

**DEPARTMENT OF DEFENSE APPROPRIATIONS  
FOR FISCAL YEAR 2015**

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**WEDNESDAY, APRIL 9, 2014**

U.S. SENATE,  
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,  
*Washington, DC.*

The subcommittee met at 9:58 a.m., in room SD-106, Dirksen Senate Office Building, Hon. Richard J. Durbin (chairman) presiding.

Present: Senators Durbin, Mikulski, Cochran, Murkowski, and Blunt.

DEPARTMENT OF DEFENSE  
MEDICAL HEALTH PROGRAMS

**STATEMENT OF LIEUTENANT GENERAL PATRICIA D. HOROHO, SUR-  
GEON GENERAL, DEPARTMENT OF THE ARMY**

OPENING STATEMENT OF SENATOR RICHARD J. DURBIN

Senator DURBIN. Good morning and welcome to the subcommittee. We are going to start a minute or two early, because Senator Mikulski has to get down to the floor on an important issue that is pending before us, and we will be called for a vote at 11 o'clock, so we want to have her participation and as much time as possible.

Before we begin this hearing this morning, I am going to ask all who are gathered here today to join me in standing for a moment of silence for those who died at last week's tragic shooting at Fort Hood, including Sergeant First Class Daniel M. Ferguson, Staff Sergeant Carlos Lazaney Rodriguez, and Illinois native Sergeant Tim Owens.

Would you all please rise?

Thank you very much.

I would like to welcome our witnesses, Lieutenant General Patricia Horoho, Surgeon General of the Army; Vice Admiral Matthew Nathan, Surgeon General of the Navy; Lieutenant General Thomas Travis, Surgeon General of the Air Force; and Mr. Christopher Miller, program executive officer for Defense Healthcare Management Systems.

Our hearing today focuses on the well-being of our servicemembers, and it is paramount on our minds. One of the responses to the tragic shooting at Fort Hood on April 2 has been to ask questions about how we support our troops as they deal with

stressors from long overseas deployment, personal relationships, financial stress, and so many other things.

I am not going to speculate about what happened that caused this tragedy at Fort Hood. The investigation will have to answer those questions. But in an interview with the Washington Post this weekend, General Peter Chiarelli, the former Vice Chief of Staff of the Army, stated that efforts to hire more mental health clinicians are hamstrung by the same shortages that affect the entire country.

This is an alarming statement from a retired general who has put so much work into how the Armed Forces deals with post-traumatic stress.

This subcommittee is keenly interested in the witnesses' assessment of the Defense Department network of care for servicemembers and families. And we may never know the cause, the real cause, of this tragedy at Fort Hood. But last week's tragedy shows us that even at one of the best military bases in the world, with a reputation for mental health excellence, there are problems that still exist. This subcommittee is committed to identifying strategies to confront those problems.

While caring for the psychological health of our servicemembers remains a serious challenge, achievements in medical research for battlefield medicine have been enormous. Improved tourniquets and compounds, like QuikClot, treat hemorrhages and have given our servicemembers extra minutes and hours that literally make the difference between life and death.

Thanks to these research efforts, military personnel in Iraq and Afghanistan survived and are surviving at a rate 2 to 3 times that of the Vietnam War. It is nothing short of a miraculous revolution.

These advances don't stop at the battlefield or at level one trauma hospitals. Amazing research affecting the quality of life of this new generation of wounded warriors has been emerging. There is a picture I am going to show you of Army Specialist Luis Puertas, who I met last month when he was in Washington.

September 2006, he was on patrol in Baghdad; a bomb ripped his Humvee. He lost both of his legs instantly. The department's advances in medical research saved his life and gave him an opportunity to inspire a Nation.

When he arrived at Walter Reed, he said he just wanted to learn how to walk again. Then he said a strange thing happened. He decided that instead, he wanted to run. He played soccer in high school in Florida. He had never run competitively, so he started training.

Three hundred and sixty days after his amputation, he had his first Army 10K. Last May, he competed in the fourth annual Wounded Warrior games in Colorado Springs, finishing first in 100-meter, first in the 200-meter, and first in the 1,500-meter races.

He represented the United States at the 2013 International Paralympic Committee World Championships in Lyon, France, last July. And he wants to represent the U.S. in Rio in 2016. Lives saved, lives improved. This is what medical research is all about.

Researchers at Johns Hopkins University, and I know the pride that Senator Mikulski takes in that great institution, performed

the first-ever double hand transplant procedure on a combat-wounded quadruple amputee in December 2012.

Last year, and I am equally proud, the Rehab Institution in Chicago has joined in research contributing to the world's first thought-controlled bionic leg. Astounding.

It is a result of American researchers across the country rising to the challenge and pushing the boundaries. None of it would have been possible without the investments made by the Department of Defense (DOD) and Congress and the American people working to ensure that we maintain our lead role in research and innovation.

Today's budget, of course, faces a constrained environment, but we also have to continue to think of new ways to provide healthcare and research.

Captain James A. Lovell Federal Health Care Center in North Chicago is the first of its kind partnership between the Active military, in this case, the Department of the Navy, and the Department of Veterans Affairs (VA). This was a rough marriage, to bring together in a matter of just blocks that Great Lakes Hospital and the North Chicago VA Hospital that was destined to be closed. It is open, and they merged together.

The battles we fought between different cultures, Active military versus VA, different unions, different computer systems. I want to know if we have learned anything from it. I will ask that during the course of the hearing.

In a similar vein, the Integrated Electronic Health Record program is long overdue and long over budget. It is time for some hard questions to be asked about whether progress is being made.

Finally, and most recently, the fiscal year 2015 budget proposes consolidating TRICARE, as well as additional fees and pharmacy co-pays, in order to rein in escalating and unsustainable health care costs. I can't think of a more controversial issue that can come before any committee that relates to our military than to talk about benefits, starting with TRICARE. So we are going to ask a few questions today about it.

I look forward to your testimony.

Since Senator Cochran is not here at the moment, I will turn it over to the chairman of the full committee, Senator Barbara Mikulski.

#### STATEMENT OF SENATOR BARBARA A. MIKULSKI

Senator MIKULSKI. Mr. Chairman, thank you very much, and thank you for your prompt rescheduling of this hearing. I know there had to be some arrangements earlier.

And to you, sir, I really want to note your longstanding commitment to the health and well-being of our military, both as they fight the war and when they come.

It was you who introduced me to Tammy Duckworth, then a young military officer who had done some of her tour in Maryland in Cecil County up near Aberdeen, and then, of course, in the tragic helicopter shooting where she lost both of her legs.

And now thanks to military medicine, and her own grit, verve, courage, and bravery, she is now Congresswoman Duckworth. Aren't we proud of her and the healthcare system that helped bring her to us and bring her back home?

So today, I know that, as we look at our budget, we have to focus on several things. Thanks so much for the moment of silence for Fort Hood, but it shows that we need to have a renewed commitment also to mental health.

So much of military medicine focuses on acute care, and I believe that we need to support that, the physical injury in battlefield, the mental health toll that it has taken, and the work that we need to do on acute care.

But acute care is really based on research. I really believe that we thank you again for what we put in the budget, and the President. But let's take a look at our research budget to make sure we are putting the right resources in the right way for what the soldier and his or her family is facing.

You noted that double-amputee transplant that Dr. Lee performed at Johns Hopkins. It was stunning.

I recall another case when I visited Walter Reed where there was this young man bending over a table, and as he turned to face me, and I wanted to shake his hand, there had been an amputation right above the elbow on both arms because of an IED (improvised explosive device) in Iraq. I thought about that guy for a number of years as we have worked on this issue.

So when I went to Hopkins to hear about this, it was stunning, the fact that they could do a transplant on both arms, muscle and nerve. It was phenomenal.

Mr. Chairman, what was so phenomenal, too, was not only the brilliance of the surgeon, but the new techniques being developed so that there wouldn't be the rejection of the surgical efforts that ordinarily happen.

So we are onto something. But it takes a lot of work of gifted scientists, and it takes a lot of money to be able to do that. So we need to focus on all of that.

But the other things I am going to focus on are sometimes called soft medicine, but there is nothing soft about it. And this goes to the areas of public health, infectious disease, and adopting best practices from the civilian domain.

Right now, we are worried about Russian troops mounting on the Ukrainian border. I worry about that too. And we should. But I also worry about Ebola sweeping across Africa, that could sweep across the Atlantic and sweep right into our own country.

And I know that as we stand sentry in a global network of public health and biosurveillance on a disease like Ebola, where are they doing that? They are doing it at CDC (Centers for Disease Control and Prevention), but they are doing it right up at Fort Dietrich in Maryland, where they have seen it. They know what to do. There has even been a movie about it. So nobody thinks about that. Yet the consequences to our society could be something. Infectious disease, public health.

And last but not at all least, best practices from the civilian domain. I was appalled to read the latest data of the number of military personnel who are now on food stamps.

Mr. Chairman, I know you and my good friend—our good friend—Roy Blunt on the Agriculture Committee are shocked by the fact that there has been a tremendous increase in the number

of our military on food stamps. Right now, there are several thousands. Can you believe that?

So not only is there the stress of battlefield. There is the stress of even being a soldier.

So then we wonder why do they smoke? Why do they overeat the wrong foods? Why aren't they doing broccoli and quinoa and kale? And why aren't they watching Dr. Oz and Mark Hyman? Why aren't they at Whole Foods? They are trying to get food, let alone Whole Foods.

So I think we need to look at this. The fact that now we are actually going to cut the commissaries, can you believe that? We will spend millions and millions and billions on many of the things that we do that are important. I don't minimize that. But we need to be looking at what we do to support the military family.

I know you have embarked on something called the Healthy Base Initiative, which, quite frankly, I am very excited about, because it is the best practices coming from the civilian domain to support the family with everything on a base, from what goes on at the daycare center to what is being sold in the commissary.

I really don't think we ought to cut the commissary budget. I also don't think we ought to have military on food stamps. And I think if we want to be really looking at the stress the families are facing in our military, the everyday stress, we have to look at their activities of daily living, support them, and have a more holistic approach and a more integrative health.

So we have a lot to go over, and it ranges from acute healthcare to mental health to research to infectious disease that could sweep the Nation, to really looking at our family across the stovepipes, because I know the commissary budget doesn't even come under you all, and yet it is one of the most important tools that you have on the health and well-being of the military families located on garrisons throughout our country.

So thank you for your service. Let's look forward to how we can work together.

Mr. Chairman, you now know why I wanted to get a doctorate in public health.

Senator DURBIN. Your efforts are going to help progress in that area as much as a doctorate. Thank you, Madam Chairwoman.

Senator Blunt, do you want to say a word or two in opening?

Senator BLUNT. I will wait for questions.

Senator DURBIN. Thanks a lot.

Let me just say that we are going to recognize first Lieutenant General Patricia Horoho, Surgeon General of the Army.

Each of you has a written statement, which we have reviewed and put in the record, so take 5 minutes and give us the highlights and summary.

#### SUMMARY STATEMENT OF LIEUTENANT GENERAL PATRICIA D. HOROHO

General HOROHO. Thank you, sir. Chairman Durbin, Chairwoman Mikulski, and Senator Blunt, thank you for this opportunity to tell the Army Medicine story.

On behalf of the nearly 156,000 dedicated soldiers and civilians who comprise Army Medicine, I extend our appreciation to Congress for your support.

Recently, our Nation felt the weight of another tragedy at one of our military posts. My heart goes out to their families for their loss. The survivors, their families, and the entire Fort Hood community are demonstrating courage and resilience through these difficult times.

We are supporting and tracking the progress of the survivors, providing longitudinal care and support throughout recovery, just as we continue to do for those who were impacted by the 2009 Fort Hood tragedy.

I am extremely proud of the teamwork, the support, and the compassion displayed, and it truly is a total Army and community effort. I want to thank the members of the committee who have reached out to our soldiers, families, and the communities at Fort Hood.

I want to also recognize the Army's 32,000 soldiers deployed to Afghanistan, the additional 120,000 soldiers deployed in support of the national defense strategy and their families for the strength and foundation. We continue to optimize health and expand our reach, truly focusing of the total Army Force, Active, Guard, and Reserve.

Today, I am happy to report that this hard work is showing results in moving us toward a system for health. Our medical and dental readiness levels are the highest since 2001. Behavioral healthcare has increased from 900,000 encounters in 2007 to almost 2 million encounters in 2013.

Since embedding behavioral health into our brigades, soldier access outpatient behavioral healthcare more frequently, had fewer acute crises, and required approximately 25,000 fewer inpatient psychiatric beds days in 2013 compared to 2012.

Through expanded use of complementary therapies, integrated pain management, and clinical pharmacists in our medical homes, we saw a decrease in polypharmacy by almost 50 percent.

Our performance triad of healthy sleep, activity, and nutrition is spreading across our total Army Force. And at our Army wellness centers, 62 percent of individuals saw a 4-percent decrease in their body mass index and a 15-percent increase in cardiovascular fitness.

These successes are due to a comprehensive system of care that extends from a deployed environment across our medical commands and into the lifespace. This translates to better health, improved readiness, lower healthcare costs, and a stronger Army. But there is more that we must do.

As a leader, I get asked what keeps me up at night. I worry about the long-term repercussions of these wars on our veterans. I worry about sexual assault and sexual harassment occurring across our Nation and Department of Defense. I fear that in these times of dynamic uncertainty, our military hospitals are viewed through the lens of a civilian healthcare system. I worry that our Nation does not fully understand the model of combat care and the vital connection between the battlefield and our military hospitals as readiness platforms for skilled sustainment.

I worry about losing the science and technology that has accelerated medical advances, giving the American public the confidence to allow their sons and daughters to serve. I am concerned that

Army Medicine is viewed through an optic that is not wide enough to appreciate that we train more than 35,000 students annually at our AMEDD (U.S. Army Medical Department) Center and School and have almost 1,500 physicians in graduate medical education where our board pass rates are higher than the national average.

I am concerned that our nurse anesthetist program, which ranks No. 1 in the Nation, and our physical therapy doctoral program, which ranks fifth nationally, remain connected to our readiness platforms.

Our wartime lessons learned led to more than 30 evidence-based military clinical practice guidelines, saving lives and improving outcomes.

During the last 10 years, there have been over 450 patent applications for inventions that involved our medical research and materiel command, our labs, and our hospitals. We are more than healthcare providers in a hospital; we are a robust interconnected system that has accelerated research, academics, and medical innovation for our Nation.

As we go through times of dynamic uncertainty, we must preserve these medical capabilities to meet our Nation's mission. What is at stake is not the day-to-day care, but our ability to respond to future missions at the level we have over the past 13 years. We must aggressively sustain our readiness platforms and maintain trust with the American people.

#### PREPARED STATEMENT

Though we live in uncertain times, one thing is certain: A healthy, resilient, and ready Army will be, as it always has been, the strength of our Nation.

I want to thank my partners within the Department of Defense, the VA, my colleagues on the panel today, and the Congress for your continued support. Army Medicine is truly proudly serving to heal and honored to serve.

Thank you.

[The statement follows:]

#### PREPARED STATEMENT OF LIEUTENANT GENERAL PATRICIA D. HOROHO

Chairman Durbin, Ranking Member Cochran, and distinguished members of the subcommittee, thank you for the opportunity to tell the Army Medicine story and highlight the incredible work of the dedicated men and women I am honored to serve with. On behalf of the dedicated Soldiers and civilians that make up Army Medicine, I extend our appreciation to Congress for the faithful support to military medicine, which provides the resources we need to deliver leading edge health services to our Warriors, Families and Retirees.

I would like to start by acknowledging America's sons and daughters who are still in harm's way—today the U.S. Army has 32,000 Soldiers committed to operations in Afghanistan and an additional 120,000 Soldiers forward-stationed or deployed in nearly 150 countries, doing the hard work of freedom. And to the Army Medicine personnel currently deployed in support of global engagements—they and their families are in my thoughts, making me proud to serve as the Surgeon General of the Army.

Since 1775, America's medical personnel have stood shoulder to shoulder with our fighting troops, received them at home when they returned, and been ready when called upon to put their lives on the line. While the wounds of war have been ours to mend and heal during a period of persistent conflict, our extraordinarily talented medical force also cared for the noncombat injuries and illnesses of our Soldiers and their Families. It is an honor to serve as the commander of this outstanding

healthcare organization, caring honorably and compassionately for our 3.9 million beneficiaries.

Never before has our Total Army had such a combination of years of combat medical experience, innovation and technology, communications systems to link us together, and a training platform to build a diverse array of skill sets. The strengths of the Army Medicine Team have been built on the lessons learned, codified and continually tested and improved upon, because our Nation's heroes deserve nothing less.

Today Army Medicine provides responsive and reliable healthcare, while improving the readiness, resilience, and performance of our Force. We focus our efforts across the four top priorities: Combat casualty care; readiness and health of the Force; a ready and deployable medical force; and the health of families and retirees. These four priorities are strategically nested with those of the U.S. Army and Military Health System, and span the entire spectrum of health from medics providing combat casualty care on the battlefield to primary care teams back in garrison caring for Soldiers, Families and Retirees.

#### COMBAT CASUALTY CARE

Combat Casualty Care extends from lifesaving treatment by the medic at the point of injury, to the combat support hospital, through theater evacuation, to definitive care, healing and rehabilitation at our U.S.-based Medical Centers, and includes the transition of our Wounded Warriors back to service or returning home as Veterans through the disability evaluation system. And Combat Casualty Care is not limited to the battlefield of today, but extends to the research and development, development of leaders and doctrine that will save lives and maintains health in all future operational environments. The Soldiers serving in combat zones now and in the future deserve the same quality care as those who we served during the peak years of two simultaneous theaters of conflict.

Our medical teams have achieved the highest combat survival rates in history. Multiple improvements in battlefield medical care, including the effective use of Tactical Combat Casualty Care protocols at the point of injury, tourniquet use, rapid evacuation, and early pain management strategies have contributed to the all-time high survivability rate of 91 percent during Operations Enduring Freedom and Operations Iraqi Freedom despite more severe and complex wounds. Moreover, our unwavering support of wounded, ill, or injured Soldiers has allowed necessary healing and recovery, and enabled a 47 percent return-to-duty rate for the Force. This translates to a cost-avoidance to recruiting and training of \$2.2 billion.

We also have considered the long-term impacts of war, recognizing that not all combat injuries are visible. The rapid coordination of traumatic brain injury screening and clinical practice guidelines allowed for our in-theater concussive care centers to provide a 98 percent return-to-duty rate. In addition, by embedding capabilities such as behavioral health and physical therapy with deployed units, we provide early intervention and treatment, keeping the Soldier with the unit and decreasing the requirements to evacuate Soldiers from theater. Through a combination of efforts, suicides in Active Duty Soldier ranks fell from 165 to 126 in 2013.

#### READINESS AND HEALTH OF THE FORCE

Army Medicine directly influences combat power by ensuring the medical readiness and the health of the Force, both Active and Reserve Components. To maintain a ready and deployable Force, our Nation's Total Army requires a comprehensive System for Health designed to maximize the fighting strength, prevent disease and injury, build resiliency and promote healthy behaviors. Our personnel and services must maintain, restore, and improve the deployability, agility, and performance of our Service Members. Our readiness platforms include aid stations, Soldier Centered Medical Homes, dental clinics, garrison medical facilities. Programs and initiatives designed to improve healthy behaviors, such as the Performance Triad of healthy sleep, activity, and nutrition, increase the health and resilience of our Soldiers to better prepare them for challenges unseen.

#### A READY AND DEPLOYABLE MEDICAL FORCE

A ready and deployable medical force is key to the support of the Army and the Nation. We must also ensure our own medical personnel are prepared for future challenges. The skills, knowledge, and abilities that have provided our Nation's military the highest quality care must be preserved, and continue to evolve to meet the needs of future conflicts. Our Nation has never had a more combat skilled medical force, able to rapidly introduce lessons learned from the battlefield into mainstream clinical practice. It is the healthcare of our Soldiers, Families, and Retirees in the

garrison environment that provides the clinical platform for our providers to treat, train, educate, and maintain the critical wartime clinical skills needed to save lives along the continuum of battlefield care. Whether it is the clinical currency of deployed healthcare providers, or the training and leader development to command a medical treatment facility, Army Medicine ensures the Army maintains a medically ready Force and a ready medical force to support them.

#### THE HEALTH OF FAMILIES AND RETIREES

Our Families have demonstrated unprecedented strength and resilience, quietly shouldering the burdens of our Nation's wars. Our System for Health provides care that recognizes the unique circumstances and stressors placed on our military families. By decreasing variance across our enterprise through service lines, we are employing a system that improves efficiency, quality, and the patient care experience.

A comprehensive and coordinated team working to move the dial further towards health has demonstrated that this model can and does work. The successes seen in our Patient Centered Medical Homes and Army Wellness Centers, with decreased Body Mass Index, improved health outcomes, improved medical readiness, and decreased over-utilization of emergency room (ER) services, are several examples of how our model or care can improve the health of our population.

As the size of our Army draws down, we must continue to support a high-quality, leading-edge healthcare system. This is both a time of challenge—and a time of great opportunity. We remain steadfast in our commitment to four top priorities: combat casualty care; readiness and health of the Force; a ready and deployable medical force; and the health of families and retirees.

#### MILITARY MEDICINE AT A CROSSROAD—THE INTERWAR YEARS

Since September 11, 2001, more than 1.5 million Soldiers have deployed, and many have deployed multiple times. Our Nation has never endured two simultaneous conflicts for this length of time. We must make certain we use our inter-war years, working aggressively to ensure we maintain robust combat casualty care skills and maintain trust with the American people. Our Nation's sons and daughters in uniform deserve nothing less than the level of support and capability we provided during our years in Iraq and Afghanistan.

Army Medicine encompasses care, education, training, and research that extend through the full life-cycle of a Soldier. Our commitment to Wounded Warriors and their Families must never waiver, and our programs of support and hope must be built and sustained for the long road ahead as the young Soldiers of today mature into our aging heroes in the years to come. For those who have borne the greatest burden through injury or disease suffered in our Nation's conflicts, we have an even higher obligation to the wounded and to their families. They will need our care and support, as will their families, for a lifetime.

#### NOT UNTIL I HAVE YOUR WOUNDED

We are at our best when we operate as a part of a Joint Team. Between 2005 and 2013, the case fatality rate for US personnel in Afghanistan decreased significantly from 17 percent down to 9 percent, despite increases in battlefield injury severity. Our collective effort—Army, Navy, and Air Force—transcends individual services, seamlessly synchronizes care, and saves lives on the battlefield. The Army Medical Department (AMEDD) is focused on building upon these successes. As we continue our readiness mission at home, we are steadfast in our commitment to working as a combined team, anywhere, anytime.

The AMEDD contributes 40 percent of the MHS personnel hours, and provides 49 percent of the care to all Service Members. We are not only the Army's readiness platform, but also a significant contributor to the readiness of our total military.

Our medical combat readiness, from how we train to how we treat, has inherently unique characteristics compared to trauma training received in the civilian sphere. Performing complex combat trauma care in a chaotic and hostile environment, whether at the point of injury or en route to a combat support hospital, requires a mastery of complex clinical skill sets, performing simultaneous triage and emergency care. It is only through the continued use of validated and matured training platforms that we sustain the capability and maintain a highly proficient medical force ready for the next theater of conflict.

The Borden Institute is an agency under the AMEDD Center and School (AMEDD C&S) that was established in 1987 to foster and promote excellence in military academic medicine through publications. In 2013, the 4th edition of the Emergency War Surgery (EWS) handbook was published, capturing the most current lessons learned from battlefield medicine, and highlighting advancements in both techniques and

processes that are shown to improve survival rates. The newly formulated paradigm of Damage Control Resuscitation provided balanced resuscitation techniques that have reduced the mortality rate of massive transfusion casualties from 40 percent to less than 20 percent. In addition, the EWS handbook outlines the Tactical Combat Casualty Care (TCCC) system, which divides forward care into stages depending on the tactical situation, including guidelines for when and how to employ hemorrhage control, airway management, and tourniquet use.

Our Army is charged with being prepared to face tomorrow's challenges. Wartime medical lessons learned have led to over 36 evidence-based, battlefield-relevant Clinical Practice Guidelines that have decreased combat morbidity and mortality. As we continue to care for the needs of the current Force, we must also anticipate how our National Defense strategic pivot to the Asia-Pacific could influence medical threats. History demonstrated during the Vietnam War, Korean War, and World War II's Asia-Pacific conflicts, that the cumulative effect of disease represented the greatest drain on U.S. combat power.

#### TRAUMATIC BRAIN INJURY

Between 1 January 2000 and 30 June 2013, almost 300,000 DOD Service Members worldwide have been diagnosed with Traumatic Brain Injury (TBI), with approximately 82 percent of these injuries being classified as mild TBI or concussions. Since 2000, Army Soldiers comprise almost 60 percent of all DOD TBI cases, making this issue a clear priority in Army Medicine. Since almost 80 percent of the Army's TBI cases occurred in garrison, our need for continued research to improve care is not limited to wartime medicine.

Army Medicine leads the Nation in TBI efforts; we have mandated TBI education across the entire Army, published a comprehensive TBI screening policy in both deployed and garrison environments, implemented a TBI tracking mechanism for Soldiers, and employed sensor technology to learn more about concussions. We also ensure that every Army MTF has the capability to care for Soldiers with TBI. For fiscal year 2015 we have invested over \$77 million in our infrastructure to provide care for Soldiers who have TBI.

Through case experiences such as those at the National Intrepid Center of Excellence (NICoE), we better understand the broad range of complexity that can be seen in TBI. The Army is engaged in multiple efforts to ensure Soldiers exposed to potentially concussive events and those diagnosed with mild TBI/concussions are tracked to provide situational awareness to healthcare providers and leaders, and improve medical care delivery. For those with more complex diagnoses, satellite facilities are being built across the Army through the generosity of the Intrepid Fallen Heroes Fund. Construction of the Intrepid Spirit Satellite facility at Fort Campbell is nearing completion, and Army Medicine will provide operational sustainment that equates to \$11.7 million. This is the first of six Army satellites to be built, with others planned at Fort Bragg, Joint Base Lewis-McChord, Fort Hood, Fort Carson and Fort Bliss. These centers will provide advanced integrated care for patients who have multiple diagnoses (to include TBI, chronic pain, and behavioral health disorders) and require intensive outpatient treatment.

The Army Medical Research and Materiel Command (MRMC) manages the largest TBI research portfolio in the world. The DOD has invested over \$730 million since 2007 on TBI research designed to advance detection and treatment, including studies to identify TBI biomarkers, improve neuroimaging techniques, understand the chronic effects of neurotrauma, and evaluate new treatments.

To better address the long-term consequences of blast, we must first be able to objectively identify blast exposures in the individual Warfighter. U.S. Army Training and Doctrine Command (TRADOC) has teamed with MRMC to investigate currently deployed military sensors and additionally any commercial off the shelf (COTS) sensors currently in use by the athletic community. The helmet mounted sensor is providing complementary early identification data on Soldiers that are exposed to potentially concussive events. The Joint Trauma Analysis and Prevention of Injury in Combat (JTAPIC) Program is the repository for the sensor and exposure data, and shares the data across the DOD.

Addressing known gaps throughout the continuum of care, and through collaborations with numerous academic and industry partners, the Army's TBI research portfolio addresses basic science, prevention, detection, screening, assessment, treatment, recovery/rehabilitation, and chronic effects. These scientific advancements will lead our Nation to breakthroughs in detection and care benefitting both military and civilian TBI/concussion patients.

While research in civilian medicine can take 16 years to integrate findings into clinical practice, through collaboration with organizations such as the Defense Cen-

ters of Excellence and the Defense and Veterans Brain Injury Center, we are able to more rapidly translate research findings into the latest guidelines, products, and technologies. Improved data sharing between agency, academic and industry researchers accelerate progress and reduce redundant efforts without compromising privacy. This rapid coordination is what led to a 98-percent RTD rate in theater for those Service Members treated at our Concussion Care Centers in Afghanistan.

In August 2013, the White House released the National Research Action Plan (NRAP) mandating interagency collaboration to better coordinate and accelerate TBI and psychological health (including suicide) research. MRMC is working closely with other Federal agencies such as National Institutes of Health (NIH), National Institute of Neurological Disorders and Stroke (NINDS), National Institute on Disabilities and Rehabilitation Research (NIDRR) and the Department of Veterans Affairs (VA) to execute the President's National Research Action Plan. In addition, the Federal Interagency Traumatic Brain Injury Research (FITBIR) Informatics System is a central repository for new data, using common data elements, and linking existing databases to facilitate data sharing among military, Federal and civilian researchers and clinicians.

#### THE TRANSITIONING FORCE

There is no greater honor than serving to help wounded, ill or injured (WII) Soldiers heal and transition successfully back to the Force or into private sector jobs and careers. Warrior Care is an enduring commitment for our Army. I want to thank the Congress for your unwavering support of these efforts and for the warm embrace of our communities as we transition our Veterans back to hometown USA. Army Medicine supports programs such as Soldier for Life, aimed at best serving our transitioning Warriors. The Soldier for Life program enables Soldiers, Veterans, and Families to leave military service with the resources regarding employment, education, and health.

Since the inception of Warrior Transition Units (WTU) in June 2007, nearly 67,000 Soldiers and their Families have either progressed through or are being cared for by dedicated caregivers and support personnel. Over 30,000 of these Soldiers have returned to the Force, and nearly 15,000 are still serving. This translates to an overall cost-avoidance to the Army of \$2.2 billion to recruiting and training new accessions.

The Army created Warrior Transition Units (WTUs) to provide command and control as well as medical management for Active Component, ARNG, and USAR Soldiers. The WTU population continues to decline as fewer Soldiers whose injuries and illnesses require this focus are entering these units, more Soldiers departing, fewer deployments, fewer medical evacuations, and fewer Reserve Component mobilizations.

Recent Force structure changes within the Warrior Care and Transition Program (WCTP) are a direct reflection of the decreasing WTU population, and retain scalability in order to meet the Army's future needs. Over the past 14 months, the Army-wide WCTP population has declined by approximately 3,000 Soldiers as a result of reduced contingency operations, thus allowing the Army to tailor the WCTP structure to best meet the needs of the declining population. As of March 10, 2014, 6,826 Soldiers were assigned or attached to WTUs and CBWTUs—the lowest level since the fall of 2007. This is the result of a well-synchronized effort across the DOD to decrease variance in how we manage our WII.

Despite a declining WTU population, our commitment to provide the best care and support for our WII Soldiers is unwavering. Therefore Secretary of the Army approved the implementation of several changes to the WCTP during fiscal year 2014 to include inactivation of five WTUs and establishment of 13 Community Care Units (CCUs) on 11 selected installations to replace the nine Community Based Warrior Transition Units (CBWTUs).

In fiscal year 2014, the Overseas Contingency Operations (OCO) contribution to the WCTP has decreased while the Defense Health Program contribution remains constant. We anticipate that the overall impact of deactivating 5WTUs and activating 13 CCUs will net a financial savings of approximately \$7 million for the Army by fiscal year 2015.

These WTU Force structure changes are not related to budget cuts, sequestration, or furlough, but will improve the care and transition of Soldiers through standardization, increased span of control, better access to resources on installations, and reduction of unnecessary delays in care. As they did in CBWTUs, CCU Soldiers heal in their home communities via the TRICARE network, and case management interactions are telephonic and via email. Community Care realigns the management of these Soldiers to Warrior Transition Brigades/Battalions (WTBs) with CCUs at se-

lect Army installations under dedicated Cadre that will provide enhanced medical management and mission command for these Soldiers by being attached directly to a WTB on an installation with direct triad of leadership and senior commander involvement.

Our commitment to care extends through the transition of Soldiers and Families, who are best served when this process is as efficient and seamless as possible. Interoperability of agencies is important to aiding in the warm hand-off of care between the DOD and the VA, which led to the creation of the Community of Practice (CoP) as a part of the Interagency Care Coordination Committee. The CoP is designed as a borderless, virtual, interagency network of programs and individuals with the common purpose to improve complex care coordination. It gives a formalized operating structure to the facilitation of cross-program collaboration, knowledge, and informal engagement.

NEVER SHALL I LEAVE A FALLEN COMRADE—THE INTEGRATED DISABILITY EVALUATION SYSTEM

A key element of our Warrior Ethos is that we never leave a Soldier behind on the battlefield. This commitment extends beyond the battlefield to the unwavering commitment of Army Medicine. The Integrated Disability Evaluation System (IDES) is a close partnership with the VA, we continue to improve our processes, honoring that commitment to ensure Soldiers are not left behind or lost in a bureaucracy. We continue to strive for improvements with the physical disability evaluation system and seek ways to make it less antagonistic, more understandable for patients and Families, more equitable for Soldiers, and more user-friendly. IDES is a joint DOD/VA process designed to provide a seamless transition from military service to civilian life for our WII. Key goals of IDES are to reduce overall processing time, reduce duplicative exams from DOD and VA, and increase transparency for Soldiers and their Families. Currently, 2.5 percent of the Total Force is enrolled in IDES.

In 2013, the Army launched the IDES Dashboard, which enables Soldiers and Commanders to view a Soldiers' current status in the IDES process, increasing transparency while transitioning to Veteran status. The IDES Dashboard is hosted on the AMEDD's Command Management System.

To improve efficiency, MEDCOM established the IDES Service Line (IDES SL) to deploy strategy, maintain accountability, and centrally optimize a sustainable, standardized process. The IDES SL has streamlined case processing by increasing collaboration at the MTF-level, and establishing Medical Evaluation Board (MEB) remote operating centers to increase capacity and address the Reserve Component (RC) case backlog, all while creating scalable solutions for surges in IDES referrals. Over the past year, the IDES SL has decreased overall MEB Phase processing time, with 80 percent of cases now meeting the DOD timeliness standard; a significant improvement from 40 percent of cases meeting the standard in November 2012. In addition, 100 percent of the Active Component is meeting the MEB timeline standard.

In order to better serve our RC Soldiers requiring a medical board, the Army continues the deliberate approach developed at the RC Soldier Medical Support Center (RC SMSC). The reduced backlog and increased productivity allows for the dissolution of the RC SMSC and transfer of packet development to each component, which reduces personnel costs and the time the Soldier spends in the disability process, and increases the number of Soldiers that can be evaluated in any given year.

To improve transparency of the process for Soldiers and commanders, MEDCOM and Army G-1 partnered to deliver the Soldier and Commander IDES Dashboard in September 2013. The dashboard enables Soldiers to view their current case status within the IDES process along with real and projected timelines for completion. In February 2014, the Total Army average number of days for the MEB Phase remained below the 100-day AC/140-day RC standard for all components, with an average number of days for the Total Force being 82 days (77 days for Active Component, 107 for COMPO 2, and 115 for COMPO 3). This 50-day reduction since February 2013 reflects the largest improvement in efficiency since the inception of the IDES program and the investment of \$203 million in fiscal year 2014. The implementation of the IDES SL and process improving initiatives have resulted in positive changes that have allowed MEDCOM to shape its workforce into a lean organization, resulting in a decrease in the necessary level of investments to \$152.5 million for fiscal year 2015.

A GLOBALLY READY AND DEPLOYABLE FORCE

Our Nation's Army is regionally engaged and globally responsive, providing a full range of capabilities to combatant commanders in a joint, multi-national environ-

ment. Army Medicine is both a valuable part and key enabler of the ready and deployable Force. As our military strategy rebalances towards the Asia-Pacific, the readiness of our military requires preparation to meet the medical challenges on a global level. The strategic focus on the Asia-Pacific includes an individual Soldier's readiness to face infectious disease threats, the preparation of our medical assets to conduct disease surveillance, and the innovation of medical research to advance care in a corner of the globe covered by large bodies of water and increased distances for medical movements.

As an Army, as a military, and as a Nation, we have a global influence on medicine and health. During a recent visit to the Asia-Pacific, I met with some of our dedicated Soldiers, leaders, and global partners. I also had the pleasure of visiting our Armed Forces Research Institute of Medical Sciences (AFRIMS) facility in Thailand. We take great pride in our 53-year relationship between the U.S. Army and the Royal Thai Army at AFRIMS. Like our other overseas medical research laboratories, it serves as a model for medical partnership, as scientists from around the world come together to tackle common yet challenging medical threats such as malaria, Dengue Fever, and HIV. AFRIMS provides a strategic platform to interact with other countries in Southeast Asia, and the research conducted is unique and complementary to other international research efforts, serving as an example of how medical diplomacy opens doors of opportunity that can further relationships with other countries in this region of the globe.

The DOD supports global health engagement efforts that align with the DOD mission to help ensure geopolitical stability and security. The Army's Global Health Engagements (GHE) and global presence support those DOD efforts. Military medicine has shown that we are a force multiplier and an enabler of readiness and global diplomacy.

We proudly export our military medical expertise. In support of Geographic Combatant Command (GEOCOM) requests in fiscal year 2013, the AMEDD Center and School (AMEDD C&S) provided training for 266 students from 64 countries in 47 different courses. The U.S. Army Medical Command (MEDCOM) also supported numerous GEOCOM GHE's, including 15 different exercises to include a Veterinary Team in Africa, 26 Subject Matter Expert (SME) exchanges in areas such as critical care nursing, and 41 Augmentation Support Packages across the globe. Collaborating with the international military medical community builds a broader understanding of the global health threats that can not only impact our fighting strength, but can also impact the stability of our allies.

The foresight to invest in the challenges of tomorrow is key to having an adaptable Force. Our medical accomplishments over the last 13 years of combat are rooted in investments starting 20 years prior and continuing through today. Our ability to medically prepare the Force is based on risk, not the size of the mission. As we right-size our capabilities to align with a smaller Total Army, I want to reinforce the value in continuing to invest in our medical research, medical collaboration and diplomacy, and medical education. From the foxhole to the medical treatment facility, we must continue to identify innovative and cost-effective ways to optimize the clinical currency of our providers in support of medical readiness, performance, and the health of our Force.

#### WOMEN IN THE ARMY

Women have been a part of America's military efforts since the Revolutionary War. As their roles continue to evolve, Army Medicine recognizes the unique health concerns of women in the military. Females make up 15.8 percent of the Force today—including Active Duty and RC—and the percentage of women continues to grow, up about 4 percent from 20 years ago. The global impact our military has made during the last 13 years of war could not have been achieved without strong and confident women. From the female medic on the Female Engagement Team, to the civil affairs officer, women in uniform have been an irreplaceable asset to our Nation. Advances in medical care and research that enhance the health, performance and readiness of female Soldiers and Family members, are advances that improve the readiness of our Total Army Family.

In January 2013, the Secretary of Defense rescinded the 1994 Direct Ground Combat Definition and Assignment Rule (DGCAR). This decision expands career opportunities for women and provides a greater pool of qualified members from which our combatant commanders may draw. Soldier 2020 is the Army's task force led by the U.S. Army Training and Doctrine Command (TRADOC) and Army G1 to identify, select, and train the best-qualified Soldiers for each job, which ultimately strengthens the Army's Future Force. An ongoing collaborative effort between U.S. Army Research Institute of Environmental Medicine (USARIEM) and TRADOC is

measuring physical demands beginning with Military Occupational Specialties (MOSS) in the high physical demand combat occupations currently closed to females. The goal is to develop valid, safe, and legally defensible physical performance tests to predict a Soldier's ability to perform the critical, physically demanding occupational tasks. The Army's scientific approach for evaluating and validating MOS-specific performance standards aids leadership in selecting and training Soldiers—regardless of gender—who can safely perform the physically demanding tasks of their occupation, ensuring Force capability and readiness, and providing every Soldier the opportunity to serve in any position where he or she is capable of performing to the standard.

