

DEPARTMENT OF THE AIR FORCE

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Mr. Chairman, Representative Snyder, and members of the committee; it is a pleasure to be here today to share with you stories of the Air Force Medical Service's success both on the battle front and the home front.

Air Force medics continue to prove their mettle, providing first class healthcare to more than 1.2, million patients, while we continue to have medics far from home, supporting air and land operations from the Gulf Coast to Kyrgyzstan to Iraq.

The Air Force Medical Service, or AFMS, and medics from our sister services have undertaken the most significant changes in military medicine since the beginning of TRICARE. In the last few years, we have fielded the largest increase in benefits since the creation of Medicare and CHAMPUS in the mid-1960s.

At the same time, we are medics at war. We have been engaged in battle for nearly four years. Not since Vietnam has our operations tempo been as high. Not since then has combat been as continuous. In fact, the Air Force has been in continuous combat operations since January 1991! The Global War on Terror is the most significant engagement of this generation . . . and I am immensely proud of the medical and dental care we provide anywhere, anytime. I am even more proud of our role in the joint team, as the lifeline home for our injured and ill warriors.

Some have the opinion that wartime and peacetime care are two separate and distinct missions. I disagree strongly. We have one mission: to care for our troops, which includes their families. The home-station and deployment sides of that mission are inextricably linked. We are able to achieve the necessary balance because of our ability to focus on what we call our four *health effects*, the four most important services medics contribute to the fight. The four health effects are:

1. Ensuring a fit and healthy force

2. Preventing illness and injury
3. Providing care to casualties, and
4. Enhancing human performance

These four effects are what medics must bring to the fight, everyday, from Whiteman Air Force Base in Missouri, to Balad Air Base in Iraq.

1. Ensuring a Fit and Healthy Force

Air Force Fitness Program

The Air Force's most important weapon system is the Airman. We invest heavily in our people to ensure they are mentally and physically capable of doing their job. They need to be; we ask them to launch satellites, fix aircraft, perform surgery, pilot multi-million dollar aircraft, and thousands of other tasks used to support and execute battle. Commanders need their Airmen to perform these tasks in harsh environments, under extreme stress, often under fire. If any of them is unfit or too ill to accomplish their roles, the mission suffers.

The Roman General Renatus wrote that "little can be expected from men who must struggle with both the enemy and disease."

In other words, if we aren't fit, we can't fight.

Two years ago, General Jumper, our Chief of Staff then, unveiled the Air Force's new program to improve fitness. The Fit to Fight initiative puts greater emphasis on physical fitness training to enhance not only the ability of Airmen to work in the challenging expeditionary environment, but also the ability to sustain significant injury and illness far from home and be able to survive field care and long-distance aeromedical evacuation. Fit to Fight is working. Across the Air Force, fitness center managers report that usage of their facilities is up 30 percent. The results: before the program started

only 69 percent of Airmen passed their fitness test. Now, even with more stringent requirements, we have an 80 percent pass rate.

Additionally, a secure web site gives commanders up-to-the-minute reports on the status of their active duty, Guard, and Reserve troops' fitness levels. Now leaders know instantly what percentage of their troops are fit to fight.

True fitness is measured by more than strength and stamina -- it involves a whole person concept that includes physical, dental, and mental health. Our Deployment Health Surveillance program gives us visibility over each of these important health factors.

We can never forget that we ask our fighting men and women to do so in harsh environments, far from home, far from sophisticated health care facilities. A healthy, fit warrior is much better able than a less-fit person to sustain a significant illness or injury and be stabilized for long distance travel.

Deployment Health Surveillance program

Our fitness and Deployment Health Surveillance programs complement each other. While the first provides healthy troops to the fight, the second maintains and monitors their health. We are very proud of our Deployment Health Surveillance program that has resulted in our lowest Disease Non-Battle Injury Rates (DNBI) of all time, about 4 percent across the Department of Defense. The Air Force Medical Service conducts a variety of activities that ensure comprehensive health surveillance for our Total Force Airmen pre-, during, and post-deployment, and indeed, throughout their entire careers.

Annual Preventive Health Assessments ensure each Airman receives required clinical preventive services and meets individual medical readiness requirements. This data is conducted globally and recorded in an AFMS-wide database – therefore, the

health of each Airman, whether active duty, Guard or Reserve, can be tracked throughout his or her service and in any location. This is an invaluable medical readiness tool for commanders and is personally reviewed by the Chief of Staff as part of his comprehensive set of Air Force metrics.

Pre-deployment medical assessments are performed on every Airman who deploys for 30 or more days to overseas locations without a fixed medical facility. While deployed, the member is protected by preventive medicine teams who identify, assess, control and counter the full spectrum of existing health threats and hazards, greatly enhancing our ability to prevent illness and injury.

