

**RECORD VERSION**

**STATEMENT BY**

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**THE SURGEON GENERAL**

**UNITED STATES ARMY**

**BEFORE THE**

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**SENATE COMMITTEE ON APPROPRIATIONS**

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 US 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 non-combat 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 US 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 US-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% 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% 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% 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 of 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% down to

9%, 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% of the MHS personnel hours, and provides 49% 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 4<sup>th</sup> 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% to less than 20%. 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 US 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% of these injuries being classified as mild TBI or concussions. Since 2000, Army Soldiers comprise almost 60% of all DoD TBI cases, making this issue a clear priority in Army Medicine. Since almost 80% 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 FY15 we have invested over \$77M 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 \$11.7M. This is the first of 6 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 \$730M 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. US 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 Centers 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% 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 fourteen 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 FY 14 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 FY14, 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 \$7M for the Army by FY15.

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 select 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% 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% of cases now meeting the DoD timeliness standard; a significant improvement from 40% of cases meeting the standard in November 2012. In addition, 100% 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 \$203M in FY14. 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 \$152.5M for FY15.

### **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 environment. 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 US 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 FY 13, the AMEDD Center and School (AMEDD C&S) provided training for 266 students from 64 countries in 47 different courses. The US 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% of the Force today – including Active Duty and RC – and the percentage of women continues to grow, up about 4% 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 US 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 US 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 US (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 US 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, KY, Fort Bragg, NC, Joint Base Lewis-McChord, WA, and Fort Carson, CO, 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 (WHS�) 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 \$170M in FY15.

### **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 US population. Significant Army capabilities are in the RC, therefore, when it pertains to readiness of the Force, building 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% of ARNG Soldiers and 79% of USAR Soldiers met DoD Medical Readiness classification standards. Further, 90% of ARNG and 87% 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% 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% 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, US 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, WA; Fort Bliss, TX; and Fort Bragg, NC. 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% 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 US 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% of young adults in the prime recruitment age of 17-24 years-old are eligible for military service, while the remaining 75% 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 FY14 to FY15, for a final total of \$375M.

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% 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% 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 \$28M. 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 1/3 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 foxhole, 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% 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 \$323M in FY 13; distributed \$358M in support of BHSL efforts in FY 14 and estimated a requirement of \$375M in FY 15.

### **Tele-health**

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 FY13, and over 2,300 additional encounters in operational environments. While Army provides care via TH in 28 specialties, Tele-Behavioral Health accounts for 85% of total TH volume in garrison and 57% 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 \$21.4M in FY15, 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%, 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 FY15, we invested \$1.4M 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 health care 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% 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%.

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% for specialty board certification exams, with a consistent pass rate of approximately 92% 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 US, 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%, well above the 74% 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% licensure pass rate in the past 3 years and have advanced the science through numerous peer-reviewed journal article

publications. US News and World Report most recent survey of graduate schools ranked the US 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, reemphasizing 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% 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 FY 14 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 health care providers that expand and enhance how they respond to patients following a sexual assault. Engaging the patient in an individualized health care 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 health care 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), US 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 health care 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 FY14.

The FY15 core budget for PCMH is \$73.6M, which is inclusive of efforts to build a premier patient-centered, team-based, comprehensive System for Health. Additionally, an FY15 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 \$16.4M 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% are medically ready (a 3% increase), compared to 85% 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 \$12.1M annually. The AWCs are demonstrating how a standardized holistic primary prevention strategy can greatly contribute to our ability to get ahead of disease. In FY 13, AWCs evaluated 15,200 individuals, including Active Duty (61%), Family Members (21%), Civilians (10%), Reservists (2%), and Retirees (3%). In FY 14, four additional AWCs will be implemented. The AWCs have achieved an annual cost-avoidance in FY13 of \$1.2M.

Analysis of 3 years of data collected by the AWCs show that for the 2,400 individuals who had at least 1 follow-up visit for their Body Mass Index (BMI), 62% saw a statistically significant decrease in BMI (average 4% decrease). Of the 437 clients who had a baseline and follow-up test for maximal oxygen consumption (VO2 max), 60% saw a significant increase in VO2 max, with an average improvement of 15%. Current research indicates that a 2% to 3% 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 VO2 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% to 5.2% 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 FY 14, 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 optimal 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% 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 health care, 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 US 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, \$75M 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 US Army Institute of Surgical Research (USAISR) received clearance from the US 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 Research (WRAIR) and the US 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 US 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 US 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 US Army Medical Materiel Development Activity, received FDA approval for a whole blood collection system that has been approved for six-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 US 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 US 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 FY15 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% 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 health care 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 FY 15 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.