so it's a lot.

Increasingly, it's about what can I do for myself, what can I do for my buddy, what can I do for my small unit before I have to go out and find somebody who's got a caduceus on their chest, because that immediately hits that stigma button, no matter what we do.

I was just talking to Dr. Higginbotham at lunch. These things die hard. I'm really talking about stigmas for probably hundreds and hundreds of years, and it's a difficult thing to do. So let's personalize and internalize as much as we can going forward.

As I said, we spent more time revising the report since we last met with you about the way ahead, and I captured those thoughts here on this slide. But they're fleshed out much more in the report, and I think that's it. Dr. Silva?

DR. SILVA: Silva, UC-Davis. Mike, you did a hell of a job, much better than I would have done. I was just thinking, and that we've had discussions with some of you around the table about this report.

Obviously these items have to have ownership to move it along. I was thinking that we, unfortunately, had no surgeon on the committee. I think if we had a surgeon, we could have been done in half the time.

(Laughter.)

(Off mic comment.)

DR. SILVA: That's your opinion. But no, it's my real entree, that we have a poster child here that we can reduplicate. What's occurring in trauma, the components of self-analysis, establishing guidelines, monitoring progress, should be done for this important problem.

We took on the issues of where research is going, and the military has bought into this with the new chain of command. The research pumps are being primed, not only

within the military but within the civilian community. So I hopefully will have far better signs of how to treat in the future.

Then we spent a lot of time talking about how you disseminate these data out to the troops, people in the line, in the field, because it has to be embedded. A lot of things we've recommended are not really high science.

I mean the whole concept of readiness and resiliency, and then taking responsibility for personal health, which are growth themes that the Army and the other armed services are buying into, to build in a better resiliency.

We still believe that the whole area of complementary alternative medicine could be explored very, very quickly, even in the field. Those trials should be encouraged, as we wind down in Afghanistan. So there's a lot for the Department to consider, but someone's going to have to show ownership, or several people, on these items, chip it out and say

okay, let's take this on. I don't think it will be very expensive.

The only other thing I want to comment, and then we'll entertain questions, Madam Chair, is that the people that came to the military, to this sort of fuzzy set of committees, are very good people. They gave us tremendous insights, very, very devoted to their discipline, either psychology or psychiatry. They are equipped to deal with a lot of issues. They understand it. But how do you bring it across all service lines is going to be a real chore for the Department. Thank you.

CHAIR DICKEY: Thank you very much, Dr. Parkinson, Dr. Silva. I'll remind the Board that you heard a good bit of this report at the last meeting, and we had a couple of issues that the Committee agreed to take back and address our concerns. But these are, in essence, the recommendations that we heard a couple of months ago.

The recommendations are on --

they're in several formats in front of you. But slides 13, 14, 17, 19, 21 and 23, are recommendations in several different subsets. Are there questions or comments, and actually, I'm going to invite Dr. Carmona to take over the Chair for a few minutes, because I actually have a proposed amendment.

DR. CARMONA: So as Dr. Dickey said, any comments, questions, concerns to be reflected? Dr. Dickey?

CHAIR DICKEY: As we heard Dr. O'Leary discuss this morning, first an excellent report and covering an immense amount of ground in under a year's time. You are to be complimented, and I particularly like the direction of rapid cycle evaluation, assessment, modification, following after the TC3.

However, and again, because you've got both the PowerPoint and the reports in front of you, let me reference. On slide 11, number two, or if it's easier for you to get to it, I'm trying to figure out where it is,

in the report itself -- I may not be able to get to it there.

Well, the Executive Summary on page two, number two, I think I know what you're trying -- I hope I know what you're trying to say. But the bullet point that says "Despite these exposures, the majority of military members and their families do not appear to have experienced immediate adverse psychological effects," just doesn't seem to be consistent with other things that are in the report.

If what I think you're saying is they have not experienced adverse effects, which have turned into increased or excessive medical or mental health care, I can support it. So I have some language, but I don't know whether this language meets what you want to say.

I think what I've been trying to read into it is despite these exposures, the majority of military members and their families do not appear to have experienced

excessive or disproportionate adverse psychological effects, leading them to seek out medical or mental health care.

It's a relatively subtle change, I suppose, but I just found that it was uncomfortable saying they hadn't had any increase in psychological effects, and yet we're going to run a long paper here that's based on the fact they have increased psychological effects.

DR. SILVA: We both agree.

CHAIR DICKEY: Okay.

DR. SILVA: We agree that it's more with the tone of the point of the report.

CHAIR DICKEY: Thank you, sir. Then I would move that we amend the report in that fashion. I can re-read that language, if anybody needs it.

PARTICIPANT: Repeat your amendment again for those of us on the phone.

CHAIR DICKEY: The amendment is to bullet two on page two of the report -- of the Executive Summary or slide 11. "Despite these

exposures, the majority of military members and their families do not appear to have experienced excessive or disproportionate adverse psychological effects, leading them to seek out medical and/or mental health care."

PARTICIPANT: Okay. So the essence of your amendment, it's to modify it --?

CHAIR DICKEY: Yes sir.

PARTICIPANT: Okay, thank you.

DR. CARMONA: All right. With those changes reconsidered, is there any further discussion on that specific -- yes, please.

DR. O'LEARY: I think this is an improvement in language. This is a statement that I raised some concern about this morning, and the question, when we started getting peppered with questions by reporters about this. Is this, is there data to back this up? How do we know that this is true, even with the amended language?

DR. PARKINSON: Well Dr. O'Leary, part of this is -- I think it's on, and Joe, please weigh in here. In looking at the

traditional data sources that one would look at, which again, albeit they're not perfect, but then rarely are they. Also, just the statement itself. I hope people are reading the statement. It says "the majority of," okay. It doesn't say that it's not a problem. There is PTSD in 10 to 20 percent of people, infantry units. It's lower in other types of units.

The use of drugs that we saw in-theater, which is four percent, although in other selected units, we found the number to be 11 to 17 percent, which the MHAT survey, which Dr. Hoge led and others, looking at the highest most intensity units.

But what the Committee wanted to say at that point, and correct me if I'm wrong, because you were on the Committee, Dennis, is the vast majority of individuals who have gone off to theater and gone off to these conflicts, are not seeking immediate mental health care, and there's not evidence that they're psychologically disabled, much along

the lines that Dr. Dickey just said, disproportionate or excessive.

The Committee did not want to say that the majority of individuals who've got psychological conditions requiring either psychotropic medications, CAM or medical care as a result of their service in either one of these conflicts. So as it reads, it doesn't say that it doesn't exist; it says "the majority of."

When we look at numbers of four and 17 percent, that's kind of the intent of what the Committee wanted to say. I don't know if Dr. Kroenke's on here now to look at that, but that was the spirit of that particular recommendation.

DR. ANDERSON: So George Anderson with a follow-on question to that. Did you attempt to quantify or to work out a numerator/denominator on expected -- seriously, there could be an estimate done here on how many troops were deployed, you know, family member expectations.

What did you actually see in the data? You know, I agree with what you're saying exactly, because I'm quite sure you're right. But you know, back to Dr. O'Leary's question. It would be nice if you had a numerator and a denominator.

DR. PARKINSON: Well Dr. Anderson, as you know George, this was -- the number one question was what is the no kidding prevalence for these conditions?

DR. HOVDA: What was the no -- sorry?

DR. PARKINSON: What is the no kidding prevalence? How big is the bread basket? How big is the issue?

DR. HOVDA: Right.

DR. PARKINSON: The Department is challenged by having anything that looks like a rate, because we don't have a good denominator, and the numerators have irregular data capture as it relates to the coding and the coding itself, which is irregular, which again is not too dissimilar from the civilian

sector.

But whether you use CPT codes or V codes, which we were told are actually used so you don't have specific codes. Then there's also the issue of access to the AHLTA Electronic Medical Record System, which in forward deployed conditions they don't have.

So both on the numerator front and the denominator front, we could not get anything that looked like a real rate to say over time, and we also don't have anything really that's hard numbers since 2008.

So the scope of this question, which goes back to really 2000, is limited to 2008 to 2011, and we have done approximations as best we can, given the data sources they did with this, to say this kind of looks like a numerator. This is a study and all of which are detailed in the full body of the report.

But also from the Service psychiatrists and the other folks on our committee, on balance, given what we've had, it's not perfect. That's what led to number

two essentially there. So yes, we don't have smoking gun evidence. But based on the clinical judgment of the people who are in-theater as well as the people who are not, and the people who are in this field in terms of public health psychology, if you will, that's kind of where they're comfortable with that finding, I think.

DR. CARMONA: Dr. Certain.

REV. CERTAIN: Thank you both for including this kind of a statement. In the Task Force for the Prevention of Suicide, we were very concerned in the DoD about the 20 per 100,000 suicide rate overall, which is probably equivalent to the civilian rate.

But DoD's the only employer in America that really chases that stuff down and keeps current data on it. I think in this case, and these other psychological health concerns, we probably have something similar to that, and to remind the public, particularly the Congress and the media, that while we are very, very concerned about people

who are having psychological effects from their participation in combat in defense of this country, it is not a brush fire.

We need to be concerned about this minority of people who come out, who experience post-traumatic stress disorder and other adverse effects that are long-lasting from combat experience, and to do something about it if we possibly can. But to say it's, to make this kind of a statement is, to my perspective, is a reminder that we don't need to get our hair on fire because of it.

But we do need to face it in a methodical way, in a public health direction, in order to care for those people who have had these effects. So I appreciate the wording of it, and you know, the additional phrase of it doesn't lead them to seek help, because they don't necessarily perceive that they need help, which is the understatement there.

But they may. They may, five or ten years or 20 years from now, discover that the Ghost of Christmas Past continues to haunt

them, and will continue to need or call for services of civilian sector, VA, or others, to come to terms with the lingering past. So I'm very satisfied with this statement, and believe that it does not minimize the problem, nor does it make it worse.

But it keeps us aware that -- also, it doesn't stigmatize the 95 percent who don't have it, and you know, as a Vietnam veteran, when the sniper at the University of Texas Tower came about, that stigmatized every Vietnam veteran in the country, because so many people were looking at Vietnam veterans as people who were dangerous to the population.

We need to avoid that here if we possibly can. I think this statement helps.

DR. SILVA: Silva. Thank you, Bob. I would agree with you. I was going to reinforce your comment, but you did it just great. I will point out to the Board that there are data in one study where they looked at the duration of post-traumatic disease

syndromes in the civilian community, who had suffered non, you know, combatant kind of relationships versus the military. The duration in the military of having that syndrome were tracked, was much shorter than what it was in the civilian community.

So we do have some analogous data that part of our mission, our education, et cetera, is to deal with stress and to deal with tragedy. There are mechanisms, whether part of a written curriculum or not, it's a silent part of the curriculum, being a military person on Active Duty in theater.

DR. CARMONA: Thank you. Christine.

MS. BADER: Hi, this is Christine Bader. I just have an administrative comment for the folks who have been so gracious as to dial in. Either one or more of you has your phone open, the lines open. You're not on mute, and the other members on the phone line are getting a lot of feedback. So if you can all please place your phones on mute until you're ready to speak, that would be greatly

appreciated. Thank you.

DR. CARMONA: Okay. On this particular issue, it appears to me that there is general agreement that what the intent of Dr. Silva and Dr. Parkinson was the issue was the semantics and how it should be reflected, and I think the record will demonstrate that there was general agreement, and we struggled a little bit with how to articulate that specifically, so that the receivers on this report would fully understand the intent of the Committee.

Is there any further discussion about this specific issue?

(No response.)

DR. CARMONA: If not, then we have a motion by the doctors to accept the change, based on what Dr. Dickey had presented to us. Any further discussion?

(No response.)

DR. CARMONA: If not, then I would entertain a motion to accept.

REV. CERTAIN: Moved.

DR. CARMONA: Second please.

DR. HIGGINBOTHAM: Second.

DR. CARMONA: All in favor?

(Chorus of ayes.)

DR. CARMONA: Any opposed?

(No response.)

DR. CARMONA: All right. The motion passed as stands then. Now we'll move on to the other recommendations of the doctors, and I would ask the Board's preference. Do we want to take these in aggregate, or would you like to take each one separately?

DR. O'LEARY: Aggregate. I do have an amendment.

DR. CARMONA: Yes sir, okay. Hold on to it for just one second, Dr. O'Leary. Was there anybody that wanted to opine differently? So we'll take these in aggregate, and now we'll go to Dr. O'Leary, to tell us what his amendment might be.

DR. O'LEARY: This is an issue that the Subcommittee agreed on, and which I spoke to at the last meeting of the Board, and still

is absent from the report. This is the expectation with regard to training. If you want to look at page 33, and excuse me, page 32 of the report, or slide 24. It's Recommendation 2 in either case.

We spoke about the importance of actual assessment of competency of practitioners. When I brought this up, again at the last meeting of the Defense Health Board, there was a lot of head nodding. I submitted specific language when I got the report, and this, we're seeming to have a lot of trouble getting some traction around this.

So I would like to move that the specific language that I submitted, which would be to insert the words right after where it says "Professional competencies must be," insert the words "initially assessed and periodically reassessed," so that the whole sentence would read "Professional competencies must be initially assessed and periodically reassessed, consistently maintained and updated, as appropriate to reflect best

evidence, and continued professional supervision should be available."

DR. CARMONA: Okay. We have a recommendation from Dr. O'Leary. Further discussion?

DR. PARKINSON: I have three observations: mea culpa, mea culpa, mea culpa. So actually I totally agree, and between the transcript and some of my reediting, I just probably dropped the ball, Dr. O'Leary. But I totally agree. I think everybody agreed. We agreed in the Committee. It was just an oversight.

DR. CARMONA: Okay. Any further discussion on the changes that Dr. O'Leary has brought to our attention?

(No response.)

DR. CARMONA: No. If not, then I would entertain the motion to accept them as stated by Dr. O'Leary.

DR. ANDERSON: So moved by George Anderson.

DR. CARMONA: Can we have a second

please?

REV. CERTAIN: Second.

DR. CARMONA: That's seconded by Dr. Certain. All in favor?

(Chorus of ayes.)

DR. CARMONA: Any opposed?

(No response.)

DR. CARMONA: Okay. Let me know one more time. Was there any opposed?

(No response.)

DR. CARMONA: Okay, so no opposition, so we have a unanimous vote. Okay. So absent any further discussion on any amendments, we will entertain an aggregate vote for the recommendations of Dr. Silva and Dr. Parkinson regarding the issues on psychotropic medication, complementary and alternative medicine.

DR. ANDERSON: So I move approval.

DR. CARMONA: Do I have a second?

DR. HIGGINBOTHAM: Second.

DR. CARMONA: Okay. Any further discussion on any of the motions?

(No response.)

DR. CARMONA: Okay. If no further discussion, then all in favor?

(Chorus of ayes.)

DR. CARMONA: Any opposed?

(No response.)

DR. CARMONA: Okay, thank you all. The motion's passed. Dr. Dickey, I will turn the gavel back to you.

CHAIR DICKEY: Thank you very much, Dr. Carmona, and thank you Dr. Parkinson, Dr. Silva and to your entire Subcommittee, for the work that you have done our behalf. Now our next briefing, I believe, is by Dr. Kurt Kroenke, who is on the phone with us. Dr. Kroenke, have you joined us?

DR. KROENKE: Yes, I have.

VOTE: Automated Neurological Assessment Metrics Question

CHAIR DICKEY: Let me give you a brief introduction, and then we'll turn it over to you. Dr. Kroenke is Chancellor's Professor of Medicine in the Division of

General Internal Medicine at Indiana University, and a research scientist at the Regenstrief Institute, as well as the Roudebush VA Center for Implementing Evidence-Based Practice. He also directs the Master of Science and Clinical Research degree program. His principle research interests include physical and psychological symptoms in medical patients, including pain, depression, anxiety and somatization.

He co-developed the Prime MD Patient Health Questionnaire, which has become a widely used clinical and research measure for diagnosing and monitoring common mental disorders in primary care. Dr. Kroenke has authored more than 270 peer-reviewed publications, and is the recipient of numerous teaching awards as well as sustained research funding from NIH and other federal agencies, foundations and industry organizations.

He's participating via teleconference to provide an overview of the Psychological Health External Advisory

Subcommittee's findings and proposed recommendations that are included in the draft report pertaining to the automated neuropsychological assessment matrix known as ANAM. Board members will find the presentation under Tab 8. Dr. Kroenke, we're delighted to have you join us, and look forward to your briefing.

DR. KROENKE: Thank you. Just one question. I'm going to be going through the PowerPoint, and the question I have is will people be looking for PowerPoints as they go through in their folder or on the screen?

CHAIR DICKEY: We have both of them, Dr. Kroenke, and if you would like to say "advance," we'll advance the slides.

DR. KROENKE: Yes, okay. So the first slide you've already seen what the report's on to. You can move to the second slide. The second slide's the overview, and I won't repeat for some of the slides, but I'll be able to walk you through this fairly efficiently, so there should and will be time

for discussion as well.

On the third slide, this is the three bullets of our charge, which was to assess the effectiveness of baseline pre-deployment neurocognitive testing using ANAM as the short term tool, to determine neurologic deficits and functions following a traumatic brain injury.

Second, determine the added value of supplemental sections. So there was a question on whether something needed to be added to the current ANAM, and then a third bullet added to that, examine the value between symptoms and patient history, sleepiness scales, as well as measures of response inhibition and effort.