Preventive Aerospace Medicine teams, or PAM teams, are our unsung heroes. They are small units -- usually only three or four people -- including an aerospace medicine physician, bioenvironmental engineer, public health officer and an independent duty medical technician. They are among the very first boots on the ground whenever we build a base in theater. Before the fence is raised and the perimeter secured, these medics are securing the area against biological and chemical threats. PAM teams sample and ensure the safety of water, food, and housing. They eliminate dangers from disease-carrying ticks, fleas, and rodents. Ultimately, they can claim much of the credit for the extremely low Disease Non-Battle Injury Rate.

As our troops redeploy, post-deployment assessments are conducted for our Airmen, mainly in-theater, just before they return home. Commanders ensure that all redeploying Airmen have completed their post-deployment medical processing immediately upon return from deployment, prior to release for downtime, leave, or demobilization. These are stored in electronic fashion and are available through TRICARE OnLine to our provider staffs worldwide.

During this process, each returning individual has a face-to-face health assessment with a health care provider. The assessment includes discussion of any health concerns raised in the post-deployment questionnaire, mental health or psychosocial issues, special medications taken during the deployment, and concerns about possible environmental or occupational exposures. The health concerns are addressed using the appropriate DOD/VA assessment tool such as the Post-Deployment Health Clinical Practice Guideline.

Since the first of January 2003, we have accomplished over 212,663 post-deployment assessments for Air Force members, including almost 36,710 from our Air Reserve Component, or ARC, personnel. Of these assessments, we identified approximately 12,412--or 7.05 percent--active duty and about 3,320--or 9.04 +percent--ARC personnel that required a follow-up referral. This equates to only 7.4 percent of our returning personnel that require follow-up due to deployment-related medical or dental health concerns.

To better ensure early identification and treatment of emerging deployment-related health concerns, we are currently working on an extension of our post-deployment health assessment program to include a re-assessment of general health with a specific emphasis on mental health. It will be administered within six months of post-deployment using a standard re-assessment process through the web. The re-assessment will be completed before the end of 180 days to afford Air Reserve Component members the option of treatment using their TRICARE health benefit. The program is scheduled to begin no later than January 2006 for all the active, guard and reserve components.

I am pleased to report that a recent Government Accountability Office audit on Deployment Health Surveillance concluded that our program had made important

improvements and that from 94 percent and 99 percent of our Airmen were receiving their pre- and post-deployment assessments.

To address the mental health needs of deployed Airmen, the Air Force deploys two types of mental health teams: a rapid response team and an augmentation team. Mental health rapid response teams consist of one psychologist, one social worker and one mental health technician. Our mental health augmentation teams are staffed with one psychiatrist, three psychiatric nurses and two mental health technicians. Deployed mental health teams use combat stress control principles to provide consultation to leaders and prevention and intervention to deployed Airmen. The Air Force currently has 51 mental health personnel deployed for current operations, 31 of whom are supporting Army or joint service requirements. We currently use psychiatric nurses at our aero-medical staging facilities to better address emerging psychological issues for Airmen being medically evacuated out of the combat theater.

We have completed several in-theater assessments examining mental health issues. The first assessment looked at mental health services at three separate sites in Iraq (Kirkuk, Tallil and Baghdad) during a 120-day rotation. Patient composition included 41 percent active duty Air Force, 31 percent active duty Army, and 28 percent reserve component personnel from the Air Force and Army. The top five presenting concerns of deployed personnel were, in order: marital problems, anxiety/stress, work problems, depression and anger. These presenting concerns are comparable to those we see in garrison. Ten percent of these patients had been involved in direct combat involving discharge of their weapon, while 39 percent indicated they had felt in great danger of being killed during their deployment. Only 2 percent were diagnosed with an acute stress disorder, and only 1 percent were diagnosed with Post Traumatic Stress Disorder

(PTSD). Ninety-four percent of the patients seen were returned to duty, while 5 percent were medically evacuated out of theater, and 1 percent were sent home early.

A second study examined PTSD symptoms in personnel deployed to Kirkuk, Iraq. Nine hundred and fourteen Airmen completed a survey, and those who reported a moderate or higher level of PTSD symptoms were evaluated by a psychologist. Thirteen individuals (1.4 percent of the sample) met criteria for PTSD, and were provided treatment.

