RECORD VERSION

STATEMENT BY
LIEUTENANT GENERAL NADJA Y. WEST
THE SURGEON GENERAL AND
COMMANDING GENERAL,
UNITED STATES ARMY MEDICAL COMMAND

BEFORE THE

SENATE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE
FIRST SESSION, 115TH CONGRESS

ON DEFENSE HEALTH PROGRAM

MARCH 29, 2017

NOT FOR PUBLICATION UNTIL RELEASED BY THE
SENATE APPROPRIATIONS COMMITTEE

Chairman Cochran, Ranking Member Durbin, distinguished members of the subcommittee, thank you for the opportunity to testify on the current state of Army Medicine and future challenges. Your continued support enables Army Medicine to remain ready and responsive to global threats and other uncertainties. It has been a privilege to serve as The Army Surgeon General and Commanding General of US Army Medical Command, and I am incredibly proud to lead a team of talented and dedicated professionals. Every individual that makes up our Army Medicine team remains our most valuable asset and we have a sacred obligation to care for those who serve our Nation and their families.

Army Medicine is part of an integrated Joint Health Services Enterprise (JHSE), which is globally engaged, supporting Combatant Commanders in 140 locations across five continents. We continue to provide medical support to our Forces engaged in conflict across the globe while concurrently responding to natural disasters, infectious disease outbreaks, and other complex contingency operations. Given the lethality and complexity of the battlefield, in conjunction with our sister services, we have achieved stunning survivability rates and the lowest rate of disease and non-battle injuries.

Our medical knowledge in trauma care, traumatic brain injury, aeromedical evacuation, amputee care, and other combat medicine-related disciplines have changed how trauma care is delivered on the battlefield, home front, and across the globe. These outcomes, lives saved, and advancements do not happen by chance, as they are the result of an integrated and well-synchronized plan and a healthcare delivery capability that extends from the battlefield to the garrison environment.

To remain the Nation's premier expeditionary and globally integrated medical force, readiness is my number one priority, which is in 100% alignment with the Army Chief of Staff priorities. We must be ready to support our Army and the Joint Force in any environment; ready to adapt and apply our full spectrum of AMEDD capabilities from injury to recovery; ready to identify and apply innovative technologies; and ready to strengthen the physical and psychological wellbeing of our Soldiers, Soldiers for Life, and their Families. Predictable and consistent funding is essential for the Army and Army Medicine to improve readiness and progress toward a more modern, capable, and responsive future medical force. If we return to sequestration-level funding in FY18,

Army Medicine will be unable to sustain the levels of responsiveness and readiness that our Army and our Nation requires to face emerging challenges and contingencies.

We are preparing for future operating environment challenges, as the global security environment remains volatile, uncertain, and highly complex. The emergence of peer and near-peer adversaries combined with rapid technological expansion presents great risk to the traditional construct of battlefield medical support. Electronic warfare, unmanned aerial vehicles, extended-range weaponry, and non-traditional kinetics present real possibilities for increased lethality and decreased patient evacuation opportunities. Nonetheless, we must innovate and be prepared to deliver world-class Health Services Support in any dynamic or contested environment.

As we look to the future, the Multi-Domain Battle concept consisting of land, air, maritime, space and cyberspace domains will require us to be increasingly responsive and able to rapidly scale and reconfigure our medical support capabilities. Army Medicine has been proactive in balancing land-component modularity while promoting inter-Service interoperability; ensuring the right medical capabilities will be available at the right place and right time. Combatant Commands rely on the Services, particularly the Army, for medical capabilities to support a vast range of military operations. Last year Army Medicine rapidly assembled a damage control surgical capability to support special and conventional forces operating in a widely dispersed environment within the U.S. Army Africa Command region. Deemed an overwhelming success, these small resuscitative teams continue to rotate every four months and demonstrate Army Medicine's commitment to provide rapid and adaptive solutions to support Combatant Commands and the Joint Force.

Army Medicine is about to undergo significant organizational change associated with the Fiscal Year 2017 (FY17) National Defense Authorization Act (NDAA) which may have far-reaching second and third order effects. We are working closely with the Defense Health Agency (DHA) and the JHSE to implement these legislative changes, which requires deliberate planning and analysis. We wholeheartedly support the intent of Congress and will work diligently to also meet the operational requirements of our Combatant Commanders and provide quality healthcare to our beneficiaries.

In support of my number one priority of readiness, we have established four Lines of Effort as part of the 2017 Army Medicine Campaign Plan: (1) Readiness and Health; (2) Force Development; (3) Healthcare Delivery; and (4) Taking Care of Ourselves, our Soldiers for Life, Department of the Army (DA) Civilians, and Families. These priorities endure, our resolve has strengthened, and we continue to move forward with implementation. In the face of global security and industry reform challenges, we will continue to innovate and evolve to become an integrated system for health and the Nation's first choice for expeditionary health services. Since 1775, Army Medicine has responded to the call – whenever and wherever needed – supporting the Soldier and all those entrusted to our care.

