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STATEMENT BY

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Chairman Inouye, Vice Chairman Cochran, and distinguished members of the Subcommittee, thank you for providing me this forum to discuss Army Medicine and the Defense Health Program. I appreciate this opportunity to talk with you today about some of the very important work being performed by the dedicated men and women—military and civilian—of the U.S. Army Medical Department (AMEDD) who personify the AMEDD value "selfless service." In recognition of 2009 being "The Year of the NCO", throughout my testimony I will highlight the contributions of the AMEDD's Non-Commissioned Officer Corps, the backbone of Army Medicine. Non-Commissioned Officers comprise 18% of the Army Medical Department and play critical roles in every aspect of the organization. I am joined today by the senior enlisted medic in the Army, my Command Sergeant Major Althea Dixon, one of the finest Soldiers and leaders with whom I have had the privilege to serve and an invaluable member of my command team.

As the Commander of the U.S. Army Medical Command (MEDCOM), I oversee with the assistance of Command Sergeant Major Dixon a $10 billion international healthcare organization staffed by 70,000 dedicated Soldiers, civilians, and contractors. We are experts in medical research and development, medical logistics, training and doctrine, the critical elements of public health--health promotion and preventive medicine, dental care, and veterinary care--in addition to delivering industry-leading health care services to 3.5 million beneficiaries around the world. But central to everything we do in Army Medicine is the warfighter—we exist as a military medical department to support the warfighter. I am happy to report that we are accomplishing that mission phenomenally well. I can say this with great confidence after spending the first week of this month with the US Central Command (CENTCOM) Surgeon at the Multi-National Force/Multi-National Corps-Iraq Surgeon's Conference in Iraq. Seeing first hand the care and civil-military medical outreach from Brigade and Division to Corps and Theater was a clear demonstration of the Joint Medical Force providing top-notch medical support across the full-continuum of care and nation building.

To determine how successful we are at executing our mission, Army Medicine uses the Balance Scorecard (BSC) approach developed in the 1990s by Harvard's Doctors Robert Kaplan and David Norton. Simply put, the BSC serves as an organizational strategic management system which can help improve organizational performance while remaining aligned to our strategy. The MEDCOM began BSC implementation in 2001 under LTG(Ret) James Peake's leadership. Since then, we have continued to refine the BSC to grow and direct our dynamic organization. I use the enclosed Army Medicine Strategy Map (published in April 2008 and revised in January 2009) and Scorecard as the principal tool by which to guide and track the Command to improve operational and fiscal effectiveness, and better meet the needs of our patients, customers, and stakeholders. The BSC communicates to our MEDCOM workforce and drives top-to-bottom organizational understanding and alignment, focusing our day-to-day efforts to ensure we execute our Mission successfully.

The Army Medicine BSC measures and improves organizational performance in four "balanced" Strategic Perspectives: "Resources" and "Learning and Growth" which are the "Means"; "Internal Processes" which is the "Ways"; and "Patients, Customers and Stakeholders" which is the "Ends" by which we show best value in products and services. These "Ends" are how I've organized my statement in order to best communicate the significant and varied accomplishments of Army Medicine over the last year.

The Six Army Medicine "Ends"

1.0 Improved Healthy and Protected Families, Beneficiaries, and Army Civilians

2.0 Optimized Care & Transition of Wounded, Ill, and Injured Warriors

3.0 Improved Healthy and Protected Warriors

4.0 Responsive Battlefield Medical Force

5.0 Improved Patient and Customer Satisfaction

6.0 Inspire Trust in Army Medicine

1.0 Improved Healthy and Protected Families, Beneficiaries, and Army Civilians - Improve the health of beneficiaries thru cost-effective evidence-based care, proactive disease management, demand management, and public health programs.

Use of HEDIS^R Measures – The Healthcare Effectiveness and Data Information Set (HEDIS^R) is a tool used by more than 90% of America's health plans (> 400 plans) to measure performance on important dimensions of care. The measures are very specifically defined, thus permitting comparison across health plans. The DoD is not a member of the HEDIS program, but uses the HEDIS methodology to measure and compare its performance to the HEDIS benchmarks. The Military Health System (MHS) Population Health Portal takes administrative data and electronic health record data and provides reports on the status of our beneficiaries on each measure. Currently, we track 9 measures and compare our performance to HEDIS benchmarks. In October 2008, the Army was in the 90th percentile compared to HEDIS health plans for 2 of 9 measures. We are in the 50th to 90th percentile for 6 measures and below the HEDIS 50th percentile for one measure. Marked improvement is seen in colorectal cancer screening which improved 8.9% (October 2005 to October 2008) and approaches the HEDIS 90th percentile. In addition, the Army has very high compliance with Pneumovax, the vaccine against pneumococcal pneumonia, for our enrolled patients over age 65. Since 2007, we've been providing financial incentives to our hospitals for superior compliance in key HEDIS measures. The Army was the pioneer for what the Assistant Secretary of Defense for Health Affairs is now terming Pay-for-Performance. We have shown that these incentives work to change behavior and achieve desired outcomes in our system.

