DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2004

WEDNESDAY, APRIL 30, 2003

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

The subcommittee met at 11 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens and Inouye.

DEPARTMENT OF DEFENSE

MEDICAL PROGRAMS

STATEMENT OF LIEUTENANT GENERAL JAMES B. PEAKE, SURGEON GENERAL, UNITED STATES ARMY

OPENING STATEMENT OF SENATOR DANIEL K. INOUYE

Senator INOUYE. Just to advise the chairman of the committee, I have just been advised Chairman Stevens is at the White House meeting with the President. He will be slightly delayed, so in his behalf I'd like to welcome you to our hearing this morning to review the Department of Defense (DOD) medical programs, facilities and the health program.

As you know, under the chairman's leadership, this subcommittee has a long history of supporting and protecting the medical needs of our military. As our soldiers, Marines, airmen, and sailors are deployed in harm's way, our military health system is vitally important. We have all been captivated by the scenes displayed on television 24 hours a day, enabling the public to witness our military in action.

What we do not see is the entire force health protection. Our military health care covers all the bases from the TRICARE program, medical treatment facilities, predeployment physicals, medics and field hospitals to the continued monitoring of our military personnel in the field and after they return. These all are essential pieces to the health of our military.

Over 24,000 medical personnel have been deployed in support of Operation Noble Eagle and Enduring Freedom and Iraqi Freedom. Unfortunately, the services have been granted limited authority to backfill those positions, and cannot afford to contract all the additional support that is needed. In order to address some of these shortfalls, Congress provided additional funding in the fiscal year

2003 supplemental appropriations for the medical treatment facilities and care for the service members and their families at home.

At this morning's hearing, I hope the committee will hear how the fiscal year 2004 budget request addresses our medical treatment facilities, and our medical care, and how we do deal with the potential gap in resources if the current OPTEMPO remains as high during fiscal year 2004. And so we look forward to a frank and open discussion this morning with our panels.

In particular, we will want to look into the status of the next generation contracts for TRICARE, our force health protection system, optimization, and the rising costs of health care, among others. I'd like to thank our chairman for continuing to hold hearings on these issues, which are very important to our military and their families.

If I may, I'd like to call upon the first witness, Lieutenant General James Peake, Surgeon General for the United States Army.

General PEAKE. It is an honor to represent Army medicine before you today. Once again, it is the support of this committee that it has given to the care of soldiers and their families, support of the committee for military medical infrastructure to train the medical force, their research over an extended period of time that really has allowed us to field items like advanced skin protectant, or chem/bio protective systems for medical units, or vaccines to protect the soldiers, or for hemostatic dressings.

That support has paid off for the men and women injured and wounded in the service to their nation. Wounded soldiers have been treated far forward with surgical teams that we really didn't have during Desert Shield, Desert Storm. They moved rapidly back through our combat support hospitals, now modularly configured hospitals. They flew back on Blackhawk medevac helicopter fleet, not the old UH–1s, military helicopters, including the UH60 Limas with specially designed patient care compartments facilitating in route care.

Our soldiers have been strategically evacuated with critical care teams back to Landstuhl or Rota. I had the honor of pinning a Purple Heart on one of our noncommissioned officers at the burn unit at Fort Sam Houston last week. Both arms were outstretched with fresh skin grafts. The burns on his face were extensive and covered with silvadene cream which had its genesis from the burn research unit in years past.

He told me about each of his men, and he told me about the tremendous care that he received as he and they moved back from the theater of operations on Army hospitals on the U.S.N.S. *Comfort* back to Landstuhl, and at the burn unit.

I can tell you that the soldiers with me that were taking care of him stood taller as he related the story to us.

That burn unit is another story. It is an institute for surgical research working not only on burns, but on the physiology of injury. It is where some of the work on hemostatic bandages is going on now, where we have done key studies on orthopedic consequences of land mines. There they deal with trauma every day as part of the Trauma Consortium in San Antonio. It is commanded by Colonel John Holcomb, a trauma surgeon with our special operations forces in Somalia during Blackhawk Down.

The issue is key people at the right places who understand not only the environment in which we work, but the bonds of soldiers in combat. Key people in the right places like the Ranger doc whose hand of Private First Class (PFC) Lynch would not let go of during her rescue, medics at the tip of the spear.

At Walter Reed, our land mine center of excellence is a strong partnership with the Veterans Administration as we look at the long-term care and leveraging the very best care across the country. As we do all of this, military medicine is resetting the TRICARE contract, looking to improve the service we give with fewer regions, with some functions returning to the direct care system in 2004 with the national pharmacy coverage, to improve portability and all of that is important to taking care of our soldiers, but also in keeping a full and rewarding practice for those doctors that are in Iraq today taking care of patients.

It is fundamental to our medical readiness and medical retention. Our joint training programs at places like Walter Reed and Wilford Hall and San Diego are the force generators of our medical force of the future. The care we give in such places as the 121 Hospital in Korea or Fort Irwin or Fort Polk or on a distant battlefield is linked to the quality base that those centers provide.

As always, this committee's support for keeping the full spectrum of military medicine of a quality befitting our soldiers, sir, and their families, is appreciated by all of us here and by those across the world serving our Nation.

Things as important and as big as the things we talked about, things as important as being able to purchase clothing for our soldiers as they are evacuated back from military treatment facilities or the authority recently authorized in the supplemental in that allow military families to see their patients that are in military treatment facilities (MTFs), and for us to be able to facilitate that. And so for the little things, sir, and the big things, we thank you for your support and the chance to be with you today.

PREPARED STATEMENT

Senator INOUYE. I thank you very much, General Peake. May I now call on Vice Admiral Michael Cowan, Surgeon General of the Navy.

[The statement follows:]

PREPARED STATEMENT OF LIEUTENANT GENERAL JAMES B. PEAKE

Mr. Chairman and Members of the Committee, I am Lieutenant General James B. Peake. I thank you for this opportunity to appear again in front of your committee. This is my third time before you as the Army Surgeon General and each time it has been a different environment of challenges. Each has underscored the importance of Army Medicine specifically and military medicine in general.

All around the world, Army medical personnel are serving in splendid fashion to carry out our mission of supporting America's Army as it defends freedom.

That a soldier could be severely wounded in Afghanistan on a Monday and on Saturday night be at Walter Reed Army Medical Center in Washington, D.C., telling me of his care at the forward surgical team in Afghanistan, his movement to the combat support hospital in Uzbekistan; the transit through the Air Force facility at Incerlick, Turkey, and the operation he got at Landstuhl, Germany—all in less than a week—is nothing short of miraculous.

The Army fighting for freedom in Iraq has confidence in its medical support. While we help carry out national policy in that arena, we also carry on other missions. We are providing quality medical assistance in over 20 countries today. Med-

ics are helping keep the peace in the Balkans, standing guard in Korea and Europe, supporting anti-terrorist efforts in the Philippines, training on medical assistance missions in Central America and supporting assistance missions in Africa.

We made visible progress in the past year transforming our field medics into the new 91W Healthcare Specialist Military Occupational Specialty. I am frankly excited at the increase in emphasis on medical skills that can mean the difference between life and death for a soldier on the battlefield.

To continue this success between the garrison and field units is paramount. Visiting the 25th Infantry Division in Hawaii, I walked the lanes for combined Expert Infantry and Expert Field Medical Badge testing. It reaffirms the unique link that we in the Army Medical Department (AMEDD) have with those who close with and destroy the enemy, and underscores the need to hone medical skills as we are doing with the 91W program.

This marriage between garrison and field operations is also where we need to go for the longitudinal, digital record of patient care. We are not where we need to be, but we have an exciting axis of advance with CHCS (Composite Health Care System) II and the linkage with the corresponding theater system, CHCS II (T). I am anxious to see the Stryker Brigade at Fort Lewis demonstrate the use of the hand held input devices at the level of the medic, in garrison or in the field. This device digitizes the key information of the patient encounter at the first level of care and will follow that patient, ensuring that vital information is archived and longitudinally available, to enhance his or her care wherever in our system he receives his follow on care. Resourcing this transformational process will create the model for health care across the nation.

We have transformed 28 percent of Corps and Echelon Above Corps medical force structure through the Medical Reengineering Initiative (MRI). The transformed units promote scalability through easily tailored capabilities-based packages that result in improved tactical mobility, a reduced footprint and an increased modularity for flexible task organization.

MRI supports the Army Legacy and Interim Forces and is the organizational "bridge" to the Objective Medical Force. MRI enables supported Army, Joint Force, Interagency and Multinational leaders to choose among augmentation packages that result in rapid synchronization of enabling medical capabilities.

Within the Army Reserve, this force structure results in improved personnel readiness due to reduced personnel requirements. It also improves the average age of Army Reserve hospital equipment sets, due to redistribution of newer sets against reduced requirements. We must keep moving along this path to improved responsiveness.

Medical Research and Materiel Command is making great progress in equipping medics to serve with the transformed Army of the future on expanded, technology-dense, rapidly-changing battlefields.

Some of the recent initiatives include:

—The Forward Deployable Digital Medical Treatment Facility, a research platform to develop lighter, more mobile field hospitals using new shelters and technology. Plans are for two to four soldiers to be able to carry and set up a tent and all the equipment in it. The facility will include a wireless local area network and a communication system interoperable with the Warfighter Information Network architecture.

—Portable oxygen generators to avoid the necessity of transporting numerous 150-pound canisters of oxygen to field medical units. We have already seen the value of this as we prototyped into Afghanistan.

—The Telemedicine and Advanced Technology Research Center is exploring how personal digital assistants can be used to improve medical record keeping, give providers instant access to medical information and patient histories, alert providers of lab results, speed the flow of information and shorten the time medics on the battlefield must spend filling out forms. One deploying brigade has been outfitted with a prototype of an electronic "dog tag" to make sure we understand how this might change our business practice and improve our record keeping in the ground combat scenario.

—The U.S. Army Medical Materiel Development Activity and Meridian Medical Technologies developed an improved autoinjector for nerve-agent treatment shots, which was approved by the Food and Drug Administration last year. The injector allows a soldier to inject atropine and 2 pralidoxime chloride through the same needle. Compared to older equipment, it will take up less space, is easier to carry, easier to use and puts the drugs to work faster.

The Interim Brigade Combat Teams are beginning to receive the first Stryker Medical Evacuation Vehicles. With a top speed of 60 miles an hour, this armored ambulance will be able to keep up with the fight. It can carry four litter patients

or six ambulatory patients, and allows basic medical care to be provided during transport. The excitement is palpable in our young soldiers who have had their first hands on experience with this vehicle. They see it designed with enroute care in mind; a medical vehicle that can keep up with the force, share a common, maintainable platform, and link to the common operating picture with those they support.

The deadly potential of chemical, biological, radiological, nuclear or high-yield explosive (CBRNE) weapons has been known for centuries, but never before has the threat seemed as evident or as imminent.

This history underscores the importance of the medical system as the front line of defense. In the past year we have emphasized the training of all Army Medical Department (AMEDD) personnel to ensure we have the edge when it comes to responding to the threat of terrorism using CBRNE weapons. The Army Medical Department Center and School has prepared exportable, tailored and scalable courses for use at medical treatment facilities; it is addressing CBRNE in every short and long course; and addressing CBRNE casualties in every ARTEP (Army Training and Evaluation Program) unit testing program.

Among the course changes:

—*AMEDD soldiers common skills*.—In addition to long-established NBC defense skills and buddy aid, all AMEDD soldiers get CBRNE orientation and patient decontamination training.

—*Advanced Individual Training and functional courses*.—Military specialty training courses and specialized skill courses have incorporated specialty-specific CBRNE instruction, including both classroom and field exercise segments.

—*Leadership courses*.—These now include basic, intermediate or advanced Homeland Security classes including information about the Federal Response Plan, the Army's CBRNE role and leader skills required by the audience.

—*Primary Care courses*.—Army medics are learning CBRNE first-responder skills. CBRNE training for physicians, nurses, physician assistants and dentists is part of officer basic training. "Gold standard" courses, such as the Medical Management of Chemical and Biological Casualties, and Medical Effects of Ionizing Radiation, are being incorporated into physician/physician assistant lifecycle training plans.

—*Postgraduate Professional Short Course Program (PPSCP)*.—These courses now embody course-specific CBRNE training, plus a Web-based "Introduction to CBRNE" review that is now a prerequisite for PPSCP enrollment. The interactive program is available at www.swankhealth.com/cbrne.htm. It provides both narration and text, with additional details available at the click of a mouse. It includes a history of CBRNE incidents, the nature of the terrorist threat, descriptions of agents and symptoms, a glossary of terms and links for additional information.

Our AMEDD Center & School is also developing and disseminating exportable products, including emergency-room training materials; a SMART (Special Medical Augmentation Response Team) training package; a CBRNE mass-casualty exercise program for medical treatment facilities; ARTEP tests that embody CBRNE challenges; and proficiency testing materials.

A three-day CBRNE Trainer/Controller course was held in San Antonio, Texas. It brought in 226 people from all Army medical treatment facilities—including caregivers and officials charged with planning emergency-response plans. The audience was schooled on both clinical aspects of managing CBRNE casualties and the organizational aspects of managing CBRNE mass-casualty emergencies. Attendees went home with materials they can use to deliver CBRNE instruction to their colleagues, guidance for developing CBRNE emergency plans that meet Joint Commission on Accreditation of Healthcare Organizations standards; and scenarios and evaluation guidelines for CBRNE exercises.

Planners at the U.S. Army Medical Command have drafted formal guidance to medical treatment facilities for planning, training and preparing to support their installations, communities and regions during CBRNE incidents. They are aggressively pursuing links with other commands and civilian agencies to smooth the processes of communication, synchronization, coordination and integration needed to support the Federal Response Plan.

We have organized Special Medical Augmentation Response Teams (SMART) to deliver a small number of highly-skilled specialists within hours to evaluate a situation, provide advice to local authorities and organize military resources to support response to a disaster or terrorist act. These teams, located at Medical Command regions and subordinate commands throughout the country, have critical expertise in nuclear, biological and chemical casualties; aeromedical isolation and evacuation; trauma and critical care; burn treatment; preventive medicine; medical command,

control, communications and telemedicine systems; health facilities construction; veterinary support; stress management; and pastoral care.

These teams are organized, equipped, trained and ready to deploy within 12 hours of notice. Their capabilities were demonstrated last year when seven members from Tripler Army Medical Center deployed from Hawaii to the Pacific island of Chuuk to assist residents injured during a typhoon.

Last year patient decontamination equipment was fielded to 23 medical treatment facilities with emergency rooms, and personnel have been trained in its use. With this equipment, up to 20 ambulatory patients an hour can be decontaminated. Another 33 MTFs will be similarly equipped during the current fiscal year.

We also purchased 1,355 sets of personal protection equipment for emergency responders and SMART team members; and 11 chemical detector devices for selected medical centers and the SMART–NBC.

We are partners with the Centers for Disease Control and Prevention in the Laboratory Response Network, which is augmenting a regional system of reference labs to quickly test and identify suspected pathogenic agents like anthrax. The AMEDD is designing seven high-containment Biosafety Level 3 labs—five in the continental United States, one in Hawaii and one in support of our Forces in Seoul, Korea. Construction is scheduled to begin in September.

The U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick, Md., is a great national resource of expertise on dealing with dangerous diseases, whether natural outbreaks or the result of biological warfare. When anthrax-laced letters were sent through the mail in 2001, USAMRIID geared up for a phenomenal effort to analyze thousands of samples collected from possibly-exposed sites, looking for the deadly bacterium. They continue to assist law enforcement agencies attempting to identify the criminal responsible for these acts of terrorism.

USAMRIID now is partnering with the National Institute of Allergy and Infectious Diseases (NIAID) at Fort Detrick on biodefense-related diagnostics, drugs and vaccine research. This effort will marshal research capabilities while leveraging resources in response to the nation's changing needs and builds on a long, productive relationship in collaborative research.

Addressing these changing needs required additional research infrastructure. USAMRIID is planning to expand its current facilities and continue its mission of research on drugs, vaccines and diagnostics to safeguard the health of the nation's armed forces. NIAID is set to construct an integrated research laboratory to implement its complementary mission of conducting biodefense research to protect the public health. The new facilities will house biosafety laboratories comprised of Biosafety Level 2, 3 and 4 areas.

USAMRIID and NIAID have been joined by representatives from the Department of Homeland Security, the Department of Agriculture and other federal agencies to lay the groundwork for an Interagency Biodefense Campus at Fort Detrick. The interagency campus takes advantage of existing infrastructure and security at Fort Detrick to promote potential sharing of facilities and leveraging of intellectual capital among federal researchers studying disease-causing microbes that may be used as agents of bioterrorism. Construction is expected to take place over the next several years.

While all this is going on, we still have a mission of operating hospitals and clinics, providing day-to-day health care for our beneficiaries. Last year we began providing care under TRICARE For Life, and we are preparing for a new generation of TRICARE contracts.

It seems one cannot open a newspaper or a magazine without reading about the soaring cost of health care; about the escalating malpractice crisis that is driving physicians to leave the practice of medicine; about the increasing cost shifting from employer to individual; about the restrictive practices that third-party payers impose to be able to profit and survive in this market.

We in Army Medicine coexist in that world of health-care costs. But we continue to place our patients first, whether we are talking about families, retirees or soldiers on point. The ability to respond to warfighters, providing care from forward surgical teams to combat support hospitals, depends on the quality base of our direct-care system.

We are in the era of accountability—for efficiency as well as outcomes and quality. We have adopted a business case approach to justifying requirements that has established credibility for our efforts.

Metrics show improvement in medical board processing, operating-room backlogs and cancellation rates. Routine things like officer and NCO efficiency report timeliness; travel card payment and data quality show positive trends. Both Congress and the GAO have cited the AMEDD as a leader in health facility planning and lifecycle management.

Recently we presented the second annual Excalibur Awards, recognizing excellent performance by AMEDD units and providing an opportunity to share information and stimulate improvements. The medical activity at Fort Hood, Texas; the AMEDD Center and School at Fort Sam Houston, Texas; the 82nd Airborne Division at Fort Bragg, N.C.; and the Kentucky Army National Guard's 1163rd Area Support Medical Company were recognized for initiatives in management of patients with resource-intensive medical conditions, use of satellite communications for extended learning, and innovative approaches to 91W training.

I am confident that the restructuring of the new TRICARE contracts will lead to smoother business processes and better fiscal accountability across the Military Health System. The reduction in contract regions will have a direct effect on the portability issue, as will the national carve-out for pharmacy services. All of this is an important component of our ability to keep faith with the promise of health care for those serving and those who have served. But the TRICARE Contracts are only a component. The heart of our ability to project the right medical force with and for those we put in harm's way comes from our Direct Care base. The quality of the training programs, the focus on the unique community of soldiers with their world wide movement in support of our National Military Strategy, understanding unique stresses and strains on their families, the trust and confidence engendered by customer focused quality care is a force multiplier for the service member and the insurance for quality care on the battlefield. General Shinseki has established THE Army as our standard. It underscores the tremendous importance of our Reserve Components. The importance of the interplay with the direct care system of these Twice-the-Citizen Medical Soldiers cannot be overstated. The current tempo of this Global War on Terrorism could not be sustained without them. The continuity of our system with consistent care and in the familiar medical environment—"Institutional Continuity of Care" even if their usual doctor is deployed is important and a constant in a disrupted life. It is our dedicated reservists who train to this mission, and to whom we turn to sustain the care and continue the quality of our training programs that are feeding the force for the next battles in this Global War on Terrorism.

We looked closely at the lessons of Desert Storm and Desert Shield on the use of our Reserve medical force and have implemented 90-day rotation to minimize the impact on the home communities and to reduce the potential for unrecoverable financial hardships. We have made extensive use of Derivative Unit Identification codes that allow us to identify and only mobilize the exact skill sets that we need in the minimum numbers to sustain the mission and targeting them specifically to the location where they are needed. This is in contrast to the wholesale mobilization of these units and later sorting out where and how they might be best used. Many Medical professionals want the opportunity to serve their country. These policies and procedures will enable them to stay with us in the Reserves and contribute to this important mission.

We appreciate the support from this committee to improve the medical readiness of the Reserve components and their families. The Federal Strategic Health Alliance (FEDS-Heal) program is improving our visibility of their health care needs and the potential for allowing dental care during the annual training periods using FEDS-Heal would be a step towards improved readiness.

The level of quality, the ingenuity, the leadership of our noncommissioned officers, the flexibility and agility of leaders at all levels meeting the unique demands of each mission, tailoring the capabilities packages as missions demand—all make me proud of our AMEDD. It is the kind of "quiet professionalism"—as it was described by a senior line commander—that will assure our success in supporting the force as we continue to root out terrorism.

All that I have highlighted reinforces our integration into tenets of General Shinseki's transformation strategy. One can only speculate on what this new year of 2003 might bring—where we in the Army Medical Department might find ourselves committed around the globe. However, one can confidently predict that wherever we find ourselves, we will be caring for soldiers and soldiers' families with excellence and compassion.

I would like to thank this Committee for your continued commitment and support to quality care for our soldiers and to the readiness of our medical forces.

STATEMENT OF VICE ADMIRAL MICHAEL L. COWAN, SURGEON GENERAL OF THE NAVY

Admiral COWAN. Thank you, Senator Inouye. I'm also pleased to be here to be able to share Navy medicine's activity and our plans for the future. At this time foremost on all of our minds is the U.S.

global war on terrorism and military efforts in Iraq even as they wind down.

As the men and women of the Navy and Marine Corps go in harm's way, I take special pride in the men and women of Navy medicine who are present with them on the front lines throughout the theater of operations and back home providing health protection.

A Marine general eloquently summed all of this up by saying "no Marine ever took a hill out of the sight of a Navy corpsman." As we move into this new millennium, we are likely to be continued to be challenged by a growing variety of worldwide contingencies. Deployable medical assets might have the capability to respond to various missions. Today we are more flexible than yesterday.

Our new forward resuscitative surgical systems and the expeditionary fleet hospitals that General Peake alluded to in the Army have proven their unique life and limb saving value in Operation Iraqi Freedom. I have been unable to document a single case of anyone entering our health care system who is more than an hour between the time he was wounded in battle and first received resuscitative care.

Our wounded patients at Bethesda tell me about these rapid response of the first responders tending to them instantly and timely, and of the lifesaving surgical care nearby. Further, it is not just casualty response that has improved.

The net of environmental and weapons of mass destruction protection that surround our deployed forces is unparalleled in military history. Through military medical research and development programs, we continue to develop and to field new lifesaving products, practices and policies for the best of force health protection.

As only one example, individual Marines deployed to Iraq were equipped with a new clotting accelerator called Quick Clot. It is a bandage that with one hand a wounded Marine can open and administer immediately and effectively stemming hemorrhage before the arrival of any health care professionals.

Navy medicine cares not just for deployed sailors and Marines, but also for their families and our retired beneficiaries. All of these responsibilities are carried out through our mission of force health protection which consists of four key components. That is first fielding a healthy and fit force.

Second, deploying them to protect against all possible hazards; third, providing world-class restorative care for sickness or injury on the battlefield, while at the same time caring for those who remain at home and providing health care for our retirees and their families.

To serve these diverse needs, Navy medicine has made substantial investments to become family centered. We believe that promotion of the health and welfare of the entire family is paramount to the health of the service member.

Furthermore, for active duty members and their families, health care is a key quality of life factor affecting both morale and retention, and that is why I say with no sense of irony that family centered services such as perinatal care—having a baby—are readiness and retention issues. One might think that combat support and having babies are worlds apart, but they are not. Our warriors

love their families and cannot be distracted by unnecessary concerns for family's health.

We understand that, and are dedicated to being there for all the health needs of the entire family. Accordingly, military medicine has moved away from being a system that provided periodic and reactive health care to one whose portfolio is invested in health promotion, disease prevention and family centered care. With our sister services and TRICARE partners, we are dedicated to meeting all the needs of all of our patients in every way.

Finally, I would note that the global war on terrorism has been a watershed for military medicine, as well as for American medicine in general. The aftermath of the terrorist attacks of 2001 have revealed that Americans are vulnerable in our homeland and that the very nature of threats against us has changed. We understand conventional violence. We now must understand chemical violence.

We understand germs as disease. We now must understand germs as a weapon. We understand protecting our citizens by fighting our Nation's battles overseas, we now must understand protecting them in their own homes. Over the months and years to come, America's medical and public health infrastructures will evolve to become a defensive weapons systems in ways never before imagined.

In partnership with the Nation's medical agencies, military medicine will play a vital part in that defensive shield against biological, radioactive, and chemical weapons and will serve our Nation well in these uncertain times. I'll end my opening remarks by saying I still wear the cloth of my Nation for 30 years and one of the reasons I do this is the privilege to associate with some of the finest men and women this Nation has ever produced.

I was speaking to a corpsman in Bethesda, who lost his foot to a land mine while running to tend to a wounded Marine. When he appeared somewhat sad, he was consoled that certainly the loss of a foot would affect anyone that way, to which he responded, "No, sir, that is just a foot. In fact, I have another one. What I'm worried about is that I do not know who's taking care of my Marines."

PREPARED STATEMENT

We can be proud of all of them, Army, Navy and Air Force as they serve in homeland and abroad and it is an honor to serve them. Thank you, sir. Thank you, Chairman Stevens.

[The statement follows:]

PREPARED STATEMENT OF VICE ADMIRAL MICHAEL L. COWAN

This has been a challenging and rewarding year for the Navy Medical Department. We have successfully responded to many challenges placed before us, and we continue to face a period of unprecedented change.

For Navy Medicine, it meant changing our very being and even our motto from Charlie-Golf-One, which means in naval signal flag vernacular "standing by, ready to assist" to Charlie-Papa, "steaming to assist," deploying with Sailors and Marines who will go in harm's way, taking care of the full spectrum of world events from peacemaking to major regional conflicts.

It has been a decade of uncertainty, and what has emerged from the confusion and uncertainty is the ascendancy of enemies who know our military superiority, yet won't allow it to dampen their ardor to harm us and influence our power, prestige, economy, and values.

Our enemies have struck with tools that are seemingly effective: global terrorism and asymmetrical warfare. During the years of the Cold War, America's paradigm was to train and prepare for war in safe homeland bases in our country that were protected by two large bodies of water. We defended the citizens of the United States by fighting our wars overseas. But these enemies have successfully brought the war to our backyard. Now the challenge is how to also protect the citizens of the United States in their own homes.

FORCE HEALTH PROTECTION

The primary focus of Navy Medicine is Force Health Protection. We have moved from "periodic episodic healthcare" and the intervention and treatment of disease to population health and prevention and the maintenance and protection of health. This doesn't, however, change the physiological deterioration of the human body when pierced by a bullet. Medical support services are more essential than ever since those fewer numbers have greater responsibilities within the battle space. Take these complexities, and translate them into providing good medicine in bad places over great distances and the challenge become even more daunting. Yet one thing is certain—no organization in the world provides healthcare from the foxhole to the ivory tower the way Navy Medicine does.

Force health protection can be summed up in four categories: First, preparing a healthy and fit force that can go anywhere and accomplish any mission that the defense of the nation requires of them. Second, go with them to protect our men and women in uniform from the hazards of the battlefield. Third, restore health, whenever protection fails, while also providing world-class health care for their families back home. And fourth, help a grateful nation thank our retired warriors with TRICARE for Life. Navy Medicine has to make all those things work; and they have to be in balance. Any one individual may only see a bit of this large and complex organization. But if each of us does our part right, we end up with force health protection.

To ensure its ability to execute its force health protection mission under any circumstances, Navy Medicine has executed multiple initiatives to ensure optimal preparedness, which includes establishing a Navy Medicine Office of Homeland Security. The office is fully operational and has executed an aggressive strategic plan to ensure highest emergency preparedness in our military treatment facilities (MTF's). Its accomplishments include:

Execution of an MTF Disaster Preparedness Assist Visit Program.—The Navy Medicine Office of Homeland Security crafted a multi-pronged assist visit program to strengthen preparedness in Navy MTFs. A team of homeland security experts is visiting each MTF between November 2002 and April 2004 to conduct a unique program known as "Disaster Preparedness, Vulnerability Analysis, Training and Exercise" (DVATEX). Through this activity, each facility receives a hazard vulnerability analysis to identify where they may be vulnerable to attack or the impact of disaster, emergency medical response training, and an exercise of the hospital's emergency preparedness plan is executed—a critical step in enhancing readiness. This, and multiple other critical initiatives, were funded by a mid-year Congressional supplemental funding action.

Enhanced Education for Medical Department Personnel.—Well-educated clinicians are a critical part of homeland security. Navy Medicine sent over 450 physicians, nurses and corpsmen to the "gold standard" medical management of chemical and biological casualties training program at the U.S. Army Institute of Infectious Disease (USAMRIID). An extensive online training program for Navy Medical Department personnel on response to weapons of mass impact and emergency preparedness is in development at the Naval Medical Education and Training Command.

Pharmacy Operations Emergency Preparedness.—A task force of Navy Medicine pharmacy experts is taking action to ensure strong emergency pharmacy operations and adequate stockpiles of critical medicines and antidotes.

Smallpox Threat Mitigation.—Navy Medicine is leading 2 DOD Smallpox Emergency Response Teams (SERTs) and has executed the initial phase of the DOD smallpox immunization plan.

READINESS/CONTINGENCY OPERATIONS

As we move into this new millennium, our Navy and Marine Corps men and women are called upon to respond to a greater variety of challenges worldwide. This means the readiness of our personnel is now more important than ever. Military readiness is directly impacted by Navy Medicine's ability to provide health protection and critical care to our Navy and Marine Corps forces, which are the front line protectors of our democracy. That's what military medicine is all about—keeping our

forces fit to fight. Our readiness platforms include the two 1,000 bed hospital ships, 6 Active Duty and 4 Reserve 500 Bed Fleet hospitals, as well as different medical units supporting Casualty Receiving and Treatment Ships (CRTS) and a variety of units assigned to augment the Marine Corps, and overseas hospitals. Navy medicine is more flexible now than we were even a few short years ago. Fleet hospitals have been modified to allow smaller and lighter expeditionary modules to be deployed. Yet even those are not flexible enough. Our combat planners are designing a more modular approach to enhance our operational capabilities. The ultimate goal is an ability to task and organize a medical force to rapidly provide support for the full range of potential military operations anywhere on the globe.