The AMEDD welcomes the increased opportunity for women in combat roles and has a long history of working to provide high-quality deployment readiness and healthcare for female Service Members. Army Medicine continues the ongoing work to support women in remote, austere and Outside the Continental U.S. (OCONUS) locations, where routine well woman care may not be readily available. The Government Accountability Office (GAO) report, released in January 2013, concluded that the DOD is addressing the healthcare needs of deployed Service Women.

The Army is the first military service to focus specifically on women's health issues, particularly related to deployed environments. As a part of the Health Service Support (HSS) assessment team that deployed to Afghanistan in 2011, I evaluated the issues and concerns that female Soldiers experience both in the theater of operation and in the garrison environment. Following the HSS white paper on the concerns of female Soldiers in the combat theater, the Women's Health Task Force was established in 2012, with a full publication of the assessment team findings to be released in 2014.

Army Medicine established the Women's Health Task Force (WHTF), composed of a team of SMEs in a variety of disciplines from the Army, Sister Services, and outside agencies to address the unique health concerns of women serving in the military. The WHTF is shaping education, equipment and care for the next generation of women in the military. Some of the WHTF initiatives include education and training of female Service Members and their leaders to prevent gynecological problems from occurring in austere settings, and early recognition and treatment if they occur. The U.S. Army Public Health Command (USAPHC) has also created marketing and instructional items, such as those to educate female Soldiers on the use of the Female Urinary Diversion Device when in a field environment.

The WHTF team coordinated with the Program Executive Office (PEO) Soldier for updates to the new female body armor with improved maneuverability and fit for the female body shape. The Female Improved Outer Tactical Vest (FIOTV) has been fielded out of Fort Campbell, Kentucky, Fort Bragg, North Carolina, Joint Base Lewis-McChord, Washington, and Fort Carson, Colorado, with positive reviews on comfort and maneuverability by those who have been issued the FIOTV. We currently have just over 24,000 FIOTVs on contract, but that number is going to increase to approximately 75,000 in 2014, which should see final delivery before the end of the fiscal year.

As part of the Army Medicine 2020 Campaign Plan, we established a Women's Health Service Line (WHSL) to manage the unique health needs of women. The development and structure of care delivery is tailored to ensure responsive and reliable health services for female Soldiers, Families and Retirees that improves readiness, saves lives, and advances wellness with evidence-based practices standardized across clinical processes in our organization. The WHSL focuses on three major priority areas of operational medicine, wellness, and perinatal care, and has identified items such as appropriate screening tools for Intimate Partner Violence to incorporate into all primary care visits. The Army continues to emphasize the importance of women's health by resourcing the WHSL at \$170 million in fiscal year 2015.

#### THE RESERVE COMPONENT

As an integral part of our military, the Reserve Components (RC) are continually called upon to support operations around the globe. The Total Force relies on critical enabler capabilities provided by a trained and ready Reserve Component. Since September 2001, more than 800,000 RC Service Members have been involuntarily and voluntarily called to Active Duty in a Federal status. The RCs for each Service are responsible for ensuring that their Service Members are not only properly equipped and trained, but also medically ready to serve.

The Army National Guard (ARNG) and United States Army Reserve (USAR) provide strategic and operational depth and flexibility to the capabilities of our Force and are a valuable connection to the broader U.S. population. Significant Army capabilities are in the RC, therefore, when it pertains to readiness of the Force, build-

ing a System for Health is just as important for the RC Soldiers as it is for those who serve on Active Duty full-time.

Units are more effective when they can train and deploy with all of their members, and early medical screenings enable deployability. Medically ready Soldiers require less medical and dental support in theater and fewer medical evacuations from theater, both of which ensure commanders are able to operate at full capability and conserve resources. Since the implementation and funding of the RC annual medical screening program in 2007, the RC Soldiers have shown marked improvement in achieving readiness goals. As of January 2014, 83 percent of ARNG Soldiers and 79 percent of USAR Soldiers met DOD Medical Readiness classification standards. Further, 90 percent of ARNG and 87 percent of USAR Soldiers met DOD dental class 1 and 2 readiness standards. This is the highest state of medical readiness since the start of the conflicts in 2001.

MEDCOM has been actively partnering with the line leaders to reduce suicide in Soldiers serving the ARNG and USAR by improving access to BH care. The ARNG currently has a Director of Psychological Health in each of the 54 States and territories to assess and provide BH support. The USAR is doing the same at each of its Regional Support Commands with a coordinator at the Office of the Chief Army Reserve (OCAR) Surgeon's Office. At this time, these positions are fully funded and over 90 percent filled.

In accordance with the current Reserve Soldier Readiness Procedures, the Army screens RC Soldiers prior to departing a theater of operations and at the demobilization stations for potential issues related to BH. Leaders can also refer Soldiers for treatment if they feel it is indicated. Each of the RCs conducts mental health assessments at 6 months, and again at 1–2 years post-deployment. If treatment is required, the Army refers Soldiers to the servicing VA Medical Center or MTF as appropriate. These screening events are important portals through which Soldiers with BH conditions, such as depression and PTSD, are referred for care.

Finding innovative ways to extend our influence in the ARNG and USAR populations is important to set the stage for Army Medicine to truly strengthen the health of our Nation by impacting those in uniform who work within our civilian communities.

#### STRENGTHENING THE HEALTH OF OUR NATION BY IMPROVING THE HEALTH OF OUR ARMY: A SYSTEM FOR HEALTH

Health is a critical enabler of readiness, and Army Medicine is a valuable partner in making our Force "Army Strong." Our strategy—the Army Medicine 2020 Campaign Plan—supports the Army's vision for 2020 and beyond, the Army's Ready and Resilient Campaign Plan (R2C), and the MHS Quadruple Aim. The Army Medicine 2020 Campaign Plan ensures we remain a vibrant and relevant organization contributing to our Nation's security. The health of the Total Army Family (Soldiers, Retirees, Family Members and civilians) is essential for Force readiness, and prevention is the best way to optimize health. Protecting our Army Family from conditions that threaten health is operationally sound, better for individual well-being and ultimately cost effective.

We are aggressively moving from a healthcare system—a system that primarily focused on injuries and illness—to a System for Health that now incorporates and balances health, prevention and wellness as a part of the primary focus for readiness. Through early identification of injury and illness, surveillance, education, and standardization of best practices, we are building and sustaining health and resiliency. This also moves our health activities outside of the brick and mortar facility, brings it outside of the doctor's office visit, and into the Lifespace where more than 99 percent of time is spent and decisions are made each day that truly impact health.

We are investing in research focused on prevention. As an example, U.S. Army Research Institute of Environmental Medicine (USARIEM) investigators, along with extramural collaborators, have an ongoing research program to better understand the physiological mechanisms underlying musculoskeletal injury risk potential and ways to mitigate that risk. They are identifying the mediators of muscle and bone repair, tissue adaptation, and biomechanical factors of injury and fatigue. USARIEM researchers are exploring the rehabilitation science applications for Wounded Warriors, the pathways involved in muscle recovery, as well as possible nutritional interventions.

#### THE PERFORMANCE TRIAD

The impacts of restful sleep, regular physical activity, and good nutrition are visible in both the short- and long-term. The Performance Triad is an initiative under

the R2C Plan and central to the Army Medicine 2020 Campaign Plan which focuses on sleep, activity, and nutrition to improve readiness and health.

The Performance Triad is also a key element within the System for Health and one of the fundamental mechanisms to optimize performance, resilience, and health. The program is being piloted in three diverse Army units at: Joint Base Lewis-McChord, Washington; Fort Bliss, Texas; and Fort Bragg, North Carolina. At these sites, we are equipping approximately 1,500 Soldiers with activity monitors, performing periodic assessments, and providing leaders with weekly activities to incorporate into training time. The primary objectives of the pilot, which concludes in May 2014, are to assess the reach, effectiveness, implementation, adoption, and programmatic achievements and gaps to inform and improve a broader implementation. The total cost to implement this pilot program, to include equipment, training materials, and data analysis is \$970,000.

The health and readiness of our Reserve Component Soldiers, where approximately 70 percent of our deployable medical assets are nested, is also a critical component of overall mission readiness. We have initiated a Performance Triad Pilot Program to begin in the RC in 2014.

The Performance Triad is not just for Soldiers. The U.S. Army Public Health Command (USAPHC) will launch a parallel Total Army Family program to improve the performance and health of all Army Medicine beneficiaries. The Performance Triad not only supports improved strength, endurance, power and physical performance, it also seeks to support emotional and mental health and well-being.

Only 1–2 percent of Americans including Active Duty Soldiers achieve ideal cardiovascular health due to barriers associated with lifestyle behavior. As an invited participant in the Army Surgeon General Performance Triad Campaign, the Integrative Cardiac Health Project (ICHP) Cardiac Center of Excellence at Walter Reed National Military Medical Center (WRNMMC) develops, evaluates and implements new models of personalized cardiovascular health for the military population primarily via lifestyle behavior change. Cardiovascular disease remains the leading cause of death for military beneficiaries, accounting for 1 of every 3 deaths. It also serves as is the leading healthcare-related cost to the MHS. Data also shows that Wounded Warriors with amputations are at significantly increased risk for cardiovascular compared to non-injured Service Members. ICHP is the only Center of Excellence that specifically addresses these obstacles related to healthy living in the military.

Since the initial launch at the former Walter Reed Army Medical Center in 1999, the ICHP continues to provide expertise and experience in healthy behavior modification in the military population. In collaboration with Johns Hopkins University, ICHP recently created a new, no-cost clinical-decision support tool to better identify cardiovascular disease risk in an individual patient. This tool not only allows for providers to detect disease at an earlier stage but also has proven to help increase awareness in patients with family history of premature heart disease. This research has been recognized nationally and cited as evidence for the new 2013 American Heart Association Clinical Guidelines for Prevention. Supporting the MHS strategic focus on health rather than on disease, ICHP continues to translate evidence-based research findings into clinical practice and is synchronized with Army Medicine's movement to improved health.

#### A CALL TO ACTION, A CASE FOR CHANGE

The health of the military and the health of the Nation are not separate discussions. Both the National healthcare conversation and the direction of the MHS directly impact Army Medicine. The Nation's current disease-centric healthcare system focused on treating illness adversely impacts health and is a driver for the rising cost of care.

Our Nation's Soldiers come from our citizens. Only 25 percent of young adults in the prime recruitment age of 17–24 years-old are eligible for military service, while the remaining 75 percent disqualify due to weight, other medical conditions, fitness levels, criminal history, or failure to graduate from high school. Based on current trends, the health problems in American youth are projected to increase. The youth of today are less prepared for entry-level military physical training than their predecessors, and poor physical conditioning is associated with higher injury risk in those qualifying for military service. If large numbers of possible recruits are ineligible to serve, and poor activity and nutrition impact the readiness of those that do enter military service, then the issue is not only a matter of national health but also a matter of national security.

## BEHAVIORAL HEALTH

The longest period of war in our Nation's history has undeniably led to physical, mental and emotional wounds to the men and women serving in the Total Army—and to their Families. The majority of our Soldiers have maintained resilience during this period; however, the Army is keenly aware of the unique stressors facing Soldiers and Families today, and continues to address these issues on several fronts. Taking care of our own—mentally, emotionally, and physically—is the foundation of the Army's culture and ethos.

The AMEDD anticipates sustained growth in behavioral health (BH) needs, even as overseas contingency operations decrease. The Army's continued emphasis to reduce the stigma for Soldiers and Families seeking help will result in increased BH workload. The growth in demand drives an increased investment in BH services from fiscal year 2014 to fiscal year 2015, for a final total of \$375 million.

More Soldiers with Post Traumatic Stress Disorder (PTSD) have accessed BH each year since 2003, and we have over 104,844 diagnosed cases of PTSD from 2003 through February 2014. Of those Soldiers who have been diagnosed, approximately 84 percent of cases have deployed. The lessons learned from military medicine's experience over the last decade have informed the broader medical community, not just the BH community, about the processes and characterization of trauma-related events.

The Army has aggressively extended access to BH care through screening programs, and has optimized the system of BH care to efficiently deliver evidence-based treatment. Over the last few years, we have established a BH Service Line (BHSL) to coordinate standardized BH delivery across the enterprise, and integrate BH staff under one department head at over 90 percent of our MTFs. Critical to this effort has been the standardization of clinical BH programs, from around 200 locally managed to 11 enterprise programs that best form a cohesive system. This integration reflects the best-practices at leading civilian institutions and enhances multidisciplinary teamwork and efficient care delivery.

While stigma and reluctance to seek BH care still exists among Soldiers, far more are using outpatient BH services to receive care earlier and more frequently. Greater demand increases BH requirements, requiring higher provider inventory and resourcing support. MEDCOM has taken several steps to increase the number of touch-points, specifically through enhanced screening throughout the Army Force Generation (ARFORGEN) cycle and by increasing the availability of BH care as part of routine practices at the Soldier level.

Subsequently, the Army implemented Embedded Behavioral Health (EBH) across the Force in October 2012 and MEDCOM will complete the process in October 2016. As of January 2014, 37 Brigade Combat Teams (BCT) and 14 other brigade-sized units are supported by EBH Teams. As a direct result, utilization of BH care increased from approximately 900,000 encounters in 2007 to almost 2 million in 2013.

As Soldiers have used outpatient BH care more frequently to address their issues, fewer acute crises have occurred. In 2013, suicides in Active Duty Soldier ranks fell from 165 to 126, and the rate of Active Duty Army suicides decreased from 27.9 per 100,000 person-years of Active Duty in 2012 down to 23.7 per 100,000 in 2013. In addition, Soldiers required approximately 25,000 fewer inpatient psychiatric bed over the same time period, a cost avoidance of approximately \$28 million. Moreover, these better outcomes drive increased acceptability of the value of BH care, driving down stigma, resulting in more Soldiers willing to engage in an episode of care, while driving up demand and resource requirements.

Approximately half of all Army suicides have a history of a documented BH diagnosis, and nearly one-third were seen for BH care within the 30 days prior to death. This does not indicate a failure of BH care, but rather the fact that the highest risk individuals are often the ones who engage in BH treatment. The MEDCOM strategy of prevention focuses both on the general population of all Soldiers and Soldiers accessing clinical services, including BH care, and is consistent with the new Department of Veterans Affairs (VA)/DOD Clinical Practice Guideline for the Management of Patients at Risk for Suicide. We target three domains: screening and risk assessment, education and public awareness, and treatment. Army Medicine has demonstrated success by looking at ways to bring healthcare and education to the fox-hole, allowing us to increase accessibility, visibility, and ultimately trust, while decreasing the stigma and time spent away from the unit.

MEDCOM is actively partnering with leaders to reduce suicides in Soldiers serving in ARNG and USAR by improving access to critical BH care. The Reserve Components (RCs) are increasing uniformed BH personnel and structure to ARNG and USAR units from 152 to 492 fully drilling reservists over the next 3 years, and these BH personnel remain with the units throughout the deployment cycle allowing for

continuity and fostering trust with the unit members. The Transitional Assistance Management program (TAMP) provides 180 days of transitional health benefits after regular TRICARE benefits end. RC members separating from a period of active duty greater than 30 consecutive days in support of contingency operation are eligible for TAMP, and BH services are available to Soldiers and Families under TAMP.

The Medical Retention Processing Program (MRP2) is designed to voluntarily return RC Soldiers back to temporary Active Duty to evaluate and/or treat RC Soldiers with unresolved mobilization connected medical conditions or injuries that either were not identified, or did not reach optimal benefit prior to release from Active Duty. In addition, the Active Duty Medical Extension (ADME) Program is designed to voluntarily place RC Soldiers on temporary Active Duty in order to evaluate or treat their service-connected medical conditions or injuries so that they may be returned to duty within the respective RC as soon as possible.

It is also important to improve how we monitor progress, particularly during points of transition. The scientific literature indicates that creating a common understanding of the clinical progress between both the provider and patient improves adherence to care and increases the chances that Soldiers will complete a full course of treatment. The Army developed the Behavioral Health Data Portal (BHDP), which is a web-based application that tracks and reports in real-time on the Soldier's treatment progress at each session. The BHDP tracks clinical outcomes and satisfaction in BH clinics, thus enabling improved analysis of treatment and BHSL program efficacy. BHDP is now in use at all MTF BH clinics (including EBH clinics) serving Active Duty Soldiers with over 30,000 data collections per month. This innovative program was the 2013 Government awardee of the Excellence in Enterprise Information Award from The Association for Enterprise Information, and it has been identified by the DOD as a best practice. In September 2013, the DOD required all Services to adopt BHDP to standardize outcome collection across the Armed Forces.

The Office of the Army Surgeon General established the Mental Health Advisory Teams (MHAT) in 2003 at the request of the Multi-National Corps-Iraq Commander. Since that time, 12 MHAT missions provided a broad scope assessment on a recurring basis in deployed environments (combat, peacekeeping, humanitarian). The reports proved to be an effective tool for assessing point-in-time BH care needs and trends in mental health and morale in our troops. Results from MHATs, and the ongoing examination of in-theater BH issues, have led to numerous evidence-based recommendations that have impacted policy regarding dwell time and deployment length, improved distribution of BH resources to improve access to care, and modified the doctrine of the Combat and Operational Stress Control.

As a Nation, we have learned that BH issues such as PTSD can be well-managed with proper care. Approximately 80 percent of Service Members with PTSD return to productive and engaging lives. The Army seeks to further understand and improve the prevention, diagnosis and treatment of BH conditions through clinical and scientific research. The BHSL is fully funded, having obligated \$323 million in fiscal year 2013; distributed \$358 million in support of BHSL efforts in fiscal year 2014 and estimated a requirement of \$375 million in fiscal year 2015.

#### TELEHEALTH

The Army is providing tomorrow's medicine today through the use of Telehealth (TH). Army clinicians currently offer care via TH in multiple medical disciplines across 18 time zones and in over 30 countries and territories. Army TH provides clinical services across the largest geographic area of any TH system in the world. This enables the Army to cross-level clinical care capacity across the globe in support of our Soldiers and their Families. Using TH, the Army provided over 34,000 real-time patient encounters and consultations between providers in garrison in fiscal year 2013, and over 2,300 additional encounters in operational environments. While Army provides care via TH in 28 specialties, Tele-Behavioral Health accounts for 85 percent of total TH volume in garrison and 57 percent in operational environments, and over 2,000 portable clinical video-teleconferencing systems have been deployed to support Behavioral Health providers across the globe.

Funding for our TH investments is \$21.4 million in fiscal year 2015, and we look forward to continued and accelerated growth of TH in support of our beneficiaries.

#### DENTAL READINESS

No military unit can afford the loss of manpower and readiness due to medical circumstance that can be mitigated or treated. During the recent war years, the value of our dental capability to improve dental health and wellness in order to prevent issues that could negatively impact the fighting strength cannot be overlooked.

As a system that has always demonstrated that the majority of influence, both positive and negative, occurs in the dental care an individual maintains at home, dentistry has long been a model of a System for Health.

Dental wellness continues to increase primarily due to standardization of clinical processes with the Go First Class combined appointments. Since 2011, dental readiness has increased to 93 percent, and almost half of all Active Duty Soldiers have no dental needs beyond routine daily care and cleaning. The Army dentistry rationale is to aggressively improve Dental Wellness today to prevent a Dental Readiness issue tomorrow. In fiscal year 2015, we invested \$1.4 million for community oral health and disease prevention.

#### A READY MEDICAL FORCE

Our direct care delivery system, the “bricks and mortar,” is America’s medical readiness system for the Services. It is the daily delivery of care that allows us to maintain our healthcare providers’ critical skills that guarantee a ready and deployable medical force capable of providing the critical life-saving care to our deployed Service Members. The front lines of healthcare in a garrison setting are in the patient centered medical home and the military treatment facility. It is in these facilities that we sustain these critical skills during the inter-war years.

Theater-prepared healthcare providers require professional and operational development, which begins in our garrison medical facilities. In the last two wars, AMEDD Operating Forces provided 70 percent of combat casualty care within the theater of operation, and 20 of the 35 AMEDD healthcare provider specialties have deployment rates of greater than 75 percent.

Within our Graduate Medical Education (GME) programs, we continue to attract and educate some of the best medical minds. We currently have 1,621 Health Professionals Scholarship Program students in medical, dental, veterinary, optometry, nurse anesthetist, clinical psychiatry and psychiatric nurse schools; in our GME training programs we have 1,465 trainees invested in 148 programs located across 10 of our MTFs. Our training programs receive high praise from accredited bodies, and our trainees routinely win military-wide and national level awards for research and academics. Our GME graduates have continued to exceed the national average pass-rate of 87 percent for specialty board certification exams, with a consistent pass rate of approximately 92 percent for the last 10 years. Overall, we not only have the largest training program in the military; we have the largest number of programs under one system in the U.S., and although they are not accredited under one institution, the administration of the residents occurs under a single sponsoring system of the AMEDD.

At the AMEDD Center and School, the flight paramedic training program that was initiated in 2012 has trained a total 124 flight paramedics, with a significant first time pass-rate of over 93 percent, well above the 74 percent pass-rate in the civilian sector.

Our educational investments have been recognized nationally. The Army Medicine’s Physical Therapy Program at Baylor University is currently the 5th ranked program in the country out of over 210 national programs; our graduates have a 100-percent licensure pass rate in the past 3 years and have advanced the science through numerous peer-reviewed journal article publications. U.S. News and World Report most recent survey of graduate schools ranked the U.S. Army Graduate Program in Anesthesia Nursing (USAGPAN) as the number one program in the Nation out of 113 nursing anesthesia programs.

#### DEVELOPING LEADERS—BUILDING CAPACITY AND CHARACTER

The Total Army calls upon each of us to be a leader, and Army Medicine requires no less. The Army defines leadership as a process, not as a position. Leadership is about influencing people by providing purpose, direction, and motivation, all while accomplishing a mission. Like the Army line branches, AMEDD leader development requires approximately 16 years of specialized military and medical training.

Army Medicine has capitalized on our leadership experiences in full spectrum operations while continuing to invest in relevant training and education to build agile, confident, and competent leaders. We have examined our leader development strategy to ensure that we have clearly identified the knowledge, skills, and attributes required for successful AMEDD leadership. In alignment with the Army Campaign Plan, the AMEDD has included a fourth line of effort (LOE) in the Army Medicine 2020 Campaign Plan—Develop Leaders and Organizations to address the full spectrums of leadership from leader development, talent management and organizational development.

The AMEDD Officer Leader Development (OLD) Implementation Team convened in June 2013 to work 5 strategic initiatives and 29 recommendations identified from the AMEDD OLD Evaluation. The team examined leader development within the AMEDD holistically, focusing on the institutional, operational and self-developmental domains. Presently, 19 of the 29 recommendations are complete or transitioning to appropriate organizational proponents for final completion. The remaining 10 long-term recommendations are continuing to move forward.

Army Medicine must grow our Soldiers by leveraging the AMEDD OLD Evaluation, re-emphasizing and redesigning Leader Development programs to include Professional Military Education, and taking an active role in ensuring success throughout the ranks of tomorrow's future leaders. Our Total Army requires agile and adaptive leaders, both military and civilian, who thoroughly understand their role in mission command. Army Medicine represents a powerful workforce of competent, adaptive and confident Leaders capable of decisive action. The MEDCOM will adapt to the unfolding strategic environment by ensuring all leaders receive quality training, education, and broadening experiences.

Within the AMEDD, our recruitment, development and retention of outstanding medical professionals—physicians, dentists, nurses, ancillary professionals and administrators—remain high priorities. With the support of Congress, through the use of flexible bonuses and competitive salary rates, we have been able to meet most of our recruiting goals. Yet we recognize that competition for medical professionals will grow in the coming years, amidst a growing shortage of primary care providers and nurses. I am proud to command some of the brightest medical minds—both military and civilian—our country has to offer. The young men and women who choose to enter military service or serve our Nation's military as civilians during a time of war exemplify what it means to provide selfless service to our country.

#### SEXUAL ASSAULT/SEXUAL HARASSMENT PREVENTION

Our Force is becoming increasingly diverse, and as opportunities to be leaders and influencers continue to expand, it is important that Army Medicine continues to develop and shape our team members to serve honorably, to be good stewards of the Army Profession, to be respectful leaders, and to provide respectful and compassionate medical care. We must hold each other accountable, consistent with the Army Ethic and Army Values, in a manner worthy of serving our Nation's Service Members.

Sexual assault and harassment go against Army Values; these acts degrade our readiness by negatively impacting the male and female survivors who serve within our units; it also negatively impacts other Soldiers exposed to this behavior. As an integral participant in the Army's Sexual Harassment/Assault Response and Prevention (SHARP) program, the AMEDD's goals are to increase the medical readiness of the Army and ensure the deployment of healthy, resilient and fit Soldiers, through compassionate and respectful care that treats every patient with dignity and respect, Army Medicine is establishing the benchmark to comprehensively support victims and survivors following a sexual assault.

Across our Army, 40 percent of our MTFs perform the Sexual Assault Forensic Exam (SAFE), and the remaining MTFs augment care through memorandums of agreement (MOA) or understanding (MOU) and contract services with local civilian hospitals to ensure all victims are offered a uniform standard of care in compliance with the standards and protocols established by the Department of Justice (DOJ). We are actively engaged with the office of the Assistant Secretary of Defense for Health Affairs to ensure our program meets the requirements of the National Defense Authorization Act for fiscal year 2014 in this area.

The MEDCOM Sexual Assault Task Force is assisting the Army SHARP Program Office to revise the MEDCOM Regulation regarding management of sexual assault. The revised regulation includes guidance to Command Teams and healthcare providers that expand and enhance how they respond to patients following a sexual assault. Engaging the patient in an individualized healthcare plan is a key component. Additionally, the regulation emphasizes the provision of timely, accessible and comprehensive medical management to victims who present at Army MTFs and all of the necessary follow up care. In addition to immediate medical needs, care includes assessment of risk for pregnancy, options for emergency contraception, risk of sexually transmitted infections, behavioral health services or counseling, and necessary follow-up care and services for the long-term.

Army Medicine is leaning forward to expand the knowledge and skills of our sexual assault examiners working in our MTFs, ensuring our ability to provide compassionate and holistic support to these patients. The Army significantly increased and expanded the number of providers certified in sexual assault treatment to address

the full spectrum of victim needs. Providers who serve the Army SAFE program as Sexual Assault Medical Forensic Examiners (SAMFE) include physicians, physician's assistants, advanced practice registered nurses, and registered nurses. MEDCOM has over 300 healthcare providers trained as SAMFEs, Sexual Assault Care Coordinators (SACCs) and Sexual Assault Clinical Providers (SACPs) and 398 Sexual Assault Response Coordinator (SARC)/Victim Advocate SHARP-trained personnel.

Although there is no nationally mandated standard for SAMFE providers, the Army Medicine training and examinations meet DOJ guidelines. We have developed a leading standard for SAMFE providers with assistance of national SME's and offices. Army Medicine is leading a national conversation on a SAMFE Leading Standard with the DOJ, US Army Criminal Investigation Command (CID), U.S. Army Criminal Investigation Laboratory (USACIL), and the International Association of Forensic Nurses (IAFN). All Army SAMFE providers must complete MEDCOM's standardized SAMFE Training, based on the DOJ Training Standards. The Army is also working on a certification process, working through the challenges associated with supporting sexual assault victims in remote, austere, and OCONUS locations.

#### THE HEALTH OF OUR FAMILIES AND RETIREES: PATIENT CENTERED MEDICAL HOME

The Patient Centered Medical Home (PCMH) model for primary care is a key enabler of the transition to a System for Health and the MHS Quadruple Aim: readiness, population health, experience of care, and per capita cost. A medical home relies upon building enduring relationships between patient and provider, and a comprehensive and coordinated approach to care between providers and community services. By redesigning healthcare delivery around the patient, primary care truly becomes the foundation of health and readiness, and drives the desired strategic outcomes.

PCMH represents a fundamental change in how we provide comprehensive care for our beneficiaries—involving primary care, behavioral health, clinical pharmacy, dietetics, physical therapy, and case management. Since PCMH implementation began in January 2011, 120 PCMH practices caring for 1.2 million Soldiers and Families have completed standardized initial implementation. Of these practices, 23 are the Soldier version of PCMH or the Soldier Centered Medical Home (SCMH), caring for 200,000 Soldiers. In 2013, 64 new PCMH and SCMH practices were added. The remaining 25 practices will complete initial implementation by end of fiscal year 2014.

The fiscal year 2015 core budget for PCMH is \$73.6 million, which is inclusive of efforts to build a premier patient-centered, team-based, comprehensive System for Health. Additionally, a fiscal year 2015 investment of \$21.4 million to PCMH for TBI/Psychological Health adds BH providers to PCMH, enhancing access to care and making BH care a part of the larger medical home.

The medical home actively integrates the patient into the healthcare team, offering evidence-based prevention and a personalized comprehensive care plan. PCMH/SCMH health and quality indicators outperform traditional primary care providing significantly better access to the beneficiaries' primary care manager (PCM) and PCM team, better patient and staff satisfaction, and improved health and readiness outcomes. In addition, PCMH showed significant reductions in ER over-utilization by more than 47,000 visits, translating to an estimated \$16.4 million in variable cost savings. These improvements relative to traditional primary care were maintained despite the relative challenges created by sequestration.

SCMH practices achieved remarkable impact on Soldier medical readiness during 2013. Of the Soldiers in the SCMH, 92 percent are medically ready (a 3-percent increase), compared to 85 percent across the rest of the Army. Polypharmacy rate decreased to 2.6/100 enrollees from the benchmark of 4.8/100. The behavioral health admission rate was 21/1000, remaining lower than the benchmark of 30/1000.

The focus for Army PCMH in 2014 will be to complete initial implementation in the remaining PCMH/SCMH practices, integrating pain management capability and traumatic brain injury care more fully into PCMH/SCMH practices, continuing refinement and maturation among existing practices especially in their health promotions role.

Integrated with the PCMH as part of the comprehensive care team are the 19 USAPHC Army Wellness Centers (AWC), costing \$12.1 million annually. The AWCs are demonstrating how a standardized holistic primary prevention strategy can greatly contribute to our ability to get ahead of disease. In fiscal year 2013, AWCs evaluated 15,200 individuals, including Active Duty (61 percent), Family Members (21 percent), Civilians (10 percent), Reservists (2 percent), and Retirees (3 percent).

In fiscal year 2014, four additional AWCs will be implemented. The AWCs have achieved an annual cost-avoidance in fiscal year 2013 of \$1.2 million.

Analysis of 3 years of data collected by the AWCs show that for the 2,400 individuals who had at least one follow-up visit for their Body Mass Index (BMI), 62 percent saw a statistically significant decrease in BMI (average 4-percent decrease). Of the 437 clients who had a baseline and follow-up test for maximal oxygen consumption (VO<sub>2</sub> max), 60 percent saw a significant increase in VO<sub>2</sub> max, with an average improvement of 15 percent. Current research indicates that a 2 percent to 3 percent reduction in weight is associated with clinically significant improvement in risk factors for chronic disease and a cost-avoidance of \$202/year per 1 point BMI decrease, and that an increase in VO<sub>2</sub> max of the magnitude observed in the AWC data is associated with a decrease in the risk of all-cause mortality and cardiovascular disease.

#### STRATEGIES TO ENHANCE EFFICIENCY OF DIRECT CARE

Increasing healthcare costs, the increasing burden of preventable diseases, and mounting fiscal pressures are driving the Nation to examine how we are delivering care, and how we incentivize and enable health. We need a stable fiscal platform in the MHS focused on prevention, while at the same time reducing costs and improving efficiencies.

We are implementing strategies to incentivize improved health outcomes. The AMEDD has had great success with the Performance Based Adjustment Model (PBAM) in improving both capacity and quality. The Army has reduced the Active Duty no-show rate for medical appointments from 11.6 percent to 5.2 percent in the past 36 months, increasing the efficiency of our medical system in supporting Soldier readiness.

Currently, the AMEDD is implementing the Integrated Resourcing and Incentive System (IRIS). IRIS focuses on 3 areas to further improvements regarding MTF performance: Primary care enrollment, accountability tied to performance plans through a Statement of Operations, and strategic incentives that encourage prevention strategies. For fiscal year 2014, Army MTFs are being funded for primary care based on a capitated rate for their planned enrollment. IRIS also incentivizes recapture of primary care from the purchased care network. IRIS also pays the MTF fee-for-service for primary care delivered to TRICARE Plus and other beneficiaries that are not enrolled to the MTF, providing additional motivation for our MTFs to recapture primary care.

There are 48 total incentive metrics within IRIS, with the goal being to align funding and incentives to enhance MTF value production. Army Medicine is moving the needle in the right direction—recapturing care, improving access to care, improving satisfaction, and improving quality of care.

“WE RECRUIT SOLDIERS, BUT RE-ENLIST FAMILIES.”—ARMY FAMILY PROGRAMS

We must never lose sight of the fact that the most important formation in the Army is the Family unit. Army Medicine is setting the conditions to better understand the Army Family. Improving the health of our Army Families will improve the strength, performance, and readiness of the Soldier, and also establish an example for our Nation on a way forward to improve the health of communities.

The Community Health Promotion Council (CHPC) at each Army installation synchronizes programs between service providers (medical and garrison) and unit leaders. Health Promotion Officers (HPO), who are aligned with Senior Commanders, facilitate the CHPC process and coordinate R2C activities for command teams, unit leaders and SMEs across the installation in support of the health of the entire population.

Army Medicine is also establishing the Child and Family Behavioral Health System (CAFBHS) model that aligns with and supports the PCMH model and other primary care Family Member—oriented clinics, such as pediatrics and obstetrics. CAFBHS also leverages tele-behavioral health capabilities to enhance outreach to remote areas, create partnerships with on-post and civilian communities, standardize patient screening and assessment, and monitor through the BHDP. The CAFBHS blends best practices in consultation, collaboration and integration of BH care to meet the needs of the Army Family, improve access, and decrease stigma.

Just as we have placed BH providers closer to our Soldiers through the EBH program, a component of CAFBHS is the School Behavioral Health (SBH) program, where comprehensive BH services are available at DOD/installation-based schools to support military children and their Families. The SBH provides a continuum of care from prevention through early intervention to BH treatment focused on improving academic achievement, maximizing wellness and resilience, and promoting opti-

mal military/Family readiness. Currently SBH programs operate in 46 schools on 8 installations.

I want the story of the military Family to resonate throughout our Nation's history as an example of resilience—demonstrating the powerful impact that can be felt when we invest not only in the Soldier, but in the Family members, old and young, who support our heroes.

“MEDICINE IS THE ONLY VICTOR IN WAR”—ARMY MEDICAL RESEARCH

History is replete with examples of war serving as a catalyst for medical innovation and of battlefield medicine producing advances in civilian healthcare. For more than 200 years, the Army's efforts to protect soldiers from emerging health threats have resulted in significant advances in medicine. Our medical research has played a key role in our national defense throughout history, continually responding to emerging battle and non-battle threats, capturing lessons learned, and sharing those advances with the world. Military medicine continues to work to reduce morbidity and mortality resulting from devastating injuries on the battlefield, achieving the historically high survivability rate of 91.3 percent in the current conflict.

MRMC is leading Army Medicine in scientific research, with ongoing efforts focused on establishing more effective methods for diagnosis, treatment, and long-term management of the health-related consequences of war, including TBI, behavioral healthcare, PTSD, burn and other disfiguring injuries, chronic pain, and limb loss.

The DOD and the Services plan, program, budget and execute funding to address DOD and Service military medical Research, Development, Test and Evaluation (RDTE) needs and requirements for supplies, equipment, and medical knowledge unique to the battlefield. To accomplish this mission, the Army and DOD coordinate with the other Services and Federal agencies to target and align research efforts. The military also partners with academia and industry to develop medical solutions for warfighters and military healthcare providers. As a business model, MRMC and the U.S. Army Medical Research Acquisition Activity (USAMRAA) provide multiple avenues to foster relationships and to award grants and contracts to institutions focused on performing medical research and development. For example:

- In 2008 MRMC established the Armed Forces Institute of Regenerative Medicine (AFIRM), a multi-institutional, interdisciplinary network with two academic consortia, one led by Wake Forest University, the other by Rutgers University, working to develop advanced treatment options for our severely wounded Service Members. The AFIRM II 5-year, \$75 million award in September 2013 to the Warrior Restoration Consortium under Wake Forest University is focused on extremity injury, cranio-maxillofacial injury, burns/scar-less wound healing, composite tissue transplantation, and genitourinary/lower abdominal reconstruction.
- Army Medicine is also conducting critical research to improve treatment of battlefield injuries. Investments for treating battlefield eye trauma include research to develop novel and improved ocular wound dressings that can be deployed into theater and applied or administered immediately following blast, burn or chemical trauma to the eye, designed to deliver therapies to control infection and promote wound repair, mitigating the deleterious effects of eye injuries.
- The U.S. Army Institute of Surgical Research (USAISR) received clearance from the U.S. Food and Drug Administration (FDA) for the Burn Resuscitation Decision Support System-Mobile (BRDSS), also called Burn Navigator, the first of its kind algorithm-based decision assist system for use in managing fluid resuscitation of severely burned patients. Designed with the medical providers in mind who may be forward deployed who do not routinely care for burn patients, the technology has been shown to improve patient outcomes with more accurate early fluid resuscitation.
- In September 2013, researchers unveiled the world's first thought-controlled bionic leg. Funded through the MRMC's Telemedicine and Advanced Technology Research Center (TATRC) and developed by researchers at the Rehabilitation Institute of Chicago Center for Bionic Medicine, this prosthetic advancement was highlighted by the New England Journal of Medicine because the type of technology was previously only available for arms.
- The diversity of operational medical challenges and environmental health threats that will increase with a change in focus to the Asia-Pacific must continue to fuel our research efforts. The DOD has a history of coordinating the capabilities of our Army and Navy overseas medical research laboratories and our major stateside laboratories, such as the Walter Reed Army Institute of Re-

search (WRAIR) and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), as platforms for infectious disease research with the National Institute of Allergy and Infectious Diseases (NIAID) of the National Institutes of Health (NIH).

—In October 2013, reports of the successful trials that could produce the world's first malaria vaccine led the headlines of international news. Malaria has been a significant medical threat in every major U.S. military conflict during the 20th century. Results of the phase III malaria vaccine trial being conducted in Africa were presented at the 6th Multilateral Initiative on Malaria Pan-African Conference by the principal investigator at U.S. Army Medical Research Unit-Kenya (USAMRU-K). This success gives hope that a vaccine will be available by 2015.