Now I'll actually start at the end. The bottom line are recommendations, and then as this unfolds over the next ten minutes, I think it will be clear, or basically can be expressed in one sentence, which is continue to do what we're doing with the ANAM, but don't do more at this point. So that's going

to be the theme and the conclusions we came to.

Specifically, in relation to: do not do more at this point. Three key areas would be: should we replace the ANAM with a different tool, and at this point, the answer would be no. Second, should we expand the ANAM by adding other domains onto it, and the answer would be currently no.

The third is should we expand beyond what we're doing with ANAM, which is routine pre-deployment screening, for example, some type of routine post-appointment screening, and the answer would be no at this point.

So continue to do what we're doing, but neither at this point replace the ANAM with a different tool, make ANAM longer, or expand the use of ANAM, and that would be what you'll see in the several slides that will be shown from our report.

Membership of the Committee is number four. These members are well-known to the Board so we can move on. So basically, I

think this was a charge that came to our committee a little while ago, and it was put on hold because of the expiration of the TBI External Advisory Subcommittee. It probably would have been optimally addressed by working together with their committee and ours, but that committee has expired.

However, in the spring, we were asked to readdress it. So we did convene for one day meeting on May 9th, and that is where this draft report emanated from.

Next slide, slide 6, which is basically the key people, other than committee members who are at -- or excuse me, yes. Yes, we developed the draft on May 9th, but we met on June 16th.

So the meeting from which this report emanated from was June 16th, and Dr. Kane, who's an expert on ANAM was there, as well as Ms. Helmick from the Defense Center of Excellence, as well as Ms. Fudge from Office of the Assistant Secretary of Defense for Health Affairs, and they made presentations to

us.

Next slide. First, it's important to realize TBI is not limited to deployment, that there's a lot of cases in the U.S. each year. Military populations are simply at higher risk, due to this often happens in younger age groups in certain behaviors, sometimes risky as well as high risk occupations.

It was estimated in 2010 they had 30,000 cases. There are some drastically higher estimates. But the key is most are mild TBI, which is on the next slide. But the important point is it's not just limited to deployment, in fact, it's probably many more cases due to training, vehicular accidents, force-related injuries among Service members due to combat exposure, but that's a fact. Most is mild TBI.

If you look at the next slide, number 8, it divides TBI rates over the last decade by mild, moderate and severe. Ignore the yellow bar for now, because that's

unclassifiable. If you look at those three categories, there's two important points.

One is it again emphasizes most of the cases of TBI are mild, and second, if anything, the moderate to severe cases have either declined or remained stable, and most of the increase has been in mild TBI.

So that epidemiology is important, but it also has limitations in the performance of any measure, which may have often been developed for any measures often better in assessing more moderate cases than those very mild cases. That's from any lab tests or any tests we do.

Next slide, which is -- the main point of the this slide is the first two bullets, there are some acute and recurring consequences potentially of concussion, and that one current use and probably practical use of a measure like ANAM is an assessment after injury of determining when it may be safe for Service members to return to duty, as one of the tools clinicians might use.

On slide 10, ANAM was developed by this DoD Joint Working Group. A couple of features is (a), it's brief, second, it's repeatable, which it could be used serially in assessing people. It's automated, okay. Now in 2008, there was the National Defense Authorization Act which mandated pre-deployment neurocognitive testing of Service members, and ANAM was chosen as the neurocognitive assessment tool.

So let me just comment on these two acronyms. One is ANAM and one is NCAT, and these terms are commonly used. The way to look at it is NCAT is any tool that can be used to assess neurocognitive assessment, and ANAM is not the only one. So it would be like saying we have post-traumatic stress disorder assessment tools, and a PC of 17 is one, and it's the one we currently use in the military, but it's not the only one.

So basically, as far as brain imaging, you could have a CAT scan or MRI, and you choose which to use. So NCAT is any tool

that could be used to assess neurocognitive functioning, and is the tool we're talking about.

Now the other point is a huge number of Service members have received ANAM. So what the bottom line of that is there's a large reservoir or repository of normative data, and that just has to be taken into account in decisions to replace ANAM, that there is this large normative data on service members.

Next slide. So this talks a little bit about its current use, and one is because there is this repository, baseline ANAMs are available to assist providers to determine change in neurocognitive status, because it's probably the change of the measure that's more valuable than the absolute performance, because there can be a lot of individual factors.

It's really analogous to having a baseline EKG and someone who comes in with chest pain for a baseline serum creatinine or

someone started on nephrotoxic drugs. So in that case, baseline ANAMs are like having any other baseline laboratory test.

There have been a marked number of requests since, well actually since 2011. That's actually quite a few, more than 10,000, and a quarter of those are in-theater. Although pre-post changes are the most useful and sensitive, there is this huge population of baseline norms, and we mention those 865,000 patients.

So in the absence of a baseline, a clinician can still get ANAM after a concussion or injury, and second best would be concurrent to sort of baseline norms, just like we all have baseline norms on creatinines. If one's elevated, you can say well it's normally what a normal creatinine is.

Next slide. So ANAM's being used in-theater. You have to determine recovery from TBI and return to duty. There is paucity of data on other types of NCAT instruments,

and there is approval to begin comparing other instruments. Our recommendation would be before replacing an ANAM, one would need some comparative data, because any new measure that you brought in would not have the normative data.

Slide 13. So here's our findings, and I'll selectively make some points. Number one, ANAM is not intended to be a diagnostic instrument, and should not be used as a screen or diagnostic tool for a Service member prior to diagnosis. Let me amplify that. ANAM is a test. So we dual-diagnose a heart attack, with a EKG only. We take an EKG along with signs and symptoms, and that’s the way ANAMs should be used.

You've already diagnosed. It's a neurocognitive dysfunction without clinical examination. So it's a useful complementary tool. Second, because of that, you wouldn't want to start screening asymptomatic Service members to look for subtle changes in an ANAM, because that's not a disease. So that's why

it's okay to get baselines, but one must be cautious about determining a test in isolation. In fact, there could even be risks in widespread post-deployment ANAM testing only.

Point two I can summarize quite frankly, is there's been a question of whether to add sleepiness scales, or the PEEK scales, because they may affect neurocognitive performance. Actually currently, these tend to be captured by ANAM, but they're not incorporated in the results, and in fact it's not really clear how they're incorporated in other test results. They may be incorporated clinically. But there is some adjustment of that in ANAM now.

Slide 14. The other issue is language, and the big thing about language problems is two points. One, language -- hello? Okay. Language problems are typically not affected following mild TBI, and cannot be well-evaluated by a computerized self-assessment instrument. So bringing language

into a self-administered brief measure would be beyond what those measures can usually capture.

The fourth point, since the majority of mild TBI events are not related to deployment, these findings and recommendations could go beyond and be relevant to Service members throughout their term of service.

So that if someone had ANAM at one time point, if they had an injury or concussion from a motorcycle accident or a football injury or in training, that same ANAM could be used in conjunction with the clinical assessment.

Now slide 15, I'm going to let you just pause here, because sometimes phone service goes out. Has everybody been able to hear what I've said so far?

CHAIR DICKEY: Yes, Dr. Kroenke. Thank you.

DR. KROENKE: Okay. So we only have about five slides left. The fifth finding is -- so it reiterates that the ANAM may be an

effective pre-deployment tool for establishing baseline. So it's like a baseline test, which could then be a comparison standard following individual exposure to events.

So the bottom line is a baseline test is fine, but you would then get a certain test based upon either some injury, or some signs and symptoms that an individual Service member was reporting.

Finally, the other question besides language had come up, one about memory, attention and effort, and they do appear to be embedded and measured by the current ANAM.

I think seven, it reiterates again that using it after an event, either in-theater or in-garrison, can be useful in the injury assessment, and that you couple any ANAM for abnormalities with a clinical evaluation. That's really where it should be used in clinical assessments.

Point two is there's been minimal comparisons of brief neuropsychological measures against one another. So it means

there's a substantial amount going into the military data regarding ANAM, and then some differences which have been suggested seem to be small to modest at this point. But certainly we would need head-to-head comparisons to make that decision, and right now we don't have those head-to-head comparisons of competing instruments.

So on the last several slides, our recommendations are number one, your personal post-deployment NCAT for all Service members is not recommended at this point. Instead, it should be used selectively for those, as I said, who have experienced symptoms or signs. So that's kind of a scope, at this point, in terms of a recommendation.

Number two is whatever kind of neurocognitive assessment tool you use, which is currently ANAM, it's best used as a targeted instrument, to increase the data available for individual level assessment compared to baseline. So it shouldn't be used as a stand-alone diagnostic tool.

So if I was to summarize number one and two, what are the don’ts in there at this point, one is don't start universal post-deployment neurocognitive assessment. Number two, don't use any kind of NCAT measure like ANAM as diagnosing a disease in isolation. Number three, and that it's reiterated in point number three, even changes in scores.

So if someone inadvertently got another ANAM after they had a pre-deployment, and there was some change on it, that in itself shouldn't diagnose a disease, but it should be considered together with events, symptoms and clinical findings.

Number four, we should also interpret NCAT findings along with other information we routinely obtain on Service members, which could have been cognitive testing, including in particular depression and PTSD, because that's the very important measure.

So since we gather those, we would not only want to look at their clinical

findings related to possible TBI, they would have to interpret NCAT results, in this case with ANAM, by knowing whether or not they have these other factors.

Likewise NCATs should not be used alone to determine fitness for duty or deployment. So if you had an isolated abnormal NCAT, that shouldn't be used alone to say you're not fit for duty. It would have to be coupled with something on clinical exam or history by a clinician, that suggested that there was something clinical there as well.

On page 19, number six, because of the huge normative data, we do not recommend changing from ANAM at this point. If there are other batteries that provide a significant advantage in the future, it should be, could be reconsidered.

Number seven, there does not appear to be an urgent need to add additional domains to ANAM at this point, and in the future, we should see what the effects of sleep deprivation may be on test results.

Currently, there are questions asked about it in ANAM, and the clinician can use it. But they're not reflected in changing the scores and the norms on the measures.

Finally, given the limitations of NCAT in general, especially testing complex domains, because the final question is what about executive function, they tend to be beyond -- it's kind of like language. Testing language and executive function are more complex domains, also interestingly tend to be more moderate severity TBI. But they're probably beyond the domains of a brief self-administered measure.

So that's all of my points, and then I think obviously there may be some discussion.

CHAIR DICKEY: Thank you, Dr. Kroenke, for an excellent presentation. Are there questions or comments about the briefing? Dr. Anderson.

DR. ANDERSON: Question from George Anderson. You've, the report is great, and

really nicely laid out.

DR. KROENKE: Just there's some competition on the phone. Someone else is talking.

(Pause.)

CHAIR DICKEY: I think we have someone on the phone who's got your line open. If you're having a side conversation, if you can mute your phone for us, please. I'm sorry, Dr. Anderson.

DR. ANDERSON: Yes, a question from George Anderson. A great report. It's been presented, of course, as you were asked, in the context of pre-deployment baseline and then ANAM is a tool, with clinical power later. The obvious question to me is is it a good idea to do a baseline ANAM on all military members, given that you have mild TBI incidents across the military population?

CHAIR DICKEY: Dr. Kroenke, did you hear the question?

DR. KROENKE: Well again, there was the competition. So maybe I think briefly,

and then you can sort of expand on it. I think the question was there's routine pre-deployment now, and so the question -- could you repeat the question? Should we do something more than?

DR. ANDERSON: Yes, Kurt. The simple question is should we have an across the military population baseline ANAM test done, so that you could use it as a clinical tool, if there is TBI from other causes than combat?

DR. KROENKE: Well, my own opinion is that it makes sense, so this is not the committee talking, this is me talking, it makes sense. On the other hand, any time you incorporate some new measure into a population, you know, you would sort of have to argue, you know, what's the evidence, what's the cause?

I think the pre-deployment was mandated. So I think that happened. That's probably -- I mean just my opinion would be it's unlikely, and to make that go away, we

would be in violation of something. So I think that happens, and we don't see any reason to -- we're not recommending to stop that.

I guess my own opinion would be despite what you said, I'd be cautious about expanding it to the whole population at this point. Although interestingly, some school systems, I understand, like for Maryland now, are mandating some neurocognitive testing before sports, you know. So that had been moved by legislation in states.

So I tend to have a conservative view. So before I start to mandate things routinely, I also worry about the down side. In other words, on deployment now we have a mechanism for measuring Service members. Otherwise, we'd have to institute a new mechanism service-wide of getting it.

So to me, that might be in advance of what we're doing, and the Committee didn't discuss it. So my view would be I probably wouldn't recommend it. But it's not something

that shouldn't be considered.

DR. ANDERSON: Just a follow-on comment to that. Kurt picked up quickly on the reason for the question, that is that this is going to become a population-wide concern, particularly for high school and college sports. So this is a place where this normative data that's being collected by the DoD could be extremely valuable for the nation.

DR. KROENKE: So I think that's something that could be considered for the future quite probably. I mean the Board could decide. I'm personally probably still reluctant to make it in this report, unless one might put it in a bullet, you know. DoD might consider the value of expanding it to every Service member have one ANAM.

DR. ANDERSON: Yes. It's not part of your recommendation. I understand that. It was really a follow-up question and comment. But I think this might come on our future action list.

DR. KROENKE: Yes.

CHAIR DICKEY: Dr. Hovda.

DR. HOVDA: This is Dave Hovda. Kurt, great job. It's very hard to give a briefing, I know, from a telephone and not being in the room. So I want to congratulate you on that. I also apologize for not being able to make the last meeting, given my other responsibilities in Washington at the time.

I think there's a distinction that the report should try to emphasize, and that is that there is a distinct difference between trying to assess individuals at a return from theater, and whether they have, they're suffering from symptoms associated with repeat mild traumatic brain injury, and doing something in-theater to determine or back home, for that matter, given the excellent data that you reported, that this isn't just a theater event that can occur, in terms of mild traumatic brain injury, like determining when an individual is safe to return to duty, either for active duty or for returning to

whatever duty he was doing.

So those are two different questions, I think, and I was not part of the development of the ANAM or of IMPACT, but a lot of these tests for athletic endeavors were primarily return to play issues. They weren't issues in terms of trying to determine long-term problems.

We know that about, from the scientific literature, we know that about 80 to 85 percent of the individuals that have mild traumatic brain injury are going to clear within seven days, or seven to ten days, and as long as they don't receive a second injury or a second problem during the time that they're trying to clear, there's really no scientific evidence that I'm aware of that that brain is going to be any more susceptible to problems.

I know that if they get repeated head injuries, or they have symptoms and are still allowed to either conduct themselves in theater or be exposed to a second stress, that

they're more likely to acquire lots of different problems besides those associated with mild traumatic brain injury. That data's very strong right now.

So the distinction in the report should probably read some way to differentiate this from acute determination of whether to, for lack of a better term, return to play, return to Active Duty, and those that are going to be post-deployment that are assessed for longer-term problems and traumatic brain injury.

I completely agree, that it should not be -- there is no gold standard for this, and I think that the way that the report's crafted to address this is very appropriate and makes perfect scientific sense.

But there is a distinction between the two, in terms of acute and chronic, and I don't want to get them folded in, because that's not, what I don't -- I think we're trying to maybe employ a tool for the right problem at the wrong time, if that makes sense

to people.

I'd be very interested to hear what Dr. Ross Bullock, if he's still on the line, what his comments are. So that would be the only distinction that I would make in the report. I'm happy to craft up some verbiage for that, as an amendment, if you want me to. But that would be my only distinction.

DR. BULLOCK: Dave, this is Russ Bullock. Yes, you know, I echo your comments there. I think that the -- it's so difficult to hear, because of this other side conversation that we're having.

Hello? In any case, Dave, I really agree with your comments there. But I think that the report is very conservative, and does take those, take that kind of overall tenet.

CHAIR DICKEY: Thank you. I'm not sure that the interrupting phone conversation's actually one of our people. Sometimes you just bleed in.

DR. BULLOCK: That seems to be the case, and my guess is that it's just something

that's just bleeding into the call. So we'll probably have to deal with it. Maybe what would be helpful is if you could please say again what -- you don't have to wordsmith it, but what might be one measure, changed or tweaked that you might make in the report, based upon what you said?

CHAIR DICKEY: I think we've heard some excellent comments. Correct me if I'm wrong, Board members, but I don't know that I've heard any amendments to the report. Rather, some future opportunities, as we continue to track the evidence-gathering and the potential application. Are there any Board members who are suggesting an amendment or addition to the recommendations before you?

DR. BULLOCK: Well B- go ahead on that.

CHAIR DICKEY: Okay. Then I would -- Dr. Kroenke, I think you've done a better job than you gave yourself credit for. I think people are just looking forward to the potential benefits to an even larger platform

than the one that is currently being served, and perhaps data collection over time will tell us whether that larger platform is a useful application.

I would be happy to entertain an action. This report is before you with recommendations today, and the Subcommittee would ask that we consider approving those recommendations as a Board, and forwarding them to the Department. Yes sir.

BRIG GEN EDIGER: Dr. Dickey, could I ask one question?

CHAIR DICKEY: Yes sir.

BRIG GEN EDIGER: This is Mark Ediger from the Air Force. I know in talking with our specialists, one of the things they've been anxious to see is evidence, in terms of how well the ANAM actually is specific and sensitive to the cognitive effects of traumatic brain injury.