Readiness and Health

Readiness remains the most critical focus of the Total Army and supporting the Soldier's readiness is Army Medicine's primary mission. No other health system operates at the scale and magnitude of Army Medicine, which serves over 11,000 new accessions monthly across the total force. Army Medicine serves over 180,000 patients on a daily basis, but our readiness mission extends well beyond the walls of our military treatment facilities to include expeditionary medicine, medical evacuation, an array of public health services, and medical research efforts to protect our Soldiers before, during, and after deployment. Readiness permeates everything we do from prevention and resilience to rehabilitation and transition. As the Nation's premier and globally integrated medical force, we have enhanced individual and unit readiness by embedding assets within the maneuver Brigade Combat Teams to prevent and treat musculoskeletal injuries, address behavioral health issues within our formations, and enhance our responsive medical capabilities.

Medical readiness consists of two essential components, a force that is medically ready and a medical force that is prepared to provide capability in any environment our Force needs us: (1) individual Soldiers must be physically and mentally fit, ready to deploy anywhere, anytime and (2) Army Medicine must be a responsive medical capability with clinically proficient individuals who are also facile in their warrior tasks

and drills. Our ability to sustain readiness and deploy healthy individuals and organizations in support of the world's premier combat force must be absolute.

Soldier Medical Readiness

A fit and healthy fighting force is the foundation of a strong national defense and the strength of our Army is inextricably linked to our Soldiers' individual health and wellness. Because the Army is a demanding profession with a host of injury risks, Soldiers must have the requisite level of endurance to perform the physical and mental tasks of their occupation. Although medical readiness is a shared responsibility between the individual Soldier, Command Teams and enabling organizations, Army Medicine plays a decisive role in monitoring, assessing and identifying key health-related indicators and outcomes as well as providing recommendations to mitigate these risks.

Within the behavioral health sphere, Army medicine has leaned far forward with our Embedded Behavioral Health (EBH) program, which has been consistently recognized as a DoD-wide best practice. EBH provides early Behavioral Health (BH) intervention and treatment to Soldiers in close proximity to their unit area. Soldiers receive expedited evaluations and treatment from a single provider, which greatly improves continuity of care and facilitates close coordination with unit leaders. The enduring working relationship between the BH provider and key battalion personnel also addresses stigma commonly associated with seeking BH care.

EBH has been associated with improved access, quality, and safety in Soldier care and improved readiness to deploy. Since the implementation of EBH in 2012, 45% fewer Soldiers with Post-Traumatic Stress Disorder (PTSD) have received prescriptions for benzodiazepines, a potentially addictive group of medications. Further, we have increased the use of evidenced-based psychotherapy and intensive outpatient program options. With more Soldiers receiving care in the outpatient setting, BH conditions are being managed earlier, before crises occur. Soldiers required 67,000 fewer inpatient bed days for all types of BH conditions in 2016, as compared to 2012 (approx. 41% decrease), due to improvements in outpatient services, EBH, Intensive Outpatient Programs and case management. EBH's effectiveness has been further supported in a

program evaluation conducted by the Massachusetts Institute of Technology (MIT) between 2010 and 2015. As of December 2016, we have fully implemented EBH in all operational units, to include 62 EBH teams staffing 450 EBH providers in direct support of 31 brigade combat teams and 156 other battalion and brigade sized units.

While some level of illness, training-related or operationally-induced injury is unavoidable; there are many opportunities to intervene before a health-limiting event occurs. Army Medicine is leveraging our System for Health programs and Health Information Technology (HIT) to better detect such opportunities to improve readiness, such as the Medical Readiness Assessment Tool (MRAT). The MRAT is a HIT decision support tool that predicts if a Soldier is at risk for becoming non-deployable in the next 4-6 months. The tool uses diagnoses and medication data from the electronic health record (EHR) and fitness performance data from unit tracking systems to identify Soldiers with recurring medical limitations and high-risk behaviors that predispose them to illness and injury. The MRAT facilitates early intervention. When a high-risk condition is identified, including the management of multiple complex prescriptions, the Soldier's health team can intervene to prevent addiction or a permanent medical limitation.

Army Medicine is positively influencing a culture of health by providing Soldiers and Commands comprehensive health services, education, tracking and monitoring tools. The Army is currently in the final phase of a medical readiness transformation. We have modified our readiness systems to improve Commanders' understanding and engagement. In June 2016 we launched a readiness dashboard, the Commander's Portal, and a reengineered physical profiling system (eProfile), which includes over 250 standardizing templates for the most commonly profiled injuries and illnesses. Using only one web-based tool, which our line leaders affirm is much easier to use, Commanders can view all medical readiness data, to include eProfile and MRAT, and communicate directly with medical providers before making deployability determinations for their Soldiers.

The Commander's Portal and other transformation initiatives have resulted in more timely identification of deficiencies, improved communication between healthcare teams and unit commanders, and increased oversight of unit and individual medical

readiness. Between February 2016 and February 2017, deployable rates increased across all three Army Components. Additionally, dental programs such as Go First Class, Direct Care Dental Services, and the Deployed Dental Care Program have reduced dental treatment needs by over 50% and improved dental wellness. Go First Class combines dental exams with hygiene and restorative appointments, and has saved nearly one million man hours spent traveling to and from appointments.