—For the first time in more than 25 years, the FDA has approved an additional red blood cell storage solution. Hemerus Medical LLC, in partnership with the U.S. Army Medical Materiel Development Activity, received FDA approval for a whole blood collection system that has been approved for 6-week red blood cell storage. Research not only yields materiel products such as equipment and pharmaceuticals, but it also provides “knowledge” products, such as new clinical practice guidelines (CPGs) and protocols. The Joint Trauma System (JTS), located at the U.S. Army Institute of Surgical Research (USAISR), has collected data from more than 130,000 combat casualty care records from Iraq and Afghanistan and will continue to provide guidance in the form of CPGs. The Joint Theater Trauma System, which was developed in Iraq by the U.S. Central Command (CENTCOM) surgeon's office, is being considered for applications in the Asia-Pacific and possible adaptation for future missions anywhere in the world.

We need to continue making deliberate, resource-informed decisions to ensure we meet the needs and challenges of today while preparing for tomorrow. While we owe it to this generation of Soldiers and Families to help them deal with the consequence of war, long after the last Soldier departs Afghanistan, we also owe the next generation of Soldiers the best that our research and development can offer.

#### THE FUTURE OF MILITARY HEALTH

We are at our best when we operate as a joint team. Together with Dr. Woodson, the Service Surgeons General are working to organize and lead the MHS into the future by building a stronger, even more integrated team. Our integrated approach to battlefield medicine has had great successes, and this enhanced integration of our capabilities, collaborating to provide care, is leading to a stronger, more relevant military health system for the future. Our commitment is to achieve greater unity of effort, improve service to our members and beneficiaries, and achieve greater efficiency through rapid implementation of common services and joint purchasing, as well as other opportunities for more streamlined service delivery. The President's budget for fiscal year 2015 adequately funds Army Medicine to meet the medical mission. We will continue the collective work of optimizing policies and processes across the MHS to advance our transformation to a System for Health.

Military medical care is one of the most valued benefits our great Nation provides to its Service Members. We understand that we cannot ask our beneficiaries to share more of the cost of healthcare without also looking within to streamline. The rising cost of healthcare coupled with the increasingly constrained defense budget presents a challenge to the MHS. In doing our part, Army Medicine is developing innovative and effective ways to deliver care in a resource constrained environment while integrating health and readiness into everything we do.

The establishment of a Defense Health Agency (DHA) in October 2013 represented a major milestone towards modernization and integration of military medical care. Army beneficiaries constitute 49 percent of the inpatient and outpatient workload in the MHS, and Army Medicine fully supports the ongoing structural and governance reforms within the MHS to better serve our population. The DHA implementation is key to reducing the growth of healthcare costs, reducing variance, recapturing workload, and improving standardization of clinical and business processes. Implementation has included successful transition of 6 shared services to the DHA, and the AMEDD will continue to drive the fundamental changes within the MHS.

The fiscal year 2015 President's budget includes proposals for a TRICARE Consolidated Health Plan along with modest increases in beneficiary out-of-pocket costs for Active Duty families, Retirees and their families, and RC members and their families. These proposals reflect the DOD efforts to modernize and simplify the TRICARE program that will place the program on a stable, long-term footing. Army Medicine joins our Army Chief of Staff in supporting the 2015 budget the President

has put forward. These cost savings are essential to ensuring that our beneficiaries continue to receive the high quality care they deserve. It represents a responsible path forward to sustaining the Military Health benefit in a changing world and recognizes that the fiscal health of the country is a vital element in our National security. This change will be successful if it is combined with health initiatives and fully capitalizing on the readiness platform in our direct care system.

The budget being put forward reflects our commitment to the broad range of responsibilities of the MHS; the medical readiness requirements needed for success on the battlefield of today and tomorrow; the patient-centered approach to care that is woven through the fabric of MHS; the transformative focus of the System for Health for our population; the public health role we play in our military community and in the broader American community; the reliance we have on our private sector health-care partners who provide indispensable service to our Service Members and their Families; and our responsibility to deliver all of those services with extraordinary quality and care.

#### THE ROAD AHEAD

We have an enduring obligation to the men and women in uniform, to their families who serve with them, and to the retired personnel and families who have served us in the past. For those who have borne the greatest burden through injury or disease suffered in our Nation's conflicts, we have an even higher obligation to the wounded and to their families. Some will need our care and support, as will their families, for a lifetime.

We will not lose sight of this obligation in our inter-war years, and will work aggressively to ensure we maintain robust combat casualty care skills and maintain trust with the American people. Our Nation's sons and daughters in uniform deserve nothing less than the level of support and capability we provided during our years in Iraq and Afghanistan.

In closing, though we live in uncertain times, one thing is certain—a strong, decisive Army will be—as it always has been—the strength of our Nation. I am proud of Army Medicine's proficient, professional and courageous performance of mission over the last 238 years to help our Soldiers, Families and Veterans. In partnership with the DOD, my colleagues here at the panel today, the VA, and the Congress, we will be prepared for tomorrow's challenges. Thank you for the opportunity to tell the Army Medicine story. Thank you for your continued support of our Total Army Family.

The Army Medicine Team is proudly Serving to Heal, and Honored to Serve.

Senator DURBIN. Thanks, General.  
Admiral Nathan.

#### **STATEMENT OF VICE ADMIRAL MATTHEW L. NATHAN, SURGEON GENERAL, DEPARTMENT OF THE NAVY**

Admiral NATHAN. Chairman Durbin, Vice Chairman Cochran, Senator Blunt, I am grateful for the opportunity to appear before you today on behalf of the dedicated men and women of Navy Medicine. We would like to thank the committee for the outstanding support and confidence that you maintain.

I can report the Navy Medicine team is mission ready and delivering world-class care anywhere at any time.

Our Navy Medicine optempo remains quite high, protecting, promoting, and restoring the health of sailors and marines deployed around the world, ashore and afloat, in all warfare domains, especially still in the area of conflict in the Middle East.

We exist to support the operational missions of both the Navy and the Marine Corps. These responsibilities require us to be agile and an expeditionary medical force capable of meeting the demands of crisis response and the global maritime security.

Within Navy Medicine, our planning efforts must always be synchronized with the Navy and Marine Corps. Our way forward reflects purpose and commitment to build on the work and the investments that we made last year.

Our strategic goals remain simple but complete: Readiness, value, and jointness. The goals are critical to sustaining our readiness mission, remaining flexible in the face of changing operational requirements and fiscal challenges, as well as effectively managing our resources.

They also leverage the use of technology and telehealth, help standardize clinical and business processes, and improve alignment.

Throughout Navy Medicine, our leaders are achieving measurable progress on these goals, and I am encouraged by the fact that these priorities are taking hold throughout our enterprise.

By leveraging the capabilities of our patient-centered medical home, known as Medical Home Port, and initiating our own CONUS (continental United States) hospital optimization plan, we are moving more workload into our military treatment facilities (MTFs), we are growing our enrollment, rebalancing our staff, and we are reducing overall purchase care expenditures.

Just as importantly, we are ensuring that our graduate medical education programs remain second to none, and our provider teams sustain the clinical currency to always be battlefield ready.

Strategically, I am convinced that we are stronger as a result of our work with other services, interagency partners, leading academic and private research institutions, and other civilian experts. These collaborations are vital as we leverage efficiencies and best practices in clinical care, research, education, global health engagement, and support for our wounded servicemembers in their recovery and transition.

To echo my partner here and colleague in the Army, Lieutenant General Horoho, when something happens to any of our members in our sister services, when they are in pain, we are in pain.

Psychological health is an important component of overall force health protection. We recognize that prolonged operational stress can have significant and potentially debilitating consequences. We continue to embed our mental health capabilities in operational units and primary care settings in order to identify and manage issues before they manifest as psychological problems.

This priority extends to suicide prevention where we train sailors, marines, and their families to recognize operational stress and use tools to manage and reduce its effects.

As leaders, we have renewed our emphasis on ensuring that we focus on every sailor, every day, particularly those in transition or facing personal or professional adversity.

We know that an increasing sense of community and purpose is an important protective factor in preventing suicide, and we must remain ready and accessible to those who need our help.

These are transformational times for military medicine. There is much work ahead as we navigate important challenges and seize opportunities to keep our sailors and marines healthy, maximize the value for all our patients, and leverage the joint opportunities.

#### PREPARED STATEMENT

I am encouraged with the progress we are making, but I am not satisfied. We continue to look for ways to improve and remain on the forefront of delivering world-class care anytime, anywhere.

Again, thank you, and I look forward to your questions.  
[The statement follows:]

PREPARED STATEMENT OF VICE ADMIRAL MATTHEW L. NATHAN

Chairman Durbin, Vice Chairman Cochran, distinguished members of the subcommittee, I am grateful for the opportunity to appear before you today and update you on Navy Medicine, including our priorities, opportunities and challenges. On behalf of the 63,000 dedicated men and women of Navy Medicine, we want to thank the committee for your outstanding support and confidence. I can report to you that the Navy Medicine team is mission-ready and delivering world-class care, anytime, anywhere.

STRATEGIC PRIORITIES, ALIGNMENT, AND OPTIMIZATION

Navy Medicine is an integral part of the Navy-Marine Corps team, protecting, promoting and restoring the health of Sailors and Marines around the world—ashore and afloat—in all warfare domains. We exist to support the operational missions and core capabilities of both the United States Navy and the United States Marine Corps. These responsibilities require us to be an agile, expeditionary medical force capable of meeting the demands of crisis response and global maritime security. In this regard, the Chief of Navy Operations has articulated, directly and succinctly, his “Sailing Directions” tenets—*Warfighting First, Operate Forward and Be Ready*. These tenets are particularly relevant as we navigate current and emerging challenges. Navy Medicine stands ready as we move forward at this pivotal time in our history.

Within Navy Medicine, our strategic planning efforts are synchronized with the Navy and Marine Corps. The Navy Medicine 2014 Charted Course reflects purpose and commitment to build on the work and investments we made last year. Our overarching strategic goals are:

*Readiness.*—We provide agile, adaptable, and scalable capabilities prepared to engage globally across the range of military operations with maritime and other domains in support of the national defense strategy.

*Value.*—We will provide exceptional value to those we serve by ensuring highest quality through best healthcare practices, full and efficient utilization of our services, and lower care costs.

*Jointness.*—We lead Navy Medicine to jointness and improved interoperability by pursuing the most efficient ways of mission accomplishment.

The goals are critical to sustaining our readiness mission, remaining flexible in the face of changing operational requirements and soundly managing our resources. They also leverage the use of technology and telehealth, help standardize clinical and business processes and improve alignment. We are ensuring that our investments and objectives are targeted to support these strategic goals and serve as a foundation for our initiatives. Throughout Navy Medicine, our leaders are achieving measureable progress and I am encouraged that these priorities are taking hold throughout our system.

In this fiscal environment, we understand the demands facing all of us and we remain committed to deriving best value from the resources provided to us. We are working diligently to optimize our system, implement efficiencies and reduce purchased care expenditures for our enrolled patients. I continue to make recapturing private sector healthcare a priority for our military treatment facility (MTF) commanders and commanding officers. We are carefully tracking metrics that give us insight into our purchased care expenditures to help us manage and optimize our system. Navy Medicine is moving more workload into our MTFs, growing our enrollment and reducing the overall purchased care expenditures. I am encouraged by the progress we are making in this important area and will continue to address this issue as a key strategic initiative throughout 2014.

We are grateful to the Committee for continued support of our resource requirements especially given the overarching fiscal uncertainties. The passage of the Consolidated Appropriations Act of 2014 provides us with stability for planning and execution of our requirements for this fiscal year. The President’s budget for fiscal year 2015 continues to adequately fund Navy Medicine to meet its medical mission for the Navy and Marine Corps. We also support the changes to TRICARE contained in the President’s Budget, including initiatives to simplify and modernize the program through the Consolidated Health Plan, and update beneficiary out-of-pocket costs with modest increases. These changes to the program are important to ensuring the delivery of sustainable and equitable healthcare benefits.

Nonetheless, we did face the uncertainties and associated challenges with sequestration during the past year. We remained committed to delivering the healthcare services to our beneficiaries. We worked to channel the required sequester cuts in fiscal year 2013 to facilities sustainment and modernization, equipment purchases, contracts and travel. However, the cumulative effects of these reductions must be carefully assessed as we look to recapture workload and make needed investments in our facilities. In addition, we are carefully watching the impact on recruiting, retention and morale of our civilian personnel following the furlough and government shutdown in 2013.

Navy Medicine is committed to achieving the Department of Defense (DOD) objective of preparing auditable financial statements and reports. Becoming audit ready will demonstrate to our stakeholders that Navy Medicine is an accountable steward of the resources we receive and help support our decisionmakers with ready, accurate and timely information. We developed, refined and deployed our standard operating procedures for multiple business processes and initiated corrective actions when indicated. This strategy of process documentation and remediation has strengthened internal controls and improved resource management. Although we have made substantial progress, much work still remains to achieve audit readiness and to sustain improvements.

The establishment of the Defense Health Agency (DHA) on October 1, 2013 is an important milestone for military medicine and our collective efforts to realize potential efficiencies and savings throughout the Military Health System (MHS). All of us recognize the opportunity this represents to standardize our practices and drive out complex variation, while maintaining clear lines of authority necessary to support each Service's operational requirements. Efforts to improve integration of MTFs and purchased care networks (TRICARE) continue with implementation of six enhanced multi-service markets (eMSMs). Navy Medicine is working with the DHA, in conjunction with the Army and Air Force, to ensure that rigorous business case analyses are conducted and validated for the shared services while we continue to focus on refining 5-year business plans and improved integration of healthcare benefits and services in the six eMSMs. Our collective efforts should culminate on generating efficiencies and savings within the MHS through continued health plan integration and the development of the next TRICARE contract.

Looking to fiscal year 2015, the standup of the DHA included assumptions about workload and cost savings. While the dollar reductions were largely in the private sector account, the assumption of increased workload was placed on MTFs with the expectation of no increased resource demands. As described above, we are hard at work to do everything possible to ensure that the Navy MTFs improve production and reduce cost.

Integrated and comprehensive primary care delivery is foundational to a quality health system. It is also critical to our efforts in improving the health and wellness of our beneficiaries, and achieving best health outcomes at the lowest cost. Medical Home Port (MHP) transforms the delivery of primary care to an integrated, team-based approach offering same day access, proactive prevention services and standardized clinical processes. It also includes expanded healthcare teams including behavioral health providers and access to pain management specialists. Nearly all of Navy Medicine's 780,000 total MTF enrollees are now receiving care in a MHP. In addition to primary care, Navy Medicine is expanding patient-centered, integrated care to the specialty and inpatient areas through Medical Neighborhoods. All of our MHP practices have applied for National Commission for Quality Assurance (NCQA) recognition. To date, 80 percent have been reviewed by NCQA and obtained recognition, while the remaining practices are currently awaiting results. Of those to receive recognition, 93 percent have received NCQA's highest level of recognition. These results are a full 10 percent higher than the average scores for civilian practices.

We tailored the MHP model for the operational community so that all Sailors and Marines receive the same patient-centered benefits. There are nine demonstration project sites—six for Marine-Centered Medical Home (MCMH) and three for Fleet-Centered Medical Home (FCMH)—all of which will enhance access between patients and their healthcare team. The teams also integrate behavioral and psychological healthcare providers to improve medical readiness. In 2014, we plan on expanding MCMH to 16 additional sites and FCMH to 15 additional sites.

We are employing key information technology tools to improve the efficiency of healthcare delivery. Every MHP team can communicate with their patients through interactive and secure electronic messaging. This capability improves communication, access to care, continuity and patient satisfaction while reducing in-office visits. In addition, we collaborated with the other Services to create and deploy stand-

ardized Tri-Service work flow templates to enhance clinical operations and care documentation aligned with evidence-based guidelines.

As our MHP practices continued to mature over the past year, we have seen favorable trends in key metrics including:

- Navy Medical Readiness Indeterminate status decreased 14 percent;
- Access to acute appointments improved 19 percent as Primary Care Manager (PCM) continuity increased 12 percent, to an all-time high of 65 percent;
- Emergency Department utilization decreased by 12 percent;
- The number of beneficiaries utilizing secure messaging increased 50 percent and now exceeds 200,000 patients sending over 20,000 messages per month.

In order to leverage our MHP capabilities and support our strategic priorities, we implemented the Navy CONUS Hospital Optimization Plan that will impact nine of our hospitals in the United States. These proactive efforts are directly focused on improving readiness and value, as well as enhancing our graduate medical education (GME) programs. Changes in medical practice, including the migration to more outpatient care and shifts in populations, required us to carefully examine how healthcare was delivered and resourced. We used a population-based approach to establish targeted MTF enrollment and realignment of inpatient capabilities consistent with higher concentrations of our beneficiaries and greater patient acuity. After the realignment is completed, it will allow us to expand MHP enrollment, optimize inpatient capacity, recapture workload and ensure that our training programs remain second to none and our provider teams sustain the clinical currency to always be battlefield ready.

Telehealth capabilities will continue to be important in employing the power of health information technology in delivering outstanding care, without the barriers of time and distance. To ensure that we are taking advantage of telehealth opportunities throughout Navy Medicine and within the Military Health System, I established a program management office within the Bureau of Medicine and Surgery, along with two regional project offices at Navy Medicine East (Portsmouth, Virginia) and Navy Medicine West (San Diego, California). Naval Hospital Camp Lejeune initiated programs to support a broad spectrum of clinical services including pediatric subspecialty consultation, tele-ICU, tele-behavioral health, tele-insomnia, tele-neurology, orthopedic consult service, tele-pain, and Battalion Aid Station consultative service. Navy Medicine East is also initiating a large tele-radiology program to provide after-hours and subspecialty coverage throughout the region focused on improving the quality of care and saving resources. In addition, a Memorandum of Agreement was signed between Navy Medicine West and the Army's Pacific Regional Medical Command (PRMC) regarding collaboration on telehealth initiatives in the Pacific. WESTPAC Medical Alliance MTFs on Guam, Okinawa, and Yokosuka receive tele-critical care, tele-behavioral health, and provider-to-provider tele-consultations from PRMC. Moving forward, we will continue to identify telehealth opportunities for improving the health and readiness of our Sailors, Marines and families.

In addition to utilizing the most current technology, we know how important our facilities are to both patients and staff and we are grateful to you for your funding of our military medical construction requirements. In December 2013, a state-of-the-art replacement hospital was opened onboard Marine Corps Base Camp Pendleton. Naval Hospital Camp Pendleton is responsible for providing healthcare to Marines, Sailors, their families and all our beneficiaries in their catchment area as well as patients from six large branch medical clinics and seven active-duty Regimental Aid Stations. Our newest Navy MTF has 42 staffed inpatient beds and an efficient ambulatory outpatient treatment capacity to serve our patients. Our Naval Medical Logistics Command (NMLC) played an integral role in outfitting this new facility with a state-of-the-art automated supply replenishment system using a 2-bin radio frequency-identification (RFID)-enabled supply system designed to minimize clinical involvement in supply chain activities, reduce waste and streamline replenishment actions. Due to the hard work of a dedicated team, I am proud that Naval Hospital Camp Pendleton was delivered under budget and ahead of schedule.

#### FOCUS ON HEALTH

Force health protection is the core mission of Navy Medicine. We execute these responsibilities from the battlefield to the bedside, and in all domains in which Sailors and Marines operate. Despite the drawdown of forces in Afghanistan, our operational tempo remains high as Navy and Marine Corps forces operate forward throughout the world.

We continue to lead the NATO Multinational Medical Unit (MMU), operating at Kandahar Airfield in Afghanistan. During its mission, this unit provided world-class combat casualty care to our warfighters. While the number of active and reserve

personnel serving at the MMU has been reduced to approximately 133 from 250 last year, they are continuing to execute their demanding responsibilities with skill and dedication. It serves as the primary trauma receiving and referral center for all combat casualties in Southern Afghanistan and has 12 trauma bays, 4 operating rooms, 8 intensive care beds and 10 intermediate care beds. The MMU's partnership with the Joint Combat Casualty Research Team provides the platform for the advancement of military medical research in the areas of pre-hospital enroute care, traumatic brain injury, hemorrhage acute care, as well as prevention, recovery and resiliency.

Our operational commanders rely on Navy Medicine for rapid assessment and identification of hazards presenting potential health threats to our deployed personnel and recommendations for protective or control measures. The four Navy Environmental and Preventive Medicine Units (NEPMUs), often the first responders, are important to these efforts as they provide Navy and Marine Corps forces with specialized public health services including disease surveillance, environmental health, entomology, industrial hygiene, and audiology. The NEPMUs maximize the readiness of operational forces worldwide by identifying and assessing health stressors to our personnel created by their work and their deployment settings. Additionally, the physicians, scientists, and corpsmen at the NEPMUs can advise commanders on proper controls that should be implemented to maintain the health and well-being of service members.

Psychological health is an important component of force health protection. We recognize that prolonged operational stress can have significant and potentially debilitating consequences. The Navy's Combat and Operational Stress Control programs promote psychological health and advance the quality and delivery of mental healthcare. Our emphasis is on fostering resilience, providing aggressive prevention programs, reducing stigma and targeting early recognition of stress problems. We are also working with our Navy and Marine Corps line counterparts in ensuring that combat and operational stress control concepts are being taught throughout the leadership training continuum.

We continue to embed mental health capabilities in primary care settings and operational units in order to identify and manage issues before they manifest as psychological problems. We have mental health providers assigned to a variety of operational units including aircraft carriers, Marine Corps infantry regiments, special operations commands and in a variety of other settings including deployed Amphibious Readiness Groups. The Behavioral Health Integration Program (BHIP) in our Medical Home Port continues its implementation. Currently, 43 BHIP sites are established with the remaining 36 scheduled to be implemented by the end of fiscal year 2014. This initiative integrates behavioral health into primary care and can help improve access and reduce the stigma of seeking help.

As we approach the conclusion of America's longest conflict, we must remain vigilant to the psychological health issues that will continue to emerge. Navy Medicine is at the forefront in identifying and implementing best practices and is actively engaged in research efforts to better understand, diagnose and treat injuries related to combat and operational stress. Our Psychological Health Pathways (PHP) pilot program, an initiative to standardize clinical care and assessment practices in tandem with a web-based registry, is collecting outcome measures at 21 clinics across the Navy and Marine Corps. Over two million data points have been collected in this registry and are being used to provide critical patient information to providers, as well as aggregated data for leaders. In the coming months, the lessons learned from PHP will be employed to roll-out a similar system for tracking behavioral health treatment outcomes. The Navy will join the other Services in implementing the Behavioral Health Data Portal (BHDP), which will provide standardization in our attempts to supply behavioral health providers with real-time outcome data to better inform treatment and tailor interventions to the individual patient.

We also recognize the challenges that our service members face as they transition from the military. Our Navy Medicine case management team is comprised of 235 nurses, social workers, and support staff who work diligently to assist our beneficiaries to achieve wellness and autonomy through advocacy, communication, education, and identification of service resources.

Family support programs are important to our efforts in building resiliency, developing sound coping skills and managing stress. One of our most successful continuing efforts is the Families Over Coming Under Stress (FOCUS) program which has reached over 435,325 service members, family members, and providers since its inception in 2008. Through program briefings and outreach presentations, consultation, skill-building groups, and family resiliency training, FOCUS has enhanced resilience and decreased stress levels for active duty members and their families. Outcomes have shown improvements in parent and child psychological health (including

reductions in depressive and anxiety symptoms over time), improved family adjustment, and improved quality of marriage.

The Navy and Marine Corps Reserve Psychological Health Outreach Program (P-HOP) provided over 13,000 outreach contacts to returning service members and provided behavioral health screenings for approximately 3,300 reservists in fiscal year 2013. They also made over 700 visits to reserve units and provided presentations to approximately 72,000 reservists, family members and commands. Similarly, over 1,800 service members and their loved ones participated in Returning Warrior Workshops (RWWs). RWWs assist demobilized service members and their families in identifying immediate and potential issues that often arise during post-deployment reintegration.

Navy behavioral health providers are trained in evidence-based treatment for trauma-related disorders, including PTSD. This trauma may result from combat, sexual assault, or other events. Our mental health providers must be trained and ready to support whenever they are called upon. In the wake of the tragic mass shootings at the Washington Navy Yard on September 16, 2013, Navy Medicine activated our Special Psychiatric Rapid Intervention Team (SPRINT). The team was on site the day of the shooting and provided behavioral and emotional support services to the victims over the next 12 days.

In 2013, Navy Medicine initiated a standardized process to assess traumatic brain injury (TBI) programs and care at all Navy MTFs. The overarching goal of this initiative is to ensure that the care provided to all patients is standardized, consistent and appropriate. This initiative will also ensure that those involved in the provision of care adhere to identified best practice standards. We also developed four clinical algorithms for use in non-deployed settings which mirror the in-theatre TBI care system.

The TBI program at Naval Hospital Camp Lejeune (NHCL) became operational in August 2013 as one of nine proposed National Intrepid Center of Excellence (NICoE) satellites (two Navy sites and seven Army sites). Naval Hospital Camp Pendleton's TBI program also has an identified building site for their NICoE satellite in close proximity to the newly opened hospital. The NICoE satellites are designed to provide advanced evaluation and care for service members with acute and persistent clinical symptoms following a TBI. The satellites use a core Concept of Care—including a standardized staffing and treatment model—that was drafted jointly by all the Services, as well as the NICoE, the Defense Centers of Excellence for Psychological Health and TBI (DCoE), and the Defense and Veterans Brain Injury Center (DVBIC).

In theatre, the Navy continues to provide concussion care at the Concussion Restoration Care Center (CRCC) at Camp Leatherneck, Afghanistan. Since August of 2010, the CRCC has treated nearly 1,300 service members with concussion. CRCC patients have a 98-percent return to duty rate in an average of 9 days. All Sailors and Marines deployed "boots on the ground" are also required to complete post-deployment health assessments. Those who endorse any TBI-related symptoms are flagged to receive follow-up evaluation and, if necessary, treatment. Navy Medicine supplements the Post-deployment Health Assessment (PDHA) with an event-driven process, utilizing the TBI exposure tracking list generated from the DODI 6490.11 (DOD Policy Guidance for Management of Mild Traumatic Brain Injury/Concussion in the Deployed Setting) to identify Sailors and Marines for additional follow-up.

Every suicide is a tragedy. It is a loss of a valued shipmate that impacts command cohesiveness—a loss the Navy and Marine Corps are determined not to accept. Preventing suicide is a command-led effort that leverages a comprehensive array of outreach and educational services. The number of active duty suicides in the Navy fell from 59 in calendar year 2012 to 44 in 2013; while USMC suicides declined from 48 to 45 for the same period. We remain cautiously optimistic as we combat this difficult problem. Preventing suicide requires each of us to actively participate and be engaged in the lives of our shipmates and colleagues. Education and prevention initiatives train Sailors to recognize operational stress and use tools to manage and reduce its effects. Mobile Training Teams teach Sailors resiliency and provide them with tools to navigate stress and interrupt the path to suicidal behaviors. A-C-T (Ask—Care—Treat)—a bystander intervention tool—remains an important framework of response.

During fiscal year 2013, we completed an in depth review of Navy Medicine suicides that occurred during the previous two calendar years. This review was precipitated by a significant increase in the proportion of Navy suicides that were occurring within the medical community. Data from this review suggested that individuals who were in the midst of personal or professional transitions were particularly vulnerable to suicide. This finding prompted a renewed emphasis by Navy Medicine leadership on ensuring that we focus on every Sailor, every day, particularly those

in transition or facing adversity. An increasing sense of community and purpose is an important protective factor in preventing suicide and we must remain ready and accessible to those who need help.

The Department of the Navy (DON) does not tolerate sexual assault and implemented comprehensive programs that reinforce a culture of prevention, response, and accountability for the safety, dignity, and well-being of Sailors and Marines. Navy Medicine provides compassionate, competent, medical care that is victim-centered, gender-sensitive and takes into account the reporting preferences of the individual. In support, Navy Medicine is committed to the success of the Sexual Assault Prevention and Response Program and to ensuring the availability of sexual assault forensic exams (SAFE) at shore and in afloat settings. SAFE providers are trained and available to ensure timely and appropriate medical care for sexual assault victims in all military platforms served by Navy Medicine. We established a comprehensive program to provide victims of sexual assault access to SAFE at both 24/7 MTFs and non-24/7 MTFs. The scope of this program extended to the operating forces at U.S. Fleet Forces and U.S. Pacific Fleet to provide the same level of training and care in maritime and expeditionary environments for victims of sexual assault. As of February of this year, 917 providers at our MTFs and operational platforms (surface, air, expeditionary and submarine) have been SAFE trained.

The 21st Century Sailor and Marine initiative is an important effort designed to maximize readiness, maintain resiliency and hone the most combat effective force possible. Included in this program are the following areas: Readiness; safety; physical fitness; inclusion; and, continuum of service. This program provides alignment and unity of effort in several critical areas including suicide prevention, intolerance for sexual assault and harassment, and promotion of healthy lifestyles and work-life balance. Navy Medicine's programs on health promotion and education, tobacco-free living, excessive alcohol use prevention and nutrition directly support these important priorities.

#### MISSION-FOCUSED: THE NAVY MEDICINE TEAM

The fabric of Navy Medicine is our people—a team of over 63,000 men and women serving around the world in support of our mission. We are officers, enlisted personnel, government civilian employees, contract workers and volunteers working together in a vibrant healthcare community. We value the skill, experience and contributions of our personnel—all are vital to Navy Medicine's success in delivering world-class care around the globe.

We continue to focus on ensuring we have the proper workforce, aligned with the appropriate mix of recruiting, retention, as well as education and training incentives. We are grateful for your support of our special pays and bonus programs. I believe these incentives, along with a robust student pipeline, are important in sustaining our recruiting successes, ensuring healthy manning and retention levels and mitigating the risk associated with an improving civilian labor market for healthcare professionals.

In fiscal year 2013 Navy Recruiting attained 100 percent of the active component (AC) Medical Department officer goal and our overall active component officer manning is 99 percent, a 10-year high. Some shortfalls do exist, mainly due to billet growth and primarily in the mental health specialties. However, mental health provider manning continues to improve with psychiatry, clinical psychology and social work manned at 90 percent, 88 percent, and 58 percent, respectively. We project our social work manning to be over 80 percent by the end of fiscal year 2014.

Within the Navy Medicine reserve component (RC), we attained 75 percent of our officer goal. Recruiting RC Medical Corps officers remains a challenge. Given the higher retention rates in the AC, we rely more heavily on the challenging Direct Commission Officer market for our reserve physicians. While overall RC Medical Department manning stands at 91 percent, manning within the Medical Corps is 67 percent, with specialty shortfalls persisting in orthopedic surgery, general surgery and anesthesiology. Within the RC Nurse Corps, our stipend program as well as recruiting and retention bonuses have had a significant impact in improving manning for certified registered nurse anesthetists and mental health nurse practitioners.

Our AC and RC Hospital Corps enlisted recruiting attained 100 percent of goal for fiscal year 2013. Our AC enlisted manning is 100 percent, despite some shortfalls in key Navy Enlisted Classification Codes (NECs). Surface and submarine independent duty corpsmen (IDCs) are both manned at 90 percent, with our dive IDC manning currently at 86 percent. Fleet Marine Force reconnaissance corpsmen manning is 58 percent. Manning levels in this community are a direct result of special operations growth. We are utilizing special and incentive pays, along with in-

creased recruiting efforts, to improve manning in this critical skill set. At the end of fiscal year 2013, our RC enlisted manning was 101 percent.

Navy Medicine's Federal civilian workforce provides stability and continuity within our system, particularly as their uniformed colleagues deploy, change duty stations or transition from the military. Throughout our system, they provide patient care and deliver important services in our MTFs, research commands, and support activities as well as serve as experienced educators and mentors—particularly for our junior military personnel. As of the end of fiscal year 2013 our civilian end strength was 12,246, which is in line with our overall requirements.

Navy Medicine's Reintegrate, Educate and Advance Combatants in Healthcare (REACH) Program is an important initiative that provides wounded warriors with career and educational guidance from career coaches, mentoring from medical providers and hands-on training and experiences in our MTFs. We are committed to helping our service members with their recovery and transition and I am particularly encouraged by the opportunities that REACH provides for careers in healthcare. REACH is now available at Naval Medical Center Portsmouth, Naval Medical Center San Diego, Naval Hospital Camp Lejeune, Naval Hospital Camp Pendleton, Walter Reed National Military Medical Center and Naval Health Clinic Annapolis. We have successfully transitioned eight wounded warriors into part-time positions at our MTFs and 70 recovering service members have enrolled in healthcare-focused college degree programs.

Navy Medicine is stronger as a result of our diversity and inclusion. We are a diverse, robust and dedicated healthcare workforce, and this diversity also reflects the people for whom we provide care. We take great pride in promoting our message that we are the employer of choice for individuals committed to a culturally competent work-life environment; one where our shipmates proudly see themselves represented at all levels of leadership. We will continue to expand our outreach to attract and retain diverse talent, ideas and experiences in order sustain our mission success.

#### INNOVATIVE RESEARCH AND DEVELOPMENT

Navy Medicine Research, Development, Testing, and Evaluation (RDT&E) is inextricably linked to our force health protection mission. Navy Medicine RDT&E priorities are operationally focused and include: Traumatic brain injury and psychological health; medical systems support for maritime and expeditionary operations; wound management throughout the continuum of care; hearing restoration and protection; and, undersea medicine. In addition, these priorities fully support Navy Medicine's strategic goals of readiness, value, and jointness by developing products that preserve, protect, treat, or enhance the health and performance of Sailors and Marines. RDT&E efforts represent cost-effective, value-based solutions, and align with efforts from the others Services to avoid unnecessary duplication.

The Naval Medical Research Center (NMRC) and its seven subordinate laboratories (Naval Health Research Center, San Diego, California; Naval Medical Research Unit-SA, San Antonio, Texas; Naval Medical Research Unit-D, Dayton, Ohio; Naval Submarine Medical Research Laboratory, Groton, Connecticut; Naval Medical Research Unit Two, Singapore; Naval Medical Research Unit Three, Cairo, and Naval Medical Research Unit Six, Lima) collectively form an RDT&E enterprise that is the Navy's and Marine Corps' premier biomedical research, surveillance/response, and public health capacity building organization.

Our researchers continue to make progress with some of our most challenging health issues including malaria. Experts from NMRC and other Federal and industry partners published the results of a successful clinical trial of a new malaria vaccine. This is the first time 100 percent protective efficacy has been achieved in any clinical test of a candidate malaria vaccine. Malaria continues to present a major challenge to force health protection during operations in any environment where malaria is endemic. The results of these clinical trials offer significant promise for protecting the health of our deployed service members and the world's population.

On September 20, 2013, Naval Medical Research Unit Two (NAMRU-2), Singapore, also designated Naval Medical Research Center—Asia (NMRC-A), officially opened its doors during a ribbon cutting ceremony at its new location at Navy Region Center, Singapore, inside the Port of Singapore Authority (PSA) Sembawang. This opening ended a lengthy transition that started in June 2010 when the political situation in Indonesia forced NAMRU-2 out of Jakarta, Indonesia to become NAMRU-2 Pacific, at Joint Base Pearl Harbor-Hickam, Hawaii. In addition to the command, support and science operations now in Singapore, NAMRU-2 has a field activity in Phnom Penh, Cambodia that has grown from a small infectious disease surveillance operation in the mid-1990s to a full state-of-the-art infectious diseases

laboratory. NAMRU-2 supports its infectious disease surveillance, response, and capacity building efforts throughout Southeast Asia in cooperation with the Army's Armed Forces Research Institute for Infectious Diseases (AFRIMS) in Bangkok, Thailand. Last month, I had an opportunity to visit the NAMRU-2 and meet the outstanding staff as well as our military medical counterparts in Vietnam and Cambodia. I saw firsthand the outstanding international collaboration between our scientists and the high value infectious disease research being conducted. These efforts are important as we continue to develop partnerships and foster cooperation in the Asia-Pacific area.

Our Clinical Investigations Program (CIP) is an important component of the Navy Medicine research portfolio. Navy Medicine satisfies the requirements that exist for accreditation of postgraduate healthcare training programs through trainee participation in CIPs at our teaching MTFs. The clinical research is developed by our medical, dental, nursing and allied health sciences trainees. In fiscal year 2013, our MTFs conducted a total of 527 clinical research projects that resulted in 436 scientific publications. Our CIPs improve the quality of patient care and add to the global compendium of knowledge, as the findings were published in peer reviewed medical and scientific journals and presented at both national and international meetings.

#### EXCELLENCE IN HEALTH EDUCATION AND TRAINING

Education and training is critical to the future of Navy Medicine. We train our personnel to meet the current challenges of providing state-of-the-art healthcare and provide them with the skills sets to adapt and respond to ever-changing operational demands moving forward. In this regard, we advance the continuum of medical education, training and qualifications that enable health services and force health protection through innovative and cost-effective learning solutions.

Onboard the tri-service Medical Education and Training Campus (METC), the largest integrated medical training facility in DOD, Sailors are training side-by-side with Soldiers and Airmen. METC is impressive in scope and curricula as it now encompasses 51 programs of instruction, approximately 6,000 average daily student load, and over 21,000 graduates a year. With outstanding facilities, advanced educational technologies and a great faculty, METC is providing our corpsmen, and their Army and Air Force counterparts, with unmatched training opportunities. Last year, 4,392 corpsmen graduated from the METC Basic Medical Technician Corpsmen Program and 1,107 completed advanced training programs. Currently, approximately one-third of our hospital corpsmen are METC graduates.

Graduate Medical Education (GME) is critical to the Navy's ability to train board-certified physicians and meet the requirement to maintain a tactically proficient, combat-credible medical force. Robust, innovative GME programs continue to be the hallmark of Navy Medicine and I am pleased to report that despite the challenges presented by fiscal constraints and new accreditation requirements, our programs remain in excellent shape.

Our institutions and training programs continue to demonstrate outstanding performance under the Accreditation Council for Graduate Medical Education (ACGME). Board certification is a key metric of strong GME and the 5-year average first time board certification pass rate for our trainees is 93 percent. These results meet or exceed the national average in virtually all primary specialties and fellowships. We are watchful of developing trends over the next several years to include a highly visible institutional role in the accreditation process and oversight, increased emphasis on the ability to demonstrate a culture of safety and supervision in the accreditation of training programs and improved alignment between training and operational requirements.

Our education and training capabilities will continue to adapt and evolve to ensure we meet the demands of providing Navy Medicine personnel who are well-prepared and mission-ready.

#### GLOBAL HEALTH ENGAGEMENT

Navy Medicine is uniquely postured by our global health engagement (GHE) capabilities in security cooperation, health threat mitigation and force health protection to support the warfighter across the full range of military operations. These efforts are important in building relationships and increasing interoperability with our allies, international organizations, as well as inter-agency and non-governmental organization partners. They also improve readiness by providing unmatched training and experiential opportunities that will help assure our success in peace and at war.

We currently have Navy Medicine personnel dedicated to GHE activities across 90 countries in support of our Geographic Combatant Commanders and Naval Com-

ponent Commands. In general, these personnel are engaged daily with host nation personnel and their counterparts throughout the country. This includes three primary overseas labs, two Health Affairs Attaché Offices in U.S. Embassies, a comprehensive Defense HIV-AIDS prevention program working with 80 foreign militaries, and a network of ten liaison activities collaborating with international and inter-agency global health partners at home and abroad.