I noticed the recommendations in the report. Really, I don't see a recommendation recommending further study, and I wondered if

that might be because the emerging evidence referenced in Item No. 5 is from an ongoing study, and the group thought the study in progress was sufficient, or is it because perhaps they think we've already got sufficient evidence?

CHAIR DICKEY: Dr. Kroenke, were you able to hear the question?

DR. KROENKE: Yes. I mean I think the question spoke to where more research might be needed. So how good is the ANAM, and in parceling out cognitive injury? We did get a series of slides presented at the meeting, and frankly, some was stronger than others, some was in process, and some of it's population-dependent.

So not being able to sort of remember that all of this time, it felt like it's -- to be honest with you, we still want the data, but it's currently very bad ability in different disease states, which leads to the cautious recommendation that it should never be used alone. It's probably emerging.

It's a lab test that is going to be coupled with neuropsychologic and clinical examination.

So maybe that's one way to deal with the fact more work is needed, in terms of its sensitivity in detecting certain things, and certainly there could be an amendment that talked to that, you know, more research is needed regarding that specifically. But that's probably why we couched everything into saying never use it as a stand-alone.

CHAIR DICKEY: Doctor, General Ediger, are you suggesting that at least some of the Services might welcome specifically addressing additional research or continued monitoring and additional research using ANAM and potentially other cognitive measures?

BG EDIGER: Well, Captain Hammer was just, you know, telling me that there are at least two studies in progress. I knew there was some study in progress, but I know when I talked with our clinicians, they believe that more information is needed, because from time

to time there are various instruments out there and questions are raised about whether or not we've selected the best instrument.

CHAIR DICKEY: Okay. So Dr. Hovda.

DR. HOVDA: This is Dave Hovda again. Perhaps maybe a way we could address this would just be to add an addendum to the recommendation, saying that even though we are approving these recommendations, we are encouraging that ANAM validity and reliability be continually tested and upgraded as we see fit.

CHAIR DICKEY: Okay. Would you actually add a tenth recommendation to that effect?

DR. HOVDA: Yes.

CHAIR DICKEY: Is that a motion, sir?

DR. HOVDA: Yes, it is.

CHAIR DICKEY: Does that address some of the concerns?

DR. HOVDA: Yes. I think -- I'm sorry. This is Dave Hovda again. Yes, I

just think that to lay down as sort of the only -- by couching it the way it is in the report, it certainly isn't the gold standard and it’s certain that crafting of the report addresses that quite easily.

But I wanted -- I think, from a scientific point of view, it makes sense to continue to review it, to see if things have changed. One of the things that's the elephant in the room that nobody wants to address when we're talking about ANAM or other assessments of concussion, is that a lot of us are treating these blast concussions as if they are the same thing as athletic concussions.

They may be, and there are a lot of people that say that they're the same thing. There are other people that think that they're a completely different type of disease. I think we need to stay open scientifically to that sort of analysis, and that way maybe the ANAMs will need to be altered or change, as we learn more and more and more about the

biomechanics and the physiology of blast concussions.

CHAIR DICKEY: So I've heard a recommendation for adding a tenth recommendation, which would essentially say we'll continue to monitor, follow and evaluate other possible tools, in a living fashion or an ongoing fashion.

DR. HOVDA: That's correct. I'd move that. Thank you.

CHAIR DICKEY: Okay. So you have an amendment before you. I would need a second for that amendment, and a recommendation for action on all of the recommendations, with or without the amendment that's proposed.

DR. CARMONA: Second.

CHAIR DICKEY: I just got a second for the amendment, all right. The amendment would be that we would have ongoing evaluation and possible consideration of other evaluation tools. Is there further discussion of the amendment?

(No response.)

CHAIR DICKEY: If not, all in favor of the amendment say aye?

(Chorus of ayes.)

CHAIR DICKEY: Opposed, no?

(No response.)

CHAIR DICKEY: All right. Now we still have in front of us then the now ten recommendations from the Subcommittee.

DR. HOVDA: I propose acceptance.

CHAIR DICKEY: We have a motion to approve the ten recommendations from the Subcommittee, and move them forward. Is there further --

DR. JENKINS: Second.

CHAIR DICKEY: A second to the motion from Dr. Jenkins. Is there discussion about the motion?

(No response.)

CHAIR DICKEY: If not, all in favor of approving the ten recommendations in front of us, please say aye?

(Chorus of ayes.)

CHAIR DICKEY: Opposed, no?

(No response.)

CHAIR DICKEY: Dr. Kroenke, excellent work. Thank you very much, and we'll actually look forward to continuing to follow this issue, not only this but potentially additional tools that might be added. Thank you for joining us this afternoon. It is a challenge to do so telephonically, and so we appreciate the extra work on your half.

All right. We are a touch behind. If we could make it a short break of ten minutes and resume here at three o'clock, we'll try to catch back up and continue the work that's before us. So it's currently ten minutes of 3:00. We'll resume at three o'clock.

MS. BADER: Hi. This is Christine Bader. For the folks on the line, we're going to hang up on our end. If you can all the do the same, and then dial back in, and then perhaps that way we'll be able to solve the --

(Whereupon, at 2:48 p.m., the above-

entitled matter went off the record and resumed at 3:04 p.m.)

Information Brief: Military Infectious Disease Research Program

CHAIR DICKEY: Welcome back, and we'll hope the rest of our colleagues will join us in just a few moments. Our next presentation's going to be delivered by Colonel Julia Lynch. Colonel Lynch currently serves as the Director of Military Infectious Disease Research Program at Fort Detrick, Maryland.

She completed her medical education at Columbia in New York on a U.S. Army scholarship, with follow-on pediatric residency at Walter Reed Army Medical Center, a fellowship in basic science research at Walter Reed and a fellowship in Infectious Disease at the Uniformed Services University of the Health Sciences.

She's board-certified in Pediatrics and Infectious Disease, and holds a Certificate of Knowledge in Tropical Medicine

and Traveler's Health from the American Society of Tropical Medicine and Hygiene. She's worked as a clinical pediatrician for over 20 years, both in the U.S. and abroad, including Europe, the Middle East and Central America.

She's providing an informational brief regarding MIDRP and her slides are found behind Tab 9. Colonel Lynch, welcome. We're delighted to have you.

COL LYNCH: Great, thank you. Oh, I think this isn't on perhaps. Is it? Can you hear me? Oh, okay. All right. Well, I really appreciate this opportunity. It's been some time since the Military Infectious Disease Research Program, which we call MIDRP, has had an opportunity to give sort of a status update to the Defense Health Board.

So I'm going to take the time I spend this afternoon is going to be in two parts. The first is a very broad overview, because I know we're time-limited about the work going on in the program. At the end, I

want to spend some time and hopefully engage you in some discussion about what I see is really the significant problems and challenges that we're facing in continuing to deliver force health protection products for infectious disease to the force.

So any overview, I've got to make sure I get the right buttons -- any overview -- there we go. We start off understanding our parent organization. The MIDRP is part of the Medical Research and Materiel Command. It's one of the program offices, and you can see our mission and vision statement there.

I don't want to put you to sleep with an organizational chart. This is simply to point out that the Medical Research and Materiel Command is led by Major General Gilman, and he has, as part of this organization, both my office and other research area directorates, which you see here, as well as ownership of the medical research labs, at least in the Army.

The principle labs that carry out

the infectious disease research are the Walter Reed Army Institute of Research for the Army, some work at UCLA, the U.S. Army Medical Research Institute for Infectious Disease, although they have primarily a biowarfare program there, and some work at ISR, in relation to our Wound Infection Program.

Now important to this is the Army's the lead agency, and we do the planning, programming and budgeting. But we also fund research that goes on at the Navy research labs, and I have some slides which will address that in more detail later.

We have in the organization both the tech base, 61 through 63 funding, research and discovery, early development, and partner or really our sister organization, which is our advanced developers in the same command, which I think gives us a great strength, in being able to transition our products from early discovery through development.

I just shut everything off, because I pushed the wrong buttons. I was afraid that

would happen. They have a big button here with a white square, but it's not the one you should push. Okay. There are some more details here about the various research area directorates I won't go into, but you can look at.

Now specifically, the mission of the Infectious Disease Program is to conduct a very focused, responsive, research and development for products that would be fielded, that are fielded and lead to improved means of protection or treatment, in order to maintain maximal global operational capabilities. So in terms of infectious disease, we have very much a global focus.

So it's inherently a force health protection mission. Again, we are limited to naturally-occurring infectious diseases, not those posed or that would be engendered by a malicious act. It is requirements-driven and as I already mentioned, the Army is the lead agent.

I call this our mothership. That's

the Walter Reed Army Institute of Research, which is in the same building as the Navy Medical Research Center. It's really the hub of the endemic disease research program, and of course their overseas labs.

These are -- this is our customer, and it's not projecting terribly well. I don't know how that looks in your handouts, and of course our forces, they're fierce and resilient in carrying out the mission of the U.S. government.

But as I think is what is so well depicted in this picture is also their vulnerability. They are vulnerable to naturally-occurring infectious diseases, those transmitted by vectors, those transmitted from the environment itself, those transmitted from person to person, living here at the tip of the spear in these very challenging environments.

Of course we know throughout history, there's really an abundance of documentation, that infectious diseases have

major impact on military operations, and can sometimes even be really definitive in terms of outcome.

So there are many examples where they've caused more casualties than enemy fire. They're present in really complex distributions around the globe, which of course we have to track and understand. There is almost always a requirement for new tools, because these pathogens are very dynamic and they change.

We know that if we don't attend to these, the result will be lost duty time, decreased combat effectiveness. And even when we have countermeasures, there are morbidities associated with them, that often make us want to improve the things that we have. And again, the end result, if we don't address these in terms of protecting, we know we're going to have significant medical logistic burden.

So this slide’s a very broad-brush overview of the kinds of impacts DNBI, in some

cases infectious disease specifically have kind of wrought on various conflicts and operations over time. So given a very broad array of infectious diseases, how do we decide what to focus on?

Well, we do that through expert panels, and the most recent panel that we conducted was in April 2010, that built upon the prior panel, which was in early 2000. I won't go through the details. There will be some additional slides which are in your slide set. But I guess the bottom line is we convene panels of experts, both infectious disease, representing all the Services. We have external representatives. We bring in the users, that is the COCOM Surgeons' offices, the requirements writers at the AMEDD Center and School, and we really met for two days and go through a process that's very information-based, using analysis from the National Center of Medical Intelligence, and an iterative process to come to really a consensus threat list, which you see here.

It's our validated threat list as of 2010.

Now the point I'd like to make about this list are just a couple. One is in doing this panel, we used a decision support software, so that as we form a consensus, you have a lot of granularity as to how strong the consensus really was. Important in that is that the top three pathogens on this list, malaria, dengue and diarrheal bacterial pathogens, there's 100 percent consensus. 100 percent, that those are the most important force health protection threats.

As you go down that list, I will tell you that the degree, the strength of the consensus starts to wobble. So I always, when I share this list, would tell people I would never stand before you and be able to hold an argument, effective argument that number 11 is really much more important than number 15.

The list shouldn't be used that way, other than focusing us on what's important is clearly at the top. We were fortunate to determine that they were actually the same

three pathogens that we had in our prior analysis, and they remain our biggest programs. So we are confident that we are still moving forward, focusing on the most important pathogens.

Now because some of these agents are not common to us in the U.S., I thought I'd just take a minute to show you or give you an understanding of how we perceive them in terms of the force health protection threats that they are.

The first is malaria, which clearly is a pathogen of great global public health importance, and you can see the numbers here with the millions, and you know it's big. But important in this, when you look at the biggest risk groups, particularly in terms of severe disease, you find, of course, infants and children, pregnant women and travelers. At DoD, we are among the biggest travelers in the world, and are extremely vulnerable going as immune naives into environments where there is malaria.

So historically this has been among the most feared and disabling of acute infections. There are legions of great stories, going back certainly before World War II but certainly in World War II, of the tremendous attack rates. Of course, there's better malaria control now than there was in that era.

Nonetheless, I'll show you in a moment, and you have in your slides, the National Center for Medical Intelligence, their best current estimates about attack rates. For large parts of the world, we still look at predicted attack rates of deployed forces of 11 to 50 percent per month from malaria, if we put boots on the ground in those areas. That's certainly a big potential problem.

So estimates per episode of malaria, about 10 to 14 lost duty days per episode. Now even though we are not and have not been heavily deployed in heavily endemic areas, we still see about 100 cases per year and one

death per year on average over the last ten years.

And significant costs when we have to MEDEVAC someone out who has acquired malaria during their deployment, and you're probably wondering well, what about our personal protective measures, which are very important and are numerous, the most important of which is actually chemoprophylaxis. Yes, we have chemoprophylaxis, and we believe that everyone knows about it, but not everyone still uses it. There are significant compliance issues, and I'll show you some examples in a moment.

So these are the heat maps. Obviously, Africa's a huge problem. The red is the 11 to 50 percent per month estimated attack rates to troops. The orange is 1 to 10, and the yellow is the .1 to 1 percent. And just so you could see there, yes, there is some malaria in some current theaters of operation, and yes, we have seen cases, although this is primarily vivax, and not the

more severe form of malaria.

So again, we've not been heavily deployed in the hottest zones for malaria, but we still see these events, when we have even smaller units that go into the highly endemic zones. I'll point out just a couple of the examples here. I think the experience in Liberia in 2003 is really part of a civic assistance mission, in which 225 Marines were on the ground for just two weeks, and out of that came 80 cases of malaria, 44 evacuations, four of them severe and complicated, going right to ICUs.

So these are the kinds of events, when we put people in harm's way, malaria will rear its head and be really a huge potential problem, limiting combat effectiveness. Additional examples. Even early in Afghanistan operations, a U.S. Ranger 725-man force, I would say heavily, highly disciplined force, and yet for a four month period of time, 38 cases.

When that unit was subsequently

given an anonymous survey about their use of prophylaxis, we found that more than 50 percent admitted they did not do the things that they were told. So yes, personal protective measures and chemoprophylaxis has its limits. It's still the best thing that we have. I'm in no way trying to say we shouldn't be doing these things. It's the best we have.

In our program, we continue to work on new anti-malarial drugs, because part of the compliance issue is the tolerability with the drugs that we have. So our program, again, looks to discover and develop new anti-malarial prophylactic drugs. Probably the more definitive solution but perhaps the more challenging one is actually a vaccine for malaria, which has been a multi-decade effort.

This is very complex. There are no licensed vaccines targeting parasites, so there's no road map like we have with viruses and bacteria. But the most successful vaccine for malaria to date, which is called the RTSS

vaccine, was developed by the Army with GSK, and is currently in Phase 3 trials in Africa.

Unfortunately, it appears up to the Phase 2 testing, that this product will only be about 50 percent protective. So not sufficient probably for DoD use, except for maybe very special populations. So we continue to work on building on the experience with RTSS, to develop a vaccine that is more protective, more broadly protective, and has better durability.

Briefly on dengue, our second most important pathogen, dengue's really four viruses. It has a different vector. It's the most prevalent vector-borne viral disease globally, and again, huge burden in terms of its public health impact globally. Currently, no U.S. FDA-approved vaccine or drug, so we have supportive care and estimates of 10 to 14 lost duty days for each episode of dengue.

Prevention is entirely the personal protective measures, minus the chemoprophylaxis, since we don't have that.

Now dengue is a pathogen which has risen on our priority list steadily over the last couple of decades. This is what the distribution of dengue in the world looked like approximately in the 70's, and this much-used photograph, which is meant to illustrate not only air travel but in fact shipping and other ways in which we have moved, with considerable efficiency, material around the world, such that we now have a dengue global distribution which looks something like this.

So it's truly a pathogen, as I said, which has increased our sense of concern, and again, right now, neither areas of operations are endemic areas. So we're not seeing in the baseline much dengue, but we know from again, the threat assessments by the National Center, that there are significant hot zones in the world, and when we do put boots on the ground in those places, we typically see, among our febrile illness patients, 30 to 60 percent of them are in fact due to dengue.

Here's the heat map for the globe.

The hottest focus for dengue is actually in Asia, although there's significant dengue in South America. Just to point out this brown here, which is Africa. If you read the key, the brown is we're not sure. It's a very interesting pathogen. We know the vector exists. We know the virus is there. It's periodically isolated.

But for reasons that are unclear, the indigenous population there doesn't recognize or report dengue cases, whether it's buried in the mass of febrile illnesses in Africa, or there's a resistance in the population that's unknown. So we really don't know what the risk would be of us North Americans traversing into that area. There may in fact be a dengue risk there as well.

Just a closer-up picture of the real hot zone, which is Asia for dengue. Then briefly, the enteric pathogens we often forget about. These are not often a source of mortality, but are significant morbidity. A lot of epi studies in deployed forces

routinely show 30 percent per month attack rates for traveler's diarrhea, if you will.

The pathogens we focus most on, in terms of developing vaccines, are ETEC, Shigella and campylobacter. There's some description here. They're variable in their prevalence around the world. So it's a challenging target, because there are other pathogens besides those three.

But the conclusion of our analysis, in terms of which is the biggest bang for your buck, is if we could prevent those three pathogens, we would achieve probably 80 or 85 percent reduction, certainly among the more serious cases of diarrhea and dysentery in populations.