MEDCOM Reorganization - The MEDCOM is engaged in a phased reorganization designed to optimize the delivery of healthcare to our Army and to support a deploying force. With the support of senior Army leadership, I approved phase one of this reorganization which aligns CONUS Regional Medical Commands (RMCs) with their supporting TRICARE regions. MEDCOM

is restructuring in order to be better aligned and positioned to support our transforming Army. Command Sergeant Major Matthew T. Brady was instrumental in developing the structure and functions for the newly designed Western RMC headquarters—his contributions are emblematic of the significant role played by NCOs across the MEDCOM in our restructuring efforts.

Healthcare support today is outstanding and it must remain so for our Army to succeed during an era of persistent conflict. As the Army changes its structures, relationships and organizational designs through transformation and other initiatives to better support our Nation in the 21st Century, the AMEDD must adapt to ensure it remains reliable and relevant for our Army. The main restructuring is from 4 CONUS RMCs to 3 CONUS RMCs. While reorganizing RMCs, we intend to further integrate healthcare resources, capabilities and assets to foster greater unity of effort and synergy of our healthcare mission. The restructuring will posture us to better provide the best support for Army Force Generation (ARFORGEN) and improve readiness through enhanced health care services for our Soldiers, their Families, and Army units.

Clinical Information Systems - The AMEDD has long recognized a need for an information system to help us grow as a knowledge-driven organization. The AMEDD energetically assumed lead for the DoD during the implementation of the Composite Health Care System I (CHCS I), now known as AHLTA. Unfortunately, AHLTA has not always kept pace with expectations at the user-level or at the corporate level for data mining and other uses. The Army has taken significant steps to leverage the data from AHLTA and other clinical information systems to improve clinical quality and outcomes as well as patient safety. To address identified shortcomings with AHLTA at the provider level, the AMEDD has invested in the MEDCOM AHLTA Provider Satisfaction (MAPS) initiative. This includes investment in tools like Dragon Medical™ and As-U-Type®, individualized training and business process re-engineering led by clinical champions, and use of wireless and desktop virtualization. At the Heidelberg Health Center in Germany, Staff Sergeant Kenneth M. Melick is the workhorse who took the physician vision for business process reengineering from

construction to final implementation and ensured success. MAPS is beginning to show significant improvements in provider usability and satisfaction. Direct interviews with providers and staff reveal that MAPS implementation has generated a dramatic change in attitude among our staff.

The most recent version of AHLTA has presented us with challenges, but it is showing improvements and gaining provider acceptance. AHLTA provides significant benefit to beneficiaries, especially in the areas of patient safety, security, improved clinical and readiness outcomes, and global availability of records. In addition, a new enterprise architecture for the MHS will likely result in a significant improvement in managing our information systems. The next update to AHLTA (3.3) is being deployed and its additional functionality and improved speed is well-liked by the providers who have tested it.

Force Health Protection and Public Health Programs – The US Army's Center for Health Promotion and Preventive Medicine (CHPPM) is a subordinate command of the MEDCOM that affects the lives of Soldiers and Families everyday. Its mission is to provide worldwide technical support for implementing preventive medicine, public health, and health promotion/wellness services into all aspects of America's Army and the Army community. The CHPPM team supports readiness by keeping Soldiers fit to fight, while also promoting wellness among their Families and the Federal civilian workforce. CHPPM integrates public health efforts to develop and export primary prevention based products by using epidemiologic data of disease and injury to identify the best prevention programs to implement for overall population health improvement. One member of the CHPPM team--Sergeant Kerri Washington--made a notable impact on the health and safety of our US Army and Iraqi Forces in the Multi National Division – Baghdad area of responsibility. Sergeant Washington deployed as a Preventive Medicine (PM) Specialist with the 61st Medical Detachment (PM) and applied his preventive medicine skills, leadership ability, and unique health surveillance training to enhance Soldier health and disease prevention.