Finally, we studied high-risk groups (convoy duty personnel, security forces, civil engineering, communications and medics) at Balad Air Base during a five-month period. Not surprisingly, much more of these personnel reported feeling in great danger of being killed (40 percent), than those personnel at other deployed air bases (10 percent). PTSD symptoms were also higher, though actual incidence of PTSD was low. We will continue to monitor all of our deployers after they leave the theater to address any symptoms as they emerge.

The Air Force is also in the process of standardizing existing redeployment and reintegration programs, which help Airmen and family members readjust following deployments. These programs involve collaborative arrangements among the medical, chaplain and family support communities. Airmen and their families can also take advantage of *The Air Force Readiness Edge*, a comprehensive guide to deployment-related programs and services, as well as *Air Force OneSource*, a contractor-run program that provides personal consultation via the web, telephone or in-person contacts. *AF OneSource* is available 24 hours a day, and can be accessed from any location.

After deployments, psychological care is primarily delivered through our Life Skills Support Centers, which deliver care for alcohol issues, family violence issues and

general mental health concerns. Staffing of more than 1,200 professionals includes a mix of active duty, civilian and contract personnel who serve as psychiatrists, psychologists, social workers, psychiatric nurses and mental health technicians. We currently offer ready access to mental health care in both deployed and home-station locations.

The Air Force also looked at several behavioral indicators from Fiscal Year 2000 through Fiscal Year 2005 to examine trends before and after initiation of OEF and OIF. Rates for child abuse, spouse abuse, and alcohol-related incidents were virtually unchanged throughout the Air Force over the six-year span. To date, there have been no Air Force suicides in Iraq or Afghanistan during OEF and OIF. The Air Force Chief of Staff has placed increased emphasis on adherence to existing Air Force suicide prevention policies in 2005, and the low rates so far for this Fiscal Year 2005 (7.9 per 100,000) reflect a 49 percent decrease over the previous Fiscal Year (15.2 per 100,000.).

Our reviews indicate that deployed Airmen have faced less exposure to traumatic stress than their Army and Marine counterparts, and therefore have experienced less psychological impact during current operations. We must be prepared, however, for this to change. More recently, Air Force personnel have been called upon to support convoy operations. Additionally, future operations may place additional demands upon our Airmen, and we must be ready to respond. Initiatives to re-assess the mental health status of our personnel 90-180 days post-deployment will allow us to better monitor and address mental health needs as they emerge.

2. Preventing Casualties

Today's Global War on Terrorism will be with us for years to come. Terrorism confronts us with the prospect of chemical, biological, and radiological attacks. Of those, the most disconcerting to me are the biological weapons. Nightmare scenarios involving

biologicals include rapidly spreading illnesses, ones so vicious that if we cannot detect and treat the afflicted quickly, there would be an exponential onslaught of casualties.

Just as we talk about the need for our combatants to find, fix, track, target, engage and assess anything on the planet that poses a threat to our people--and to do so in near real time--so must medics have the capability to find biological threats, and to track, target, engage and defeat such dangers; whether they are naturally occurring--like Severe Acute Respiratory Syndrome, SARS, the Avian flu--or manmade, like weaponized smallpox.

The rapidly advancing fields of biogenetics may provide the technology that allows us to identify and defeat these threats. Many consider the coupling of gene chip technology with advanced informatics and alerting systems as the most critical new health surveillance technology to explore--and we are doing it now in the Air Force.

Silent Guardian

This evolving technology was tested recently in a Deployment Health Surveillance exercise in Washington, DC. The test started shortly before the inauguration and ended with the close of the State of the Union Address. The exercise, codenamed *Silent Guardian*, involved the military medical facilities that ring the National Capital Region. We placed teams in each of these facilities to collect samples from patients who had fever and flu-like illnesses. The samples were then transported to a central lab equipped with small, advanced biological identification unit--the "gene chip" I mentioned--capable of testing for, and recognizing, scores of common or dangerous bacteria and viruses. And when I say small, I mean that the gene-reading chip at the center of this system is smaller than a fingernail.

To run this many tests using the technology we normally use today would require a large laboratory, two to five weeks, numerous staff, and thousands of swabs and cultures dishes. But this new analyzer is closer in technology to the hand-held medical tricorder used by Dr. McCoy in Star Trek than it is to the swab-culture-wait-grow method currently used.

We knew the test results within 24 hours, not the days or weeks required in the past. All results were entered into a web-based program that tracks outbreak patterns on a map. Additionally, we had mechanisms in place to automatically alert medics and officials of potential epidemics or biological attacks.