As our readiness tools and programs mature, Army Medicine will continue to incorporate lessons learned to reduce the burden on commanders, clinicians, and Soldiers to manage health and readiness. In 2014 we launched the Performance Triad program to empower our Soldiers and families with knowledge and tools to improve their personal health readiness through changes in sleep, activity, and nutritional habits. With the Performance Triad we have developed a sustainable program to meet the health needs of Soldiers and leaders. Strong leadership support for the Army Performance Triad has increased healthy food options in our installations' dining facilities and has positively impacted work-rest cycles in training and garrison settings. After unit-wide application of the Performance Triad tenets, an armored battalion reported a 21% increase in gunnery scores, and another infantry battalion achieved an all-time lowest adverse safety incident rate at the Joint Readiness Training Center (JRTC). Engaged leadership is the most important factor in influencing the healthy behaviors within our formations, and I am confident we are continuing to move in the right direction. Army Medicine will continue to provide tools and knowledge to steer a cultural change toward health, optimal performance and sustained readiness.

Ready and Responsive Medical Capability

In order for the Army to prevail on the battlefield, in the unforgiving crucible of ground combat, our Soldiers must be in top physical and mental health. Our medical branch of our Army must not only ensure medical readiness of our Force but must also be ready, agile, and responsive to deploy on a moment's notice, save lives, and evacuate casualties to definitive care. While we are the experts on battlefield medicine and applaud achieving remarkable combat survivability rates over the past 15 years, we

must continue to improve and innovate to achieve our goal of zero preventable battlefield deaths.

To be postured to respond to the next set of challenges we must focus our clinical training efforts and mitigate critical capability gaps. We anticipate the future threat environment may require casualty care holding that exceeds current evacuation planning factors (i.e. the Golden Hour). Due to tactical or operational circumstances, any member of the ground force healthcare team (combat medic, nurse, or physician) may be faced with providing prolonged casualty care in an environment lacking robust medical infrastructure. Army Medicine is exploring multiple methods to reduce risk caused by evacuation limitations, such as bringing surgical capabilities further forward to the point of injury. Virtual Health (VH) capabilities may also augment treatment when a patient's condition is deteriorating and threatens to outpace the skill level of a first responder. Ultimately, prolonged care requires core clinical and battlefield medicine competencies at every skill level; and competency requires repetition.

We view our Medical Treatment Facilities (MTFs) as health readiness platforms that provide training in support of responsive medical capabilities and to maximize medical readiness of the total Army. MTFs provide our medics, doctors, nurses and other health professionals the opportunity to perform skill repetitions every day, both individually and more importantly, collectively as a team. We leverage our larger facilities to develop and sustain the trauma, critical care, and complex surgical care skills required to save lives on and off the battlefield. The Army also maintains sophisticated simulation training centers to further maintain the proficiency of our medical personnel, particularly those deploying or assigned in operating force formations. For example, the Anderson Simulation Center, located at Madigan Army Medical Center, is the first DoD facility to be accredited both by the American College of Surgeons (ACS) and the Society for Simulation in Healthcare (SSH). We are proud that the Anderson Simulation Center remains one of seven sites across the United States to hold Level 1 SSH accreditation.

Training is the foundation of a ready and responsive medical force. Army Medicine conducts training and operations across every platform, from expeditionary and prehospital to primary and tertiary care. Sustainable medical readiness stems from

daily MTF operations and multiple echelons of medical training and education programs across Army Medicine. Each year we train more than 35,000 students at the Army Medical Department Center and School Health Readiness Center of Excellence, and nearly 1,500 physicians in Graduate Medical Education (GME). Most notably, our GME programs are vital in force generation and retention. The reach of Army GME extends across all Army components. Those leaving active duty service are a primary source of GME-trained physicians for the nation's civilian healthcare system, as well as the Army Reserves and National Guard, which helps offset civilian physician training shortages.

Army Medicine hosts the largest GME platform in the DoD with the largest number of training institutions, programs, and officers in training. Approximately 93% of all Army GME training is conducted within a DoD program or institution. There is a national shortage of residency training positions in the civilian sector; therefore, training in DoD facilities ensures sufficient quantity for each specialty needed to meet the requirements of the Joint Force, global health engagement and medical force readiness requirements. Our reputation for superior clinical training and leadership development boosts recruiting and retention efforts and our first time medical board certification pass rate of 95% well exceeds the 87% national average. However, we still suffer shortages in several key surgical specialties. Orthopedic, thoracic, and general surgery are critical shortfalls for Army Medicine across all components. We are actively working to adapt and align residency and fellowship training allocations to better emphasize trauma care capability, which will include expanding partnerships with civilian institutions to establish enduring training platform agreements for GME. We have also begun collaborating across the Services to leverage tri-service training platforms to optimize individual and team training opportunities.

Army Medicine collaborates with the civilian healthcare industry to expand readiness capabilities; we have learned from industry, just as industry has learned from us. Industry frequently looks to Army Medicine for cutting edge prehospital, trauma, and rehabilitation advances, and we actively collaborate with them, particularly in the research realm. Combat casualty care research and revolutionizing clinical practices led to one of the highest survival and recovery rates among injured Service Members over the past 15 years. Many of the skills applied on the battlefield have been

incorporated into military and civilian prehospital and trauma protocols. Public-private partnerships facilitate resource sharing and expedite research, development, and acquisition in many mission-relevant health care areas. Past decisions have led to remarkable advances in the knowledge and care of infectious diseases such as Zika, Ebola, HIV, and Malaria. Further advances have also been made in physical and mental combat-related wounds, such as Traumatic Brain Injury (TBI) and Post Traumatic Stress Disorder. Our decisions today must preserve the Army's core medical research competencies; and through continued investment, build a capability that ensures strategic advantage in future and more complex operational scenarios.