CHPPM is establishing a Public Health Management System to evaluate the programs and policies developed to promote optimal health in the Army

community which will use the public health process to provide metrics indicating the success or lack of success in these endeavors. This will allow leaders to make informed decisions on effective or ineffective public health issues in the Army. Army veterinarians play a key role in public health as well, ensuring the safety of food and water and the prevention of animal-borne diseases. As part of the MEDCOM Reorganization addressed earlier, I have directed my staff to assess the feasibility and benefits of establishing a Public Health Command which better synchronizes and integrates the efforts of all AMEDD members who contribute to public health programs. This will enhance comprehensive health and wellness and optimize delivery of public health support to the Army.

2.0 Optimized Care & Transition of Wounded, Ill, and Injured Warriors

Warrior Care and Transition Program - The transformation of U.S. Army Warrior Care began in April 2007 with the development of the Army Medical Action Plan (AMAP), which outlined an organizational and cultural shift in how the Army cares for its wounded, ill, and injured Soldiers. Over the past 22 months, the AMAP has evolved into the Army Warrior Care and Transition Program (WCTP), fully integrating Warrior Care into institutional processes across the Army, and is achieving many of the Army's goals for enhancing care and improving the transition of wounded warriors back to duty or into civilian life as productive veterans. At the heart of the Warrior Care and Transition Program is the successful establishment of 36 Warrior Transition Units (WTUs) at major Army installations worldwide, and nine Community Based Warrior Transition Units (CBWTUs) located regionally around the U.S. These units replace the Medical Holdover (MHO) system of the past and provide holistic care and leadership to Soldiers who are expected to require six months of rehabilitative treatment, and/or need complex medical case management.

Comprehensive Transition Plan – In our first year of Warrior Care and Transition, we heavily invested in the structure of our units and support systems. Now in our second year, we recognize that our focus needs to be on optimizing

the transition for our Soldiers. In March 2008, MEDCOM launched the Comprehensive Transition Plan initiative for Warriors in Transition. Instead of focusing solely on the injury or illness, the Comprehensive Transition Plan fosters a holistic approach to a Warrior's rehabilitation and transition. This is accomplished through the collaboration of a multidisciplinary team of physicians, case managers, specialty care providers, and occupational therapists. Together with the Soldier, they develop individually tailored goals that emphasize the transition phase to civilian life or return to duty. Goals are set and the transition plan developed within one month of the Soldier's arrival at the WTU.

Physical Disability Evaluation System - The Medical Evaluation Board (MEB) and Physical Evaluation Board (PEB) processes have been streamlined and paperwork requirements reduced to more efficiently move a Soldier's disability package through the adjudication process. Additionally, collaboration between the DoD and the Department of Veterans Affairs (VA) ensures that Warriors in Transition have priority processing by the Veterans Health Administration (VHA) and Veterans Benefits Administration (VBA) 60 to180 days prior to separating so that they can receive their VA benefits and health care immediately upon discharge. General Frederick M. Franks, Jr., USA Ret. has been leading an Army task force to research and recommend improvements to the MEB/PEB process. His findings, recently delivered to the Secretary of the Army, recommended that DoD and VA eliminate dual adjudication from the current system and "transition to a comprehensive process focusing on rehabilitation and transition back to either uniformed service or civilian life that promotes resilience, self-reliance, re-education, and employment, while ensuring enduring benefits for the Soldier and Family." This finding reaffirms the importance of the Comprehensive Transition Plan.

Warrior Satisfaction - Over the past two years, the Army has made tremendous progress in transforming how it provides health care to its Soldiers, with improvements impacting every aspect of the continuum of care. Over this period, overall Soldier and Family satisfaction with the care and support they have received as a result of the efforts of the Warrior Care and Transition

Program has increased significantly. Two years ago, only 60% of those in the legacy medical hold units were satisfied with the care they received. Today, that number has increased to 80% of Soldiers and Families who now receive the focused and comprehensive care and support provided by WTUs. Considering that over twenty thousand Soldiers, along with their Families, have transitioned through the Warrior Care and Transition Program over that time, this represents a significant number of "satisfied" customers. A key element of increased satisfaction has been the availability of a robust ombudsman program staffed primarily with retired NCOs. An ombudsman works at each of our WTUs on behalf of the Warriors in Transition and their Families to fix problems and cut through bureaucratic entanglements. It is a great example of our dedicated senior NCOs continuing to serve Soldiers even after they've taken off the uniform.

3.0 Improved Healthy and Protected Warriors - Improve the health of service members through full spectrum health services to optimize mission readiness, health & fitness, and resiliency before, during, and after deployment.