Epidemic Outbreak Surveillance

The systems used in *Silent Guardian* are a small part of the Epidemic Outbreak Surveillance project, or EOS, an Air Force initiative that combines existing and emerging biodefense technologies by using a “system of systems” approach in a rigorous real-world testbed. This project is currently in the Advanced Concept Technology Demonstration phase, but we hope to eventually deploy this technology to military bases worldwide for near real-time, total visibility of biological threats to our troops. These threats are not just those of biological warfare, but I want this team to focus on threats to our troops from naturally occurring disease outbreaks, from adenovirus to influenza. Imagine the power of knowing when and who a disease was stalking!

When fielded, EOS will integrate advanced diagnostic platforms, bio-informatic analysis tools, information technology, advanced epidemiology methods, and environmental monitoring. Alone, none of these provide a defense against a biological attack, either natural or manmade. Woven together, they create a biodefense system that

permits medics to rapidly identify threats, focus treatment, contain outbreaks, and greatly decrease casualties.

Another exciting advancement we expect to start transitioning this year is our technical ability to create an unlimited number of COHORTs of each Airman, which will provide occupational and medical surveillance from the time he or she joins the Air Force until retirement or separation, regardless of where the Airman serves or what job he or she performs. We will finally be able to tie together medical conditions, exposure data, duty locations, control groups, and demographic databases to globally provide individual and force protection and intervention, reducing disease and disability. These tools will be working in near real time, and eventually will be automated to work continuously in the background to always be searching for key sentinel events.

Diabetes is another enemy that takes lives, and it too can be defeated. We have been collaborating with the University of Pennsylvania Medical Center to create Centers of Excellence for diabetes care. Diabetes can affect anyone--in or out of uniform--so this effort promises to improve the lives of all beneficiaries. Together, we are seeking ways to prevent and detect the onset of diabetes while providing proven, focused prevention and treatment programs to rural communities, minority populations, the elderly and other populations prone to this disease.

3. Restore Health

High Survivability Rate

We have enjoyed significant success in the third health effect we bring to the fight--that of restoring the health of our sick or injured warriors. Innovations in both technology and doctrine are dramatically improving survival rates of our troops on the battlefield.

During the American Revolution, a soldier had only a 50/50 chance of living if injured on the battlefield. From the Civil War through World War II, about 70 percent of the injured survived their injuries. Aeromedical evacuation in Vietnam is partly responsible for increasing the survival rate to nearly 75 percent. During Operation IRAQI FREEDOM (OIF), 90 percent of those injured in combat survived their wounds. We attribute this success to the combination of our rapidly deployable modular Expeditionary Medical units, excellent joint operations, and our transformed aeromedical operations.

Self-Aid and Buddy Care (SABC) Program

Another reason for our high survivability rate can be attributed to our new SABC training and equipment designed to meet needs of average airmen in the battlefields to give medics and non-medics optimal life-saving leverage. This new program focuses training on three top combat killers: (1) extremity hemorrhage, (2) tension pneumothorax, and (3) airway problems. Supporting our new training in this regard, our improved individual first aid kits (IFAKS), which have been developed much better than the old. The new and various life-saving additions to the IFAKS include, but not are limited to, hemorrhage control with Israeli Dressing, Combat Application Tourniquet and QuickClot™ hemostatic agent, airway management with a nasopharyngeal airway, hydration with CeraLyte 70 oral hydration solution and Micropur water purification tablets, and clinical documentation with a Field Medical Card (DD 1380). AFSOC issued IFAKs also contain HemCon hemostatic dressings covering an additional range of hemorrhaging cases, and an angiocath needle to treat tension pneumothorax. Approximately 23,000 IFAKS have been distributed to the AOR, boosting our ability to treat and restore the health of our wounded heroes on the battlefield.

EMEDS

The Expeditionary Medical Support concept, or EMEDS, has proven itself invaluable in OIF. EMEDS is a collection of small, modular medical units that have predominantly replaced our large, lumbering theater hospitals. Big things come in small packages, and there are at least three big benefits to these small EMEDS:

First, by breaking up our large deployable medical facilities, we can spread our resources geographically to locations around the globe where they are needed the most; an efficient use of our assets.

Secondly, EMEDS units are easier to insert far forward and integrate with other services, so our medics are closer to the action and closer to the wounded who need our lifesaving skills. For example, our Aeromedical Evacuation Liaison Teams and aeromedical staging facilities were loaded into humvees and provided direct combat service support to the Army V Corp and 1st Marine Expeditionary Forces convoys as they fought their way along the Tigris and Euphrates from northern Kuwait to Baghdad in 2003.

Finally, these units are small, light, and lean. How small? The people and equipment comprising the entire Air Force medical support in OIF have taken up less than one percent of the cargo space of all assets headed to the war. EMEDS' small footprint allows us to pick them up and put them down anywhere quickly. We get to the fight faster. For example, in OIF, we opened 24 bases in 12 countries in a matter of months, each with a substantial EMEDS presence. That formidable presence served not only Air Force troops, but also ground forces throughout the region. To further ensure quality care, we deployed over-pressurized tents that are capable of keeping biological and chemical weapons from seeping into our medical facilities.