I am very glad to report that the Next Generation 4/2 (DUAL SITE) Concept Fleet Hospital (FHSO) gained final approval in April 2002. The first ever-major Fleet Hospital reconfiguration and program change since the command's inception over 20 years ago, this achievement will provide a truly modular, plug and play hospital that will better meet the challenges of today and provide a bridge to the development of the "Fleet Hospital of the Future". This month we will begin building the first 4/2 concept hospital as part of the Integrated Logistics Overhaul (ILO) of Fleet Hospital NINE and will ultimately provide greater flexibility and operability to the Maritime Preposition Forces. In addition, a design for a small 10-bed Expeditionary Surgical Unit (ESU) with an even smaller 4-bed Surgical Component (SSC) is being developed. These new, smaller products have been imbedded into the recently approved Next Generation 4/2 Concept Fleet Hospital for less than $100,000, and provides Navy Medicine with a new response package to meet the new threat of asymmetrical warfare by providing between Level II and III care. Both the ESU and SSC are intended to provide the FH program with its first ever air-mobile asset and will serve as the foundation for providing humanitarian and disaster relief. The first of these products was implemented with the rebuild of FH08 EMF in September 2002.

Last year, Navy medical personnel supported numerous joint service, Marine Corps, and Navy operations around the world. We flawlessly performed dozens of deployments supporting the war in Afghanistan, and in support of our national strategy, a fleet hospital still provides daily health care services to the Al Qaeda and Taliban detainees at Guantanamo Bay, Cuba. Our medical personnel have also provided preventive medical services, humanitarian care and relief to many countries around the globe.

Over the last few weeks, thousands of Navy Medical Department personnel have deployed to the 1,000 bed hospital ship USNS Comfort, to three fleet hospitals (in their 116 bed Marine Expeditionary Force Configuration) and have augmented Navy and Marine Corps forces world wide, many of whom are deployed in forward areas.

Navy Medicine will continue focusing on improved contingency flexibility in the field and afloat. Our medical care starts right in the midst of battle through the service and dedication of hospital corpsman. Navy Hospital Corpsmen have been awarded the Medal of Honor more often than any specialty in the Navy. Navy-Marine Corps history is filled with heroic acts performed by corpsmen to reach and retrieve wounded Marines. As the Marines deployed to Afghanistan and now to the Middle East, there are always hospital corpsman with them. The ratio can vary according to the mission, but the ratio is around 11 corpsmen per infantry company, which has between 120 and 130 Marines.

Corpsman training includes surgically opening an obstructed airway, field dressing battle wounds, starting IVs, patching a lung-deep chest wound, treating battle injuries in an environment contaminated by chemical or biological weapons, and immobilizing spines of Marines whose backs are broken by explosions.

Navy Medicine has also established training for combat surgical support to enhance the capabilities of the Forward Resuscitative Surgical System deployment by USMC. The cornerstone is the Navy Trauma Training Center at LA County/University of Southern California Medical Center, which convened its first class in August 2002 of physicians, nurses and hospital corpsman tasked with far forward surgery operational assignments. The program is projected to train approximately 120–150 students annually.

In the 1991 Gulf War, our forward units moved so quickly into Iraq that it took an average of two hours to get a casualty to rear-guard medical facilities. Navy Medicine now has trauma doctors with the equivalent to a six-bed emergency room, as part of the Marine Corps' Combat Service Support Company, that follows the front lines on trucks and helicopters. Navy medicine will have trauma doctors available within 30 to 60 minutes of an injury, which reflects our persistent effort to push high quality medical care close to combat. The physicians staffing these units are combat doctors, who the Marines refer to as "Devil Docs" in reference to the nickname "Devil Dogs" that the Marines earned in World War I. Its expected that the emergency and surgery teams will receive the 10 to 15 percent of casualties who

will need immediate treatment to stay alive before they can be sent to more fully equipped echelon II or III facilities in the rear. These teams of two general surgeons, one anesthesiologist and five nurses and corpsmen can perform basic tests and can handle 18 casualties in 48 hours without resupply from the rear. In just one hour, the team can pack up its two tents, one a holding area and the other a surgery room with operating lights, along with ultra-quiet power generators and X-ray and hand-held sonogram machines.

As your aware one of our hospital ship, the USNS Comfort, deployed to the Persian Gulf on 6 January 2003, and is now being fully staffed to provide 1,000 hospital beds, 12 operating rooms, CAT Scan capability and advanced medical care equivalent to university medical centers. Yet, the Navy's first-response medical vessel for injured troops may be a gray hull and not the white USNS Comfort. At the tip of the spear are amphibious assault ships like the USS Tarawa. They launch Marines by helicopter and giant hovercraft, but also serve as Casualty and Treatment Receiving Ships (CTRS: secondary floating hospitals). The USS Tarawa, comes with four operating rooms and beds for 300 patients when Marines are ashore. The medical team manning the facility includes surgeons, neurologists, anesthesiologists, nurses and hospital corpsmen. They know how to treat nearly every battlefield trauma, including gunshot wounds and exposure to chemical and biological attacks. Their training also included the Navy's new hand-held "Bio/Chemical Detection Devices. The detection devices can determine within minutes if Marines or sailors have been exposed to chemical agents, and identify the agents. Patients treated on-board are stabilized and transferred either to hospital ships or military hospitals in Europe or the United States.

PERSONNEL READINESS

Navy Medicine tracks and evaluates overall medical readiness using the readiness of the platforms as well as the readiness of individual personnel assigned to those platforms. One of our measures of readiness is whether we have personnel with the appropriate specialty assigned to the proper billets; that is, do we have surgeons assigned to surgeon billets and operating room nurses assigned to operating room nurse billets, etc.

The readiness of a platform also involves issues relating to equipment, supplies and unit training. Navy Medicine has developed a metric to measure the readiness of platforms using the Status of Resources and Training System (SORTS) concept tailored specifically to measure specific medical capabilities such as surgical care or humanitarian services. Using the SORTS concept, Navy Medicine has increased the readiness of 34 "Tier 1" deployment assets by 23 percent.

Navy Medicine also monitors the deployment readiness of individual personnel within the Navy Medical Department. Feeding the SORTS system is a program known as the Expeditionary Medical Program for Augmentation and Readiness Tracking System (EMPARTS), which Navy Medicine uses to monitor the deployment readiness of individual personnel and units within the Navy Medical Department. Personnel are required to be administratively ready and must meet individual training requirements such as shipboard fire fighting, fleet hospital orientation, etc. Individual personal compliance is tracked through EMPARTS.

Augmentation requirements in support of the operational forces have significantly increased. Our Total Force Integration Plan utilizing both active and reserve inventories has greatly improved our ability to respond to these requirements. Navy Medicine's demonstrated commitment to supporting the full spectrum of operations is mirrored in our motto "steaming to assist" and is in full partnership with the Navy's "Forward Deployed, Fully Engaged" strategy.

I also believe that in order to achieve Force Health Protection we need a metric for measuring the health readiness of our fighting forces. This measure must be beyond the traditional "C-Status metric", which lacks a true measure of one's health. Navy Medicine has developed a measure of individual health, which will also facilitate our measure of population health. Our model has been accepted by the Office of the Assistant Secretary of Defense, Health Affairs, and is being expanded for use by all the Services. A final version of the model and a Health Affairs policy memorandum is expected in a few weeks. In short, the model develops a metric that categorizes an individual's readiness status in one of four groups. The categories to be used include: Fully Medically Ready; Medically Ready with minor intervention; Unknown (i.e. no current evaluation or lost medical record) and Medically Not Ready. Each active duty member will fall into one of the four categories. The elements that will decide what category an individual falls into includes: Periodic health assessments, such as the physical exam, deployment limiting conditions, which include injuries, or long term illnesses, dental readiness using the same standards that have

always been established, Immunization status and possibly vision evaluations and individual medical equipment like gas mask eye-glass inserts. The software needed to collect and track the data has already been developed and is compatible with current data systems. Readiness data can either be entered via SAMS (Shipboard automated medical system) or through our Navy Medicine on-line program. The information can also be stored in the DEERS database. Secure individual readiness data will therefore be available from SAMS, DEERS or Navy Medicine on-line. Reports will array data by command and drill down to an individual, and can be accessed by line leadership.

I am also pleased to report that we recently implemented a new Reserve Utilization Plan (RUP) that has optimized our use of reservists during peacetime and contingencies. The Medical RUP is Navy Medicine's plan for full integration of Medical Reserves into the Navy Medical Department. The RUP is being currently used to support the allowed 50 percent reserve augmentation of our deployed active duty staff and matches up reserve specialties with the needed services at each of our hospitals.

OUR PEOPLE

People are critical to accomplishing Navy Medicine's mission and one of the major goals from Navy Medicine's strategic plan is to enhance job satisfaction. We believe that retention is as important if not more so than recruiting, and in an effort to help retain our best people, there has been a lot of progress. Under our strategic plan's "People" theme, we will focus on retaining and attracting talented and motivated personnel and move to ensure our training is aligned with the Navy's mission and optimization of health. Their professional needs must be satisfied for Navy Medicine to be aligned and competitive. Their work environment must be challenging and supportive, providing clear objectives and valuing the contributions of all.

All Navy Medicine personnel serving with the Marine Corps face unique personal and professional challenges. Not only must they master the art and science of a demanding style of warfare, but they must also learn the skills of an entirely separate branch of the armed services. Whether assigned to a Marine Division, a Force Service Support Group, or a Marine Air Wing, Navy medical personnel must know how Marines fight, the weapons they use, and the techniques used to employ them effectively against harsh resistance. To excel in this endeavor is an accomplishment that should be recognized on a level with other Navy warfare communities.

As we work to meet the challenges of providing quality health care, while simultaneously improving access to care and implementing optimization, we have not forgotten the foundation of our health care—our providers. We appreciate and value our providers' irreplaceable role in achieving our vision of "Navy Medicine being the provider of choice by achieving superior performance in health services and population health."

Within each of our medical facilities there has been an overall initiative to reward clinical excellence and productivity and to ensure that those who are contributing the most are receiving the recognition they deserve. Additionally, selection board precepts now emphasize clinical performance in the definition of those best and fully qualified for promotion.

I would like to report to you on the status of our corps:

Medical Corps

The Medical Corps is currently manned at approximately 101 percent. This number is deceptive because there are several critical specialties in which undermanning is high and needs to be watched to avoid impacting our ability to meet wartime requirements and provide INCONUS casualty medical care: Anesthesia (82 percent manned), General Surgery (72 percent manned), Pathology (82 percent manned), Dermatology (83 percent manned), Diagnostic Radiology (79 percent manned) and Radiation Oncology (80 percent manned). Because the average loss of providers exceeds the currently programmed input, shortages are expected in fiscal year 2005 in Anesthesiology, General Surgery and its subspecialties, Urology, Pathology, Radiology, Gastroenterology, and Pulmonary/Critical Care. We are also monitoring specialties in which we're currently overmanned. Because of the nature of medical training, it can take from 8 to 12 years to train a medical specialist. Various training and accession programs feed that pipeline and loss rates are often hard to project. We have improved our management oversight of those communities and will continue to seek improved means of meeting end-strength goals.

In order to compete in the marketplace for a limited pool of qualified applicants for medical programs, and to retain them once they have chosen the Navy as a career, adequate compensation is critical. The civilian-military pay gap that has al-

ways existed has increased steadily, which makes it almost impossible to recruit or retain physicians in these high demand specialties. Strategic increases in the use of Incentive Special Pay, Multiyear Specialty Pay and use of Critical Skills Retention Bonuses that correspond to the Navy's medical specialty shortages may help improve retention in these critically manned specialties.

Dental Corps

Despite continued efforts to improve dental corps retention, the annual loss rate between fiscal year 1997 and fiscal year 2002 increased from 8.3 percent to 11.8 percent. Current projections for fiscal year 2003 predicts a 12.6 percent loss rate. These numbers represent higher actual and projected loss rates compared with similar data from last year. In addition, declining retention rates of junior officers has negatively impacted applications for residency training, which have dropped 16 percent over the last five years. The significant pay gap compared to the civilian market and the high debt load of our junior officers seem to be the primary reasons given by dental officers leaving the Navy.

Nurse Corps

Closely monitoring the national nursing shortage and increasing number of competitive civilian compensation packages, Navy Medicine continues to meet military and civilian recruiting goals and professional nursing requirements through diversified accession sources, pay incentives, graduate education and training programs, and retention initiatives that include quality of life and practice issues. Successful tools have been the Nurse Accession Bonus, Certified Registered Nurse Anesthetist Incentive Pay, Board Certification Pay, and Special Hire Authority; it is imperative that they are continued in the future years to meet our wartime and peacetime missions. In addition, clinical and patient care needs are continuously evaluated to target our education and training opportunities in support of specific nursing specialties, such as advanced practice nurses, nurse anesthetists, nurse midwives, and perioperative nurses. Over the past 2–3 years, CRNAs have been successfully retained in the Navy, creating a consistent fill of available billets based on a variety of factors. The combination of special pays (Incentive Specialty Pay and Board Certification Pay), lifting of practice limitations, and a focus on quality of life issues have been the major factors for this success. The most recent Critical Skills Retention Bonus has had a positive influence on CRNAs staying beyond their obligated service period.

Medical Service Corps

Medical Service Corps (MSC) loss rates in general are relatively stable at about 8.5 percent, but as with the rest of the Navy, were lower than that in fiscal year 2002 (6 percent). Loss rates vary significantly between specialties however, and are not acceptable in all MSC professions. A key issue for this Corps is increasing educational requirements and costs. Many of our health professionals incur high educational debts prior to commissioning. Recent increases in loan repayment requirements causes issues for many junior level officers trying to repay their education loans. Additionally, the increasing number of doctoral and masters level requirements for the various healthcare professions is beginning to put a strain on the Defense Officer Personnel Management Act (DOPMA) promotion constraints for this Corps, an issue we will be monitoring. Currently our critical specialties to recruit and retain are optometry, pharmacy, clinical psychology, social work, entomology, and microbiology. When funded, we expect the new pharmacy and optometry special pays to help our retention in those two communities. Further we have begun using the Health Profession Loan Repayment Program for some specialties and are having success with it.

Hospital Corps

Within the Hospital Corps, we are currently under-manned, defined as being below 75 percent, in seven Navy Enlisted Classifications (NECs). In the operational forces, USMC reconnaissance corpsman are currently manned at 53.8 percent. In the MTFs, cardio-pulmonary technicians are staffed at 74.3 percent, occupational therapy technicians 63.2 percent, bio-medical repair technicians 66.3 percent, psychiatric technicians 72.4 percent, morticians 50 percent and respiratory technicians at 73.5 percent. In the Dental technician community, we are currently undermanned in the dental hygiene community at 63.1 percent. An enlistment bonus for hospital corpsman and dental technicians would assist in competition with the civilian job market.

Medical Special Pays

The primary mission of the Military Health System (MHS) is Force Health Protection. This readiness focus involves programs to ensure we maintain a healthy and fit force, providing medical care in combat. The MHS also has an important peace time mission of providing health services to active duty members and other beneficiaries. In order to provide these services, the MHS must retain health providers that are dedicated, competent and readiness trained. This challenge is particularly difficult because uniformed health professionals are costly to accession, train, and are in high demand in the private sector.

It's essential for the MHS to maintain the right professionals, the right skill mix and the right years of experience to fulfill our readiness requirements. Continued military service is not only based on pay, but also the conditions and nature of the work. Yet, adequate compensation must be provided. One of the major tools used to retain providers are special and incentive pay bonuses.

National Defense Authorization Act of fiscal year 2003 (NDAA 03) set new upper limits for specific medical pays. Where as this act delineates the dollar limits at which pays may be paid; it leaves the administration of these pays to the Assistant Secretary of Defense for Health Affairs and the Services. The administrative policy for special pays is accomplished through a tri-service effort where specific manpower needs for each service and community pay is evaluated and applied to an annual tri-service pay plan. It is this pay plan that determines at what pay levels will be paid for specific specialties at any given time. Currently there have been no decisions or budgetary inputs to provide for any increase in these pays for fiscal year 2003 or fiscal year 2004.

Workgroups both within each service and as a tri-service collective are examining the application of special pays to include increases utilizing the new upper pay caps. However, it is too early to comment on possible applications.

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

As the Executive Agent of the Uniformed Services University of the Health Sciences (USUHS), I would like to comment on the extraordinary achievements of the University in 2002. USUHS granted 163 Medical Degrees for a current total of 3,268 uniformed physician graduates since the first USUHS graduation in 1980. USUHS graduates, with retention averaging twenty years of active duty service, now represent over 22 percent of the total physician officers on active duty in the Armed Forces. And, as provided to the Congress during 2002, the median length of non-obligated service for physician specialists in the Military Health System, not including USUHS graduates, is 2.9 years; however, the median length of non-obligated service for USUHS graduates is 9 years. Thus, USUHS graduates are exceeding the original expectations of Congress when the university was established, thus ensuring physician continuity and leadership for the military health care system. In addition, a total of 183 Masters of Science in Nursing Degrees have been granted since the establishment of the USUHS Graduate School of Nursing in 1993; and, 728 Doctoral and Masters Degrees have been granted through the USUHS School of Medicine Graduate Education Programs.

The military unique curricula and programs of the Uniformed Services University, successfully grounded in a multi-Service environment, draw upon lessons learned during past and present-day combat and casualty care to produce career-oriented physicians, advanced practice nurses, and scientists with military unique expertise. The USUHS-unique training centered in preventive medicine and combat-related health care is essential to providing superior force health protection and improving the quality of life for our service members, retirees, and families. USUHS also provides a significant national service through its continuing medical education courses for military physicians in combat casualty care, tropical medicine, combat stress, disaster medicine, and the medical responses to weapons of mass destruction (WMD).

Four USUHS activities, internationally recognized by the emergency responder and health care communities, stand by ready to provide cost-effective, quality-assured WMD-related training and consultation. The Casualty Care Research Center; the Center for Disaster and Humanitarian Assistance Medicine; the Center for the Study of Traumatic Stress; and, the Armed Forces Radiobiology Research Institute have established credibility in providing military unique expertise covering four areas of WMD-related concerns: (1) the preparation of emergency responder communities; (2) ensuring communication and assessment of military medical humanitarian assistance training; (3) addressing traumatic stress of both civilian and uniformed communities during WMD-related incidents; and, (4) the development of

medical radiological countermeasures to include the provision of unique training for the response to radiological emergencies.

I am pleased to report that USUHS has begun collaborative efforts with the Department of Veterans Affairs on its WMD-related educational and training programs. As directed by H.R. 3253, The Department of Veterans Affairs Emergency Preparedness Act, Public Law 107–287, VA education and training programs on medical responses to terrorist activities, shall be modeled after programs established at USUHS. The cost-effective provision of quality-assured, web-based training and expertise for the medical response to WMD for the emergency and health care provider communities is ready to be transmitted from the USUHS Simulation Center located in Forest Glen, Maryland. I look forward to the further development of these collaborative efforts and the future contributions of USUHS.

ESTABLISHMENT OF THE NAVAL MEDICAL EDUCATION AND TRAINING COMMAND

The Naval Medical Education and Training Command (NMETC) was established under the command of a Flag Officer, as a result of BUMED realignment activities. NMETC is going to be a central source of learning that will act as a catalyst for web based education and training initiates available to our staff on a world wide basis. The Command's mission also dovetails well with CNO's Task Force Excel (TFE) initiative, whose cornerstone is the stand up of primary organizations with responsibility for training, education, human performance/development, and alignment of resources and requirements. Current Navy Medicine training staff is conducting a gap analysis between NMETC key functions, and those functions envisioned in CNO's training commands, in collaboration with TFE staff.

FAMILY CENTERED CARE

Our health system must remain flexible as we incorporate new technologies and advances in medical practice, struggle to maintain our facilities, optimize our health care delivery, embrace new health benefits, enhance patient safety, and increase our ability to provide care to beneficiaries over age 65 in the coming months. Navy Medicine has been working tirelessly to maintain our superior health services in order to keep our service members healthy and fit and ready to deploy while providing a high quality health benefit to all our beneficiaries. As you know, healthcare is an especially important benefit to service members, retirees and family members. It is an important recruitment and retention tool. For active duty members and their families it's one of the key quality of life factors affecting both morale and retention. A deployed service member who is secure in the knowledge that his or her family's healthcare needs are being met is without question, more effective in carrying out the mission. Additionally, the benefits afforded to retirees are viewed by all as an indicator of the extent to which we honor our commitments.

I'm proud of the cultural transformation Navy medicine has undertaken in support of Family Centered Care. Our patients, our Navy leadership, and Navy medicine understand that if we want to evolve beyond being a reactive health care system—with periodic, episodic, reactive healthcare—we have to make our customers partners in their care. Our goal is to be a proactive health system with the achievement of unprecedented levels of population health, the ultimate measure of our success. But we can't get there if patients aren't comfortable with their healthcare. We can't achieve higher states of health without individuals being actively involved in the process. Navy medicine has made a commitment to the cultural transformation. We are working every day towards being patient-centric.

We have placed particular emphasis on achieving customer satisfaction with our perinatal services. Delivering babies is a very important component of our force health protection. It is one of the richest opportunities we have to affect health behaviors, and for building strong families from the beginning. What better opportunity is there to interest our Sailors and Marines in their health than when they are creating a family? The Navy's Family Centered Care (FCC) program promotes practices that enhance patient safety, health, cost efficiency, and patient and staff satisfaction. Elements of the FCC program were derived directly from patient and staff responses to multiple survey instruments and convenience samples. During 2002, Navy Medicine demonstrated its commitment to patient-centered care by investing $10.2 million in the FCC program. MTFs were able to upgrade equipment and furniture and received enhanced maternal-infant safety and patient-centered care training. Our accomplishments include a Tri-service effort to develop a uniform Family Centered Care program. We have collaborated with Army and Air Force Medical departments to develop coordinated plans since February 2002. We have also increased the availability of private post-partum rooms in Navy MTFs by 52 percent from 2001, while simultaneously increasing provider continuity for prenatal

visits to at least 75 percent in those MTFs not affected by the current OPTEMPO. We have deployed the DOD developed Interactive Customer Evaluation (ICE) system to monitor patient satisfaction with the FCC program and have established partnerships between the BUMED Perinatal Advisory Board, Health Services Organizations, and the BUMED Inspector General to assist in implementing and monitoring of the FCC program.

We have standardized and enhanced prenatal education in all MTFs through the purchase of the USAF developed Spring Garden interactive education material and have contracted with a nationally recognized expert on Single Room Maternity Care to provide consultative services at MTFs undergoing the construction of Labor, Delivery, Recovery and Postpartum units. We are ensuring that MTFs review and revise policies to include family members at prenatal visits and at the delivery and are currently implementing the DOD/VA Clinical Practice Guideline for Uncomplicated Pregnancy in Navy MTFs.

Finally, we have funded, filmed, and distributed marketing video spots, introducing patients to the Navy's Family Centered Care program.

Optimization

Readiness, must be supported by integration and optimization forming what I refer to as the "ROI concept"—Readiness, integration and optimization. ROI is simply our effort to be good business people. Our optimization efforts have met with good success and led to more integration in our military health system. We work with our sister services very closely, both within the health care system, and operationally. We are all utterly dependent on one another for our mutual success. Nothing of any significance is done alone. Further, we have increased our integration and cooperation in other areas. A prime example is our continued efforts to build mutually advantageous health care and business relationships with the Department of Veterans Affairs.

There is no more important effort in military medicine today than implementing the MHS Optimization Plan to provide the most comprehensive health services to our Sailors, Marines and other beneficiaries. Optimization is based upon the pillar of readiness as our central mission and primary focus.

For several years now, we have attempted to shift our mindset from treating illnesses to managing the health of our patients. Fewer man-hours will be lost due to treatment of injury or illness because we manage the health of our service men and women, which keeps them fit and ready for duty. With this in mind, TRICARE Management Activity and the three services created an aggressive plan to support development of a high performance comprehensive and integrated health services delivery system. We took lessons learned from the best practices of both military and civilian health plans. The outcome was the MHS Optimization Plan. Full implementation of this plan will result in a higher quality, more cost effective health service delivery system.

The MHS Optimization Plan is based on three tenets. First, we must make effective use of readiness-required personnel and equipment to support the peacetime health care delivery mission. Second, we must equitably align our resources to provide as much health service delivery as possible in the most cost-effective manner—within our MTFs. And third, we must use the best, evidence-based clinical practices and a population health approach to ensure consistently superior quality of services.

During the last year, we accomplished a lot, both locally and at an enterprise level by focusing on concept education, primary care management techniques, clinic productivity standards, administrative health plan management and best practice integration. Accomplishments include:

- Clinical Advisory Boards
- Clinical Practice Guidelines
- Primary Care Manager By Name implementation
- Patient Safety Initiative
- Population Heath Improvement Plan and Tools
- Population Health Navigator
- Primary Care Optimization Model
- Optimization Report Care
- TRICARE On-line
- Clinic Business Reengineering
- Provider Support Staff and Exam Rooms
- Clinic Management Course
- Access monitoring
- Appointment Standardization
- Data Quality Initiatives
- Transition to New DEERS
- Medical Record Control
- Pharmacy Profiling
- Fleet Liaison Instruction
- Policy Statement to Reward Clinical Excellence

Our Optimization funding has allowed us to pursue investment opportunities designed to achieve an "Order of Magnitude Change" within Navy Medicine Treatment Facilities. Over 140 field proposals underwent a rigorous review; those demonstrating the most significant Return on Investment (ROI) are being implemented:

—Musculoskeletal initiatives at 4 sites
—Mental Health initiative at 1 site
—Primary Care initiatives at 4 sites
—Pharmacy initiatives at 4 sites
—E-Health /TRICARE On-Line
—Webification of Navy Medicine
—Population Health Navigator/Primary Care Optimization Model
—Clinic Manager Course
—Radiology Residency—NMC Portsmouth
—Birth Product Line Expansion at 2 sites
—Virtual Colonoscopy
—Carido-thoracic Surgery at NMC Portsmouth
—Sleep Lab Expansion at 3 Sites
—Nurse Triage/Nurse Advise Line at 2 sites
—Chile Health Center—NMC San Diego
—Case Management Project

The Optimization Fund projects are at various points in the approval, funding and implementation process. Implementation plans and outcome metrics will be monitored closely.

Although many commands report numerous efforts to optimize or improve their facility, I am concerned that frequently these efforts are not tied to specific goals or objectives. This is where performance measurement comes in. Performance measurement provides focus and direction, ensures strategic alignment and serves as a progress report.

In the Navy, we are making available comparative performance data on all facilities—so MTF commanders can see where they stand and learn from each others' successes. Ultimately, it allows us to raise the bar for the whole organization.

We have already made adjustments to our measures and have found that many of the measures have data that only changes once a year. This may be fine to measure how well we are doing in moving towards some of our strategic goals, but they are not adequate by themselves to manage the complexity of the Navy Medical department. This year we've added more "levels" to our metrics. One is a group of Annual Plan measures. After reviewing our strategic plan in light of the current environment, understanding the strengths, weaknesses, opportunities, and threats to our organization, we identified several priorities for the year. We then identified measures to track progress on these items—and this data has to be measurable at least quarterly. Finally, we have added more measures for our "Dashboard of Leading Indicators" that our leadership will be looking at on a monthly basis. Once we look at the historical data for these dashboard indicators, we will be setting not only targets for where we want to be but also action triggers in case we are going the wrong direction in some area. We will agree on a level below which, we will no longer just watch and see if it improves, but we will take action to change the processes. We in the Navy have web based our Optimization Report Card and the satisfaction survey data is provided to MTF commanders in a more user friendly display on a quarterly basis. As we continue to improve our performance measurements, we will begin to identify targets for our system and for each MTF. Holding MTF CO's accountable for meeting those targets will be the next step in this evolution.

NAVY MEDICINE/DVA RESOURCE SHARING

As I mentioned, VA resource sharing is part of our optimization program. Collaboration between the Veterans Affairs and Navy Medicine is an important way to enhance service to our beneficiaries and veterans. Navy Medicine is an active participant in the DOD/VA Executive Council working to establish a high-level program of DOD/VA cooperation and coordination in a joint effort to reduce cost and improve health care for veterans, active duty military personnel, retirees and family members. The Executive Council is made up of senior DOD and VA healthcare executives and has established seven workgroups to focus on specific policy areas. Navy Medicine participates on three of the workgroups (Benefit Coordination, Financial Management and Joint Facility Utilization/Resource Sharing). The Presidential Task Force to Improve Health Care Delivery to our Nation's Veteran's meets monthly and representatives from BUMED attend every meeting as well as members from the VA and other Services. To date, BUMED currently manages 193 sharing agreements with the VA and provides resource sharing with the VA on over 2,800 individual healthcare line items. We have also established a new BUMED/VA web site, which will provide our commands an overview of joint sharing ventures and updates on local command initiatives. It's essential that our Commanding Officers pursue

VA sharing initiatives in their daily business activities. Specific Navy/VA Joint Ventures and other MTF agreements initiatives include:

—NH Great Lakes and the North Chicago VAMC have reached agreement on forming a joint North Chicago Ambulatory Healthcare system which will support the mission at Naval Training Center (NTC), Great Lakes with modern and efficient healthcare services.

—The NMC Key West, Florida and VA Medical Center, Miami, Florida are sharing a new joint medical clinic that is staffed by VA and Navy providers.

—NH Corpus Christi and the VA have also signed an agreement to share surgical services and various ambulatory care services.

—In Guam, the VA Outpatient Clinic is collocated at USNH GUAM; Navy is considered the primary inpatient facility for veterans.

—NH Pensacola has several VA/DOD agreements in place and is working to establish additional agreements: Current agreements include: Emergency Room Services, Inpatient services, OB services and Orthopedic services, Lab and Radiology Services, Active Duty physicals and Mental Health Services. Options are also under review for new shared ambulatory healthcare settings.

—NMC San Diego and NH Cherry Point are working with the VA to establish a Joint Community Based Outpatient Clinic (CBOC).

—NH Lemoore is negotiating a new sharing agreement with the VA in Fresno, California to replace a recently expired agreement.

—Agreements under development include: Corry Station—a combined DOD/VA Outpatient Clinic. A project workbook has been started and discussions continue. A site location has not been determined at this time.

The Consolidated Mail Outpatient Pharmacy (CMOP) Pilot Program is also providing promising results. The purpose of the CMOP pilot is to evaluate the impact and feasibility of shifting some of the DOD prescription refill workload from MTF pharmacies to VA CMOPs while maintaining quality service to DOD beneficiaries. VA and DOD have made important progress in their efforts to conduct a DOD/VA CMOP pilot for evaluating the merits of using CMOPs MHS wide. Timelines and metrics have been established, pilot sites have been selected, and the interfaces are developed and are being tested. A Navy pilot site is at the Naval Medical Center San Diego.