Evidence Based Practices – The theme of evidence based practices runs through everything we do in Army Medicine and is highlighted throughout our Balanced Scorecard. Evidence based practices mean integrating individual clinical expertise with the best available external clinical evidence from systematic research. Typical examples of evidence based practice include implementation of clinical practice guidelines and dissemination of best practices. I encourage my commanders and subordinate leaders to be innovative, but across Army Medicine we must balance that innovation with standardization so that all of our patients are receiving the best care and treatment available.

Comprehensive Soldier Fitness - The Army Chief of Staff has established a vision of an Army comprised of balanced, healthy, self-confident Soldiers, Families and Army Civilians whose resilience and total fitness enable them to thrive in an era of high operational tempo and persistent conflict. To achieve this ambitious vision, he is instituting the Comprehensive Soldier Fitness Program.

General Casey identified several shortcomings in his own Army experience. For example, the Army does not routinely assess all the elements of wellness, fitness, and optimal human performance, other than physical. Resilience, life skills, and mental coping techniques are not fully trained across the Army. The Army does not always link available life skills and performance programs and interventions with Soldiers and Families until the need has been demonstrated by a negative behavior. And the Army does not teach Soldiers about the potential for Post Traumatic Growth (PTG), nor give Soldiers the opportunity to validate their post traumatic growth during Post Deployment assessments. The intent of the Comprehensive Soldier Fitness Program is to increase the resiliency of Soldiers and Families by developing the five dimensions of strength—physical, emotional, social, spiritual, and family. This program is in early development, but under the leadership of Brigadier General Rhonda Cornum, an AMEDD physician, and with the commitment of passionate non-commissioned officers like her Non-Commissioned Officer in Charge, Master Sergeant Richard Gonzales, I expect this program to have a profound positive effect on the lives of Soldiers, Families, and Army Civilians.

Brain Health - Commanders and leaders are responsible for the mental and physical well-being and care of Soldiers. They play a critical role in encouraging Soldiers to seek prompt medical care for traumatic brain injuries (TBI). This responsibility begins on the battlefield, as close as possible in time and space to the injury. The AMEDD is developing the best process to evaluate and treat every Service member involved in an event that may result in TBI. Commanders and medics throughout theater are emphasizing early recognition of brain injuries followed by examinations and care rendered in accordance with clinical practice guidelines developed by the AMEDD in conjunction with the CENTCOM Surgeon. The Army is also working closely with the National Guard to implement a personnel tracking instrument that provides identification of individuals who may have been involved in a blast and require screening.

In coordination with the VA and the Defense Center of Excellence for Psychological Health and Traumatic Brain Injury, the Army continues to expand

resources dedicated to TBI research and treatment. The Defense Centers of Excellence (DCoE), directed by Army Brigadier General Loree Sutton, lead a collaborative effort toward optimizing psychological health and TBI treatment for all Service members. The DCoE establishes quality standards for: clinical care; education and training; prevention; patient, family and community outreach; and program excellence. The DCoE mission is to maximize opportunities for warriors and families to thrive through a collaborative global network promoting resilience, recovery, and reintegration for psychological health and TBI.

Ft Campbell's Warrior Resiliency and Recovery Center for mild TBI is showing very promising results in the identification and treatment of mild TBI. The post concussive syndrome appears to exist in these Soldiers with a natural clinical history separate from that of Post Traumatic Stress Disorder (PTSD) or other psychiatric conditions. The syndrome is effectively treated with an intensive and comprehensive interdisciplinary approach. Early data indicate significant improvement in all treated cases and complete return to duty recovery in over 77% of treated Soldiers.

Battlemind Training - One validated evidence-based practice that reduces the impact of post traumatic stress is the Battlemind Training System (BTS). The Battlemind Training System (BTS) reflects a strength-based approach, using buddy aid and focusing on the leader's role in maintaining our Warriors' mental health. The BTS targets all phases of the deployment cycle as well as the Warrior life cycle and medical education system. BTS includes training modules designed for Warriors, Leaders, and military spouses. Key teaching points about PTSD and concussion were recently incorporated into the deployment cycle and life cycle Battlemind modules.