EMEDS' modularity allows its components to be mixed and matched effortlessly with other EMEDS units or even another Service's assets to create the package of medical care required. Whether it's a small clinic or a large 250-bed hospital that does everything short of organ transplants, the right level of medical care is prescribed and provided to our warriors.

The speed with which these EMEDS deploy is phenomenal. One of our first EMEDS units in theater was a 25-bed hospital based at the Air Force Academy in Colorado. The time elapsed from the moment EMEDS members got their telephone call notifying them of deployment, gathered and transported all 100 medics and their equipment, pitched their tents in Oman, and saw their first patient, was just 72 hours. Because of this capability, we are the medics of choice for Special Forces and for quick-reaction forces in the United States and abroad.

Less than one month after the September 11th, 2001, attacks, a medical team supporting Special Operations saved the life of the first soldier severely injured while supporting Operation ENDURING FREEDOM. Exactly three years later, on September 11th, 2004, Air Force medics accomplished the miraculous save of a horribly wounded Airman in Baghdad. I will share this story later in my statement. But in between and since these two remarkable medical events, there have been volumes of compelling stories reflecting the awesome capabilities of the Air Force Medical Service and our joint Air Force-Army-Navy medical team as we care for our troops.

Those incredible stories continued with our response to Hurricanes Katrina and Rita on the Gulf Coast, where we worked with Federal Emergency Management Agency medical teams to care for and transport thousands of ill patients in a three-day period.

On Aug 31, the first AFMS troops arrived at New Orleans' Louis Armstrong airport. A fully staffed EMEDS was operating in short order. At one point early on, helicopters from all branches of the military were landing every 10 to 15 seconds bringing people rescued from New Orleans.

Over the next several days, joined by a contingency aeromedical support squadron and total force assets, the Air Force aeromedically evacuated more than 2,600 people to various locations. Medics with the 4th Air Expeditionary Group in New Orleans treated more than 7,600 patients. The Active, Guard and Reserve were flawless in their collective response – a role that carried over to assistance before, during and after Hurricane Rita.

Impressed by the response of our medics, one senior physician in FEMA's disaster medical assistance team personally told me that one of the most impressive things about our people is that they treated every single patient during that chaotic, crowded, and terrible time, as if they were family, as if this person on the stretcher were their own father, mother, sister, brother, or child pulled from harm's way.

That notion is at the heart of our motivation to provide the most modern expeditionary medicine known to our heroes wounded abroad or in need here at home.

Caring for Iraqis

Not all of our patients are American military members. Throughout this conflict, we have treated Iraqi civilians, our Iraqi allies, and even the enemy. After Saddam was toppled, we moved hospitals into places like Tallil, Baghdad International Airport, and Kirkuk, where we continue to treat all those caught in harm's way, whether friend or foe.

To emphasize that point, I have two very compelling stories concerning the care we provide Iraqi nationals. The first involves a horribly wounded detainee believed to

have received his wounds while engaged in combat against our troops. He was going to be transferred to an Iraqi hospital, but begged to remain with American doctors until his wounds were resolved. His words to our Air Force surgeon were, "If I go, I will surely die. I trust only you."

This trust and faith in Americans plays a role in my next story, too. Air National Guard medics from the EMEDS at Kirkuk treated a group of badly injured Iraqis brought into camp by American soldiers. While the camp was under mortar fire, our medics worked to save the men. By morning, all were stabilized. They were transported to another medical facility the following day. Captain Julie Carpenter, a nurse, rode with one of the men, and because he was still in pain, she tried to provide some comfort. She would look in his eyes or hold his hand because, as she said, "I wanted him to feel he wasn't alone; I imagine it was scary for him."

She thought little of the incident until days later she learned that the thankful families of these injured Iraqis approached American troops and provided information that led our troops to the location and the capture of Saddam Hussein.

Expeditionary health care is a military tool that not only saves lives; it can turn confrontation into cooperation, revealing compassion to be the long arm of diplomacy.

Expeditionary Health Technology

Restoring health in the expeditionary environment requires that our dedicated medical professionals are equipped with cutting-edge technology. For example, we are evaluating technologies to improve patient care ranging from rapid diagnosis of infectious diseases to enhancing ventilation of patients with trauma induced lung injuries. We are also developing the ability to deliver medical oxygen more efficaciously in theater and during Critical Care Air Transport Team (CCATT) missions. At times,

present modalities through which oxygen is supplied and stored limits our ability to provide adequate oxygen therapy to our troops. This limitation in storage and supply-- presently in individual volume-limited tanks-- necessitates a larger logistical footprint. Lighter systems and on-board/in-field oxygen generation technology is key to addressing one of our greatest operational needs.