E-HEALTH TECHNOLOGY

The Internet has dramatically changed the way we live and do our business in ways totally unforeseen even as recently as ten years ago. This is especially true in Medicine where the Internet offers the opportunity to extend healthcare access, services, and education to improve the care we provide our patients. Online services and information offer patients the ability to take control of their healthcare and partner with their healthcare provider to stay healthy.

In Navy Medicine, we have recognized the enormous potential of the Internet, both in healthcare services and in accomplishing our mission. We want to move from reactive interventional healthcare, waiting for people to get sick before we intervene, to more proactive Force Health Protection where we identify the most common causes of illness and injury in our patients and then aggressively act to prevent those things through good preventive services and education. We realize we cannot achieve this vision if our patients have to come to the hospital for those services. As a result, we look to the internet to help us extend healthcare services, access, and education outside the hospital in a convenient, easily accessed manner.

We also realize that the internet can help us extend healthcare services to remote areas where specialty care has historically required medically evacuating patients. Finally, we also realize that the internet can be a valuable tool to help us support our operational commanders while concurrently improving our internal efficiency and effectiveness.

These four goals, (1) extending healthcare services outside our hospital to help move us to proactive Force Health Protection, (2) extend healthcare services to the patient, regardless of location, (3) improve support to operational commanders, and (4) improve our internal efficiency and effectiveness comprise the four main goals of Navy Medicine's e-health initiatives.

There are three initiatives I would like to highlight to demonstrate our progress in this area:

—*TRICARE OnLine*.—This is the MHS new healthcare portal. A revolutionary concept, it allows our patients to go online, create an account, and access customizeable personalized healthcare information for their specific needs. They can also create an online healthcare journal for their healthcare providers to use and to help them track their health. There are no comparable services in

the civilian sector and it represents the very hard work of a dedicated staff who took this from concept to widespread deployment in less than two years. Navy Medicine is partnering with TRICARE OnLine to share applications, jointly develop new applications, and ensure interoperability for new innovations in the future.

—*RADWORKS*.—Radiology is increasingly important in the rapid diagnosis and treatment of patients. Rapid access to radiology expertise is critical to getting the best and quickest care for our patients. Since we cannot have radiologists everywhere, we are leveraging digital radiography over the web to provide this service. We recently completed installation of this technology onboard USNS COMFORT for use in supporting optimal care and disposition of any casualties. Our patients will have immediate access to the best radiologic support quickly regardless of their location anywhere in the world.

—*Smallpox Tracking System*.—With the threat of smallpox, it is critical for us to both immunize the force and provide our commanders with as near a real time view of their immunization status as possible. Previous reporting used to be paper-based, was very labor-intensive, and was almost always out of date when received. We did smallpox immunization tracking differently. Within two weeks of program start, a dedicated Navy Medicine web team developed and implemented a real time web-based tracking system that allowed us to provide, on a daily basis, real time immunization reports to line commanders for their use. This was subsequently upgraded to a more robust system in use today. Navy Medicine responded quickly and effectively to the needs of our commanders and the support we needed to give to keep our Sailors and Marines healthy and ready to go.

The bottom line is that Navy Medicine is at the vanguard of leveraging the net and emerging web-based technologies to improve our healthcare services, better support our operational commanders, and ensure our Sailors, Marines, family members, and retirees receive the very best care possible anywhere, at any time.

MEDICAL RESEARCH

Navy Medicine also has a proud history of incredible medical research successes from our CONUS and OCONUS laboratories. Our research achievements have been published in professional journals, received patents and have been sought out by industry as partnering opportunities.

The quality and dedication of the Navy's biomedical R&D community was exemplified this year as Navy researchers were selected to receive prestigious awards for their work. CAPT Daniel Carucci, MC, USN received the American Medical Association's Award for Excellence in Medical Research for his work on cutting edge DNA vaccines. His work could lead to the development of other DNA-based vaccines to battle a host of infectious diseases such as dengue, tuberculosis, and biological warfare threats. Considering the treat of Biological terrorism, DNA vaccine-based technologies have been at the forefront of "agile" and non-traditional vaccine development efforts and have been termed "revolutionary". Instead of delivering the foreign material, DNA vaccines deliver the genetic code for that material directly to host cells. The host cells then take up the DNA and using host cellular machinery produce the foreign material. The host immune system then produces an immune response directed against that foreign material.

In the last year, Navy human clinical trials involving well over 300 volunteers have demonstrated that DNA vaccines are safe, well-tolerated and are capable of generating humoral and cellular immune responses. DNA vaccines have been shown to protect rodents, rabbits, chickens, cattle and monkeys against a variety of pathogens including viruses, bacteria, parasites and toxins (tetantus toxin). Moreover recent studies have demonstrated that the potential of DNA vaccines can be further enhanced by improved vaccine formulations and delivery strategies such as non-DNA boosts (recombinant viruses, replicons, or, importantly, exposure to the targeted pathogen itself).

A multi-agency Agile Vaccine Task Force (AVTF) comprised of government (DOD, FDA, NIH), academic and industry representatives is being established to expedite research of the Navy Agile Vaccine.

As other examples of scientific achievement, Navy Medicine is developing new strategies for the treatment of radiation illness. Navy Adult Stem Cell Research is making great strides in addressing the medical needs of patients with radiation illness. The terrorist attacks of 2001 identified the threat of weapons of mass destruction, to potentially expose large numbers of people to ionizing radiation. Radiation exposure results in immune system suppression and bone marrow loss. Currently, a bone marrow transplant is the only life saving procedure available. Unfortunately,

harvesting bone marrow is an expensive and limited process, requiring an available pool of donors.

In the past year, NMRC researchers have developed and published a reproducible method to generate bone marrow stem cells in vitro after exposure to high dose radiation, such that these stem cells could be transplanted back into the individual, thereby providing life-saving bone marrow and immune system recovery. This is the type of technology that will be needed to save the lives of a large number of victims.

In this same line of research, Navy Medicine is developing new strategies for the treatment of combat injuries. We are developing new therapies to "educate" the immune system to accept a transplanted organ—even mismatched organs. This field of research has demonstrated that new immune therapies can be applied to "programming stem cells" and growing bone marrow stem cells in the laboratory. The therapies under development have obvious multiple use potential for combat casualties and for cancer and genetic disease.

Other achievements during this last year include further development of hand-held assays to identify biological warfare agents. During the anthrax attacks, the U.S. Navy analyzed over 15,000 samples for the presence of biological warfare (BW) agents. These hand-held detection devices were used in late 2001 to clear Senate, House and Supreme Court Office Buildings during the anthrax attacks and contributed significantly to maintaining the functions of our government. Some of the most important tools that are used to analyze samples for the presence of BW agents in the field are hand-held assays. The hand-held assays that are used by the DOD were all developed at Naval Medical Research Center (NMRC). Currently NMRC produces hand-held assays for the detection of 20 different BW agents. These hand-held assays are supplied to the U.S. Secret Service, FBI, Navy Environmental Preventive Medicine Units, U.S. Marine Corps, as well as various other clients. Since September 2001, NMRC has produced over 120,000 assays and has fielded approximately 23,000 assays. In addition to the in-house production, NMRC has also provided emergency production capacity of antibodies needed for DOD fielded bio-detection systems, including the hand-held assays produced by JPO/BD for DOD use. The hand-held Assays have recently been upgraded with Platinum detection systems which will be 10 to 100 times more sensitive than the current systems, depending on what agent is being identified.

The Navy's OCONUS research laboratories are studying diseases at the very forefront of where our troops could be deployed during future contingencies. These laboratories are staffed with researchers who are developing new diagnostic tests, evaluating prevention and treatment strategies, and monitoring disease threats. One of the many successes from our three overseas labs is the use of new technology, which includes a Medical Data Surveillance System (MDSS).

The goal of the MDSS is to provide enhanced medical threat detection through advanced analysis of routinely collected outpatient data in deployed situations. Originally designed to enable efficient reporting of DNBI statistics and rapid response of preventative medicine personnel, MDSS may also enable supply utilization tracking and serve as a method of detecting the presence of chemical and biological agents. MDSS is part of the Joint Medical Operations-Telemedicine Advanced Concept Technology Demonstration (JMOT–ACTD) program. Interfacing with the shipboard SAMS database system, MDSS employs signal detection and reconstruction methods to provide early detection of changes, trends, shifts, outliers, and bursts in syndrome and disease groups (via ICD–9 parsing) thereby signaling an event and allowing for early medical/tactical intervention. MDSS also interfaces with CHCS and is operational at the 121st Evacuation Hospital in South Korea, and is being deployed at the hospital and clinics at Camp Pendleton. Currently, MDSS may have an opportunity to collaborate with other industry and service-related efforts for the purpose of developing homeland defense-capable systems. Homeland defense initiatives are currently being coordinated through the Defense Threat Reduction Agency.

CONCLUSION

Navy Medicine has covered a lot of ground over the last year and we face the future with great enthusiasm and hope. The business initiatives, along with new technical advances join to make our Navy Medical Department a progressive organization. I thank you for your continued support and in making the military health care benefit the envy of other medical plans. You have provided our service members, retirees and family members a health benefit that they can be proud of.

I think we have been extraordinarily successful over the years, and we have opportunities for continued success, both in the business of providing healthcare, and the mission to supporting deployed forces and protecting our citizens throughout the United States.

We are one team, with one fight, and we are now in the middle of that fight. I am certain that we will prevail.

Senator STEVENS. Thank you very much. I apologize for being late. I had another meeting. John Taylor.

STATEMENT OF LIEUTENANT GENERAL DR. GEORGE PEACH TAYLOR, JR., AIR FORCE SURGEON GENERAL

General TAYLOR. Mr. Chairman, Senator, it is a pleasure to be here today for the first time. It is also my very great privilege to represent the Air Force Medical Service. They are dedicated to providing outstanding force protection to our Armed Services as they have so ably demonstrated over the last year and a half.

The Air Force Medical Service brings important capabilities to support any operation or contingency as a key component of agile combat support to the Nation's Aerospace Expeditionary Forces (AEFs), our sister services and allied forces both abroad and at home.

We have been transforming for many years. Since the first Gulf War, we have achieved improvement in every step of the deployment process from improving predeployment health to post deployment screening and counseling. We believe in a lifecycle approach to health care. It starts with accession and lasts as long as the member is in uniform, and beyond through the Department of Veterans Affairs.

As we deploy, we are now seeing a more fit and healthy fighting force for which we have the best fitness and health data ever. And we know how to take care of them. Our medical personnel are more prepared than ever. Training such as our advanced trauma training and readiness skills verification program assure that our wartime skills are current.

Expeditionary medicine has enabled us to move our medical forces forward very rapidly, as in the initial deployments during Operation Iraqi Freedom. The capabilities we bring to the fight today provide troops a level of care that was unimaginable just 10 years ago, capabilities that make us a lighter, smarter and a much faster medical service.

Our preventive medicine teams go in on the very first planes into the theatre of operations. This small team of experts gives us vital food and water safety capabilities. They begin collecting vital water hazard data and provide basic primary care. In fact, during Iraqi Freedom, one of our environmental medicine flight personnel actually parachuted with the Army's 173rd Airborne Brigade as part of the Air Force's 86th contingency response group and the initial contingent deployed in a Northern Iraqi air base. This independent duty medical tech was later joined by five remaining members of the flight to provide on-scene environmental security and force protection at that location.

EXPEDITIONARY MEDICAL SUPPORT UNITS

Our surgical units, lightweight, highly mobile Expeditionary Medical Support units, or EMEDs, can be on the ground within 3 to 5 hours. EMEDs are comprised of highly deployable medical teams that can range from large tented facilities to five-person teams with backpacks. These five person mobile field surgical

teams or MFSTs, travel far forward with 70 pound backpacks. In them is enough medical equipment to perform 10 lifesaving surgeries anywhere, at any time, under any conditions.

OPERATION ENDURING FREEDOM

During a 6-month rotation for Operation Enduring Freedom one of these mobile surgical teams performed 100 infield surgeries, 39 of those were for combat surgeries. And when our sick and injured must be removed from the theater and transported to definitive care, we have the state of the art medical air evacuation system.

In fact, another major advance since the Gulf War is our ability to move large numbers of more critically injured patients. Our Critical Care Air Transport Teams tend to these very ill patients throughout the flight providing lifesaving intensive care in the air. Last year in support of Operation Enduring Freedom, we transported 1,352 patients through the air evac system of whom 128 were just such critically ill or injured patients. And for Iraqi Freedom, we performed over 2,000 patient movements, 640 of those were people with combat injuries.

And thanks to the Department of Defense (DOD) TRANSCOM Regulating and Command and Control Evacuation System (TRAC^{2}ES), we were able to track each patient from the point of pickup to the point of delivery in real time.

It is important to note that each of these new programs have been woven seamlessly into a joint medical capability. This joint service interoperability was demonstrated during the crash of an Apache helicopter last April in Afghanistan. The two pilots had massive facial and extremity fractures. The injured pilots were initially treated and moved by an Air Force pararescue member who had been delivered onsite by an Army Special Forces helicopter crew. The two were then stabilized by an Army surgical team, transferred to a C–130 and then air evacuated out on a C–17.

In flight they were restabilized by one of our Air Force Critical Care Air Transport Teams and landed safely at a military base in the European theater to be cared for by a jointly staffed military regional medical center, and all this was done within 17 hours of the time they hit the mountain in Afghanistan. This is just one seemingly unbelievable but in fact increasingly routine example of our integrated medical operations.

Together, the three medical services have built an interlocking system for care for every airman, soldier, sailor, Marine or Coast Guardsman in harm's way. We have fielded data-capture mechanisms to extend and enhance our force protection efforts. Using automated systems, we have documented and centrally stored almost 37,000 deployed medical patient medical records since 9–11, capturing almost 71,000 patient encounters. This is an update to what I told the House Armed Services Committee last week because it includes Operation Iraqi Freedom.

We have tools in place to collect relevant environmental health data and are forwarding them for centralized analysis. This linkage between individual patient encounters and environmental data is absolutely critical to ongoing and future epidemiological studies. We are working hard with health affairs to ensure we maintain a solid, finely tuned deployment health surveillance system.

In fact, the Air Force inspection agency assesses the deployment health surveillance program in each of our bases, active duty and Air Reserve Component, to ensure the quality of this vital program. And in the last 2 years, largely through their efforts and crosstalk, we have reduced significant discrepancies fourfold.

TRICARE

Another crucial element of protecting our troops is ensuring peace of mind of their families. We continue to work hard to optimize the care we provide in our facilities for more than 1 million TRICARE patients and 1.5 million TRICARE for Life patients.

We are doing this in many ways by ensuring providers have support staff, that their processes are efficient, and that their buildings and equipment are adequate. We look forward to the next generation TRICARE contracts and are stepping forward in optimization for these. Both are structured to give more resources and more flexibility to our local commanders.

RECRUITING AND RETENTION

After all, politics and health care "is local". The challenge we continue to face is medical professional recruiting and retention. I personally believe the solution is twofold. First, incentives such as loan repayment, accession bonuses, increased specialty care, and increased specialty pay are beginning to make a difference. And again, we appreciate your critical support.

Secondly, I believe that optimization and facility improvement projects, those that I mentioned above, will create a first-class environment of care for our outstanding, well-trained and highly talented staffs.

PREPARED STATEMENT

In conclusion, as we face the many challenges of our missions at home and abroad, your Air Force Medical Service remains committed to offering families quality, compassionate care and to supporting our troops as they protect and defend our great country. I thank you for your vital support, the support that you provide to your Air Force and to our families, and I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF LIEUTENANT GENERAL DR. GEORGE PEACH TAYLOR, JR.

Mr. Chairman and members of the committee, thank you for the opportunity to discuss with you some of the challenges and successes of the Air Force Medical Service, or the AFMS.

As with all other aspects of the military, the AFMS is transforming itself.

Transformation is a word that is being regularly used around Washington these days. To the Air Force, transformation is not just new technology, such as uninhabited combat aerial vehicles or space-based radars. Transformation is merging new technologies with new concepts of operations and new organizational structures.

Think about the Air Force combat controllers on the ground in Afghanistan directing B–52s to drop directed-munitions within 500 meters from their positions. This was accomplished by using global positioning satellites, laser range-finding devices, and new state-of-the-art munitions to provide a new kind of effect: enhanced close-air support, which proved to be pivotal in the fight with the Taliban. This success

serves as an example of one of many progressive steps the Air Force is taking in its march toward Transformation.

The Air Force Medical Service is no stranger to transformational changes. In many ways we lead the Air Force and like to say "that we were transforming before transformation was cool." Our modular, lightweight medical and preventive medicine teams, same-day laparoscopic surgery, advanced imaging—among many other components—have changed the face of military medicine, from home base to battlefield.

Our five Air Force Medical Service core competencies provide compelling lenses through which we view the transformational activities.

I would like to briefly describe each core competency and share some of the exciting accomplishments we have achieved under each.

Our first Air Force Medical Service's core competency is population-based health care. As the name indicates, population-based health care strives to keep our entire beneficiary population healthy by preventing disease and injury. But, if any do become sick or injured, our system will provide exceptional care.

Our next core competency is human performance enhancement and sustainment. These include methods and equipment that protect our forces from harm and permit our troops to perform their missions better.

Fixed wing aeromedical evacuation, our third core competency, addresses the innovative and life-saving ways we use aircraft to transport patients from the theater of operations to the nearest capable medical treatment facility.

Our fourth core competency, medical care in contingencies, entails all the training, equipment, and logistics needed to provide care during humanitarian or combat operations.

World health interface, our final core competency, recognizes the importance of interaction with other nations. Air Force medics are called to serve from Atlanta to Afghanistan, and from San Antonio to Sierra Leone. Therefore, we have institutionalized training programs that teach medics the language and customs of those countries in which they might be called to serve.

These five core competencies are the heart and soul of the Air Force Medical Service. I would like to describe each in a bit more detail to better demonstrate to you the innovative ways in which the Air Force Medical Service is transforming itself.

Population-Based Health Care

The U.S. military health care system cares for 8.3 million people and costs $26 billion. This huge system is in every state and in numerous countries. Yet, as immense as this system is, I adhere to the philosophy that all health care is local.

What matters most in medicine and dentistry is the care our patients receive from their provider. It is my mission—my passion—to ensure that every provider has the leadership, training, people, facility space, and medical equipment he or she requires to give those patients the care they need, the care they deserve. Our first core competency, population-based health care, is critical to ensuring this becomes a reality.

We have transitioned from the old medical paradigm—treating sick people—to the new paradigm of preventing people from getting sick in the first place. The old way makes for better TV drama, but the new way makes for better medicine. This new paradigm is called population-based health care. The programs I will discuss support population-based health, especially how it applies to our active duty forces.

Because of the global war on terrorism, there has never been greater imperative to have a military force that is fully ready to "fly the mission." Our comprehensive Individual Medical Readiness program, ensures our military members are "medically ready" to perform.

To help illustrate the Individual Medical Readiness program, I ask you to think of an aircraft—a new F/A–22 fighter, for instance. From the moment each aircraft enters our arsenal, it undergoes continuous monitoring, routine inspections, preventive maintenance, and if needed, repairs. These activities happen before, during, and after this weapon system is employed.

A far more valuable resource—our airmen, the "human weapons system"—receive that same level, if not more, of devoted care. Through our Individual Medical Readiness program, we constantly monitor the health of our airmen through inspections and preventative maintenance—called Preventive Health Assessments—and, if needed, repairs.

The Individual Medical Readiness program has four main components, the first of which is the Preventive Health Assessment. At least once a year, we review the total health care needs and medical readiness status for every airman. During this appointment we make sure they have received all recommended and required preventive care, screenings, immunizations, and assessments. Preventive Health As-

sessments are the equivalent of the routine inspections and preventive maintenance provided to aircraft.

Second, at each visit, whether in garrison or deployed, we take care of our troop's complaints, look for other preventive interventions, and ensure their fitness for duty.

Third, we perform medical evaluations before and after troops deploy so that we can monitor the effect—if any—the deployments have on their health.

Finally, we have created innovative new information systems designed to track all individual medical readiness and preventive health care requirements. It is called the Preventive Health Assessment Individual Medical Readiness program (PIMR).

At the local level, PIMR can tell the medics which troops need blood tests, evaluations, or vaccines, who is healthy enough to be sent to the field, and who should remain behind until they are healthy. At the global level, PIMR provides leaders near real-time statistics that tell them what percent of their troops are medically fit to deploy. PIMR's metrics are also used to provide feedback and shape policies and programs so we can continually improve the readiness of our force.

Population-Based Health Care is more than just the method to keep the active duty members healthy. It benefits all beneficiaries—active duty, their families, retirees and their families, and is our overarching model for healthcare. Our AFMS must accomplish three critical processes to ensure full-fledged Population-Base Health Care.

First, care team optimization. An optimized primary care team, for example, has as its members a provider, nurse, two medical technicians, and one administrative technician. The team is provided the optimal number of exam rooms, medical equipment, and support staff needed to ensure that such things as facility constraints and administrative responsibilities do not hinder their ability to provide care to our airmen and their families. In such teams, our medical staff flourish.

Where we have optimized our primary care clinics, we have enjoyed success. Based upon this success, the AFMS has embarked upon expanding this strategy. Soon, every clinical and non-clinical product line will undergo an expeditionary capability analysis, clinical currency analysis, and business case analysis to determine how best to optimize the use of our resources.

In short, we have seen that optimization has great potential in the primary care setting, so now we hope to spread that success by optimizing specialty care. This year we will launch pilot programs for the optimization of orthopedics, general surgery, otolaryngology, OB/GYN, and ophthalmology.

The result of optimization is clear: Our people are receiving outstanding healthcare delivered by highly trained teams.

A second critical process of Population-Based Health is "PCM by name." PCM stands for "primary care manager." A PCM is a provider who takes active oversight in every aspect of a patient's care. Beneficiaries are assigned a "PCM by name," meaning they will routinely see that same provider. Previously, beneficiaries would arrive at the clinic and frequently did not know who their provider would be that day. Now, through PCM by name, they are assigned to a PCM who will see the patient for all routine medical care. The PCM becomes much like a trusted, small-town family doctor who becomes intimately involved in the care of the patient and his or her family.

We have over 1.2 million customers enrolled to our 74 medical locations—and 100 percent of those beneficiaries are enrolled to a PCM by name.

The tandem success of the Optimization and Primary Care Manager by Name efforts are serving our TRICARE beneficiaries well. The Health Employee Data Information Set Standards—or HEDIS—are the civilian national standards by which most Managed Care Organizations are measured. Here is how HEDIS ranks some of our efforts compared to civilian commercial health care plans:

—For providing timely cervical cancer screenings, the Air Force is in the top 10 percent of all health care plans in the United States.

—For breast cancer screenings the Air Force surpasses 66 percent of commercial plans.

—Our diabetic care program is in the top 9 percent of all similar plans nationwide.

And, recently, the Air Force Medical Service was recognized by civilian experts at the Kilo Foundation as one of two U.S. health care organizations on the cutting edge of optimizing health care delivery—the other organization being Kaiser-Permanente.

We optimized our care teams to deliver the best care, now we must also optimize the buildings in which our patients receive that care. Facility recapitalization is the third critical process that must be accomplished to support population-based health.

Whether we are talking about the human body, aircraft, or buildings, the more each ages, the more they wear out, break down, creak and leak. They become more expensive to maintain. For that reason, the Defense Health Program currently supports the goal of medical facility recapitalization at a 50-year rate rather than the 67-year rate provided to other, non-health-care facilities.

We use the funds we are provided annually to pay for necessary renovations, modernization, and replacement needs.

Before I discuss our remaining AFMS core competencies, I will mention a few population-based health care items I find worthy of mention, one of which is our success in suicide prevention.

Suicide is the most preventable cause of death, yet is the 11th leading cause of death in the United States. Among people of military age, it is the fourth leading cause of death behind accidents, cancer, and heart attacks.

Fortunately, suicide among our Air Force members and their families is nearly the lowest it has been in 20 years.

We teach our leadership, airmen, and family members how to recognize, assist, and intervene when they identify members who might be contemplating suicide. Our efforts are succeeding. Throughout the mid 1990s, there were over 14 Air Force suicides for every 100,000 members. That number is now just 8.3 for every 100,000. We are striving hard—very hard—to lower it yet more. We recognize that we can never completely eradicate suicide, but every life saved is crucial to the Air Force. And the quality of life for all those who seek and receive care is immeasurably enhanced.

Another important quality of life initiative is our focus on enhancing obstetrical care in our military treatment facilities for our patients. We are working very hard across the Air Force, and indeed DOD, to optimize our OB programs. We are increasing routine prenatal ultrasound capability, improving continuity of care with patients and OB providers, and enhancing OB facilities to provide more comfortable labor and delivery rooms.

Preliminary findings from the specialty care optimization pilot at Nellis AFB, show increases in access to care, in patient-provider continuity, and an increase in mothers desiring to deliver their babies at Nellis. In the last year alone nearly 11,000 mothers-to-be visited our OB clinics for a total of 193,000 visits. Carrying through on these optimization efforts, we feel confident that when it is time for our OB patients to choose their provider, they will choose their local military treatment facility. They will choose us.

Our optimization efforts throughout the Air Force Medical Service are complemented by partnerships with Department of Veterans Affairs clinics and hospitals. The DOD has seven joint venture programs with the VA; the Air Force oversees four of them at Travis, Elmendorf, Kirtland, and Nellis Air Force Base Hospitals.

One of our most successful joint ventures is our first—Nellis Air Force Base's VA/DOD hospital. This joint venture replaced the outdated Nellis hospital and offered VA beneficiaries a local federal inpatient facility for the first time in the area's history. The facility enjoys a fully integrated Intensive Care Unit, operating suite, emergency room, post anesthesia care unit, and shared ancillary services.

Kirtland's joint venture is also impressive. There, the joint venture has gone beyond the sharing of staff and facilities. At Kirtland, the Air Force and VA have created Joint Decontamination and Weapons of Mass Destruction Response Teams. Their teamwork will permit a homeland defense capability that is superior to either organization could provide separately.

Our four joint venture opportunities saved $2.5 million and avoided over $16 million in the just the last two fiscal years. Not all DOD hospitals are candidates for joint ventures, but we are excited about finding those that are and investing in the opportunity.

Partnerships with the VA where they make good sense not only save money; they enhance care to both of our beneficiary populations. The new contracts promise enhanced pharmacy support and health care to beneficiaries.

An additional enhancement to the DOD's health care benefit is that of Tricare For Life—the extension of Tricare benefits to our retirees. This program has dramatically improved the quality of life for our Medicare-eligible retirees and their families. In the first year, Tricare for Life produced 30 million claims. The program also significantly improved access to pharmaceuticals to our retiree population. Retirees appreciate both the quality of care and the knowledge that the country they proudly served is now there to serve them.

I have described many activities the AFMS performs to ensure that the airmen we send into the field are healthy. But, once they are there, we must also work to ensure they stay that way—that they are protected from injury, disease, and biologi-

cal and chemical weapons. We must provide an operations environment that is safe. This leads me to our second core competency, Human Performance Enhancement and Sustainment.

Human Performance Enhancement and Sustainment

Airmen are our most valuable assets. Their readiness directly impacts the combat effectiveness of the United States Air Force. Therefore, it is not good enough to just have disease-free troops, they need to be working at their optimal performance level during strenuous military operations. To that end, the Air Force Medical Service has developed a Deployment Health Surveillance program that ensures and protects the health of its members from the day they enter service and don their first uniform, during deployments, and throughout their entire career.

Deployment Health Surveillance is more than just the application of exams immediately before and after a deployment; it is a Life Cycle approach to health care that lasts as long as the member is in uniform and beyond. Some of the most recent developments in Deployment Health Surveillance are the most exciting. These include technologies that rapidly detect and identify the presence of weapons of mass destruction, technologies such as genomics, bio-informatics, and proteomic clinical tools.

Each of these state-of-the-art efforts promises speedy revolutionary diagnostics, enabling near real-time bio-surveillance. And, whereas, most bio-chemical detectors take hours or days to detect and warn us that agents have been released into the environment, the sensors we are now developing will have near real-time capability to warn us of an attack.

The AFMS was the first to transition polymerase chain reaction technologies into a fielded biological diagnostic detection system. This technology keeps watch over troops in the field and our homeland. It provides better protection for our entire nation while simultaneously revolutionizing daily medical practice.

Whether these detection units stand sentinel over military men and women overseas or guard major population centers here at home, their presence translates into markedly decreased mortality and morbidity. Additionally, because it can quickly detect and identify pathogens, it decreases wasted time and resources in laboratory and therapeutic interventions.

The AFMS is working to overcome another threat to our troops and citizenry—a threat more often associated with science fiction than with current events: directed energy weapons—lasers. Directed energy devices are now commonplace. Hundreds of thousands of lasers are employed by many countries around the world . . . mostly for peace, many for war. Militaries, including our own, use lasers in weapons guidance systems to help them drop bombs with pinpoint accuracy.

In response to this threat from our enemies, we developed—and continue to improve upon—protective eyewear and helmet faceplates. These devices are designed to absorb and deflect harmful laser energy, thus protecting pilots from the damaging and perhaps permanent eye injuries these weapons inflict.

We are also investigating commercial off-the-shelf, portable medical equipment that can quickly scan retinas and automatically determine if a person's eye has suffered damage from lasers.

The AFMS is teaming with other Air Force organizations to transition several protecting and surveillance technologies to allow our forces to enter, operate and safely prevail within the laser-dominated battle space.

Lasers are not the only threat to our forces. There is also the familiar threat of biological and chemical weaponry. Congressional members and their staff, journalists, post office workers, and average citizens fell victim to anthrax attacks in the fall of 2001. As sobering as these attacks were, we were fortunate they were committed with a biological weapon for which we had a ready defense—an antibiotic—and that the anthrax was delivered in small amounts.

Our nation and its medical community learned much from the incident; so did our enemies. They will know better how to strike us next time, and we must be prepared.

To detect and combat such a threat, the AFMS is developing detection, surveillance, and documentation systems to help us recognize and respond to future biological and chemical warfare attacks. The Global Expeditionary Medical System—or GEMS—is one such system.

GEMS was first developed and deployed during Operation DESERT SHIELD/DESERT STORM as a means to monitor and help protect the health of deployed forces. During that initial deployment, it captured over 11,000 patient encounters in the field and relayed this valuable information to what is now the Brooks City Base in Texas for analysis.