RC Dental Readiness - Maintaining dental readiness in the Reserve Components (RC) has been challenging. During the past year, new program developments have provided an integrated Army solution for RC dental readiness throughout the ARFORGEN cycle. The Army Dental Command (DENCOM) executes First Term Dental Readiness (FTDR) at Initial Entry Training (IET) installations, and focuses on examining and treating dental

conditions in recruits that could otherwise render a Soldier non-deployable. Upon graduation from IET, RC Soldiers return to their units where the Army Selected Reserve Dental Readiness System (ASDRS), initiated in September of 2008, maintains RC Soldier dental readiness throughout the three ARFORGEN phases. If the RC Soldier is mobilized, they are validated for their deployment dental readiness by DENCOM-operated facilities and if found to be deficient, are examined and treated to a deployable status by dedicated AC and RC dental personnel such as Sergeant First Class Dexter Leverett, a USAR NCO mobilized since 2004, who has managed RC mobilization and demobilization dental operations at both Ft. Hood and Camp Shelby, MS—two sites which have processed over 26,000 RC Soldiers in the past 5 months alone. Upon return from deployment, DENCOM resets RC Soldier dental readiness by conducting a Demobilization Dental Reset (DDR) which provides a dental exam and readiness care that can prudently be completed during the abbreviated demobilization process. Since July 2008 we have dentally reset 88% of RC Soldiers demobilizing from overseas. I expect this integrated approach to generate improved RC dental readiness.

Armed Forces Health Surveillance Center - The new Armed Forces Health Surveillance Center (AFHSC), a DoD Executive Agency supported by CHPPM, performs comprehensive medical surveillance and reporting of rates of diseases and injuries among DoD service members. AFHSC's main functions are to analyze, interpret, and disseminate information regarding the status, trends, and determinants of the health and fitness of U.S. military (and military-associated) populations and to identify and evaluate obstacles to medical readiness. AFHSC is the central epidemiological resource for the US Armed Forces providing regularly scheduled and customer-requested analyses and reports to policy makers, medical planners, and researchers. It identifies and evaluates obstacles to medical readiness by linking various databases that communicate information relevant to service members' experience that has the potential to affect their health.

4.0 Responsive Battlefield Medical Force - ensure health service assets of all three components are trained, modular, strategically deployable, and can support full spectrum operations and joint force requirements.

Pre-deployment Trauma Training – Adhering to the policy that no one should be initially exposed to a medical challenge while on deployment or on the battlefield, pre-deployment trauma training is now mandatory for individual providers and medical units to improve survival rates. It is a critical link between standard medical care and the intense battlefield environment Soldiers face in the current conflicts. By recreating the high-stress situations medics will face in Iraq and Afghanistan, this training allows for the refinement of advanced trauma treatment skills and sensitization to hazardous conditions which allow medics to increase their confidence and proficiency in treatment. This training includes a surgical skills laboratory, the principles of International Humanitarian Law, and mild TBI and Combat Stress identification. Returning Soldiers cite this as the best training they have ever received.

Medical Simulation Training Centers - The Medical Simulation Training Center (MSTC) grew from an Army Chief of Staff directive to create and quickly implement medical simulation training to prepare combat medics for the battlefield. Command Sergeant Major David Litteral and Sergeant First Class William Pilgrim were active in the early development of the MSTC program, and are two of the many NCOs instrumental in the program's success. In Fiscal Year (FY) 2008 the 14 stateside MSTCs provided training to 27,136 Combat Medics and non-medical Soldiers in the Tactical Combat Casualty Care (TC3) and Medic sustainment courses. Also in FY 2008, at four locations within the CENTCOM Area of Responsibility (AOR), 26,132 Medics and Soldiers validated their TC3 skills and received just in time training. This success has carried into FY 2009 as 20,235 Medics and Soldiers have passed through the now 16 stateside MSTCs and four CENTCOM locations for training and or validation of critical battlefield lifesaving skills.

Joint Forces Combat Trauma Medical Course (JFCTMC) - This is a five-day trauma training course developed by the AMEDD Center and School and designed for providers deploying to Level III (Combat Support Hospital) medical missions. The course is a series of lectures with breakout sessions by specialty, which include laboratory sessions. JFCTMC prepares deploying providers to care for patients with acute war-related wounds and incorporates lessons learned from Operation Iraqi Freedom and Operation Enduring Freedom. Sergeant First Class Theresa Smith, Sergeant First Class Pearell Tyler, Sergeant First Class David Estrada, Sergeant First Class Robert Lopez, and Staff Sergeant Cedric Griggs conduct the much-praised Emergency Surgical Procedures portion of this course and provide Point of Wounding training. That's right—non-commissioned officers training physicians and other health care providers.