Telehealth is another fascinating technology that enhances the capabilities of our medics. It allows a provider in Iraq to send diagnostic images such as X-rays through the Internet back to specialists located anywhere in the world, Wilford Hall Medical Center, for instance, for a near real-time consult. This insures that each Soldier, Sailor, Airman or Marine in the field has access to one of our outstanding specialists almost anytime and anywhere.

Aeromedical Evacuation

Restoring health also means bringing casualties back from the front as quickly as possible to sophisticated medical care. The Air Force Medical Service makes its unique contribution to the Total Force and joint environment through our aeromedical mission and the professionals who perform it. The job of Aeromedical Evacuation crewmembers is not easy. They must perform the same life-saving activities their peers accomplish in hospitals, but in the belly of an aircraft at over 20,000 feet. The conditions are sometimes challenging as crewmembers work under the noise of the engines or when flying through turbulence--but there is no place else they would rather be. TSgt Pamela A. Evansky of the 315th Aeromedical Evacuation Squadron out of Charleston AFB said, "AE is exhausting duty. But I love it. I know everyday that I make a difference. This is the most honorable and rewarding work I could possibly ever do."

It truly is rewarding, and I am very proud to report, that Sergeant Evanosky and her fellow AE crewmembers have accomplished over 68 thousand patient movements since the beginning of OIF, and *they have never lost a patient in flight.*

Critical Care Air Transport Teams

Occasionally, our AE crews transport a patient who is so ill or injured that they require constant and intensive care. When that happens, our AE medical capability is supplemented by Critical Care Air Transport Teams, or CCATTs. These are like medical SWAT teams that fly anywhere on a moment's notice to retrieve the most seriously injured troops. Team members carry special gear that can turn almost any airframe into a flying intensive care unit (or ICU) within minutes. An in-theater EMEDS commander told me that CCATTs are a good news/bad news entity. He said, "The *bad* news is, if you see the CCATT team jumping on a plane, you know someone out there is hurt bad. The *good* news is, if you see CCATT jumping on a plane, you know that someone will soon be in the miraculous hands of some of the best trained medics in existence."

No discussion of aeromedical evacuation is complete without recognizing the critical contribution of the Reserve Component. About 88 percent of AF Aeromedical Evacuation capability is with the Guard and Reserve. I am deeply proud of and awed by their dedication and self-sacrifice in delivering sick and often critically injured troops from the battlefield into the care of their families and our medics at the home front.

The Miracle of Modern Expeditionary Medicine

The seamless health care we provide with our Sister Services from battlefield to home station can be illustrated by the miraculous, life-saving story of Senior Airman Brian Kolfage and, on a broader scale by our relief efforts in support of Hurricanes Katrina and Rita.

Airman Kolfage suffered horrendous wounds when an enemy mortar landed near him. These mortars have a kill radius of 150 feet. Kolfage was about 10 feet away. The blast threw him half the length of a football field. It shredded both legs and his right arm. Normally, no one could survive such an injury, but an Air Force medic who was close by when the blast occurred was able to respond immediately.

The field surgeons had Airman Kolfage on the operating table in five minutes and were able to stabilize him. Aeromedical Evacuation crews and CCATT teams transported him halfway around the world to Walter Reed Army Medical Center.

Senior Airman Kolfage was airlifted from the site of injury over 6,000 miles away to a hospital just 6 miles from where we now sit. And this all happened in a time span of just 36 hours. That is something that could not have happened in previous conflicts.

Airman Kolfage lost both legs and his right hand. But he has definitely not lost his spirit. He arrived at Walter Reed flat on his back, but vows to walk out of there. I believe him. He takes vows seriously. As a matter of fact, he just exchanged them with his girlfriend--now wife--whom he recently married at Walter Reed.

This is a miracle of modern technology, seamless joint medical operations, and the resiliency of youth. In any other war, this young man would have lost his life; now he has it all before him.

Every day the Air Force Medical Service sees thousands of patients. We try to make a difference with each individual; in Airman Kolfage's case, we know for sure we made the ultimate difference.

4. Enhance Human Performance

The fourth health effect we contribute to warfighting is the enhancement of human performance. Helping Airmen perform to the best of their abilities means we

must have people who are highly trained, competent, and equipped with advanced technology that can both help them do their jobs and protect them while doing so. We are seeking to enhance human performance for our troops through cutting-edge research and development that will improve the safety and performance of our troops in the expeditionary Air Force.