In addition, we are committed to providing humanitarian assistance and disaster relief (HA/DR) whenever and wherever needed. HA/DR is a core capability of Naval forces and enhances readiness across the full range of military operations. The Navy is well-suited for these missions because our expeditionary forces are on station and can quickly respond when crises arise.

Our hospital ships, USNS *Mercy* (T-AH 19) and USNS *Comfort* (T-AH 20), are executing our Global Maritime Strategy by building the trust and cooperation we need to strengthen our regional alliances and empower partners around the world. *Mercy* and *Comfort* are configured to deploy in support of missions globally including in Latin America and the Pacific. With each successful deployment, we increase our interoperability with host and partner nations, non-governmental organizations (NGOs) and our interagency partners.

As a result of sequestration, the Navy deferred Continuing Promise 2013, and the humanitarian deployment of *Comfort* to Central and South America. However, since September 2013, Navy Medicine, in coordination with U.S. Pacific Fleet, has been supporting the development of Pacific Partnership 2014. This year's mission is unique as the United States will be partnering with Australia and New Zealand aboard a Japanese ship to provide health assistance, subject matter expertise exchanges and other related activities.

It is important to recognize that Navy Medicine personnel who participate in enduring humanitarian civic action (HCA) missions such as Pacific Partnership and Continuing Promise often describe them as life changing and I agree. Continued deployment of our hospital ships provide medical capacity building and care to thousands of people throughout the world. These experiences cannot be replicated and the benefits to our readiness and response capabilities are significant.

#### COLLABORATIONS

We are stronger as a result of our work with the other Services, interagency partners, leading academic and research institutions and other civilian experts. These collaborations are important as we leverage efficiencies in patient care, research, education and technology.

Navy Medicine has a long history of collaborating with the Department of Veterans Affairs (VA). We have unique collaborations and over 55 sharing agreements that benefit both Departments' beneficiaries, including the Captain James A. Lovell Federal Health Care Center (FHCC) in North Chicago. The fiscal year 2010 National Defense Authorization Act established a 5-year demonstration project located at the FHCC which will be carefully assessed over the next year to support a report to Congress to help inform the future of this facility and the potential for similar ventures between DOD and VA. Our respective leadership teams are engaged at all levels and addressing important issues including health information technology interoperability, business and administrative processes, leadership opportunities and staff assignments. There is also an active FHCC Stakeholders Advisory Council comprised of local stakeholders from Veterans Service Organizations, community and university representatives, the managed care support contractor, and other key groups. Our priorities remain ensuring that our recruits, service members and beneficiaries have unimpeded access to high quality healthcare and in our staff maintaining their clinical skills in support of the readiness mission.

Another important collaboration with the VA is the Integrated Disability Evaluation System (IDES). IDES is in its fifth year as a service member-centric, DOD/VA program designed to transition wounded, ill, and injured service members to civilian life with no gaps in benefits or medical care between the DOD and VA. Navy Medicine has primary responsibility to oversee and implement the first 100 days of the IDES process, which includes both the Referral Phase and the Medical Evaluation Board (MEB) Phase. In collaboration with our VA counterparts, we met the 100-day MEB phase goal for 24 consecutive months for Navy service members, and 21 consecutive months for Marine Corps service members.

We established the Navy Medicine Records Activity (NMRA) on January 1, 2014, to collect and review all Service Treatment Records (STRs) of separating or retiring active and reserve component service members in the Navy and Marine Corps. Throughout our MTFs and operational commands, we are working together to ensure complete medical and dental documentation is included in the STR. NMRA en-

sure all STRs are complete by performing a quality assurance check prior to being scanned into the Health Artifact and Image Management Solution (HAIMS) database for timely retrieval by the VA.

The Vision Center of Excellence (VCE) is a congressionally directed DOD/VA Centers of Excellence. Navy Medicine is the Lead Component for the VCE and provides support operational support and oversight. The VCE continues to engage across the continuum of care in support of advances in vision rehabilitation through the development of recommendations for clinical assessment, management, rehabilitation, and referral of visual and oculomotor dysfunction, as well as visual field loss associated with TBI. The team is working to address the clinical challenges of visual dysfunction associated with TBI through various educational workshops and work groups. VCE experts have developed and implemented the Defense and Veterans Eye Injury and Vision Registry (DVEIVR) to combine DOD and VA clinical ocular information into a single centralized repository of data. DVEIVR will allow the VCE to provide longitudinal outcomes to enhance clinical best practices, guide research and inform policy.

#### OUR WAY AHEAD

Navy Medicine remains fully engaged—at home and underway with the Fleet and Marine Forces. We are providing world-class care globally and operating across the entire dynamic—in the air, on and below the sea and on land. For us, this is a remarkable privilege and honor.

These are transformational times for military medicine. There is much work ahead as we navigate important challenges and seize opportunities to keep our Sailors and Marines healthy, maximize the value for all our patients and leverage joint opportunities. I am encouraged with the progress we are making but not satisfied so we continue to look for ways Navy Medicine can improve and remain on the forefront of delivering world-class care, anytime, anywhere.

Senator DURBIN. Thank you, Admiral.

General TRAVIS.

#### **STATEMENT OF LIEUTENANT GENERAL THOMAS W. TRAVIS, SURGEON GENERAL, DEPARTMENT OF THE AIR FORCE**

General TRAVIS. Chairman Durbin, Vice Chairman Cochran, Senator Blunt, thank you for inviting me to appear before you today with my partners.

Our military forces have benefited from the vast achievements Army, Navy, and Air Force medics have jointly made in deployed and en route care since the beginning of the current war.

With this war winding down, even with fiscal challenges, we now have a clear responsibility to make sure military medics are well-trained, well-prepared for whatever contingency the future brings, to include combat operations, stability operations, humanitarian assistance, or disaster relief.

To enhance our core competency in providing far-forward and en route care, both on the ground and in the air, we must ensure that our providers and staff continue to have robust opportunities to practice their skills, and that we continue to pursue critical research and modernization initiatives in the future.

We very successfully leverage civilian partnerships to maintain trauma skills in our C-STARs (Center for the Sustainment of Trauma and Readiness Skills) platforms, one of which is in Baltimore's Shock Trauma.

And as this war subsides, I am convinced we will rely even more strongly on these relationships to help us train and to conduct critical research.

As the way we fight war evolves, the way we provide medical support for operators is also evolving.

Airmen who are manning systems such as distributed common ground stations, space and cyber-operations, or remotely piloted aircraft, and those who operate outside the wire, such as security forces, special operation forces, and explosive ordnance disposal specialists, all face distinct challenges.

These types of injuries or stressors, both visible and invisible, to members and their families are also changing. We must provide medical support in different ways than we have in the past to address what we describe as an expanding definition of operators and step up to our role as human performance practitioners.

Not only will access and care be more customized for the mission, but so will prevention. For example, we have embedded mental health providers with the right level of security clearance in several remote warfare units to be readily available at the duty location to provide early intervention and care for those experiencing occupational stress that could affect their performance. These important operators may not have otherwise sought care.

I would add that 2 days ago, I visited the 480th intelligence wing at Langley Air Force Base Virginia, where you have hundreds of very young airmen who are watching screens 24/7, 365 days a year. And their leadership is convinced that what we have done there, we have prevented suicides in the last 2 years. I am, too.

The Air Force is committed to the department's plan for the reorganization of the military health system to include the establishment of the Defense Health Agency. There are many changes in the works for how we will operate, and we are excited to be fully engaged with our partners in this tough work.

And it is tough work, as we continually focus on providing trusted care and maintaining a fit, healthy, ready fighting force.

Personally, I have been in the Air Force for over 37 years, first as a pilot and for many years now as a physician. And in my career, I have never seen a time when it was more evident how important military medicine is to the operational capability of this Nation.

We have learned much and our medics have performed magnificently. Even in the face of budget challenges we have to be as ready at the beginning of the next war as we are now at the end of the current war.

#### PREPARED STATEMENT

I think our Nation expects that. Our members and their families deserve nothing less. Your continued support of Air Force Medicine and military medicine and our missions are greatly appreciated.

Thank you for that support and for your invitation to be with you today.

[The statement follows:]

#### PREPARED STATEMENT OF LT. GEN. (DR.) THOMAS W. TRAVIS

Chairman Durbin, Vice Chairman Cochran, and distinguished members of the subcommittee, thank you for inviting me to appear before you today. The Military Health System (MHS) is a world-class healthcare organization, and the Air Force Medical Service is proud to be a full partner. We have successfully overcome many significant challenges since we last met with the subcommittee, and greatly appreciate your strong support.

As the war draws down and the focus shifts to in-garrison care, it is tempting to compare the MHS to civilian healthcare organizations. But there is a cost associated with being prepared to execute our readiness missions, and no civilian healthcare system in the world can do what we do—and have done—when called upon to provide deployed and en-route care. That is the one key message I hope to leave with you today. The AFMS remains closely linked with our Army and Navy colleagues in our efforts to achieve the MHS Quadruple Aim of Readiness, Better Health, Better Care, and Best Value—but Readiness is first!

The AFMS is committed to supporting the Line of the Air Force mission—our “True North”—maintaining a medical force that is trained and ready to deploy at a moment’s notice, but also aligned with our wings in support of their operational missions. We have logged an astounding 194,300 patient movements since 9/11, including transporting 7,900 critical care patients. We provided “care in the air” to more than 5,000 patients in 2013 alone, including almost 300 Critical Care Air Transport Team (CCATT) missions for the most seriously ill and injured. Recently, the Lung Team and one of our CCATTs transported the wife of a service member in need of a lung transplant on an Extracorporeal Life Support (ECLS) machine from Landstuhl, Germany to Joint Base Andrews, Maryland—the longest trip ever for transporting a critically ill patient on ECLS who survived. Further research into use of the ECLS for the comprehensive treatment of combat casualties with single and multi-organ failure is underway at the Joint Battlefield Health and Trauma Institute by Air Force investigators. Our CCATT capability has allowed us to advance our practice of transporting only stable patients to a paradigm of en-route patient treatment that has become integral to health service support in joint doctrine.

As we strive for even greater survival rates, we’ve evolved our CCATT capability point-of-injury response. This provides more capable care further forward and more sophisticated in-transit support. Our Tactical Critical Care Evacuation Teams (TCCETs) provide damage control resuscitation on rotary-wing, forward-deployed fixed-wing, and tilt-wing aircraft, and have accomplished more than 1,600 critical care patient movements since we began the program in June 2011, many from point of injury. In an effort to ensure these teams are fully trained to provide continuous en-route critical care, we have partnered with the University of Cincinnati (UC) Medical Center to develop a TCCET course at the same location as our CCATT training. We have dedicated Air Force Medics on staff at UC to provide this training. We have similar trauma training partnerships with Baltimore Shock Trauma and St. Louis University for our ground-based expeditionary medical teams. These partner universities are each a Center for the Sustainment of Trauma and Readiness Skills, or C-STARS.

Our health response teams include rapidly deployable, modular, and scalable field hospitals that provide immediate care within minutes of arrival. The Expeditionary Medical Support Health Response Teams (EMEDS HRT) are successfully deployed as a part of our continuous evolution in medical response capabilities anywhere in the world. They provide immediate emergency care within minutes to hours of arrival—surgery and intensive critical care units in place within 6 hours, and full capability established within 12 hours of deployment arrival.

The training course at Camp Bullis, near San Antonio, was updated to provide more realistic training scenarios to prepare for disaster and humanitarian missions that may require pediatric, women’s health, and geriatric care while maintaining the ability to use this capability in a wartime setting. This evolved expeditionary HRT capability was successfully demonstrated in Peru in 2012, and is on track to be fully deployed as a replacement of our previous generation of EMEDS by 2016.

The success of TCCET, CCAT, and EMEDS-HRT in expanding our capabilities relies on collaboration with our civilian partners in the areas of research, education and training, and provider currency. We are involved in some amazing state-of-the-art research in our major thrust areas of En Route Care, Force Health Protection, Expeditionary Medicine, Human Performance and Operational Medicine.

One fascinating example is the Airborne Laser Sensor project, a collaborative effort with U.S. Customs and Border Protection that uses an AF-developed airborne sensor flown on Air Force aircraft to sense and detect laser illumination of aircrew to determine the occupational health hazard from laser exposure. Another example is our partnership with the Battlefield Health and Trauma Research Institute and the San Antonio University Health System to conduct research on spinal fractures, blood transfusions, sepsis, burns, hemorrhagic shock, and compartment syndrome. In support of Human Performance and Enroute Care, our C-STARS faculty and civilian partners are studying the timing of aeromedical evacuation on the clinical status of combat casualties to help medical teams determine the best timing of evacuation to optimize health outcomes. While we have been very proud of our success in quickly returning patients to higher levels of care when required, the decision of

when to move a patient must be data-driven, and our experience in the current long war should help guide such decisions in the future.

We also focus research on better care and health for Air Force families. For the past several years, Wright-Patterson AFB Medical Center, Nationwide Children's Hospital, and Dayton Children's Hospital in Ohio have teamed to develop protocols to identify autism spectrum disorder susceptibility genes and rare variants to allow early intervention, and have created the Central Ohio Registry for Autism. Many families have already benefitted from this ongoing research, and many more will.

Our C-STARS partnerships in Baltimore, Cincinnati and St. Louis provided critical trauma and CCATT training to our deploying medics during the war and will remain significant platforms. However, with the end of the war and drawdown of theater hospitals where readiness currency is at its highest, we need to expand our training opportunities in the pause between hostilities to ensure all of our personnel remain ready and current to care for our wounded warriors from point of injury to rehabilitation. We are transitioning to a layered, centrally managed platform emphasizing hands-on patient care, called Sustained Medical Airmen, Readiness Trained (SMART). SMART establishes a three-tiered approach where personnel at facilities of all sizes will train with a standardized curriculum using organic training opportunities, local training affiliation agreements with partnering hospitals, and, when necessary, regional currency sites to ensure required skills are preserved and staff is sustained in a trained and ready status. We anticipate our first class at a Regional SMART site to begin in September at Nellis AFB, Nevada, which is our alpha test site.

In another exciting new program, we have joined with the Uniformed Services' University of the Health Sciences (USUHS) to create an Enlisted to Medical Degree Preparatory Program (EMDP2). The program is designed to help highly motivated active duty enlisted to complete the coursework necessary to apply for medical school while on active duty. This 2-year program serves as one component in a comprehensive plan to recruit a student body that mirrors the diversity of our Nation and expands the pool for future top-notch military clinicians, leaders, and scholars. The Air Force and the Uniformed Services University have selected the first five candidates, who will begin their studies later this summer.

In addition to education and training, human performance initiatives are critical to optimizing performance of our personnel, especially as the definition of the "warfighter" has evolved. For example, Remotely Piloted Aircraft (RPA) and Distributed Common Ground System (DCGS) operators execute their core missions in garrison, requiring a shift in how we view and provide medical support. We have customized our medical support to meet the needs of Airmen performing these very stressful missions. Our medics are becoming Human Performance Practitioners—actively seeking opportunities to sustain, enhance, and optimize performance of Air Force personnel.

Lessons learned in support of Special Operations Forces through the Preservation of Force and Families initiative have improved our support of other "Battlefield Airmen" (for example, Combat Search and Rescue, Tactical Air Control Party, and Explosive Ordnance Disposal Specialists). Tailored physical therapy support, psychological support, and by-unit Primary Care Manager empanelment for these Airmen have allowed prompt identification of physical and mental disease, rapid treatment and aggressive case management/care coordination to return these Airmen to their elite, high-performing state. We are teaming the right specialties and support agencies to keep our Airmen at the top of their game. To do this effectively, some of our medics possess the level of security clearance required for them to be fully read-in on missions and challenges and, in some cases, to have office space where the missions are executed, which greatly improves access and trust.

Additionally, we are studying the operational and occupational health effects impacting personnel in Air Force-specific aircraft to determine risk of short-term and potentially long-term neurocognitive deficits secondary to high altitude exposure and to develop methods to reduce prevalence of these injuries. Results of this work to date have directly impacted operational activities associated with the U-2 aircraft to mitigate health effects, and we will continue to monitor this population through ongoing research.

The success of our operational health initiatives relies on a strong foundation of in-garrison care. We continue to embrace the principles of Patient-Centered Medical Home (PCMH) to improve patient care, access and outcomes. We have attained all-time-high levels of provider and team continuity throughout 2013, while reducing emergency room utilization rates. We developed standardized support staff protocols to promote evidence-based practice, reduce variation, and enhance reliability by utilizing PCMH teams to their fullest capabilities. The protocols have also helped improve currency of our medics while creating access opportunities for our patients.

Likewise, we have achieved enhanced access through the continued deployment of secure messaging. This technology has now been launched throughout the AFMS and includes more than 305,000 enrolled users sending over 41,000 messages per month. This leading-edge communication tool provides an additional venue to meet patient needs without face-to-face appointments, and helps our patients partner with providers in the management of their care.

Last year we reported that we launched our telehealth initiative called Project ECHO (Extension for Community Health Outcomes) with one specialty (complicated diabetes management) serving three military treatment facility (MTF) pilot sites. Now in our second year, we have added chronic pain management, traumatic brain injury, behavioral health, dermatology, ENT and acupuncture for a total of seven live ECHO specialty series and are on track to add four more specialties areas (Addictions, Infectious Disease, Neurology and Dental) this coming year. We have expanded participation to include all Services and the Department of Veterans Affairs (VA). In addition, continuing medical education accreditation was granted for six of the seven ECHOs. Participating provider response has been overwhelmingly positive with a 17-percent increase in provider knowledge and confidence level in their management of these complicated patients, and an overall 95-percent approval rating in the ECHOs' value to their practice. Project ECHO is postured for MHS-wide adoption under the new Defense Health Agency.

Our patient safety program continues to be the bedrock of our healthcare operations. Patient safety managers collaborate with subject matter experts in risk management, clinical quality, customer service, professional staff management, compliance and accreditation to ensure we provide the highest quality care in the safest environment possible for our beneficiaries. The "Partnership for Patients" initiative was implemented by the MHS in 2013 ensuring that each MTF develop processes and programs to reduce risk to our patients related to 10 Healthcare Related Conditions. We successfully rolled out all of the implementation guidelines last year and are pleased to report that the AFMS has fully implemented all 119 elements.

The high quality of our care in our inpatient facilities is monitored and validated by, the Joint Commission (TJC), the leading accreditor of healthcare organizations in America. This past year three of our hospitals earned top accreditation honors by TJC for exemplary performance and were named among the Nation's Top Performers on Key Quality Measures. The Joint Commission recognized these hospitals for their outstanding performance using evidence-based clinical processes that are shown to improve care for certain conditions, including heart attack, heart failure, pneumonia, surgical care, children's asthma, stroke and venous thromboembolism, as well as inpatient psychiatric services. Our facilities achieving top honors include the 96th Medical Group, Eglin Air Force Base, Florida; 48th Medical Group, RAF Lakenheath Air Base, England; and the 81st Medical Group, Keesler AFB, Mississippi.

World-class healthcare begins with disease prevention: We promote healthy behaviors and lifestyle choices to reduce illness and ensure a high quality of life for our Airmen and their families, resulting in a healthy, fit, resilient and productive force. We are targeting nutritional fitness, physical activity, healthy weight and tobacco-free living. Ten percent of active duty Airmen are obese. While this rate is much lower than the civilian average, we will continue to execute initiatives such as "Go For Green"—a food labeling system in military dining facilities that promotes healthy food choices. The Air Force has vigorously supported the National Prevention Council commitment to expand tobacco-free environments, and we are very encouraged by the results. Smoking in the Air Force has seen a steady decline; our current smoking prevalence of 14 percent is lower than the national average of 18 percent. But we will work to drive it even lower.

To increase resilience of deploying Airmen and reduce the likelihood of post traumatic symptoms, our Airman Resilience Training provides standardized pre- and post-exposure training and reintegration education, which we are now redesigning to be better tailored to specific groups of deployers. Even though Air Force rates of Post-Traumatic Stress Disorder (PTSD) remain relatively low compared to the other Services, we continue looking for ways to prevent or minimize symptoms.

We have formally trained the majority of our mental health providers and all new social work and psychology trainees on evidence-based treatments for PTSD, and the Center for Deployment Psychology at the Uniformed Services' University offers ongoing provider training support. The Air Force continues to actively participate in joint and collaborative research projects with the U.S. Army Medical Research and Materiel Command, STRONG STAR and Penn State, looking at the effectiveness of treatments, biomarkers and the future of PTSD treatment. We believe these efforts will continue to pay huge dividends in the future.

The mental health of our Airmen and their families' remains an important focus area for us. We are continually striving to improve access to mental healthcare through initiatives such as Patient-Centered Medical Home-Behavioral Health (PCMH-BH), which embeds mental health providers within the primary care clinics of each MTF to offer a lower-stigma mental healthcare option for beneficiaries. Another initiative is Mental Health Integration, a demonstration project at two of our MTFs to evaluate placing full-service mental health capability in Primary Care, promoting early intervention, improved access, and continuity of care within the MTF. The deployment of video teleconferencing capabilities in our mental health clinics has also helped to address the needs of our patients. We stood up six hubs for tele-psychiatry services throughout the AFMS, providing important psychiatric consultation to MTFs without on-site psychiatry. Each of these resources support increased access while reducing the stigma of seeking mental health assistance.

Fortunately, the incidence of deployment-associated traumatic brain injury (TBI) has remained low for the Air Force. However, we remain committed to ensuring appropriate care for our Airmen who have sustained TBI through referrals to the National Intrepid Center of Excellence for Psychological Health and Traumatic Brain Injury, and to the many TBI programs throughout the Department of Defense (DOD). Our TBI Clinic at Joint Base Elmendorf-Richardson is engaged in cross-Service efforts to standardize and optimize TBI care within the DOD.

We remain concerned about suicides in the Air Force. In December 2013 we released an updated and refined version of "The Air Force Guide for Suicide Risk," based on research and published best practices over the last 10 years. This document provides a resource of state-of-the-art knowledge for the clinical management of suicide-related ideation and behaviors, allowing better standardization of clinical assessment and treatment of at-risk patients. The new version adds references for cognitive behavioral treatments for suicidal patients. This valuable resource will assist the ongoing training of our mental health personnel; improve the quality of care provided to those at risk of suicide, and support effective consultation to Air Force supervisors of Airmen at risk.

Airmen and their families are our most important resource and in an effort to improve the care provided to Air Force Families, we have recently completed a comprehensive examination of the relationship between deployments and subsequent rates of family violence. We found that among deployers, the rate of spouse abuse and child maltreatment is about the same before and after deployment. We have also identified a few specific situations that place military families at higher risk for family violence and are targeting family violence prevention efforts to those families at risk.

We are also committed to ensuring quality, compassionate care for victims of sexual assault, through the Air Force's Sexual Assault Prevention and Response Program. The Air Force has processes in place to perform Sexual Assault Forensic Exams (SAFE) either within the Air Force MTF, another nearby military medical facility, or through partnerships with civilian experts in the local community. We utilize sexual assault forensic examination training programs that comply with the standards established in the Department of Justice "National Protocol for Sexual Assault Medical Forensic Examinations." In addition, we have designated executive level oversight at our MTFs, incorporated First Responder training requirements in the Major Command (MAJCOM) compliance inspection, and initiated a bi-directional information and communication link specific to sexual assault prevention and response, facilitating updates and answers to and from our MTFs. We stand ready to support every sexual assault victim with respect, compassion, urgency and professionalism.

Another area of concern is the impact of hearing loss on operational readiness and longterm quality of life. Hearing loss remains an easily overlooked occupational injury in service members and Veterans. As lead agent for the DOD Hearing Center of Excellence (HCE), the Air Force supports the efforts of the HCE to create better awareness of this pervasive injury through comprehensive hearing health programs. The HCE is finalizing the development of the Joint Hearing Loss and Auditory System Injury Registry and has established necessary agreements to access relevant DOD and VA data sources, standardize data collection, and manage data requirements. Initiatives are underway across the MHS and VA to improve hearing protection, standardize baseline and periodic hearing assessments across the Services, and establish engineering and acquisition best business practices that reduce hazardous noise at the source. Hearing loss is a mostly preventable disease, and both the operational and medical communities have a huge stake in preventing this injury.

The DOD Centers of Excellence are one of many areas where DOD and the Services work closely with the VA. As most of our military patients at some time pass through each other's doors, it makes sense to plan together and share resources

where feasible. Our relationship with the VA also expands clinical currency opportunities for both entities. We have had great success through the DOD/VA Joint Incentive Fund; 46 percent of all joint incentive fund projects include Air Force MTFs.

One of the most successful projects is the Joint Vascular and Endovascular Surgical Services project at David Grant Medical Center (DGMC), Travis AFB, California. Working with the Northern California VA Health Care System, millions of dollars have been saved in only 2 years and more than 350 VA and DOD patients have stayed in in the Federal care system. The vascular team at DGMC has embraced this initiative and enhanced their clinical skills with the increased patient load. In addition to efforts at DGMC, the Air Force has seen similar success at the Michael O'Callaghan Federal Medical Center (MOFMC), Nellis AFB, Nevada with their cardiac catheterization laboratory seeing both VA and DOD beneficiaries exceeding all early projections by approximately 20 percent. This project is only one of the sharing initiatives at this Joint Venture site.

Other successful sites include the 81st Medical Group at Keesler AFB, where their long list of Joint Incentive Projects include a Joint Cardiovascular Care Center that to date has seen a cumulative benefit of \$9.4 million and sustains the clinical currency of the Air Force providers with the continued influx of VA patients. This is only one of the successes at the 81st Medical Group; others include a joint business office function that has the common goal is to reduce duplication of services, capitalize on respective core competencies, and optimize volume to deliver services safer and more economically.

Throughout the Air Force Medical Service, DOD/VA sharing has been implemented and is continually emphasized as a way to enhance the clinical currency of our providers as well as provide economic, high quality healthcare for both DOD and VA beneficiaries. Recent efforts at the 88th Medical Group, Wright-Patterson AFB, Ohio have resulted in a significant increase in the number of VA patients being seen at that location with anticipation that it will continue to grow in the future. Efforts at Eglin AFB, Florida are generating large increases in VA visits and surgeries and have made them the fifth largest sharing site in the AFMS. We will continue to push for more sharing at sites in close proximity to VA facilities and where there is an opportunity to care for VA patients in our MTFs.

The fiscal year 2015 President's budget includes a proposal for a TRICARE Consolidated Health Plan along with modest increases in beneficiary out-of-pocket costs for active duty families, retirees and their families, and reserve component members and their families. These proposals reflect the Department of Defense's efforts to modernize and simplify the TRICARE program that will place the program on a stable, long-term footing.

Finally and importantly, the AFMS is united with our Army, Navy and DOD colleagues in support of the MHS governance reform efforts. The Defense Health Agency stood up in October 2013, and as of this date the first seven of 10 planned shared services have reached IOC. These include Facility Planning, Medical Logistics, Health Information Technology, TRICARE Health Plan, Pharmacy, Budget & Resource Management, and Contracting. The DHA is on target for the next group of shared services to reach IOC this year and full operating capability in October 2015. We remain fully committed to achieving reforms for best value and interoperability by seeking common solutions as we provide better care and better health to our beneficiaries.

In conclusion, despite the challenges we all experienced in the past year, the Air Force Medical Service continued to focus hard on providing operational support and high quality care around the globe, in-garrison and deployed, on the ground or in the air—that's what we mean by "Trusted Care Anywhere!" I am honored to lead and serve with Air Force medics during this very important time. But I am just as honored to partner with my Army and Navy colleagues as we move forward together to build an even better Military Health System. Thank you for your continued support of our critical mission.

Senator DURBIN. Thank you, General.  
Mr. Miller.

**STATEMENT OF CHRISTOPHER MILLER, PROGRAM EXECUTIVE OFFICER, DEFENSE HEALTHCARE MANAGEMENT SYSTEM**

Mr. MILLER. Chairman Durbin, Vice Chairman Cochran, Senator Blunt, thank you for the invitation and for welcoming me today to discuss the progress we have been making with respect to electronic health records (EHR) interoperability.

I was appointed to my position last September by Under Secretary Frank Kendall. I am the department's senior official responsible for electronic health records interoperability with the Department of Veterans Affairs and with our civilian partners. I also have the privilege of representing the DOD-VA Interagency Program Office, or the IPO, as the acting director.

My job and singular focus is to provide real healthcare IT (information technology) solutions to America's finest that support and defend this great Nation.

As you are aware, in 2009, DOD and VA were called upon to work together and build a seamless system of integration. To that end, the departments are pursuing complementary efforts. Specifically, the departments are, one, working to provide seamless, integrated sharing of standardized health data among DOD, VA, and private sector providers; and two, modernize our electronic health records software and systems supporting our DOD and VA clinicians.

DOD's efforts with respect to these two goals can be seen in three distinct programs.

First, in January 2013, the Secretaries committed to executing several near-term interoperability missions. We knew that we could not wait to modernize our electronic health record systems to see near-term improvement. These were completed last December, and we are currently working follow-on initiatives in partnership with the VA.

Among these efforts are the joint legacy viewer and improved data federation, which, combined, provide access to an integrated view today of DOD and VA's health records.

We also worked to establish a medical community of interest network that is designed to improve the transport and how we exchange information between departments. The progress made will continue, and we will continue to work to expand the level of interoperability among DOD and VA over the next years.

The departments exchange more than 1.5 million elements of data today. And as of January, there are more than 5.2 million correlated health records between the two departments.

The departments have also achieved greater levels of integration and interoperability at the Captain James A. Lovell Federal Health Care Center in North Chicago.

In February, we completed capability upgrades that will further improve the level of interoperability. One such capability called orders portability creates an efficient methodology between the DOD and VA healthcare systems to share laboratory, radiology, and consult orders between the two systems.

North Chicago continues to be a pioneer in achieving new found levels of interoperability and operations between both departments.

Second, in May 2013, Secretary Hagel announced the decision to pursue a full and open modernization of our DOD's electronic healthcare systems. This was based on a comprehensive analysis of alternatives.

This announcement also directed the Under Secretary of Defense for Acquisition, Technology and Logistics, who is my boss, to assume responsibility for the program. Since October, the DOD has stood up a program office, established a comprehensive plan, devel-

oped our initial cost position, and hosted three industry days to open dialogue about the program.

We have also worked to develop a series of draft RFPs (request for proposals), which we released our first one on January 29, and the second RFP was released on March 28. There was one remaining draft RFP planned later this year, which ultimately all will culminate in a final request for proposals from industry in the fourth quarter of 2014.

We have also finalized our acquisition strategy, which documents our approach to ensure we are developing a program that is operationally effective at the right cost for the American taxpayer.

A critical component of the DHMSM (Defense Healthcare Management Systems Modernization) acquisition is the need for open standard platform flexibility. We are employing a modular and open systems approach to ensure that we have the capabilities needed to prevent vendor lock-in, and rapid insertion of technologies.

Lastly, the IPO will chart the way forward for DOD and VA health data interoperability as a clinical and data standardization leader. On December 20, 2013, the IPO delivered its annual report to Congress outlining this new strategy.

A new IPO charter was also jointly signed by both departments in January 2013, making it responsible for establishing, monitoring, and improving the clinical and technical standards, profile, and process to create seamless integration of health data.

It will support both departments' and the Office of National Coordinators' endeavor to adopt national standards, specifications, and certification criteria to improve health IT and its applications.

These standards are key for achieving full interoperability and require our long-term support and commitment.

We are on track to publish our initial technical standards package later this month.

Senators of the committee, DOD's collective efforts with Congress over the past 6 months have been met with the utmost dedication. Since October, I have engaged the committees 26 times. Further, we have met the first of the three required NDAA (National Defense Authorization Act) requirements and are on track to meet the remainder throughout this year.

We recently briefed this committee on our EHR monetization program and have submitted our signed acquisition strategy. The IPO also delivered its annual report to Congress ahead of schedule and has maintained its statutory and courtesy quarterly briefings to Congress.

#### PREPARED STATEMENT

Providing high-quality healthcare for current servicemembers, their dependents, and veterans is among our Nation's highest priorities. Continuity of care is a key component, and interoperability is essential. It is important that we get this right, and we never lose sight of our mission and who we are serving.

I am committed to being open and transparent, and I look forward to your discussion and your dialogue today as we exchange ideas regarding DOD's effort with electronic health records interoperability.

[The statement follows:]

PREPARED STATEMENT OF CHRISTOPHER A. MILLER

Chairman Durbin and Vice Chairman Cochran, thank you for the opportunity to address the Subcommittee on Defense of the Senate Appropriations Committee. I am honored to represent the Department of Defense (DOD) as the senior official responsible for the Department's efforts to modernize our electronic health records (EHRs) and to make them more interoperable with those of the Department of Veterans Affairs (VA) and private sector providers. I also have the privilege of representing the DOD/VA Interagency Program Office (IPO) as the current Acting Director.

The Department's modernization efforts, known as DOD Healthcare Management Systems Modernization (or DHMSM), will replace the current DOD legacy military health systems with industry leading capabilities. We are committed to acquiring an EHR system that will appropriately serve the men and women who serve us in the most efficient and effective manner. To this end, DOD has a dedicated Program Executive Officer (PEO) in myself, as well as a dedicated DHMSM Program Manager (PM), and we have also brought onboard acquisition professionals with recent business IT acquisition experience. In addition, DOD has dedicated a PM to oversee the Department's interoperability efforts and ensure the continued maturation of data exchange with VA and private sector providers. These organizational changes for this critical undertaking are representative of its steadfast commitment to the modernization and interoperability of our EHRs and is one of the many reasons for our recent progress.

BACKGROUND

As you are aware, in 2009, the Departments were called upon by the President to, "work together to define and build a seamless system of integration so that when a member of the Armed Forces separates from the military, he or she will no longer have to walk paperwork from a DOD duty station to a local VA health center. Their electronic records will transition along with them and remain with them forever."

To that end, the Departments are pursuing complementary paths to modernize their respective EHRs. Specifically, the Departments' goals are:

1. Provide seamless, integrated sharing of standardized health data among DOD, VA, and private sector providers; and
2. Modernize the Electronic Health Record (EHR) software and systems supporting DOD and VA clinicians.

GOAL 1: PROVIDE SEAMLESS INTEGRATED SHARING OF STANDARDIZED HEALTH DATA AMONG DOD, VA, AND PRIVATE SECTOR PROVIDERS

In January 2013, the Secretaries committed both Departments to executing several data interoperability initiatives on an accelerated timeline to be completed no later than December 31, 2013. The Departments finished all of these key Accelerator projects scheduled for completion in fiscal year 2013 and will develop and deploy follow-on Accelerator initiatives during fiscal year 2014. The accelerators included improving and deploying the Janus Joint Legacy Viewer (JLV) to seven locations; expanding JLV use in two additional locations; upgrading DOD Blue Button; expanding Captain James A. Lovell Federal Health Care Center (JAL FHCC) capabilities; improving data federation between the Departments; improving the process of patient identity management within both Departments; and establishing the Medical Community of Interest as the network infrastructure and architecture for the DOD and VA medical community to have secure, real-time access to patient data. These efforts will continue to expand the level of interoperability among DOD, VA, and private sector providers.

The Department is furthering its interoperability efforts as it nears completion of a Health Data Sharing and Interoperability Roadmap that includes an acquisition and technical strategy based on functional requirements. Consistent with the fiscal year 2014 NDAA and in consultation with VA, is a comprehensive document that addresses health data sharing and interoperability across the life cycle, including data sharing/interoperability with VA, private healthcare providers, and patients. The efforts outlined in the Roadmap continue and improve upon the progress made by the previously completed Accelerator efforts to share standards-based, computable data among the Departments and private sector providers.

## GOAL 2: MODERNIZE THE ELECTRONIC HEALTH RECORD (EHR) SOFTWARE AND SYSTEMS SUPPORTING DOD AND VA CLINICIANS.

In February 2013, VA assessed its EHR needs and determined that its best course of action would be to evolve its legacy EHR system, VistA to serve VA's modernization goal. The decision to proceed with this system update (known as VistA Evolution) included such factors as VistA's large installed base, trained workforce, and in-house development and support capacity. In May 2013, Secretary Hagel announced the decision to pursue a full and open competition to modernize DOD's EHR systems based on an Analysis of Alternatives which carefully considered options that would provide state-of-the-art capabilities to our clinicians and the best services to our soldiers, sailors, airmen, and Marines. This announcement directed the Undersecretary of Defense for Acquisition, Technology & Logistics (USD(AT&L)) to assume responsibility for "DOD healthcare records interoperability and related modernization programs." In September 2013, I was designated by the Undersecretary as PEO for the DOD Healthcare Management Systems (DHMS). DOD also established the DHMSM program to lead a competitive acquisition process that considers commercial solutions which will offer reduced costs, schedule, and technical risk, as well as providing access to increased current and future capability by leveraging advances in the commercial marketplace. Based on current market research, a VistA-based solution will likely be part of one or more potential solutions proposed in response to the DOD solicitation.

A critical component to the requirements of the DHMSM acquisition is the need for open standards. Currently, DOD is employing a comprehensive open standards approach for its EHR and interoperability programs, which is accelerating the achievement of the President's open standards agenda. DOD efforts are capitalizing on the significant investment made under the Health IT for Economic and Clinical Health Act that accelerated EHR adoption through the Centers for Medicare and Medicaid Services' (CMS) EHR Adoption Incentive Program. The CMS program has successfully accelerated the availability of robust government certified interoperable commercial EHR products.

The use of all of these mechanisms creates a transparent, open standards approach that will ensure that the competitive EHR market place is better able to respond to the interoperability needs of the Departments. Additionally, this approach will enable private sector health information obtained by DOD and VA to be more easily federated with VA and DOD health information. Since more than 50 percent of healthcare in both VA and DOD is provided in the private sector, this open approach is critical to providing a comprehensive seamless patient health record. As part of the DHMSM strategy, the DOD intends to have a robust testing strategy that ensures the system meets operational requirements for effectiveness, suitability and interoperability with VA and other private sector providers.

These many requirements for the DHMSM acquisition will ensure an efficient and effective EHR system. Subsequently, these demands for the acquisition have led to the DHMSM program establishing an aggressive, yet feasible schedule through which we are seeing early results. Since October 2013, the DHMSM program has conducted three well-attended and highly anticipated Industry Days and released its first of three planned draft Requests for Proposal (RFPs) on January 29, 2014. The final RFP release is expected no later than the fourth quarter of fiscal year 2014. Additionally, DHMSM representatives have met with Intermountain Healthcare, the Children's Hospital of Wisconsin, Kaiser Permanente, and Presence Health to open dialogue regarding acquisition, development, and sustainment of their EHR systems. These conversations with Healthcare and other health IT industry leaders provides valuable insight and lessons learned that will improve our acquisition strategy.

To maintain success on our timetable and to reach Initial Operating Capability in 2016, as this committee has requested, DOD needs the release of withheld fiscal year 2013-2014 funds. Any disruption of program planned events and milestones due to withheld funds causes a domino effect which will negatively impact DHMSM and all interoperability efforts with VA and private sector providers. The DOD has held regular discussions with this committee to address this request and alleviate these funding constraints, but the window for maintaining our current successes is fast closing.