This is real and current. If you look at these, this report, which was published in 2008, coming out of OIF and OEF again, it's not a mortality disease, but it's a grinding morbidity that affects combat effectiveness, and you can see really some of the staggering numbers. Out of two million

deployments, 3.8 million cases of diarrhea. Diarrhea days, 850,000 visits to Medical, 17,000 hospitalizations and over a million lost duty days, essentially due to diarrhea, that we're unable to completely control. With our excellent field public health and preventive measures, it's just not quite sufficient.

All right. So I'll give you the highlights of the three big problem set. This is the solution set that we work on. Our program invests most heavily in vaccines, thinking prevention is the best thing you can do with the money that you have. In the area of drugs, which is really directed at malaria, and leishmaniasis, again we heavily focus more on preventive therapies, but sometimes direct therapy when prevention is not possible.

We work on diagnostics, specifically for the deployed setting. So at Role 3 or below, their ability to make a clinical diagnosis of one of these pathogens, and then we also work in vector control products.

Reduce the risk of exposure, at least to the vector-borne infectious diseases.

We have two main funding streams. What I call the Legacy Program, that's been around for decades, is Army funding, and these are the problem sets, which have dedicated to the Army funding dollars here that I've described. We also since FY '10 have had some funding from the Defense Health Program Enhancement, which has been focused primarily on new problems that have emerged out of OIF and OEF.

So you see here work related to the rapid screening of blood for field transfusions, wound infection-related research that's funded here, some additional work on diagnostics. A very, really a tech watch essentially in respiratory disease. Another way to sort of depict the portfolio, looking at costs, are points of use for the different countermeasures.

We work in prevention here, pre-exposure and pre-deployment, and if you work

your way down, these things which are in green are the Army-funded program, and in the field interventions you see here, as you change to red, these are the Defense Health Program Enhancement-funded activities, which focus again, field and then definitive care, which was an area we've really not been working much in before. I've largely been focused in the vaccine work of prevention.

All right. I'm not going to go through these. I wanted to give you a sense of what kind of dollars that are being invested in these programs. The one thing I would point out as a commentary is the amount of dollars that we invest, and these would be 61 through 63 for each year.

So that's from discovery to early development, before we pass it on to advanced development, are significantly less than what industry would put on a similar problem. These are the Defense Health Program funds. So you can get an idea for that.

Now although there are some

differences in the management of both the Army and the Defense Health Program funds, these are the commonalities, which is that we execute our programs. We do it through steering committees, which are composed of our subject matter experts and our lab, but also external, as appropriate; stakeholders, like from the requirements-writing community.

Those groups develop the near, mid-term and long-term goals and objectives for the acquisition of a product. All of the funds themselves in each year are allocated based on peer review processes. PIs write proposals; they're reviewed both externally by panels, as well as our internal review, and that's how we award money each year.

To keep all of that on track, in terms of, as industry does, to actually working towards a product, we have strategic reviews of each of our programs every three years, where we bring in an additional panel that has a lot of representation, for example, from industry, and ask them to look at our

mid-term and long-term goals. Is this consistent with how industry, you know, best practices to approaching developing a product that will make it through FDA licensure?

Honestly, this process that we've had now, going back many decades, has been very successful. So what I show you here is what I sometimes call the "Glory Board," on both our success and our current activities, and this column of the fielded products. So these are in fact the FDA-approved products that have been developed through MIDRP.

Across here, these are anti-parasitic drugs, so primarily malaria is here. What you see in this box of fielded products are all of the FDA-approved anti-malarials, all of them. It is only the DoD investment that is developing drugs for malaria. There's no commercial market or significant commercial interest that would take on specifically for a prophylactic indication.

Another area of great success has been in our vaccines, and here you see a

number of the force health protection vaccines which are in use. I think this represents something like 30 or 40 percent of all of the FDA-approved vaccines for adults. So again, the DoD contribution has been significant overall to actually developing important force health protection products that would not be developed otherwise, because they generally lack a commercial market in the U.S.

We have, of course, diagnostics as well, vector control products. The ones which are highlighted in red are those which were just approved by the regulatory authority in this last year. So it's continuing to be active and actively successful.

So what makes us unique? Why can't we just be replaced by industry, by academia, by not-for-profits like the Gates Foundation? I get that question. We don't need to be doing this. The Gates Foundation is doing this. Well, they're not doing the same thing that we're doing. We have that eye on the target, which is that FDA approval, but for an

adult indication.

Those of the products which are being pursued by certainly non-profits and industry as well, as I'll elaborate on later, are for pediatric indication. To get the FDA approval for use in our soldiers, that same product has to be tested, demonstrated to be safe and efficacious in adults. That's the piece that we have to do and that we lead, even if there's also a companion pediatric indication and market.

So organization of the Medical Research and Materiel Command was organized in these efforts much like a pharmaceutical company. In terms of best practices, we have processes, something called Decision Gate, which again helps us shepherd products along and have that transfer from tech base into advanced development.

I think particularly important is that our core interest research program is actually embedded in military labs with uniformed researchers. So that the

researchers are wearing the same uniform as the individuals that they are protecting. They understand. They know what the problem set is, they know what the issues are.

We have a disciplined and mission focus to what we do, and we have this tremendous asset, which is our overseas research labs. Now there was recently a report published by the Center for Strategic and International Studies on the overseas labs. I don't know how many of you are aware of that, but I highly recommend that you get a copy. I'll be happy to send you a copy of the link on the website.

It was an independent study, not commissioned, to look at the role of the overseas labs, and I think it's very frank and honest, both in describing the tremendous asset they are to the nation, as well as the challenges that they also face in continuing to function essentially as the public health labs and the product developers for the products that we need, from a global

perspective.

I have some slides in there which is just highlighting one of the labs, just to give you a flavor for what they're like, in terms of not being really a single entity, but being a hub of activity in the region. So the Thailand lab is really the hub for research in Southeast Asia, and tremendous benefit.

It was because of this lab in particular and this particular community in which we've worked for decades now, that we were able to get the licensure of these important force health protection products.

You may be aware of the HIV vaccine trial that concluded about two years ago, which has really changed the whole field of HIV vaccine research. Done by the Army. Showed that limited, but success. The protection is possible. Again, it's been a game-changer in the field, and is part of really a network of our whole HIV vaccine program, and being able to conduct studies in various regions of the world, where the HIV

virus itself is quite different.

Now as highlighted in that Center for Strategic and International Studies report, there's a tremendous byproduct, if you will, of the work that is fundamentally focused on force health protection products. But as a result of what is done at those labs, we have tremendous global public health benefits.

These vaccines are not only used by us, but I can tell you the JE vaccine is a routine pediatric immunization for children living in endemic countries. As is Hepatitis A. We've all received that. Our children now all receive that. It was developed through this program.

Also, of course, there is capacity-building in the countries that we work. There's really a small corps of uniformed researchers, and are largely, most of the scientists there, are local nationals. So tremendous benefit to those local national partners, in terms of employment and

education, and of course, medical diplomacy.

All right. So now I've told you all the good stuff. Now come the problem set that we have. I've been at this job for about two years, and as I've tried to understand, certainly be very proud of what we've accomplished, but also look to the future and understand where our biggest challenge is.

These are the things that I've come up with. There's three of them I'm going to talk about in more detail. But just to lay them all out for you, to begin with, the first I've called changes in external partner dynamics, making it increasingly difficult to develop force health protection products in the future. I promise I'll explain that. It's enigmatic.

The second on the list is funding, which has essentially been shrinking over time, and I'm going to lay out a couple of the very specific ramifications of these constraints in funding. And thirdly is a topic entitled endangerment of the force

health protection mission, due to parallel and uncoordinated investments, coming from the chem biodefense community and their broadened scope into emerging infectious disease.

So to take each of those on in a little bit more detail, so as I've alluded to, we've been successful in the past because we partner with industry. We don't take products all the way to market, and certainly don't sustain them in market. We hope to be a consumer, DoD, and buy them, just as everyone else does.

That's been a very successful paradigm, even for products for which there's a limited market in the U.S. Part of the reason for that historically was the U.S. FDA was the only game in town. For any company who wanted to develop a product, it was logical to develop it and have it licensed through the FDA, even if they were going to go on and commercialize that outside of the U.S. Japanese encephalitis vaccine is a perfect example.

We get what we need, because we have to use products which are approved by the FDA, and the company eventually gets what it needs. So over the last couple of decades, there's been a change in that dynamic, in which industry has started to recalculate the cost and the benefit, and found that they had increasingly little interest in the pathogens that we care about, that there was little to no profit margins after development.

Both costs have gone up, in terms of the cost of developing, as well as kind of hindrances, as they see it, to development as occurred with the Helsinki Declaration, which essentially creates an ethical standard in which a company, GlaxoSmithKline, conducts a clinical trial in a resource-poor country where the problem is present, and then has to provide that product at costs affordable to that country.

So no profit margin; in fact, large losses. So as this was evolving over the last couple of decades, companies began to pull

away from these kinds of product development efforts. Enter the not-for-profits. The not-for-profits saw this happening, and said this is now we can help keep industry in the game.

So we now have very large investments from organizations like the Gates Foundation, Wellcome Trust. Of course, multi-lateral groups like GAVI, which helps to keep products in the marketplace, and what they're all doing is providing resources, to essentially change the equation for industry, keep them in the game, keep it viable that they could have some high volume, low profit margin, but still be successful.

So how is this a problem? Well the problem, as I indicated, is that what the not-for-profits and now industry is seeking, exclusive to us, is pediatric indications, because that's the commercial market for dengue, for malaria in endemic countries, are pediatric vaccines.

There have emerged in the last decade regulatory authorities outside of the

U.S. Not just Europe, but Brazil, Singapore. If you look, I have the BRIC countries in particular, if you're familiar with that term, Brazil, Russia, India, China. This is not a theoretical. I've laid out here a very specific example we're in the midst of right now, which is in our dengue vaccine development.

We're partnering with a company that has a vaccine in Phase 3 clinical trial. We are providing some resources, including our clinical research sites overseas to conduct trials, and at this point in time we have no promise from industry, none, that they will in fact bring that product back to the FDA.

We have so little leverage in the dynamic that all we can do is basically hope and pray, which is not, I think, a great strategy for DoD, to assure that it in fact has the force health protection products for its forces.

Furthermore, if they are successful and this vaccine works and they don't bring it

back to the FDA, which is I think highly probable, our adversaries or other countries around the world will have access to that dengue vaccine, while we do not.

So I fear that this is a dynamic which is going to increasingly occur, just as it is right now for dengue, with our other dengue vaccines in the future, with malaria products, because of this structural change. So, how do we combat that? Well, I'm going to move on to the funding slides, because this is fundamentally one of the problems.

Our best leverage when we partner with industry is when we have the IP, and we license essentially the technology to industry, as we did with the Hepatitis A vaccine, the Japanese encephalitis vaccine. It's another reason they have to go to the FDA first, or in a timely manner, is we make it part of the agreement.

When we don't have the IP, when we're in a purely assist role in this current dynamic, we don't have the influence that we

once had. So how is our funding looking in terms of generating IP, the leverage that we need to work in this arena? Well, it's not looking so good.

What I've shown you here is with a 2,000-year baseline, if our funding in these product development areas have kept up purely with the biomedical inflation rate, the rate that's used by the NIH, this would be our funding over this last decade. But in fact this is what our actual funding is.

This is '11, the year we're in now. This is the projection from '12, '13, '14. So those are all quite notional, because in fact there are no Congressional appropriations for those years yet, and everything that's on the horizon says cuts, cuts, cuts.

So we're in that precarious and certainly not improving position, to be in the power position in terms of our dynamics with industry, in developing these products in the future. This bottom curve is the HIV vaccine program, which has its own funding lines, and

really is in a similar sort of flatline situation.

Another way that funding impairs us is in just a narrow pipeline in general. So this graphic I show to you here actually comes from industry. It was done by industry, to sort of lay out how they view product development. It's kind of a nifty graph. You look across the top, it has the phases of product development here.

Down here we have the typical time industry expects to spend at each phase of development. Here you have the industry estimates of how much money they would need to put aside to support each of those efforts, and down here, the probability of success to licensure, which of course is generally low. Developing products, particularly vaccines and drugs, is a high risk business.

Across the middle here you have this notional idea that when you're in the discovery phase, you have a bunch of ideas, some of which will prove to work and go all

the way to licensure, and some of which will die somewhere along the path. The red ones are the winners; the blue ones are the losers.

Unfortunately, you don't know which is red and blue. You create a pipeline to test ideas and have these kind of milestones, these down selections, where you decide which looks the best to move on, and then move on. Because you can see, it's increasingly costly as you move on.

So this is how industry models product development. What happens when you significantly cut a budget, this is supposed to be -- there it goes -- say in half, is you limit your pipeline. You can only bring fewer things forward. It's very logical.

The problem is if you end up on this top half, in terms of your down selections, you get pretty far along before you discover the thing you have is a loser, and you've got to go much farther back.

So what does this do? Do you get there eventually? Yes. But it takes much

longer. Industry has worked this out. They understand the kinds of investments you need to make, so that you can in a timely manner get to the conclusion that you need, and then move on to another problem.

Well, we spend a long time in the do loop, because with the funds that we have, we have very few things that we can put emphasis on and move forward in an expeditious way.

Also with our funding constraints comes a lack of responsiveness to new threats or returning threats. A great example is what happened with leishmaniasis. So leishmaniasis is kind of an exotic infection, but one we had significant problems with in the first Gulf War. It's native, endemic in a lot of desert areas.

But because of funding constraints, something had to be cut in 2000-2001, and leishmaniasis, people forgot about, said let's cut that one. Well, we also know what else happened in 2001. We went back to the desert, and within a few years, we had several

thousand cases of cutaneous leishmaniasis. In 2004, we're told to stand back up that leishmaniasis program. Again, we never wanted to cut it. It was just something that what can you do?

Well, it was stood up with no additional funding. It's been very effective. Two licensed diagnostics for leishmaniasis, the only FDA-approved, the only approved diagnostics in the world for leishmaniasis have come out of this program, and we're in the midst of clinical testing of topical treatments.

So we can do it. It's very inefficient, and again, when you have to close, dismantle things and then restart them a few years later, I'm sure, for those of you who've been engaged in science, you know this is very challenging and again inefficient.

All right. So those are my funding woes that I worry about. These are the things that keep me up at night, by the way. This last one is a complex one also, and again,

I've sort of entitled it endangerment of the force health protection mission due to these parallel investments that have emerged in the last two years from the chem biodefense program.

Let me take you through this. I previously alluded to the fact that the Army is the lead agent for programming and budgeting infectious disease, naturally-occurring infectious disease research. They had also been the lead agent for biowarfare until a public law was passed a couple of decades ago, which separately established a chem biodefense program.

The law was pretty clear in putting it in a law. It says what's in the chem biodefense program shall not be in the naturally-occurring infectious disease program, and that has existed and been in place now for some time.

What's changed here -- oh, I should mention that that program has traditionally focused on both threat reduction with regards

to WMDs, as well as development of countermeasures. So force health protection measures for the troops as countermeasures to specifically biowarfare agents.

So what changed in 2009 is a broadening of the scope essentially, that came from the lead office for the Chem Biodefense Program, that sent out a memo to the Secretaries of the departments and said emerging infectious diseases are now part of the chem biodefense mission.

Following that, there were attempts to use chem biodefense dollars, specifically to fund the addition of these assays targeting these pathogens, which were relevant at the time, onto the chem biodefense diagnostic platform, which is called the JBATES (phonetic).

Those were blocked, largely because lawyers looked at it and said the public law says you can't use chem biodefense dollars for non-biowarfare pathogens. These, while relevant and important pathogens, are not

biowarfare agents. They're acts of nature, not of malicious intent by man.

Since that time, there has been in the Congressional appropriation language, beginning in FY '11, within the chem biodefense appropriation emerging infectious disease has come into their language as something within their program. I'm told that the draft for FY '12 includes that as well.

Well, what is an emerging infectious disease? I'm an ID doc here to tell you that it can be a lot of things. Most people would classify it possibly as like SARS, a surprising event, a new, novel pathogen. But others would consider pandemics, though they're not a surprise that there is a pandemic, only you'd never know exactly when or where that's going to happen.

But there certainly are folks who would consider Chikungunya and dengue as emerging pathogens, because their prevalence is changing. It's a dynamic process. Most would not consider man-made bioengineered, but

maybe. That's a potentially emerging pathogen.

The problem is it lacks a definition, and therefore it becomes unclear. What is in the chem biodefense program now, relative to what's in the Military Infectious Disease Research Program, since we know they can't co-exist? You can't have them in both places.

The chem biodefense program, in sort of moving from a countermeasure focus on biowarfare agents into EID, is actually pursuing influenza therapeutics, to the tune of about 200 billion. There's an RFP going on right now. I have subject matter experts from our labs who are helping them. I mean, we're reaching out and trying to interact and say what is this that you're doing? Yes, we'll help, but it becomes very murky and unclear as to how a therapeutic focused on H1N1 is a biowarfare countermeasure, particularly when it's a therapeutic.

It again seems questionable as to

its force health protection value. It's not a prophylactic, it's not a vaccine. It's something after the soldier, sailor, or airman has been removed from the battlefield and is in a hospital, that you would use. So it's very murky and unclear.

I would say with regard to the threat reduction activities, there's a similar murkiness in that they're now pursuing not just threat reduction, in terms of traditional agents, but EID, whatever that is, with a big emphasis in biosurveillance. The CSIS report takes some time to describe how this is bearing out as a problem for our overseas labs, in taking on a threat reduction, perhaps even intelligence collection mission, from what these labs have done, which is traditional public health labs.