Force Development

Army Medicine includes 138,000 Soldiers and civilians serving in diverse clinical, support, and research specialty areas and the majority of our uniformed medical force is in the Army Reserve and Army National Guard. Integration of this total Force helps us provide responsive medical capabilities whether on a battlefield, in an austere environment, addressing a humanitarian crisis, or answering any other call to our Nation. We have not only invested in educating and training our Force but also are committed to building high-performing medical teams that will thrive in a highly complex future operating environment. Army Medicine has taken proactive measures in our Force development to ensure that we are able to support rapid deployments with mission-ready personnel and equipment. We invest heavily in our most valued asset, our people, to ensure the Army Medicine team continues to demonstrate individual and collective excellence.

The acquisition, development, employment, and retention of a broad and diverse spectrum of healthcare talent are critical to conduct missions across multiple domains, and to meet the challenges of enduring requirements and unanticipated contingencies. Army Medicine is continuing to deliberately manage talent at all levels and in all components. We are improving efforts to match specific job requirements with the individual's skills and experience, while developing them to their fullest potential. Last year, our Talent Management Directorate collaborated with stakeholders to fully codify the knowledge, skills, and behaviors required for senior leader billets and reviewed all

positions to match talent with strategic organizational demands. We are also transforming our Professional Filler System (PROFIS), in which medical personnel are on-notice to deploy in support of an operational unit.

Future-focused human capital management is further complemented by medical force modernization efforts to better align Army Medicine in support of the Army and Joint Force. In FY17 the Army began fielding a redesign to increase capabilities of the Combat Support Hospital. The newly configured Field Hospital (FH) includes more specialized physician and nursing staff; and is able to accommodate split operations while preserving full medical, communication, and command capabilities. Furthermore, modular augmentation detachment options enable scalable surgical treatment and hospitalization requirements. Another redesign initiative, the Forward Resuscitative Surgical Team (FRST), will launch in FY18. This rapidly deployable team is self-mobile, networked, modular and scalable. In addition to providing damage control surgery, FRSTs provide emergency treatment and postoperative care. The conversion timelines for both the FH and FRST span FY17 to FY22; and all projected modernization requirements are synchronized between Active and Reserve Components.

Other examples of increased versatility and agility include en-route critical care teams and the enhanced combat medic initiatives. Our en-route critical care nurses continue to deploy and fly missions; this capability, in combination with paramedic flight training, adds immediate life-saving measures in the pre-hospital environment. Army Medicine is actively increasing enlisted en-route care providers to meet the objective of having a Paramedic with Critical Care Training in the back of every Army Air Ambulance. Enlisted skill capability requires expansion because the tactical environment involves combat medics working without a provider on site, particularly when evacuation is delayed or unavailable. In previous wars, up to 90 percent of combat deaths occurred before a casualty reached a medical treatment facility; however, throughout the most recent conflict, continuous process improvement in Tactical Combat Casualty Care drastically reduced the number of military personnel dying of potentially survivable combat wounds to a historic low of 3%. The many training improvements developed from the lessons of war are now saving lives, and the efforts to sustain these skills will offer the best chance of survival and recovery to those

we care for in the future. Critical care is not just for the back of an air ambulance as it is also required on the ground to support expeditionary medical requirements.

Military medical readiness is highly dependent on learning lessons from past conflicts and ensuring that we are prepared at the start of any conflict. Although military medicine has advanced throughout every successive conflict, we have experienced challenges when responding to the next war. For example, five years after the US successfully ended World War II, we entered the Korean War with a significantly reduced force and critical physician shortages. Although Task Force (TF) Smith, part of the 21st Infantry Regiment, was deemed to be at a high state of readiness and medical training; medical supplies were exhausted within hours of combat operations and simple medical procedures became overly complicated in an austere environment. While there was no shortage of medical ingenuity and heroism in saving as many as possible, there was no reliable resupply plan or evacuation route. We must use lessons learned from past and current conflicts to preserve and advance institutional knowledge and remain postured to save as many lives as possible on future battlefields.

Medical Innovation

Army Medicine continues to lead with respect to medical innovation. The U.S. Army Medical Research and Materiel Command (USAMRMC) readily partners with our sister Services, the Defense Health Agency and other federal agencies to coordinate and maximize DoD's efforts in research, development, testing and evaluation (RDT&E). Successfully advancing a new medical technology through all phases of RDT&E may require as much as $1B investment. Within the pharmaceutical industry, only one in twelve products will successfully make it to the market. To avoid exorbitant costs and timelines, Army Medicine purposefully seeks and fosters partnerships with academia and commercial industry to gain initial investments, industry expertise, and to leverage existing resources when possible. This shared model often results in faster development, fewer expended resources from a sole source, and dual-use products that immediately benefit the Service Members as well as civilians.