DOD is currently developing formal life cycle cost estimates (LCCE) and schedule estimates for the health data sharing and interoperability effort as well as the DHMSM EHR modernization program. DOD has developed initial rough order of magnitude (ROM) cost estimates to inform future budget submissions. A review of the ROM cost estimates against the August 2012 IPO LCCE indicates that the current approach will be more cost effective for DOD. As part of DOD's ongoing acquisi-

tion program rigor, these cost and schedule estimates are being refined for RFP release and will be further updated prior to contract award. Additionally, a Cost Assessment and Program Evaluation Independent Cost Estimate will be developed to support contract award.

#### IPO WAY FORWARD AS A CLINICAL AND DATA STANDARDIZATION LEADER

On December 20, 2013, the DOD/VA Interagency Program Office (IPO) delivered its fiscal year 2013 Annual Report to the appropriate congressional committees and outlined this new strategy. The timeliness of the report demonstrates the Departments' commitment to Congress to maximize transparency in achieving their stated goals: seamless integration of data and modernization of EHR systems.

The Departments also signed a new charter for IPO in order to align with the Departments' parallel strategies. IPO is responsible for establishing, monitoring, and approving the clinical and technical standards profile and processes to create seamless, integration of health data. Under its new structure, IPO will support the Departments' and Office of the National Coordinator (ONC) endeavors to adopt national standards, specifications, and certification criteria to improve health IT and its application.

National standards make it possible to increase the level of data exchange and computability. These standards serve as a common language for DOD, VA, and private sector data which will comport and format the information shared. IPO's partnership with ONC to pursue national standard provides the vital link which makes DOD and VA data interoperable with that of the private sector, and which provides the Departments EHR systems the flexibility to respond to the evolving healthcare marketplace.

#### CONCLUSION

Senators of the committee, DOD's collective efforts with Congress over the past 6 months have been met with the utmost dedication. Since October 2013, I have engaged this committee and its House counterpart three times, the House Armed Services Committee six times, the Senate Armed Services Committee four times, the House Veterans Affairs Committee twice, and the Senate Veterans Affairs Committee three times. Further, we have met the first three of the NDAA's requirements and are on track to meet the remainder throughout the year. We recently briefed this committee on our expectations for completing a DHMSM plan for expenditure. IPO delivered its fiscal year 2013 Annual Report ahead of schedule and has maintained its statutory and courtesy quarterly briefings to Congress. IPO, DOD, and VA have remained thoroughly involved with Congress's GAO inquiries to track the modernization of our EHRs.

I look forward to today's discussion, as well as the continued exchange of ideas with you regarding EHR systems throughout our acquisition and interoperability efforts. Again, thank you for this opportunity, and I look forward to your questions.

Senator DURBIN. Thank you very much, Mr. Miller.

#### BEHAVIORAL HEALTH

General Horoho, let me ask you this first. I am concerned as to whether or not we have adequate behavioral medicine resources for our Active military. And I note that we have increased the number of behavioral health providers, most of them civilians, 43 percent between 2009 and 2013.

However, the numbers that you gave us about the increased visits show an increase beyond 43 percent. The first question, are we bringing in enough behavioral health providers to meet the need?

Secondly, a specific: The Army's goal has been to recruit 10 psychiatrists annually. Over the last 5 years, they have only been able to recruit a total of six psychiatrists. What is the problem? Is there something we should be thinking about in order to entice the very best psychiatric professionals to help our men and women in uniform?

I don't want to speculate about what happened at Fort Hood, but I do want to look, as you have, at the big picture and realize that

we are facing challenges the military, I don't think, has ever faced in our history as a Nation.

I mean, I can recall that scene in Patton where he leaned over the bed and slapped the soldier and said, I don't care if your nerves are shot, get back with your unit. And how we have come so far now to understand posttraumatic stress and what it can do physically and mentally to a person.

#### BEHAVIORAL HEALTH PROVIDERS

So tell me, are we recruiting and enlisting adequate behavioral health providers? And why are we falling short, year by year, when it comes to recruiting psychiatrists?

General HOROHO. Thank you, Senator.

When you brought up the story about Patton, my dad fought World War II, Korea, and Vietnam. He is 89 years old and still living today. And so I am reminded daily what we didn't do in the past and what different we are doing today.

But we are also in an era where, I think, we don't know the impact of what 12 years of war has on an individual and on their family. And so there has been an aggressive movement to actually increase behavioral health capabilities, and not just psychiatrists, but really breaking down the barriers between psychiatrists, psychologists, psychiatric nurse practitioners, as well as our behavioral health technicians.

And so we have looked at what are the behavioral health capabilities that we need and have increased those teams. We had a 150-percent increase in the number of behavioral health team members, so we are up to about 5,500 right now.

Will we ever have enough? I don't think we will, because I think what we have seen is, as we have increased the number of behavioral health providers and we decrease the stigma by embedding behavioral health, where our soldiers are actually working so it breaks down that barrier, we are seeing an increase in demand. To do 2 million visits a year has really shown us that, I think, the stigma is starting to decrease.

Senator DURBIN. So we are going to write the GAO (Government Accountability Office) and ask them for their observations, particularly on the issue of psychiatrists. It seems to me that considering student loan forgiveness or something, that might be an enticement for the best psychiatric and psychological professionals to come join us, because we need them. So we will get back to you on that particular issue.

I have a couple more questions that I want to ask in the brief time here.

Mr. Miller, the Federal Government is not that good when it comes to computers. I just have to tell you that. There are some agencies that are spectacular, and a lot of them are disappointing. I need not tell you the frustration many of us felt with the rollout of the Affordable Care Act.

I can tell you that since 9/11, hundreds of millions of dollars have been spent at the Federal Bureau of Investigation to give them the very best computer system. I think we are almost there, but there was a lot of angst and failure on that road.

In 2009, the President challenged the Departments of Defense and Veterans Affairs to integrate their health records. And the estimate was it was going to cost us \$4.2 billion and take 8 years. That was 2009.

They said by 2017, at the cost of \$4.2 billion, we should be able to get it done. Well, estimates are we spent not \$4 billion, but \$28 million and basically abandoned that approach. Now we started all over again.

And what is the goal now? The goal is in 7 or 8 years from now to have an integrated health record, not at the cost of \$4.2 billion, but at the cost of \$13.4 billion.

Why is it that two major airlines can merge to put their computer systems together in a matter of weeks or months, and when it comes to merging systems in Government, it takes so long? We stumble so often, and it costs so much.

Mr. MILLER. Sir, I would comment in a couple ways. I would say, first off, sir, I think where we are today from a Department of Defense perspective is that we are bringing in a team of people that have the expertise and knowledge of how to get this job done.

Myself as well as other people who have been brought in are acquisition professionals who know how to run large, complex business IT systems.

I think you are correct, sir. We have a mixed track record at best in terms of how we addressed some of these business IT systems.

Secondly, sir, I would offer that we are spending a lot of time with industry. I think one of the big things from the department's perspective right now, as you highlighted, we want to learn from industry and we want to figure out what their lessons learned are, how we should be approaching this problem, and how to make it go as quickly as it possibly can.

I would say that in my interactions, and I spent a lot of time talking to industry, they don't go as fast as you may think, sir. I think that we do have a hard problem and we are aggressively attacking that problem, but I think we are going to get there, and I think we are going to do it in the most cost-effective way.

I spent a lot of time talking to industry and their big lesson, and I think the big lesson learned that we have now on the Department of Defense side, is that this is not an IT problem. I think if we approach this simply as an IT problem, we don't focus on this as a business transformation. And I have a lot of support coming from, obviously, the people on this panel and other people to get this right.

IT by itself will not fix this problem. This has to be where IT and our functional leadership and our medical leadership come together, and we collectively work to provide a solution in the most rapid way that we possibly can, leveraging industry.

Senator DURBIN. I only have a few seconds left, but I am a liberal arts lawyer. I didn't go to business school. I am, certainly, not a computer expert.

What do you mean, this isn't an IT problem? We are talking about integrated medical records. You say it is a business transformation problem. Translate that for a liberal arts major.

Mr. MILLER. Well, sir, I am a liberal arts major, too. So what I mean, sir, is that I can go out and buy commercial software, right?

I can go buy the software, and I can go try to implement it. But the reality, sir, is that software is designed to help our clinical community do jobs, right? So how those jobs get done in terms of what steps they must take and what screens they need to see is what has to be figured out, so that when we go deploy that software, that it is being done in a way that meets the requirement from the community.

I think oftentimes where the Department of Defense has failed, and you can go back and look through many of our systems, we have not had the right partnership and the right efforts between our leadership there to understand exactly what they want that system to do.

So I would give you an example, sir, of Microsoft Office. There are probably five or six ways in Microsoft Office that you can do certain things. But what we need to understand is how our community wants to do those, so that when we go buy it, we make sure it meets your requirement and we are delivering on schedule and making sure it works.

I think sometimes people think it is just as simple as going out and buying some of these large, complex systems. And it is not, because we are really trying to change how we deliver health care, in the case of the department. And this is our opportunity to standardize and improve the care as part of this acquisition.

Senator DURBIN. All well and good. And I am not a business expert. I can tell you, when United Airlines and Continental Airlines merged, there were two miserable weeks for everybody, their passengers as well as their workers and staff when they decided to go to one common computer system. And then at the end of 2 weeks, it was done. Planes flew throughout.

And I am just curious as to why it is taking 7 or 8 years at a crack to reach the point where we are still not sure we can get this done.

Mr. MILLER. Yes, sir. So let me give you another example, sir. Kaiser Permanente is the largest healthcare provider in the U.S. today. It took them over 7 years to deploy their electronic health records from start to finish.

We are learning from them and other industry providers to figure out how to go faster.

One of the challenges in the Department of Defense, we just don't have a few locations that we have to change software today. We have a number of different systems.

And our challenge, sir, is we have over 1,000 locations that all have to be trained. They all have to be taught how to use this system. And so, whereas in your example there are probably a handful of people, we have a lot of people in a lot of locations around the world that all have to go into this effort.

So I think from the initial baseline, I think you are going to see by the end of 2016, we will have initial capability. It will be up and running. Our challenge is going to be now working to get this onto ships and submarines and forward-deployed areas that in your model, those kind of people don't really think about that.

But we have to operate forward. We have to operate 24/7. So our biggest challenge is going to be how we deploy and go through the change management on a global scale with this system, sir.

Senator DURBIN. Thank you.  
Senator Cochran.

STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. Mr. Chairman, I am pleased to join you in welcoming our distinguished panel of witnesses today to the Defense Subcommittee. We are reviewing and considering the fiscal year 2015 budget requests.

We appreciate the important work that all of you are doing to provide services and information and contributions to the military medical corps. This includes others who are eligible, servicemembers as well as their families at home and while deployed around the world.

We have seen a lot of positive impacts that have come from specialized information from those who have had experiences in combat.

The medical group at Keesler Air Force Base, in particular, has accomplished a great deal in helping us understand in a better way the disease research and treatment opportunities that are available, and to expedite treatment with medical flights off the battlefield and into the hospital communities. We appreciate the education opportunities that Keesler has provided over the years.

Like many sectors at the Department of Defense, the medical corps is not without its funding challenges. Your identification of those that you think are the higher priorities will be helpful as we make our decisions about the levels of funding for the different activities that come under your jurisdiction.

But thanks for your good work, and thank you for helping our committee do our job.

Senator DURBIN. Senator Blunt.

Senator BLUNT. Thank you, Chairman.

MILITARY MENTAL HEALTH TRACKING

General Horoho, yesterday in the Defense Committee and last week in the Armed Services Committee, Secretary McHugh and General Odierno both said that when a soldier, when a service person—this may have just been Army, which may be the next question I would ask, is this service-wide—when they transfer from one base to another, their health records are generally available, but their mental health records are not available to anyone in the command structure.

So if you are having mental health treatment and you transfer to another base, and choose not to have mental health treatment, no one really understands in the command structure, at least, that disruption.

Is that your impression as well?

General HOROHO. Senator, if I can expand upon that, there are several things.

Right now, if a soldier is screened as high risk and is receiving behavioral health treatment and gets put on medication, there is a code that is put into the system, e-Profile, that keeps them from being able to PCS (permanent change of station) to another station until they are at a stable point.

When that individual is then able to move to another place, there is a behavioral-health-to-behavioral-health-provider warm handoff, for continuity of care to continue. So the losing behavioral physician calls the behavioral physician at the gaining location.

If it is a high-risk soldier on stable medications, then there is a notification to the command surgeon, and also from commander to commander. So we have different acuity levels where we do that.

If it is someone that is a low risk, their medical records transfer the information, but the commander is not called for those at low risk. So we have it almost stratified, depending on the types of behavioral health and the status of where they are at.

Senator BLUNT. Is that the same service-wide? Is that the same, Admiral, in the Navy? And the Air Force, General?

Admiral NATHAN. Yes, sir, it is very similar. I think the challenge is that, again, anybody who has fairly debilitating or remarkable mental health issues are identified and that warm handoff is made, if they are allowed to transfer.

The challenge comes with those who are deemed to be mission ready or who are not deemed to be unfit for service. And when they transfer from one base to another, and they have been followed for a fairly routine mental health disorder, the current commander—and I think this is what the Army Chief of Staff was referring to—the current commander will not necessarily know their mental history, because it is not considered to impact their ability to perform the mission.

The commander can only have insight into a soldier or sailor or airman's condition if they are deemed unfit to perform the mission or if other specific criteria are met, such as risk to harm others or self. Then they are entitled to know what is going on with that servicemember. Otherwise, it has to be voluntarily given to them.

Senator BLUNT. And, General Travis, is that the same?

General TRAVIS. It is the same, sir.

Senator BLUNT. So in this case, with the exception of someone who is deemed to be, I believe the term you used was at-risk, is the health record treated the same way as the mental health record? So the commander also wouldn't see the other health record under any circumstances unless there was something in that health record that indicated that individual was not ready for certain kinds of duty?

General HOROHO. The time when a commander gets to know is if there is someone that they believe is at-risk, and will impact the mission. If there is a concern, then the provider, whether it is a behavioral health or general physician, will get that information to the commander for them to know.

Senator BLUNT. And the behavioral health is treated the same way? Physical health concern would have the same treatment?

General HOROHO. Yes, sir.

Senator BLUNT. Well, treating these in the same way—and does anybody think that current system creates a gap that is problematic? No?

#### MILITARY MENTAL HEALTH TRACKING

Admiral NATHAN. Sir, the only comment I would make is we wrestle with how much to share with commands because the indi-

vidual servicemember may not come forward for routine or for otherwise troublesome symptoms or issues if they believe everything they are going to tell somebody is going to be given to their commander or given to other people.

So we have commanders who sometimes say, please tell me every individual who is in my command who is being followed for mental health issues, simple or severe. And the answer is that may help in some cases, but we worry about the individuals who won't step forward then and say I have a problem if I know my commander is going to know about it right away.

Senator BLUNT. The National Institutes of Health (NIH) says that 1 out of 4 adult Americans has a diagnosable mental health challenge, and treatable. Any reason to believe that that number is significantly different than that in the military, General?

General HOROHO. I don't believe it is different, because we recruit from the United States.

And if I could just add one thing on the security clearance? It is a good example. Back in 2007, there was tremendous concern in the security clearance when you had to notify and state that you are getting behavioral health treatment. And so many, many soldiers would not get treatment based on that because they didn't want their career to be ruined.

When that was taken out as a question, if it was behavioral health related to some type of trauma or deployment, they did not have to answer yes to that question. That helped to actually increase soldiers feeling comfortable seeking behavioral health care.

Senator BLUNT. I think that is probably right. I also read, it may have been an in-depth news article recently on veteran suicides, many of those veterans had been in a combat situation, and many had not.

And we don't want to just assume that somebody who had multiple deployments or post-traumatic stress syndrome from having been in a different combat environment than soldiers and airmen and Marines and sailors used to be in, we don't want to assume that they are the only ones who are likely to have a problem on separation from the military.

I mean, there are so many ways to deal with these problems. And back to the chairman's view of what we need to do to be sure that we are helping you get the professionals you need in the health service that can be there to deal with a problem that as a society, we need to deal with in a better way. And in the military, I think we need to deal with in a better way as well.

Chairman, I have another question, but I will ask it after you all have had a chance for a second round.

#### MEDICAL RESEARCH

Senator DURBIN. Thank you, Senator Blunt.

General Horoho, let me ask you this question. I believe in medical research. I am committed to medical research, relative to the NIH and Defense research, which would make a national commitment to it. And I believe in that. It is built into me.

But my experience in the House and Senate is that we are inundated with people who have special pleas. They come to us with a child with diabetes, or a parent with Alzheimer's, and they ask for

more medical research. Obviously. Every one of us would do the same.

And it used to be, you would say, I would love to do that, but that is not the way it works. We send the money to the NIH, and they make the decision. It is not a political decision.

Now let's talk about the Department of Defense medical research created by Congress and sustained by Congress and enhanced by this committee.

There are two different approaches here, basic different approaches. The House is specific. The House talks about specific areas for specific diseases and how much money for each.

In the Senate, we do some of that, but we also try to put it into what we call this peer-reviewed medical research program, so that we give priorities, but we don't put dollar amounts next to them. We want to let the peer-review process develop and let them determine which are the most promising areas.

#### MEDICAL RESEARCH FUNDING

I think the bottom line here, and you tell me if I am missing this, is that the NIH is basically committed to basic research. And what we are talking about in the Department of Defense is translational research, taking that basic research and applying it.

All of the research that went into that Johns Hopkins surgery, the man had a double hand replacement, had to be done to reach the point where it could be translated into a surgical procedure and post-operative treatment that worked.

So that is how I kind of see a line being drawn between NIH basic research and Department of Defense translational.

Long question, but here is where I am headed. When we take a look at where—we send you this list each year, on medical research. Is there a way through peer review or other source for you to evaluate where—it might be a situation where you say, if they just give us \$10 million more in burn research, we are so close to something that really could be historic and important.

We are trying to make these decisions as elected officials. Tell us from the medical research point-of-view what you think is the best practice.

General HOROHO. Senator, first, thank you for the support in the areas of research, because there has been tremendous changes over the last 13 years because of funding given 20 years ago. It is a long tail, to be able to get us to where we can actually translate it into practice and changing how we provide care.

In the question that you just asked, I think there are a couple things. As generous as the research budget is, there is still never enough that is there.

And so what we have found, in different areas, we use tremendous amounts of partnerships with the civilian community, because we will get research to a certain point and then we will do these partnerships to allow it to continue. So that is one area, and I think it is important that we continue that.

I think there are probably opportunities to have better feedback, in which you all could ask questions, and then we could give a status update of exactly where those research projects are or maybe

where some vulnerabilities are. I think that is something that we could absolutely explore in doing that.

But the growth that we have had over these last several years is really looking and saying, what is the military relevancy of the research that we are doing? How do we make sure that all three services are much more integrated in where we are spending our dollars as the dollars get tighter? And then where can we partner with the civilian healthcare system and researchers to apply basic research and translational research to really actually tackle some of those tough questions?

Senator DURBIN. I guess what I am looking for, either formally or informally, are some recommendations. Perhaps it can be done in private, because I don't want to reflect on anybody's priority here. There was a reason for it. We believed it was a good reason, and that is why it is on the list.

But if you said to me, and I just used burn research as one example, if you said to me, "We hope next year that we will be able to put more resources into burn research because we are close to something that could make a big difference in the lives of those who have been burn victims in combat," for example, that would help. It really would help, if that input could be given to us.

I hope you will consider doing something like that along the way.

General TRAVIS. Senator, can I add a comment?

Senator DURBIN. Of course, General.

General TRAVIS. I love the question. Patty is exactly right.

When you get handed research dollars that are directed very specifically, sometimes it is not operationally relevant. And we have done that for years, and we are happy to help the United States figure out these things. And it is good for our GME (Graduate Medical Education) programs to do research, no doubt about it.

On the other hand, coming on the heels of this war and what we have learned in the years that have supported our efforts in this war, to get exactly to your comments about survivability, we actually really do appreciate the fact that we may be able to steer those dollars in a better way.

I will give an example. We have a very direct relationship with the University of Maryland, Baltimore Shock Trauma, the University of Cincinnati, the University of St. Louis, where we are doing trauma care and teaching our airmen how to do trauma care. At the same time, one of the things we can bring to the table to get access to those trauma patients are DOD research dollars.

That allows us to then use that university expertise as well as our own to direct research efforts to support future trauma care. It benefits us in what we are trying to do for the next war, and it has benefited us a lot in the past and this current war.

The other thing it does, though, is it shares expertise with those universities and those communities. That then benefits the trauma systems around the Nation.

So I love the question. I would be happy to talk more to you about it, or to your staff.

## BETHESDA-WALTER REED CONSOLIDATION

Senator DURBIN. My last question. It is just kind of a general question. How is that marriage between Ms. Bethesda and Mr. Walter Reed working out?

Admiral NATHAN. Sir, the Secretary of Defense—

Senator DURBIN. It is taking a long time to answer.

Admiral NATHAN. I was the commander at Bethesda as we integrated Walter Reed and Bethesda together. It occurred on my watch. And it really is a synergistic relationship.

And I think if I could just very quickly, the Secretary of Defense at the time, Secretary Panetta, asked me, how is it going? I said, it is sort of like a Little League game where the kids are like the people on the wards taking care of the patients. And the kids on the field are throwing people out and hitting pop flies and catching balls; however, the parents are in the stands strangling each other.

That has gotten much better. I think it took a while for the leadership to come along, to follow the lead of the doctors, the nurses, the corpsmen, the medics who were taking care of the patients and putting that as their number 1 priority.

We are now seeing what we thought we would see, which is we learned a great deal from the wonderful things the Army was doing over on Georgia Avenue at Walter Reed. The Army has come over and seen some amazing things the Navy was doing. We have Air Force providers who were also seasoned and contributing.

So I am very encouraged by the cultural integration that has occurred, while each service still preserves its tradition and its ethos. There is still a fair amount of rivalry in December, during the Army-Navy football game.

So I think that its biggest challenge, to close, its biggest challenge right now is it is going to be recruiting a population of patients as it competes with the managed care, the private managed care in the area, and undergoes a heavy amount of construction and parking challenges, as it continues to build its infrastructure.

The Walter Reed National Military Medical Center (WRNMMC) is going to have to recruit patients. The fact that we built it doesn't necessarily mean everybody will come.

So the challenge is now to recruit the primary care base to feed that magnificent tertiary care facility, and continue to maintain it as the flagship military medical facility of the country.

Senator DURBIN. Thanks.

Senator Cochran.

Senator COCHRAN. Mr. Chairman, I think these witnesses may be aware of the fact that the University of Mississippi Medical Center and Walter Reed's Institute of Research are working on finding new treatments for malaria prevention.

And I wonder whether or not you have anything that you can report to the committee, since I think we have provided some funding to help with these programs, whether or not there has been progress made by the Department of Defense to develop safer drugs and to treat or prevent malaria.

Can you tell us anything to bring us up-to-date on that?

Admiral NATHAN. In short, sir, yes, there has been significant progress made. Just in this last year, a combination of both the

academic sector that you alluded to, as well as the joint military research facilities, are preparing a vaccine, which is being readied for human factors trials. Our researchers have indicated that it could be ready for release in 3 to 5 years.

The answer to malaria is going to be vaccination. It is going to be the only thing that really eradicates it, comparable to diseases like smallpox and polio.

And so I think we are not going to see something in the next 12 months that is going to make a huge impact, but in the next 3 to 5 years, absolutely.

Senator COCHRAN. Is this a legitimate and worthwhile investment of taxpayer dollars? Do you think it is that important for the future of military?

Admiral NATHAN. Absolutely, sir, for two reasons. One is, if you go back to previous world wars in the areas that are endemic with malaria, we lost more soldiers to malaria than we did to combat wounds. We still see troops occasionally crippled by malaria that are deployed in far-off regions.

And what most people don't recognize is it is the No. 1 infectious killer in the world. One million people a year die of malaria. So I believe that this military research and partnership with the private and academic sector is not only going to make a significant impact to the military, but it is going to be a tremendous diplomatic, ambassadorial capability that America generates for the rest of the world.

Senator COCHRAN. Well, thank you very much. And thank you for your leadership in helping us deal more effectively with a serious problem.

Thank you.

Senator DURBIN. Thank you, Senator.

Senator Blunt.

#### MILITARY HOSPITAL CAPABILITIES

Senator BLUNT. General Horoho, I want to talk about military hospitals a little bit. I understand that the command, at least the Army command, is in the process of completing a study that will assess all its Army hospitals across the country. When will that study be available?

General HOROHO. Senator, there are a couple things. Over the last 2 years, we have been looking across all of our military treatment facilities to see where we can recapture care within the civilian network to bring more care back into our facilities, where do we need to maybe reshape some of the capabilities, and then how do we standardize the care at our clinics, our community hospitals, and our medical centers.

So that has been ongoing over the last 2 years, and we are making some changes there.

We have also been part of the OSD (Office of the Secretary of Defense) study, the modernization study, where the Army, Navy, and Air Force have been evaluated on efficiencies across all of our platforms.

And then part of what we have to do is marry up our decisions with the final end-state for our Army, so as the Army reduces down to 450,000 right now, then that is driving some decisions of how

much capability we can have at a certain installation based on the reduction of the population.

And so there is not a certain line in the sand with the time. It has been ongoing and we know some of our areas where we are already starting to look and say we maybe need to move some of our capabilities because we have to recapture.

And then there are some areas where we are saying we need to move some of our personnel because it would be better if we bought the capabilities within the civilian sector.

#### FORT LEONARD WOOD HOSPITAL MILITARY CONSTRUCTION

Senator BLUNT. So at the General Leonard Wood Army Hospital in Fort Leonard Wood, Missouri, at least, that was ranked the Army's number two overall MilCon construction project in 2010. The only thing that has really changed at that 1941 facility since 2010 is the maintenance goes up every year.

I think it has moved outside the 4-year window now. What would be the reason for that?

General HOROHO. Sir, one, Leonard Wood remains our No. 1, actually, for a new facility. But right now, as we stood up the Defense Health Agency, military construction and health facility planning is no longer an individual service. It actually is now within the Defense Health Agency.

So each of the services puts in their request, their priority list, and then that decision is actually made by OSD.

Senator BLUNT. So the hospital at Fort Leonard Wood is still the Army's number 1 priority for hospital construction.

General HOROHO. Yes, sir.

Senator BLUNT. And that all goes to whom now?

General HOROHO. So that goes up to the Department of Defense for the decision to be made on military construction and funding.

Part of what we have asked Fort Leonard Wood to do is to really—they have developed a get-well plan to actually look at how do they bring more patients into the current facility that they have, so that they build up their patient population. And we have worked very aggressively with the command on the ground in that area.

Senator BLUNT. Do any of these Army facilities, are they available to the community? Or only to retirees, veterans in the community? How does that work?

General HOROHO. Right now, the rules of engagement, it is for Active Duty military and their families, retirees and their families.

Senator BLUNT. And there are some communities where you would decide the better way to do that might be to take care of that in the community hospital and pay for that rather than have a hospital, is that what you said?

General HOROHO. So what we have looked at is to say, in certain areas, based on the funding, can we recapture care based on the rules of engagement? Can we recapture care within the area? If so, then we are doing that.

If we find that no matter how many providers and clinicians we put in that area, we are not going to be able to recapture, because of the number of retirees that live in that area or the Active Duty, then that is when we make a decision to only have X number of providers and support staff, so we right size it, basically.

We move those clinicians to another place where we would be able to bring in more care, because that is tied to readiness and skill sustainment.

Senator BLUNT. Okay, let me be sure I understand. The Army still has this hospital as number 1 on their list, but the Army wouldn't have made the final decision as to where the hospital should be, because it is now placed outside the fiscal year 2015–19 program objective memorandum. But that would not have been a decision any longer made by the Army itself. It would have been made by the Defense Department.

General HOROHO. Yes, sir.

Senator BLUNT. Okay, thank you.

Thank you, Mr. Chairman.

Senator DURBIN. Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman. And I thank each of you. Sorry that I missed the earlier testimony.

I wanted to speak about an issue that I have raised before this panel I think every year since I have been on the Appropriations Committee and part of this subcommittee. And that is where we are with research on ALS (amyotrophic lateral sclerosis), also known as Lou Gehrig's disease.

We all know that we haven't made any progress in finding a cure, and the treatments that are available out there are very, very limited. Yet, one thing that we do know for sure is that in our military and veteran population, they are more than twice as likely to come down with the horrid disease than any other populations out there. And given the cost of care as individuals live and ultimately die with ALS, the cost to our system is just going to see further increase.

Given that we have currently \$7.5 million in the ALS research program through the Department of Defense, the question I would have of you, General Horoho, is whether or not we should be doing more in this area in terms of research or perhaps if there were an ability to prioritize in certain areas.

It has been suggested to me that one thing that we could do is to direct further focus or closer focus on therapy development within ALS itself.

Can you speak to the issue, whether you feel we are making any headway, whether the resources are adequate, or whether we need to be doing more?

#### NEURODEGENERATIVE DISEASE RESEARCH

General HOROHO. Thank you, Senator.

As you stated, 60 percent of our servicemembers are at risk for some type of neurodegenerative disease. And so we have had 26 projects that have been funded since 2007 in the area of ALS research, and \$7.5 million this year.

We also are just venturing into an unprecedented consortium where we have \$62 million that is going to the Department of Defense with the V.A. to actually look at neurodegenerative research.

So I think we are starting to move in the right direction of really honing in and studying this particular area. I don't think I can say whether or not that amount of funding is the right amount of funding to actually tackle the research projects.

But I do think there is a concerted effort moving in that area. Senator MURKOWSKI. Well, I would suggest, and I would offer this up to the chairman and to the vice chairman, that there is more that we can be doing. That \$7.5 million appropriated for peer-reviewed medical research on ALS, it is not that we are ignoring it, but in terms of, I think, the impact that we clearly see as it relates to those who again are just so susceptible, apparently, to this horrible disease, that we need to be doing more in this area.

And if it is something that I can work with the chairman and the ranking member on, count me in, in doing just that.

I would like to speak for a moment about the TRICARE changes. I understand that you have expressed support for the TRICARE changes in the fiscal year 2015 budget as a means of modernizing TRICARE. I guess I am looking at it and I am thinking that it actually takes us back in time.

All I can see is that you are making servicemembers and our retirees pay TRICARE Prime enrollment fees, but we are only giving them TRICARE Standard services.

It seems that you are getting more efficient from a budget perspective by charging more and streamlining services, but how can we really make the claim here that this is a more effective healthcare operation for our military members, for our retirees and their families?

And when we kind of step back and look at the average annual loss of purchasing power from all of the pay and the benefit cuts that we see in this budget proposal, when you were formulating this, was there any thought given to the cumulative effect of all the proposed cuts on the paychecks of our servicemembers, of our retirees?

Was this more of a budget-driven exercise in the context of defense healthcare?

I am looking at it and I can tell you the folks that that I work for in Alaska are not excited about this. So I am trying to understand whether or not a proposal like this is a better way to go.

Obviously, you have entitlement reform efforts like we have seen with the Military Compensation Reform and Modernization Commission that looks at it very methodically and more holistically. This is this year's budget going forward, and the question that I have of you, is this the right way to approach how we deal with our military retirees and military members and their families?

General TRAVIS. Well, let me start, ma'am. I appreciate the question. We do support the President's budget request, speaking only to the TRICARE part of this, because we obviously were not in the room for the discussion about all the other changes that you are talking about.

I am acutely aware of the fact that as you add all these things together, it is nickels and dimes, and nickels and dimes add up.

Senator MURKOWSKI. They add up.

General TRAVIS. I don't disagree.

The intent, of course, is to make this benefit sustainable. From an Air Force perspective, we have lived pretty much with a flat O&M budget for 10 years, Air Force Medicine. We are doing a lot of great things up at Joint Base Elmendorf, Alaska as you are well aware.

Where I guess there may be concerns is even though, again, in isolation, looking at the cost, the TRICARE fees themselves are not exorbitant. On the other hand, when you are a young airman or young soldier or young sailor, and you are in a remote location where perhaps—and we have a lot of bases that are remote—where perhaps there may not be, and in fact, in many cases, there are not, any specialty care in the local MTF (Military Treatment Facility), the issue is, okay, then that becomes a have-not assignment.

In other words, in that assignment, those young airmen are going to bear more of a financial burden. I understand it is a captain, and I know that we work through the averages of what that might be, but it is still a burden. And especially if you add it on to the other things that you mention. So that is the worry.

Senator DURBIN. Sorry, General.

Senator Murkowski, we are out of time.

Senator MURKOWSKI. I know.

Senator DURBIN. We have a vote on the floor. We have a vote that has just about ended.

Senator MURKOWSKI. Thank you, to each of you.

#### ADDITIONAL COMMITTEE QUESTIONS

Senator DURBIN. Thank you very much, Senator.

Thank you to the witnesses today. We will have some written questions sent your way. If you can respond in a timely fashion, we would appreciate it.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

#### QUESTIONS SUBMITTED TO LIEUTENANT GENERAL PATRICIA HOROHO

##### QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

*Question.* How does the Department of Defense work with the National Institutes of Health and other government agencies to coordinate their research and ensure it is complementary and not duplicative?

*Answer.* The Department of Defense (DOD) and the Services coordinate with other Federal agencies to target and align research and development (R&D) efforts within their areas of expertise. The DOD does not invest in any research that is unnecessarily duplicative of National Institutes of Health (NIH)-funded efforts. The DOD focuses on research and development of military medical products that are unique to battlefield healthcare and that may have dual use within the civilian community. The DOD partners with the NIH, the Department of Veterans Affairs (VA) and other Federal Agencies, academia and private industry to accelerate military medical advancements. The NIH funds science and technology efforts that support intellectual endeavors and provide new data for further research related to overall health conditions of the general population.

One of the largest areas of coordination and collaborative effort is in Traumatic Brain Injury (TBI) and Psychological Health R&D. In 2012, President Obama directed the National Research Action Plan (NRAP) to increase coordination between the DOD, VA, Health and Human Services, and Department of Education. The NRAP builds on substantial work already underway across Federal agencies and provides a comprehensive approach to accelerate research; and to standardize, integrate and share data across all agencies. Under the NRAP the DOD, through the U.S. Army Medical Research and Materiel Command, is the lead Federal agency for conducting joint review and analysis of the portfolios of research across these participating Federal departments.

In addition, certain Congressionally Directed Medical Research Programs (CDMRP) are appropriated by Congress for execution by the Defense Health Program to address more general research areas of concern to the Nation, such as breast cancer and prostate cancer. The DOD runs these programs in a complemen-

tary and synergistic fashion to the NIH-funded research efforts by identifying areas and gaps that may benefit from targeted research. The DOD executes these missions through efficient and effective practices and incorporates many steps in the planning and coordination efforts to avoid duplicative research that may be funded by other Federal agencies. In both peer and programmatic review of research proposals, the CDMRP incorporate representatives from other Federal agencies, such as the NIH, the Centers for Disease Control and Prevention, and the VA who provide information regarding the research being funded in related areas by their own organizations. Feedback is provided to and investigated by the CDMRP regarding whether proposed research has already been published or is the subject of an application to another funding agency, and if the level of effort of the principal investigator and all key personnel is appropriate. The CDMRP and NIH have developed a common classification system for comparing and presenting their cancer research portfolios. This system created the International Cancer Research Partners, which currently consists of 55 world-wide cancer organizations. Additionally, the CDMRP participates on numerous interagency committees pertaining to diseases such as breast cancer, autism, muscular dystrophy, tuberous sclerosis complex, Gulf War injury, and others. These interactions provide opportunities for each organization to increase awareness of their research portfolios, and thereby avoid unnecessary duplication.

Furthermore, the DOD has a long history of coordination and collaboration with the National Institute of Allergy and Infectious Diseases (NIAID) of the NIH to utilize the capabilities of our DOD domestic and overseas medical research laboratories, as platforms for infectious disease research. The Military HIV Research Program (MHRP) collaborates with the Division of AIDS (DAIDS) of NIAID. Through this partnership, NIAID has access to an effective HIV/AIDS vaccine development program executed by the MHRP and a high quality network of overseas DOD laboratories and field stations in resource-restricted nations with high HIV/AIDS burdens. In return, the MHRP benefits from NIAID's stewardship and coordination of national/international efforts on HIV/AIDS vaccine research and product development, a large portfolio of industrial and academic AIDS vaccine research partners and advisors, and a large portfolio of vaccine candidates in different stages of development. The highly successful MHRP/DAIDS collaboration is managed through steering committees and a joint scientific advisory board involving all government partners to avoid duplication of R&D efforts.

As a final point, the National Interagency Confederation for Biological Research (NICBR), associated with Fort Detrick, Maryland, is comprised of nine Federal agencies engaged in biotechnology and biodefense research who work in synergy to achieve a healthier and more secure Nation. The NICBR currently includes the National Interagency Biodefense Campus and the Frederick National Laboratory for Cancer Research. The NICBR's mission is to develop unique knowledge, tools, and products by leveraging advanced technologies and innovative discoveries to secure and defend the health of the American people. In support of these efforts, subcommittees and working groups foster interagency collaboration; maximize safety and productivity of biological research and technology development; and minimize duplication of effort, technology, and facilities among the signatories. Additionally, the U.S. Army's Medical Research Institute of Chemical Defense and the Medical Research Institute of Infectious Diseases coordinate their research efforts with the NIH as part of the HHS Public Health Emergency Medical Countermeasure Enterprise strategic reviews.

*Question.* In particular, as a result of congressional interest, a significant portion of DOD medical research is focused on issues like breast cancer, Alzheimer's disease, prostate cancer, and autism. These conditions affect servicemembers and their families along with the general U.S. population. In light of that, how does DOD ensure that those efforts are fully in line with the leading Federal experts for those portfolios at NIH?

*Answer.* The Department of Defense (DOD), through the Congressionally Directed Medical Research Programs (CDMRP), collaborates with expert representatives from the National Institutes of Health (NIH), Department of Veterans Affairs (VA), and other non-DOD Federal agencies by requesting them to serve on peer review panels, as well as the Integration Panels which identify research gaps, define investment strategies, and make funding recommendations. Fourteen of the sixteen Integration Panels (or other equivalent advisory boards) for the fiscal year 2014 programs currently managed by the CDMRP include representatives from non-DOD Federal agencies, including NIH, VA, Centers for Disease Control and Prevention (CDC), and the Food and Drug Administration.

The CDMRP established a Memorandum of Agreement with NIH to test and evaluate sharing of CDMRP research proposal information in the NIH data center,

allowing for greater transparency across the agencies. The CDMRP networks with multiple Federal and non-Federal committees to compare research portfolios, identify gaps in research funding, and improve existing research efforts. Additionally, the CDMRP engages individuals from Federal and non-Federal committees to participate in the peer and programmatic review of applications, and serve on review boards to monitor and oversee the progress of awards. These collaborations strive toward synergy with other agencies and diversification of research portfolios, and underscore the importance of interagency research coordination efforts.