So I think the net result of all of that is a concern about this blurring of programmatic lines, what's in their program, what's in our program, a risk of duplication of effort. I guess at the bottom of my

concern is both the loss of focus, in terms of being focused on force health protection as opposed to homeland defense or other important things, but not inherently force health protection things.

Frankly, the loss of funding for what we consider are the top pathogens, in terms of their force health protection threat. So, I think that's my last slide, and I'll leave that there, and happy to entertain discussion or questions, and hope you can help in some way me resolve these issues or challenges that I think are significant.

CHAIR DICKEY: Wow. That's a lot of information. Are there questions or comments for the Colonel? Yes, Dr. Jenkins.

DR. JENKINS: Two questions, Don Jenkins here. One is there any joint activity between your group and the program office, looking into nucleic acid, testing rapid nucleic acid, testing for dengue as it is endemic on the Texas border? There's cases, you know, that are being brought back from

deployment, in terms of screening the blood supply, the way it's been done in the past for other emerging diseases.

The second question has to do with wound and mucor. There seems to be a dramatic uptick in the amount of mucor being seen in the wounds in the last 120 days in-theater. Is that something that your group is aware of and is working on?

COL LYNCH: Yes, so the dengue question first. So the diagnostics, the space that we work in is for field diagnostics, Rule 3 and below. The limitations that we have, in terms of fielding assays to that level is that if they're nucleic acid testing, right now they have to be on the JBATES system.

So we are actively right now working, or fairly advanced in working on a dengue diagnostic assay, that's nucleic acid testing, that is for the JBATES platform, and that's what would seek FDA approval. We do have rapid dengue tests also actually in the definitive clinical studies right now, which

are immunochromatographic tests.

But again, they are for the indication of diagnostics, which is a little different than blood screening. The blood screening that we're working on is specifically for HIV, Hepatitis B and Hepatitis C, again for Rule 3 and below, in particular below, because the real deficiency is in those walking blood banks at forward fast teams, which are outside of the cache, where they don't have any really kind of lab.

So they really need some low complexity tests that can be done, to make the blood supply at that level safer than it is today. But again the focus right now has just been on those HIV, Hepatitis B and C.

DR. JENKINS: And that goes specifically to my concern, is dengue can be such an innocuous disease when first contracted, as to go unnoticed. Who's not tired and achy, as Monty and I were talking about earlier, when you're in a deployed setting? There's a window before the big

symptoms develop. Surely, you could be transmitting this in that setting.

It caused me, you know, significant concern. It should be one of the things that we're actively engaged in.

COL LYNCH: No, that's a good point, and it is something that I'm going to address with the blood safety scientists, who work as part of the blood, those other assays. I'm going to bring it up to them as to how much consideration they've given for the risk that's posed by dengue in blood.

Your second question was about wound infections. I don't have time to go into details. I'd be happy to come back and talk about the wound infection research in particular. It's received considerable funding since FY '10. We had about $30 million in FY '10, and we have about $30 million in FY '11.

It's both an intramural and extramural activity, you know. At least it's the one program, unlike the Army funding,

which is all intramural. The DHP funding, we do both extramural solicitations. So we have a broad portfolio right now, that includes biotechnology groups, universities, as well as our intramural labs.

We are very cognizant of the change in the epidemiology, which is moving now with more combat actions in Afghanistan, where the terrain, frankly it's a different environment, and we're seeing more fungal infections in the wounds. So there's a pretty active concern and shift in all of our announcements now, specific to include the development of drugs and wound infection management tools for invasive fungal infections. Not Candida, but invasive fungal infections as the molds.

CHAIR DICKEY: Dr. Carmona.

DR. CARMONA: Rich Carmona. Colonel, thanks for the outstanding presentation. A couple of questions also. You recall a number of years ago we started running into problems with vaccines, and we had talked with the Hill about the so-called

GOCO end that the government owned, and taking over some of these processes.

Of course, this is probably the worst time financially, economically for these challenges to happen, when everybody's budget is being cut. My question in this regard is what are you hearing from your legislative liaisons on the Hill, for the willingness to engage in this particular area?

Because what we're seeing, not just in infectious disease or emerging infectious diseases, but as you know in oncology and some of the other areas, if the patents run out or if there's not a projection that significant monetary gain can be made from going into the area, the drug companies are moving away from all of those things, and yet there's still a great need for the nation.

I know when I used to argue these things, I found that it is very difficult to argue on substantive scientific discussion in a very political environment. Often, you have to raise this to the level of a national

security issue, to get some traction sometimes.

So I'm wondering your thoughts in that area, and second, how is the collaboration going with CDC and NIH on some of these projects?

COL LYNCH: To your first question or comment about broader government activities, and trying to sort of countermovement of industry away from a lot of things that we're interested in, there's a big program actually that's multi-agency, the Medical Countermeasure Initiative, which is in fact seeking to stand up manufacturing capabilities for, I think, in '10, to try to fill a hole, where industry doesn't really want to step in, where we've got products broadly that the population needs or the DoD needs, in which it's difficult to engage industry.

Having said that, we are aware of it. We're not deeply engaged in it. It's still, I think, as we tried to look at how

could this help us, is still kind of problematic, because as opposed to manufacturing and stockpiling, I'm not sure that dynamic works for everything.

So I think there may be a solution in there. But we're certainly not there yet, as to figuring out exactly how would that work, that we would be able to sustain malaria vaccine or sustain the dengue vaccine of the future through that mechanism. It's certainly a huge government investment, and we've got to look at it better, to how we could actually make that work.

Your second question, I'm sorry remind me, was about?

DR. CARMONA: Collaboration with CDC and NIH.

COL LYNCH: Yes. The Walter Reed Institute of Research and Navy Medical Research Center have over 300 CRADAs, Collaborative Research and Development Agreements. They're broadly networked with anyone and everyone who has something to bring

to the table, whether it's biotechnology companies, you know, again industry certainly, academia, other groups like the CDC.

So I think where appropriate, we don't have a lot of barriers. Our scientists are very willing to say, "Come talk to us. What are you working on? How can we help you," because what we often bring to that is a real product development focus, which the CDC and NIH don't necessarily have.

So I think we're broadly integrated. Those are not barriers that are substantial.

CHAIR DICKEY: Thank you. Additional questions or comments?

(No response.)

CHAIR DICKEY: Well, we thank you for that excellent brief, and I feel sure we will find an opportunity to have you come back and either go into some detail on some of the subsets, or simply update us. I appreciate it very much.

COL LYNCH: I would be happy to, thank you.

Information Brief: Department of Defense Institutional Review Boards

CHAIR DICKEY: Our next speaker is Ms. Caroline Miner. Ms. Miner is the program manager for the Research Regulatory Oversight Office for the Office of the Under Secretary of Defense for Personnel and Readiness.

As the R202 program manager, she is responsible for developing, implementing, maintaining, and providing leadership and oversight for the Human Research Protection Program, the Animal Care and Use Program, and the Research Integrity and Misconduct Program for all organizations under the purview of Personnel and Readiness, including Health Affairs, Reserve Affairs, DoD's K through 12 school system and numerous personnel policy offices, and in your spare time, right?

Ms. Miner is going to present an informational brief regarding the Institutional Review Boards for the DoD, and her slides are found under Tab 10. Thank you for being here, Ms. Miner.

MS. MINER: Thank you very much for the invitation. I'm actually very excited about this. As you've already mentioned, my name is Caroline Miner, and I am the program manager for the Research Regulatory Oversight Office, for all of the Undersecretary of Defense for Personnel Readiness. So I would like to spend a couple of minutes defining the scope of that and also the limitations of the scope, so that you understand what I'm responsible for and what I'm not responsible for.

So all of Research Regulatory Oversight, oh there it is, is under the purview of the Under Secretary for Acquisitions, Technology and Logistics, and the action office for AT&L is the ASD. It's the Assistant Secretary of Defense for Research and Engineering.

For those of you who are perhaps were around longer, the ASD B

PARTICIPANT: Old. The word is "old."

(Laughter.)

MS. MINER: The ASDRE used to be known as the Director of Defense Research and Engineering, so the title has recently changed. Now in 2005, AT&L reorganized the way they do their research regulatory oversight, and what they said is that each of the large components, Army, Navy, Air Force and P&R, needed to have their own oversight structure.

So they set up programs where Army, and the proponents for each of those programs, for each of the services, are the Surgeons General. For P&R, P&R says you may delegate this program down two levels. So the Under Secretary then was -- I've just forgotten his name -- Dr. Chu, thank you. He said okay, I'm going to delegate this to the DASD for Force Health Protection and Readiness. So that has been our location ever since.

So as you can see, in 2005, they implemented this new oversight structure, and it has really made a major improvement in the

way we conduct our oversight. However, you can also see, and as we'll talk about in a minute, we do have some problems within the regulatory arena, and one of the problems is that we're very stovepiped.

So Army has a program, Navy has a program, Air Force has a program, P&R has a program, and those programs, for the most part, don't really work together.

Okay. Now you invited me here to tell you about the IRB system. The IRB is simply, and most of you are probably in the field, IRB is -- whoops, wrong one -- is just one part of what we call the Human Research Protection Program. So the IRB is the group that does, is required by regulation to do the reviews of the research.

But the program itself is much broader, and we think of it as an integrated process for all the elements of an institution, supporting or conducting research, work together to make sure we're protecting the rights of our subjects.

And just as an example of the types of things we do within the Human Research Protection Program, it includes our QA and QI processes, a lot of training, just our institutional commitment to research integrity. I'm also the research misconduct and integrity officer, the communication and coordination, and we also spend a lot of time working on policies and procedures.

To give you an idea of the scope of the research that's going on within the Defense Department, this is just -- we had a data call earlier this year to put together all, a listing of all of the open human subjects protocols from FY '10, and so intramural, I think all of you know, that just means the stuff that we're conducting ourselves. Extramural is the research that we're paying somebody else to do for us.

You can see we have an incredibly large research portfolio. So intramural, DoD research. This is exempt versus non-exempt. The exempt are the ones that meet certain

regulatory criteria for very -- so they don't have to go the IRB for review. The non-exempt don't meet those criteria.

You can see that we have over 4,000 non-exempt protocols and 1,000 exempt protocols intramurally being conducted within the DoD and almost 3,000 that we're funding outside. So it's a very large, I mean we have a very large program.

Now I wanted to spend the majority of the time talking about some of the initiatives that we are focusing on right now, in terms of, as I said, we know that there are some issues with the regulatory oversight structure.

So first of all, we're very stovepiped, and this causes problems in terms of if I'm a researcher and I'm working at a Navy site, an Army site, and an Air Force site, I have to go through -- not only do I have to go through each of those local sites' IRBs, but I also have to go through the Army system, the Navy system, the Air Force system.

So I can potentially have six or eight or twelve review systems that I have to go through, whereas if I was a non-DoD performer, I might only have maybe three. So that's a big issue for us. We also have a lot of DoD unique requirements. So Congress loves us. They like to give us extra rules. Some of them we deserved, but sometimes we don't.

Nevertheless, we do have additional DoD requirements, and we have a very unique environment. As you just saw in the previous presentation, that means that we're doing things that aren't really done elsewhere.

We also have component unique requirements. Now this we did ourselves. So as I said, you know, Army, Navy, Air Force, they each have their own process. That means that each has the authority to write their own requirements and they do.

Then the other issue is we have our compliance oversight, and this was written this way in the regulation. It is very institution-centric. The reason it was

written that way is because everybody wants the institution where the patient population or the subject population is at, everyone believes that that institution should have the final say in how the people at their institution are involved in research or not.

I mean, ethically and all other reasons, that's a very, very good, logical, sound argument, but it does make it difficult when you have very institution-specific requirements, to then conduct non-institution specific research.

Okay. However, as I said, we do recognize that we have problems, and we have been taking steps to try to address some of our problems. In the past, the past being the last three years, we have across the DoD we have harmonized -- oops, wrong button again -- we have harmonized what are called our assurances.

So these are the formal contracts between the institutions and leadership basically, that say we will -- if you give us

money to spend on research, we promise that we'll follow the rules. So we now across the DoD all use this one document. That doesn't sound like much, but believe it or not, it took us a long time to come up with that one document.

We are also all across the Department now all use the same institutional agreement for IRB review. Again, it probably doesn't sound like much, but it was very -- it took us a while. We also have common requirements for training. Again, this is across the Department. We all accept that we all have endorsed and agreed upon the same training requirements for the Human Research Protection Program.

Then more recently, one of our past initiatives is that we have created a topic-specific central IRB, and I'm going to tell you a little bit more about that, because it's actually one of our initiatives within P&R. We kind of led the way on this one, and it's been incredibly successful.

So the topic-specific IRB is called the Infectious Disease IRB, and it was based out of the Infectious Disease Clinical Research Program, which is based at the Uniformed Services University. So to stand up this Central IRB, we have an agreement that we negotiated between all of the Surgeons General and the DASD for Force Health Protection Readiness.

So you remember back at the first slide, those were each of the proponents for the Human Research Protection Program, for their component. The IRB is located at the Uniformed Services University, but the representatives for the IRB are drawn locally from each of the institutions that are represented within that central IRB. This is a very key point.

There are administrative support provided centrally from the clinical research program out to the sites that are part of the network. So if you want to be on the network, number one, you have to agree to participate

within the confines of our MOA, but in return, you're given research support.

Then the other key factor here is we have a headquarters global oversight mechanism. So we have what's called a headquarters panel that has representatives of each Office of the Surgeon General, and we meet and what it does is it allows each of the Surgeon Generals' offices to have visibility into all of the protocols that are going on.

So the program has been highly successful in overcoming the stovepipe regulatory system. I recently did a site visit with them, and I sat down with the members, the clinical researchers, and the IRB staff, and they were saying -- I mean, the feedback was amazing. They were saying that they were able to accomplish research now that they would not have been able to accomplish two years ago.

We had essentially moved what it would take up to two years sometimes in getting approvals, down to maybe a four month

process. So it's just phenomenal how well it's worked. However, I will also point out it's very limited in scope. This is only for the Infectious Disease Clinical Research Program.

We are -- in fact, I didn't know Captain Hammer was going to be here when I put my slides together, but Captain Hammer now is actually leading up a working group, to see if there's a way for us to expand this model and this concept out to some of the other areas, or even -- may even make this one itself a little larger.

But I want to point out that the success itself is not because there is a central IRB. It's not just this central IRB that magically made it better. It's because of all different parts of the program we put into place. The clear relationship between the institutions and the IRB; the relationship between the headquarters level, the ability for all the surgeons to be able to look in and see every protocol that's going on, so that

nobody's worried that somebody's doing something that they don't know about.

Okay. So other projects that we're working on for harmonization in terms of what we're currently work on, is we just recently -- okay. So in 2008 and 2009, a group of researchers primarily at Eisenhower, got together and applied for a grant from TATRC, to see if they could demonstrate network, a central network that would work across IRBs in all the Services.

In the demonstration project, they included institutions from Army, Navy, Air Force, and they included Uniformed Services University, which is for P&R. What they found is that number one, yes, we could get a network that met the needs of all the Services, and the network worked.

So we in Health Affairs saw this and we said "Ahh, this is good." So we put our emphasis behind it, and in the intervening years since then, the network has now expanded to 19 institutions across CHMS, and just in

July of this year, the Force Health Protection Integrating Council approved the government's plan for this network, where we will begin to stand up a program office at Uniformed Services University, and the network itself will be funded proportionally by the various services that use it.

The other really exciting part about this network is that the Army is working with us to develop the business intelligence interface, which allows us to take the data -- because the network starts. You know, the PI inputs his study or her study into the network, and it's a work flow process.

So then it goes to whatever group needs to review it next, whether it's the IRB, Scientific Review, Radiation Committee, whatever. So it just funnels the protocol. Well, in the process we gain a whole lot of data, including searchable aspects, et cetera. So we're developing this business intelligence software, that will allow us to do searches.

So for example, if you want to know

how many studies we have going on on the topic of diabetes, we'll be able to tell you that. We'll be able to tell you that without doing a very large data call that takes months. We will tell you that within hours. We'll also be able to tell you how many protocols we have. Any data that is within the system, we will be able to mine.

Now just in terms of the kinds of efficiencies the service offers, you can see here -- now, this is metrics from within the system, from after the institutions have already implemented this electronic network. Apparently, from what I understand, if we were able to graph from pre-network, back when they were still using their individual paper-based systems, the time improvement, process improvement from that period to now, I understand went from like 100 days to do an expedited review, to somewhere around 40 or 50.

So this is a year within the network, and you can see here we have three

different institutions plotted. We've gone from an average of 35 days for two of them down to 14 or 15 days, is the average time it takes to complete an expedited review. Walter Reed's a little bit slower, but even still they're down to approximately ten days.

So one of the strengths of the system is that we are able to map every single process, and as you know, probably from your Six Sigma training, if you can map it, you can improve it.

The other value that this is adding is so every step of the process can be measured, and again, if you can measure it, you can improve it. We can include any kind of protocols. So we have publications that are also able to join the network. We also have publication clearance as part of the network, not in all of our sites but at some sites, and at Walter Reed they reduced their processing time for publication clearance from 30 days to 14 days.

Any committee or process requiring

coordination can be included on the network. Again, it's a work flow process, and HQL data mining. So enterprise-wide harmonization. So the plan is once we get everybody onto the system, then we will take even more steps towards harmonizing the processes, harmonizing the forms we use, trying to make it easier for the research community.