The recent Zika vaccine trial at the Walter Reed Army Institute of Research (WRAIR) is an example of leveraged federal and industry partnerships to fund and

conduct clinical trials in the interest of military readiness and civilian health. This early-stage Zika vaccine effort is one of several federally-funded vaccine development initiatives under the auspices of the Department of Health and Human Services. After recognizing the epidemic potential of Zika, WRAIR scientists began work to manufacture vaccine doses for a clinical trial. The effort took just eight months, which was unprecedented in the vaccine-developer community. The Army was able to rapidly move through developing, manufacturing, and testing a Zika vaccine because of its extensive experience and long-standing investments in other vaccine research platforms. Similarly, the Army's firmly established infectious disease experience and international relationships allowed our researchers and scientists to swiftly respond to the 2013 Ebola crisis in West Africa.

DoD's efforts in research and development not only builds force readiness, but also increases national security and bolsters homeland security preparedness. Hemorrhage is the leading cause of death in both civilian and military trauma. In 2016, military surgical teams in Operation Inherent Resolve successfully used the innovative Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) catheter to save the lives of four combat casualties. The flexible catheter allows medical teams to control bleeding, restore blood pressure, and reduces the need for blood transfusion in an austere surgical scenario. The REBOA is now being used in civilian medical centers across the country in the care of US civilians injured in accidents, acts of violence and natural disasters.

The Defense Health Program and Military Medical Research Programs are our Nation's primary funders of trauma and injury research and development. No other private or federal entity provides significant funding to advance the science involved in acute casualty care. Army medicine works collaboratively to find and fill research gaps by funding high impact, high risk and high gain projects that other agencies often do not venture to fund. For example, military research supported an effort to develop a process to improve reconstructive transplantation procedures using personalized surgical devices designed and rapidly prototyped from virtual surgical simulations. This novel surgical technology is expected to benefit civilians and Service Members with devastating craniofacial injuries.

Traumatic Brain Injury is another example of DoD's efforts in research and development. Since 2000, there have been over 357,000 TBIs diagnosed in the military. When TBI came into the forefront of the Nation's attention in 2006 the medical community had very few answers on how to prevent, treat, or limit morbidity related to TBI. Since then the Army has been at the forefront of TBI research, education, clinical care and policy. Collaboration between all three Services, the Department of Veterans Affairs (VA), and academia has contributed to improved TBI screening and treatment, as well as concussion management in deployed settings. The Army, along with the TBI Advisory Committee, has generated standardized clinical tools and clinical recommendations such as the Military Acute Concussion Evaluation. It has been an impressive journey as we progressed from limited treatment knowledge to clinical practice guidelines and full medical and leader engagement.

Healthcare Delivery

From the battlefield to the garrison environment, Army Medicine provides access to safe, high quality healthcare. We cannot limit our focus to combat trauma, surgery, and burns – Army Medicine must preserve a broad range of medical capabilities. From 2001-2015 less than 21% of those evacuated from theater were injured in battle; the vast majority of care addressed non-battle illnesses and injuries. To prepare for a myriad of settings and conditions, and sustain training and education programs, our medical centers, hospitals and clinics need access to a diverse case and patient mix to include our family members, DoD Civilians, and Soldiers for Life.

Health services are an important benefit in the recruiting and retention of an all-volunteer force, as part of their unwavering commitment to serve and protect. To honor our commitment and beneficiaries' trust, we must continue to provide a health benefit commensurate or exceeding national standards. The primary performance domains of our healthcare system – access to care, quality and patient safety, and patient satisfaction – must be continually measured, assessed, and improved.

Access to Care (ATC)

We are facing a rapidly shifting healthcare delivery landscape. Nationally, health costs are outpacing inflation and technology is impacting how health information and services are provided. There are increasing demands to improve efficiency, access, and the patient experience; and expectations to decrease cost, performance variability, and redundancy. Army Medicine has been listening and responding. Over the past year Army Medicine has implemented aggressive efforts to expand access to care to ensure all beneficiaries are seen by the right provider, at the right time, in the right venue. We thoroughly overhauled appointment-scheduling systems, modified operating hours, expanded secure messaging and telehealth initiatives, and expanded community based medical homes. In 2016 Army Medicine received two ATC awards, to include 'Most Improved Service in ATC' from Military Health Service, and 'High Reliability Organization: Improved Primary Care ATC' from the Association of Military Surgeons of the United States.

As part of our effort to maximize ATC, we have added an additional 836,000 appointments in 2016 compared to 2015. The Nurse Advice Line (NAL) combined with secure messaging improved utilization of self-care and primary care appointments and lessened inappropriate emergency care, avoiding $12M in network costs in 2016. Concurrently, both inpatient and outpatient satisfaction has increased. Army Medicine has improved satisfaction rates by 10% over the past two years and is currently above the civilian benchmark for our medical and surgical services. Outpatient satisfaction in Army MTFs continues to be very high. Over 93% of beneficiaries indicate being satisfied with their overall healthcare and over 92% report being satisfied with their provider.