The CDMRP participates in several Federal interagency committees or working groups to include, but not limited to: the Advisory Committee on Breast Cancer in Young Women, a CDC-led committee; the Federal Interagency Traumatic Brain Injury Research Working Group, a NIH-sponsored group; the Interagency Autism Coordinating Committee, a Federal advisory committee that coordinates efforts within the Department of Health and Human Services (DHHS) where Federal and non-Federal members are included; the Interagency Breast Cancer and Environmental Research Coordinating Committee, a congressionally mandated committee co-chaired by the National Institute of Environmental Health Sciences and the National Cancer Institute (NCI); the Interagency Urology Coordinating Committee, a Federal advisory committee, facilitated by the National Institute of Diabetes and Digestive and Kidney Disorders of the DHHS; the International Cancer Research Partners, a group of 56 cancer funding organizations, including the CDMRP and NCI; the Muscular Dystrophy Coordinating Committee, a NIH-established committee; the National Alzheimer's Project Act Advisory Council on Alzheimer's Research Care and Services, composed of members of the VA, Centers for Medicare and Medicaid Services, not-for-profit, and State-level; the Trans-Agency Early Life Exposures and Cancer Working Group, a working group composed of representatives from NIH, CDC, and the CDMRP; the Trans-NIH Tuberosus Sclerosis Complex Working Group, a NIH-sponsored group; and also participates in the Federal Research Subgroup, along with members from the National Institute of Neurodegenerative Disease and Stroke and the National Institute of Aging, to align Federal research with the NAPA, while reducing overlaps and identifying synergies.

*Question.* What type of collaborative research does DOD conduct with the private sector?

*Answer.* The U.S. Army Medical Research and Materiel Command (USAMRMC) manages and executes research portfolios across a broad range of military medicine, to include research on combat casualty care, infectious diseases, operational medicine, rehabilitative medicine and prosthetics, as well as Congressional special interest topics in cancer and other diseases. To accomplish its mission to create and deliver medical solutions for the warfighter, USAMRMC partners with innovative companies and renowned academic and research institutions to support research across the product lifecycle, from basic research to advanced product development, using a variety of vehicles, including grants, cooperative agreements, and contracts. The USAMRMC provides multiple ways for the private sector to engage with the Command, such as Program Announcements, Requests for Proposals, a continuously open Broad Agency Announcement, New Products and Ideas Submission website, Small Business Innovation Research and Small Business Technology Transfer Research programs. The Command also maintains a Strategic Partnership Office and an Office of Small Business Programs for outreach.

USAMRMC continuously fosters collaboration and fund sharing with industry to bring products to the warfighter and the market place. Since the market share of military medical products is relatively small, the extraordinary cost of developing and delivering safe and effective medical products for use by the Department of Defense (DOD) and civilian medical practitioners means that DOD is dependent upon investment by industry. USAMRMC invests taxpayer funds in the earliest stages of science and technology development, and then works diligently to find commercial partners willing and able to fund the final development of products incorporating these new technologies in forms useful to both DOD and industry. This approach maximizes use of scarce DOD resources, while producing affordable products that benefit both the Warfighter and the civilian community.

The scientists and engineers in our laboratories are often co-authors of publications with private sector scientists and engineers. USAMRMC has six major laboratories and it often partners with private institutions through Cooperative Research and Development Agreements for data, labor, and cost sharing on projects of mutual interest. These partnerships have generated, or are in the process of generating, cutting edge technologies or treatments for warfighters and the civilian community, of which we have many examples. First, the U.S. Army Aeromedical Research Laboratory's collaboration with small business companies and academic institutions developed safer helmet designs and standards for the sporting and civilian air medical

transport industries; and improved data collection systems for use by the automotive and aviation industries to assess vehicle occupant crash safety. Second, the U.S. Army Institute of Surgical Research, working with two civilian research consortia, created the Armed Forces Institute of Regenerative Medicine; a multi-institutional, interdisciplinary network focused on developing advanced treatment options, such as skin and organ regrowth, as well as face and arm transplants, for severely wounded Servicemen and women. Third, the U.S. Army Medical Research Institute of Chemical Defense partners with numerous civilian laboratories in pursuit of medical chemical defense research, including academic partners such as Ohio State University, the Universities of Utah, California and Colorado; or private sector firms such as Battelle and South Research Institute. Fourth, the U.S. Army Institute of Environmental Medicine, among other efforts, collaborates with the Boston Athletic Association to research ways to prevent heat injuries in marathon runners but also to use the data to update the guidance that the DOD provides to Service Members for heat injury management. Fifth, the U.S. Army Medical Research Institute of Infectious Disease partners with domestic and international academic institutions and companies for research and development of cutting-edge medical countermeasure against lethal viral diseases, such as Ebola, Hantavirus and Marburg virus, and these efforts have shown promising results in protecting non-human primates. Finally, the Walter Reed Army Institute of Research (WRAIR) prides itself on the numerous partnerships and collaborations with other governmental institutions, pharmaceutical companies, and not-for-profits. In collaboration with Glaxo-Smith-Kline and Sanofi-Pasteur, the WRAIR is researching and developing vaccines for Malaria and Dengue, respectively.

One technique for collaborating with the private sector that has proven extremely effective is the establishment of consortia. The Consortium to Alleviate Posttraumatic Stress Disorder (PTSD) is a new research effort focused on discovery and development of biomarkers for PTSD that can be used for therapeutics and outcome assessment. This effort represents a major investment to advance knowledge related to biomarkers and clinical utility. The Chronic Effects of Neurotrauma Consortium will, among other goals, develop and advance methods to treat and rehabilitate chronic neurodegenerative disease and other comorbid effects of mild traumatic brain injury (TBI) and concussion. While these consortia have just recently been established, they have already established leadership roles in the fields of TBI and PTSD research.

*Question.* NIH and VA upload all research abstracts into a program called RePorter, but DOD does not provide information to that database. Does DOD plan to provide this information to RePorter?

*Answer.* Yes, The Department of Defense (DOD) is evaluating information transfer to the Research Portfolio Online Reporting Tools-Expenditures and Results (RePORTer). The RePORTer website provides a central point of access to reports, data, and analyses of NIH research. It was initially developed in response to the requirement to closely track research projects funded by the American Recovery and Reinvestment Act but it soon became evident that this is a powerful tool for enabling visibility of all NIH funded research. The DOD, through the U.S. Army Medical Research and Materiel Command (USAMRMC), is currently testing the transfer and management of project information. The use of RePORTer is an aim within the National Research Action Plan. USAMRMC is also investigating other components of NIH's research proposal and project management tools as well, because we believe that economies of scale and improved inter-agency strategic planning of research efforts can be realized through the use of such centralized systems, where data types and classification are appropriate for public release. This level of common research portfolio management, within the biomedical sphere, will become increasingly important as we adjust to fiscal realities and improve business practices in the years ahead. Shared research data that is coded in common data elements will make it possible to conduct additional and larger analyses on existing data and therefore will increase the return on investment for every dollar of federally funded research.

*Question.* How is DOD ensuring that its research is shared widely?

*Answer.* The Department of Defense's (DOD's) intramural and extramural biomedical research is shared through many avenues to include the peer-reviewed scientific literature, media releases, scientific and medical specialty conference presentations. In addition, extramural research is shared via the Congressionally Directed Medical Research Programs website where anyone can look up specific programs or specific projects within programs in a manner similar to the search page of the National Institutes of Health (NIH) Research Portfolio Online Reporting Tools-Expenditures and Results (RePORTer) system. DOD and the Services also sponsor symposia to facilitate dialogue and exchange of scientific knowledge. One such symposium is the annual Military Health System Research Symposium held each Au-

gust where many of the intramural and extramural biomedical researchers present their latest findings.

*Question.* Please explain the importance of battlefield research within the DOD medical budget.

*Answer.* Department of Defense (DOD) senior leader emphasis and Congressional support to military medical research have been critical to medical research successes and lifesaving advances over the past decade.

The medical challenges confronted by military caregivers in Afghanistan and Iraq established the imperative for trauma and battlefield research. Military research is aimed at providing readily-deployable materiel and knowledge solutions to reduce morbidity and mortality on the battlefield. Throughout history, military medical research has been a leader in trauma care, infectious disease, military operational medicine, and recently in rehabilitative and regenerative medicine.

From 2005 to 2013, the fatality rate for U.S. service personnel in Afghanistan decreased by 50 percent to the lowest recorded in the history of warfare. The reason for this is multifactorial, however, two factors stand out: (1) investments in requirements-driven, battlefield research and (2) establishment of a trauma system which identifies needs for research and translates results into best clinical practices. The research is programmed and performed by the Services (Army, Navy, & Air Force) and the Defense Health Program. The Joint Trauma System (JTS) has enabled the U.S. military, for the first time in history, to translate battlefield lessons into evidence-based practices disseminated across the force. The collection and analysis of battlefield data has changed not only the way we approach medical care but also how we develop and field equipment, enhance force protection, and implement warfighting tactics, techniques, and procedures.

Military medicine has always been a fertile breeding ground for the advancement of medicine. Many of the results from battlefield research have improved the survival of victims injured in civilian settings.

Examples of military medical advances that have informed civilian practice of medicine include: use of life-saving tourniquets and hemostatic dressings to control bleeding; medical evacuation or patient transport improvements; advances in the use of blood components to prevent bleeding and restore circulation; discovery of tranexamic acid (TXA) as a life-saving medication for combat injured; the use of less invasive endovascular technologies to treat vascular trauma and shock; and temporary vascular shunts to save mangled extremities.

*Question.* Since 2011, DOD and NIH have been collaborating on a centralized database for traumatic brain injury (TBI) called FITBIR (“fit-burr”). Has this project fostered transparency and collaboration on TBI?

*Answer.* Yes, however Federal agencies are only in the beginning stages of data submission. The Federal Interagency Traumatic Brain Injury Research (FITBIR) informatics system is a central repository of raw research data from clinical Traumatic Brain Injury (TBI) projects. It is not a patient data or outcomes registry. It is intended to enable comparisons of research data and to stimulate the analysis of the data by researchers who were not necessarily involved with the original project but may have unique hypotheses that can be tested without the expense of running a separate clinical study. This could lead to unanticipated findings as well as further validation of existing findings. The Department of Defense (DOD) has mandated the use of FITBIR for all Defense Health Program and Army-funded TBI research. DOD researchers began to populate FITBIR in the past year.

The TBI research community has reacted in a uniformly positive manner regarding the potential this system offers for sharing data and stimulating further study and collaboration. The system provides a period of embargo of the data so it can be quality assured and to allow the providing research team to present and publish their findings before the data is made available for scrutiny and use by other researchers. Only after there has been sufficient time for project data to be made available for use by other scientists will we be able to definitively assess the impact, though the expectation is that the impact will be significant. Additionally, the system will enhance transparency between research teams, which is one of the objectives of its development.

*Question.* The agreement governing this collaboration (FITBIR) is set to expire in March 2015. Is DOD on track to renew this agreement at the appropriate time?

*Answer.* Yes. The current Memorandum of Agreement between the U.S. Army Medical Research and Materiel Command and the National Institutes of Health does end in March 2015. However, a path for renewal is included in the wording of the current agreement. In addition, on August 31, 2012, President Obama issued an Executive Order directing the Departments of Defense, Veterans Affairs, Health and Human Services, and Education, to develop a National Research Action Plan (NRAP) on posttraumatic stress disorder, other mental health conditions, and Trau-

matic Brain Injury “to improve the coordination of agency research into these conditions and reduce the number of affected men and women through better prevention, diagnosis, and treatment.” The NRAP was published and released in August 2013 and includes the Federal Interagency Traumatic Brain Injury Research informatics system as a component of inter-agency efforts.

*Question.* What results have we seen from the Department’s research efforts into TBI and psychological health?

*Answer.* Since 2007 Congress has given the Department of Defense (DOD) almost \$1.5 billion to address the daunting challenges of Traumatic Brain Injury (TBI) and Psychological Health (PH). The DOD, through the Defense Health Program and the U.S. Army Medical Research and Materiel Command (USAMRMC), is collaborating with the best and brightest minds from government, academia, and industry to identify and investigate more effective diagnostics and treatments with a focus on delivering solutions. Service members deserve cutting-edge, world-class care, but evidence-based medicine is expensive, complicated, and takes time to develop. Rigorous research ensures that treatments and services provided to military and Family members are effective and do not have unintended negative effects. Although we are just beginning to realize findings from studies initiated with the infusion of research funding begun in 2007, some research has already resulted in impactful changes. Below are examples of results and accomplishments from the investment in TBI and PH research.

USAMRMC is managing the largest TBI research investment in the world with over \$750 million invested since 2007 in over 530 studies. TBI diagnostics and treatments are of the highest priority to DOD and Army leadership. While there is no single objective test that can accurately diagnose TBI, we are making important advances on blood-based biomarkers to help detect injuries quickly and accurately, developing portable objective neurophysiological tests that use existing tools such as eye tracking and quantitative electroencephalography, refining neurocognitive tests embedded in the Military Acute Concussion Assessment, improving neuroimaging technologies such as High Definition Fiber Tracking and other structural and functional imaging tools so physicians and patients can detect brain abnormalities, and are aggressively researching treatments to facilitate recovery and return to duty. Above all, when researching new diagnostics and therapies we need to make sure that they are safe and effective for our Soldiers and their Families. Therefore, we work closely with the Food and Drug Administration (FDA) to make sure all of our advancements comply with regulatory standards. Brain injuries vary from patient to patient and we are exploring treatment options to allow physicians to customize therapies to the individual patient’s specific needs. Often, multiple treatment and rehabilitation strategies are required for our Soldiers with TBI; therefore, our research spans the array of detection and treatment options.

The Army has been working closely with the National Football League (NFL) and is participating in a \$60 million TBI research effort funded by the NFL, General Electric, and Under Armour to accelerate TBI research. We are currently developing a collaboration with the National Collegiate Athletic Association (NCAA) called the NCAA–DOD Grand Alliance that will involve research into the natural history of TBIs, research involving the testing and application of diagnostic tools under development, and efforts geared towards education and prevention of TBI.

In addition to the materiel solutions under development, our research program continues to yield knowledge at a rate that is straining the abilities of the peer-reviewed literature to keep pace. In many cases this knowledge is used to inform our materiel development, but it also has informed the development of diagnostic and management recommendations developed by the Defense and Veteran’s Brain Injury Center and distributed by the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury. These span guidelines for rapid assessment and management in field and garrison environments; recommendations for imaging the TBI casualty; recommendations for screening for endocrine dysfunction after TBI; and managing co-morbidities such as depression and Posttraumatic Stress Disorder (PTSD).

As we make further progress, we are faced with the challenge of funding successful efforts through translation into clinical use. As each device or therapy reaches the stage of clinical trials, the costs increase significantly. A single phase III (definitive) clinical trial of a therapy would easily consume a significant portion of our annual funding. Clinical translation of therapies for central nervous system diseases has historically cost 50 percent more than testing a blood pressure or diabetes medication. These costs, combined with the low success rate of such trials (which is essentially zero for TBI at present) have driven the large pharmaceutical companies out of the arena over the past 5 years. We have identified foundational challenges in how TBI is clinically characterized, how clinical trials have been performed, and

in how animal models are used that are leading us to new ways of classifying TBI, new ways of assessing whether or not a given therapy is doing what we expect, and new methods and models of TBI in animal research. These new methods are based upon a “bench to bedside and back” that together, once completed, will dramatically improve the processes of developing and translating diagnostics and therapies. Because of our focus on identifying these foundational issues, several major pharmaceutical firms have begun to express interest in re-entering the field in collaboration with the DOD and FDA. While this is not a “cure” for TBI, it will go a long way towards enhancing our ability to move promising diagnostic tools and therapies to clinical use and that, in turn, will improve our ability to care for those who have suffered brain injury.

USAMRMC also manages a comprehensive portfolio of more than \$740 million in PH research that includes more than 347 studies focused on delivering solutions. The portfolio addresses the topics of PTSD, suicide, substance abuse, Family issues, and violence within the military. Resilience building is also a focus because it is a critical piece in the prevention of PH problems.

Since WWII, incident rates for combat-related PTSD have typically been estimated to be somewhere in the range of 15–20 percent of those exposed. Historical trends and number of troops deployed (1,344,668) during this period would suggest that an estimated 161,000 or more cases could be diagnosed over the next 20–40 years. Suicidal behavior is an urgent national problem that affects all Americans across all dimensions of society, including those who have chosen to serve the Nation in uniform. With all things considered, and with what we know about the U.S. national suicide rate, we must continue to take a coordinated and multi-faceted approach to the challenge of suicide.

Army-led Mental Health Advisory Teams have deployed to theater and generated numerous evidence-based recommendations that have impacted policy (e.g. dwell-time and deployment length), improved distribution of mental health resources and services throughout theater, impacted the number of mental health personnel in theater, and modified the doctrine of the Combat and Operational Stress Control.

The DOD has made contributions to the field of PTSD screening, prevention, and treatment and we eagerly await findings from studies that if successful, will improve the standard of care of PTSD. For instance, Army and Defense Health Program (DHP) funded research has informed the development of Clinical Practice Guidelines (CPGs), to include the Department of Veterans Affairs (VA)/DOD PTSD CPGs and the recently released CPGs for assessing and managing patients at risk for suicide. Also, DHP supported research contributed to the new PTSD definition in the recently released 5th edition of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM–V).

DHP supported research also found that among Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) Veterans with PTSD, the integration of mental health into primary healthcare clinics resulted in increased use of mental health services, a reduction in time between referral and initial psychiatric evaluation and facilitated improved follow-up specialty care. This supports the integration of behavioral health services and primary care.

Additionally, DHP funding supported a pilot trial of inpatient cognitive therapy for the prevention of suicide in military personnel with acute stress disorder or PTSD. This study developed and evaluated a new manual of Post-Admission Cognitive Therapy. Initial results are promising and suggest that inpatient admissions following suicidal ideation/attempt benefit from immediate individualized psychotherapy, which is not usually done. A larger randomized clinical trial is underway.

DHP funding also supported a study to evaluate the effectiveness of an early intervention, brief cognitive-behavioral therapy for suicidality (BCBT–S) to prevent suicide among active duty Soldiers. The study’s initial results are promising at 6-months post-intervention and suggest symptom reduction and day-to-day functioning are more stable following treatment relative to the control group. Suicide attempt rate in experimental treatment was 1/3 that of the control group (treatment as usual). Re-hospitalization rates had a similar finding, i.e. 1/3 fewer than in the control group.

In addition, a recently completed trial of the generic medication Prazosin for nightmares associated with combat-related PTSD in active duty Soldiers who returned from Iraq and Afghanistan supports the recently revised DOD/VA CPGs that recommend adjunctive treatment with Prazosin for nightmares. Also, initial findings suggest that treatment delivered daily over 3 weeks is as effective as treatment delivered weekly over 8–10 weeks. If findings are confirmed upon the completion of a larger clinical trial, this exciting effort will be a game-changer resulting in faster PTSD recovery.

The Military Suicide Research Consortium (MSRC) is dedicated to developing validated suicide prevention intervention efforts. The DHP funded MSRC represents innovation in research program management and structure that allows rapid responding and execution of research efforts, with research beginning within months as opposed to years. The MSRC has 21 projects underway that are examining strategies to reduce suicide risk, prevent re-attempts, and understand bereavement among military Families after a Veteran or active duty member of the military has died by suicide. Two intervention studies have already demonstrated promise from pilot studies and larger trials are underway.

The Army Study to Assess Risk and Resilience in Servicemembers is the largest study of mental health risk ever conducted among military personnel. The Army and National Institute of Mental Health partnership is aimed at identifying risk and protective factors for suicide and PH, informing the development of evidence-based interventions, and rapidly identifying high risk groups. It has also provided empirical data to support and/or refute assumptions that had previously been made without any data.

Army funded research conducted at the Walter Reed Army Institute of Research demonstrated that resilience training can reduce mental health symptoms associated with combat. Data from the Army funded Millennium Cohort Study has revealed emerging trends and informed policies related to mental health, physical health, health-related behaviors (e.g., prospective assessment of health outcomes and potential open-air burn pit smoke exposure in Iraq did not show any clear population-level increases in chronic multi-symptom illness, respiratory symptoms or rheumatologic conditions in personnel deployed near documented open-air burn pits).

Finally, the Army adapted military resilience training into a telephone/webinar-based intervention to provide education, training in coping skills and support to the spouses of Soldiers. A study funded by the DHP demonstrated improved resilience and coping behaviors and decreased depression, anxiety, and role strain. Contributions stemming from this pilot research program resulted in a roll-out of the program within the VA system. Educating Spouses on what to expect has the additional benefit of increasing recognition of early adjustment problems and promoting help-seeking behaviors.

*Question.* How is this research affecting the way we care for the mental health needs of Service members?

*Answer.* Our Nation's investment in military behavioral health (BH) and traumatic brain injury (TBI) research has improved clinical practice. Before implementing clinical interventions, research helps determine if there is a need, if there is a mechanistic rationale, the efficacy of the intervention under controlled conditions in a randomized clinical trial, and its effectiveness under real-world conditions. In the past several years, there have been numerous examples of successful outcomes stemming from research investment.

Research investigating the integration of BH providers into primary care settings has found that patients identified as needing BH care are more likely to follow through on BH referrals if those providers are co-located with the referral source. Furthermore, studies have shown that integrating BH services into primary care can improve patient and medical provider satisfaction, decrease patient symptoms, increase functioning, and reduce healthcare costs. Integrating BH care into the Army Patient-Centered Medical Home has resulted in substantial changes in the way Army Medicine delivers BH care.

In addition, Army and VA researchers determined that Prazosin, a drug that was previously used to treat high blood pressure, when administered in conjunction with psychotherapy, reduces nightmares and improves sleep among veterans with Posttraumatic Stress Disorder (PTSD). This finding is a breakthrough discovery that is improving PTSD therapy outcomes. Additionally, findings suggest that improvements in sleep reduce the use of alcohol by PTSD sufferers, in part because they have a reduced need for self-medication in the search for higher quality sleep.

Also, preliminary findings suggest that compressing treatment schedules for PTSD-directed psychotherapy from weekly to daily sessions and reducing the duration of treatment from 12–15 weeks to 2–3 weeks yields positive clinical results. Compressing the treatment schedule also reduces dropout rates, a key indicator of the overall treatment effect. Two additional key studies exploring compressed treatment regimens are ongoing.

Furthermore, research indicates that some Soldiers may be more likely to engage in telemedicine-based interventions over conventional treatment for reasons of privacy and perceived anonymity. Technology-based interventions can expedite effective treatments; offer a provider multiplier effect; and increase treatment access and adherence for those who need help. Research projects comparing in-person treat-

ment with telemedicine approaches are ongoing and preliminary findings suggest they are equally effective. Telemedicine and “net-based” interventions can be tailored to individual, group, or self-administered treatment modalities.

In the area of biomarkers research, considerable neurobiological PTSD and TBI research has been funded in the past 7 years, seeking to better understand the underlying processes associated with risk, mechanisms of development, key brain structures involved, and identification of diagnostic biomarkers. Validation research is ongoing, with the potential to objectively confirm a PTSD or a TBI diagnosis through a simple blood test.

Lastly, the 2013 Mental Health Advisory Team (MHAT 9) mission to Afghanistan was directed by the Chief of Staff of the Army and supported by the leadership of U.S. Forces—Afghanistan. The Chief of Staff of the Army directed that MHAT 9 target the role of small unit leadership as a factor in influencing the mental health and well-being of Soldiers. MHAT 9 key findings indicated a generally positive message with (a) the lowest levels of behavioral health problem (e.g., anxiety, depression, acute stress, etc.) and suicidal ideation reported across the last 4 MHATs, (b) Soldier perceptions of their small unit leadership rated significantly higher than in 2012, and (c) a significant rise in individual and unit morale relative to 2012.

*Question.* What is the Army doing to fill the gap in behavioral health specialists and ensure the mental health needs of our Service Members are met?

*Answer.* Army Medical Command initiated the Behavioral Health Service Line (BHSL) to implement a standardized system of care to identify, prevent, treat and track behavioral health (BH) issues affecting Soldiers and beneficiaries. The BHSL enhances existing BH efforts by ensuring an enterprise wide approach to the delivery of existing and emerging BH programs. The Army is filling the gap in BH providers and meeting the needs of Service Members through innovative programs such as Embedded Behavioral Health (EBH), aggressive recruiting and hiring of quality providers, expansion of Tele-Behavioral Health (TBH), and through partnership with the U.S. Public Health Service.

The EBH model is an early intervention and treatment model that promotes Soldier readiness (before, during, and after deployment). It provides multidisciplinary BH care to Soldiers in close proximity to their unit area and in close coordination with unit leaders. Utilization of this model has shown statistically significant changes in key areas, such as; improved mission readiness, increased outpatient utilization and decreased need for acute inpatient psychiatric care.

Since 2003, the Army has increased the government service professional BH staff by 150 percent from 1,342 in 2003 to 3,213 in September 2013. As of March 2014, the Army had 5,275 behavioral health providers. The Army’s current requirement is 5,665 personnel, including professional providers and BH technicians. We expect that the requirements for providers will evolve as the needs of Army beneficiaries change.

An effective way to address increased demands in patient care, especially in remote areas, is through TBH. From fiscal year 2009—fiscal year 2013, Army telehealth clinical volume grew 619 percent, driven largely by TBH. In fiscal year 2013, the Army provided over 34,000 real-time patient encounters and asynchronous teleconsultations in garrison, and over 2,300 additional encounters in operational environments in 28 specialties. Tele-behavioral accounted for 85 percent of total telehealth volume in garrison and 57 percent in operational environments. Over 2,000 portable clinical video-teleconferencing systems have been deployed to support BH providers across the globe.

Since 2008, the U.S. Public Health Service has continuously provided Public Health Service Mental Health providers to augment the Army by providing direct clinical care to Soldiers and their Families. Eighty-one of 95 billets are currently filled and 43 new billets were created at locations not previously supported by the U.S. Public Health Service.

*Question.* The structure of the proposed TRICARE pharmacy co-pays strongly incentivizes members to fill their prescriptions at pharmacies within military treatment facilities. Yet we continue to hear concerns about the current wait times at numerous pharmacies. What steps are being taken to alleviate wait times, and will current facilities be able to process an increase in prescriptions?

*Answer.* The Defense Health Agency Pharmacy Board of Advisors included plans to address increased workload and subsequent wait times as a result of the proposed change in the TRICARE pharmacy benefit. Analysis of a previous benefit change indicated that military pharmacies might recapture up to 20 percent of the retail workload from the TRICARE for Life (> 65) population. Estimated growth in prescription volume was projected and provisions were made to hire additional staff to prevent increases in wait times. Efforts to encourage the use of mail order delivery have been put in place to support improved wait times and offer additional cus-

tomers service opportunities. The Pharmacy Board of Advisors is closely tracking prescription growth at military pharmacies monthly and point of service transition weekly as beneficiaries switch their chronic medications from retail to mail/Military Treatment Facility (MTF) pharmacies.

*Question.* Can you please give us an update on the operations of the Defense Health Agency over the past 6 months? What advantages and challenges have you seen in implementing this new system?

*Answer.* The Defense Health Agency (DHA) reached Initial Operating Capability (IOC) on October 01, 2013. Currently, seven of the ten shared services have reached IOC and are providing integrated support to the Services. Pharmacy operations, health information technology, and medical logistics have been particularly successful and aggressive in their implementation of initiatives.

A new Health Care Operations (HCO) Directorate is working with the Services to develop standard clinical practices and deliver integrated care to beneficiaries. The HCO Director is also leading the look at the future of TRICARE contracts and how to shape them to ensure our managed care partners align with the future goals of the Military Health System.

The DHA provides an opportunity to create a more collaborative and integrated healthcare system. An integrated system reduces the growth of healthcare costs, reduces unwarranted variation, and improves standardization of clinical and business processes, thus resulting in improved patient safety, clinical outcomes, and efficiencies.

These efficiencies allow Army Medicine to focus on its priorities such as Combat Casualty Care, ensuring the Army maintains medically ready forces, and that our personnel provide the highest quality of medical care delivery at any time and at any location, no matter how remote or austere.

Similar to any new type of relationship, partners need to get to know each other, understand each other's nuances, and develop trust through open dialogue, collaboration, and full transparency.

*Question.* As the customer for the end product, what input are you giving as DOD prepares its RFP for DHMSM? What progress have you seen to date, and what challenges do you see?

*Answer.* The Services established a council of colonels, called the Functional Advisory Council (FAC), comprised of voting representatives of each Services and a representative from the Operational Medicine community. The FAC provides coordination between the functional community, Military Health System (MHS) governance structure, facility level clinical and business subject matter experts, the functional sponsor/community and the Defense Healthcare Management Systems Modernization (DHMSM) program for key decisions such as requirements and implementation planning. The Services have been briefing the functional community on the DHMSM program and the importance of their critical review of the Request for Proposal (RFP). This has allowed the end-users to ask questions and provide direct input to the RFP. All recommendations have been sent to the program office to add to the next version of the RFP.

Through the collaborative activities of the functional community, support of the Defense Health Agency (DHA) and Service leadership, the program office has delivered all milestones on time. The functional community is driving the requirements and working collaboratively with the program office. Challenges include: (a) continued, timely release of funds to prevent schedule slippage; (b) having a secure and stable network and bandwidth to support the system; (c) business process re-engineering; and (d) timely training of National Guard and Reserve units. Premature training will result in additional training since the users will have forgotten what they learned from the initial training to time of use. To address these challenges the FAC has sponsored many off-sites to clearly define the requirements.

*Question.* The Committee has been very pleased with the retention rate for USUHS graduates (medicine, nursing, psychology), which far exceeds that of those trained in civilian health science programs. However, the Committee understands that non-physician USUHS students also need clinical training experience, which can be achieved at military treatment facilities. Please provide a report on the number of non-physician USUHS students who have received placements at military treatment facilities and the feasibility of increasing these opportunities, including cross-Service placements (e.g. Navy student placed in an Army MTF).

*Answer.* The University has two major populations of non-physician clinical students. They are in the Daniel K. Inouye Graduate School of Nursing (GSN) and the F. Edward Hebert School of Medicine Medical and Clinical Psychology department (MPS).

The Graduate School of Nursing at the Uniformed Services University for the Health Sciences (USUHS) had 694 non-physician, advanced practice nursing stu-

dents receive clinical training experiences in military treatment facilities over its 20-year history. USUHS graduate nursing education is in a joint environment. All student clinical training experiences are cross-Service placements for nurse practitioners, nurse anesthetists and clinical nurse specialists. Of the 56 clinical sites used for nurse training, 36 are military treatment facilities or clinics. The others are in Department of Veterans Administration (VA), U.S. Public Health Service (USPHS) or civilian sites. Over the past 5 years, there has been an average of 70 GSN students admitted per year. Additional opportunities for access to specific types of patients are explored as the need arises.

The Medical and Clinical Psychology program at USUHS had 108 non-physician, clinical psychology students (80 military, 28 civilian) receive training over its 22-year history of having a clinical training program. The Medical and Clinical Psychology program is also a joint training environment. During their 4 to 6 years of training at USUHS, psychology students participate in one of 47 year-long practicum placements for clinical training. Military students participated in 29 practicum placement sites, 9 of these sites are military treatment facilities (MTFs). The 20 civilian sites include the VA and other civilian treatment facilities. Civilian students participated in 30 practicum placements; two of those were in MTFs.

After their time at USUHS, psychology students participate in a 1 to 2 year internship/residency clinical training experience. Of the 44 military students who have attended internship/residency, all have gone to one of 10 MTFs. These placements involve same-Service placements (i.e., an Army student attends an Army internship/residency), but the sites may offer cross-Service experiences. Civilian students attended one of 9 internship/residency placements, none of which were MTFs (all were VAs or other civilian hospitals). Over the last 5 years in Medical and Clinical Psychology, there has been an average of 8–9 students admitted per year, 6 military students and 2–3 civilian students, on average.

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QUESTION SUBMITTED BY SENATOR TOM HARKIN

*Question.* Since 1992, the Department of Defense has put nearly \$3 billion into the Breast Cancer Research Program (BCRP), which is conducted through the U.S. Army Medical Research and Materiel Command. This research was integral in the development the breakthrough drug Herceptin, the OncoVue breast cancer risk assessment test, and the discovery of a frequently mutated gene that contributes to the development of several cancers. These are just three examples of real results that have positively impacted millions of lives inside and outside of our Armed Forces.

Given the ongoing challenges that breast cancer poses in our society, what are the critical areas of research that the Department of Defense will be targeting with the \$120 million in funding BCRP received in fiscal year 2014? Are there any other government agencies that are looking into these specific areas of research?

*Answer.* The Department of Defense (DOD) Breast Cancer Research Program (BCRP) has played a major role in the significant progress that has been made in the breast cancer field since 1992. Despite the program's contributions that have made an impact on millions of lives, the DOD BCRP recognizes that many overarching questions still remain unanswered in breast cancer, and that funding must be invested in critical areas of research in order to make breakthroughs that will save lives and lead to eradication of this disease. To meet this urgent need, the fiscal year 2014 BCRP has taken two new approaches.

First, the BCRP prepared a brief overview of the breast cancer landscape that describes what is currently known about incidence, death, recurrence, metastatic disease, risk factors, and treatments. The document is posted on the Congressionally Directed Medical Research Programs (CDMRP) website ([http://cdmrp.army.mil/bcrp/pdfs/bc\\_landscape.pdf](http://cdmrp.army.mil/bcrp/pdfs/bc_landscape.pdf)). The intent of the landscape document is to provide applicants with a concise overview covering the topics that are most pertinent to the BCRP's vision of ending breast cancer. In the fiscal year 2014 BCRP Program Announcements, applicants are strongly urged to read and consider the landscape before preparing their applications, to ensure that their proposed research is aimed at the critical areas in breast cancer that must be addressed.

Second, considering the breast cancer landscape, each fiscal year 2014 BCRP application is required to address at least one of the following ten overarching challenges: prevent breast cancer (primary prevention); identify what makes the breast susceptible to cancer development; determine why some, but not all, women get breast cancer; distinguish aggressive breast cancer from indolent cancer; conquer the problems of over diagnosis and overtreatment; identify what drives breast cancer growth and determine how to stop it; identify why some breast cancers become

life-threatening metastasis; determine why/how breast cancer cells lay dormant for years and then re-emerge (recurrence) and determine how to prevent recurrence; revolutionize treatment regimens by replacing interventions that have life-threatening toxicities with ones that are safe and effective; eliminate the mortality associated with metastatic breast cancer.

While these critical areas of research have been specified by the BCRP, the program recognizes that there are many other important issues within the breast cancer landscape which may not be covered by this list of overarching challenges. As such, applicants may identify and provide justification for addressing another overarching challenge that is related to the breast cancer landscape. It is important to note that the BCRP does not restrict the types of research that can be proposed to address these overarching challenges. The program enables researchers to address these challenges from any discipline.

No other Federal agencies are looking into these specific areas of research because the CDMRP participates in several Federal interagency committees or working groups to include, but not limited to: the Advisory Committee on Breast Cancer in Young Women, a Centers for Disease Control and Prevention (CDC)-led committee; the Interagency Breast Cancer and Environmental Research Coordinating Committee, a congressionally mandated committee co-chaired by the National Institute of Environmental Health Sciences and the National Cancer Institute (NCI); the International Cancer Research Partners, a group of 56 cancer funding organizations, including the CDMRP and NCI; the Trans-Agency Early Life Exposures and Cancer Working Group, a working group composed of representatives from National Institutes of Health, the CDC, and the CDMRP.

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#### QUESTIONS SUBMITTED BY SENATOR BARBARA A. MIKULSKI

*Question.* DOD TRICARE does not currently cover obesity drugs. Are any of the Surgeon Generals aware of a statutory prohibition on the coverage of such medicines? Assuming there is no statutory prohibition in TRICARE for the coverage of obesity drugs, then is it the Surgeon Generals understanding that such coverage is permissible?

*Answer.* With regard to contracts for medical care for dependents, Title 10, Section 1079(a)(11) states that, "Treatment of obesity may not be provided if obesity is the sole or major condition treated."

In accordance with 10 USC § 1079, there are multiple regulations and policies currently in place that address coverage of obesity drugs. Drugs for obesity and weight loss are excluded from the TRICARE pharmacy benefit. 32 CFR § 199.4 (e)(15) (iii) states, "Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) payment may not be extended for weight control services, weight control/loss programs, dietary regimens and supplements, Appetite suppressants and other medications; food or food supplements, exercise and exercise programs, or other programs and equipment that are primarily intended to control weight or for the purpose of weight reduction, regardless of the existence of co-morbid conditions."

Army Regulation 40-3, Medical, Dental, and Veterinary Care, effective May 23, 2013, states in paragraph 11-10 that, "Amphetamines and methamphetamines will not be prescribed as anorexic agents. Also, any medication used solely for its anorexic activity is prohibited from use in Army Medical Treatment Facilities (MTFs)."

The Pharmacy TRICARE benefit is one of the shared services under the coordination and guidance of the Defense Health Agency (DHA) Pharmacy Operations Division effective October, 1, 2013. Guidance to the Services from DHA indicates prescribing and dispensing of drugs for obesity is inconsistent with Federal Statute, Health Affairs Policy, and DHA guidance.

#### OBESITY/OVERWEIGHT

*Question.* What are each of the Surgeon Generals doing to address the issue of obese and overweight DOD dependents in their Services? In addition, what is being done with regard to obese or overweight active duty personnel? Please include information about medical treatment plans and options.

*Answer.* The Army is tackling the issue of obese and overweight through comprehensive and community approaches for Soldiers, Families, retirees, and Department of the Army civilians. Army Medicine is incorporating Registered Dietitians into the Patient Centered Medical Home (PCMH). These providers focus on helping patients understand the value of healthy nutrition, one of the pillars of the Performance Triad. This is a constructive one-on-one benefit to the patient with increased access to the Registered Dietician through the Patient Centered Medical Home.

Army Wellness Centers (AWC), an extension of the PCMH, deliver comprehensive health testing and education. The centers utilize a “Health Risk Assessment with Feedback” method that encourages positive behavior change and is endorsed by the U.S. Preventive Services Task Force. There are currently 20 AWCs across the Army. AWCs have shown success in addressing Body Mass Index and body fat.

The Army Nutrition Program recently submitted nutrition recommendations and updates to Department of the Army Pamphlet 600-4, Soldier’s Blue Book, the Training and Doctrine Command guide for new Soldiers. The Army Nutrition Program is also collaborating with Installation Management Command to instill, create, and sustain healthy living environments where soldiers and families can make healthy choices around nutrition and activity. Installation Management Command and the Defense Commissary Agency are working together to offer Farmers Markets as allowed by the Office of the Secretary of Defense Memo dated July 30, 2013 that promotes “fresh food” at all dining venues on installations by incentivizing better food options and adopting a standard of at least 50 percent of menu items that meet green or amber Go For Green™ Department of Defense Menu Criteria.

Army Medicine is exploring collaborative partnerships to teach healthy nutrition. The Culinary Institute of America, the Harvard School of Public Health, and the Samuelli Institute established the “Teaching Kitchen” program to improve nutrition and culinary literacy. The Army Nutrition Program is working to create a hands-on cooking class that adapts the “Teaching Kitchen” curriculum for a military audience. The pilot called “A Delicious Prescription for a High Performance Diet” will be implemented at Fort Sam Houston in the fall of 2014.