GEMS is now a mature, fully functioning asset. It establishes a record of every medical encounter in the field. It then rapidly identifies clinical events such as a potential epidemic. Whether the outbreak is accidental such as food poisoning, or intentional such as the release of a weapon of mass destruction like Anthrax at an airbase, GEMS can quickly alert medics about the presence of the weapon and allows our medics to attack and defeat the biological or chemical agent before its effect can become catastrophic.

GEMS does not look like much . . . it is a ruggedized laptop computer with a few small attachments, but its toughness and small size make it ideal for troops in the field. GEMS will soon be incorporated into the Epidemic Outlook Surveillance system, or EOS. EOS is an initiative to network—to link together—all systems that detect and identify biological and chemical warfare agents. It also incorporates all data produced from provider-patient encounters. From this, medics and leadership can monitor the possible presence of weapons of mass destruction, determine their current and predicted impact on troops, and respond with precision to defeat their effect. This is all accomplished to protect not just a base, nor theater of operations; rather EOS will provide overarching, worldwide oversight of the health of our troops.

What is fascinating about this system is its speed. The current standard to detect and identify a biological or chemical agent—and contain the epidemic it could create—is five to nine days. Aboard ship, or in a military base, the resources needed to care for the infected and the high casualty rate would overwhelm the mission. Even if the agent were detected in the first three days, we expect that up to 30 percent of our troops would fall ill or worse.

When it comes to identifying chemical and biological weapons attacks, lost time means lost lives. We are fast now. We strive to be faster. Our goal is to recognize and combat a potential epidemic within the first three hours of its introduction into the population. We are working with the other services to create sensors with this capability. These technologies are just over the horizon, but we are developing man-portable sensors capable of detecting chemicals and pathogens almost instantly. When fully developed, these sensors will have the capability to read the genetic structure of a biological agent to tell us exactly what it is and what antibiotics would best defeat the attack.

Obviously, such programs have both military and civilian application, so we are working with many other military, federal, university, and civilian organizations to develop, deploy, and share this amazing technology.

The enemy is not the only threat our troops face. During extended operations, our airmen find themselves combating fatigue. Physical and mental exhaustion lead to judgment errors, errors that in combat can cost lives. With its "Global Reach, Power and Vigilance" mission, the Air Force continues to strain the physiologic limits of its aircrews. It must develop methods of protecting its troops from the dangers of fatigue, for fatigue is a killer in the battlefield.

We have been working hard with the Air Force Research Laboratory, Air Combat Command and our aircrews to develop advanced techniques to maximize performance and safety on long-duration missions. These techniques include planning missions around the body's natural sleep cycles—the circadian rhythm—diet manipulation, and pharmacological and environmental assistance.

Such activities greatly aid our force-protection measures in an ever-changing battle space. But, during operations, the AFMS' "bread and butter" is the level to which we can properly treat and move wounded battle participants.

This leads me to our third core competency: Fixed Wing Aeromedical Evacuation.

Fixed Wing Aeromedical Evacuation

We have invested many resources and much time into keeping troops healthy and enhancing their performance. But in the operational environment, people do become sick. They do get injured. For such cases we developed an aeromedical evacuation system that can move patients from the field to definitive care, often within hours of their acquiring the illness or injury.

The Aeromedical Evacuation System is a unique and critical part of our nation's mobility resources. The need to move critically injured, stabilized patients from forward areas to increasing levels of definitive care has driven significant changes in the fixed-wing environment.

In the past, Aeromedical missions were limited to certain airframes such as the C–141 cargo aircraft or our special C–9 Nightingale AE aircraft. However, aeromedical evacuation is a mission and not a particular aircraft platform; and it is a mission recognized as a core competency within the larger airlift mission. As we retire our aging AE platforms and transition from dedicated to designated air-

craft in the mainstream of airlift flow, we are developing new tools such as the Patient Support Pallet, or PSP.

The PSP is a collection of medical equipment compactly assembled so that it can easily fit into most any cargo or transport aircraft. When needed, it is brought aboard, unpacked, and within a short time is transformed into a small patient care area. This means that patients no longer have to wait hours or even days for an aeromedical evacuation flight. Just give our medics a PSP and an hour, and they will take the C–5 that just unloaded troops and tanks, and will convert a small corner of that plane into an air ambulance.

Our 41 PSPs strategically positioned around the globe permit any suitable airframe in the airlift flow to be used. This awesome capability minimizes delay of movement, maximizes available airlift, and most importantly, saves lives. We plan to buy more.

Insertion of critical care skills early in this process is provided in the form of specially trained Critical Care Air Transport Teams, or CCAT teams. These teams—comprised of a physician, nurse and cardiopulmonary technician—receive special training that enables them to augment our air evacuation crews and deliver intensive care support in the airborne environment. Our Active Duty medics have 42 CCAT teams, but our ARC forces are full partners in this new capability. The Air Force Reserve contributes 25 CCAT teams, and the Air National Guard 32 teams to our AE mission. Each is ready for rotation into the AEF along with their Active Duty counterparts.

Another valuable tool is the TRANSCOM Regulating and Command & Control Evacuation System, otherwise known as TRAC²ES. TRAC²ES is a DOD/Joint enterprise that allows us to plan which patients should fly out on what aircraft, what equipment is needed to support each patient, and what hospital they should fly to; and it provides us in-transit visibility of all patients all the time. TRAC²ES provides command and control of global patient movement in peacetime, contingencies and war.

TRAC²ES is an overwhelming success. It has accomplished all of the goals specified in the re-engineering process and has produced benefits that no one anticipated. To date:

—There have been more than 1,700 patients/soldiers moved as a result of activities during OEF, and nearly 17,000 such moves worldwide last year.

—Every patient was directed to the appropriate treatment facility for the needed care.

—And an amazing 100 percent in-transit visibility has been maintained on all patients moved through the TRAC²ES system.

TRAC²ES is also de-linked to specific aircraft. This is critical to its success, especially during the activation of our Civil Reserve Air Fleet or CRAF. The CRAF is comprised of up to 78 commercial aircraft—both cargo and passenger—that are provided to the Department of Defense by civilian airline companies. We use them to transport material and people into the theater of operations. We could also use them to potentially evacuate sick or injured troops out of the theater. If so, TRAC²ES will still function, regardless of the service, regardless of the aircraft.

Patient movement during current operations has incorporated all aspects of this continuum: maintenance of health in the field, use of organic airlift, versatile equipment support packages, early-on critical care intervention, and information systems that track and inform leadership of the health and location of their troops.

From battlefield injury to home station, there is seamless patient movement under the umbrella of qualified, capable aircrew members and trained critical care professionals.

I must mention here, that 87 percent of the aeromedical evacuation capability I have described resides within the Air Force Reserve Command and Air National Guard. These dedicated men and women of these organizations are truly our Total Force partners.

Medical Care in Contingencies

Medical Care in Contingencies, is our fourth core competency and one in which we have also seen significant transformation.

The Air Force Medical Service provides the full spectrum of ground-based medical care during contingencies. Described as a "Red Wedge" capability, expeditionary medical care begins with a rapid ramp-up of medical capability. First into the field is our small Prevention and Aerospace Medicine—or PAM—Team. PAM teams are 2- to 4-person teams who are our first-in-and-last-out medics. They are inserted with the very first troops and are capable of providing health care, on location, before the first tent stake is in the ground.

Team members include an aerospace medicine physician, bioenvironmental engineer, public health officer and an independent duty medical technician. They provide initial health threat assessment and the surveillance, control, and mitigation of the effects of the threat. Additionally, the aerospace medicine physician and independent duty medical technician provide primary and emergency medical care and limited flight medicine.

As forces start to build in theater, so does the size of the medical contingency. The PAM team is quickly followed by a small but exceptionally skilled Mobile Field Surgical Team [MFST].

This highly trained surgical team includes a general surgeon, an orthopedic surgeon, an emergency medical physician and operating room staff, including an anesthesia provider and an operating room nurse or technician. The 5 team members each carry a 70-pound, specially equipped backpack of medical and surgical equipment. Within these few backpacks is enough medical equipment to perform 10 emergency, life-or-limb-saving surgeries without resupply.

By putting backpack providers deep into the theater or operations we save time and we save lives. No longer do we wait for the wounded to come to us, we take the surgery to the soldier.

The MFST's capability has been proven in Operation Enduring Freedom. For example, less than one month after Sept. 11, Air Force medics assigned to Air Force Special Operations in OEF saved the life of an Army sergeant who lost nearly two-thirds of his blood volume when he fell and severely damaged his internal pelvic region. Within minutes, an Air Force MFST reached him and worked more than four hours to stabilize him enough for transportation to a U.S. military medical facility.

A Canadian journalist at Bagram Air Base—not far from Kabul, Afghanistan—was horribly injured when a grenade ripped open her side. Our medics were there instantly to provide initial stabilization, treatment, and her first surgery. Our Aeromedical and CCATT teams arranged rapid aeromedical evacuation and provided care in the air. The TRAC^{2}ES system tracked her movement from Southwest Asia to Europe. It provided early warning to the receiving facility of her condition and extent of her wounds. When she landed she was met by our medics and taken to a military hospital for definitive care.

Both patients survived. Just a few years ago, before we created this capability, both would have died.

We can provide full spectrum care—anytime—anywhere.

Expeditionary Medical Support—EMEDS—is the name we give our deployed inpatient capability. The small PAM and MFST teams I described are the first two building blocks of an EMEDS. To them, we add 17 more medical, surgical, and dental personnel. These medics bring with them enough tents and supplies to support four inpatient beds. We can keep adding people and equipment in increments as needed until we have erected a 125-bed field hospital. A unique capability of EMEDS is that they are equipped with special liners, ventilation and accessories to protect against biological and chemical warfare attacks.

As an additional measure to defend against these weapons, we field Biological Augmentation Teams. They provide advanced diagnostic identification to analyze clinical and environmental samples centered around RAPIDS, our Rapid Pathogen Identification System. Each team has two laboratory personnel who can deploy as a stand-alone team or in conjunction with an EMEDS package.

After our successful deployment of Biological Augmentation Teams to New York City in response to the October 2001 anthrax attack, we realized just how invaluable these teams were to local public health and Centers for Disease Control officials. Since then, we have reached a total of 30 fully staffed and equipped teams, and additional 14 manpower teams designed to backfill or augment the other teams. They have been—and continue to be—deployed throughout OPERATION Enduring Freedom.

A common attribute of each medical team I have described is that they are small. The Air Force expeditionary medical footprint is shrinking. These smaller units can be assembled in increments; therefore, are flexible to the base commander's requirements.

Their small size makes them cheaper, easier, and faster to transport. A few years ago we used to talk about how many aircraft we needed to move our huge Air Transportable Hospitals into a theater. Now we talk about how many pallets we need on an aircraft.

In just a little over a decade, we have become far more capable with fewer people, less size, less weight, less space—and less time.

This is important. Speed counts. CNN claims it can have a journalist anywhere in the world reporting within seven minutes of an incident. We may not beat CNN

to the scene, but our light, highly-mobile expeditionary medical support teams will be on the ground shortly thereafter—perhaps within as little as three to five hours. For any humanitarian or combat contingency, our EMEDS concept is a true force multiplier. It gives the combatant commander state-of-the-art, worldwide medical care for his deployed forces.

Our transformation has accelerated the speed with which Air Force medics get to where they are needed. Our training programs ensure that once they get there, they are fully capable of providing life-saving care.

Two medical training programs are especially crucial to this capability; one is our Readiness Skills Verification Program (RSVP).

Each member of a deploying health care team, whether a physician, logistician, administrator or nurse, will be called upon to perform numerous tasks in the field, tasks they would never encounter in their home-base medical facility. The RSVP ensures these troops train on, and master, each of these must-know tasks.

Our medics practice them routinely. The list is varied: treating tropical diseases, linking our computer to foreign networks, using ruggedized surgical equipment in field tents—troops must master these tasks before their boots touch the ground in a deployed location.

The other medical training program vital to our expeditionary medicine mission is the Center for the Sustainment of Trauma and Readiness Skills, or C–STARS.

Because our military physicians care for arguably the healthiest population in the world, the medical problems they see during the normal duty day are different from the traumatic and life-threatening injuries the providers will encounter in the battlefield.

To prepare our medics to care for these injuries, we train them in one of three C–STARS locations: civilian hospitals in Cincinnati—where our Reserve personnel train; St. Louis—where Air National Guard medics train; and Baltimore where active duty personnel train. Our staff work side-by-side with civilians in these facilities to care for patients suffering from knife and gunshot wounds, crushing injuries, and other traumatic wounds; the kind of injuries our medics can expect to encounter while deployed.

Hundreds of our medics have trained at C–STARS over the last 2 years. At one time, more than 75 percent of the Air Force special operations medics in Afghanistan received their first "battle-field medicine" experience at C–STARS, as have all of the CCAT care-in-the-air teams I mentioned earlier.

Interfacing with World Health

Our allies and coalition partners around the world are paying close attention to these initiatives. They are eager to work with us in improving their military medicine programs. This leads me to discuss our final core competency, Interfacing with World Health.

The Department of Defense's Joint Vision 2020 states that today's U.S. forces must be prepared to operate with multinational forces, government agencies, and international organizations. The Air Force International Health Specialist Program fulfills this mission. The International Health Specialist program identifies medics with specialized language and/or cultural skills, trains these airmen to enhance their skills, and provides a database of medics tailor-made for specific international missions.

Active Duty, Air National Guard, and Air Force Reserve International Health Specialists regularly interact with the U.S. Unified Command Staff, non-governmental agencies, members of foreign military units, and interagency personnel. They provide insightful recommendations on a variety of issues and situations.

Whether assisting with blast resuscitation and victim assistance missions in Cambodia, conducting on-site capability surveys in Sierra Leone and Senegal, or by participating in discussions on international humanitarian law, our International Health Specialists are at the forefront of global health engagement. Their involvement in host-nation exercises and civic assistance activities ensures we are ready to deploy assets wherever and whenever needed, and that the Air Force Medical Service can effectively engage in multi-national environments.

Through our Professional Exchange Program, foreign military physicians provide care shoulder-to-shoulder with our staff in Air Force medical facilities. In addition, our Expanded International Military Education and Training Program uses Air Force medics to "train the trainers" of foreign military and civilian medical facilities. In the last couple of years we have trained 1,700 healthcare providers in 18 countries. We share our expertise on how to train and prepare for, and react to, medical contingencies. Often, our foreign students are receiving such instruction for the very first time.

Ultimately, if a regional contingency does occur, our medics will be able to respond to it as one of many partners in a carefully orchestrated international coalition of medics.

To summarize, those are our five core competencies: Population-based Health Care, Human Performance Enhancement and Sustainment, Fixed Wing Aeromedical Evacuation, Medical Care in Contingencies, and Interfacing with World Health.

Human Resources

Our successes in these core competencies could not be accomplished were it not for the phenomenal people whom we recruit and maintain among our ranks. We know our medics are among the best in their fields. For example, the internal medicine program at Wilford Hall Medical Center at Lackland AFB, Texas, recently scored third out of 398 programs nationwide during the Medical Resident in Training examinations, placing them in the top 1 percent in the nation. This is extremely impressive when one considers we're being compared to medical programs such as Harvard's. This is but one example of the caliber of our nearly 45,500 Active Duty and Reserve Component medical personnel. This number includes more nearly 1,400 dentists, 5,000 physicians, and 7,000 nurses. However, attracting and keeping these troops is difficult. We seek only the most educated and dedicated nurses, physicians, and dentists. Obviously, those attributes are also highly sought by civilian health care organizations.

The Air Force offers these young professionals a career of great self-fulfillment, awesome responsibility, and excitement. The civilian market offers these incentives, too, but in many cases—in most cases—provides a far more attractive financial compensation. Furthermore, the life and family of a civilian provider is not interrupted by deployments—something our troops are experiencing at a frequency not seen since World War II.

These deployments are a burden to our active and reserve forces. I am keenly aware of the elevated use of our Air Reserve Component over the last decade, and the difficulties deployments create for their family and work lives. My staff does their utmost to only use ARC forces on voluntary status, to activate them for the shortest time possible, and to call upon their services only when other options are not available.

However, it is for these reasons—the lure of more attractive civilian compensation and the frequent deployments—that we find it difficult to attract the kind of medical professionals we badly need.

For instance, our fiscal year 2002 recruiting goal was to acquire over 300 fully trained physicians—we recruited 41. We required 150 new dentists—we recruited 39. Nurses, we needed nearly 400—we recruited 228.

Fortunately, last year's National Defense Authorization Act permits increased compensation for these skills. It allows for loan repayment, increased accession bonuses and specialty pay. I thank you for providing these incentives. They are very useful tools and a good start toward obtaining the quality and quantity of medical professionals we so urgently need.

Conclusion

In conclusion, I am incredibly proud of our Air Force medics and honored to lead them. Each of these five core competencies demonstrates how far the Air Force Medical Service has transformed since the fall of the Berlin Wall, especially in the last five years. We will continue to anticipate the challenges of tomorrow to meet them effectively.

We are very proud to have a leading role in support of our expeditionary Air Force. As the U.S. Air Force focuses more and more on improved effects, we are in lockstep with the line in our ability to provide the right care at the right time with the right capability. We remain at the right shoulder of war fighters, at home base to provide for a healthy workplace and home, and in the field to keep war fighters protected and at the peak of their mental and physical capabilities.

We thank you for the critical support you provide that makes this possible.

Senator STEVENS. Senator Inouye, you heard most of the testimony. Would you like to ask questions first?

Senator INOUYE. I thank you very much, Mr. Chairman. Before I proceed with my questions, I'd like to make four observations. Whenever a military person is wounded on the field or on a ship or in the air, I believe the first person he calls for is a medic or corpsman. That was my experience. No one called for his wife, but they called for a medic.

Secondly, whenever the chairman and I have visited bases and camps, met with enlisted personnel and officers, the first question or the bulk of the questions asked refer to health care for dependents. In fact, very few have ever touched upon pay raises. It is always on health care for my kids or my wife.

Third, it is obvious that morale depends upon the level of care that the personnel, their spouses, and their children receive.

And fourth, this is a personal matter, but I say it in looking over the citations of medals for high bravery, especially for medals of honor. This is a common phrase, he killed 25, captured 18. Medics do not kill or capture. As a result, medals of courage for medics are very, very rare, and I think something should be done with that because if you ask any infantrymen or any Marine who will tell you that the bravest of them all are the medics or the corpsmen. And somehow, our award giving system does not cover that.

INCREASED MEDICAL COSTS

And so with my question, I have a general question for all three of you. Since 9–11 the military has been taxed with additional missions both here and abroad. You have cited all of them. Each additional requirement results in increased medical costs, which are not always accounted for in the budget or fully covered in the supplemental request. The monitoring of our personnel before, during and after they are deployed is a result of the lessons learned after the Gulf War.

Additionally, costs increased to backfill deployed medical personnel, handle casualties of war, and treat personnel in theater and at home. With our continued involvement in these missions in the upcoming fiscal year, I'd like to hear from the services on how they are executing fiscal year 2003 and what they anticipate for the next fiscal year 2004.

MEDICAL BUDGET SHORTFALL

And my question will be for the services, will your services have sufficient funds to execute fiscal year 2003 and do you anticipate any budget shortfalls in fiscal year 2004? Are there ways to address the potential shortfall in fiscal year 2004?

Because I'm certain all of us realize that we will be involved in the continuous global war on terrorism, not for the next 6 months, not for the next 6 years but much more than that. So with that in mind, General Peake?

General PEAKE. Well, sir, first I would like to thank the committee for the help with the supplement that is working its way to us now and the $501 million that was designated for the Defense health program with the comments that need to get focused down to the direct care system.

We haven't seen yet the amounts that will come down to us. It is clearly needed because we have been forward funding the effort that you have described, sir, from opening places like Fort McCoy and Fort Dix, where we do not necessarily have a presence yet, mobilizing soldiers, purchasing their prescriptions, providing them their glasses, all of those things to make them ready medically to go with the force.

We have deployed in the Army now about 3,471 professional fillers out of the day-to-day health care environment into the hospitals that are in Iraq and into the brigades and battalions of our Army to provide them with medical support. And those people we have backfilled partially with reservists. They are terribly important to us. But others we have had to reach out and contract.

Those numbers we are trying to do good accounting for and we look forward to the moneys coming out of the supplement to help us to defray those costs so that we, because what we had borrowed from is the day-to-day health care operations that go on in our large organization, that deliver health care to families and soldiers and so forth. We also have family members coming in from the Reserves who now are TRICARE eligible and we have an obligation to provide them quality care as well.

So from the, from the global war on terrorism, aspects of it, sir, we are looking to see the money that gets to us from the supplement and there may or may not be more required to cover just that particular aspect for fiscal year 2003.

Regarding fiscal year 2003, I am leveraging potential money in our maintenance accounts to be able to ensure that we are covering the health care that we are, should be doing at the quality we should be doing it for our full regular mission. I would tell you, sir, we are busier than just Iraq. We have Afghanistan going. We have people in Colombia, the Philippines, Honduras and Bosnia and a Kosovo mission as well. So it is a very, very busy military and therefore very busy medical structure as well.

With all of that activity, it creates a bit of a unsettling of our business process so we really do have additional expenses that come up. This is a new expense that will have to be accounted for that is not yet accounted for.

As we look to 2004, we will be redeploying our forces. As you say, sir, we will still have people deployed doing the variety of missions that go along with the post-Iraq business as well as the other areas that I have spoken about.

We will have to face what potentially happens with the retention of our soldiers and so forth, which always creates a bit of a turmoil when folks start to return and readjust their lives and so forth. Right now, we are, we use the civilian care and we hire other professionals and nurses, as an example, to come and work in our hospitals to make up that delta, so we can continue the missions in our military hospitals. So those become the kind of bills that we will be facing in fiscal year 2004 as well.

In addition, we are doing the next contracts. There are a variety of things like appointing and utilization management that come back to the military treatment facilities instead of at the contractor level, and we will have to figure out how much that is going to cost us to get those things restarted within our own organizations.

In the long run, we think it is absolutely the right thing to do, but there may be some startup costs that will have to be identified, and we are looking at that as well for 2004.

Admiral COWAN. Sir, I will try to answer your question with a little different approach. Both fiscal year 2002 and fiscal year 2003, Navy medicine has been funded adequately. We are often asked are you fully funded and we say we are adequately funded. We have

enough money to get properly through the year to execute our mission and to not require either supplementals or reprogramming.

At an adequate funding level, we are sustainable for a long period of time, but we do not get at our backlog of military construction, repair, investment, capital investment, new equipment and so on. In fact, we may at this level be getting slightly behind. The newest building in which health care is delivered in Guam was built in 1952.

The budget that we submitted for fiscal year 2004 will also be adequately funding. We are comfortable operating in the fiscal year 2004 time frame. This part of my answer is for the known mission of the health care to our beneficiaries.

The second part of your question is the unknown missions, the ones that we have been involved with, both Iraq and Afghanistan, as well as the others that General Peake mentioned, and others that may come in the future.

That is a harder question for us to answer. For example, right now, I would not be able to tell you the cost of the medical care caused by the Iraq war because much of that has been moved into our TRICARE networks and purchased care and we won't even see those bills for another 120 days.

So, we are working with the TRICARE partners to normalize and make as much of the health care delivery as routine as we possibly can, as we go through these iterations of deployments. But to say that we are, can predict a budget for operational issues is not something I would be comfortable with right now.

Senator INOUYE. General Taylor?

General TAYLOR. Senator, I wanted to say first of all, I would be glad to mount up with you on that charge for recognizing the medics who are in harm's way and are doing a great job for our Nation. I think all three of us would be more than happy to get on our steeds and mount that charge with you.

In terms of fiscal year 2003, due to your great efforts through the supplemental, the Air Force is very comfortable that we are going to get through this year in good stead.

In terms of next year for what we budgeted and what Health Affairs submitted for us through the President's budget, we are pretty comfortable. As Admiral Cowan said we are adequately funded. There is no provision in there for additional costs for the global war on terrorism. If we have Reservists and National Guard who remain activated into the next fiscal year, we have to account for their costs.

We have done a very good job I think over the last few months of capturing all of the additional costs that go with a forward deployed force, and we are pretty comfortable we have been able to identify those costs to the Department. There is great uncertainty as the next generation TRICARE contracts come in, for instance, what kind of immediate resources we will have to use within the services to help bridge any gaps that occur as we move from one contract to the other.

And finally, I believe that the optimization funds that are provided have been a Godsend in terms of giving us venture capital to allow each of us to increase the amount of care we deliver in the

direct care system, generating dollars for the pennies invested and giving us that capability.

So in summary, I think the Air Force Medical Service is in a solid state for the rest of this year and as budgeted for fiscal year 2004.

RECRUITING AND RETENTION

Senator INOUYE. A bit more specifically, do you have any problems in recruiting and retention, and if so, what areas of concerns do you have on specialties?

General PEAKE. Sir, I think it is a concern for us, and we had good success with critical skills retention bonuses that we, each of our services funded for us this last year that we do not have. It is not a programmed payment. But we have, in terms of a net loss of physicians last year between 2002 and 2003 was 43 and you say that is not that many, but when you start looking at them, 17 of them were anesthesiologists, 17 radiologists. That becomes very expensive.

We are looking to get a change in our benefit in terms of the bonus packages for physicians to be able to recruit better. We are, and I think that that is going to be an important thing for us to follow through on over the course of this year.

Nursing is also a shortage for us, and I think we will hear about that on the next panel more expansively, that they are absolutely critical for our ability for us to do our business. We have had the direct hire authority to be able to hire civilian nurses and that's been really a big plus for us to be able to go out and quickly hire folks and we would, we need to have that authority continued.

Admiral COWAN. Sir, we have shortages in each of the corps. In the medical corps we have traditional shortages, and those specialties that you would expect to have shortages because of pay discrepancies between the civilian and military world.

Unfortunately, many of those tend to be wartime specialties, trauma surgeons, anesthesiologists and the like, and they frequently run in the 80 percent range. We are right in the process of undertaking some initiatives to get at that. We think there are two ways to improve those numbers.

One is through changing the bonus structure for those particular specialties, and the other is providing other nonmonetary incentives for people to come in and serve in various roles, both active duty and Reserves, providing a variety of incentives that we do not have now, particularly in Reserves.

We have a particular problem in the dental corps among young dental officers who accrue large personal debts because of the equipment that they have to buy to get through dental school and the pay differences between civilian practices and the military makes it uncomfortable for them to be financially stable in the military. And we have similar problems with health care providers in the medical service corps such as podiatrists who have large debts and find military service financially unattractive.

We are understaffed in some areas in the hospital corps, and again looking to new programs and incentives that will move corpsmen into those critical specialties.

Senator INOUYE. Are those shortfalls occurring right now?

Admiral COWAN. Sir, the shortfalls in the medical field have been chronic for many years.

Senator INOUYE. And the anesthesiologists?

Admiral COWAN. Yes, sir.

Senator INOUYE. You do not have enough?

Admiral COWAN. No, sir. We do have enough, but we do not have everybody back home. So if we went to two full wars at the same time, it would be very difficult for us to populate all those billets that we need.

General TAYLOR. Very similar in the Air Force. One story is that last summer we had 39 internal medicine physicians who were eligible to leave the service and 38 of them did. There are pay issues in terms of improving pay. We have great authorities to increase pay. We are working diligently to get the funds to match that capability and flexibility.

But it is not only specialty pay and loan repayment plans, it is the environment of work, and all three of us are working very hard to enhance the capabilities of our direct care system facilities, equipment, and staffing to enable all specialties from dental care to nursing corps to podiatrists to anesthesiologists to be able to practice the full spectrum of their capability.

The money has been important to the Air Force as we try to bridge the gap that exists between the staffing we should have and the staffing that we actually have.

We are going to have some terrible shortages in radiology coming up in the next 2 or 3 years. We have a terrible problem with anesthesia, and a 50 or 60 percent staffing range in internal medicine. Those are difficulties that we can contract in for if we can get the funds freed up. That's why the TRICARE-Nex program will lift those funds in the local group, and that optimization money gives us that venture capital to cover.

So those are two important parts. It is not just specialty pay and loan repayment. It is the environment of care that will help greatly in recruiting and retaining wonderful people.

Senator INOUYE. I have a few other questions, Mr. Chairman.

STUDENT LOAN REPAYMENT

Senator STEVENS. Thank you very much. I will submit some questions for the record in view of the time frames. I am interested, though, in that line of questions Senator Inouye asked.

In terms of the debts that your professionals have as they come into the service, do you have the system that we have here that we can pay a portion of the debts for each year that they serve, the debts they come to Government with from school, student loans? Are you paying off student loans for those who went to school when they joined the services?

Admiral COWAN. Yes, sir. The way the Navy accesses physicians, we get about 300 a year through either scholarships or paying back, helping them pay their medical school debts. We get about another 50 through the Uniformed Service University and we get a handful through direct accession.

We have similar programs for the dental corps and nurse corps, and in the nurse corps we have a very good incentive program that

sends them along pending successful careers into master's and even Ph.D. programs as a part of their professional development.

Our abilities, for example, to pay for the dentist's debt is, however, limited and because of changes in the way dental education has occurred, we now find ourselves at a competitive disadvantage.

Senator STEVENS. We will be glad to hear some of the problems you have encountered and see if funding is any part of the problem.

Admiral COWAN. Sir, that would be very kind of you.

Senator STEVENS. Particularly where we have a situation where people who are called up, for instance, we ought to find some way to take on that, those debt repayments while they are on the service. I'm talking reservists. They have substantial burdens that we have discovered in this last call-up period.

I'm sure Senator Inouye and I would like to pursue that, but we would be pleased to have you help us with some suggestions that you might have about how we can have a call up bonus, termination, a bonus on return to civilian life, but somehow reflect the costs that they have incurred by coming back in. The Reserve is a very important part of our medical services now.

MEDICAL COMBAT TECHNOLOGIES

Secondly, I would like to ask, we spend a lot of time trying to help finance development of new systems of care for those who are critically wounded, right at the point nearest to the point of injury, so that during the period of transportation to a permanent care facility, they could receive the best care possible. Were any of those new technologies utilized in this recent Iraqi conflict?

General PEAKE. Yes, sir. There were three different types of hemostatic dressings that were quickly pulled off the shelf, some out of the research base to be applied. Admiral Cowan talked about Quick Clot. Chitosan dressing was also purchased and investigational new drug fibrin dressing was provided to the special operations units as well.