Okay. Now here's our strategic vision for the future. We just recently, and this is one of the reasons I was very excited to be here today, is because we actually have a strategic vision for the future, and we have just developed it recently.

So what we would like to do obviously is reduce our stovepipe process through, and we just -- so about six months ago, the ANC Health Affairs asked us to stand up a Tiger Team to see what we could do, to try to foster research within the military health system.

The white paper and the recommendations that came out of that were

presented to the SMMAC, the Senior Military Medical Advisory Council, in March of this year. The SMMAC endorsed our recommendations, including recommendations that number one, we'll expand the central IRB concept, in which we are moving forward on, to try to get the IRB out, the centralized process out, and that we also implement the electronic research management tool.

But the big thing is we have a number of Tiger Teams, well working groups, that are currently working with the clinical investigation program in the R&D community, to come up with processes for strengthening our research infrastructure, including the things that I mentioned here, like how do we expand that central IRB concept, so that we can make the research process easier? How do we get the research management tool out across a larger audience?

Protecting human subjects. We're all in this together. So any questions?

CHAIR DICKEY: Thank you very much,

Ms. Miner, for that presentation. Are there questions or comments?

DR. HIGGINBOTHAM: Eve Higginbotham. Well, congratulations on your process improvement. So my question may not be something that you may welcome, but given what we've heard earlier about, you know, the integration with the VA system, to what extent is your strategic plan extending to integrating with the VA, given the electronic health record expansion?

MS. MINER: We have had an incredibly difficult time integrating anything with the VA. Every time, so there have been multiple times in the past. So I started working for the DoD in 2005, and since that time, VA has come to me several times and said hey, we need to figure out how to do things better.

We have met, and every time we think we come up with an idea for how to do things better, it just -- I want to say every single time, it's the VA that hasn't been able to

come through on how to do things better. So for example, one time there was concern about how to do we share data better, and we came up with a plan. I took it to the DoD Privacy Office folks and the DoD Privacy Office folks said yes, we can do this, no problem.

Then the VA came back and said no, we can't do that because, you know, we don't want to give you this particular kind of data. So we have found the VA to be very difficult to work with, and when it comes -- for example, remember I showed you that form we had, the institutional agreement for IRB review. I told you about that.

All of the DoD institutions agreed we use the same form. If two institutional groups or two DoD groups are working together, we use that form. We have similar forms that we use with IRBs at universities, et cetera. But the VA absolutely refuses to use it. They will not enter into an agreement with us. They will not review for us, nor will they be responsible for us. So they just absolutely

refused. So we haven't done very much with the VA, but I don't think it's our fault.

(Laughter.)

CHAIR DICKEY: Yes sir.

CDR PADGETT: Commander Bill Padgett. Is this DoD's -- or acquisition commands will fall under -- and concept involvement commands that have IRBs will fall into this as well, or is this just medical?

MS. MINER: That's an excellent question, because right now, because the money we're using to pay for the -- and I'm assuming you're talking about the electronic IRB system?

CDR PADGETT: Correct.

MS. MINER: Yes. Right now, the money we have is Defense Health Program money, and so for now, the network is limited to Defense Health Program sites. We are actively trying to find a way to find non-DHP money to help us expand the program outside of that, because the license we have to for the COTS product, I mean, the key part of the network

is an off-the-shelf product that we took and then expanded.

The license is unlimited. So we could, theoretically, we can use it anywhere, except that the color of money we used has narrowed our ability to expand it.

CDR PADGETT: Is that something that Defense Health Board can recommend back up to the Secretary of Defense, that this is a subject matter expert recommendation, that this program should go to all of our DoD IRBs?

CHAIR DICKEY: I'm looking at some of my staff around here. Is it possible that the Defense Health Board could look at the role of intramural and extramural research, and one of the areas of investigation and recommendation might in fact be the value of being able to cross the stovepipes, if you will?

MS. BADER: Right. I think that before the government, the Assistant Secretary would ask the Board to do something like this, we would have to go back to Dr. Woodson, and

then we would have to have a lot more information than we received in one briefing today, before the government would ask the Board to unilaterally make a decision or recommendation on that.

MS. MINER: Well, and also that limitation is a fiscal law issue. So I think it's a matter of finding different, finding money from another source, and we just don't have that yet.

CHAIR DICKEY: Captain Hammer.

CAPT HAMMER: I wanted to make a comment, and just say thanks for the shout out on our upcoming initiative to expand the idea of what's been done in infectious disease. But I do want to clarify though that what we're looking at is to try to develop a centralized IRB, again using the infectious disease model for specifically for psychological health and TBI sorts of things.

The challenge in that is that it may be much larger in terms of the numbers of studies than there are for the infectious

disease. But I mean, that's one of the questions that we have to look at. But that's, it was specific for that particular scope of studies.

I think if we're able to do that and find a home for it and figure out how to structure it, using the model I think we'll be able to answer a lot of questions very quickly, and I think it will really help in expanding a lot of the questions we're trying to answer.

MS. MINER: Well, and I'd like to, because one of the things I kind of had a little hiccup there, because I thought there was something I wanted on my slides that wasn't there, because one of the things I would like to see happen is you have your working group that's looking at well, how do we improve the process for our mental health research?

We have Dr. Rauch and the R&D community saying okay, how can we use the model that we see for the infectious disease

IRB? How can we use that to expand the clinical research capability just within the MHS? So what they are doing or what I am advocating for them to do, there's still a working group working on it, but if they do what I'm hoping they do, what they will do is is they will put their resources, their dollars into --

So remember I mentioned for the ID IRB, one of the key factors was that the clinical research program put research resources out at the sites. Okay, so that's what I'm trying to get the R&D community to do. They have some extra money that they're -- I won't say extra, but that will get me in trouble.

But there's some money right now that's been targeted towards building research infrastructure, and I'm hoping that they will do that, that they'll pick some sites where we have good research infrastructure, but we could have better, and put out there maybe a statistician or a clinical coordinator or

those types of resources that specifically are designed to help the researcher get from idea to finished research project, and then see if we can then coordinate it with your activity. Then I mean, I'm hoping that we can all work together to create something good.

CAPT HAMMER: Yes. It dovetails nicely with what we have, in terms of the capability within the DoD system, is an enormous volume of potential research subjects that we have to protect appropriately. But I think oftentimes, an unfocused sort of shotgun approach to research, that leaves us with duplicative studies on one side, and then not enough studies in another thing.

So maybe we should cover the broad area I think would really help. But I think that's a good synergy. I think it would work.

CHAIR DICKEY: Sounds like we have the opportunity, though, to continue to increase our understanding and maybe some directions that we can work across the entire protection spectrum. I think that in fact,

there's a fair amount of partnering extramurally, and I think that helped precipitate some of the questions that we invited you to come and answer today. So thank you very much.

MS. MINER: You're welcome.

CHAIR DICKEY: We appreciate your presentation, Ms. Miner, and look forward to opportunities to have you back. Now we have a treat in store for you. I don't think in my time on the Board we've seen a lot of panel discussions.

Panel Discussion: Line Commanders

CHAIR DICKEY: But we have a group of commanders from Joint Base Lewis-McChord here, who are going to share information with us. The format, and I guess that's what those high stools are over there.

So as they're getting ready to, getting prepared for it, I'd like to ask you to welcome Captain Adam Stover from HHC, 864th Engineer Battalion; Captain Clint Nold from FSC 864th Engineer Battalion; Captain Rex

Broadrick from the 565th Engineering Company; Captain David Korman from the 617th Engineer Company; and Captain Tristan Manning, HHC Madigan Health Care System.

As those individuals are joining us, perhaps they'll each do a brief introduction, and share with us, among the other things they may be prepared to share, what challenges they face as battalion commanders.

Some of the challenges, particularly you might share with us is how many deployments you've had and what challenges your battalions face, particularly from a health perspective, as you return from those deployments. We apologize. We're running a little behind time, but are open to hearing your insights and experiences this afternoon.

So welcome to the five captains, and I know they were talking while I was talking. So but I'm sure you guys can all multi-task, right? We welcome you. We look forward to hearing your insights into the work that you've done, particularly in terms of the

deployments and the challenges on returning with the battalion.

So we've heard five names, but we don't know who belongs to what. So maybe you might start by going through and telling us who's who, and along with that, perhaps your battalion deployment history, and then we can come back and talk about some of the challenges that you've met.

CPT STOVER: I'm Captain Adam Stover. I'm the HHC 864th Engineer Battalion Commander. I deployed to Afghanistan in 2007 and 2008 with the 173rd as a platoon leader, and I was in command throughout most of our deployment. So we deployed to Kandahar in April 2010, and just got back in late March 2011.

I think one thing that's a challenge to us all is the soldiers we've got with our detachment, they deployed with some health issues. We had to send them right back. You know, that was quite a challenge for us, deployed with some kind of questionable

profiles.

And then since we've been back, a lot of soldiers are going through med boards. That's taking a long time. I think that's a challenge for most of us. I'll go ahead and pass it on to the next commander.

CPT BROADRICK: Captain Rex Broadrick. I'm the 585th Vertical Construction Company Commander, also in the 864th Engineer Battalion. Deployed five times. I've got both enlisted and officer experience. Most recently just came back. I joined the battalion about five months into the deployment, so I did seven months down range with them, and I like a lot of what Captain Stover just said about the issues that we've had.

CPT NOLD: Good afternoon. Captain Clint Nold. I'm the FSC commander with the 864th Engineer Battalion. My deployment experience is 15 months in Iraq. I was there in 2007 to 2008. I deployed out of 12th Cav, from Germany to Iraq.

Same issues with the medical board as well, and I kind of question when you come back from a redeployment, the line of questions you get to assess your medical readiness. I'm not sure those questions really do accurately assess, you know, a unit's readiness or health issues.

CPT KORMAN: My name's Captain Dave Korman. I command the 617th Engineer Company horizontal, also part of 864th. My deployments, not counting my enlisted time, I did -- I was a platoon leader from '05 to '06. Then I joined the company for four months down range.

I agree with all the points that have been made so far about with soldiers and med boards, and the non-availability with the T3s. I mean, the biggest problem that that has for us is those soldiers are taking slots that we can't get new soldiers in that we can actually deploy down range. So I know we were force capped pretty well.

CAPT MANNING: I'm Captain Tristan

Manning. I guess I'm the only non-engineer here. Medical Service Corps Officer. I deployed in 2005 with 1st Brigade Combat Team Light Infantry out of Fort Drum, and then also deployed more recently in 2009-2010 with 1st Corps, under USFI Iraq, and currently right now I'm the HHC company commander for Madigan.

CHAIR DICKEY: I think we'll make this kind of a Q and A back and forth. So feel free to wave a hand and we'll try to do that. Since all of you kind of agreed on the challenges being both deploying with health issues, and then coming back and the kind of floating system, if you will, with the medical boards on return, I guess part of my question is do you think there's a process out there that we should be -- that we might implement, that would my first concern would be to help you not deploy with people who, within the first few weeks, they're discovered they're not medically ready and end up filling slots that should perhaps have been filled better by others?

CPT BROADRICK: I'll take a little bit of that one. I think part of the issue you might run into if you tried to improve upon the system that we have, is we have a lot of soldiers that will do just about anything to get out of a deployment. So there is a few that we find coming -- that we find once we get overseas, where they probably shouldn't have been over there.

But if you tamper with the system too much, I think you're going to run the risk of having a lot of those soldiers, if we try to improve the way for soldiers to get out of a deployment, that they're going to take advantage of that. So there's -- I think that the system, how we have it right now, it's not perfect, but I can see how -- I can see the way it's structured right now, why it was structured that way, and how we end up with the problems that we have down range.

DR. HOVDA: This is Dave Hovda from UCLA. Thanks very much for your service and for coming today. What do you feel was the

most common problem that individuals had, that necessitated them to come back or not be deployed?

CPT BROADRICK: I know one for us that seemed to happen more for the soldiers that wanted to come back was their behavioral health type issues. I know also on the going out there end, there was a lot of soldiers that actually wanted to deploy, who had some behavioral health issues that were not able to deploy, because of the 90-day medical stabilizations and those types of things.

So we saw it work both ways, both in the soldiers that wanted to get out of it. They figured out, especially about the time I got over there, that if you wanted to get home from a deployment real quick, you said, and there were definitely some legitimate ones as well. But there were some that were not so legitimate that would be the behavioral health.

There were, I had a couple of soldiers that had musculoskeletal things.

There's two in particular. One of them made it through the whole deployment; the other one made it about half the way through the deployment, before he had to come back. So there were some of those.

In both those cases, those guys wanted to deploy. Whether or not they should have, I think they probably stretched the truth a little bit when they were talking to the doctors, as far as trying to -- they wanted to deploy with us. So they made sure that happened.

But the behavioral health kind of cut both ways. We've had soldiers that wanted to deploy and when they finally were able to get out there, did a great job for us. But they weren't released to deploy with us, because of they had just changed a medication or something like that, and they didn't even realize that it was going to affect them that way. Then the other ones that came back early, because that was the best way for them to do so.

CHAIR DICKEY: Were any of you in units that had mental health, behavioral health specialists? I think we heard that there's increasingly behavioral health specialists in the units, and they go along with you, hoping to enhance the availability and access and trust, I guess, in accessing care?

CPT MANNING: Usually the combat service, the folks that deal with our behavioral health issues aren't really organic to line units as such. But they usually occupy a FOB or area, if you will, that kind of covers that. So if a soldier does have an issue, there's usually one available within, I don't know, within -- you know, at least within, speaking from the Iraq side, at least within helicopters right away.

But I know, seeing it from 2005 to 2009, the increase of combat operational stress control units did increase significantly in the battlefield.

CAPT HAMMER: I'm curious, as you're

all company level commanders, right? How comfortable do you think you are, as well as your subordinates, the company level NCOs and even lower, with what the platoon level NCOs, you know, sergeants and corporals and that sort of thing.

How comfortable do you think you all are with, and how often have you had this experience, where you've had a mental health professionals who is the area, the combat service support kind of area person, has gone out and just walked around and talked, and done sort of informal consultations?

How comfortable would you be going up hey doc, let me run this one by you? I've got this guy and I think he might be manipulating, but I'm not sure? How comfortable do you think you are, as well as the guys that you are commanding, with doing that?

CPT NOLD: I would like an opportunity, because that way you could kind of get some user-level discretion at the lower

leadership level, and I think that would make it a little less bureaucratic, because that way, your first line leaders and commanders would be able to discern whether somebody actually truly needs mental health, or might be kind of, you know, utilizing the system to his advantage.

CAPT HAMMER: Did you have that experience, though, of actually --

CPT NOLD: I never had that experience.

CPT BROADRICK: Okay. I actually interacted with several. To the question that you asked before about how available they were, I was on about nine different FOBs, and I'd say we had access on about half of them.

I question to what level, because a lot of -- as I was interacting with them, a lot of times they'd go well, we're going to push them back to KAF, to get a more definitive evaluation.

But I was pretty comfortable going to them, and our guys became comfortable too.

That was one of the things that we all knew, was where the mental health personnel were, if they were available on the FOB that we were at. So I was pretty comfortable going to them.

But there was, they were very hesitant to make any kind of definitive diagnosis on our guys. In one case in specific, it was a soldier that was definitely admittedly trying to get out of a deployment later on down the line.

It took having to push him all the way back to KAF, and then I had to sit down with that mental health provider at the Role 3 there, before he kind of had a Come to Jesus moment and decided that he didn't want to end his career that way.

But they were available out there. I found that state-side, it's like pulling teeth, to be able to talk to behavioral health providers about a behavioral issue that our soldiers are having out here. I've had more behavioral health issues since we came back,

and especially since we got all our rear detachment personnel that came back to us.

I haven't been able to -- I've called and talked to multiple people in behavioral health clinics, and they haven't been able to give me any information, due to privacy concerns and those types of things.

That's been, as a company commander, it's been very frustrating. I understand the reasons behind it. They want those soldiers to feel like they can go talk to someone without any repercussions. But as a company commander, I found myself where I just want to make sure that I'm doing everything I can for a soldier, whether it's giving them a battle buddy or just, you know, keeping that extra supervision on them.

I can't even talk -- they can't give me anything. So in one case, I couldn't even get them to verify that they were seeing one of my soldiers.

CAPT HAMMER: Do you feel like the mental health professionals are not

comfortable with that command consultation kind of role?

CPT BROADRICK: No, they definitely were not comfortable at all with that. I'm still pending one where they said they had to consult with Legal, just to -- I've got a guy that I'm chaptering out of the Army, and they said they had to consult with Legal, just to -- I sent them to get that last mental health evaluation, because it wasn't in the regs as being needed for that particular chapter.

They wouldn't even give me the report back, after they had already completed it. They were waiting for advice from their lawyer, to make sure that it's okay to release that report to me.

CHAIR DICKEY: I'm curious, are those military mental health providers or contract?

CPT BROADRICK: I believe they're the contract ones. It's a problem with both.

CHAIR DICKEY: Is it? God love HIPAA, right?

CPT BROADRICK: It's very complex.

CPT KORMAN: Well, I'd just like to add one thing that Captain Broderick brought up, is sometimes it's more important -- I had a soldier that had suicidal ideations, and when we sent him to Behavioral Health, they wouldn't talk to me and tell me yes, we saw him and we released him.