To decrease access to care barriers, Army Medicine is bringing integrated care closer to the patient through a patient-centered primary care model. The Army Medical Home (AMH) staffs an integrated, multi-disciplinary healthcare team focused on proactive and comprehensive care. Each patient partners with a team of healthcare providers, which includes physicians, nurses, behavioral health professionals, pharmacists, dietitians, and others to develop a comprehensive, personal healthcare plan. The AMH model also extends to our Community Based Medical Homes (CBMHs)

and Soldier Centered Medical Homes (SCMHs). CBMHs are located in off-post communities to more conveniently serve Army Families where they live and work. We have opened 20 CBMHs (serving 150K beneficiaries), and an additional seven CBMHs will open over the next two years. While all Army beneficiaries have access to primary care services with routine physical exams and accessible specialty care, the AMH offers enhanced care coordination, access, quality and safety. Our patient-centered access and care coordination initiatives have produced excellent results. Our hospital readmission rates have reduced from 34 per 1000 enrolled beneficiaries to 30 per 1000 enrolled beneficiaries from September 2015 to November 2016. During this same time frame, our preventable admission rate has improved from 20 per 100,000 to 17 per 100,000 enrolled beneficiaries.

The Army SCMH is the Soldier's version of the AMH model. In addition to offering enhanced care coordination, access, quality and safety, the SCMH mission improves medical readiness. The SCMH delivers 90% of Soldier care in a single location, eliminating the need for multiple referrals and the unnecessary loss of duty time. The SCMH model also integrates the medical staff from the Soldier's unit of assignment with the medical staff from the MTF. The physicians, medics, and physical therapists from the Soldier's Unit have a unique relationship, because they work and train alongside their patient population. This facilitates better rapport, accountability, and a direct line of communication with the Unit Commanders to advise them of high-risk Soldier activity or other concerning trends, such as musculoskeletal injuries.

Virtual Health represents our largest initiative to improve access and bring care closer to the patient. Army Medicine is a recognized leader in VH, with services spanning 18 time zones, 30 countries and territories, and over 30 clinical specialties. Using VH, the best of Army Medicine can be brought to the patient wherever they are, whether deployed or in garrison. In 2016, our Regional Health Command-Europe exhibited exemplary utilization of VH by saving Soldiers, beneficiaries and Commanders an estimated 2,050 work and school days, $1.34 million in travel-related expenses, and 825,000 kilometers of travel. For many years Army Medicine has excelled with VH in the deployed environment. We have ongoing programs supporting Special Forces with

real-time provider-provider and medic-Intensivist consults; and teleconsultation for all deployed providers (aka Ask-a-Doc).

As we build capability on the battlefield, we also will continue to expand VH capabilities for our Soldiers and their Families in garrison. To augment current global VH offerings in over 30 specialties, we are collaborating with counterparts in the Joint Health Service Enterprise to establish an enterprise platform for Virtual Video Visits and a Global Teleconsultations Portal. These platforms will help meet the requirements for Section 718 of the 2017 NDAA, along with collaborative pilots beginning in Home Health Monitoring. Army Medicine is currently conducting over 40 pilots and programs to be used in the enterprise program and expand the use of VH for our beneficiaries.

All VH programs are part of a comprehensive business plan for bringing tomorrow's health care today to our Nation's heroes. Current programs include emergency, primary and specialty care, and pre- and post- surgical consultations. Army Medicine is also rolling out VH cart technologies, which will enable providers to diagnose and treat patients remotely by electronically transmitting real-time vital signs and images. In culmination, we are establishing a Virtual Medical Center with clinicians and staff that specialize in remote care delivery. We envision a globally integrated garrison and deployed VH system under a centralized program structure.

Quality and Safety

Whether delivered remotely, inpatient, or outpatient, all care provided must be safe and of a quality that meets or exceeds national benchmarks. By constantly asking "What could possibly go wrong?" using tools such as checklists and preparing for the unexpected, much in the way that a squad assesses the risks of a combat mission, medical, surgical and dental teams can reduce preventable errors to zero. To promote a culture of safety, we have incorporated patient safety tools and strategies and adopted aggressive high reliability and learning organization principles.

Throughout the Army direct care system, all MTF staff are trained in Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS®), which is an evidence-based set of teamwork tools, created by an enduring collaboration between the DoD and the Agency for Healthcare Research and Quality, to improve

health team communication skills and optimize patient outcomes. Our care teams brief, huddle, and debrief during their shifts; and, if any staff member observes potential for patient harm they are required to speak up. Notably, as part of a High Reliability Organization (HRO), team members are strongly encouraged to voluntarily report errors and near-misses. Non-punitive reporting practices in a climate of psychological safety contribute to institutional learning and increase safety and performance. Army Medicine strives to strike the balance between psychological safety and accountability.

Negligence and lack of competence are in the minority of root causes for patient harm; most errors are caused by disconnected or antiquated workflow systems or processes. Once the conditions that led to an error are identified, mitigation and improvement strategies can be implemented throughout the organization. Since 2011, Army Medicine improved 4% on communication openness measures, and 5% on non-punitive response to errors, which exceeds national benchmarks.