Senator STEVENS. We had a description once of a possibility of developing a chair with diagnostic capability within 90 seconds of determining the extent of critical harm to that person, in order that they might be instantly treated. Were any of those facilities, were any of those type of facilities utilized in this recent conflict?

General PEAKE. Sir, this was some life support trauma and transport system forward with a mini intensive care unit with a stretcher with the built-ins, which I think you are referring to. There were folks treated on it. We are getting ready to send a team in for clinical after action lessons learned findings, and those are the kinds of things that are going to be looked at.

We had the UH60 Lima helicopters were deployed for the first time in the theater with the forward looking infrared radar with the patient care capacity in the back that really allows you to work on a patient, and that's the first time we have had that asset. We are really looking forward to hearing the after action reviews on how well all of that worked, and the glass cockpit for aviation.

Senator STEVENS. Well, I do hope if you will convene sort of a symposium of medics who were there and try to get from them, what didn't you have? What could you have used? What type of

procedures or particularly support concepts did you feel you needed, but did not have?

We have to really investigate support right now for military and Defense appropriations. If history repeats itself, it is going to go away fairly soon, and we will be back to battling to get just the moneys that are necessary to continue basic support of the military.

This is the time to fund the innovations that we proffered from the lessons we learned in Iraq, so I hope that you will move quickly, move very quickly to determine that. I have heard my good friend's comments about his four points, and he is absolutely right about the medics. That the difference is right now, with embedded journalism and cell phones, I think the world and families and everyone were contacted quicker, and this was more real exposure to what was going on in Iraq than any war in history. And that will only continue to expand.

So I think that the comments that we have heard, at least that I have heard, at least from those people who were embedded journalists, was nothing but praise for your people and for the medics of this period. I certainly will join Senator Inouye, and I thank you all in trying to see to it that there is more recognition and valor for those people who were right there with the combat forces.

I think we have to do something more than that, in terms of recognition for the future, and again, I think we would like to sit down with you all and talk about that. In terms of not only recognition for exceptional service and valor, but recognition for commitment. I think it takes a special person to be a combat medic. We both had experience on that. In our days, things were a lot simpler than they are now, and I think the stress on these medics must be extreme. Very much extreme.

I would like us to consider spatial periods of readjustment for those medics and have some concept of rest and relaxation (R&R) that are built in to give people incentive to want to be medics in combat periods. But I commend you for what you are doing and hope you will follow through. I do not want to get too—our period up here is not going to be that much longer.

I'm not sure how many wars we are going to sit through. We have sat through, in the last past 35 years, all of them. But we had eight wars so far. That ought to be a record for people on this committee. We want to make sure that we, on our watch, do everything we possibly can to make certain that the next one is handled even better than this one. This one has been handled exceptionally well.

I agree with you about the comment you made about the young soldier who lost his foot. The difference between this generation and ours is a majority of ours was drafted. This was a volunteer.

Admiral COWAN. Sir, one of the most inspiring things I have seen ever is listening to the Marines and corpsmen at the hospital. The corpsmen will only talk about the Marines that they feel responsible for and the Marines will only talk about the corpsmen who they think saved their lives.

Senator STEVENS. Any other questions, sir?

MENTAL HEALTH

Senator INOUYE. Just one question. A few days ago, I was watching the networks as most Americans do. And this network spent about half an hour covering an activity with the Marines, and I suppose he said that it covers all services. All of the men who were scheduled for deployment back to the United States were undergoing some psychiatric exercise. Is that the usual practice?

General PEAKE. Sir, I think maybe it was referring to the combat stress debriefing business which we, I think, we all have sort of embraced the notion that you want to get folks able to talk about in a structured environment, the kind of trauma that they may have experienced or seen or been involved with.

As we do the post deployment screening, we expanded the format, as some questions that apply to mental health to try to get at somebody who is having a particular problem.

We will be doing an extensive post deployment screening process as every one of our soldiers, sailors, airmen come back. We will then score that centrally, be able to compare it against their predeployment screening, so what we want to do is identify those that might need additional help or need additional follow up, and so I think we are all planning on being a part of that kind of thing, but there is really two different pieces to it.

Admiral COWAN. Sir, exactly the same way we have found over the years that people subjected to psychological trauma who sit with the others who they went through that with and talk through their feelings have good health outcomes, and the number of people who end up with post traumatic stress syndrome and these sorts of things goes way down, so all three services do that extensively.

General TAYLOR. That's exactly right. The lessons we have learned over the last 100 years in mental health is to treat as far forward as you can with your peers. That's exactly what each of the services does. We feel, as the other services do, that these stress teams are a necessity in all major locations and must interact with troops on a daily basis. This is an ongoing process for all of us.

General PEAKE. If I could add a follow-on, sir, in terms of this notion being an ongoing process. That's something important and something we in the Army are wrestling with now.

The Coast Guard has had an employee assistance program independent of the medical that offers counseling and family counseling and those kinds of things without a "medical statement" or "medical record." I think that's something we do not have in our budget that is something we really need to take on and be able to expand and get support for.

As part of the larger holistic approach was, as you point out, sir, this global war on terrorism doesn't stop with Iraq. This is going to be an ongoing level of activity for us, and a level of stress for our families and our service members, and that kind of support will be important for us in the future, sir.

Senator INOUYE. I'm glad you are doing that because in war, mental illness or mental health is considered a stigma and Section 8, so no one talked about it. We just assumed that everything was fine. But reality tells us that there are psychiatric problems, and

I'm glad you are doing that. Mr. Chairman, I have many other questions I would like to submit for the record.

Senator STEVENS. Yes, sir. We will submit some questions for each of you, if you will, and what Senator Inouye said, again, I really think if we look back over the years, the people who were not really compelled to talk about the problems right from the start were the ones that had the greatest problems.

I urge you to think about that, along with we ought to have a psychological advisor right there. It will work much better in the long run. Thank you all very much. We appreciate what you are doing. I hope you'll on behalf of all of us here congratulate all of the people for the wonderful job they have done under our flag. Thank you very much.

We are now going to hear from the chiefs of the service nursing corps. This committee's views on this is critical to our future. We will here from the Army, General William T. Bester, Chief of the Army Nurse Corps. We thank you very much for the service to the Army and our country. We welcome Admiral Nancy Lescavage, Director of the Navy Nurse Corps, and it is really a great pleasure to have you with us again, Admiral. We will proceed with General Bester, since this is his last appearance on our watch.

STATEMENT OF BRIGADIER GENERAL WILLIAM T. BESTER, CHIEF, ARMY NURSE CORPS

General BESTER. Thank you, Mr. Chairman. Senator. Thank you for this opportunity to provide you an update on this state of the Army Nurse Corps. During the past year the Army Nurse Corps has again demonstrated our flexibility and determination to remain ready to serve this great Nation during a very challenging time in our history.

Senator STEVENS. Let me first, if I may, rearrange your testimony. Welcome, General Barbara Brannon, Assistant Surgeon General for Air Force Nursing Services. We welcome you back and apologize to you for not turning the page. General.

General BESTER. Mr. Chairman, what we ask of and receive from our nurses in today's uncertain world is nothing short of amazing. I'd like to begin by telling you what Army nurses are doing at this very minute in places and under conditions as austere as soldiers in this country have ever experienced.

In Iraq and Kuwait, Army nurses have been moving forward with the operational flow, saving lives and treating the wounded as they do so. Army nurses are integral to the success of each and every forward surgical team, Mobile Army Surgical Hospital (MASH) and combat support hospital in the theater.

And as we sit here today, nearly 2,500 active and Reserve component Army nurses have or are currently deployed, with time away from home exceeding last year's level by sixfold. These are selfless dedicated Army nurses who are proud to serve this country of ours and to care for our most precious resource, the American soldier.

I'd like to highlight some of the units currently on the ground supporting Operation Iraqi Freedom, the fine soldiers of the 86th Combat Support Hospital from Fort Campbell, Kentucky are providing far forward medical care. We have watched them perform their expert skills on the television, and we have read about them

in the newspapers. Hundreds of patients have benefited from their presence, although the full impact of their support will not be fully appreciated until the conflict ends.

The 212th MASH from Miesau, Germany initially deployed to Kuwait is now providing the highly mobile surgical care needed for Operation Iraqi Freedom. This is the last MASH unit left in the Army inventory and is again demonstrating the needs for flexible, rapid and mobile medical surgical assets.

Our Reserve component colleagues have stepped to the plate to support current operations. The 396th Combat Support Hospital out of Vancouver and Spokane, Washington activated on January 25 and moved to Fort Lewis, Washington in a matter of 3 days. Scheduled to be part of the contingent that was to go into Turkey, this unit has remained stateside and is now integral to the manning requirements of Madigan Army Medical Center.

The personnel of the 396th that performed over 400 surgical cases and are providing expert care in in-patient and outpatient critical care units, thereby allowing Madigan to maintain a high level of operation, in spite of significant personnel losses to deployment. The men and women of the 396th are just another example of extreme importance of active and Reserve integration.

Army Nurse Corps officers are providing care for our combat casualties throughout the entire continuum of care. As I pointed out earlier, nurses are far forward in order to quickly receive an ill or injured soldier. Our nurses at the higher level care facilities in Europe and in the United States are ready and waiting to provide the care needed once a combat casualty is stabilized for movement.

At Landstuhl Army Medical Center in Germany, nurses are providing critical care for soldiers such as PFC Jessica Lynch. Nurse case managers have been manning the Deployed Warrior Management Control Center since Afghanistan and are now in full operation during Operation Iraqi Freedom. This center was established to enhance case management of any casualty from their initial injury in theater through his or her return to the United States and has facilitated the coordination of care amongst all three services.

Army nurses are also proud to be an integral part of the transformation of the new 91 Whiskey health care specialist, our combat medic.

We are embedded in the training unit as leaders and educators and positively impact on sustainment training of this critical military occupational specialty at every medical treatment facility. I'd also like to commend one of our outstanding young Army nurses, Captain Timothy Hudson, the recipient of the 2002 White House Military Office Outstanding Member of the Year award for a company of great officers.

Clearly, Senators, Army nurses are at the forefront of caring and are responding with excellence to the needs of those all the way from the President of the United States to our great soldiers and their families and our very deserving retirees around the world.

On the recruiting front, we continue to struggle with our recruitment of nurses to support today's health care needs and the needs of the Army in the years to come. The affect of the national nursing shortage continues to affect our ability to attract and maintain quality nurses.

We are still below our budgeted end strength of 3,381, but are actively pursuing incentives to counteract this shortfall and promote the force in our years to come. As a direct result of the 2003 National Defense Authorization Act, we are actively pursuing an increase in the accession bonus beginning in fiscal year 2005.

This spring we plan to implement the health professional's loan repayment program for both newly recruited nurses as well as our cornerstone company grade officers who are serving in their first 8 years of commissioned service.

Understanding the great potential of our enlisted soldiers to serve as commissioned officers, we continue to sponsor dozens each year to complete their nursing education to become Registered Nurses (RN) and subsequently Army Nurse Corps officers via the Army Enlisted Commissioning Program.

We are very proud of these successes, yet we will continue to pursue all recruiting and retention avenues in order to secure more long-term stability in our manning posture.

Sir, the general referred earlier this afternoon to our civilian nurses and they now comprise about 60 percent of our total nurse work force and are clearly key to our nursing care delivery in the medical treatment facilities. I'm pleased to tell you, Senator, in fiscal year 2002, we achieved an 89 percent fill rate of documented civilian Licensed Practical Nurse (LPN) positions. This is an increase of 7 percent and 13 percent, respectively, from last year.

In the direct hire authority that the Surgeon General talked about earlier, granted to us by Congress, has dramatically reduced the length of time it takes from recruitment to first day of work from 111 days to a remarkable 23 days for Registered Nurses. This has resulted in a 50 percent reduction of unfilled RN positions in our facilities.

Clearly, we need to continue this approach to civilian RN recruitment and we will continue to seek expansion of this authority to include LPNs and legislative approval that makes direct hire authority permanent.

Although many of our nurses are deployed or dedicating the majority of their time to the support of the global war on terrorism, nurses are still actively engaged in other nursing activities such as research and education.

I want to offer my thanks and appreciation to this committee for the continued steadfast support of the TriService Nursing Research Program (TSNRP). Since 1992, TSNRP has funded 230 research proposals that have resulted in continued advances in nursing practice for the benefit of our soldiers and for their family members and for our great retirees.

I would also like to extend my appreciation to the Uniformed Services University of the Health Sciences for their continued flexibility and support of the Advanced Practice nurses. Adeptly responding to the needs of Federal nursing, they have established perioperative nursing as well as a doctoral program in nursing, with the first candidates for study in each of these programs to begin this summer.

Our continued partnership is key to maintaining sufficient numbers of professional practitioners necessary to support our mission. Finally, Senators, the Army Nurse Corps once again reaffirms its

commitment to recognizing the Bachelor of Science degree in nursing as the minimum educational requirement and basic entry level for professional nursing practice.

PREPARED STATEMENT

In closing, I assure you that the Army Nurse Corps is comprised of professional leaders who are totally committed to providing expert nursing care. It has been my honor and it has truly been my privilege to lead such a tremendous organization. Thank you for this opportunity to present the extraordinary contribution made by today's Army nurses.

[The statement follows:]

PREPARED STATEMENT OF BRIGADIER GENERAL WILLIAM T. BESTER

Mr. Chairman and distinguished members of the committee, I am Brigadier General William T. Bester, Commanding General, United States Army Center for Health Promotion and Preventive Medicine and Chief, Army Nurse Corps. Thank you for this opportunity to update you on the state of the Army Nurse Corps. In the past year, the Army Nurse Corps has again demonstrated our flexibility and determination to remain ready to serve our great Nation during challenging and difficult times.

The effects of the National nursing shortage continue to impact the ability of the Army Nurse Corps to attract and retain nurses. The decline in nursing school enrollments over the past several years, coupled with the increasing average age of a registered nurse, clearly dictate the need to focus recruitment and retention efforts towards enhancing the image of nursing as a worthwhile and rewarding long-term career choice. We are encouraged by the fact that for the first time in over six years, enrollment in baccalaureate nursing programs in 2001 increased. However, since education resources are limited, there is still a need for such initiatives as the Nurse Reinvestment Act and we applaud the support that you have provided towards this effort. It will be critical that we continue to develop programs of this magnitude.

We are well aware of the impact that the decreased nursing personnel pool has had on our civilian nurse recruitment and retention. Civilian nurses now comprise over 60 percent of our total nurse workforce and we have worked diligently to streamline hiring practices, improve compensation packages and enhance professional growth and development in order to attract the types of nurses who will commit to the military healthcare system. I am pleased to report to you that we have experienced some success in our civilian recruitment actions over the past year. In fiscal year 2002, we achieved an 89 percent fill rate of documented civilian Registered Nurse positions and an 83 percent fill rate of documented civilian Licensed Practical Nurse positions. This is an increase of 7 percent and 13 percent, respectively, from the previous year. The Direct Hire Authority granted to us has dramatically reduced the length of time it takes from recruitment to first day of work from 111 days to a remarkable 23 days for Registered Nurses. This initiative has resulted in a 50 percent reduction of unfilled RN positions in our Medical Treatment Facilities. Clearly, we need to continue this type of long-term approach to civilian RN recruitment.

The Army Nurse Corps is actively engaged in a DOD effort to simplify and streamline civilian personnel requirements. The intent is to recruit, compensate, and promote civilian nursing personnel with the flexibility necessary to respond to the rapidly changing civilian market. We have clearly identified our needs related to the payment of these greatly needed premium, on-call, overtime and Baylor Plan pay strategies and are very ready to implement these strategies when the Defense Finance Accounting Service (DFAS) support is available. In addition, we are progressing with the clinical education template currently required in the legislation in order to ensure consistency of hiring practices. We strongly value continuing professional development of our civilian nurse workforce and are reenergizing our already established Civilian Nurse Tuition Assistance Program to enhance retention and symbolize our trust in the civilian nurse workforce abilities and commitment to taking care of soldiers. We firmly believe that enhancing job opportunities for our military family members is consistent with the Army's overall goal to support the well being of our soldiers and families.

We are also well aware of the impact of the decreased nursing pool on our military nurse recruiting efforts. The Army Nurse Corps is still below our budgeted end-strength of 3,381. We ended fiscal year 2002 at a strength of 3,152, a deficit of 229. We have taken aggressive measures to strengthen our position in both the Army Reserve Officer Training Corps (AROTC) and U.S. Army Recruiting Command (USAREC) recruiting markets. We have re-established targets in the AROTC program and expanded school participation in our AROTC scholarship program by four-fold. As a direct result of the 2003 National Defense Authorization Act, we are actively pursuing an increase in the accession bonus beginning in fiscal year 2005. This year, we were successful in offering a Critical Skills Retention Bonus (CSRB) to 54 percent of our Nurse Anesthetists and 76 percent of our Operating Room nurses. This spring, we are implementing the Health Professions Loan Repayment Program (HPLRP) for newly recruited nurses as well as to our cornerstone company grade Army Nurse Corps officers who are serving in their first eight years of commissioned service. The HPLRP and accession programs, in conjunction with our already established and robust professional and clinical education programs, will allow us to consistently reinforce the value of our Army Nurses through the critical early career timeframe. Finally, we have been extremely successful in providing a solid progression program for our enlisted personnel to obtain their baccalaureate nursing degree through the Army Enlisted Commissioning Program. This year alone, we will sponsor 85 enlisted soldiers to complete their nursing education to become Registered Nurses and subsequently, Army Nurse Corps officers. Since last year, we have increased the number of available slots for soldiers qualified for this program by 30, a 55 percent increase. I want to emphasize that this program provides us with nurses who already possess the strong soldiering and leadership skills that we foster and desire in Army Nurses.

Retention of our junior nurses is extremely important to us. We continue to closely monitor the primary reasons that our company grade officers leave the Service and have determined that the reasons are primarily related to quality of life, work schedules and compensation. We have taken this feedback and used it as the basis to address the focus of our senior leadership efforts at the local level. Compensation strategies such as the Critical Skills Retention Bonus (CSRB) and the Health Professions Loan Repayment Program (HPLRP) have been paramount in our effort to recognize individuals for their tremendous efforts and sacrifices. The Army Nurse Corps continues to sponsor significant numbers of nurses each year to pursue advanced nursing education in a variety of specialty courses as well as in masters and doctoral programs. We are all working to improve the practice environment, foster mentoring relationships, and ensure equitable distribution of the workload among our nurses. We intend to aggressively capitalize on all financial, educational and benefit packages available to recruit and retain dedicated officers.

The Army Nurse Corps continues to answer the call to support the Nation's War on Terrorism as well as other contingency missions. In fiscal year 2002, 1,001 Army Nurses deployed to over 20 countries totaling 25,133 man-days. Since October 2002, the deployment pace is swifter than ever, with 1,162 Army Nurses deployed totaling 80,083 man-days. Our nurses continue to provide expert nursing care on Forward Surgical Teams (FSTs), which provide far forward immediate surgery capability that enables patients to withstand further evacuation to more definitive care. Currently, nurses are deployed in multiple FSTs in support of Operation Enduring Freedom, Operation Iraqi Freedom, and other missions worldwide. The 250th FST was the first to deploy to Kandahar, Afghanistan in direct support of the Combined Special Operations Task Force South-Forward and executed medical operations under the most austere combat conditions. The 274th FST provided surgical coverage of northern Afghanistan and provided care to more than 500 patients to include over 200 combat casualties. In March 2002, the 274th FST received and treated all combat casualties sustained during Operation Anaconda and provided extensive orthopedic and surgical care for the detainees held at the Bagram Airbase. Each of these outstanding forward surgical elements contains a substantial nurse element that is critical to the team's success.

The 86th Combat Support Hospital (CSH) is now supporting Operation Iraqi Freedom and is providing far forward medical care in the most austere conditions for both coalition forces and local nationals. The full impact of their support on the numbers of casualties cared for by these fine soldiers is not known at this time. Always ready, this same Combat Support Hospital was also the most forwardly deployed Level III Combat Support Hospital in Central Asia to support Operation Enduring Freedom. At that time, the personnel in the 86th included Army Nurses from Fort Campbell, Kentucky with augmentation by Army Nurses from Fort Bragg, North Carolina, Fort Belvoir, Virginia, Fort Rucker, Alabama and West Point, New York. This hospital, consisting of a 2-bed operating room, 7-bed emergency medical

treatment section, and 24-bed inpatient area, provided care for 63 combat related casualties as well as the care for the acute health care needs of the deployed forces.

In the past year, we provided expert nursing care with the 28th Combat Support Hospital from Fort Bragg, North Carolina in support of Task Force Med Eagle (TFME) in Bosnia-Herzegovina. In the same theater, the 249th General Hospital conducted Medical Civil Action Programs (MEDCAPs) to improve relations by providing basic medical screenings and care to 130 local national personnel within the Multinational Division-North Area of Operations in Bosnia. In addition, nursing personnel provide support to an ongoing multidisciplinary health promotion program for soldiers and civilian employees in the Task Force. Flexible and ready, some of these same units are now providing the needed support to the soldiers currently in Southwest Asia.

The Army Nurse Corps continues to strengthen our commitment to integrating our Active and Reserve Components. Last year, the 212th Mobile Army Surgical Hospital from Miesau, Germany teamed with the 5501st United States Army Hospital from San Antonio, Texas to conduct maneuvers at the Combat Maneuver Training Center (CMTC) in Hohenfels, Germany. This was the first time that level III health care support was incorporated directly into a CMTC rotation. This is just one example of many where Active and Reserve Army Nurses join forces to provide expert patient care and superb clinical leadership.

In light of current world events, we have imbedded training on the personal and medical response to the chemical, biological, radiation, nuclear and high explosive threat into all our professional nursing and military education courses and deployment preparations. I can assure you that all Army Nurse Corps Officers will continue to be ready to meet any deployment challenge in any environment that they may encounter.

It is a pleasure to be able to highlight good news stories about nurses at the many medical treatment facilities around the world. As a result of a productive collaboration among the Department of Defense, the Army Medical Department's Outcomes Management Section, and the Veteran's Health Affairs Quality Assurance and Performance Improvement Office, we implemented an additional nine Clinical Practice Guidelines (CPGs) in 2002. The practice guidelines relate to the care of Low Back Pain, Asthma, Diabetes, Tobacco Use Cessation, Post Deployment Health, Post-operative Pain, Major Depressive Disorder, Substance Abuse Disorder & Uncomplicated Pregnancy. These compliment the seven other Practice Guidelines already in place and demonstrate the unprecedented collaboration between clinicians and researchers working at Army, Air Force, Navy and Veteran's Affairs facilities. Clinical nurse specialists, nurse practitioners, nurse midwives, nurse educators, community health nurses, and staff nurses are intimately involved in both the development and the implementation of the guidelines. These guidelines may be applied to patient care in both the peacetime and combat hospital settings and aim to decrease variation in the management of specific conditions, thereby improving quality of care. A notable success associated with the implementation of the CPGs includes the fact that none of the 28 Army Medical Treatment Facilities surveyed by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) have had any findings related to the new JCAHO CPG implementation mandates.

Nurses have embraced new technology in support of patient care. The Great Plains Regional Medical Command and Brooke Army Medical Center nurse practitioners are currently testing a new composite computer software program called MEDBASE that will allow Commanders at all levels to have visibility of the data necessary to ensure soldier medical readiness. This database will also facilitate electronic medical record documentation, soldier profiling and tracking, worldwide immunization tracking, electronic health and wellness documentation, procedure and diagnostic coding, and numerous practical medical readiness reports for all levels of the military system. This tool, designed to interface with current and programmed DOD information technology systems, has incredible potential to conserve personnel and fiscal resources and will directly impact our performance improvement initiatives.

MAJ Laura Favand and MAJ Lisa Lehning, Army Nurse Corps Officers from William Beaumont Army Medical Center in El Paso, Texas and Brooke Army Medical Center in San Antonio, Texas, respectively, assisted in the development of another valuable data management tool. The Combat Trauma Registry was employed at Landstuhl, Germany and contains data entered on soldiers injured in Afghanistan in support of Operation Enduring Freedom. The purpose of the Combat Trauma Registry is to examine the feasibility of identifying, collecting, and reporting combat trauma care information from the point of injury to return to duty, discharge from active duty, or death from combat casualties. The data collected in this registry will be used as input into the planning factors used to develop combat health support

models such as casualty estimates, personnel at risk, and injury types for future military operations. This is the first attempt to collect this type of data since the Vietnam conflict.

Army Nurses at Walter Reed Army Medical Center are supporting disaster and bioterrorism preparedness with the implementation of Phase I of the DOD plan for smallpox vaccinations. Phase I includes the vaccination of the military's smallpox response teams and hospital and clinic teams located in military hospitals. Walter Reed personnel prepared and conducted a two-day conference for their staff and personnel, providing smallpox education and training for people who are to be vaccinated and for those administering the vaccine. As Federal agencies reorganize and lines of authority are adjusted in the newly formed Department of Homeland Security, it is clear that nurses across all specialties will play a significant role in the overall medical disaster response strategy.

Army Nurses are proud to be an integral part of the transformation of the new 91W Healthcare Specialist Military Occupational Specialty. We are imbedded in the training units as leaders and educators. In fact, there are thirteen Army Nurse Corps officers directly assigned to the training battalion at Fort Sam Houston, TX in which each new 91W soldier is initially trained. In addition, Army Nurse Corps officers were directly responsible for developing and implementing the hospital based clinical training experience that is part of the sixteen-week 91W initial entry training. Army Nurse Corps officers also serve as preceptors and mentors for these soldiers throughout their initial entry training as well as the sustainment training programs in place across the Army. I want to share with you my impression of these soldiers. Simply put, they are the best-trained combat medics in our history and we are proud to serve side by side with these exceptional soldiers. We will continue to steadfastly support all aspects of this transformation until it is completed.

Army nurses continue to be at the forefront of nursing research. We aggressively pursue evidence-based research focusing on critical military healthcare problems that nurses can positively impact. Last year, I shared with you our five primary research focus areas: the identification of specialized clinical skill competency training and sustainment requirements; issues related to pre-, intra-, and post-deployment; issues related to the nursing care of our beneficiaries in garrison; nurse staffing requirements and their relationship to patient outcomes; and finally, issues related to civilian and military nurse retention. Today I will share with you our progress and accomplishments in these five priority areas.

To insure that our combat medics are trained in critical life-saving skills and ever ready for battle, they are required to become nationally certified as Emergency Medical Technicians. The nurse researchers at Madigan Army Medical Center are assessing the impact of a computer-based three-dimensional virtual Emergency Medical Technician training simulator on overall educational outcomes of students and the resulting national certification pass rates. To date, one hundred thirteen 91W students are enrolled in this study. This adjunct to our educational design could result in improved pass rates and related cost savings as soldiers will be better prepared to pass the national certification examination the first time taken.

The recent increase in our deployment tempo has kept all our medical personnel busy. Nurse researchers at Walter Reed Army Medical Center are engaged in a study to identify the physiologic, psychosocial, work and lifestyle factors of Army Medical Department soldiers who have experienced musculoskeletal injuries. They will examine how these factors may be associated with the occurrence of these injuries. The results of this study will help us devise strategies targeted at reducing the frequency of these injuries in these soldiers. In addition, students in our Nursing Anesthesia graduate program have studied the safety and efficacy regarding the use of an oxygen concentrator in the field environment. Use of this device will allow for the delivery of required oxygen to patients in the field and eliminate the need to transport heavy oxygen bottles. Army Nurse researchers are also conducting a large-scale study to identify the ethical issues nurses encounter in caring for patients in deployed and garrison-based military hospitals. Early results from this study indicate that our military and civilian nurses most often encounter the challenges of staffing patterns that limit quality of nursing care, protecting patient rights to quality nursing care and staffing patterns that limit patient access to nursing care. The intent of this study is to develop pre-emptive educational programs that will prepare nurses in a variety of military settings to best manage the ethical challenges presented to them. All of the studies mentioned are truly targeted at improving nursing care for soldiers in all our practice environments.

Nursing research consistently examines the potential of new technology on practice. Nurse researchers at Walter Reed Army Medical Center are examining the use of telenursing for our remote, home-based patients who are in need of cardiac rehabilitation following coronary artery bypass graft surgery. This program will allow

nurses to "virtually" visit patients up to three times per week to follow both the physiological progress of the patient such as vital signs, surgical incision assessment, and electrocardiograph analysis as well as provide educational interventions that the home-bound patient might otherwise not receive. The nurse researchers at Brooke Army Medical Center have designed a study to decrease ventilator-associated pneumonia in patients at Brooke Army Medical Center and at Wilford Hall Air Force Medical Center. This study has dramatic potential in both human outcomes as well as cost outcomes by determining care criteria that could decrease the number of days that a person is on a ventilator.

Nurse researchers at Madigan and Walter Reed Army Medical Centers completed the Army Nursing Outcomes Database study initiated in 2001 and have extended the concept to include medical treatment facilities from both the Air Force and Navy. This Tri-Service project is dedicated to the collection of standardized and high quality data related to the effects of nurse staffing and patient outcomes. The expanded Military Nursing Outcomes Database will assess data integrity, examine new indicators of quality nursing care and will add a dimension of the rapidity of patient movement into and out of the hospital. The Army Nurse Corps also continues to collect data from nurses who have chosen to leave the military in order to identify those issues that we can positively impact upon with the goal of retaining as many quality Nurse Corps officers as possible. This ongoing assessment indicates that nurses leave the military in order to pursue life goals such as having a family and stabilizing their location. We have taken this feedback seriously and are striving to address the retention needs of our nurses through the initiatives and incentives outlined earlier in this testimony.

In conclusion, Army nurse researchers continue to seek the solutions to the important challenges facing military healthcare. The Army Nurse Corps continues to identify areas for collaboration with researchers in the Navy and the Air Force. Since 1992, the TriService Nursing Research Program has funded 230 research proposals and during fiscal year 2002, seventeen military nurse researchers received funding in areas that include nursing practice during operations other than war, air evacuation, fitness among National Guard personnel, sexually transmitted disease and pregnancy prevention during deployment, and educational strategies for chemical warfare. The Tri-Service Nursing Research Program continues to offer a breadth of supportive activities such as workshops and symposiums to promote, encourage and develop both our novice and seasoned researchers. It is clearly evident by the types of proposals submitted that nursing research is, and will continue to be, focused on relevant and timely research problems that necessitate solid outcome data. Your continued support of the TriService Nursing Research Program is truly appreciated and has resulted in continued advances in nursing practice for the benefit of our soldiers, their family members, and our deserving retiree population.