But then I don't know if they -- they said they cleared him, but then he comes back and does it again. They send him back over there, and it's the same. They clear him and then I can't talk to the Behavioral Health about him. So do I really take it that he's safe or do I have to do something else?

CAPT HAMMER: And that's an important part, I think, of what we have to do. We, you know, in the psychological health community have to do, is to be able to have that ability to have a conversation. One of the things I valued was when I was deployed, when people come up to me, I'm a psychiatrist, and say let me run this one by you, doc. I've

got a guy. He's got this and that. How do I handle that? What do I do with him? I'd say well, try this or try that, and I'd ask clarifying questions, and we'd have a conversation. I think that helped junior leaders who didn't have much experience handling people, get better at it, in dealing with the psychological stuff.

I think that's a failure or difficulty that we have, is that we're not, we get wrapped around the axle of rules and regulations and HIPAA violations and following the DoD Instruction on command mental health, and it's like we've lost the point what do we do to really help both the leadership and the individual? But that's just Paul Hammer's two cents.

CPT MANNING: I'd like to add in that I felt comfortable when -- I noticed the difference between the two, my two deployments. But not only do you have your behavioral health specialists that are presenting themselves as readily available for

soldiers; but I think as the stigma kind of goes away, company commanders at this level are more apt to approach those soldiers about the issue.

Not only that, but you do have unit chaplains are very, very proactive in this type of setting, and I personally have seen my chaplains very involved in this.

CHAIR DICKEY: I have Dr. Carmona and then Dr. Parkinson.

DR. CARMONA: Rich Carmona. Captains, thank you for your, this opportunity to share your experiences with us. I have two questions. One is your personal experience as company commanders. Clearly, you're held responsible for battle readiness of your troops, which usually means physical performance standards and so on.

How many of you are monitoring the mental health status as part of readiness, as it relates to your respective troops? And of course, I don't mean persons that have significant psychological breaks so that it's

apparent to everybody. But I mean, aberrancies in their mental health that affect performance. How many of you are really looking for that as part of overall ability to perform their jobs and being battle ready?

Then number two, I'd appreciate your comments on post-deployment assessment for all of you and your troops when you come home? Are we asking the right questions to be able to determine who may have problems?

CPT KORMAN: Well, I'd like to address your second one, and we just -- my company just went through self today, and the problem I had with it was we filled out a questionnaire. But if you answered "no" to all those questionnaires when you went to the provider, they looked over it and signed off on you.

There's no secondary questioning or any probing or any asking to the soldiers. So my soldiers could go through, say they had no problem. They got checked off from the mental health provider. They went to the physical

health provider. They said are you having any problems? They said no, they checked off, they left.

So even if they had them, if they didn't want to talk about them or they just wanted to get out of there in time. I think it would have been better if the providers actually took time to maybe ask some of the questions, or to do some kind of meeting where they actually talked to them, so they can get an idea, rather than just filling out a bubble sheet and turning it in.

CPT MANNING: There is an individual part to that. What he just said is that if I'm a soldier going through self as a pre-deployment, I check no, because I want to go home early. That's kind of on me as well. If I don't want to address my own issue with a provider, then the provider has no clue as what to ask me.

If I click yes on something, then a provider will make the time to sit with me afterwards, after that initial screenings.

But most soldiers will click no, just so they can get home on time or go do something else.

DR. CARMONA: And how about you all as company commanders, your responsibility for surveillance of mental health, as part of overall battle readiness of your troops?

CPT BROADRICK: I think that that's something that a lot of commanders will do, kind of just second naturedly, to make sure that we do it. But another thing that I think has helped with that is we've been implementing a wellness program within our brigade, I think, as part of the Army program with their FORCECOM risk assessment tool, and using some of those things.

Where we have, you know, a population of soldiers that we identified that are at a higher risk for some certain type of behavior. What I've noticed is without fail, those are the soldiers that you're more concerned with, that have their regular behavioral health appointments, or that you're more concerned about not being able to do

those.

So I think just kind of maybe by accident or maybe on purpose, the Army has come up with a system for us to be able to do that, and I know that at least us within the 864th Engineer Battalion, from my perspective, it seems like we've got a good handle on a way to monitor that.

And then as far as it ties into readiness, I think those are usually those soldiers who are the ones that you can't wait to deploy, to get them away from whatever situations they're in state-side, or you really don't want to deploy, and you're looking at keeping them back on rear detachment, so that they can hopefully get out by the time you come back.

CHAIR DICKEY: Dr. Parkinson.

DR. PARKINSON: Yes. Thank you all for coming. Some would probably say that if you're crazy enough to enlist in the Army, that that's a behavioral health problem in itself. But thanks for all you do. But I

guess in the -- looking back, put yourself in one of your soldier's shoes, and then put yourself in your "if only I knew then what I know now" perspective.

So what are the competencies that the soldiers, the rank and file soldier needs, that you wish they had, to be able to deal with stress, combat, the anticipated and unanticipated things that they saw or would see? Similarly, what's the competency that you would like to have? Not to be a mental health professional, but what is the competency you would like as a commander that you just knew you didn't have, but you wish you would have had?

So from the soldier competency and from yours as a commander competency, just a high level, if you would describe "I wish I could have X," it would have made me a better commander, and for our soldier, I wish I could have Y. It would have made me be more effective or be more fulfilled, be more of a comrade, whatever. Does that make sense?

CPT BROADRICK: I'll go again.

(Laughter.)

CPT BROADRICK: Having been a soldier before, I think one of the first things I realized, as I started moving up the ranks on the officer side, was that being -- just how important the role of that battle buddy was. You know, I had a few friends I was close to and then I had some other soldiers and leaders that I started with, that I watched kind of go off the wayward path, that you know, ended up in bad situations.

I think that just realizing the important role that I had as a battle buddy. I think that's one of the most important things, and at the leader level, that's really what we rely on our junior leaders, and even just in the unit, from soldier to soldier. Just the brand new soldiers coming in.

If they've got that, if they feel like they're a part of the team and they've got that battle buddy mentality where they're looking out for each other. That above

everything else will help soldiers get through whatever difficult times they're going through.

Because we know most of the soldiers don't have the legitimate medical problems. It's just having to figure out new ways to deal with new stresses that they maybe weren't expecting or just didn't know how to deal with before.

Then as far as the leader's perspective, I don't know. I'll pass that off to someone else.

DR. ANDERSON: If you don't want to talk about that, you know I really thank y'all for being here and talking. You're aware, right from the Chairman of the Joint Chiefs down, the issue of the stigma of psychological health has been a major issue. Could you just talk about that a little bit?

Are we addressing that properly? Is the problem going away, or is it something that can go away? I'm talking specifically about the stigma.

CPT NOLD: Well, the psychological issues, I kind of wonder if it's -- the Army's been at war for ten years, and there's constant, you know, you're deployed 12 months, and you're back home for 12 months, and then two months you're in training. I just kind of think that the deployment cycle is the root cause of the issue.

Like I can't really -- I can't speak for statistics, but like the shorter deployments, like that the Air Force or that the Marines have. I just think it's too much of a cultural change or too much of a change. They're going from garrison, where you got all these million taskings that you do, and then you go down range to a mature theater, and you know, you're just doing strictly your mission.

Then, you know, you're away from civilization. You're away from people. You're away from interaction and families. I just kind of think that's more of the issue or more of the psychological problem. I don't think there's enough time to let your brain

unwind down and become a normal human being again.

I mean when you take, like most of the people that come in the Army, they're in their 20's, and most people in their 20's, you know, all they think about is, you know, alcohol, adrenalin, sex and all the normal things that like college people experience, or just people out of high school.

I just think it's the extreme environment. I think that's the root cause of our problems, and I don't know how much documentation, when you read about like World War II or, you know, how did those people come back from World War II? You know, I don't know how much has been captured. How did they cope with it? They called it combat stress, and I think a lot of people just dealt with it internally.

Today, it just seems like we kind over-embellish. Or PTSD, like you know, I could on the questionnaires, after the post assessment, it seems like you can answer a

question in such a way, you can almost outsmart the questions, you know. Whether you just want to go home for the day or write the questions down that, you know, you're a mental case. It just kind of depends.

So I don't know if that helps you guys, with what you guys do.

CPT BROADRICK: Yes. I think also for part of the stigma, it's going away. It is definitely going away. I deployed the first time to Afghanistan right after September 11th, and it's a night and day difference as far as the stigma that there was, as to going and getting help afterwards.

In fact, right after that deployment, one of my squad leaders ended up killing himself, and it just -- I think that the difference between then and now is huge, for the -- we're encouraging our soldiers, and it's evident in the redeployment process.

Whether soldiers are just answering questions so they can go home for lunch a little bit sooner, or get home to their

families a little bit sooner or not, at least they know that the Army cares about that stuff enough.

And usually, and I think it's just now getting to the point where down at the lower levels of leadership, where they're encouraging soldiers to seek out that. At the same time, you know, it goes back to we deal with some of the same issues with soldiers jumping on board with that a little bit too much, looking for another way that they can get something for nothing or another ends to whatever means it is they think they're looking for.

But I think the stigma is definitely -- it's changed a ton in the last ten years.

COL STANEK: This is Colonel Stanek. Thank you guys for coming down here and sharing your thoughts. Just for the benefit of the group, could you just kind of let them know the size of the units that you're in command of, so they have a perspective of how many people you're taking care of?

CPT STOVER: I've got 120 soldiers in my headquarters company.

CPT BROADRICK: 175 soldiers.

CPT NOLD: 108 people.

CPT KORMAN: I have 161.

CPT MANNING: I have 548.

CHAIR DICKEY: Captain Broadrick, can we go back to the comment you just made in response to Dr. Anderson. You talked about you think the stigma's improving, particularly for the soldiers. What about those of you who may be looking to stay in for the full 20 years, or the fellows in your battalions who want to move up?

Is there a different perspective if you expect the Army to be your home for the next 20 years?

CPT BROADRICK: It depends on where you're at. The short answer is, yes, I think there is. I think for us as company commanders up here, that it's -- that there's that extra burden of, you know, don't want to be seen as having to do something like that.

But at the same time, I think we all know it's there, and we all have the opportunity.

I mean the Army's there too. I don't think there's a stigma. There's people out there saying you won't do it. I think it's just part. To me, it just feels like it's just part of the job being in charge of soldiers.

It does -- I believe, I think it does show not so much weakness, but maybe a little bit of chink in your armor, that most leaders aren't going to want to show to their soldiers. So that's just me personally. I don't know if everyone else feels the same way.

CHAIR DICKEY: Any other comments or questions for the group? Dr. Higginbotham.

DR. HIGGINBOTHAM: Thank you for coming to share your thoughts this afternoon. Can you comment on the problems of substance abuse, and your experience either in the theater or here at home or is it something that is actively dealt with, or is it under

the cover, if you will?

CPT KORMAN: We actually had an incident down range, when we had -- we had one soldier we found who was taking spice, artificial marijuana, and when NCOs questioned him, went back to his room and found out that there was a larger problem inside the unit. In total, there was ten soldiers we ended up chaptering out of the Army.

The issue was since it was a -- at the time, it was a legal substance in the state of Washington, even though it's illegal in the Army. His wife was mailing him that stuff down range and they were using it. When we came back, we still have incidents. Mostly, the only incident I had with my rear D soldiers, I mean it's still in the barracks. I think soldiers are going to be soldiers.

But also, more importantly, I guess what upset me with my unit is that some of the NCOs had the attitude of it's only marijuana, and I think that's more of a -- I don't know. Maybe you don't want to talk about it. I

think it's more of a younger generation. There's more acceptance, I think, in the lower enlisted of the use of certain types of drugs, and they see no reason why they can't use them, even if it's illegal.

That's only combated by actually the Army enforcing its policy of chaptering soldiers out that do that and punishing them, so everybody else sees that they get done.

CPT BROADRICK: Yes. I think that's one of the -- also one of the byproducts of the war and, you know, being home for 12 months, 12 to 18 months before you go again for a year. I know within my own unit, I've seen -- I've got soldiers that shouldn't have been here, because they got caught with it.

But they, for one reason or another, were able to get over. But I agree with Captain Korman. I think that one of the biggest things that we have to do, and I think for the most part leaders are trying to do, is to chapter those soldiers and to pursue whatever punishments are there.

But also, having come back and having to deal with the few soldiers that have come up for drug charges since we came back, there are some things that I'm just figuring out right now. While we're sitting here waiting for months for a CID or MPI investigation to complete before we can even move on these things, meanwhile these soldiers, usually the ones that are doing it are the ones that are planning on getting out anyways.

So they're getting that much closer to their ETS date and those types of things, where, you know, it's just part of, I guess part of the process, waiting for the bureaucracy to catch up to it and in some cases, you know, those soldiers may reach their ETS date beforehand, or get off on some sort of technicality, and, you know, being here in Washington, along the I-5 drug belt, it doesn't help too much either, having -- where soldiers are going out on the weekends and seeing the stuff all over the place.

So if they start seeing soldiers, where it looks like they're getting away with it, then it makes our job a little bit tougher to try to enforce those standards.

CHAIR DICKEY: Sorry about that. I want to thank you very much for being here and sharing your experiences with us, and providing some insight that perhaps bring back some memories for some of these guys, and educate those of us who haven't been in that position.

You're actually putting faces on the issues that we've been talking about. So if all of you would join me in thanking these gentlemen.

(Applause.)

Panel Discussion: Physicians

CHAIR DICKEY: I think we have to close today one more panel discussion. I'd like the next panel to come up, and we'll see if I can do a little better job of coordinating introductions and individuals, although it worked reasonably well last time,

right?

Today's second panel discussion is going to include a number of physicians from the Madigan Health Care System, and again, putting a face on the issues that this Board spends its time on.

So we have, and I'll just give the list of names, and then ask you to introduce yourselves briefly, and the same sorts of issues, I think, is to share with us some of the challenges that you face, and some of the constraints, perhaps, in doing your job.

Colonel David Vetter, an internist; Major David Harper, a pediatric subspecialist; Colonel Tommy Brown, a general surgeon; and Captain John -- I hope I'll say this right -- Alvitre, physician assistant and flight surgeon.

So how about if you tell us which name fits with whom, tell us a little bit about yourselves, deployment history if you will, and then talk to us a little bit about the challenges of providing health care.

COL VETTER: My name is Colonel Vetter. I'm an internal medicine doctor at Madigan, the old man up here, I guess. Deployed about six times, most recently to Afghanistan.

CPT ALVITRE: And I'm Captain John Alvitre, the PA in the group. I have six deployments, 21 years in service at this time, and I come representing the FORCECOM, the other side.

COL BROWN: I'm Colonel Tommy Brown, the Western Region Consultant for General Surgery and the program director and the chief out here at Madigan for General Surgery. I deployed in 2005 -- 2006 -- or 2004-2005 to Iraq. I did a turn at Ibn Sina-Balad and deployed with the split FST in Afghanistan, and then last year deployed as a contingent to the Spanish hospital in Herat.

MAJ HARPER: Major David Harper. I'm a pediatric subspecialist by trade. I did a pediatric residency in the Army and then went for a year to Afghanistan as a battalion

surgeon at the PROFIS system, with an infantry battalion.

Then went to Walter Reed and did pediatric subspecialty training, and nearly immediately turned around and went back to the theater, this time again as a battalion surgeon with a heavy brigade combat team. I am now at Madigan as a pediatric oncologist, working in the Medical Center there.

CHAIR DICKEY: And perhaps you can share with us -- you heard a little bit about, the last panel, some of the issues in terms of assuring readiness before our soldiers leave, dealing with issues as they come back, and I know there's particular interest in terms of the behavioral health and the stigma or lack thereof, in terms of people seeking care.

MAJ HARPER: As working down with the battalions, an infantry battalion or whatever, that's both getting ready to deploy and returning from deployment, and then seeing a battalion go in 2005 versus recently, 2010, some of those issues -- the readiness issues,

there's competing interests sometimes, and I think with the new system. But for getting a unit ready to deploy, taking care of the soldiers versus meeting the mission, being able to get soldiers to field, all of the different assignments that any team needs as they go, and whenever you're getting ready for deployment, identifying the soldiers that have medical issues, that maybe they need to stay at home, maybe they need to get out of the Army. Maybe that can be taken care of in-theater, what kind of medical resources are available in-theater to take care of them, is a difficult and challenging process.

It always comes down to the wire for some of those, to the point with the last deployment I went on, as I attached the unit ultimately in the last few weeks, helping the battalion brigade commanders to identify which soldiers need to stay and be able to go, and some of them literally weren't cleared to get on the aircraft to fly to theater, until the day they were able to go.

And for the most part, I think we do it right. But any brigade that goes, it's taking several thousand people, and there's going to be a few that get down range that probably shouldn't have gone. Likewise, there's going to be a few that were in the system and weren't able to go, because there were some medical issues.

But maybe they could have gone and could have been fine on the deployment and done their job, but they got left behind. I think those are individual cases. But when you look at the large number, I think we're doing that right. That's kind of that. I guess I'll see if other people have comments on that, and then I think answer some questions about the others.

CPT ALVITRE: One thing I did notice is, being that I'm an integrated provider, meaning that I'm with my unit 24-7. We go get deployed, we come back. I don't take off. I don't leave. I don't go back to a hospital. So since I belong to that unit, it's very

helpful, because I have eyes-on, you know, every day.

Any time these individuals need any kind of health care, they come to see me first. So I know I'm going to give that continuity of care. I would say if you look across the board, when you compare unit to unit, those with integrated providers do fare well. They fare much better, because they already have somebody who knows what's going on.