In the Military Health System (MHS) Review of 2014 nearly 200 metrics were evaluated and indicated significant variation in MTF performance. Since then, Army Medicine has taken corrective action to meet action plan requirements and has improved outlier MTF performance to the standard or better. Army Medicine is also complying with specific MHS Review recommendations to expand the American College of Surgeon's National Surgical Quality Improvement Program® (NSQIP), designed to improve the quality of surgical care and skill (readiness) experience, to all MTFs where surgery is performed. Only 681 hospitals worldwide, and 603 of the 5,564 registered acute care hospitals nationwide participate in NSQIP. We are proud to include all of our hospitals in this nationally validated, risk-adjusted, outcomes-based program. Because we collect, analyze, and take action on this benchmarked data, we are among the top 25% of hospitals in the United States. Dwight D. Eisenhower Army Medical Center in Fort Gordon, Georgia, has been recognized by the American College of Surgeons for its exemplary surgical outcomes that place them in the top 1% of hospitals nationwide in overall surgical morbidity. In collaboration with our tri-service and civilian partners, we are identifying and acting on data trends, developing and sharing best practices, standardizing processes and workflows, and putting systems in place to prevent

surgical "Never Events," such as wrong site surgeries and unintended retained foreign objects.

Taking Care of Ourselves, our Soldiers for Life, DA Civilians, and Families

Army Medicine is constantly progressing to preserve a healthy force with the physical, mental, emotional, and behavioral capabilities to adapt to and cope with adversity. Our supporting family members and DA Civilians also face chronic stress, adversity, insufficient sleep, inadequate activity and poor dietary habits. Our family members are especially vulnerable to increased stress when Service Members are away from home either while deployed or during training exercises. Soldiers, Families, and Civilians serving and supporting deserve our undivided attention. As such, it is our duty to promote, improve, conserve, and restore the physical and psychological well-being of all our beneficiaries.

Behavioral Health

Family readiness supports Soldier readiness. Army Families experience significant stressors, such as frequent moves that necessitate changing of jobs and schools, establishing new friend and support networks, and deployments of spouses and parent(s). Research has demonstrated that combat deployments have had negative effects on up to 30% of family members. National shortages in behavioral health services further hinder the resiliency of our families. To address behavioral health (BH) access challenges, Army Medicine launched the Child and Family Behavioral Health System (CAFBHS). The CAFBHS boosts access and decreases stigma by positioning care near to where family members live, work and go to school. In FY16, CAFBHS encounters numbered 252,867, an increase of 10.4% from the previous year. Significantly, we saw a 16.5% increase of child and adolescent encounters. Recognizing this specific increased demand, we have established partnerships with on-post and community organizations, such as the Military Child Education Coalition. Additionally, BH services will further expand in FY17 to 100 on-post schools across 18 installations. Ongoing integration of BH into Primary Care,

leveraging provider-to-provider teleconsultation and expanding community partnerships will be necessary to meet increasing BH demands.

To further reduce the stigma associated with seeking help for BH care, we have also positioned BH professionals in the Army Medical Homes. BH screening is part of every primary care visit, and affords an additional opportunity to a patient who is undecided about seeking BH services, or perhaps does not yet recognize the need. We are making every effort to recognize BH "vital signs," and address them early in a safe and comfortable environment. The Tri-Services are collecting data to track clinical outcomes in BH patients. The Behavioral Health Data Portal (BHDP) has made it possible to gather BH vital signs at every visit and track associated symptoms over time. At each visit, the patient is given self-reporting questionnaires to complete on a tablet or kiosk. The results are immediately available to the provider facilitating an efficient method to monitor symptoms; make adjustments to the treatment plan; measure the effectiveness of treatment; and inform decisions regarding BH readiness. Aggregated data are used to create system-wide treatment outcome measures which inform future policy to maximize the quality and effectiveness of care. The BHDP is available in 100% of Army BH clinics, 14 CAFBHS clinics, 11 primary care clinics, and four Army National Guard (ARNG) States; we are continuing to implement at additional clinics, including ARNG clinics.

Often referred to as the invisible wound of war, PTSD is the most common BH diagnosis after exposure to traumatic events; 5-20% of Soldiers who have deployed to Iraq or Afghanistan meet the clinical criteria for PTSD. Routine screening for PTSD is conducted in primary care settings, pre- and post-deployment, and annually throughout a Soldier's career. Of Soldiers who received a new diagnosis of PTSD in Army BH clinics, approximately 70% received at least four treatment encounters within 90 days, a rate far exceeding those reported in other studies of VA or civilian populations. Though not limited to combat, PTSD is common after other traumatic events, including sexual assault, accidents, and natural disasters. There is also a strong association with other mental and physical health problems, such as chronic pain, fatigue, concentration or memory problems, and persistent health concerns following blast related concussions.

An alarming disorder associated with PTSD and other BH conditions is substance abuse. Currently, 30% of Soldiers with a behavioral health condition screen positive for substance use disorder, and 50% with suicidal ideation screen positive for excessive alcohol use. In FY16, the Army enrolled over 11,600 Soldiers, the equivalent of over two brigade combat teams, in mandatory Substance Use Disorder Clinical Care, which significantly restricts their readiness to deploy. Following a 2015 study, the Secretary of the Army ordered the transfer of substance use disorder clinical care assets from Installation Management Command to Army Medicine. Since assumption in October 2016, we have made significant progress in key safety and quality areas. Addiction trained providers are available to support embedded BH providers in the Soldiers' unit area. This increased proximity reduces missed duty time, streamlines appointments and improves communication between medical providers. Army Medicine is working to improve outcomes for all beneficiaries with substance use disorders through earlier detection and intervention. The realignment of substance abuse rehabilitation and treatment under Army Medicine facilitates full integration into BH clinics and the entire medical system of care. This allows us to treat and manage substance use disorders at multiple points of entry, and as a multi-disciplinary treatment team engaging primary care providers, who often prescribe these medications, behavioral health providers, and addictions specialists.