For example, we continue to pursue methods of enhancing our member's eyesight. Obviously, good vision has always been important to our troops, particularly pilots whose eyes may be their navigators. But detecting and protecting our troops' eyesight is especially critical now that Directed Energy Weapons, or Lasers, are widely available and capable of inflicting great injury to the eye.

A laser pointed into an eye can temporarily or even permanently damage an Airman's vision, so we seek special lenses for eyewear and helmet shields that can block harmful laser rays. Detecting laser eye injuries can be difficult; treating such injuries is currently next to impossible. Consequently, we are fielding retinal surveillance units in high-threat areas to accomplish eye exams, always looking for evidence of laser damage. We are searching for valid therapies to treat these types of newly recognized injury patterns. No such therapy currently exists.

Finally, we'll push the envelope on ocular technologies by trying to create vision devices that will allow our Airmen to see to the theoretical limit of the human eye, which some say is 20-over-8. If successful, this will provide our pilots and warriors the ability to see twice as far as an adversary.

The Changing AFMS Construct

The AFMS faces the challenge of delivering these four health effects in times of significant change in the two constructs in which we operate; that of medicine and of military operations planning--how we fight wars.

Changes in Health Care

Health care has changed radically in the past 15 years. In my tenure as a physician, advances in pharmaceuticals, diagnostics--like the CAT scan and MRI--fiber optic techniques such as laparoscopy, arthroscopy, and the use of stents for blocked arteries, and anesthesia breakthroughs have radically altered our military treatment facilities. In the private sector, small, full-service hospitals have gone the way of the eight-track tape, replaced by more efficient medical complexes that focus on outpatient care and ambulatory surgery.

The same pressures that prompted civilian health care facilities to move to outpatient surgery have influenced transitions in the Air Force delivery of health care as well. Historically, we structured ourselves to have hospitals at most bases. We now have substantially transitioned our facilities to the point where fewer than 30 percent of our bases have hospitals. In fact, if you look today, we have fewer hospital beds in the entire Air Force, 740, than existed at the Air Force's Wilford Hall Medical Center in 1990, which had 855.

Another important way the military has adapted to the changing health care construct is to operate much more closely with sister service and civilian hospitals to provide comprehensive patient care. For instance, the Landstuhl Medical Center in Germany--the first stop for many of our wounded returning from Afghanistan and Iraq--has a contingency of almost 300 permanent-party Airmen working side-by-side with their nearly 900 Army counterparts.

We enjoy a similar sharing opportunity with the University of Colorado at Denver. Most of nearby Buckley Air Force Base's patient care assets are now located at the University's Fitzsimmons medical campus. Our close working relationship with the university hospital and its recently departed president, Dennis Brimhall, are responsible for the efficient and innovative use of medical resources and quality care for our beneficiaries.

Strong relationships with civilian agencies—like that of our Center for Sustainment of Trauma And Readiness Skills, or C-STARS program—have benefited both our peacetime TRICARE and wartime AEF missions. The Air Force has three of these centers, one each in the Cincinnati University Hospital Trauma Center in Ohio, Saint Louis University Hospital in Missouri, and the R. Adams Cowley Shock Trauma Center in Baltimore. Military medics work in tandem with their civilian counterparts there to care for seriously ill or traumatically injured patients, patients seldom seen in military MTFs. These programs prepare our providers for deployment by exposing them to the wounds they will treat in combat. In the future, we will be looking for new ways to partner with these civilian institutions, such as in education and research and development.

Changes in War-Fighting

The second construct change is that of the Air Force mission itself. When I entered the Air Force in the late 1970s, we planned, trained, and equipped our medics on the basis of the threats faced in two major operational plans of short duration. That construct is no longer valid, as can clearly be seen with the Global War on Terrorism.

The Air Force created its Air Expeditionary Force structure, in part, in response to this new construct. The AFMS needed to restructure itself, too, so that it could face multiple commitments overseas of both short and long duration. Our nation requires that

medics field combat support capabilities that are very capable, rapidly deployable, and sustainable over long periods. This has driven three additional changes to our medical system. Our people must be trained, current, and extractable to support the warfighter. Medics must be placed at locations where they can maintain the skills they need for their combat medicine mission. It is also vital that these locations must allow the medics to deploy easily without significantly interrupting the care they provide the base or TRICARE beneficiaries, especially at those locations with sustained medical education training programs.

This is exactly the challenge that the Air Force issued to me in creating expeditionary medics: medics who are focused on developing the skills for the field and eager to deploy for four of every 20 months.