A lot of the previous commanders that are up here, they actually don't have integrated either PA, doctor, MD or DO. They don't have a nurse. They don't have somebody that's tracking that, somebody that says, yes, I'm giving you this medication, you know. I prescribed it. I know what's going on, and then I know about all the, be it 90-day medication, you've got to be on it 90 days. We've got to make sure you do well.

So I have, I guess, the wild card up my sleeve, in being able to know my people.

Now that we're not moving units as much, I actually was in my last brigade for five years. So I knew them pretty well. We were able to maintain a 90 percent deployability strength. Other units, you know, were down to, I would say 70 percent.

They didn't have somebody that was integrated with the unit, and when you're talking about 800 to 1,000 personnel, that's a lot of people. So I would say one of the keys we have noted was having a provider that's actually integrated in the unit from the start, and that made a big difference.

DR. JENKINS: Don Jenkins. Tommy, good to see you again. Tommy taught me how to debride IED wounds in 2004, before he left the Balad, went down to Ibn Sina. Good to see you. A question specifically for you. Colonel Homas really is exceptionally proud of the GME mission at Madigan. He told us all about that in great -- vivid detail this morning.

My question specifically to you, as

a program director, do you have protected time away from deployment, or are you going to be gone from the residency training program as a program director for a year or more, and how do you do that?

What's going on in the general surgery programs in the Army, with the program director specifically? How do you protect for that? What is the ROC thing to that, and is there anything that we can do from this end, to make sure that all missions are met?

In ACGME, it was a tough thing for us, because there was a credibility issue. How could you be teaching the military surgeons of the future if you weren't deploying? But at the same time, you're not there as a program director when those people, you miss out on an entire year of the training of your own trainees. Can you talk a little bit about that?

COL BROWN: Well, the ACGME has very specific guidelines for program directors. So a program director can only

deploy for three months at a time, boots on the ground. So you know, I deployed with you six plus months when I was gone before. But once I became program director, my deployments are only three months long.

The program directors, we don't -- there's six of us in the Army General Surgery, and we don't follow the same tempo as everyone else. You know, I deploy every couple of years. The other general surgeons deploy for six month deployments now. Since 2005, the limit general surgeon deployments to six months at a time. The tempo right now, most of the guys who have been in since 2005 or so have deployed three to four times, and they generally have a dwell time of about 12 to 16 months.

So there are some guidelines that have to be followed and that's helpful. Many of the programs, like Madigan, we have three civilian surgeons who help maintain a base for us when multiple providers are deployed. Certainly, you know, the deployment tempo is

very high for general surgeons. It's higher than most any other group, and you know, it takes its toll on your training staff.

But in general, having the program director deploy for a lesser period of time is helpful. If your hospital is able to support hiring a civilian or two to help maintain that base, that's helpful as well.

CHAIR DICKEY: Can any of you address a little bit, I think you may have just a bit, Colonel -- Captain, but the stigma of behavioral health, and whether you perceive that we're improving the problems. I appreciate what you said about being embedded. I think in fact that it must be a phenomenal, I'd say, ace up your sleeve, because of the capability of actually seeing the differences. So much of a power factor.

In fact, I am amazed that we don't just do that for every group. But talking a little bit about the changes you've seen in terms of behavioral health availability and stigma in the last five years or so.

CPT ALVITRE: Ma'am, the behavioral health has, I would say, definitely improved. We've gone from having a far off location to get a psychologist, psychiatrist. Now we have them every FOB, it seems, and in some cases we have up to five. Which has been great, because we bring in the Navy, the Air Force and the Army, everybody working together.

We've also done a lot of the respect.mil or RESPECT-Mil program. We've integrated my -- first it started with my squadron, the battalion level unit, then our brigade. What we did is once a month, we brought in all the commanders, all the company commanders and the first sergeant, because they were the ones doing the administrative part of it, and we talked to them one on one.

We had the chaplain there. We brought somebody from mental health, and then the medical providers for that unit, with the colonel or lieutenant colonel and the sergeant major, and then again, like I said, the commander and first sergeant.

So the commander or the commanding group knew everything going on at their level and below. By doing that, we would go case by case, because this program we developed we did internally, and everybody was doing it. Nobody was talking to anybody about it. Now it's become a standard.

What we do is we would say, hey, has anybody, you know, gone to see you, Chaplain? Has anybody come to the aid station to see you? And pretty soon, we noted that this individual with a minor problem over here, a minor problem over here. We put them together and he had a pretty outstanding issue going on.

You know, so we started piecing that together, and we stayed -- I would say we stayed pretty much a step ahead. We only had to send one individual back for mental health concerns. Other than that, we you know, just monthly talking about it. The commanders had less of a stigma, and everybody, the stigma, I would say, was decreased by having access, by

having that security, HIPAA in a sense, with it.

You as a commander could come talk to me, and I know what I'm supposed to do by HIPAA. I also know what the commander is entitled to, and that's where we get into that gray area. There's the regulation that covers it, and if you give the commander only what they need, they actually have a lot of -- a lot that they're armed with to make proper decisions.

So we started doing that program. It developed to the point that a commander could come see me 24-7 about any of his soldiers, and I would talk to him, and it was between us. If we had to bring it up to the bigger boss, the colonel, lieutenant colonel and sergeant major, we'd take it to him.

By offering that, we actually had a lot of field grades that would come see us for personal matters. So the doors started opening up. People were, you know, the stigma was gone. They knew that they were going to

be secure. They knew that we weren't out there just spreading all of the rumors and what's going on.

Once we felt there was a secure plan in place, we received a lot more, we took care of a lot more, we got a lot more people back to the mission.

CHAIR DICKEY: What would you have said to the captain that was describing it as a bit more problematic than that? Are we asking the wrong questions or just reassuring that if he seeks out the right piece of information, he should be able to get it?

CPT ALVITRE: Going back to that, I would say that, again, as an engineering unit, most of them do not have an internal medical provider who is with them. Since they get somebody, you know, it could be from this group, that shows up, doesn't know them from, you know, anybody else, day one, day 30, you know, of knowing these people.

They're deployed in another country, so they don't know historic background. They,

you know, have to build those bridges. By the time the building of that bridge is there, we're too far. So getting it at the beginning, getting the provider that's integrated. Those, and the chaplain. We integrated our chaplain extensively. We put him through, you know, medical training, EMT. So he was able to be with us. We were able to be with him, and everything worked together.

So it is there, it's available. I would say even if they sought it out. You know, I used to go from JCOP to JCOP, fly out, drive out or whatever, and I'd go out on patrols with individuals. My chaplain actually would go out to the JCOP as well, and so would our command group.

Everybody was integrated. Everybody went out to see what everybody's job was. The more we did that, the more they saw our presence, the less they worried. And then we integrated the medics as a form of counselor, that they could come see our senior medic, who in turn could come see us.

You know, we could get them to the mental health channel, and I believe the Army's developed a program for that as well. So now we're getting a wider net that we're throwing out.

MAJ HARPER: I was going to comment specifically on the other issue. Twice now I've been the provider who's been taken from other hospital and attached with a unit to go. There are some challenges developing trust within the unit, both within the leadership and within the soldiers and things.

But over time, you can definitely do that, and I appreciate the comments before, you know, about getting out there and talking to the commanders and talking to the soldiers. If you can do that, you can be there when the soldiers need that.

Sometimes, it's limited what you can do by just physical location. There are tremendous behavioral health resources that are now available in-theater. But companies and battalions and things are being broken up

on small basis throughout large areas, and there are units that will spend months at a time without being able to have behavioral health provider or a medical provider or a PA.

And I think sometimes they're at a little bit higher risk. The only way to get those kind of providers out to everybody would be basically to have one within each company or each platoon, and I think that's -- being in the right place at the right time for the right person is something that's difficult to do.

The stigma of people seeking health care has changed, or is better, certainly in 2010 or 2011 than it was in 2005, where soldiers feel more comfortable coming and getting help. Leadership certainly knows more about it, and the higher level commanders recognize that they need to help their soldiers deal with it, and there's less pressure.

It in some ways seems to the point now where they expect so much, that the young

soldiers coming in are sometimes almost wondering why don't I have some of these problems? Or, you know, we talk about it so much that being normal or being healthy or not having a problem right now is maybe being seen as abnormal. I'm not sure that's a bad thing. That's definitely an improvement.

DR. ANDERSON: Please talk about the provider side a bit. It's been a long war, huge implications on the medical force structure, if you will, about retention and recruiting and morale in general, CONUS and down range.

COL BROWN: From a general surgery standpoint, you know, again we're a fairly highly deployed group, and you know, most of us have been deployed three or four times, and almost all of us will tell you it's the most professionally rewarding part of our careers.

But what is a problem for us right now, general surgery in particular, is we're losing mid-level providers, because, you know, we have a few guys like me who have been

around for a while and will stay in, and we have all the young, you know, docs who are still coming in.

But we're losing our mid-level providers, because of our deployment tempo, and, you know, when you -- I did a deployment, you know, PDS for this last year, and when you call the guys up and say you're going to Afghanistan, they're okay with that, because they're going to go and they're going to work. We're going to use our hands and do what we're trained to do.

But when we tell someone you're going to Iraq, where the surgical footprint is as big as it's ever been, and we're continuing to just sit there and do nothing for six months, you know, there's a lot of general unhappiness about that. That's driving our mid-level providers out. We're losing our mid-level surgeons at a high rate.

You know, I think everybody would be happy to see us downsize that footprint at places where we're not needed, and we're all

just sitting on our hands.

COL VETTER: It's important to realize that there's two patterns of deployments for medical folks, but also for the ordinary soldier. One is a pattern that's more traditional, where the mission is very intense, the unit's very cohesive, and, you know, I think those folks actually do pretty well.

But there's a modern deployment now where if the mission's not as intense, what ends up happening is you end up being plugged into two totally different worlds at the same time. You know, you can go through your day down range deployed with all the stresses of deployment, and then have internet access or Skype or phone access, and deal with all the things that happen with your family, you know, during that very same day.

Especially on the younger folks, you know, the stresses of those two very schizophrenic worlds really set them up for some challenges. That's the people, I think,

that need the most access to the mental health folks, and that probably generates, you know, a lot of the business. So the deployments I've been on, you know, have been more of the mission intense ones. They've been life-changing, very fulfilling experiences.

But there's also deployments where, you know, you very much are expected to be plugged into both worlds and, you know, making sure the electric bill's been paid and, you know, the oil tank's full and all that kind of stuff too.

So it's a challenge, but I think we also take a lot of pride in being able to meet those challenges. I don't think many people in the world can.

MAJ HARPER: So there's a big need for the Army to have, you know, general medical officers that can fit it any role and support any unit, and be the doc for that group. The pool of people who can fill that, it needs to be a big group, and there's a lot of subspecialty training there.

For example, I do pediatric oncology, and that's my interest. And yet I get pulled and for a year at a time become a general medical officer for a unit. That's rewarding, I think, but it's different, I think, than stepping out of doing general surgery here and general surgery in Iraq, or general surgery here and general surgery in Afghanistan.

And that certainly has taken a toll on some of my colleagues and their goals and their career interests and things like that, with staying in. It's hard to stay academically competitive in a career in research or academic medicine or GME or any of those things, where your career is punctuated by eight, nine, ten, twelve months coming out, and now 16 months sometimes, when we attach to the units and stay an extra 90 days to help with the mental health needs.

But balancing that into a specialized medical career is a challenge, and I know that it's, you know, affecting the way

some people think about their long-term goals.

CHAIR DICKEY: Dr. Jenkins.

DR. JENKINS: For you, Major, a quick couple of questions. I respect you tremendously as the father of a childhood leukemia survivor, cared for by a brilliant Air Force pediatric oncologist. I have friends as pediatricians who've deployed in this role, and it has to be tremendously challenging to care for a population of patients who you've never been trained to care for.

What specifically did you do or the Army, to be able to you -- to prepare you for that role, taking care of adults with adult problems and specifically some of these challenging mental health issues, number one?

Number two, it's my personal opinion that the only way to effect a change in field care, a la Tactical Combat Casualty Care, you have to engage the surgeons, because that's the point at which all medical care flows into the field. Did you specifically, or does the

Army have an update kind of program that, for instance, we voted today on the use of tranexamic acid at the combat medic level.

What training specifically would you receive, in terms of an update of the latest practices and such in-theater, before going?

MAJ HARPER: In 2005, nothing, no updates, and I'll talk about 2010 in just a minute. So the challenge of jumping to taking care of adult medicine, I think -- I don't want to say pediatricians can't. I think we do a very good job of taking care of soldiers, because we have training in adolescent medicine, and a lot of the behavior, the substance abuse and you know, just the way that young soldiers think and a lot of the problems they have, we have a lot of training in, and it's rewarding to apply that there.

But what we're not necessarily well-trained in or good at is trauma first aid, and yet at that level, at the PROFIS level, that's really, you know, where you end up. In 2005, there wasn't a lot. We went through kind of

what the brigade surgeon had organized down at the brigade level, and went through that training.

That's now standardized, and as I went in 2010, I had the opportunity to go down to Fort Sam Houston and take the Tactical Combat Casualty Care course for providers, and review. Not just getting my own hands back on, but that course is continuously updated from what we're learning from the field. So that's definitely something we've done well, and that's from both my experience and the experience of others.

The one downside to it, though, is that's another couple of weeks, you know. So you tack that on ahead of a deployment or whatever, and that's more time away from what you're trying to do.

CHAIR DICKEY: In a follow-up to that question, there's some evidence, and I think most of it, all of it perhaps going from the military, that on the flip side of that, where you've gone and been dealing with

advanced adolescent medicine, if you will, you step out of your specialty for a period of time, and for as long as a year or more, and then you're going to come back and jump into that.

So I guess the question is first, is there any retraining when you come back, and second, are there lessons that the military may have learned as we look at civilian medicine, where people are more commonly today stepping in and out of clinical practice than perhaps they did 20 years ago?

MAJ HARPER: There are opportunities for retraining. If you -- certainly within skilled things for surgical procedures and things like that, I know there are opportunities.

For my specialty, if I would have asked and said I need time, then, you know, time could have been provided. I had some good partners here and some mentors. So things that are maybe not as fresh, you have time to review and things like that.

But honestly to come back from that period of time, when you're gone away, it taxes the system that you came from, and you came back in and as you reintegrate, you integrate with your family and things, you start to get back in. Finally, whoever's been covering for you is, you know, they need a break too, to some degree.

And so to take -- you know, to answer that question honestly, to take a lot of time and say I need this time to retrain on things, is putting your friend, your colleague, the other person in the trench, you know, potentially in a difficult way.

But with that said, in my experience, I've had good colleagues and good mentors who were able to get back in, to review things, to work together as a team, and we've been able to do it and be okay. But -- and I was offered the opportunity to do retraining if I felt like I needed it, but didn't, because of those other reasons.

CHAIR DICKEY: Last thoughts or

other questions?

(No response.)

CHAIR DICKEY: Gentlemen, allow us to thank you for at the end of I'm sure a long day for all of you, coming over and sharing your insights with us. If you'll help thank the doctors for it.

(Applause.)

CHAIR DICKEY: I know what our civilian doctors would say if we asked them at the end of the day to please come over and brief a group of people. So we thank you very much for the additional time, and no extra pay, I suspect, right?

(Laughter.)

Closing Remarks

CHAIR DICKEY: Ms. Bader, a little late, but would you like to offer any administrative remarks before the meeting is adjourned?

MS. BADER: Sure. Just very briefly, I mean, there's a manila envelope for everyone around the table, for you to put your

materials from your binder in your manila envelope, and then you can take that home this evening.

As a reminder, the Board will be conducting a site visit tomorrow to Madigan. This site visit is not open to the public. We will at 6:45 meet in Venice 2 for an administrative session and breakfast, and lunch will be served at the McChord Club.

Members and invited guests are kindly requested to convene in the hotel lobby by 7:30 tomorrow morning. If you're not joining us for lunch -- I mean, excuse me, for breakfast -- and then at 7:30 we'll board the bus to Madigan.

For those who are joining us for dinner tonight, we will convene in the lobby by six to take a shuttle to the restaurant and a return shuttle will be provided as well. I'm going to ask Jen Klevenow to talk a little bit about the logistics tomorrow. I know folks have flight times that vary throughout the day. So she's going to give us a little

bit of information on shuttles.

MS. KLEVENOW: Hi. Okay, so like Ms. Bader said, 6:45 a.m. is breakfast next door. We are going to leave promptly at 7:30 and head over to the base. For those of you that are going on the site visit but cannot stay until the end time, I guess, please let me know. We do have a vehicle on standby.

We will use that vehicle to either transport you back or possibly even the airport. We just need to know in advance. But we do have that one vehicle on standby. For dinner tonight, if you haven't RSVP'd, please let me know. We may need to change seating arrangements at the restaurant, and the same goes for tomorrow.

If you did not register for tomorrow but you plan to attend, please let me know, so that we can make the arrangements for you. I don't have anything else.

CHAIR DICKEY: All right, thank you very much, and let's see. This meeting of the Defense Health Board is adjourned. I want to

thank all of you for attending. Particularly, I want to thank all of you for coming, as we were going to have some challenges with quorum and I think we got a tremendous amount of work done.

We thank all of you who made presentations and helped us get through that as well, and this meeting is now adjourned.

(Whereupon, at 5:25 p.m., the above-entitled matter was adjourned.)