Soldiers in Transition

Whether suffering from a physical or mental illness, Army Medicine makes extraordinary efforts to rehabilitate our Soldiers. Unfortunately, certain conditions are not conducive to continued service. Soldiers who are not medically ready to deploy are referred to a Medical Evaluation Board (MEB), and if deemed unfit, enter the Integrated Disability Evaluation System (IDES). The Army, in conjunction with Department of Veterans Affairs, has made tremendous progress in decreasing Disability Evaluation System (DES) processing time. Three years ago, the average time for a Soldier in the DES was well over 400 days. Over the past year, the average time to complete all components of this very complex process has improved to less than 250 days, which is well below the DoD standard of 295 days. Compared to 2012, a Soldier now spends

one third less time (143 days less) in the IDES process, which improves unit readiness by allowing replacement of non-deployable Soldiers in a timely manner. Workflow standardization and closer collaboration between DoD and VA partners has provided greater predictability for Soldiers and their Families as they transition to the next stages of their lives. Army Medicine will continue to provide a consistent and predictable process that enables Soldiers with serious medical conditions to be able to plan for the next phase of their life as a proud Veteran or Army Retiree.

Soldiers who cannot recover while serving in their assigned unit, due to a more complex illness or injury, may be placed in our Warrior Care and Transition (WCT) Program. Army Warrior Care's whole-Soldier approach is a crucial part of the pact by which the Army fulfills its duty to those citizens who heed the call to serve. The WCT program occupies a special place on the healthcare continuum where bedside medical treatment ends and the full emotional and physical recovery journey begins. A multi-disciplinary team advocates for and serves the Soldier, their family, and caregivers. WCT care includes coordination of complex treatment requirements; mind and body rehabilitative programs; reconditioning activities like sports and art; education and career resources; and a path to return to the force fully healed.

Since inception, more than 72,000 wounded, ill, or injured Soldiers and their families have completed the WCT program, with over 30,000 returning to the force. Soldiers who return to the force result in a substantial cost savings in terms of recruitment, education and training. The Army also benefits in terms of readiness by retaining experienced, highly educated and trained Soldiers. As of December 2016, our WCT population was 2,250 (decreased from 2,861 one year ago), of which 48 Soldiers were battle injured. This represents a great shift from our highest population of 12,279 in July 2008, of which 1,996 Soldiers were battle injured, corresponding with a drawdown in contingency operations. In June 2016 the WCT program consolidated from 25 to 14 units and aligned to U.S. Forces Command Force Projection Platforms, Divisions, and Corps, but this program will remain an enduring capability that can be rapidly expanded when needed. Our wounded, ill and injured Soldiers will continue to receive the highest level of care in order to successfully recover and return to the force or transition to Veteran status. I will also continue to improve upon our current

relationships with the VA and our Veteran and Military Support Organizations to ensure our transitioning Soldiers have the resources required for a successful transition to Veteran status.

Some of our Warriors cannot return to duty, but have gone on to make remarkable contributions to society in sports, the arts, skilled trades, and public or government positions. WCT hosted the 2016 Warrior Games, delivering not only unparalleled recognition for wounded athletes, but also inspiration for countless other wounded who could see a road to recovery through sports. Drawing upon their experiences, education, insights, and the emotional and physical rehabilitation delivered by WCT, our Warriors serve as role models – inspiring both Soldiers and civilians spiritually and physically.

Conclusion

The sun never sets on Army Medicine. We are globally engaged, supporting our Army whenever and wherever needed; we have done so since 1775 and will continue as long as there is an Army. Congressional support has enabled Army Medicine and advanced military medical care in support of our Nation, our Army, and the Joint Force. What we do is truly important but is not the complete story of Army Medicine.

Just as the Army protects our freedoms and national interests, Army Medicine protects our Soldiers, Retirees, and their families by enabling readiness and promoting health. To take care of our Soldiers, our medical professionals ensure they receive the care they need and the care they deserve from the forward edge of battle all the way back to their homes. That is what we do but, in closing, I would like to describe what we are for. Army Medicine is for saving lives and conserving the fighting strength. Our Nation sends their sons and daughters to answer our Nation's call knowing we will take care of them whenever and wherever needed.

The Strength of our Army is derived from our Soldiers, and in turn, their Families. Our strength is not derived from a weapon or a weapons system; it is derived from our people. Army Medicine is a driving force behind the innovations and technologies that allow us to adapt to future challenges that may arise at home or abroad. We will continue to provide the full spectrum of care from point of injury or illness on a battlefield

through rehabilitative care while continuing to meet or exceed national quality of care standards in garrison environments. This is our sacred trust with our Nation and our readiness to support our Nation's Army can never and will never be in doubt.

I remain committed to improving readiness, enhancing the healthcare delivered to our beneficiaries, evolving to support the Army and Joint Force in future conflicts, and continuing to take care of our Soldiers, Civilians, and their Families. I appreciate the subcommittee's work and continued support to our Army, our Soldiers and to Army Medicine.