Combat Development - AMEDD NCO Combat Developers, like Master Sergeant (MSG) Christian Reid and Sergeant First Class Raymond Arnold, have been front and center in product improvements of the Mine Resistant Ambush Protected (MRAP) ambulance, Army Combat Helmet, Combat Arms Ear Plugs, Improved Outer Tactical Vest, and Fire Retardant Army Combat Uniform. Additionally, MSG Reid has been pivotal in the development of the Improved First Aid Kit (IFAK) from concept to fielding in six months and the Warrior Aid and Litter Kit (WALK) of which more than 25,000 have been procured to support current combat operations. The MRAP-Ambulance provides increased protection to our crews and patients. To make the MRAP-Ambulance the most capable ground ambulance in the Army today, we integrated "spin-out" technology from the Future Combat System (FCS) Medical Vehicles. The combat medic is now able to leave the Forward Operating Bases to conduct medical evacuation missions and can provide world class en-route care to wounded soldiers. The AMEDD also developed Casualty Evacuation Kits (CASEVAC) for both the MRAP and HMMV ambulances to increase capability. These efforts provided the combat medic with field ambulances built for survivability in the challenging environment of asymmetric warfare.

Fresh Blood Distribution - Recognizing that fresher blood has been associated with increased survival on massively transfused patients, the Armed Services Blood Program Office (for which Army maintains oversight as Executive Agent) has been working with the Services to decrease the time it takes for blood to arrive in theater with the overall goal of getting 80% of the units in theater by day seven. The average age of red blood cells arriving in theater prior to November 2008 was 13.3 days. Sergeant First Class Peter Maas and others in the Blood Program Office identified 13 action items necessary to improve blood collection, manufacture, and distribution to the CENTCOM AOR. Since implementing these action items in November, 2008, the average age of red blood cells arriving in theater has dropped to 9.2 days. The most recent shipment had an average age of 5.6 days. In the last month, we have managed to bypass blood delivery to Bagram and are shipping blood directly to Kandahar from Qatar. This has resulted in blood reaching Kandahar that is 2-3 days fresher than before. In addition to delivering fresher blood to theater, we are actively and aggressively pursuing new blood technologies that should lead to improved warrior care on the battlefield in the near future.

Armed Forces Institute of Regenerative Medicine - The US Army Medical Research and Materiel Command (USAMRMC) in partnership with the Office of Naval Research, the US Air Force, the National Institutes of Health, and the VA established the Armed Forces Institute of Regenerative Medicine (AFIRM) in March 2008. The AFIRM is a multi-institutional, interdisciplinary network working to develop advanced treatment options for our severely wounded servicemen and women. The AFIRM is made up of two civilian research consortia working with the US Army Institute of Surgical Research (USAISR) in Fort Sam Houston, Texas. One consortium is led by Wake Forest University Baptist Medical Center and the McGowan Institute for Regenerative Medicine in Pittsburgh and one is led by Rutgers, the State University of New Jersey, and the Cleveland Clinic. Each of these civilian consortia is itself a multi-institutional network.

Regenerative medicine, which has achieved success in the regeneration of human tissues and organs for repair or replacement, represents great potential

for treating military personnel with debilitating, disfiguring, and disabling injuries. Regenerative medicine uses bioengineering techniques to prompt the body to regenerate cells and tissues, often using the patient's own cells combined with degradable biomaterials. Technologies for engineering tissues are developing rapidly, with the ultimate goal of delivering advanced therapies, such as whole organs and engineered fingers and limbs.

Joint Theater Trauma System and Joint Trauma Analysis and Prevention of Injury in Combat – The Joint Medical Force continues to show great improvements in battlefield care as a consequence of linking all information from Level 2 and 3 care thru the entire continuum of care via the Joint Theater Trauma System (JTTS). The JTTS, coordinated by the Institute for Surgical Research of the USAMRMC, provides a systematic approach to coordinate trauma care to minimize morbidity and mortality for theater injuries. JTTS integrates processes to record trauma data at all levels of care, which are then analyzed to improve processes, conduct research and development related to trauma care, and to track and analyze data to determine the long term effects of the treatment that we provide. The JTTS also plays an active role as a partner in the Joint Trauma Analysis and Prevention of Injury in Combat (JTAPIC) program, another MRMC asset under the DoD Executive Agency for Blast Injury Research.

The JTAPIC Program links the DoD medical, intelligence, operational, and materiel development communities with a common goal to collect, integrate, and analyze injury and operational data in order to improve our understanding of our vulnerabilities to threats and enable the development of improved tactics, techniques, and procedures (TTPs), and materiel solutions that will prevent or mitigate traumatic injuries. The JTAPIC Program has already made a difference in the way we protect our Warfighters from combat injuries as illustrated in the following key accomplishments:

- Provided actionable information which has led to modifications and upgrades to vehicle equipment and protection systems, such as seat design, blast mitigating armor, and fire suppression systems;

- Established a near-real time process for collecting and analyzing combat incident data that confirmed the presence of threat weapons of interest;

- Analyzed combat incident data to identify vulnerabilities in operational procedures, and rapidly conveyed those vulnerabilities to commanders in theater;

- Established a process for collecting and analyzing damaged personal protective equipment (PPE), such as body armor and combat helmets, to provide PPE developers with the information they need to develop enhanced protection systems.