I would like to extend my appreciation to the leadership and faculty of the Uniformed Services University of the Health Sciences (USUHS) for their continued support in the training of our Certified Registered Nurse Anesthetists and Family Nurse Practitioners. USUHS continues to provide us with professional nursing graduates who have a near perfect pass rate for national certification, easily exceeding the national standard. Adeptly responding to the needs of Federal nursing, USUHS established this past year the Clinical Nurse Specialist Program in Perioperative Nursing as well as the foundation for the Doctoral Program in Nursing, with the first candidates for study in each program to begin this summer. USUHS continues to refine and evolve strong curricula that have three focused research and practice areas including Operational Readiness in Changing Environments, Population Health and Outcomes, and Clinical Decision-Making in the Federal Health Care System. In addition, they have placed cross cutting emphasis on patient safety, ethics, force protection, and international health and leadership. The curricula are interwoven with the necessary military applications essential for the response to any global challenge, such as scenarios involving deployment of weapons of mass destruction, disaster or humanitarian assistance, and contingencies other than war. USUHS continues to be flexible and responsive to our Federal Nursing needs and our continued partnership is key to maintaining sufficient numbers of professional practitioners necessary to support our mission.

Finally Senators, the Army Nurse Corps once again reaffirms its commitment to recognizing the Bachelor of Science degree in Nursing (BSN) as the minimum educational requirement and basic entry level for professional nursing practice. We appreciate your continued support of this endeavor and your commitment to the educational advancement of all military nurses. We continue to be resolute in meeting the challenges we face today and are ready and determined to meet the uncertain challenges of tomorrow. We will continue with a sustained focus on readiness, expert clinical practice, professionalism, leadership and the unfailing commitment to

our Nation that has been the hallmark of our organization for over 102 years. Thank you for the opportunity to present the extraordinary contributions made by Army Nurses.

Senator STEVENS. Thank you, General. Admiral Lescavage.

STATEMENT OF REAR ADMIRAL NANCY J. LESCAVAGE, NURSE CORPS, UNITED STATES NAVY, DIRECTOR, NAVY NURSE CORPS

Admiral LESCAVAGE. Good afternoon, Chairman Stevens, Senator Inouye. I am Rear Admiral Nancy Lescavage, the 20th Director of the Navy Nurse Corps and Commander of the recently established Naval Medical Education and Training Command. It is indeed an honor and a privilege to represent a total of 5,000 active duty and Reserve Nurse Corps officers. I welcome this opportunity to testify regarding the status of the Navy Nurse Corps.

The Navy Nurse Corps is "living" the mission of Navy medicine today providing preeminent health care in worldwide missions. When called to duty recently, our Navy nurses readily packed their seabags and moved forward. Meanwhile, our remaining military and civilian nurses back home continued to be the backbone in promoting, protecting and restoring the health of all entrusted to our care, including those heroes who have gone before us in harm's way.

Not a beat was missed in our mission. This year, to chart the course, we have revised our strategic plan which now parallels Navy medicine's goals of being ready, caring about our people, delivering that health care benefit to all, and promoting best practices.

Through our collective leadership, I'm happy to tell you we are also united with our Federal nursing partners to advance professional nursing practice. What a thrill that is to be one team with my fellow colleagues.

I will now speak to each of our goals and address the status of professional nursing in Navy medicine relative to the national nursing shortage. First of all, to stand ready. Our mission is exemplified in our continuous commitment to readiness in peacetime, wartime, humanitarian and other contingency missions.

Augmenting our 70 Navy nurses who are routinely assigned to operational billets, we have deployed a total of approximately 600 Navy nurses in support of Operation Iraqi Freedom on a variety of platforms. They have been and remain assigned to forward resuscitative surgical support teams, fleet surgical teams, Marine Corps medical battalions, Marine Corps force service support groups, our fleet hospitals, our casualty receiving and treatment ships, and our hospital ships such as the U.S.N.S. *Comfort* currently deployed. Part of that crew will be returning today.

And they also serve aboard our aircraft carriers. Eighty-nine out of 140 nurse anesthetists have been deployed and are serving us well. We have also recalled approximately 400 Reserve Navy nurses to support our operational missions and the continuum of care in our military treatment facilities. You see, we really do truly work as a team, both active duty and Reserve.

During this past year, there have been an additional 43 Navy nurses involved in other missions, such as at Camp X-Ray in Guantanamo Bay, Cuba, Operation Provide Hope and Operation Enduring Freedom. Almost 400 Nurse Corps officers have also been in-

volved in various training exercises in the past year, such as in our fleet hospital training, fleet hospital operational readiness evaluation, and Exercise Battle Griffin.

Strengthening our emergency preparedness posture, Navy nurses now serve in vital leadership roles in Navy medicine's Office of Homeland Security, the Department of Defense smallpox response team, the Marine Corps chem/bio incident response team, and in command emergency preparedness offices. In meeting our readiness mission in all operational environments, training opportunities occur across Federal, as well as civilian agencies. As an example, this past fall, the Navy medicine's trauma training program rotated its first class through the Los Angeles County University of Southern California Medical Center, one of the Nation's top level one trauma centers. We successfully trained many Nurse Corps officers by enhancing their combat trauma skills and medical readiness, and they do that along with their respective platform teams, so they truly are ready for trauma cases.

In addition, five of our Navy medical treatment facilities have established agreements with local trauma centers, training numerous emergency and critical care nurses, as well as our operating room nurses. Collaborating with the Army and the Air Force, we have also shared instructors and training opportunities to enhance these critical skills.

Secondly, in caring about our people, we continually strive to be recognized as an employer of choice in recruiting, training and retaining the right professional nurses. We closely monitor the national nursing shortage projections and civilian compensation packages and determine the best course for us to take in the competitive market.

The Navy Nurse Corps amazingly continues to meet active duty military and civilian recruiting goals and professional nursing requirements. We do that through diversified accession sources. Those are our pipeline programs, for example, in our Reserve Officer Training Corps (ROTC).

We also do that through pay incentives, graduate education and other retention initiatives that address quality of life issues, to meet our special needs, such as critical care. And I really believe we need more Navy nurses in the mental health arena, in midwifery and neonatal nursing. We too are exploring the health professional's loan repayment program in those areas.

For our Civil Service nurses who make up a huge part of our backbone, recruitment, retention and relocation bonuses are used, along with special salary rates and that wonderful special hire authority which we can thank you so much for.

We also had our certified registered nurse anesthetists and operating room nurses this year participate in the critical skills retention bonus. Ninety percent of our operating room nurses who were eligible took that, as well as 70 percent of our nurse anesthetists.

I'd like to highlight our Navy Reserve component. We have processed 63 percent of our accession goal of 261 nurses to enter the Reserves, maintaining the same pace as we did last year. Beneficial incentives in procuring our Reservists in critical wartime specialties include an accession bonus for the Reserves, as well as loan repayment and stipend programs for graduate education. I have no-

ticed through the years that the one thing nurses most want is to be greater educated. We are now proposing to expand bonus eligibility to new nursing graduates. In addition, we are in the initial stages of exploring the feasibility of instituting a pipeline scholarship program for our Reserve enlisted component, those corpsmen who desire to go on to become Navy nurses. And that's similar to the pipeline program for our active duty colleagues.

Through several surveys, graduate education opportunities have been cited as one of our most important retention initiatives. We now are able to focus all of our scholarship training, as Admiral Cowan stated, on master's degrees and doctorate degrees based on our operational specialty requirements, specific health population needs and staffing projections.

We are sending several of our nurses to the recently established perioperative clinical nurse specialist program at the Uniform Services University of Health Sciences (USUHS). We greatly look forward to the new doctoral program at USUHS, and are additionally considering nurse fellowship opportunities in such arenas as gerontology, business management and mental health.

This year, we also instituted nursing internship programs at our three major medical centers and other naval hospitals for all new nursing graduates. The news is good on this as well. There have been several hundred military and civilian nurses who have completed these programs. These new nurses attest to increased self-confidence with clinical practice and are eager to assume greater responsibilities.

Thirdly, delivering that health care benefit. Population health management is at the forefront and our Navy nurses are actively engaged in various clinical settings through health promotion, disease management and case management programs. These innovations do four things for us. They expedite a much quicker return to full duty for our sailors and Marines. They decrease lost work hours, increase productivity, and enhance our customer satisfaction. You see the benefits are endless and the line really appreciates the return to duty.

Embracing force health protection, numerous programs have been developed to ensure a healthy and fit force such as a command preventive health assessment program, nurse managed hyperlipidemia clinic at our naval hospital in Rota, Spain, the in-garrison rehab platoon program at Camp Pendleton and clinical care services, which we call drive-by health care. They pull up to the pier in a van and are able to render basic primary care to our sailors who have just returned.

Just as the health and fitness of our military members is critical to force readiness, so is the health of our extended military family and other eligible beneficiaries. In at least four medical treatment facilities, our nurses are leading the way in the assessment and management of our patients. Diabetes case management has significantly enhanced patient compliance with their recommended plan of care. In support of the unique needs of seriously ill and terminally ill patients, our first Navy palliative care clinic was established at our medical center in Portsmouth. Our mother baby clinic provides follow-up for high-risk mothers and babies for early detection and prevention of complications. Pediatric nurses at our naval

hospital in Naples liaisoned with the Department of Defense school nurses and teachers to collaborate on taking care of asthmatic children to prevent asthmatic attacks. This sampling of programs demonstrates that Navy nurses indeed are innovative and have specialized knowledge that can be applied in any form in a military setting.

Lastly, promoting best health care business practices. Nurse Corps officers continue to be strategically placed in pivotal roles where they can influence legislation, health care policy and delivery systems. We have active duty and Reserve Nurse Corps officers in executive roles, including our current Navy's Deputy Surgeon General and many others such as commanding officers, executive officers and officers in charge. Personally, I am honored to have been chosen to lead the charge in revolutionizing Navy medicine's education and training.

Always striving for nursing excellence, many commands have aligned their performance metrics with the American Nurse's Association magnet recognition program and Malcolm Baldrige criteria for excellence. These standards provide the framework for sustained quality patient care. Our goal is to complete our first application which is at our medical center in Portsmouth, Virginia, and have that completed by next year.

Nursing research has become our cornerstone for excellence in all settings, from military treatment facilities to the operational environment. Our revised Navy Nurse Corps research plan provides the foundation and scope of military nursing research ranging from the utilization of doctorally prepared Nurse Corps officers in key leadership positions to their responsibilities in leading evidence-based practice studies.

With authority and influence, our Navy nurse researchers now create health policies and delivery systems and are right at the tip of the spear in leading the way in our major medical treatment facilities. We were honored to have one of our nurse anesthetists named researcher of the year by the American Association of Nurse Anesthetists.

We do as well appreciate your support of the TriService nursing research program funding. I would like to highlight just a little bit of our research programs out there. A program involving the studies examined Navy recruits at risk for depression, after undergoing the bootstrap intervention program. This is at Great Lakes. Preliminary results indicate a potential for decreased attrition, improved recruit performance, and an identified cost-effective method of recruit retention.

On the cutting edge of molecular research, a team led by a Navy nurse is investigating the potential use of a readily accessible medication to be used in the field to treat respiratory problems. We also have a multidisciplinary team with nurses in it working on diabetic care and that has enhanced the patient's ability to achieve the mastery of self-care and live independently with potential savings of $7,000 to $42,000 per patient a year.

In closing, I appreciate your tremendous support of legislative initiatives and the opportunity to share our accomplishments. In our 95th year of the Corps, our Navy nurses are very proud of our

heritage and professional practice as innovators, change agents and leaders.

In my other role as Commander, Navy Medical Education and Training Command, I fully support the philosophy that continuous learning and guidance for all health care professionals is integral to what we do in meeting our peacetime and wartime missions.

Regarding lessons learned, Chairman Stevens, my command with education and training has a command under it called the Naval Operational Medical Institute. Several years ago, we did come up with the lessons learned program and we are very excited about that. That has already been launched, which really has value in learning from what has just occurred.

PREPARED STATEMENT

I look forward to continuing to work with you and my colleagues during my tenure as the Director of the Navy Nurse Corps. Thank you for this great honor and privilege. In my view, there is no better job.

[The statement follows:]

PREPARED STATEMENT OF REAR ADMIRAL NANCY J. LESCAVAGE

Good morning, Chairman Stevens, Senator Inouye and distinguished members of the Committee. I am Rear Admiral Nancy Lescavage, Director of the Navy Nurse Corps and Commander of the recently established Naval Medical Education and Training Command. It is an honor and a privilege to represent a total of 5,000 Active Duty and Reserve Navy Nurse Corps officers. I welcome this opportunity to testify regarding our achievements and issues.

The Navy Nurse Corps is "living" the mission of Navy Medicine today and fulfilling the vision of the Navy Nurse Corps of preeminent health care in executing worldwide missions. When called to duty, Navy Nurses readily "packed their seabags" and moved forward, with dynamic leadership, clinical expertise, teamwork, perseverance and patience. Meanwhile, military and civilian nurses who remained at the homefront continue to be the backbone and structure in promoting, protecting and restoring the health of all entrusted to our care.

This year, to "chart the course," we have revised our Strategic Plan, which parallels Navy Medicine's goals of Readiness, People, the Health Benefit, and Best Health Care Business Practices. Through collective leadership, we have also united with our federal nursing partners to advance professional nursing practice.

I will now speak to each of our goals in the Navy Nurse Corps Strategic Plan and address the status of professional nursing in Navy Medicine relative to the national nursing shortage.

READINESS

Our mission to promote, protect and restore the health of all entrusted to our care is fully actualized through our continuous commitment to readiness in peacetime, wartime, humanitarian and other contingency missions. Both active duty and reserve components have exemplified unselfish devotion to duty, working side-by-side in the continental United States and abroad in a multitude of care delivery environments.

Readiness and Contingency Operations

Augmenting our seventy Navy Nurses in operational billets, we have deployed a total of approximately six hundred nurses in support of Operation Iraqi Freedom on a variety of platforms, such as Marine Corps Force Service Support Groups, Fleet Hospitals, Casual Receiving Treatment Ships, Hospital Ships and with Command Headquarters staff to plan and operationalize our health care delivery system. Eighty-nine out of a total of one hundred and forty Certified Registered Nurse Anesthetists (CRNA) alone have been deployed. We have also recalled approximately four hundred reserve nurses to support our operational missions and the continuum of care in our military treatment facilities. During this past year, there have been an additional forty-three nurses involved in other missions, including Camp X-Ray at Guantanamo Bay, Cuba, Operation Provide Hope and Operation Enduring Freedom.

Almost four hundred Nurse Corps officers have also been involved in various exercises in the past year such as Fleet Hospital Field Training, Fleet Hospital Operational Readiness Evaluation, and Exercise Battle Griffin.

Homeland Security

Strengthening our emergency preparedness posture, Navy Nurses serve in vital leadership roles in Navy Medicine's Office of Homeland Security, the Department of Defense Smallpox Epidemiological Emergency Response Team, the Marine Corps Chemical-Biological Incident Response Force and in command Emergency Preparedness Offices. Involvement in key initiatives to execute our Force Health Protection mission under any circumstance include: multiple training programs; military-civilian partnerships with U.S. hospitals; innovative site visits to identify vulnerabilities and exercise command emergency preparedness plans; and development of disaster response curriculum with other federal agencies.

Readiness Training

In meeting our readiness mission in all operational environments, training opportunities are collectively optimized across federal and civilian agencies. Last summer, Navy Medicine's Trauma Training Program rotated its first class through the Los Angeles County/University of Southern California Medical Center, one of the nation's finest Level I Trauma Centers. We successfully trained many Nurse Corps officers by enhancing their combat trauma skills and medical readiness with their respective platform teams, the Forward Resuscitative Surgical Support or Fleet Surgical Teams. In light of recent events and the national focus on homeland security and terrorism, the curriculum has added treatment of casualties under these stressors, as well as conventional battle injuries.

Seeking to expand training opportunities for nurses assigned to other operational platforms, five military treatment facilities have established agreements with local trauma centers, training over fifty emergency and critical care nurses through didactic and clinical experiences. Collaborating with the Army and Air Force, we have shared instructors and training opportunities in support of critical skills enhancement at the Army Medical Center in Landstuhl, Germany; Wilford Hall Medical Center in San Antonio, Texas; the Critical Care Air Transport Team Course at Brooks Air Force Base in San Antonio to name a few facilities. In addition, Navy Nurses at the Naval Hospital in Rota, Spain are involved in training Embassy, Department of State and foreign military physicians and nurses.

PEOPLE

We continually strive to be recognized as an employer of choice in recruiting, training, and retaining the right professionals. To attain our prestigious standing, we closely monitor national nursing shortage projections and civilian compensation packages and determine the best course for us to take in the competitive market.

National Nursing Shortage

A 2002 study conducted by the Health Resources and Service Administration predicted that the national nursing shortage will experience a deficit of over 275,000 nurses by 2010, based on the dwindling supply of registered nurses and the increasing demand for their clinical expertise. A report by the American Association of Critical Care Nurses, cited factors impacting the nursing work force supply including the declining number of nursing school graduates, job dissatisfaction, and inadequate compensation. We continuously monitor each of these factors because the strength of our nursing work force can best be maintained through a blend of counter initiatives to these dissatisfiers.

Recruitment and Retention Initiatives

FISCAL YEAR 2002 ACCESSION SOURCES: ACTIVE DUTY

Direct Procurement	77
Reserve Recall	15
Nurse Candidate Program	62
Naval Reserve Officer Training Program	52
Medical Enlisted Commissioning Program	42
Other	5

The Navy Nurse Corps amazingly continues to meet military and civilian recruiting goals and professional nursing requirements through diversified accession sources, pay incentives, graduate education and training programs, and other reten-

tion initiatives that address quality of life and practice satisfaction. The increase of the maximum allowable compensation amount for the Certified Registered Nurse Anesthetist Incentive Special Pay (CRNA ISP) and the Nurse Accession Bonus (NAB) in the Fiscal Year 2003 National Defense Authorization Act will further enhance our competitive edge in the nursing market. To meet specialty needs, such as critical care, mental health, midwifery and neonatal nursing, we are exploring the Health Professions Loan Repayment Program. Successful recruitment and retention tools have been the NAB, CRNA ISP, Board Certification Pay and the recent Critical Skills Retention Bonus for our uniformed members. For our civil service nurses, recruitment, retention and relocation bonuses; special salary rates; and Special Hire Authority have significantly decreased our vacancy rates in several of our facilities. All of these pay initiatives will become even more critical in the future years to meet our wartime and peacetime missions and maintain authorized endstrength.

Now, I'd like to highlight our Navy Nurse Corps, Reserve Component. We have processed sixty-eight percent of our fiscal year 2003 accession goal of two hundred and sixty-one nurses, maintaining the same pace as last year. Beneficial incentives in procuring our reservists in critical wartime specialties include: the accession bonus, loan repayment and stipend programs for graduate education. To meet our contributory support mission, we are proposing to expand bonus eligibility to new nursing graduates. In addition, we are in the initial stages of exploring the feasibility of instituting a pipeline scholarship program for the reserve enlisted component similar to those given to our active duty colleagues.

Education and Training Initiatives

Since graduate education opportunities have been cited as one of our most important retention initiatives, we constantly evaluate our patient care requirements to annually update our Duty Under Instruction Scholarship Plan. We now focus our training on Master's Degrees, Doctoral Programs, and fellowships based on operational and specialty requirements, specific health population needs and staffing projections. This year, we are sending several of our nurses to the recently established Perioperative Clinical Nurse Specialist Program at the Uniformed Services University of Health Sciences (USUHS). We look forward to the new Doctoral Program at USUHS and are currently exploring nursing post-graduate fellowship opportunities.

Nursing internship programs have been initiated at the National Naval Medical Centers in Bethesda, Maryland; Portsmouth, Virginia; San Diego and the Naval Hospital in Jacksonville, Florida for all new nursing graduates. There have been a total of one hundred and forty military and civilian nurses who have completed their respective programs. Outcome measures for these new nurses attest to increased self-confidence with clinical practice and the ability to assume greater responsibilities which facilitates their integration into the Navy Nurse Corps.

Navy Nursing supports national initiatives to increase the nursing work force numbers in several ways. Our robust scholarship pipeline programs help to support nursing school enrollment. Through agreements with schools of nursing, military treatment facilities provide varied clinical experiences and clinical experts, who may also serve as adjunct faculty. We also enhance the image of nursing in the community through numerous presentations and approved advertisement campaigns.

HEALTH BENEFIT

Through an innovative framework of nursing practice, we deliver high quality, cost-effective and easily accessible primary and preventive health care services. Population health management has been at the forefront in various clinical settings through health promotion, disease management and case management programs. These innovations expedite a much quicker return to full-duty; decrease lost work hours; increase productivity and enhance customer satisfaction.

Healthy and Fit Force

Embracing Force Health Protection, many programs have been developed to ensure a healthy and fit force. For instance, command Preventive Health Assessment Programs identify at-risk active duty members and promote therapeutic lifestyle changes, such as in the Nurse-Managed Hyperlipidemia Clinic at our Naval Hospital in Rota, Spain. The In-Garrison Rehabilitation Platoon Program at our Naval Hospital in Camp Pendleton, California has expedited the Marines' return to training through improved continuity and coordination of all aspects of patient care, saving 2,100 convalescent leave days over a two-month period. Health Promotion efforts instituted the Choices Program at our Naval Air Station in Sigonella, Sicily. This program focuses on pregnancy prevention through education, including the use of

baby simulators to mimic seventy hours of parenthood. Based on a comparison study, female Sailors who successfully completed the course were three times less likely to get pregnant. Additionally, Family Nurse Practitioners continue to provide support to the Fleet through pierside clinical services, health promotion programs, and disaster training.

Family Centered Care

Just as the health and fitness of our military members is critical to force readiness, the health of our extended military family and other eligible beneficiaries is equally important. Case Management targets prevention, early diagnosis, cost effective intervention and quality outcomes. In at least four medical treatment facilities, Diabetes Case Management has significantly enhanced patient compliance with their recommended plan of care. In support of the unique needs of seriously-ill and terminally-ill patients, the Palliative Care Project at our Naval Medical Center in Portsmouth is the first of its kind in Navy Medicine. This program embraces the philosophy of caring during the final phase of life. Our Mother Baby Clinics provide follow-up visits for high risk mothers and babies for early detection and prevention of complications. Pediatric nurses at Naval Hospital Naples liaison with Department of Defense school nurses and teachers to collaborate on the development of students' Asthma Action Plans based on the National Asthma Education & Prevention Guidelines. This initiative alone has decreased emergency room visits by seventy-five percent and inpatient admissions by eleven percent. Our Nurse-Run Primary Care Clinics use approved protocols to increase access and incorporate population health concepts. This sampling of the aforementioned programs demonstrates that Navy Nurses are innovative and have specialized knowledge that can be applied to many forums unique to military settings.

BEST HEALTH CARE BUSINESS PRACTICES

Nurse Corps officers continue to be strategically placed in pivotal roles where they can influence legislation, health care policy and delivery systems. There are active duty and reserve Nurse Corps officers in executive roles, including the Deputy Surgeon General, Commanding Officers, Executive Officers, Officers in Charge, policy makers and many others.

Strategic Planning and E-technology

Always striving for nursing excellence, many commands have aligned their performance metrics with the American Nurses Association Magnet Recognition Program and the Malcolm Baldridge Criteria for Excellence. These standards provide the framework for sustained quality patient care outcomes, visionary leadership, strategic planning, and exceptional staff performance.

To enhance communication and conduct business, we have strategized and marketed clinical outcomes, research findings and business practices through video teleconferences, newsletters, conferences, and professional journals. Online clinical training sources, Navy e-learning modules and nursing practice resources are tested for effectiveness and linked through our website or Navy Medicine's Telelibrary.

Research

Navy Nurse Corps Research Plan: Focus on

- Deployment Health
- Developing and Sustaining Competencies
- Recruitment and Retention of the Work Force
- Education and Training Outcomes
- Clinical Resource Management
- Military Clinical Practice

Our revised Navy Nurse Corps Research Plan provides the foundation and scope of military nursing research ranging from the utilization of doctoral prepared Nurse Corps officers to their responsibilities in leading evidenced-based practice studies. Placed in positions of authority and influence, our nurse researchers create health policies and delivery systems, advance and disseminate scientific knowledge, foster nursing excellence, and improve clinical outcomes. In addition, our senior nurse executives have promoted a culture of scientific-based practice in all settings from military treatment facilities to the operational environment. Ongoing nursing research and evidence-based practice ultimately effects quality outcome, captures cost effectiveness and enhances patient satisfaction. Nursing Research has become our

cornerstone for excellence. In fact, we have the honor of having one of our Navy Nurses named "Researcher of the Year" by the American Association of Nurse Anesthetists.

Through your support of TriService Nursing Research Program funding, research has been conducted at our three major medical centers, our two Recruit Training Centers, several Naval Hospitals, on more than six aircraft carriers and collaboratively with our uniformed colleagues and more than thirteen universities across the country. Navy nursing TSNRP-funded research has been published in numerous professional journals.

I would like to highlight some of the research that has been supported by TSNRP funds. A program of research involving three studies examined Navy recruits at-risk for depression. After undergoing the BOOT STRAP Intervention Program, preliminary results indicated potential for decreased attrition, improved recruit performance and an identified cost-effective method of recruit retention. On the "cutting edge" of molecular research, a team led by a Navy nurse is investigating the potential use of a readily accessible drug to be used in the field to treat military personnel with respiratory problems. Through a multidisciplinary team approach to diabetic care, a third study focuses on enabling the patient's ability to achieve mastery of self-care and live independently, with potential cost savings of $7,000–$42,000/patient/year. Participants report more independence and greater satisfaction with the disease management intervention.

CONCLUSION

In closing, I appreciate your tremendous support of legislative initiatives and the opportunity to share our accomplishments and issues that face the Navy Nurse Corps. Our nurses are very proud of our heritage and professional practice as innovators, change agents and leaders at all levels from policymaking to program implementation, across federal agencies and in all clinical settings. In my other role as Commander, Navy Medicine Education and Training Command, I fully support the philosophy that continuous learning and guidance for health care professionals is integral to enabling uniformed services personnel to meet our peacetime and wartime missions. This foundation transcends across all levels of practice and the "Five Rights" of nursing, which involves placing the right person in the right assignment at the right time with the right education and the right specialized training. Herein lies the basis of our superior performance in promoting, protecting and restoring the health of all entrusted to our care.

I look forward to continuing to work with you during my tenure as the Director of the Navy Nurse Corps. Thank you for this great honor and privilege.

Senator STEVENS. Thank you, Admiral. General Brannon.

STATEMENT OF BRIGADIER GENERAL BARBARA BRANNON, ASSISTANT SURGEON GENERAL, AIR FORCE NURSING SERVICES AND COMMANDER OF MALCOLM GROW MEDICAL CENTER

General BRANNON. Chairman Stevens, Senator Inouye. It is once again an honor and my great pleasure to present the great accomplishments of Air Force nursing. As we vigorously execute our mission at home and abroad, Air Force nurses and enlisted nursing personnel are meeting the increasing challenges with great professionalism and distinction.

Aeromedical evacuation is the critical link between casualties on the battlefield and definitive medical care. Our superb medical crews and the advances in medical technology make care in the air more sophisticated than ever before.

CRITICAL CARE AIR TRANSPORT TEAMS

Our critical care air transport teams or CCATTs were instrumental in the lifesaving airlift of four Afghan children who were caught in the crossfire of war. They received emergency care from an Army forward surgical team and then were treated by our CCATT team during the 2-hour flight to a combat Army surgical

hospital. The team worked in total darkness using night vision goggles until the aircraft was out of danger.

Medical teams from all three services have worked together very smoothly in the operational environment and the patient handoffs were virtually seamless. The teamwork has been phenomenal. Embedded journalists and continuous network coverage have enabled the world to watch this war unfold.

What the world hasn't seen is our Air Force independent duty medical technicians working with pararescue units at the battle's forward edge, their critical skills and training and special operations have made a lifesaving difference during evacuation of the wounded.

They have employed leading edge technology, and the experiences of these brave airmen have set new standards for wartime emergency care. While much of our energy has been directed toward wartime support, there were also exciting initiatives continuing at the home station.

POPULATION HEALTH PROGRAMS

Last year, I talked about our great progress in deploying population health programs. We are now engaged in comprehensive health care optimization to improve effectiveness and efficiency of services in every clinical area. Nurses and medical technicians are the backbone of successful optimization. Their expanded support to providers enable not only treatment of disease, but also stronger focus on preventive services and population health management.

A great example comes from Charleston Air Force Base, South Carolina, where primary care teams launched an aggressive preventive screening campaign. Capitalizing on technology, they use an automated program to generate a letter to patients in their birth month inviting them to come for the recommended screening. This is very successful and the percent who complete screening exceeds national benchmarks by 6 percent.

NURSE CORPS GRADE STRUCTURE

The key to success in nursing is a strong nursing force, a force with the right numbers and with the right experience and skills. Today, almost 79 percent of our authorizations are in the company grade ranks of lieutenant and captain, with only 21 percent in field grade rank. Having a relatively junior Nurse Corps is a growing concern due to the higher acuity of our in-patients, complexity of outpatient care and the robust role that we play in wartime support.

To validate a rebalance in our Nurse Corps grade structure we initiated a top down grade review last year, that will identify by position the skill and experience required. Early data shows a significant need to increase our field grade authorizations. A by-product of this increase would be a greater promotion opportunity, bringing it more in line with other Air Force officer specialties. We expect to recommend that to our leadership in the very near future.

RECRUITING

Recruiting continues to be a significant challenge. We ended last year with 104 nurses below our authorized end strength of 3,974. This was significantly better due to an unusually low rate of separations. We continue to implement new recruiting strategies both at headquarters and local levels. We are currently working with our sister services to fund an increased accession bonus for a 4-year commitment and exploring the feasibility of accession bonus for nurses who choose a 3-year obligation.

Our recruiting at the Air Force Academy has been extremely successful. Six academy seniors have selected nursing for their military profession, the largest group since it became an option in 1997. They will attend Vanderbilt University School of Nursing to earn a 2 year graduate degree.

We are making great strides in enhancing the strength of our nursing care team by capitalizing on the talents of our enlisted personnel. We are partnering with the Army Nurse Corps to enable our medical technicians to attend a superb licensing program at Fort Sam Houston. We hope to increase the capacity of the current program to include 60 Air Force medics per year.