*Question.* In order to have the best health system in world, we must look at most effective healthcare in world—which oftentimes is a combination of western & eastern medicine. How do your branches look to—or work with—the civilian community to create comprehensive approaches to healthcare management that combines best of all available treatment options?

*Answer.* Army Medicine historically and continuously pursues opportunities within the civilian community to advance the highest quality medical care to our Soldiers and beneficiaries. Medicine is an ever changing environment. Partnering with the civilian community ensures that the most current and innovative concepts and techniques are explored. The 2010 Pain Management Task Force (PMTF) identified selected complementary integrative medicine (CIM) therapies that were noted as having significant evidence of their safety and effectiveness. The CIM therapies identified by the Task Force were acupuncture, movement therapy or yoga, bio-feedback, and medical massage therapy. We are collaborating with numerous organizations to advance research, education, and clinical care to ensure our Soldiers and their Families have access to comprehensive care options. I’d like to take a few moments to describe a few examples of these collaborations.

We are partnering with the University of New Mexico School of Medicine’s Project ECHO (Extension for Community Healthcare Outcomes) which is developing the capacity to safely and effectively treat chronic, common, and complex diseases in rural and underserved areas, and to monitor outcomes of this treatment. The partnership includes established programs at Dwight D. Eisenhower Army Medical Center at Fort Gordon for the Southern Region, Womack Army Medical Center at Fort Bragg for the Northern Region, and Tripler Army Medical Center in Hawaii for the Pacific Region. Europe and Madigan Army Medical Center for Western Region will be joining this initiative. San Antonio Military Medical Center and William Beaumont Army Medical Center are undergoing an assessment to be included as the program grows.

The Army collaborates with several organizations with a common interest in expanding the utilization of complementary integrative medicine modalities. The National Center for Complementary and Alternative Medicine at the National Institutes of Health (NIH), the Bravewell Collaborative, and the Samuelli Institute have all been extremely helpful in this effort.

The Army Trauma Training Center at the Ryder Trauma Center, Miami, Florida has been in operation for more than 10 years and serves as an Army Forward Surgical Team Training facility, preparing military healthcare personnel to care to those injured on the battlefield.

The inaugural Brain Health Consortium held April 10–11, 2014, was attended by world-renowned medical leaders in the military, academia, and research communities in neurology, neuroscience, psychiatry, and psychology. The goal was to better understand the state of the science of brain health and to discuss ways to improve the brain health of Soldiers and the Army Family.

Established in 2007, University of California, Los Angeles (UCLA) Operation Mend provides combat injured military personnel with severe facial and other medical injuries access to the Nation’s top plastic and reconstructive surgeons, as well

as comprehensive medical and mental-health support for the wounded and their families. This is partnered with San Antonio Military Medical Center, the Department of Veterans Affairs (VA), Greater Los Angeles Healthcare System, and UCLA Health System.

Landstuhl Regional Medical Center and UCLA are collaborating on Continuous (24/7) Electroencephalography Monitoring for the immediate detection of otherwise non convulsive seizures in patients within the first 72 hours of a traumatic brain injury. This program has the potential of reducing brain damage following brain injury by identifying subtle seizure activity and delivering appropriate and rapid treatment.

*Question.* Last year at Camp Pendleton (on one of the furlough days), President Obama said that commissaries are an important benefit of military life. He also said closing commissary stores, “Is not how a great nation should be treating its military and military families.” I agree with the President. Do you—the Surgeon Generals—support the DOD’s proposal to cut the Commissary budget? What will the impact of these cuts have on a military family budget and on military family health?

*Answer.* The Army supports a holistic and comprehensive approach that reforms military compensation in a fair, responsible, and sustainable way. Unfortunately during this difficult fiscal environment tough decisions have to be made to reduce costs and one such method is by reducing commissary subsidies. While such reductions in commissary savings could impact the amount of disposable income our Soldiers have, Army Medicine will continue to work with the Army and the Department of Defense to educate Soldiers and their families on making healthy food choices.

*Question.* Would each Surgeon General please provide information on your Service’s policy and practice for the availability of integrative medicine treatments to service member & retiree families?

*Answer.* The military is not immune to the nationwide issues of polypharmacy and prescription medication abuse and diversion. Army Medicine has been pursuing strategies that offer additional options that complement conventional therapies and practice. One example of this effort is the Army’s use of complementary integrative medicine (CIM) modalities. Army Medicine is committed to the systematic deployment, integration, and evaluation of CIM modalities as a part of the comprehensive strategy to improve the health, wellness, and readiness of the force.

The 2010 Pain Management Task Force identified selected CIM therapies that were noted as having significant evidence of their safety and effectiveness. The CIM therapies identified by the Task Force were acupuncture, movement therapy or yoga, biofeedback, and medical massage therapy. Under the auspices of the Army’s pain management program, the CIM modalities are being employed or evaluated not as “alternatives” but rather as part of a menu of options for pain management that includes both conventional treatment modalities such as medications and interventional procedures like injections, nerve blocks, and surgeries, with these selected CIM modalities. The goal is to develop larger scale experience and evidence of which therapy and treatment combinations provide the best results for Soldiers.

The Army has been collaborating with several organizations with a common interest in expanding the utilization of complementary integrative medicine modalities. The National Center for Complementary and Alternative Medicine at the National Institutes of Health (NIH), the Bravewell Collaborative, and the Samueli Institute have all been extremely helpful in this effort.

Army clinicians are participating with the Air Force, Navy, and Veterans Health Administration (VHA) in a \$5.4 million Joint Incentive Fund Project to field a standardized basic acupuncture training and sustainment model across the Department of Defense (DOD) and VHA medical facilities. Training teams have started traveling to Army, Navy, Air Force, and VHA medical facilities to deliver this training. The response from providers and patients has been overwhelmingly positive.

Finally, Army Medicine, along with the Navy and Air Force, is collaborating through the Defense and Veterans Center for Integrative Pain Management on research studies related to the use of acupuncture and yoga as non-medication complements/alternatives to standard pain management therapies. Initial evidence indicates these can be effective complements and sometimes as an alternative to medications.

*Question.* Given that in calendar year 2012 only 27 percent of active duty integrative medicine visits were for therapies other than chiropractic care, what barriers or operational issues limit your Service’s expansion of other integrative medicine offerings to service members, retirees, and their families?

*Answer.* It is understandable why chiropractic care has a significant prevalence among the complementary integrative medicine (CIM) modalities currently in use in military medicine. Chiropractic care was originally offered in 1995 as a dem-

onstration program and later expanded as directed under Section 702 of the National Defense Authorization Act (NDAA) for fiscal year 2001. Three subsequent NDAA's allowed for expansion of the program, resulting in chiropractic services now being offered at sixty-two military treatment facilities but still limited to Active Duty Service members.

The Army Pain Program has been moving towards a more multidisciplinary, multi-modal pain management strategy that leverages selected CIM modalities alongside more conventional pain management treatments such as medications and interventional procedures like injections, nerve blocks, and surgeries. In addition to chiropractic care, the Army's Interdisciplinary Pain Management Centers are employing modalities such as acupuncture, massage therapy, movement therapies such as yoga, and biofeedback. These are all proving to be effective complements and sometimes alternatives to medications.

While the process for integration and expansion of other integrative modalities is a key part of Army's Pain Management Strategy, the use of these modalities is limited to the direct care system where we can generate expertise and capacity to provide these modalities. Title 32 CFR, section 199.4 essentially excludes CIM therapies from reimbursement under TRICARE.

*Question.* What are each of your Service healthcare systems doing to advance whole system health improvement, such as Total Force Fitness and the Healthy Base Initiative?

*Answer.* Army Medicine established the Performance Triad Task Force to fundamentally improve the health, readiness and performance of Soldiers, Family members, Department of the Army civilians and Retirees through the tenets of the Performance Triad. The Performance Triad promotes healthy lifestyles and choices around sleep, activity, and nutrition. The Performance Triad is nested within the Army's Ready and Resilient Campaign and aims to improve the overall health, readiness and resilience of the Total Army.

To develop the concept for Army-wide implementation, the Performance Triad Task Force conducted 26-week pilot studies with battalion-sized units at three continental United States installations and in Afghanistan from September 2013 through May 2014. Unit and individual performance was evaluated during sustained simulated combat operations at the Combat Training Centers. Programmatic evaluation and analyses will occur from May to August 2014.

The Performance Triad Task Force is collaborating with the Office of the Chief, Army Reserve and the National Guard Bureau to implement the Performance Triad program in the Reserves and National Guard. A pilot for the Army Reserve will commence in June 2014. The Performance Triad Army Family Campaign extends the Performance Triad education and training literature to Families, Retirees, and Department of the Army civilians.

The Army Medical Command will conduct a Performance Triad kick-off across all Army Medical Treatment Facilities from June 2-6, 2014, to promote the tenets of the Performance Triad to the total Army Family.

#### HEALTHY BASE INITIATIVE

*Question.* Are you aware of the Healthy Base Initiative?

*Answer.* Yes, the Army has three of the 14 Healthy Base Initiative pilot sites. They are located at Fort Meade, Maryland, Fort Bragg, North Carolina, and Fort Sill, Oklahoma.

*Question.* What is your understanding of the Initiative and its purpose?

*Answer.* The Healthy Base Initiative is a demonstration project for Operation Live Well that features a standardized framework for healthy communities and allows for customized, local approaches at 14 military installations around the world. The objectives are to optimize health and performance, improve readiness, decrease healthcare costs, and provide the Department of Defense with a validated framework for healthy communities that establish best practices in support of improved population health. The Healthy Base Initiative focuses its efforts on weight management, tobacco cessation, making informed nutritional food choices, and increasing physical activity.

*Question.* How do you think the Healthy Base Initiative can be successful?

*Answer.* The Healthy Base Initiative (HBI) will be successful because Senior Army Leaders and installation leaders are committed to establishing and maintaining healthy communities. Key installation partners and stakeholders must have a shared focus to assess, plan, implement, and measure population health initiatives in order to improve nutritional choices, increase physical activity, promote healthy weight and decrease tobacco use. Assessments conducted at the HBI pilot installa-

tions will establish best practices for promulgation across the Department of Defense.

*Question.* The fiscal year 2014 omnibus bill included \$3 million for the Healthy Base Initiative. Do you know how money is being used?

Answer. The Department of Defense is currently in the next phase of the Healthy Base Initiative (HBI) after having finalized analysis of the data gathered from the 14 HBI pilot site locations. The Department of Defense is in the process of implementing specific initiatives such as education related to increasing physical activity, weight management, and tobacco cessation that will promote resilience and wellness of Service members and their families as part of the continuing HBI pilot.

*Question.* How does DOD envision future of Healthy Base?

Answer. Operation Live Well (OLW) is the Department of Defense's (DOD's) long-term healthy living initiative that aims to increase the health and wellness of active duty and reserve component Service Members and their families, retirees, and DOD civilians. It is a multi-year effort that involves three phases. The first phase is an education and outreach campaign that includes the Healthy Base Initiative (HBI) demonstration. At the end of HBI, the DOD plans to publish a report outlining the initiative, findings, lessons learned, and recommendations. The results of HBI will inform the second phase of OLW and will be used to develop a long-term strategy and future policy. My understanding is that the DOD also plans to share findings with other interested stakeholders, e.g. sister Federal agencies and State/local governments. Phase three of OLW involves strategy implementation across the DOD.

*Question.* Do you know how top DOD leadership is being trained and made aware of the Healthy Base Initiative?

Answer. While I cannot speak on behalf of the Department of Defense (DOD), my understanding is that DOD leadership is well aware of the Healthy Base Initiative (HBI). The HBI team has briefed leaders at all DOD levels as well as Congressional members/staff, administration officials, sister Federal agencies, academia, and the private sector. All continue to provide excellent support to HBI and have expressed great interest in the potential benefits. To further these efforts, the DOD is considering optimal ways to support knowledge sharing as we expect to proactively roll out best practices across the DOD at the conclusion of the HBI.

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QUESTION SUBMITTED BY SENATOR MARK L. PRYOR

*Question.* According to a recent report in the Washington Post, of the 2.6 million service members dispatched to fight the wars in Iraq and Afghanistan since 2001, more than half say their physical or mental health is worse than before they deployed. Many of the veterans from the wars in Iraq and Afghanistan continue to serve on active duty or as a member of the Reserve component. How is the Army tracking the growth of non-combat related injuries within the total Army, both the Active Duty and Reserve components? What is the Army doing to address this issue?

Answer. The Army employs a variety of programs and data sources to track injuries in all components, during deployment and in garrison. The Army Institute of Public Health's Injury Prevention Program conducts a full array of core injury epidemiology to monitor injury surveillance data; provide field investigation capabilities; develop injury prevention policies and programs; evaluate existing injury prevention policies and programs; and disseminate scientific injury prevention information. The Army Combat Readiness/Safety Center tracks events which cause accidents, the Army Medical Command's (MEDCOM) clinical systems monitor and track the care of injured Soldiers, and medical informatics agencies within the MEDCOM's Plans, Analysis and Evaluations office, develop and monitor utilization and outcome data for injured Soldiers.

Data sources for tracking injured Soldiers, both combat- and noncombat-related, include the Defense Casualty Information Processing System for deaths and wounded in action, the Integrated Disability Evaluation System for physical disabilities, the Defense Medical Surveillance System maintained by the Armed Forces Health Surveillance System for hospitalizations and outpatient visits, and many others.

Army actions to reduce non-combat injuries include: modifications of physical training programs in basic combat training which reduced injury rates by 30 percent; enforcing use of seatbelts in tactical vehicles (Soldiers involved in High Mobility Multipurpose Wheeled Vehicle (HMMWV) crashes who do not wear seat belts are 6 times more likely to die than those who use the restraints); transitioning to the new T-11 parachute, which reduces jump-related injury rates by over 40 percent compared to the older T-10 parachute; and developing training and education to prevent falls, promote motorcycle safety, and improve physical training.

## QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

*Question.* General Horoho, in your testimony you talk about the need to preserve critical capabilities over the years between the current and next war. Would you share with the committee what you believe to be the most critical capabilities and how the Army plans to invest resources to preserve or expand those capabilities?

*Answer.* After more than a decade caring for Soldiers severely injured from battlefield wounds and investing in combat casualty care research, Army Medicine, in close collaboration with the other services, boasts the lowest case fatality rate in the history of war. We must ensure that our military treatment facilities remain our readiness platforms and continue to advance military research to prepare for future challenges during the interwar years.

Our Nation has never had a more skilled, combat-proven military medical force. Maintaining a robust direct care delivery system is a cornerstone to maintaining our healthcare providers' medical skills to ensure they are ready to deploy to the next conflict to provide critical life-saving care to our deployed Service members.

Our Graduate Medical Education (GME) programs are essential for attracting and educating the next generation of medical providers. Currently we have 148 programs located across 10 Military Treatment Facilities (MTFs) with 1,465 students. Our training programs receive high praise from accredited bodies, and our trainees routinely win military-wide and national level awards for research and academics. Our GME graduates continue to exceed the national average pass-rate of 87 percent for specialty board certification exams, with a consistent pass rate of approximately 92 percent for the last 10 years.

Maintaining those combat medical skill sets in the absence of combat deployments will require sustained investment in trauma systems and trauma research. To that end, we have created a Tactical Medical Training Strategy including establishing the Center for Pre-hospital Medicine and maintaining the Army Trauma Training Center in Miami. We will continue to incorporate the hard-won lessons of tactical combat casualty care into all our training programs.

The Joint Trauma System (JTS) and Department of Defense Trauma Registry enabled the Army Medical Department and our sister services to analyze combat casualty care data and conduct real time continuous process improvement. This system is now an enduring capability housed at the Battlefield Health and Trauma Research Institute in San Antonio. Efforts are currently underway to make injury and trauma management data from the Department of Defense (DOD) Trauma Registry available to our Department of Veterans Affairs (VA) partners who are performing important long-term outcomes studies in the areas of severe extremity and traumatic brain injury. We will continue to support the JTS so that our combat casualty care systems are prepared to begin the next conflict at the same performance level we ended the last ones and we are ready to learn new lessons that will emerge from the next conflict.

The research capabilities of the U.S. Army Medical Research and Materiel Command (USAMRMC) have produced remarkable improvements in the treatment and rehabilitation of combat-injured patients as well as in the fitness and resiliency of our Soldiers. Sustained medical and trauma research funding for USAMRMC, its subordinate laboratories, as well as military-directed research at civilian and university laboratories, will be paramount to translate the large amount of basic and pre-clinical research into clinical practice. This sustained commitment to research funding will ensure we advance the science of military medicine to care for our Soldiers and many others, including those in the civilian sector, who benefit from military research discoveries in trauma, infectious disease, operational medicine, human performance optimization, and health in general.

*Question.* General Horoho, Historically the Military Treatment Facilities take risk in their facilities sustainment, renovation and modernization budgets when money is short. What has been the impact to the Military Treatment Facility budgets during sequestration, and how does this impact the quality and access to care today and for the future?

*Answer.* Properly maintaining and modernizing our Military Treatment Facilities is a critical element of providing a safe, reliable and modern environment of care for our beneficiaries. To date, all sequestration driven cuts to Sustainment, Restoration and Modernization programs were restored before they resulted in enduring negative impacts to quality and access to care.

*Question.* General Horoho, Traumatic Brain Injury is a major concern for this subcommittee, and I believe that we should continue to pay very close attention to prevention as well as treatment. I am aware of research efforts to advance protection systems for our men and women in uniform, including cushioning systems in helmets that are already being used by the National Football League to prevent head

injuries. How do treatment costs associated with traumatic brain injury compare with prevention costs associated with the development and fielding of personal protective equipment? Can you please also describe how the Brain Health Consortium assists with these types of efforts, and if this falls within their core objectives?

Answer. The Army does not have information on cost comparison analyses of current Traumatic Brain Injury (TBI) treatment costs compared to the costs of development and fielding of personal protection equipment (PPE). The Army is committed to investigating, developing, procuring, and deploying the most effective PPE. The U.S. Army Medical Research and Materiel Command provides the medical parameters that assist the developers of PPE in fielding improved PPE systems to prevent and mitigate brain injury.

Science not only helps inform decisions about the level of protection needed during a potentially concussive event but it also guides the most efficacious concussion treatment given the severity of the injury. From a treatment standpoint, the highest level of scientific evidence supports education, rest, and the positive expectation of recovery as cornerstones of first line treatment for mild TBI, also known as concussion. In Afghanistan, the Army implemented a comprehensive concussion policy designed to medically evaluate Soldiers as quickly as possible after an injury and established Concussion Care Centers dedicated to providing the highest level of treatment for these injuries allowing 98 percent of concussed Soldiers to return to duty.

The Brain Health Consortium, which occurred on 10–11 April 2014, brought together military, academia and researchers in Neurology, Neuroscience, Psychiatry, and Psychology for challenging discussions on how to improve Brain Health for Soldiers and the Army Family. The Brain Health Consortium focused on attaining and sustaining optimum health, performance and well-being. A specific question posed related to how sleep, activity and nutrition affect the brain and, by extension, cognition and complex decisionmaking. The focus of the consortium was primarily pre-injury and although optimizing brain health prior to an injury may improve TBI recovery and outcomes; currently there is no evidence to definitively support this correlation.

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QUESTIONS SUBMITTED TO VICE ADMIRAL MATTHEW L. NATHAN

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

*Question.* What is the Navy doing to fill the gap in behavioral health specialists and ensure the mental health needs of our service members are met?

Answer. We are continuously working to ensure that the mental health needs of our service members are met by facilitating access to these providers (by integrating them into operational units and primary care settings), and by reducing stigma.

In addition, mental health specialist staffing continues to improve as Navy Medicine places particular emphasis on growing mental health specialists. Since 2009, funded positions for active duty and GS civilian (excluding contractors) have increased by 59 percent (497 to 750), while inventory (excluding contractors) in mental health specialties has increased by 40 percent (415 to 580) to meet new demand. Navy medicine is rapidly closing the gap for mental health specialty inventory to requirements through aggressive increases in active duty student pipelines to meet requirements, and anticipates continued staffing improvement. Our current mental health manning is Clinical Psychologist: 87 percent, Social Worker: 83 percent, Psychiatrist: 88 percent, and Mental Health Nurse Practitioner: 125 percent.

*Question.* The structure of the proposed TRICARE pharmacy co-pays strongly incentivizes members to fill their prescriptions at pharmacies within military treatment facilities. Yet we continue to hear concerns about the current wait times at numerous pharmacies. What steps are being taken to alleviate wait times, and will current facilities be able to process an increase in prescriptions?

Answer. Navy Medicine continues to seek a balance between cost effective and efficient use of resources, pharmacy access (of which wait time is a factor), and patient safety. To this end, Navy Medicine is nearly complete with a replacement of outpatient pharmacy automation at over 25 of the larger Military Treatment Facility (MTF) locations. This project was in the planning phase from 2010 to 2012, and the implementation phase started in 2013. Replacement of outpatient pharmacy automation, which is over 10 years old and at the end of its useful life, is expected to improve efficiency of pharmacy processes, and support improved patient access (i.e. reduced waiting time) while supporting increased prescription volume.

*Question.* Can you please give us an update on the operations of the Defense Health Agency over the past 6 months? What advantages and challenges have you seen in implementing this new system?

Answer. Since establishment of the Defense Health Agency (DHA) on October 1, 2013, Navy Medicine continues to fully support implementation of Military Health System (MHS) governance reform initiatives. The MHS continues to move towards full operating capability (FOC) with facilities planning, medical logistics, health information technology (HIT), health plan, pharmacy, contracting, budget and resource management, and research, development, and acquisition shared service initiatives. Also, we continue our collective effort towards initial operating capability (IOC) for public health and medical education and training shared service initiatives. We continue to provide proactive and responsive leadership, embrace reforms, and minimize to the furthest extent possible potential negative impact on our operational capabilities.

In addition to establishment of the DHA and targeted shared service initiatives, Navy Medicine advocates improving business planning and execution at the six enhanced Multi-Service Markets (eMSMs). We are proactively addressing the potential risk to the Services and the DHA if recapture targets associated with the shift of healthcare from the private sector network to Military Treatment Facilities (MTFs) are not met.

The most significant advantage of implementing the new system is the DHA has begun to assume responsibility for shared services and other common clinical and business processes. This represents a unique opportunity to achieve higher levels of quality improvement, address healthcare delivery across the continuum of care, minimize practice variation, and more efficiently use capital and technology resources while providing essential support to the Services in carrying out their missions. Several challenges exist; however, with the new system including alignment of effort of the MHS Components, implementation of sound business processes to support the new agency, and an implementation timeline that may be too aggressive to mitigate unforeseen second and third order effects on delivery of care to our war fighters and their families. The changes related the implementation of the DHA must be balanced against DoN operational medical support requirements and made in consideration of the dynamic national healthcare market, external fiscal reductions and DOD priorities.

*Question.* As the customer for the end product, what input are you giving as DOD prepares its RFP for DHMSM? What progress have you seen to date, and what challenges do you see?

Answer. As one of the customers for the modernized EHR, the Navy has indeed had representatives involved in writing the requirements for the DHMSM RFP. Additionally, medical personnel across the Navy have been afforded the opportunity to review and comment on the first draft RFPs that have been released to date.

To date, the DHMSM RFP process is on schedule to meet Congressionally mandated timelines as outlined in the NDAA 2014. Capturing the Military unique requirements continues to be our priority.

*Question.* The Committee has been very pleased with the retention rate for USUHS graduates (medicine, nursing, psychology), which far exceeds that of those trained in civilian health science programs. However, the Committee understands that non-physician USUHS students also need clinical training experience, which can be achieved at military treatment facilities. Please provide a report on the number of non-physician USUHS students who have received placements at military treatment facilities and the feasibility of increasing these opportunities, including cross-Service placements (e.g. Navy student placed in an Army MTF).

Answer. Medical Service Corps: 100 percent of Navy graduates of the USUHS clinical psychology doctoral program receive follow-on training at Military Treatment Facilities (MTF). Medical Service Corps USUHS clinical psychology students are required to complete the pre-doctoral internship at Navy Medical Center Portsmouth. This internship has received the highest level of accreditation from the American Psychological Association and provides excellent training on the full spectrum of military psychology topics. Upon completion of this internship, 100 percent of these students receive orders to another MTF where they are guaranteed the postdoctoral supervision hours that are required for licensure.

Nurse Corps: The Nurse Corps currently has 43 Certified Registered Nurse Anesthetist, Doctor of Nursing practice (DNP) and PhD students in the program, including the overlap of incoming students and graduating students in June 2014. The average number of students is 33 among the three curriculums. The average matriculation and graduation rate will be 12 for each curriculum per year. All students receive clinical and didactic training at MTFs.

The Family Nurse Practitioner program, established in fiscal year 2014, currently has 11 students. Navy Nurse Corps will access an average of 5 and graduate 5 each year. All receive clinical and didactic training at MTF's.

The Psychiatric Nurse Practitioner Doctoral program, established in fiscal year 2014, has one student who will receive clinical training at an MTF.

For all programs, students will receive supplementary training in civilian settings when the patient acuity is not present in the MTF setting i.e. anesthesia training for cardiac by-pass surgery.

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QUESTION SUBMITTED BY SENATOR TOM HARKIN

*Question.* Currently Walter Reed National Military Medical Center is conducting a 2,000 soldier study of a tool to predict medication response. This tool—PEER—compares a large database of drug outcomes with a test we already have, EEG, to reduce trial and error prescribing. It also builds evidence in an area where we need more.

The fiscal year 2014 Omnibus Appropriations bill said that we would be updated in early 2014 on the interim results of this trial. When can we expect this update?

*Answer.* As this study is under the cognizance of the Walter Reed National Military Medical Center and not Navy Medicine, I will defer to the Director, Defense Health Agency (DHA) and the Director, National Capital Region Medical Directorate to provide you the current status of the requested update.

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QUESTIONS SUBMITTED BY SENATOR BARBARA A. MIKULSKI

*Question.* DOD TRICARE does not currently cover obesity drugs. Are any of the Surgeon Generals aware of a statutory prohibition on the coverage of such medicines? Assuming there is no statutory prohibition in TRICARE for the coverage of obesity drugs, then is it the Surgeon Generals understanding that such coverage is permissible?

*Answer.* According to Defense Health Agency (DHA), drugs for obesity and weight loss are excluded from the TRICARE Basic Program benefit in 32 CFR § 199.4(e)(15)(iii). The regulations states, “CHAMPUS payment may not be extended for weight control services, weight control/loss programs, dietary regimens and supplements, appetite suppressants and other medications; food or food supplements, exercise and exercise programs, or other programs and equipment that are primarily intended to control weight or for the purpose of weight reduction, regardless of the existence of co-morbid conditions.”

The pharmacy benefit is one of the shared services and is under the coordination and guidance of the DHA Pharmacy Operations Division effective 01 Oct 2014. Guidance to the Services from DHA indicates prescribing and dispensing of drugs for obesity is disallowed.

*Question.* What are each of the Surgeon Generals doing to address the issue of obese and overweight DOD dependents in their Services? In addition, what is being done with regard to obese or overweight active duty personnel? Please include information about medical treatment plans and options.

*Answer.* For the active duty, per OPNAVINST 6110.1J, Navy Medicine provides management and oversight ShipShape Weight Management Program and Navy Medicine Commands support bi-annual weight and measurements to assess maintenance of the minimal requirements set forth for accession and retention standards of height-weight and/or body fat for Navy service members.

Navy Installations Command (CNIC) is responsible for providing fitness staff and facilities for physical fitness training at each installation and ensuring Command Fitness Leader (CFL) instructors and morale, welfare, and recreation (MWR) fitness staff comply with current policies when assisting with command physical training (PT), Fitness Enhancement Program (FEP), and Physical Fitness Assessment (PFA). The FEP is the Navy’s physical training remediation program.

The Navy and Marine Corps Public Health Center (NMCPHC) is designated as the program manager for ShipShape, the official Bureau of Medicine and Surgery (BUMED) weight management program. ShipShape is based on current evidence for healthy weight management from reviews of the literature and recommendations from professional organizations and has resulted in excellent weight loss outcomes for many participants. ShipShape supports the 21st Century Sailor and Marine Initiative for readiness and continuum of service by promoting permanent lifestyle improvements for nutrition, physical fitness, and psychological fitness.

For both active duty and other beneficiaries, at the Primary Care level, height and weight is a standard assessment. Population Health/HEDIS monitors metrics and set goals for the standard of care. The provider may refer the patient to Nutrition and Weight Management Classes or the Nutrition Clinic for group or individual

appointments with the Registered Dietitian. Active Duty Service members may also self-refer to the Nutrition Clinic for weight control.

*Question.* In order to have the best health system in world, we must look at most effective healthcare in world—which oftentimes is a combination of western & eastern medicine. How do your branches look to—or work with—the civilian community to create comprehensive approaches to healthcare management that combines best of all available treatment options?

*Answer.* Navy Medicine treatment modalities are driven by evidenced-based guidelines which are often times created based on scientifically investigated best practices utilized in the civilian community. Such evidenced-based medicine is practiced at each Military Treatment Facility (MTF). Evidence-informed modalities are practiced at various MTFs throughout Navy Medicine in collaboration with civilian research organizations such as the Samueli Institute and numerous universities detailed in the April 2012 Complementary and Alternative Medicine within the Military Health System Report to Congress.

The Navy's Comprehensive Pain Management Program sponsors the training of 30 providers per year to attend The Helms Institute Whole Body Acupuncture training and well over 50 Health Care professionals attended the Annual Pain Care Skills Training held in September, 2013, at Naval Medical Center Portsmouth, VA.

The Navy also participates in the National Capital Region Pain Initiative and the Wounded Warrior Pain Care Initiative hosted training with the global objective of providing pain skills education for PCMs, Family Practice Physicians, Pain Specialists, PAs, Nurses, Corpsmen, Pharmacists, Case Managers and other clinicians. The emphasis is on a multimodal approach that covered a variety of techniques and treatments that military healthcare is dedicated to embedding into all MTFs in order to decrease the likelihood of opioid dependence for chronic pain issues and increase the overall functionality of patients. This year's training included over 250 attendees from the Tri-Services and Veterans Administration. The skills covered included: The advanced acute pain course, auricular/battlefield acupuncture, behavioral health skills for pain, chronic pain ultrasound course, orthopedic medicine therapeutics), massage therapy, mind body medicine, pain pharmacology and trigger point injections, and science and technology.

*Question.* Last year at Camp Pendleton (on one of the furlough days), President Obama said that commissaries are an important benefit of military life. He also said closing commissary stores, "Is not how a great nation should be treating its military and military families." I agree with the President. Do you—the Surgeon General—support the DOD's proposal to cut the Commissary budget? What will the impact of these cuts have on a military family budget and on military family health?

*Answer.* I support the Department of Defense compensation reform proposals contained in the President's fiscal year 2015 budget; however we recognize that commissaries are important to our service members and their families, particularly overseas. The Joint Chiefs of Staff have indicated that failure to approve these proposals will impact readiness, modernization and force structure. According to DOD, the commissary proposal will phase out the subsidy for CONUS locations over time provided to the Defense Commissary Agency; there are no plans to close commissaries.

*Question.* Would each Surgeon General please provide information on your Service's policy and practice for the availability of integrative medicine treatments to service member & retiree families?

*Answer.* Integrative medicine is focused on a personal relationship with one's provider that emphasizes focus on mind, body and soul— not just treating illness. Within our Medical Home Port (MHP) program, Navy Medicine has focused on this personal relationship with one's provider to maximize the therapeutic relationship, and focus on person as a whole. Our primary care continuity, a measure of whether a patient sees their personal provider when they come into clinic, is at an all-time high as of March 2014.

Integrative medicine therapies are recommended in our VA/DOD Clinical Practice Guidelines for PTSD, depression, low back pain, and chronic opioid therapy. These therapies, which include acupuncture, chiropractic care, massage therapy, yoga and mind-body medicine are not covered by the TRICARE Health Plan and as such would not generally be received by our beneficiaries in the purchased care environment. In response, Navy Medicine does have programs which offer chiropractic care and acupuncture, among other therapies within our various Military Treatment Facilities. The programs however, are limited to Active Duty because of high demand and limited resources.

*Question.* Given that in calendar year 2012 only 27 percent of active duty integrative medicine visits were for therapies other than chiropractic care, what barriers

or operational issues limit your Service's expansion of other integrative medicine offerings to service members, retirees, and their families?

Answer. Complementary and alternative medicine (CAM) modalities are offered at many of our Military Treatment Facilities such as chiropractic and acupuncture that are recognized as evidence based best practices. The availability of such therapies is further constrained by the fact that CAM is provider dependent in that it is based on individual provider interest, background and specialized training which is generally not provided in conventional western medical education.

The full complement of wellness practices delivered to all Navy Medicine beneficiaries, such as yoga and massage, are often provided in collaboration with community partners such as our military installation gymnasiums and wellness centers.

The Navy's highly deployed operational forces pose a unique challenge in regards to integrative medicine. One way we are addressing this challenge is by tailoring our Patient Centered Medical Home model, coined Medical Home Port (MHP) for the operational community so that all Sailors and Marines receive the same patient-centered benefits including enhanced access and continuity between the patient and their care team. These teams integrate behavioral and psychological health providers to improve medical readiness and the provision of patient-centered and whole-person care. Six Marine-Centered Medical Home (MCMH) and three Fleet-Centered Medical Home (FCMH) demonstration sites are operational with an additional 16 MCMH sites and 15 FCMH sites being planned for future expansion.

*Question.* What are each of your Service healthcare systems doing to advance whole system health improvement, such as Total Force Fitness and the Healthy Base Initiative?

Answer. Healthy Base Initiative (HBI) is a 1 year DOD demonstration project under the Operation Live Well Campaign. The Office of Deputy Assistant Secretary of Defense (ODASD) Health Affairs and ODASD Military Community and Family Policy have the lead on HBI with support from the Office of the Assistant Secretary of the Navy Manpower and Reserve Affairs, Commander Navy Installations Command, and Headquarters Marine Corps. Four bases were selected to participate for the Navy and Marine Corps: Joint Base Pearl Harbor- Hickam, Marine Corps Air Ground Combat Center Twentynine Palms, Naval Submarine Base New London and Marine Corps Base Quantico.

In addition to support of HBI, the Navy and Marine Corps Public Health Center's Health Promotion and Wellness Department supports seven different health promotion campaigns aimed at improving health and wellness, which include key elements of the 21st Century Sailor and Marine initiative and are aligned with the National Prevention Strategy. These wellness campaigns encompass the following critical health promotion topics: healthy eating, active living, tobacco free living, psychological and emotional well-being, reproductive and sexual health, preventing drug abuse and excessive alcohol use, and injury and violence free living. Understanding the fluid nature of health and wellness, the products and resources were tailored to support Sailors, Marines, and beneficiaries across the continuum of care.

Further exemplifying the unique delivery of health promotion services is the Blue-H Navy Surgeon General's Health Promotion and Wellness Award. This award encourages and recognizes Navy and Marine Corps organizations that actively promote health and wellness. Command/organization submissions have increased each year and in total 137 percent since the Blue-H Award's formal establishment in 2008. Among the CY2011 applicants were 77 percent of all Navy Operational Support Centers (124), 8 of the Navy's 11 aircraft carriers and 12 of the USMC's 16 Semper Fit Centers. The level of participation and diversity of participating commands highlights the relevant nature of the program, facilitating readiness, resilience, and recovery.

Additionally, the "Crews Into Shape Challenge", held each March to coincide with National Nutrition Month®, is a highly popular program to guide workplace-focused, team-oriented, physical activity and improved fruit and vegetable intake for all DOD members. This program was based upon the Center for Disease Control's (CDC) workplace health model of assessment, planning, implementation and evaluation for large scale organizations.

*Question.* The Army is the only Service offering meditation, yoga, massage, cognitive behavioral therapy, biofeedback, breath based practices, and naturopathic medicine. I'd like the Air Force & Navy Surgeons to provide information on why their Services do not offer those other therapies?

Answer. Complementary and alternative medicine (CAM) modalities are provided throughout Navy Medicine Military Treatment Facilities (MTF). Specifically acupuncture is provided in many of our MTF's as an avenue to treat chronic pain, migraine headaches, back and neck pain, anxiety, depression, insomnia, auricular pain and a wide variety of other conditions. Similarly, cognitive behavioral therapy is

provided within each of our over 100 Navy Medicine Behavioral Health Specialty Care Clinics.

Other CAM therapies are provided at MTFs near large Fleet concentration areas. These include, but are not limited to, biofeedback, hypnosis, heart rate control, massage, yoga, tai chi, meditation and clinical nutrition. The CAM therapies offered throughout Navy Medicine vary as these therapies are provider dependent and based on the individual provider's interest, training and background.

In addition, Integrated Behavioral Health Consultants are embedded in nearly all primary care clinics and provide, among other treatments, mindfulness and breath-based therapies as well as self-management tools to assist with a variety of conditions and as an adjunct for pain. These services are provided to all Navy Medicine beneficiaries.

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QUESTION SUBMITTED BY SENATOR THAD COCHRAN

*Question.* Vice Admiral Nathan, Historically the Military Treatment Facilities take risk in their facilities sustainment, renovation and modernization budgets when money is short. What has been the impact to the Military Treatment Facility budgets during sequestration, and how does this impact the quality and access to care today and for the future?

*Answer.* Significant reductions have been directed to our facilities sustainment, restoration and modernization (FSRM) funding. In fiscal year 2013 FSRM was cut \$16.3M. These funds were eventually restored, but the delay in funding causes our aging infrastructure to continue to deteriorate, and makes repair/replacement more expensive later. Furthermore, the restoration of funding of special projects late in the fiscal year does not allow for or severely delays project design and acquisition (contracting) planning, which is required 18–24 months in advance of award.

There are no fiscal year 2014 sequester decrements for FSRM.

FSRM funds may be reduced by up to 50 percent because of fiscal year 2015 sequestration. This calculation does not take into effect the continued restoration and modernization needs of our aging infrastructure. While the fiscal year 2015 Restoration and Modernization (R&M) funding requirement is calculated at \$166 million we expect to receive \$84.4M. Any curtailment will limit BUMED's ability to meet maintenance requirements and could cause difficulty in maintaining the Joint Commission accreditation standards.

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QUESTION SUBMITTED BY SENATOR DANIEL COATS

*Question.* What plans do you have to develop a world class website for the Medical Historian's Office that showcases Navy Medicine's proud history & heritage? Do you feel that the present page for the office encourages people to visit the office to conduct research or submit inquiries?

*Answer.* Navy Medicine's Medical Historian webpage currently offers users a showcase of weekly historical photographs, monthly oral history transcripts, historical publications, a link to BUMED's digital archive (hosted on the Medical Heritage Library), and a history of the Navy Medical Department from the "days of sail to the present."

In the coming months the site will be host to an original monograph commemorating Navy Medicine's role in World War I, a "This Month in Navy Medicine History" feature, and our oral history transcript collection. Goals for the site include a "Frequently Asked Historical Questions" section, a finding aid to our collections, a Medal of Honor page, virtual and interactive exhibits, as well as a more robust photo gallery broken down by theme.