We are assigning medics at large facilities into groups of five so that one team can be deployed at any one time while the other four remain to work and train at home stations. We are also reviewing the ratio of active-to-reserve medics and asking ourselves important questions: What mix of the active duty to reserve component will ensure the best balance between the ability to deploy quickly and the capability to surge forces when necessary?

Finally, we are actively reviewing the total size of the AFMS to make sure that over the next few decades we can successfully fulfill our wartime mission while still providing the peacetime benefit to our members, retirees, and their families.

TRICARE

The next generation of TRICARE contracts is now completely deployed. The transition was smoother than that experienced in the last contract transition in the 1990s. Service contracts are now in place to fully support the benefit enhancements to our active

and reserve forces that were temporary in 2004, but made permanent by the FY2005 National Defense Authorization Act. Although we experienced some challenges with referral management, both the government and our contractors are working to find solutions and we have seen improvement over the past several months. We will continue to work this issue aggressively as access both in the direct care system as well as the network continues to be closely monitored.

The TRICARE benefit is generous, and many retirees who have the choice between our care and that offered by their civilian insurers are opting for the military's medical system. In spite of the increase in benefits and the ever-growing population to whom it is delivered, the TRICARE system continues to receive satisfaction ratings superior to that of civilian health care systems.

Working with the Department of Veterans Affairs

Our concern about the care of our beneficiaries continues even after they have left the DoD system; therefore, the DoD/VA Resource Sharing Program continues to be a high priority for the Air Force Medical Service. The new Health Executive Council is making promising steps toward removing barriers that impede our collaborative efforts. We constantly explore new areas in which we can work to jointly benefit our patients and are currently finding these opportunities in information technology, deployment health medicine, pharmacy, and contingency response planning and patient safety programs.

We are particularly proud of progress toward improving transitional services and the delivery of the benefit to our separating service members. One example is our PALACE HART program, run by the Air Force Personnel community. PALACE HART was designed to provide assistance and support to disabled Air Force members

separated or retired because of injury or illness sustained in OEF/OIF. The program provides five-year follow-on support, which consists of one-on-one separation counseling, identification to VA representatives as an OEF/OIF veteran, and arrangements for one-on-one veterans' benefits and Disabled Transition Assistance Program counseling. It also offers assistance in completing VA Form 21-526 -- Veteran's Application for Compensation and/or Pension, and referral to a state agency or veterans'/service organization representative who can advocate for the member in the VA disability rating appeal process if necessary.

There are currently 45 disabled individuals covered by PALACE HART and tracked by the Air Force Personnel Center, and they are very grateful for the support they are receiving.

These combined, cooperative efforts are a win-win-*win* for the Air Force, the VA, and most importantly, our beneficiaries. Of course, I remain very proud of our numerous joint VA-Air Force operations, from Anchorage to Las Vegas, from Albuquerque to Travis Air Force Base California, we continue to team well with the VA.

Recruiting and Retention

The AFMS continues to face significant challenges in the recruitment and retention of physicians, dentists, and nurses; the people whom we depend upon to provide care to our beneficiaries. The special pays, loan repayment programs, and bonuses to our active and reserve component medics do help, and I thank you for supporting such programs. Nearly 85 percent of nurses entering the Air Force say they joined in large part because of these incentives.

We also recognize the importance of maintaining a modern and effective infrastructure in our military treatment facilities, from clinics to medical centers. The atmosphere in which our medics work is as important as any other retention factor. We have wonderful patients, patriotic and willing to sacrifice. They deserve not only the most brilliant medical and dental minds, but first class equipment and facilities. Every day, I strive to make that happen.

Conclusion

The Air Force Medical Service is proud to be part of a joint medical team that provides seamless care to America's heroes, no matter what Service they are from. We can boast of a full-spectrum, effects-based health care system. Our focus on a fit and healthy force coupled with human performance enhancement strategies and technologies, promotes maximum capability for our Total Force warriors. Our health surveillance programs keep them and their units healthy day to day, ready to take on the next challenge. When one of our warriors is ill or injured, we respond rapidly through a seamless system from initial field response, to stabilization care at our expeditionary surgical units and theater hospital, to in-the-air critical care in the aeromedical evacuation system, and ultimately home to a military or VA medical treatment facility. Across service lines, at every step, we are confident that our Soldiers, Sailors, Airmen and Marines--active duty, Guard and Reserve--are receiving the high level of medical care they deserve, from foxhole to home station.

As we work to improve upon this solid foundation, the men and women of the Air Force Medical Service, at home or deployed, remain committed to caring for our troops. We appreciate your support as we build to the next level of medical capability.

Thank you.