We also recognize the needs to increase our enlisted in baccalaureate nursing programs and are exploring stipend initiatives similar to those used by the Navy Nurse Corps to make it easier for enlisted Nurse Corps to earn a BS, and be commissioned in our Nurse Corps. This year 300 nurses participated in a research program. Collective work expanded evidence-based nursing practices in several clinical and operational areas.

AIR MEDICAL EVACUATION

A key study was on air medical evacuation. As we have increased the use of cargo aircraft for patient movement, the inability to control the temperature in patient areas has adversely affected the seriously ill and injured. Researchers have now identified patient location priorities and tested the effectiveness of improved monitoring and warming devices. Other researchers are using the lessons learned from our deployed nurses and technicians to validate war readiness training programs.

One of the roles I enjoy most is being an advisor to the Uniformed Services University Graduate School of Nursing. They have made incredible progress in their first decade. Under energetic and visionary leadership, the school continues to grow in scope and build programs to meet the emerging needs of military nursing.

Barely 2 years ago we began discussion on the feasibility of a master's program in perioperative nursing, and this fall the first class begins. The nursing Ph.D. program also went from concept to reality in just 1 year and the new curriculum will prepare nursing leaders in research and for key roles in health care strategy and policy.

Mr. Chairman, Senator Inouye, thank you for allowing me to share just a few of the many activities of Air Force nursing with you today. On behalf of the men and women of the nursing services, I want to thank you for your tremendous advocacy, not only

on behalf of military nursing, but also for the advancement of nursing across our Nation.

PREPARED STATEMENT

You can trust that Air Force nursing will continue to serve in peace and war with the same professionalism, pride and patriotism that we have demonstrated for almost 54 years. There has never been a better time to be a member of the Air Force nursing team. Thank you.

[The statement follows:]

PREPARED STATEMENT OF BRIGADIER GENERAL BARBARA BRANNON

Mister Chairman and distinguished members of the committee, I am Brigadier General Barbara Brannon, Assistant Surgeon General, Air Force Nursing Services and Commander of Malcolm Grow Medical Center at Andrews Air Force Base. This is my fourth testimony before this esteemed committee and, once again, I am very proud to represent Air Force Nursing and delighted to share our accomplishments and challenges with you.

First and foremost, as the Air Force aggressively executes its mission in support of our great nation, Air Force medics are keeping our people fit and providing outstanding healthcare wherever it is needed. Air Force nurses and enlisted nursing personnel are meeting increasing commitments and challenges with great professionalism and distinction. Today I'd like to review the following: deployments, training, force management, optimization and research, as examples of these commitments and challenges.

Over the past year, hundreds of Nursing Service personnel have been deployed to every corner of the globe to support the ongoing war on terrorism and to provide humanitarian relief. There are more than 400 nurses and technicians currently deployed in Expeditionary Medical Systems (EMEDS) facilities, and hundreds more prepared and awaiting orders to deploy. The Air Force continues to rely on an ambitious Air Expeditionary Force (AEF) rotation cycle to accomplish deployment missions and maintain home station health care services.

In addition to supporting ongoing commitments to Operation ENDURING FREEDOM, IRAQI FREEDOM and other deployments, Air Force medical personnel have been called frequently to support humanitarian operations throughout the world. Four months ago, twelve nurses and technicians from Yokota AB Japan deployed to Guam to assist in federal medical support in the aftermath of the devastating Super Typhoon Pongsona. Arriving in the middle of the night, they established initial medical capability to triage and treat casualties within 24 hours.

Nurses and technicians also provide humanitarian support through their active engagement in the International Health Specialist program. They are successfully forging and fostering positive relationships around the world. A great example is Major Doreen Smith, recognized as the Air Force International Health Specialist of the Year in Europe 2002 for her outstanding work in Africa. She was instrumental in establishing the first Republic of Sierre Leone Armed Forces (RSLAF) HIV/AIDS Prevention Committee that developed treatment protocols used by field medical technicians to prevent transmission of HIV/AIDS. She later implemented training programs in both Ghana and Nigeria.

Aeromedical evacuation remains a unique Air Force competency and our ability to respond to urgent transport requirements is second to none. Nurses and technicians were integral members of teams providing care during the evacuation of over 2,548 patients from forward areas in Operation ENDURING FREEDOM and IRAQI FREEDOM. Aeromedical evacuation is the critical link between casualties on the front lines and progressive levels of restorative healthcare abroad and in the continental United States.

Captain Michael McCarthy was on a Critical Care Air Transport Team mission over hostile territory to rescue two CIA operatives critically injured during the prison uprising in Kandahar, Afghanistan. This was not a typical mission for our critical care team—the mission was flown in blackout conditions due to Special Operations requirements. Captain McCarthy's expert critical care saved the life of a casualty whose condition deteriorated in-flight. He received the prestigious Dolly Vinsant Flight Nurse Award from the Commemorative Air Force for his heroic actions on this mission.

The tremendous accomplishments of our Air Force Flight Nurses have also been heralded by civilian flight nurse organizations. The Air and Surface Transport Nurses Association (ASTNA) presented the 2002 Matz-Mason Award to Captain Greg Rupert, Critical Care Air Transport Team Program Coordinator, Lackland AFB, Texas, for exceptional leadership and positive impact on flight nursing on a global scale.

Three years ago the Air Force identified that many medical personnel's peacetime healthcare responsibilities did not adequately sustain their proficiency in critical wartime skills. Medical career field managers and specialty consultants developed the specific readiness skills required for each specialty and established training intervals to ensure our people were prepared to meet deployment requirements. This year, we refined the program based on lessons learned in the deployed environment.

As I briefed last year, the Air Force has entered into partnerships with civilian academic medical centers to provide intense training for nurses and technicians prior to deployment. The first "Center for Sustainment of Trauma and Readiness Skills" (CSTARS) was initiated in January 2002 at the Shock Trauma Center in Baltimore. This program provides our health care personnel with valuable hands-on clinical experience that covers the full spectrum of acute trauma management, from first response to the scene, during transport, to trauma unit care, to operating room intervention and finally to management in the intensive care unit. The three-week session also incorporates the Advanced Trauma Care Course for nurses and the Pre-Hospital Trauma Life Support Course for our medical technicians. To date, over 200 personnel have been trained in Baltimore.

Building on the success of this first site, the Air Force has developed and opened two new CSTARS programs, one at St. Louis University primarily for the Air National Guard (ANG) team training, and the other at the University Hospital of Cincinnati for Reserve teams. The St. Louis program started in January 2003, and we expect to train over 270 personnel during their two-week annual tour. Early feedback is impressive as reflected by an end-of-course survey comment, "this is far and away the greatest training program I have been able to attend in the Air Force/ANG".

The CSTARS partnership between the University of Maryland Medical Center (UMMC) and the Air Force was key to the great success of the exercise "Free State Response 2002" conducted in Baltimore, Maryland in July of last year. The purpose of the exercise was to train as many people as possible in community disaster response and to foster effective coordination and collaboration between agencies involved in disaster management. The exercise received wide media coverage in the national capital area and was judged a huge success.

Expeditionary Medical Systems (EMEDS) is a five-day course that provides hands-on field training for personnel assigned to EMEDS deployment packages to prepare them to work in the operational environment. There are currently three sites for EMEDS training: Brooks City Base, Texas primarily for active duty, Sheppard AFB, Texas for Reserves, and at Alpena, Michigan for ANG personnel. So far, 3,608 personnel have been trained in this critical operational requirement.

Overall trends in healthcare delivery and the National Defense Authorization Act of 2001, allowing care for beneficiaries over age 65, have resulted in an increase in the acuity and complexity of the patients we serve. This has increased the need for experienced nurse clinicians. Facility chief nurses have expressed growing concerns over the challenge of providing the most effective care with a relatively junior staff. In our military system, rank reflects the relative experience of the individual. When we look at our current Nurse Corps force structure, we note that more than 72 percent of our authorizations are for second lieutenants, first lieutenants and captains. These nurses range from "novice to proficient" in their nursing skills. Nurses at the major and lieutenant colonel level are "expert to master" in their practice. The ratio of company grade to field grade nurses is significantly higher than for other medical career fields or the line of the Air Force.

To correct the imbalance in our mix of novice and expert nurses, authorizations for field grade nurses would need to be increased. The Air Force Nurse Corps has initiated a Top Down Grade Review (TDGR) to identify, justify, and recommended needed adjustments. We are nearing the end of our data collection and research phase of the study and anticipate draft recommendations for our surgeon general in the next couple of months. If approved, and if additional field grade billets are indicated, the process to adjust authorizations among career fields can be initiated with the Chief of Staff of the Air Force's approval.

In a separate but related issue, the Nurse Corps has the poorest promotion opportunity among Air Force officers. With only 28 percent of our authorizations in field grade ranks compared to 46 percent in the line of the Air Force, it is easy to understand why so many excellent officers are not getting selected for promotion. This

lack of promotion opportunity is a major source of dissatisfaction in our Nurse Corps. The inequity in promotion opportunity has caught the eye of many line and medical commanders and garnered some support for our TDGR initiative. It is anticipated that a TDGR would validate increases in field grade Nurse Corps requirements. An increase in field authorizations would improve Nurse Corps promotion opportunity and bring it closer to that of other Air Force Officers.

Although the programs instituted on a national level to address the nursing crisis are encouraging, recruiting enough nurses to fill positions is still a huge challenge across the United States and in many other nations. Last year was the fourth consecutive year the Air Force Nurse Corps has failed to meet our recruiting goal. We have recruited approximately 30 percent less than the goal each year since fiscal year 1999. At the end of fiscal year 2002, we had 104 fewer nurses than our authorized end strength of 3974. Early personnel projections forecasted we would end the year 400 nurses under end strength. Our final end strength reflects an abnormally low number of separations last year, 136 compared to our historical average of 330. Our fiscal year 2003 recruiting goal is 363 nurses, and, as of February 2003, 100 have been selected for direct commission. This year recruiting service is able to offer an accession loan repayment of up to $26,000 as an incentive. With $6.2 million available to fund this initiative, we are hopeful that it will be as successful as last years retention loan repayment program and boost our accession numbers closer to the goal.

Last year we revived an earlier policy that allowed Associate Degree (ADN) nurses who had a Baccalaureate degree in a health-related field to join the Nurse Corps. This was in response to Recruiting Service's belief that this would give access to a robust pool of recruits. But, in reality, only 13 ADN nurses were commissioned under this carefully monitored program. I rescinded the policy in October 2002 since it did not produce the desired effect.

We continue to recruit nurses up to the age of 47 because it proved very successful in fiscal year 2002. Thirty-four nurses over age 40 were commissioned into the Air Force last year. Many of them have the critical care skills and leadership we need to meet our readiness mission and most have the years of experience to make them valuable mentors for our novice nurses.

"We are all recruiters" is our battle cry as we tackle the daunting task of recruiting the nurses we need, and I continue to partner closely with recruiting groups to energize our recruiting strategies. Among other activities, I have written personal letters to nurses inviting them to consider Air Force Nursing careers and have manned recruiting booths at professional conferences. I look for opportunities to highlight and advertise the exciting opportunities Air Force Nurses enjoy, and have had nurses featured in print media coverage. I encourage each nurse wearing "Air Force" blue to visit their alma mater and nursing schools near their base of assignment to make presentations to prospective recruits. I have also assigned four nurses to work directly in recruiting groups to focus exclusively on nurse recruiting. Recruiters are using innovative marketing materials that my staff helped develop to champion Air Force Nursing at conferences, in their website, and in other publicity campaigns.

Retention is another key factor in our end strength. In an effort to identify factors impacting separations, I directed the Chief Nurse of every facility to interview nurses who voluntarily separate. Exit interviews were standardized to facilitate identification of the factors that most influenced nurses to separate. Nurses indicated they might have elected to remain on active duty if staffing improved, if moves were less frequent, if they had an option to work part time, or if they could better balance work and family responsibilities. Most of these are requirements of military life that cannot be changed by the Nurse Corps. With regards to staffing, our nurse-patient ratios are fairly generous compared to civilian staffing models. The Air Force Medical Service has launched an aggressive initiative to develop standardized staffing models for functions across all medical facilities to optimize staffing effectiveness.

We are developing a new survey for all nurses to identify workplace/environmental impediments so we can target opportunities to increase satisfaction. We continue to recommend Reserve, National Guard, and Public Health Service transfers for those who desire a more stable home environment but enjoy military service and can meet deployment requirements.

We appreciate the continued support for the critical skills retention bonus authorized in the fiscal year 2001 NDAA. The Health Professional Loan Repayment Program, implemented in fiscal year 2002, was embraced by 241 active duty nurses saddled with educational debt. These nurses had between six months and eight years of total service and were willing to accept an additional 2-year active duty obligation in exchange for loan repayment of up to $25,000. This program improved

our immediate retention of nurses and has great potential to boost long-term retention in critical year groups.

The TriService Health Professions Special Pay Working Group identified Certified Registered Nurse Anesthesiologists (CRNAs) and Perioperative Nurses as critically manned and therefore eligible for a retention bonus. This program was enthusiastically welcomed with 66 percent of eligible CRNAs and 98 percent of Perioperative Nurses applying for a critical skills retention bonus in exchange for a one-year service commitment.

We are looking at the benefits of increasing the number of civilian nurses in our workforce. We are grateful for the support of Congress in implementing U.S. Code Title 10 Direct Hire Authority to streamline the civilian nurse hiring process. During the period from August to December 2002, the Air Force was able to use direct hire to bring 14 new civilian registered nurses on duty. With use of Direct Hire Authority, positions that had been vacant for as long as 18 months were filled within weeks. Our ability to hire civilian nurses would be greatly enhanced if we could hire at a competitive salary. We greatly appreciate your support and interest in Title 38-like pay authority for health professions.

We are delighted to report that this year six Air Force Academy graduates selected the profession of nursing for their career field. This is the largest group to choose nursing since the option was instituted in 1997. Cadets selected for direct entry into the Nurse Corps attend Vanderbilt University School of Nursing via the Health Professions Scholarship Program. This accelerated degree program allows non-nurses with a bachelor's degree to obtain a master's degree in nursing after two years of study. To date, eight academy graduates have completed this program. Graduates of the Vanderbilt program have the leadership skills gained at the Academy coupled with a nursing degree from a prestigious university. They are prepared as advanced practice nurses and have the leadership base and potential to become top leaders in military healthcare.

Air Force Nursing has been actively engaged in optimizing the contributions of our enlisted medical technicians by expanding their responsibilities and, in some cases, merging skill sets. In November 2002, the Air Force consolidated three career fields, the aeromedical technician, medical service technician and public health technician. We now have two key career fields, the aerospace medical service technician and public health technician. This consolidation provides more robustly trained enlisted medics and increases manpower to support force health protection and emergency response. In this transition, every health care facility stood up a Force Health Management element responsible for ensuring designated personnel are medically cleared, prepared and ready to deploy at a moment's notice.

Air Force Independent Duty Medical Technicians (IDMTs) have been tasked to support an expanding variety of missions and have become high demand, low-density assets. In Operation Enduring Freedom, they have been added to Special Forces teams for a variety of missions. IDMTs have provided medical care during prisoner transports, on an expedition into Tibet for recovery of remains, on drug interdiction operations, in austere, remote locations and on the front lines. This year, we are substituting IDMTs for the medical technicians assigned to our Squadron Medical Elements, teams deployed with flying squadrons to provide medical care in the operational environment. To support these additional taskings, we have increased our IDMT training program from 108 to 168 per year.

We continue our efforts to expand the scope of enlisted nursing practice through licensed practical nurse (LPN) training programs. This past year, we continued to send personnel to St. Phillip's College in San Antonio, Texas for a six-month program that prepares graduates to take the state board LPN licensure exam. To date, 48 medical technicians have completed the LPN program at St. Phillips College. This year, we are partnering with the Army Licensed Vocational Nurse Program to provide a more structured and comprehensive training program and increase our numbers of graduates to 60 students per year. As of 1 November 2002, a special experience identifier was implemented to provide visibility in the personnel system for licensed practice nurses and enable appropriate assignment actions.

We are successfully maintaining our medical enlisted end strength. The overall manning for technicians in the aerospace medical service career field remains above 90 percent, which can be construed as a positive reflection of satisfaction and the impact of quality of life initiatives. The neurology technician career field has been critically manned for some time, and I am pleased to report that the implementation of a selective reenlistment bonus has been very successful. The neurology career field manning has improved from 69.2 percent in May 2001 to 88.5 percent in November 2002 and is projected to grow to over 90 percent with the graduation of the next training course.

Nursing services is actively engaged in optimizing health care. This maintains a healthy, fit and ready force, improves the health status of our enrolled population and to provides health care more efficiently and effectively. The Air Force has seen continuing growth in the success of Primary Care Optimization (PCO) and we are now beginning the optimization of specialty services throughout our system, moving towards Health Care Optimization (HCO). Nurses and medical technicians continue to be the backbone of successful optimization, and we are refining the roles of the ambulatory care nurse, medical service technician, and Health Care Integrator (HCI) to ensure the patient receives the right care, at the right time, by the right provider.

The PCO team is the epicenter for preventive services, management of population health and treatment of disease. We use civilian benchmarking to assess our healthcare outcomes and progress. The Health Plan Employer Data and Information Set (HEDIS) measures the health of our population and compares our outcomes to those of comparable civilian health plans. Using ideas generated from "Best Practices", we have seen impressive increases in the indicators of good diabetic management. In fact, 91 percent of Air Force facilities exceed the quality indicators for diabetic control measured through blood screening.

Air Force facilities have been highlighted for other outstanding achievements in healthcare. Nurses and technicians at VA/DOD Joint Venture, 3rd Medical Group (MDG), Elmendorf AFB, AK were part of a project to increase the involvement of family and friends in patient care. This initiative's tremendous success led to the facility's selection by the Picker Institute as the #1 Benchmark Hospital in the United States for patient-centered surgical dimensions of care.

In the 3rd MDG's ICU and multi-service unit (MSU), Air Force and Veteran Affairs (VA) nursing personnel are working side-by-side to deliver the highest quality care to DOD and VA beneficiaries. Air Force nurses train VA nurses in the MSU and VA nurses train Air Force nurses in the ICU. The robust and successful professional collaboration is the bedrock of this joint venture.

Another great success in ambulatory care is the implementation of a population-based approach to case management. This program proactively targets at-risk populations and individuals along the health care continuum. One of our leading case managers, Lt. Col. Beth Register at Eglin AFB, FL has built an integrated approach that allows her six team members to each manage 50 cases, 200 percent above civilian industry caseload standards. Lt. Col. Register is preparing a TriService Nursing Research grant proposal to look at "Efficacy of Case Management at an Air Force Facility" and to test and validate the success of this case management program.

Air Force nurse researchers continue to provide the answers to clinical questions that improve the science and the practice of nursing. Twenty-three Air Force nurses are actively engaged in TriService Nursing Research Program (TNSRP) funded research.

The TNSRP-funded Nurse Triage Demonstration Project is in its second and final year of looking at the effective and efficient delivery of TeleHealth Nursing Practice. There have been some demonstrated positive outcomes. Clinical practice has been standardized through the use of medically approved telephone practice protocols; documentation has been improved through computer-based technologies and training programs have been developed and implemented.

Another study conducted on in-flight invasive hemodynamic monitoring identified inaccuracies due to procedural variance. The recommendations resulted in significant process changes—and for the first time change was driven by scientific research. These process changes will be incorporated into the training programs for Critical Care Air Transport Teams (CCATT) and Aeromedical Evacuation (AE) nurses.

The nurse researchers at Wilford Hall Medical Center in Texas are studying the care of critical patients in unique military environments. One of these studies looked at physiological responses to in-flight thermal stress in cargo aircraft used for aeromedical evacuation. The study identified areas in the aircraft where thermal stress was at a level that could be detrimental to critically ill patients. They also identified previously unrecognized limitations in accurate measurement of patient oxygenation during flight. These findings led to a study of warming devices to protect trauma victims from the deleterious effects of thermal stress following exposure in cold field environments or on cargo aircraft.

It has been an exciting year for the Graduate School of Nursing at the Uniformed Services University and it is wonderful to be part of the planning for the development of a PhD nursing program. This program is crucial for Air Force Nursing to help us build leaders who are strategically prepared to lead in our unique military nursing environment.

CLOSING REMARKS

Mister Chairman and distinguished members of the Committee, I have had the opportunity to lead the men and women of Air Force Nursing Services for three years and each has been full of new challenges, great opportunities and many rewards. Our nurses and aerospace medical technicians remain ready to support our Air Force by delivering best-quality healthcare in peace, in humanitarian endeavors and in war. The escalation of world tensions in the last year has afforded a showcase for their enormous talent, stalwart patriotism and devotion to duty. On behalf of Air Force Nursing, I thank this committee for your tremendous support of military men and women, and in particular, for the special recognition and regard you have shown for our nurses. We are forever grateful for your advocacy and leadership. Thank you and may GOD BLESS AMERICA!

Senator STEVENS. Well, thank you very much, all of you and General, thank you very much for your appearances before our committee and wish you well in your further endeavors. I'm going to have to excuse myself now. I had an appointment at noon. This is one of the strangest days. Senator Inouye will complete the hearing. Thank you very much.

NURSE SHORTAGE

Senator INOUYE [presiding]. Thank you, Mr. Chairman. As I believe all of you are aware, the American Hospital Association just announced that there is a shortage at this moment in excess of 126,000 nurses in our Nation's hospitals, and the American Medical Association announced that by the year 2020, this shortage will exceed 400,000.

Add to this the fact that all three services have had to send and deploy nurses to Operation Iraqi Freedom. My question to all of you is that during this period, were we able to provide appropriate, adequate, and effective nursing care to the patients at home here?

General BESTER. Senator, I can answer that question with an unequivocal yes. I think each one of our facilities has carefully looked at our nursing staffing situations with our Reserve backfill. Of course, as you had mentioned earlier not at the level that we would like to see it, but certainly with the Reserve backfill that we have got with hiring some additional contract nurses, and then with the support the continued support of our civilian nursing staff, we have looked at the staffing situation by hospital.

In some cases, it means that we have had to divert some patients downtown and in some cases, on rare cases we have had to close or at least decrease the number of operational beds that we have, but I think we have always kept our focus on the quality of care to be sure that we are providing the same quality of care that we did prior to the war.

Admiral LESCAVAGE. Senator, I believe the answer all boils down to great attitude and team spirit. We watched very carefully as we deployed several hundred nurses and saw our wonderful Reservists step in who are used to working in our facility anyway during their Reserve time, as well as our civilian nurses, our backbone.

We also are in line with the Institute on Health Care Improvement, with their big safety initiatives. We have safety programs that occur in our hospitals constantly looking for any discrepancies in care. We have seen zero, and I'm truly confident that our patients continue to receive the best and safest care that they possibly can, both in the war scenario, as well as back at our MTFs.

HOSPITAL SERVICES REDUCTION

Senator INOUYE. I have been told that in some facilities they had to curtail certain services like obstetrical surgery and such. Did we experience anything like that?

Admiral LESCAVAGE. Senator, we have curtailed slightly. We worked with the network to take care of those patients, but between what we expected compared to what truly did happen, there wasn't that big of a difference.

Senator INOUYE. So Bethesda is still a full-service hospital?

Admiral LESCAVAGE. Yes, sir.

General BRANNON. Yes. I would echo the comments from my colleagues with careful attention to staffing ratios and the acuity of the patients in our facilities. We have been able to ensure that the care we are rendering is just as safe as when we had those other nurses who were deployed.

We did get some backfill after many of our nurses deployed, and that enabled us to keep full services at most installations. Occasionally we needed to close beds and divert patients downtown. At most facilities it was temporary until the acuity of the patients was lower, the same procedure we use in peacetime.

SPECIALIZED TRAINING

Senator INOUYE. Very few of our nurses have combat care experience. What sort of specialized training did you provide to prepare them for this? General?

General BESTER. Senator, our nurses are actively engaged in a number of programs. First of all, as was mentioned by General Peake of the Army Trauma Training Center down at Ryder Trauma Training Center in Miami is a place where we train all of our forward surgical teams. We have five full time Army Nurse Corps officers assigned to that facility and in just this last year, we have trained 290 Army Nurse Corps officers, both active and Reserve through that facility.

We send our nurses to the combat casualty care course, a 9-day course in San Antonio, that they experience taking care of patients under combatlike conditions. General Peake initiated a couple years back a superb type of program that is now mandatory to take before any of our courses, short courses that we take. And so many of our Nurse Corps officers are actively engaged in that training.

We feel in addition to that, we have a lot of professional training that goes on. We have some facilities that actually have medical sites, and they do real wartime training in those facilities. We feel we have kept well ahead of that rolling ball as far as training our nurses on a continual basis, so we feel they were very well prepared when it came time for them to deploy.

Admiral LESCAVAGE. Senator, we saw this coming and in order to increase our comfort level, a while ago, we instituted training not only for our nurses but for the teams, the corpsmen, the physicians, as well as the nurses who would be dealing with combat casualties.

As I stated in my testimony, we instituted trauma training courses with LA County. That's working very well. We also have joined our sister services in some of their training as General

Bester just alluded to, such as the combat casualty care course. Across all of our joint service nurses, many of them go to that, as well as to our education and training command. We offer many courses and again I'm fully confident that they are trained very well.

General BRANNON. Well, I think training is one of the real strengths in our Air Force and in our air expeditionary platforms. We ensure that people go for the training they need prior to deployment.

What we have done in the medical service is identify, by task, all of the skills needed by people who are in specific deployment modules and we make sure that they have current training in each of those tasks. We have set up a modular deploying medical force sized from very small units all the way up to our EMEDS unit, which provide more sustaining patient care.

For those smaller, more acute critical teams, we use the Baltimore shock trauma system at the University of Maryland for training through a collaborative partnership. That program has been in existence for more than 1 year. We have trained more than a couple of hundred medics including 70-some nurses. We also have EMEDS training in San Antonio at Brooks City Base. All of our EMEDS people go through that training prior to deployment.

Finally, for many years we have had the Top Start programs at different medical centers where medics, both enlisted and officers, get training for a variety of tasks and procedures. It is a great performance-based training.

PERCENTAGE OF MALE NURSES

Senator INOUYE. One last question, and I will submit the rest and Senator Stevens has requested that his questions be submitted also. What percentage of your nurses in the Army are male?

General BESTER. Senator, at the current time, 36 percent.

Senator INOUYE. Navy?

Admiral LESCAVAGE. One-third of our nurses or 3,200.

General BRANNON. A little over 30 percent, sir. Similar percentage.

Senator INOUYE. I'm glad to see it coming up. For too long, nursing has been looked upon as a secondary position filled with women only. And apparently, this is a man's world yet, and so the more men you get, the bigger pay you'll get. That's not a nice thing to say, but——

General BRANNON. It is very true.

ADDITIONAL COMMITTEE QUESTIONS

Senator INOUYE. Those are the facts of life around here. Without objection, all of the statements of the witnesses will be made part of the record.

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

QUESTIONS SUBMITTED TO VICE ADMIRAL MICHAEL L. COWAN

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

DEPLOYMENT OF MEDICAL PERSONNEL

Question. The staff's discussions with the Surgeons General indicate that the Services have backfilled for deployed medical personnel at the Medical Treatment Facilities at varying levels.

Some of the Services are relying more heavily on private sector care rather than backfilling for deployed medical personnel.

To what extent has the recent deployment of military medical personnel affected access to care at military treatment facilities? What are you doing to ensure adequate access to care during this time?

Answer. We have been able to maintain services required to address the needs of both patients coming in from the battlefields and those seeking regular care through significant deliberate planning. We implemented core doctrine and conducted intense scrutiny of Military Treatment Facilities (MTFs) services availability. We identified the appropriate reservists to support the Military Treatment Facilities (MTFs) in maintaining services, in some cases adding contract personnel. Each week we tracked the availability of services at each MTF. Our MTF personnel, along with activated reservists worked at unsustainable levels during the deployment and were able to ensure that access to care was maintained at all MTFs. A survey of activated reservists is now underway to fully assess the productivity and effectiveness of all of our personnel, including our reserve support in ensuring that access to care was maintained for all beneficiaries during Operation Iraqi Freedom.

MOBILIZED RESERVISTS IN MEDICAL SPECIALTIES

Question. What percentage of mobilized Reservists in medical specialties are being used to backfill positions in the United States?

Answer. Backfilling of Military Treatment Facilities (MTFs) using Reservists in medical specialties is determined on a "case-by-case" basis, and approved by USD (P&R). During Operation Iraqi Freedom (OIF), the Navy was approved to backfill Navy MTFs (in a phased plan) at a rate of 53 percent of deployed active duty medical personnel. Due to the short course of OIF, Navy MTFs were actually backfilled at 43 percent.

Question. Are there shortages of personnel in some specialties? If so, which specialties are undermanned and by how much?

Answer.

Dental Corps

Due to a significant downward trend in retention of LT/LCDR General Dentists coupled with significant under execution of CNRC DC accessions the Dental Corps is undermanned; specifically Oral Surgeons, Endodontists, and General Dentists.

Dental Corps overall manning has been trending downward for the last three years, ending fiscal year 2002 at 94.4 percent manning (1,294 INV/1,370 BA or −76). The EFY 2003 projection is estimated at <90 percent.

In addition to General Dentists, the Oral Surgeon and Endodontist communities are significantly short due to reduced numbers of officers entering the training pipeline as direct impact from the shortfall in the General Dentist community, and an increase in the loss rates in these communities.

Corps Specialty (PSUB)	INV	BA	PCT	+/−	Fiscal Year 2004	Fiscal Year 2005
DC—Dentist (1,700)	486	594	82	−108	80	78
DC—Oral Surg(1,750J/K)	66	82	80	−16	78	72
DC—Endodontist (1,710J/K)	44	52	85	−8	83	80

The remaining Dental Corps specialties are stable at this time with sufficient gains to compensate for losses, but is anticipated to become a problem in the future if General Dentist retention and accessions is not significantly improved, as this is the applicant pool for specialty training.

Medical Corps

The Medical Corps continues to have difficulty in retaining certain specialties. The Medical Corps has less than 80 percent manning in Anesthesia, Radiology, General Surgery, Pathology, and Radiation Oncology. Internal Medicine and subspecial-

ties (84 percent) and Dermatology (83 percent) are near the critical point of under manning.

Inability to access or retain specialties noted above can be attributed to significant military-civilian pay gaps and declining number of quality of work attributes that once made practicing in Navy Medicine enticing over the private sector (e.g., increased operational tempo). Additionally, the changing face of medicine in the civilian sector (e.g., fewer applicants for medical school and even fewer medical school graduates going into the above specialties) is affecting Navy Medicine as well.