Navy Medicine is committed to preserving its heritage and making information available on platforms used by future generations.

*Question.* What partnership opportunities does the Office of the Medical Historian plan to pursue in fiscal year 2015 with the Naval History & Heritage Command?

*Answer.* The Navy Medicine Historian has been actively interfacing with our colleagues at the Naval History & Heritage Command (NHHC) as well as other Federal agencies to explore collaborative efforts in fiscal year 2015 and beyond. Upcoming partnerships include a Continuing Promise Art Exhibit at Naval Medical Center Portsmouth, VA, developing standard operating procedures and a guidebook for Navy oral histories, exploring collaborative digitization efforts, and the continuing partnership on commemorative projects. These efforts will include the World War I Centennial, Vietnam War Semi-centennial, and U.S. Navy in Afghanistan. Examples of recent collaborations include the "Team of Teams: Navy in the Iraq War"

exhibit at the Naval Academy Museum, the Korean War History Panel Project at the Pentagon, and the Navy Medicine in Vietnam monograph.

*Question.* The field of U.S. Navy Medicine History is vast. Opportunities for work on unexamined or understudied aspects in U.S. Navy Medicine History are as unlimited as the historian's imagination and curiosity. What are the specific gaps you have identified in U.S. Navy Medicine History literature that you would like to see filled particularly as it relates to issues of concern to the U.S. Navy today or because they relate to things that historians think U.S. Navy Medicine should know about itself?

*Answer.* Navy Medicine has a rich history of service to our Nation and we work hard to preserve this legacy of excellence in caring for Sailors, Marines and their families. Throughout our history, Navy Medicine has been on the forefront of many ground-breaking innovations in medicine. This focus continues today as our researchers and clinicians are working around the world on some of our most challenging health issues, including infectious diseases, traumatic brain injury and battlefield injuries. We know today's hard work is necessary to meet the demands of tomorrow's challenges. Correspondingly, through insightful and informative publications from our historian, we are ensuring that the current and future generations of Navy Medicine personnel have access to the history of our history and the inspiring contributions of their predecessors.

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QUESTIONS SUBMITTED TO LIEUTENANT GENERAL THOMAS W. TRAVIS

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

*Question.* What is the Air Force doing to fill the gap in behavioral health specialists and ensure the mental health needs of our service members are met?

*Answer.* While there are no systemic gaps in meeting the mental health needs of Air Force service members, we have been working to steadily increase the number of behavioral health providers as directed by the fiscal year 2010 National Defense Authorization Act, Section 714. This effort resulted in a 25 percent increase in funded authorizations for active duty mental health specialists programmed into the Air Force bottom-line from fiscal year 2011–2016. Any current or anticipated manpower gaps are filled by contractor staff internally or patients are referred to private sector care under the TRICARE service contracts.

*Question.* The structure of the proposed TRICARE pharmacy co-pays strongly incentivizes members to fill their prescriptions at pharmacies within military treatment facilities. Yet we continue to hear concerns about the current wait times at numerous pharmacies. What steps are being taken to alleviate wait times, and will current facilities be able to process an increase in prescriptions?

*Answer.* While the vast majority of Air Force pharmacies currently have sufficient operational flexibility to handle an increase in prescriptions, we continue to monitor the workload closely and have undertaken several projects designed to help support our military treatment facilities (MTF) in both the short and longer term. First, we developed modern staffing models to more accurately allocate manpower to our pharmacies according to their workload. Additionally, we are in the process of replacing existing pharmacy automation with state-of-the-art equipment system wide. The new systems will replace older technology. The upgrade will maximize patient safety and reduce wait times as a result of work-flow optimization and improved production efficiency. MTF pharmacies may also electronically transfer prescriptions to home delivery (mail order) to eliminate wait times if desired by our beneficiaries. Plans are in-place to provide timely staffing augmentation to MTF pharmacies that see a significant increase in workload.

*Question.* Can you please give us an update on the operations of the Defense Health Agency over the past 6 months? What advantages and challenges have you seen in implementing this new system?

*Answer.* Seven shared services have now reached initial operational capability within the Defense Health Agency including TRICARE health plans, pharmacy, budget and resource management, medical logistics, facility planning, contracting, and health information technology. Although minor challenges have understandably been encountered during the transition to greater standardization, the true advantage of our new system has been the reformation of Military Health Service governance, which provides a structure for the Services to work collaboratively with OUSD Health Affairs and the Defense Health Agency to address differences in approach as they arise. We continue to move forward as a team toward a more integrated healthcare delivery system.

*Question.* As the customer for the end product, what input are you giving as DOD prepares its RFP for DHMSM? What progress have you seen to date, and what challenges do you see?

*Answer.* The Services created a “Council of Colonels”, called the Functional Advisory Council (FAC), made up of voting representatives of each Service’s Chief Medical Information Officer and a representative from the operational medicine community. The FAC serves as a liaison between the Defense Healthcare Medical System Modernization (DHMSM) program office, the clinical functional, and technical communities. The FAC leads activities associated with planning, designing, requirement elicitation, and coordination of communication between DHMSM and the rest of the Military Health System. With the FAC leading the requirements process and with the Defense Health Agencies’ support, we are exceptionally pleased by the progress of the acquisition and the collaborative environment. Because of this collaboration and leadership support I am confident that the Air Force needs are well represented. There are two primary challenges we still face; one technical in having a secure and stable network for DHMSM and the other in taking full advantage of the new system through initiating business process reengineering/change management.

*Question.* The Committee has been very pleased with the retention rate for USUHS graduates (medicine, nursing, psychology), which far exceeds that of those trained in civilian health science programs. However, the Committee understands that non-physician USUHS students also need clinical training experience, which can be achieved at military treatment facilities. Please provide a report on the number of non-physician USUHS students who have received placements at military treatment facilities and the feasibility of increasing these opportunities, including cross-Service placements (e.g. Navy student placed in an Army MTF).

*Answer.* Graduate nurses average 70 students per year with 56 clinical sites; 36 of which are military treatment facilities (MTF). The remainder of the clinical sites are located at Department of Veterans Affairs and civilian locations. Non-physician clinical psychology students average 8–9 per year with 29 practicum placement sites; 9 of which are at MTFs. All of these clinical sites include cross-Service placements and, the Services continually pursue additional placements as needed.

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QUESTIONS SUBMITTED BY SENATOR BARBARA A. MIKULSKI

*Question.* DOD TRICARE does not currently cover obesity drugs. Are any of the Surgeon Generals aware of a statutory prohibition on the coverage of such medicines? Assuming there is no statutory prohibition in TRICARE for the coverage of obesity drugs, then is it the Surgeon Generals understanding that such coverage is permissible?

*Answer.* Drugs for obesity and weight loss are excluded from the TRICARE pharmacy benefit. The statutory prohibition (32 CFR § 199.4 15 (iii)) states, “CHAMPUS payment may not be extended for weight control services, weight control/loss programs, dietary regimens and supplements, appetite suppressants and other medications; food or food supplements, exercise and exercise programs, or other programs and equipment that are primarily intended to control weight or for the purpose of weight reduction, regardless of the existence of co-morbid conditions.”

*Question.* What are each of the Surgeon Generals doing to address the issue of obese and overweight DOD dependents in their Services? In addition, what is being done with regard to obese or overweight active duty personnel? Please include information about medical treatment plans and options.

*Answer.* The Air Force is implementing the 2014 Department of Veterans Affairs/Department of Defense Clinical Practice Guideline “Screening and Management of Overweight and Obesity” in our Military Treatment Facilities (MTFs). In addition, we are implementing a pilot program called “Healthcare to Health” at six MTFs. Initiatives in this program include: Group Lifestyle Balance, an evidence based diabetes prevention and weight management intervention; and “5–2–1–0”, a childhood obesity intervention to encourage children to eat at least five servings of fruits and vegetables, watch less than two hours of screen time, get at least one hour of physical activity, and consume no sugar-sweetened beverages. For Airmen who fail body composition assessment standards and others interested in losing weight, we offer “Better Body, Better Life”, a standardized weight management program. We are also promoting policy and environmental changes throughout installations to facilitate healthy eating and physical activity, including nutritional environmental assessments and “Go For Green”—a point-of-decision stoplight tool to inform Airmen of healthy food options in military dining facilities.

*Question.* In order to have the best health system in world, we must look at most effective healthcare in world—which oftentimes is a combination of western & eastern medicine. How do your branches look to—or work with—the civilian community to create comprehensive approaches to healthcare management that combines best of all available treatment options?

*Answer.* The Air Force Acupuncture Center at Joint Base Andrews, Maryland, has reached out to the civilian physician community practicing various forms of Western and Eastern alternative medicine through the Maryland Acupuncture Society and the Greater Washington, DC Area Society of Integrative Medicine (GWDCSIM). GWDCSIM has held lectures given by civilian clinicians from the University of Maryland's Department of Alternative Medicine and as far away as Sydney, Australia via live the Internet.

*Question.* Last year at Camp Pendleton (on one of the furlough days), President Obama said that commissaries are an important benefit of military life. He also said closing commissary stores, "Is not how a great nation should be treating its military and military families." I agree with the President. Do you—the Surgeon Generals—support the DOD's proposal to cut the Commissary budget? What will the impact of these cuts have on a military family budget and on military family health?

*Answer.* The Surgeon General has no opinion on commissary usage as this is outside his area of functional expertise.

*Question.* Would each Surgeon General please provide information on your Service's policy and practice for the availability of integrative medicine treatments to service member & retiree families?

*Answer.* Currently, chiropractic medicine is the only integrative medicine therapy offered by the Air Force to our active duty population. At this time, services such as massage therapy, yoga, and naturopathic medicine are not covered by TRICARE to be purchased out of the network.

*Question.* Given that in calendar year 2012 only 27 percent of active duty integrative medicine visits were for therapies other than chiropractic care, what barriers or operational issues limit your Service's expansion of other integrative medicine offerings to service members, retirees, and their families?

*Answer.* The simple answer is funding. The Air Force does not have an integrative medicine product line. Currently, we are collaborating with the other Services and the Department of Veterans Affairs through a joint funded program to teach providers battlefield acupuncture, a specific form of medical acupuncture for chronic pain. This program trains providers and physician extenders to use battlefield acupuncture for chronic pain treatment in non-specialist settings such as primary care. This is a far cry from bridging the gap between integrative medicine versus traditional pain management, but it is a start. With additional funding, the Air Force may be able to bolster its pain management program to meet the same treatment levels as the U.S. Army's Interventional Pain Management Center. This is a goal of the Tri-service Pain Management Workgroup.

*Question.* What are each of your Service healthcare systems doing to advance whole system health improvement, such as Total Force Fitness and the Healthy Base Initiative?

*Answer.* The Air Force has adopted Comprehensive Airman Fitness (CAF), a holistic model of fitness including physical, mental, social, and spiritual domains. CAF recognizes that health and fitness go beyond clinical care provided in military treatment facilities. Communications, programs, and services are aligned with CAF. Each Air Force installation has a community action information board (CAIB), which is a cross-functional senior-level committee that facilitates assessing community health, and enacting programs and services that improve health, fitness, and resilience. Healthcare staff has representation at both the CAIB and its working group, the integrated delivery system. The Air Force Medical Service, through its health promotion program, seeks to create a "culture of health" across the base community through influencing policies, environment, culture and social norms that influence health behaviors. Examples of recent activities have included expanding tobacco-free environments, promoting healthy food options on base, and promoting physical activity. The Healthy Base Initiative pilot program is testing innovative initiatives to make healthy living the default choice and social norm.

*Question.* The Army is the only Service offering meditation, yoga, massage, cognitive behavioral therapy, biofeedback, breath based practices, and naturopathic medicine. I'd like the Air Force & Navy Surgeons to provide information on why their Services do not offer those other therapies?

*Answer.* The three Services recently approved the military health system (MHS) pain management working group charter. Its purpose is to standardize pain management across the MHS including the interventional pain management centers (IPMCs). Currently, the three Air Force IPMCs at Joint Base Elmendorf-Fort Rich-

ardson, Alaska; Eglin Air Force Base, Florida; and RAF Lakenheath, UK have contract personnel utilizing the congressional funding appropriated to the Services for pain intervention. Additional Air Force funding may be used to start up the two additional Air Force IPMCs or add more services such as those available at the Army IPMCs. The Army has the lead on the IPMCs, and therefore, the largest budget. This has allowed them to set up some of the services we do not offer.

The Air Force IPMCs serve a specific role in the treatment of pain. We collaborate with physical therapy, occupational therapy, chiropractic therapy, behavioral health, pharmacy, neurosurgery, etc. to provide an interdisciplinary approach. The MHS pain management working group will be the key to success as we strive to ensure the best pain management interventions are available to our patients.

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QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

*Question.* General Travis, would you describe for the committee efforts to advance digital pathology practices in the Air Force Medical Service and discuss the importance of having a robust digital pathology network?

*Answer.* The goal for the Air Force Medical Service (AFMS) is to eliminate the use of pathology slides, ultimately converting to virtual slides. Virtual slides and staining will allow pathologists to review specimens on high resolution monitors at their workstations. Universal access to digital slides will eliminate specimen shipments and enable recapture of pathology workload currently being referred out-of-network. The AFMS estimates a \$1.8 million return on investment per year.

A robust digital pathology network would minimize turnaround times. Use of digital pathology in the civilian sector has reduced 68 percent of pathology consultations to 7 days or less. If implemented, turnaround times for emergency consultation could be less than 24 hours. Eventually all 52 military treatment facilities without pathologists can be supported by digital pathology through the established pathology hubs, eliminating shipment times and minimizing turnaround.

*Question.* General Travis, with the drawdown in operations in Afghanistan, what efforts are being made to ensure your medical personnel and units like the 172nd out of Jackson, Mississippi are able to maintain their proficiency and knowledge gained after more than a decade of war?

*Answer.* Aeromedical evacuation (AE) forces require a mix of operational and clinical training to ensure AE crew members stay current and qualified to perform the AE mission. These training events can be accomplished through multiple methods such as Aeromedical Readiness Missions (flying training missions) or static training missions (training missions conducted on a static aircraft or fuselage trainer). Results from a recent survey demonstrate that the majority of Air National Guard and Air Force Reserve units are able to maintain their clinical skills proficiency as a by-product of positions with civilian employers. Active Duty AE units will need to shift their focus to clinical training at local military hospitals or use Training Affiliation Agreements for training at civilian hospitals to maintain clinical skills. AE crews use simulated patients both on the ground and in the air to maintain proficiency. To supplement hands-on care at local hospitals, the Air Force Medical Service has recently approved funding to expand its clinical simulation program by upgrading simulation equipment with plans to fund simulator operators and one curriculum specialist to oversee the simulation program across the four active duty AE squadrons. The Air Force continues to optimize currency platforms at our military treatment facilities while expanding training opportunities through civilian collaborations as well as through advancements in technology. We currently have over 500 training affiliation agreements to offer a variety of clinical and formal training opportunities. One of our new programs is called Sustained Medical and Readiness Training (SMART); a tiered, hands-on, standardized curriculum offered through organic training opportunities and civilian partnering hospitals. Significant advancements in modeling and simulation also now offer amazing virtual reality scenarios, mimicking real-life to hone and advance clinical skills.

*Question.* General Travis, Historically the Military Treatment Facilities take risk in their facilities sustainment, renovation and modernization budgets when money is short. What has been the impact to the Military Treatment Facility budgets during sequestration, and how does this impact the quality and access to care today and for the future?

*Answer.* The fiscal uncertainty and sharp reductions resulting from sequestration proved disruptive to our planning process and execution in fiscal year 2013. However, the relief provided by the Bipartisan Budget Agreement greatly benefited our facility sustainment, restoration and modernization portfolios. The Air Force Medical Service would greatly benefit from similar reinstatement actions in fiscal year

2016 sustained across the future years defense program. Continued projected reductions to research and development programs could both delay critical advancements in military medicine that allow us to provide cutting-edge care on the battlefield and impede our ability to provide state-of-the-art care to our members and families.

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QUESTIONS SUBMITTED BY SENATOR DANIEL COATS

*Question.* What plans are in place to establish a mentor program for Air Force spouses to learn more about being caregiver for loved ones with PTSD? Is it funded across the FYDP? If not, how much would be needed to create a world class training program?

*Answer.* The Air Force is building programs in concert with the Office of the Secretary of Defense and our sister services to provide mentorship and support for caregivers of our wounded, ill and injured including those with post traumatic stress disorder (PTSD). While military family life consultants and installation Airman and Family Readiness Centers provide information to caretakers, educational needs are largely provided through other resources. The most appropriate resource is the patient's mental health provider. Every client is engaged in their treatment planning and with the patient's permission; the caretaker can be included in therapy or educational sessions. The Air Force promotes conjoint cognitive processing therapy, an evidence based treatment, which directly involves the spouse in treatment sessions. Medical case managers also assist with educational resources. Online resources are available at sites such as <http://afterdeployment.t2.health.mil/>.

Given the low frequency of PTSD (0.8 percent) in the active duty Air Force, more time and research are required to determine funding requirements. Pursuit of a single Department of Defense-wide program may be more tenable.

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QUESTIONS SUBMITTED TO CHRISTOPHER MILLER

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

*Question.* Why do you think the revised strategy is better than the original plan for both Departments to use a single, joint system?

*Answer.* DOD and VA face different electronic health record (EHR) deployment landscapes, operating environments, and military health requirements. VA treats an older population while DOD primarily cares for a younger, active duty population and their families. The principal focus of VA is on the delivery of primary and mental healthcare for veterans, while DOD maintains primary care for active duty service members, and their families, to include services such as pediatric care, or obstetric and gynecological care (accounting for 25 percent of hospital costs).

Moreover, DOD's specific patient population is highly mobile. To reach all beneficiaries, DOD's system must operate worldwide, including theater environments, aboard ships and aircraft. More than sixty percent of the healthcare provided to DOD eligible beneficiaries occurs in the private sector and outside of the DOD or VA EHR systems. For our clinicians to make the best possible decision, it is essential that we ensure interoperability between DOD, VA, and the private sector. DOD's goal is to provide access to the needed health data regardless of where the care is provided or system being used.

The Defense Healthcare Management Systems Modernization (DHMSM) program will deliver a modernized electronic health record (EHR) system to unify and increase accessibility of integrated, evidenced-based healthcare delivery and decision-making. When implemented, it will fundamentally and positively impact the health outcomes of active duty military, veterans, and beneficiaries by modernizing the software supporting DOD clinicians and integration of health data with the VA and private healthcare providers.

The original plan to acquire and build a single integrated electronic health record (iEHR) system for both DOD and VA called for a "Best of Breed" approach, a fully-customized solution delivering all required capabilities through multiple contracts and applications. It became apparent that this approach involved substantial risks in implementation due to the amount of integration required across applications and facilities and the need for ongoing software development. These risks would inevitably impact both schedule and cost over the course of the program.

In February 2013, VA determined that the best course of action with respect to its EHR system and VA patient data was to evolve its current legacy system, the Veterans Health Information Systems and Technology Architecture (VistA) system. As a result of VA's decision, DOD undertook a review of its requirements and chartered an independent review to assess its own requirements and examine previous

analysis of alternatives, industry analysis of the commercial Health IT market, and DOD's current acquisition approach. The analysis identified a number of viable off-the-shelf options for DOD, to include VistA-based products. The team recommended that DOD competitively pursue a "Best of Suite" system solution for electronic healthcare records.

The DHMSM program provides substantial advantages over the previous iEHR strategy. Under this program, DOD will procure a "Best of Suite" EHR system, with minimal customization for critical, DOD unique requirements. There will be a single, multi-year contract award, which will be greater in scope but will require a less complex management effort. Acquisition of an integrated suite will allow the bundling of required capabilities, and will not interfere with the Departments' ongoing interoperability efforts. This approach will also minimize the amount of integration required, and will maximize the replacement of current DOD legacy systems. By adopting a commercial product, DOD will be able to leverage the latest commercial technologies and improve usability. Feedback from industry during DOD's draft request for proposal process and supporting industry days has validated this decision.

These and other factors will result in potential savings (BY2014) based on current rough order of magnitude (ROM) cost estimates. These estimates are being updated and refined for the release of the final RFP later this year, and will be further updated prior to the contract award in fiscal year 2015.

*Question.* Have firm cost and schedule baselines been established for this new plan?

*Answer.* Yes. DOD has finalized an initial cost position for the DHMSM EHR modernization program (reflected in the table below). These estimates are being updated and refined for the release of the final RFP later this year, and will be further updated prior to the contract award in fiscal year 2015.

DHMSM (Then Year \$M)	Fiscal year 2015	Fiscal year 2016	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2015-2019 Total
Total .....	148.9	575.0	769.7	790.9	915.9	3,200.4
RDT&E .....	91.4	499.2	373.4	-	-	964.0
Procurement .....	-	-	302.8	617.1	628.8	1,548.7
Operations and Maintenance .....	57.6	75.8	93.5	173.8	287.1	687.6



*Question.* Can you describe the advantages to DOD and VA of having an interoperable electronic health record at the successful completion of this program?

*Answer.* An interoperable electronic health record will provide an environment in which clinicians and patients from both DOD and VA are able to share current and future healthcare information, ensuring continuity of care and improved treatment for our Service members and Veterans.

For clinicians, having access to a complete and evolving EHR will enable them to provide the highest quality of care, regardless of the location. DOD's specific patient population is highly mobile. To reach all beneficiaries, DOD's system must operate worldwide, including theater environments, aboard ships and aircraft. More than sixty percent of the healthcare provided to DOD eligible beneficiaries occurs in the private sector and outside of the DOD or VA EHR systems. For our clinicians to make the best possible decisions, it is essential that we ensure interoperability between DOD, VA, and the private sector.

For patients, an interoperable EHR will allow their health information to travel with them. They will no longer have to carry a paper copy of their health records with them as they move from one location, provider and system to another, or when they leave active service. DOD and VA beneficiaries can currently access and share their own electronic medical record information through a mechanism known as Blue Button, which can be accessed via personal computer, web browser, or on mobile devices. By providing convenient, anytime, anywhere access to personal health data, Blue Button engages beneficiaries and encourages participation in their own healthcare.

The Departments have already made substantial progress toward the goal of interoperability. Currently, DOD provides VA with access to electronic records of all separating service members through the Federal Health Information Exchange (FHIE). In addition, the Departments' clinical providers have access to the Bi-Directional Health Information Exchange (BHIE), which is a secure, "read only" display of electronic health information exchanged between DOD's Military Health Systems and VA's VistA. Using BHIE, DOD and VA are currently sharing essential electronically-stored health information. Each day, more than 1.5 million data elements are exchanged between DOD and VA based on 60,000 requests from our 10.5 million authorized users with more than 5.2 million correlated records.

DOD's EHR strategy is built around interoperability, to provide seamless, integrated sharing of standardized health data among DOD, VA and private sector providers. By the end of this summer, the DOD/VA Interagency Program Office (IPO) will provide technical guidance to support further data sharing between the two Departments. By the end of fiscal year 2014, DOD and VA will expand integrated health record viewer access from 500 to 3,500 users. We continue to improve data sharing efforts, with the goal of full interoperability by December 2016.

*Question.* What lessons has DOD learned from its collaboration with VA at the Lovell Federal Health Care Center in North Chicago, and how are we capturing what we're learning?

*Answer.* The most important lesson learned from the collaboration at the Lovell Federal Health Care Center (FHCC) North Chicago is that prior to establishment of any future FHCCs, several key areas to integration must be fully addressed to ensure success. Most importantly, fully interoperable electronic health record (EHR) systems between the VA and DOD must be in place and are critical to the success of any significant healthcare collaborations between the two departments. In addition to information systems, collaboration efforts must recognize differing missions, goals, policies, procedures, and reporting requirements between DOD and DVA. DOD and VA are committed to adopting additional common standards of operations and systems and several initiatives are underway in support of this goal. DOD and VA representatives at all levels are working very closely with an independent contractor to prepare the FHCC evaluation report to Congress due October 2015, to ensure all lessons learned are chronicled and cataloged.

*Question.* Does DOD plan to continue this pilot, as it is scheduled to finish in 2015?

*Answer.* In November 2013, an approved DOD/VA Joint Incentive Fund project was used to award a contract to perform an enterprise evaluation and final report to Congress of the James A. Lovell Federal Health Care Center (FHCC). The report to Congress is due October 26, 2015. The results of the evaluation as reported in the report to Congress will drive discussions between DOD and VA whether to continue the demonstration project model at the FHCC.

*Question.* What plans does the Department have to replicate and expand this model to other parts of DOD and VA?

*Answer.* In November 2013, an approved DOD/VA Joint Incentive Fund project was used to award a contract to perform an enterprise evaluation and final report

to Congress of the James A. Lovell Federal Health Care Center (FHCC). The report to Congress is due October 26, 2015. The results of the evaluation as reported in the report to Congress will drive discussions between DOD and VA whether to continue the demonstration project model at the FHCC.

QUESTIONS SUBMITTED BY SENATOR LISA MURKOWSKI

MENTAL HEALTH COUNSELORS IN TRICARE

*Question.* I realize that Mr. Miller may not be the ideal person to address this issue, but am directing this question to him as the senior DOD official representing TRICARE equities at this hearing. I am concerned with TRICARE's interim final rule which will have the effect of de-credentialing all of the State-licensed mental health counselors from seeing TRICARE patients at the end of this year. There isn't a CACREP-accredited counseling program in Alaska and it seems inequitable to tell counselors who have been successfully performing in TRICARE that they are no longer qualified to practice. This problem is compounded by the fact that we have a shortage of mental health providers in Alaska as well. I have offered two NDAA amendments to address this problem. In the 2013 bill it was a grandfathering provision and in 2014 bill it was a 1 year delay in de-credentialing. TRICARE opposed both of these amendments stating that it intended to address the problems in regulations, but we haven't seen a fix yet and time is running out. Our providers don't expect to see any relief and as a result they are beginning to close their practices to new TRICARE patients.

Why is it necessary to de-credential experienced mental health counselors who are willing to conduct to practice on a supervised basis? Can these individuals be grandfathered?

*Answer.* By Congressional direction, the Department developed, and then published on December 27, 2011, the Interim Final Rule (IFR) which prescribed quality standards for the independent practice of mental health counselors (MHC) under TRICARE. The IFR criteria, based on Institute of Medicine recommendations, specify a master's degree in mental health counseling from a program accredited by the Council for Accreditation of Counseling and Related Education Programs. The IFR transition period allows graduates of regionally-accredited Mental Health Counseling programs to be authorized as Certified MHCs if they pass a required examination and meet all other standards.

While grandfathering does not ensure a provider will meet the quality standards for independent practice, the IFR generated over 400 public comments that underscore the importance of balancing provision of quality mental health services with the preservation of continued ready access to licensed mental health professionals for our beneficiaries. These comments have been taken into consideration in developing the Final Rule regarding certification of mental health counselors under TRICARE. The Department is committed to preserving patient access to experienced and well trained mental health professionals and believes the upcoming rulemaking action will satisfactorily resolve these issues. The Final Rule is currently undergoing regulatory review by the Office of Information and Regulatory Affairs at the Office of Management and Budget before being published in the Federal Register. We anticipate the Final Rule will be published later this summer.

MENTAL HEALTH COUNSELORS IN TRICARE

*Question.* How does TRICARE plan to address this problem so TRICARE beneficiaries in Alaska (which does not host a CACREP-accredited training program) will continue to have access to mental health counselors? When will that relief come?

*Answer.* The Final Rule regarding certification of mental health counselors under TRICARE is in the final stages of coordination prior to publication. The Department is committed to preserving patient access to experienced and well trained mental health professionals and believes the upcoming rulemaking action will satisfactorily resolve these issues. We anticipate publication of the Final Rule later this summer.

Additionally, as communicated to Senator Begich's staff on April 30, 2014 and May 6, 2014, we do not anticipate Alaska beneficiaries will be negatively impacted. The tables below summarize the availability of mental health counselors (MHCs) in Alaska from April 2013 to March 2014. These include 77 TRICARE Certified MHCs (across 14 zip code areas) and seven Supervised MHCs (across five zip code areas) who provided care to 1,363 TRICARE beneficiaries. TRICARE will continue to provide beneficiary access to MHCs in the zip code areas listed below (Table 1). While under the Interim Final Rule, the providers listed in Table 2 would no longer be eligible to practice under TRICARE after December 31, 2014, only two zip codes

(99524 and 99501) would no longer have any MHCs within their area. However, these two zip codes are in close proximity to Anchorage and have other mental health professionals who will continue to be available to provide care.

Further, we learned that as of 2015, the University of Alaska will have two Clinical Mental Health Counselor programs accredited by the Council for Accreditation of Counseling and Related Education Programs (CACREP). CACREP accreditation will be applied to all students enrolled at the time of accreditation and to all future students' graduate credentials.

TABLE 1: CERTIFIED MENTAL HEALTH COUNSELORS (CMHCs) BY REGION

City	Zip code	# of CMHCs
ANCHORAGE .....	99503	17
ANCHORAGE .....	99507	3
ANCHORAGE .....	99508	10
ANCHORAGE .....	99515	1
ANCHORAGE .....	99516	1
ANCHORAGE .....	99518	4
EAGLE RIVER .....	99577	7
FAIRBANKS .....	99701	14
FAIRBANKS .....	99709	6
FAIRBANKS .....	99712	1
JUNEAU .....	99801	2
KODIAK .....	99615	1
PALMER .....	99645	2
WASILLA .....	99654	8
TOTAL .....	.....	77

TABLE 2: SUPERVISED MENTAL HEALTH COUNSELORS (SMHCs) BY REGION

City	Zip code	# of SMHCs
ANCHORAGE .....	99524	1
ANCHORAGE .....	99501	1
ANCHORAGE .....	99503	*1
EAGLE RIVER .....	99577	1
ESTER .....	99725	1
FAIRBANKS .....	99701	1
JUNEAU .....	99801	1
TOTAL .....	.....	7

\*Licensed Psychological Associate in this region.

QUESTIONS SUBMITTED BY SENATOR ROY BLUNT

*Question.* How will the Defense Healthcare Management System modernization support population health and the industry's shift from solely automating health systems to managing a person's health?

*Answer.* The DHMSM program involves the acquisition of a new off-the-shelf electronic health record (EHR) system that will provide an environment in which providers and beneficiaries are able to share current and future healthcare information, ensuring continuity of care and improved treatment for our Service members and Veterans. The use of state-of-the art technology and data analytics will encourage patients' participation in their own care, and help enhance DOD's focus on both population health and the health of our patients.

An interoperable electronic health record will allow DOD to capitalize on the vast amounts of health data collected to increase the focus on proactive and preventive care versus reactive treatment of disease and illness. The DHMSM solution will have the ability to use data to perform predictive analysis to foresee patient behaviors and predict disease management, which will help healthcare providers find bet-

ter ways to coordinate care and prevent illness. The use of data analytics will help achieve better health outcomes by reducing costs (e.g. reducing duplicative tests) and improving quality (e.g. matching diagnoses with previous prescriptions to identify disease trends). The competitive acquisition process will allow DHMSM to leverage private sector advancements in EHR technology, to include data analytics.

The DHMSM acquisition will also encourage Service members' active engagement in their own care through technology. Patients will have access to their own personal health record, which will travel with them as they move from one location, provider and system to another, or when they leave active service. DOD and VA beneficiaries can currently access and share electronic medical record information through a mechanism known as Blue Button, which can be accessed via personal computer, web browser, or on mobile devices. By providing convenient, anytime, anywhere access to personal health data, Blue Button engages beneficiaries and encourages participation in decisions with their own healthcare team.

The goal of the DHMSM program is not merely the acquisition of new commercial EHR software, but a shift in the way healthcare is delivered to our Nation's Service members and their families. The end result of the program will be a system that fundamentally and positively impacts the health outcomes of our beneficiaries, enhances our military readiness, and helps advance healthcare interoperability nationwide.

*Question.* Key capabilities, which are wide spread throughout the healthcare industry, include medical device integration, remote hosting, use of mobile devices, and data analytics. How will DOD incorporate each of these functions into their efforts to support military health requirements?

*Answer.* These functions will be incorporated into our draft request for proposal and vendors will be evaluated based on these capabilities as part of our evaluation process.

The goal of the DHMSM program is an electronic health record (EHR) system that fundamentally and positively impacts the health outcomes of active duty military, veterans, and beneficiaries, enhances our military readiness, and helps advance healthcare interoperability nationwide. DOD recently issued a third draft Request for Proposal (RFP), which outlines the requirements necessary to meet the unique needs of the Military Health System, including deployment worldwide across multiple platforms; integration with private-sector providers, who account for more than 60 percent of the volume of care provided; and continuity across the full range of care, including pediatric, obstetric and gynecological care which account for 25 percent of hospital costs. These requirements will be further refined based on industry feedback before the final RFP is released later this year.

As part of the DHMSM acquisition process, DOD is focused on delivering capabilities required to support Point of Care operations and the interface points required to meet downstream enterprise data needs. Specifically, the program is focusing on tight integration with medical devices and systems, such as endoscopes, lab instruments and bedside monitors, to support clinicians and patients at the point of care.

The use of mobile devices is increasingly prevalent throughout the industry, and acquiring a system that incorporates the use of these devices is essential to improving the delivery of healthcare across multiple platforms. The system acquired by DOD through the DHMSM program will maximize the use of industry and national standards based interfaces expected to be common to all viable vendors.

DOD and VA are jointly developing a pilot mobile access application to health record information with a common development framework, shared tools, synergy in development, and shared costs. This pilot will make available, in a mobile device tailored framework, some of the same personal health data that beneficiaries in both Departments can currently access online through Blue Button, including Progress Note Mapping; Joint Summary of Care and Mobile Blue Button; Pharmacy Refill; and Consults. It will also conform to DOD policies on network security and privacy. Led by the Department of Navy as a recently awarded Joint Incentive Fund project, the Joint DOD/VA Summary of Care and Mobile Blue Button application is expected to be iteratively fielded over the next 2 years.

An interoperable EHR will provide an environment in which clinicians and patients from both DOD and VA are able to share current and future healthcare information, ensuring continuity of care and improved treatment for our Service members and Veterans. The DHMSM solution will have the ability to use data to perform predictive analysis to foresee patient behaviors and predict disease management which will help physicians find better ways to coordinate care and prevent illness. The use of data analytics will help achieve better health outcomes by reducing costs (reducing duplicative tests) and improving quality (matching diagnoses with previous prescriptions, identifying disease trends). The competitive acquisition process will allow DHMSM to leverage private-sector advancements in data analytics.

*Question.* During the Industry Day events, the DHMSM Program Manager stressed the need for industry feedback to shape the requirements included in the final RFP. Are you getting enough helpful feedback and questions from industry thus far through the draft RFP and RFI process to improve the acquisition process? Please share specific examples.

*Answer.* Yes, the feedback received from industry during the draft Request for Proposal (RFP) and Request for Information (RFI) process has been extremely useful and has provided key insights and lessons learned as we work toward releasing a final RFP later this year.

DOD established the DOD Healthcare Management Systems Modernization (DHMSM) program to lead a competitive acquisition process that considers commercial solutions which will offer reduced costs, schedule, and technical risk, as well as providing access to increased current and future capability by leveraging advances in the commercial marketplace. A critical component of the DHMSM program is an aggressive schedule of industry engagement. The program has conducted three well-attended and highly anticipated Industry Days. The third Industry Day was held on February 19, 2014, and was attended by nearly 500 participants from 200 companies. A fourth Industry Day is planned for June 2014.

DOD has released two of three planned draft RFPs for the DHMSM acquisition, and has received more than 1,000 industry comments and questions. The final RFP release is expected in the fourth quarter of fiscal year 2014. The response to the draft RFPs demonstrates the level of interest in the acquisition process among potential contract bidders, and provides DOD with valuable information as the final RFP is developed.

As a result of comments received from industry regarding the complexity of the Contract Line Item (CLIN) structure, for example, the Program Office re-examined the structure and removed unnecessary complexity.

The Program Office received feedback stating that potential offerors require additional information with the RFPs in order to successfully propose and price a solution meeting the Government's non-functional requirements (i.e. training, mandatory interfaces, data migration, etc.). As a result, the Program Office refined the documents to be delivered with the RFP to reduce ambiguity and delays during the Source Selection process.

In response to a targeted RFI, industry respondents confirmed the ability of Commercial Off-the-Shelf EHR software providers to propose and price in accordance with the Program's enterprise licensing strategy. This feedback allowed the Program Office to further tailor its licensing strategy to pursue an innovative, performance-based approach to purchasing software, affording the Government maximum flexibility while reducing total lifecycle costs of software licenses.

*Question.* The issue of interoperability regarding EHR efforts continues to be discussed at length among healthcare leaders and innovators in the industry. How is the department addressing interoperability between the DOD, VA, the many TRICARE providers that serve the beneficiary population? How will the Department prepare for and measure interoperability?

*Answer.* The IPO, DOD and VA are currently working with the Office of the National Coordinator, and other data standards organization to drive cohesive national data standards with industry so that our future acquisition will be interoperable not only with the VA but also the private healthcare market. These interoperability requirements will be included in our RFP and evaluated in our evaluation process.

Providing high quality healthcare for current Service members, their families, and our Veterans is among our Nation's highest priorities. The Departments of Defense and Veterans Affairs are also committed to ensuring continuity of care as Service members transition to Veteran status. Enabling health information exchange between electronic health record (EHR) systems in DOD, VA, and private sector will serve as the foundation for a patient-centric healthcare experience, seamless care transitions, and improved care delivery.

Our two Departments already have a significant amount of data interoperability. DOD and VA clinicians can currently view records on the 5.3 million shared patients receiving care from both Departments through our existing software applications. This data is available on-demand to front-line clinicians in both Departments. VA and DOD providers generate data queries through our current systems nearly a quarter of a million times per week. Both Departments are committed to further improvements.

In 2013, DOD and VA implemented several new data sharing enhancements to transform substantial amounts of read-only data into computable bidirectional data. This included standardizing data for key clinical domains. This data was incorporated into a common, joint viewer, which provides an integrated view of VA and DOD clinical information, and was deployed to nine pilot sites.

The DOD/VA Interagency Program Office (IPO) is responsible for establishing, monitoring, and approving the clinical and technical standards profile and processes to create seamless, integration of health data across the VA and DOD and with private sector providers. Pursuant to its new charter, signed in December 2013, the IPO will support efforts by the Departments and the Office of the National Coordinator (ONC) to adopt national standards, specifications, and certification criteria to improve health IT and its application. By adopting the same national standards, the DOD, VA, and private sector providers can fluidly exchange data easily understand and use information they receive for clinical decisionmaking.

Interoperability with private-sector providers is an essential element of our modernization program, as more than 60 percent of the healthcare provided to DOD-eligible beneficiaries occurs in the private sector and outside of the DOD or VA health systems. DOD is focused on deploying private sector interoperability in various DOD multi-service markets around the country that have mature private sector Health Information Exchange (HIE) capabilities.

SUBCOMMITTEE RECESS

Senator DURBIN. Thank you.

[Whereupon, at 11:15 a.m., Wednesday, April 9, the subcommittee was recessed, to reconvene subject to the call of the Chair.]