The JTAPIC Program received the 2008 Department of the Army Research and Development Laboratory of the Year Award for Collaboration Team of the Year in recognition of its accomplishments.

Combat Medic Skills Textbook - Our combat medics (68W) are the best trained battlefield medics in the world. The historically low "died of wounds" rate is evidence of their enhanced skills. The medics of the 68W generation are trained to perform advance airway skills, hemorrhage control techniques, shock management, and evacuation. Sergeant First Class Nadine Kahla and Sergeant First Class Jason Reisler are 68W NCOs assigned to the AMEDD Center & School. They are representative of the 17 other 68W NCO authors that contributed to the new 68W Advanced Field Craft Combat Medic Skills Textbook, a state of the art training manual for the combat medic. This delineation of combat medic skills is newly published and will be issued to every graduating combat medic beginning this month. We are currently looking at ways to distribute this textbook to every medic in the force--Active, National Guard, and Army Reserve.

5.0 Improved Patient and Customer Satisfaction - Improve stakeholder satisfaction by understanding, managing, and exceeding their expectations.

Improved Infrastructure - On behalf of the Army Medical Department team, I want to thank the Congress for listening to our concerns about military medical infrastructure and taking significant action to help us make needed improvements

to our facilities. Funding provided for military hospitals in the FY2008 supplemental bill and in the American Recovery and Reinvestment Act of 2009 will positively impact the quality of life of thousands of Service Members, Family Members, and Retirees as we build new state of the art facilities in places like Fort Benning, Georgia, Fort Riley, Kansas, and San Antonio, Texas. Additional funding provided by Congress for Sustainment, Restoration, and Modernization of our facilities has been put to great use and allowed us to make some valuable improvements that have been noted by our staff and patients.

The Army requires a medical facility infrastructure that provides consistent, world class healing environments that improve clinical outcomes, patient and staff safety, staff recruitment and retention, and operational efficiencies. The quality of our facilities – whether medical treatment, research and development, or support functions - is a tangible demonstration of our commitment to our most valuable assets - our military family and our MHS staff. The environment in which we work is critical to staff recruitment and retention in support of our All Volunteer Force. Not only are these facilities the bedrock of our direct care mission, they are also the source of our Generating Force that we deploy to perform our operational mission. To support mission success, our current operating environment needs appropriate platforms that support continued delivery of the best health care, both preventive and acute care, to our Warfighters, their Families and to all other authorized beneficiaries. I am currently working closely with the Assistant Secretary of Defense for Health Affairs, Dr. S. Ward Casscells, and the leadership of the DoD to determine the level of investment our medical facilities will need. I respectfully request the continued support of DoD medical construction requirements that will deliver treatment and research facilities that are the pride of the Department.

Access to Care - Army leadership and MEDCOM are decisively engaged in improving access to care for our Soldiers and their Families. These efforts will result in markedly improved access and continuous situational awareness at each medical treatment facility. Access means that patients are seen by the right provider, at the right time, in the right venue; and this applies equally to the Direct

Care System & Purchased Care System (TRICARE). Key elements identified for improving access to care include:

- Aligning treatment facility capacity with the number of beneficiaries
- Enhancing provider availability
- Reducing friction at key points of access
- Managing clinic schedules
- Leveraging technology

We have developed a campaign plan to improve access by giving hospital commanders the tools they need along with the responsibility and accountability to generate results.

Sustainable Cost of Operations – While focusing on quality outcomes, the MEDCOM is also concerned with ensuring that we maintain a sustainable cost of operation for the AMEDD. Our efforts to improve access are coupled with initiatives to improve efficiency. Our Performance Based Adjustment Model (PBAM) provides financial incentives for improving efficiency, patient satisfaction, and quality. PBAM and other incentive programs have resulted in the Army being the only Service to achieve planned workload gains every year since 2003. A key author of PBAM is Master Sergeant (now retired) Richard Meyer.

Disseminating Best Practices – The MEDCOM has embraced the Lean Six Sigma approach to sustaining improved performance. As an example, a Lean Six Sigma project to improve the telephone appointing process was initiated at Carl R. Darnall Army Medical Center (CRDAMC), the largest telephone appointing call center in the MEDCOM. The call center was plagued with high call volume, low patient satisfaction, long process cycle time, and high variation. The project sought to decrease process cycle time and the call abandon rate to improve patient satisfaction. By the conclusion of the project, the overall average hold time was reduced to 33 seconds (a 6-fold improvement); the call abandon rate was reduced to 3% (a 10-fold improvement); calls handled increased from 4700 to 7300 per week; and call agent turnover was reduced. Today the mean hold time at CRDAMC is 3 seconds. This project's successful action plan and metrics have been disseminated across the command as a best practice.

6.0 Inspire Trust in Army Medicine - Increase stakeholder support of Army Medicine by inspiring trust, building confidence, and instilling pride.

Improving civilian medical practices - The implementation of tactical combat casualty care (TC3) principals for point of injury treatment on the battlefield has changed long-standing hemorrhage control protocols in the civilian Emergency Medical Services (EMS) community. The nation's EMS community has altered long-standing treatment protocols that formerly considered tourniquet use a last resort. The use of tourniquets, based on the success of their application by military medics in theater, is now not only seen as safe by our nation's healthcare providers, but as the intervention of choice for control of severe hemorrhage. Hemorrhage control is the leading cause of death in trauma. The change in philosophy regarding tourniquet use will result in more lives saved in both urban and rural areas of our country.

Establishing Successful Interservice Partnerships (San Antonio Military Medical Center) - Wilford Hall Medical Center (WHMC) and Brooke Army Medical Center (BAMC) are quickly evolving towards the San Antonio Military Medical Center (SAMMC) which is an integrated health care platform in which patient care is delivered in two facilities operating under one organizational structure. The SAMMC organizational structure has been operational for over a year. The organizational structures of BAMC and WHMC were both realigned to form a functional organization for delivery of health care, maintenance of our readiness and deployment platforms, sustainment of training of all levels of health care providers, and promotion of research. Many physical moves of medical services have already occurred across the SAMMC platform. SAMMC is planning for the migration of the two military level one trauma centers in San Antonio to one military level one trauma center, capable of handling the same patient care volume that is being delivered today in the two centers. Planning and coordination with the City of San Antonio have been an integral part of this process to ensure continued trauma support in the city. SAMMC enjoys strong collaborations with both the University of Texas Health Science Center, local

government leaders, and the Audie Murphy Veterans Memorial Hospital in support of the large tri-service beneficiary population in the San Antonio community.

Establishing Successful Interagency Partnerships (Behavioral and Social Health Outcomes) - CHPPM resources are partnered with civilian academia, the VA and HHS (including the Centers for Disease Control and Prevention, and the National Institute of Mental Health) to work in the mitigation of rising rates of suicide, depression, PTSD and other adverse behavioral and social health outcomes in our Families, Retirees, Active Duty, Reserve and National Guard Soldiers. MEDCOM is working with other key organizations to build a robust public health capability in the area of Behavioral and Social Health outcomes (to include suicides and homicides). This effort includes the construction of an Army-level relational database that draws critical information from numerous sources to enable comprehensive analysis of adverse outcomes in Army organizations and communities.

Establishing Successful Interagency Partnerships (National Interagency Biodefense Campus) - Fort Detrick, Maryland hosts and is intimately involved in the development of the National Interagency Biodefense Campus (NIBC) to fill gaps in national biodefense and integrate agencies for a whole of government approach to national security. As a charter member of the National Interagency Confederation for Biological Research (NICBR), a collaboration of the National Cancer Institute along with the NIBC partners, the Army is breaking ground in building on a model for interagency cooperation at Fort Detrick. During 2008, members of the NICBR/NIBC were involved in developing national policy on biodefense and biotechnology as well as collaborating on research. Research includes work on developing vaccines, diagnostics, forensics, and therapeutics. While focusing on protecting people from disease and bioterrorism, members of the NICBR/NIBC participated in multiple national assessments to prioritize and focus biodefense missions, all while continuing united scientific discovery. During 2009, the NICBR/NIBC will continue to work with Congress and others to define and scope gaps and seams in our Nation's biodefense posture.

In closing, I want to thank this Committee for their terrific support of the Defense Health Program and Army Medicine. I greatly value the insight of this Committee and look forward to working with you closely over the next year. I also want to salute our non-commissioned officers for their professionalism, competence, and leadership—they are truly the backbone of Army Medicine. Thank you for holding this hearing and thank you for your continued support of the Army Medical Department and the Warriors and Families that we are most honored to serve.