The primary pipeline for Navy physicians is the Health Professions Scholarship Program (HPSP), which brings in 300 of the 350 individuals entering as medical students. The HPSP recruiting goal for fiscal year 2003 is 300. The Navy is behind in recruiting in that by May, there are usually about 150 recruited. Presently there are only 51. It should be noted that not only is the number of HPSP recruits diminishing, but the quality has also decreased when utilizing MCAT scores as an indicator of quality. In he past, HPSP recipients had MCAT scores of 26–30. Applicants with scores as low as 22 are being considered in order to fill quotas.

Medical Service Corps

Retention in the Medical Service Corps is good overall. End of fiscal year 2002 manning was at 98.5 percent with projections for the next two years at or near 98 percent manning. However, difficulties remain in retaining highly skilled officers in a variety of clinical and scientific professions.

The Medical Service Corps is comprised of 32 different health care specialties in administrative, clinical, and scientific fields. The education requirements are unique for each field; most require graduate level degrees, many at the doctoral level.

Biochemistry, Entomology, and Podiatry are undermanned by more than 10 percent. Average yearly loss rates are high in Biochemistry, Physiology, Environmental Health, Dietetics, Optometry, Pharmacy, and Psychology. Loss rates this year are very high for Microbiologists & Social Workers.

The Medical Service Corps does not have available to them retention tools or special pays for scientists and very limited ones for clinicians such as Optometrists, Pharmacists, and Podiatrists.

Nurse Corps

The Nurse Corps continues to be healthy considering the national nursing shortage. The affect of a decreasing number of students who choose nursing as a career and the ever-increasing demand for professional nursing services will need to be closely monitored to ensure Navy Nurse Corps is able to meet the requisite number and specialty skill mix.

Ability to meet Navy Nurse Corps requirements are due to concerted efforts in diversifying accession sources and increased retention rates and as a direct result of pay incentives and graduate education opportunities.

Hospital Corps

The Hospital Corps continues to have difficulty in retaining certain specialties. Currently there is less than 80 percent manning in 11 Hospital Corps and one Dental Technician NEC. Inability to access or retain some of these specialties can be attributed to significant military-civilian pay gaps.

Question. Are there other ways of structuring the staffing of military medical units that might help address shortages in a few specialties, such as making increased use of civilian contractors or DOD civilian personnel in MTFs stateside?

Answer. MTF Commanders have been tasked with creating business plans for the optimal operation of medical treatment facilities within each market area. An integral part of the business planning process is the assessment of the supply of critical staffing as compared with the expected demand in a given market. MTF Commanders use this analysis in determining shortfalls of critical medical staff. Meeting these critical requirements can be accomplished using a variety of methods. MTF Commanders may shift existing DOD civilian personnel where feasible, hire additional contract personnel or request changes in the billet structure via Manpower at the Bureau of Medicine.

Question. Is DOD considering any changes to the mix of active duty and reserve personnel in medical specialties?

Answer. At this time, no changes are anticipated regarding the mix of active and reserve personnel within medical specialties from Navy Medicine's perspective. Various studies have been initiated but the current view of casualty causes for OEF and OIF do not suggest that any major changes in force structure mix or specialty will be necessary.

MONITORING THE HEALTH OF GUARD AND RESERVE PERSONNEL

Question. An April 2003 GAO report documents deficiencies by the Army in monitoring the health of the early-deploying reservists. Annual health screening is required to insure that reserve personnel are medically fit for deployment when call upon.

Review found that 49 percent of early-deploying reservists lacked a current dental exam, and 68 percent of those over age 40 lacked a current biennial physical exam.

What improvements have been made to the medical information systems to track the health care of reservists? Are they electronic, do they differ among services?

Answer. The Naval Reserve is utilizing the Reserve Automated Medical Interim System (RAMIS), a web-based Oracle product, deployed in March 2002 to serve as an interim system until the Naval Reserve's full participation in the Theater Medical Information Program (TMIP). The system tracks medical and dental readiness requirements and provides roll up reporting capabilities to produce a "readiness snapshot" for unit commanders, activity commanding officers and headquarters. Plans are currently being drafted to begin development work in 2004 for an all Navy (Active/Reserve) web-based system using technology from RAMIS and a Navy active duty product, SAMS Population Health. This product will be part of TMIP and will provide interoperability between all DOD components and services.

NUMBER OF RESERVISTS WITH MEDICAL PROBLEMS

Question. During the mobilization for Operation Iraqi Freedom, how many reservists could not be deployed for medical reasons?

Answer. 436 Naval Reservists were unable to be deployed due to disqualifying medical or dental reasons.

NUMBER OF RESERVISTS NOT IN DENTAL CLASS 1 OR 2

Question. How many deployments were delayed due to dental reasons, and how many reservists are not in Dental class 1 or 2?

Answer. The Naval Reserve averages 90 percent of our personnel in dental categories 1 and 2. We estimate that less than 1,600 personnel out of more than 20,000 Naval Reservists mobilized (approximately 8 percent) were delayed for any amount of time for dental reasons.

Question. What is the current enrollment rate in the TRICARE Dental Program for reservists and what action has DOD taken to encourage reservists to enroll in TDP?

Answer. The fiscal year 2003 end strength numbers for eligible Navy and Marine Corps Selected Reserve sponsors is estimated to be 127,358 (Navy Reserve 87,800 and Marine Corps Reserve 39,558). TDP enrollments as of January 2003 for this eligible population were 8,599 (Navy Reserve 6,566 and Marine Corps Reserve 2,033). These figures represent a 6.8 percent enrollment rate. Marketing of the TRICARE Dental Program (TDP) to all eligible populations is conducted by the TDP contractor. The initial marketing effort by the contractor entailed sending TDP information to each reserve and guard unit. Quantities of information sent were based on unit end strengths. Health Affairs policy 98–021 directed the services to ensure all members of the Selected Reserve undergo an annual dental examination. The documenting tool provided by HA is DD Form 2813; DOD Reserve Forces Dental Examination. A provision in the TDP contract requires network providers to complete the DD Form 2813 for TDP enrolled reservists. It is the responsibility of the reservist to present the form to the dentist. The Defense Manpower Data Center (DMDC) provides the TDP contractor quarterly file listing newly eligible sponsors. This file is used for the ongoing marketing efforts under the TDP. The TDP contractor has also established a website for the TDP. The contractor has a staff of Dental Benefits Advisors (DBA) that travel to military installations to include reserve and guard facilities. TMA's Communications & Customer Service marketing office has worked with Reserve Affairs to developed and post TDP fact sheets on the TMA website that are linked to other reserve and guard websites and the TDP contractor.

REMAINING MEDICAL AND DENTAL REQUIREMENTS

Question. What needs to be done and what will it cost to ensure that reservists are medically and dentally fit for duty?

Answer. The Reserve Components have little or no identified funding support for medical and dental readiness and, under Title 10 authority, are not eligible for Defense Health Program (DHP) funds. OSD(RA) is presently drafting a White Paper in support of a Reserve Health Program that will require a separate appropriation

to support Medical/Dental Readiness for the seven Reserve/Guard Components. Cost estimates will be available when the White Paper is complete.

REPERCUSSIONS FOR UNFIT UNIT MEMBERS

Question. Are there any repercussions for commanders who do not ensure that their troops are fit for duty?

Answer. Unit commanders are responsible for ensuring personnel are trained and ready in all aspects, including medical and dental fitness, for mobilization. Unit commanders are evaluated and ranked, in part, in Fitness Reports based upon total unit readiness.

COMBAT TREATMENT IN IRAQ AND AFGHANISTAN

Question. All of the Services have undertaken transformation initiatives to improve how medical care is provided to our front line troops.

The initiatives have resulted in more modular, deployable medical units which are scalable in size to meet the mission.

How well have your forward deployed medical support units and the small modular units performed in Operation Enduring Freedom and Operation Iraqi Freedom?

Answer. Most of the information provided is anecdotal. We will not have significant formal input until the "lessons learned" are provided by the deployed platforms and the receiving component commanders. The formal collection of feedback is still ongoing as units return from Iraq. Initial reports indicate that the 116 bed Expeditionary Medical Facilities forward-deployed into Iraq functioned as they were designed. The 250-bed Fleet Hospital staged in Rota, Spain also functioned well. The USNS Comfort was on station, on time to receive casualties. The casualties received were handled well. Use of the Comfort by the theater commands raised issues related to inter-theater movement of patients. These issues are being reviewed as part of the overall assessment of CASEVAC/MEDEVAC. The Casualty Receiving and Treatment Ships were stationed and staffed as required. Due to the nature of the conflict, they saw limited action. The Forward Resuscitative Surgical Systems were deployed in pairings with the surgical companies. These locations were less far forward than initially planned and the optimal placement is under review. Reports from Level II and Level III facilities strongly support that interventions by the FRSS were critical in saving lives that might have been lost in previous conflicts. Three PM–MMART teams were deployed to Iraq and were highly successful in providing disease vector assessment/control, epidemiology and epidemiological humanitarian support, industrial and environmental site assessment, sanitation assessment and public health education.

Question. What are some of the lessons learned from our experience in Iraq?

Answer. Smaller, lighter, more mobile works and works well. Task orienting enhances the likelihood of success. Communications in the field between Level I care and higher levels are not optimal. This is also true for inter-service communication. Component UIC's work and work well. Management of the component UIC's needs to remain centrally located. Arbitrary peripheral changes to platforms by individuals and units disrupted the ability to fully staff platforms with qualified personnel and hampered the ability to identify replacements and augments for future needs. Using Fort Benning to inprocess individual augmentees and equip them prior to deployment was highly successful and emphasized joint inter-operability. Personnel policies regarding stop-loss or stop-move should be determined before deployments commence. The policies need to be tailored to the circumstances and not applied across the board unless this is indicated. Provision needs to be made for providing transportation for the PM–MMART units, either as part of COCOM support or as part of the intrinsic equipment package.

Question. What tools/equipment is still required to improve the care provided to combat casualties?

Answer. Dedicated, durable, mobile, state-of-the-art, easily up-gradable communications, both between levels of care and between services is needed. Better CASEVAC capability is required under all circumstances. As we gather "lessons learned" through the formal process, more needs may be identified and further recommendations will be forthcoming.

T-NEX—NEXT GENERATION OF TRICARE CONTRACTS

Question. The award date for these contacts has slipped from the scheduled date in July of 2003. Since the timeline for awarding the contracts has slipped, what is the expected start date for the delivery of T-Nex?

Answer. The overall schedule for the suite of T-Nex solicitations has not been changed although some award dates may be delayed if proposals require more ex-

tensive review. The TRICARE Mail Order Pharmacy Contract was awarded, and performance began on March 1, 2003. The TRICARE Retiree Dental Contract was also awarded and performance on this contract began on May 1, 2003. Proposals have been received for both the TRICARE Healthcare and Administration Managed Care Support and the TRICARE Dual-Eligible Fiscal Intermediary contracts, and the evaluation process for both of these is ongoing. Requests for Proposal have been issued for the TRICARE Retail Pharmacy and National Quality Monitoring contracts, and those proposals are due June 11 and June 3, respectively. Procurement sensitivity rules prohibit disclosure of any specific information or details about the ongoing evaluation of proposals. However, I can tell you that the evaluations are ongoing. No decision has been made to alter the implementation schedule for any of the contracts.

Question. What planning is taking place to help ensure that when the contracts are entered into there will be a seamless transition for beneficiaries?

Answer. No transition of this magnitude is easy. A customer focused perspective in execution is central to making this as seamless as possible. We have already transitioned the TRICARE Mail Order Pharmacy contract with success. The TRICARE Retiree Dental Plan contract was also awarded without protest and now is in its first month of operation without issues. With regard to our managed care contracts, going from seven contracts to three will simplify administration, but more importantly better serve our beneficiaries with incentivized performance standards, greater uniformity of service, alleviation of portability issues, and simplified business processes.

I have instituted a solid oversight structure (see attachment), and appointed a senior executive to spearhead this transition and supervise all aspects of the procurement including the implementation of the new regional governance structure. This operational approach and structure requires my direct involvement through the Transition Leadership Council made up of the Surgeons General, the Principal Deputy Assistant Secretary of Defense for Health Affairs and the Health Affairs Deputy Assistant Secretaries of Defense. This body is supported by a TRICARE Transition Executive Management Team which is chaired by TMA's Chief Operating Officer.

An area of detailed focus right now is access to care and all business processes that will impact access including: networks, provider satisfaction, appointing and scheduling, Military Treatment Facility (MTF) optimization, and local support for MTF commanders. We are optimistic that robust networks can be maintained. On all customer service fronts, my staff and other participants are poised to execute a smooth transition immediately following contract award. Regular meetings are underway to measure our progress and formulate sound decisions on any problematic issues. A contract transition orientation conference is planned for June 2003 to fully engage government participants in all aspects of the transition process.

Question. Are beneficiaries experiencing any change in quality of care due to DOD's inability to enter into new long-term managed care agreements?

Answer. The evaluation of contractor proposals is now underway and will culminate in the awarding of three new Health care and Administration regional contracts. A planned 10-month minimum transition period will precede start of health care delivery. Surveillance for the delivery of services of outgoing contractors during the transition period will remain focused to avoid any deterioration in customer service standards. Current contracts have been extended beyond original termination dates to ensure there is no adverse impact on the beneficiary or quality of care.

Any signs of negative shifts in quality during this transition period will be quickly recognized and dealt with on a priority basis. Our proactive posture is expected to result in a near-seamless transition to next generation contracts. Additionally, in T-Nex contracts, industry best business practices are fully expected to emerge through the competitive process. Customer service protocols will be favorably impacted by outcome-based requirements and accompanying performance standards. Additionally, web-based service applications will also improve business processes and the way customers can access information. This is all very exciting and bodes well for our customers in the new contracts.

Question. Under T-Nex, what services currently provided by the TRICARE contractors will shift to the direct care system and what are the costs associated with this shift in services?

Answer. Appointing, Resource Sharing, Health Care Information Line, Health Evaluation & Assessment of Risk (HEAR), Utilization Management, and Transcription services will transition from the Managed Care Support Contracts to MTFs under T-Nex. The Services have been tasked to provide requirements in each of these areas, cost estimates, and transition timelines. We have worked with the Services to develop a joint approach to determine local support contract method-

ology. Transition of Local Support Contract services must be completed not later than the start of health care under T-Nex in each region. Based on known contract and staffing lag times, funding is required six months prior to the start of health care delivery to ensure smooth and timely stand up of new services. At this stage, cost estimates are varied and of limited value until the requirement is validated and fully known. Initial rough estimates are in the hundreds of millions of dollars. The funding source for Local Support will come from funds committed to the current Military Health System (MHS) Managed Care Support contracts. Those funds were programmed based on existing purchased care contracts that included these services. Because it is understood that these funds may not cover the entire spectrum of Local Support contracts, the Medical Services have prioritized these services across the MHS into three tiers based on impact and need. Initial costs may ultimately include some investment in telephone and appointing infrastructure, thus driving a significant increase in front end costs.

RECRUITING AND RETENTION

Question. Personnel shortfalls still exist in a number of critical medical specialties throughout the Services. The Navy reports shortfalls in Anesthesiology, General Surgery, Radiology, and Pathology, and has stated the civilian-military pay gap is their greatest obstacle in filling these high demand specialties. Recruiting and retaining dentist appears to be a challenge for all the Services.

To what extent have Critical Skills Retention Bonuses or other incentives been successful in helping to retain medical personnel?

Answer.

Dental Corps

When the CSRB was combined with the renegotiation of Dental Officer Multi-year Bonus (DOMRB) contracts, the effect was increased obligation for those that took DOMRB contracts. This in effect tied the one-year CSRB to a multi-year obligation, having some positive effect.

Medical Corps

The CSRB helped retain some individuals in Anesthesia, Radiology, Orthopedics, and General Surgery who would have otherwise gotten out of the Navy. Because the CSRB was limited to a one year contract, the long term benefit is minimal.

Medical Service Corps

The Critical Skills Retention Bonus was not offered to any of the Medical Service Corps specialties.

Nurse Corps

The Critical Skills Retention Bonus was offered to qualified nurses resulting in acceptance rates of 87 percent for Certified Registered Nurse Anesthetists (CRNAs) and 98 percent for Perioperative Nurses. For the CRNAs, it has been a positive influence for staying beyond their obligated service period. We are presently at endstrength in both communities based on a combination of factors such as special pays, scope of practice satisfaction and a focus on quality of life issues.

Hospital Corps

When incentive and special pays have been put in place for undermanned specialties, accessions have increased.

Psychiatry Technician and Respiratory Therapy Technician communities manning increased, 36 percent and 28 percent respectively, after implementation of the Selective Training and Reenlistment (STAR) Program and increased Selective Reenlistment Bonus.

Question. What else needs to be done to maximize retention of medical personnel?

Answer.

Dental Corps

The NDAA fiscal year 2003 raised the caps on the Dental Officer Multi-year Retention Bonus (DOMRB). It is hoped that the anticipated increase in pay while falling significantly short of comparable civilian pay, will demonstrate a commitment by Navy to increase compensation for dentists in the interim while a more comprehensive plan is developed.

There was a slight enhancement in overall retention as a result of increases in dental ASP in 1997 and the initial offering of DOMRB in 1998 compared to previous years, but that effect has since worn off. Despite the introduction of the DOMRB and increase in ASP rates, the overall loss rate continues to climb to the highest it has been at 12.2 percent in fiscal year 2002, higher than the 11-year average of

10.8 percent. The majority of losses are junior officers (LT–03) releasing from active duty at the completion of their first term of obligated service. These year groups are not eligible for the DOMRB at this point in their careers and the current ASP rates are too low to impact their decision to stay on active duty. Furthermore, under current legislation, if the junior officer were to enter residency training they would have to give up the ASP for up to 4 years depending on the program length. Again, reducing the incentive to remain on active duty and pursue training.

There is no incentive special pay (ISP) for dental officers, although it may be helpful to target pay increases for dental specialties with the largest military-civilian pay gap. A comparison of representative civilian and military average pays is as follows (source—the American Association of Oral and Maxillofacial Surgeons):

Avg Mil LCDR Pay	Military Pay	Civilian Pay	Differential
Specialist	$94,654	$202,360	$107,706
Oral Surgeon	94,654	297,360	202,706
General Dentist	68,871	154,741	85,870

Medical Corps

In addition to closing the civilian to military pay gap, physicians look for similar qualities of life as their line counterparts. The ability to increase their level responsibility, take on clinical, operational and administrative challenges, practice their profession the way they feel they should, hone their skills, select for the next higher rank, maintain geographic stability for their families, and have time to spend with family and friends are all important in retaining physicians. Having support staff in adequate numbers, well maintained and current technical specialty equipment, and a professional environment which respects the physician is tantamount to maintaining our physician workforce.

Medical Service Corps

Retention in the Medical Service Corps is good overall. However, difficulties remain in retaining highly skilled officers in a variety of clinical and scientific professions. Retention of these highly skilled officers is predominately affected by:

—*Civilian to military pay gap*.—Economic influences as well as civilian workforce shortages can have a profound effect on the size of the pay gap. With the evolving Home Land Security requirements, the demand for our scientific officers with chemical, biological, radiological and nuclear training and experience in the private sector is becoming a significant factor in retention. Need to explore the implementation of U.S. Code: 37, Section 315, Engineering and Scientific Career Continuation Pay to improve the retention of our highly skilled scientific officers.

—*Significant student debt load*.—Many of our clinical and scientific professions require a doctorate level degree to enter the Navy. Frequently, there are a limited number of training programs available in the United States and often only available at private institutions. For example, there are approximately seven institutions that train Podiatrists. All of the schools are private institutions. Podiatry school is a four-year academic program after completing their undergraduate pre-professional requirements,. The average student debt load for our entering Podiatrists is $150,000. The use of HPLRP, AFHPSP and HSCP alleviates much of the student debt load for a few of these officers.

—*Personal issues*.—Dual family careers, child care and frequent PCS moves can impact retention. However, what may be considered a strong reason to leave military service by one member may be considered a strong reason to stay on active duty for another.

Nurse Corps

Nurse Corps officers seek scope of practice satisfaction that includes continuing formal education opportunities, collegial relationships with physicians and other allied health personnel and current technical capability. Nurse Corps officers also vocalize the need to attend to quality of life issues such as affordable housing and childcare and geographic stability for their families.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

JESSE SPIRI MILITARY MEDICAL COVERAGE ACT

Question. In 2001, a young Marine Corps 2nd Lieutenant from New Mexico lost his courageous battle with cancer. Jesse Spiri had just graduated from Western New

Mexico University and was awaiting basic officer training when he learned of his illness.

However, because his commission had triggered his military status to that of "inactive reservist," Jesse was not fully covered by TRICARE. As a result, he was left unable to afford the kind special treatment he needed.

I believe that it is time to close this dangerous loophole. That is why I intend to offer a bill entitled the "Jesse Spiri Military Medical Coverage Act."

This bill will ensure that those military officers who have received a commission and are awaiting "active duty" status will have access to proper medical insurance.

Would you agree that this type of loophole is extremely dangerous for those who, like Jesse, suffer with a dreaded disease?

Answer. When an individual accepts an offer of a commission in the USN or USMC, there is a period of time prior to the beginning of Active Duty when they are in a "inactive reservist" status. During this time, the individual is not covered as a health care beneficiary in the TRICARE program. The individual remains responsible for obtaining their own health care insurance because they are not yet in "active duty" status.

Question. And do you agree that our military health care system should close this loophole, and can do so very cost effectively (given the relatively low number of officers it would affect)?

Answer. We would like the opportunity to more carefully study this situation. There are other categories of individuals who have agreed to serve in the Armed Forces and who need to maintain their own health insurance until they begin active duty or active training. These would include all officer candidates on some type of delayed entry program such as medical students in the Health Scholarship Program, ROTC students, as well as personnel who agree to join the military following college. In addition, there are many enlisted personnel who join the military on a delayed entry program and are required to maintain their health insurance until they begin active training. These individuals are also awaiting entry on "inactive reservist" status. Without studying each of these categories of individuals, estimating their numbers and their likelihood of developing illnesses, it is premature to estimate the financial burden to the Navy in implementing the proposed changes.

MILITARY FAMILY ACCESS TO DENTAL CARE ACT

Question. I think everyone here is familiar with the adage that we recruit the soldier, but we retain the family. That means taking care of our military families and giving them a good standard of living.

I have introduced a bill that would provide a benefit to military families seeking dental care, but who must travel great distances to receive it.

Specifically, my bill, the "Military Family Access to Dental Care Act" (S. 336) would provide a travel reimbursement to military families in need of certain specialized dental care but who are required to travel over 100 miles to see a specialist.

Often, families at rural bases like Cannon Air Force Base in Clovis, NM meet with financial hardship if more than one extended trip is required. This bill reimburses them for that travel and is a small way of helping our military families.

Given that current law provides a travel reimbursement for military families who must travel more than 100 miles for specialty medical care, do you believe it is important to incorporate specialty dental care within this benefit?

Answer. Concur. The Bureau of Medicine and Surgery recommends that Sec. 1074i of title 10 United States Code be amended incorporate specialty dental care within this benefit. By providing a travel reimbursement to military families in need of specialized dental care who must travel over 100 miles to seek that care, we demonstrate our utmost support and recognition of their roles as critical members of the Navy healthcare team.

Currently family members who are enrolled in TDP (TRICARE Dental Program) (Sec. 1076a.—TRICARE dental program) are not eligible for care in military DTFs except for emergencies or when OCONUS. All other (nonenrolled) Family Members are only eligible for "Space A" Care in CONUS. The USAF (with input from USN/USA) is currently sponsoring a proposal to change Title 10 to permit limited treatment of AD family members to meet training, proficiency and specialty board certification.

Question. Do you think this benefit would improve the standard of living of our military families?

Answer. Yes. Dental care is a quality of life enhancement. Reducing out of pocket costs for specialty dental care available only at distances away the homebases of Military Family Members would increase the likelihood that needed dental services would be accessed and result in increased dental health.

QUESTIONS SUBMITTED BY SENATOR MITCH MCCONNELL

RESEARCH ON COMPOSITE TISSUE TRANSPLANTATION

Question. Admiral Cowan, it is my understanding that the Navy Bureau of Medicine and Surgery has been engaged in important research into composite tissue transplantation. Clearly, such research has great potential to radically advance our ability to perform reconstructive surgeries on limbs and patients with considerable burn injuries. I have followed similar research into hand-transplantation that is being done in my hometown of Louisville, Kentucky, and have been impressed with the great potential for such surgical and tissue regeneration techniques.

Could you please provide information regarding the extent of injuries sustained by members of our Armed Services who could benefit from reconstructive or transplantation surgeries due to combat or service related injuries?

Answer. During the period of March through May 2003, NNMC received a total of 251 medevac casualties transferred from the Iraqi theater of operations, primarily via Army Medical Center—Landstuhl, Germany and Naval Fleet Hospital—Rota, Spain. Of these, 135 patients required admission to NNMC (112 Marines, 22 Sailors, and 1 Soldier) and 116 were evaluated as transient "RONs" in the NNMC Ambulatory Procedures Unit (104 Marines and 12 Sailors) during their transit through the Aero-Medical Staging Facility at Andrews Air Force Base, Maryland.

Of the 135 patients admitted to NNMC, 63 percent were combat casualties. Of the combat casualties, the majority of patients sustained either blast injuries to upper or lower extremities, crush injuries, or gun shot wounds. These injuries resulted in many extremity fractures, both open and closed. Many of these patients underwent emergency surgery at forward treatment sites which included emergency fasciotomies. As a result, many of the patients required subsequent plastic surgical repair as part of their tertiary care at NNMC. This might be one area of combat injury that would be enhanced by reconstructive or tissue transplantation surgeries.

In addition to the large number of fractures, 6 patients sustained significant traumatic amputations of extremities (3 lower leg, one foot, one forearm, and two patients with finger amputations). These would also be patients who might benefit from tissue transplantation advances.

Question. Could you describe the Navy's composite tissue transplantation program? What is the current level of annual funding for this program? And could you describe work being done under related extramural grants funded by this program.

Answer. The Navy Bureau of Medicine and Surgery has had, for many years, a research effort in the induction of "tolerance" in transplanted tissues with the hope of developing non-immune suppressing therapies to allow active duty victims of trauma to return to active duty. To this end, a kidney transplant model has been studied, since the mechanisms of rejection are similar to other tissues, though the kidney is a less immune-provoking organ than composite tissues. Thus, the kidney transplant serves as a simpler model for studying rejection and developing therapies against it. The transplant effort is now contained within the Combat Injury and Tissue Repair Program of the Combat Casualty Care Directorate at the Naval Medical Research Center (NMRC), under the leadership of Barry Meisenberg, M.D. The funding for "transplantation" research has been reduced over the past 5 years, leading to a significant scale-back and unfortunate turnover in personnel. The current funding is through the direct Congressional appropriation via the Office of Naval Research. The lead physician investigator on this effort is Dr. Stephen Bartlett, Director of Organ Transplantation at the University of Maryland School of Medicine in Baltimore. The Navy laboratory supports Dr. Bartlett's efforts with laboratory investigations into the science of transplantation and mechanisms of rejection. The sum of $964,690 was received from fiscal year 2002 Congressional funding for these efforts. In addition to this, the NMRC supplied $250,000 from internal "core competency" dollars for a specific project, initiated in fiscal year 2002. In fiscal year 2003, no core competency funds were available to continue this research. It is anticipated that approximately another $1 million will be received from direct Congressional appropriation for fiscal year 2003.

Question. Has the Navy conducted research on efforts to reduce the extent to which current procedures rely on immuno-suppressive drugs to combat rejection of tissue in transplant patients?

Answer. A brief description of the work that is being performed at NMRC is provided:

Project 1: Cytokine mediators of rejection in kidney transplant patients. This study performs real-time PCR to measure low levels of inflammatory molecules, such as cytokines that may predict rejection among actual patients receiving clinical kidney transplants who undergo periodic surveillance kidney biopsies. Specimens

are obtained in a clinical program at the University of Maryland Transplant Program and transported to laboratories at the NMRC in Bethesda.

Project 2: Cytokine mediation of rejection in primate composite tissue transplant. Pre-clinical research at the University of Maryland School of Medicine involves transplantation of complex tissues (bone, muscle and skin) in primates. The Navy research laboratories perform assays on biopsied tissue, looking at mediators of information and rejection. Tailored immunosuppressive therapies are being developed and studied featuring an anti-CD154 ligand to block the pathways of immune rejection.

Project 3: Studies into the mechanism of action of anti-CD154 ligand—Studies into the mechanisms of thrombotic complications with the use of anti-CD154 ligand. Currently, available supplies of anti-CD154 ligand do inhibit immune recognition, but may also cause activation of platelets leading to clinical thrombosis. These investigations look at the mechanisms involved in both lymphocyte blockade, as well as the mechanisms of thrombosis.

Project 4: Cell-signaling mechanisms after CD154 binding. This study is funded by core capability money from fiscal year 2002 and looks at the cell-signaling mechanism after CD154 binds the lymphocyte to look for potential targets for blockade of lymphocyte activation. A skin transplant model in mice is being developed and potential therapies will be tested in the mice model and available for use in the primate model currently at the University of Maryland. In addition to the above projects, funding has been requested from ONR for studies into the problem of ischemia/re-perfusion injury, which injures tissues both in the hemorrhagic-shock battle field situation, as well as transplantation of harvested tissues.

Additional techniques for immune suppression, including the use of immature dendritic cells, bone marrow cells, expanded bone marrow cells, other ligands with inhibitory properties against lymphocyte activation, are in the preparatory stages pending funding availability.

Question. Does the Navy plan to extend this program to the stage of human clinical trials?

Answer. The Navy would like to see advances in the pre-clinical biology of "tolerance" inducing molecules so that clinical trials can be conducted. More pre-clinical science, however, needs to be performed, including animal models. There are many potentially interesting avenues of investigation, which require collaboration with university laboratories and biotechnology companies.

Question. Are you aware of the clinical research and experience in human hand-transplantation at the University of Louisville and Jewish Hospital in Louisville, Kentucky?

Answer. The Combat Injury and Tissue Repair Program of the NMRC has had informal contacts with the University of Louisville Jewish Hospital in Louisville, Kentucky. There is interest on both sides in conducting collaborative efforts into the pre-clinical biology of tolerance. Currently, there is no funding for such collaboration, although both sides see scientific merit. Other collaborations exist with other universities that also show promise and need further development.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

PATIENT PRIVACY (TRICARE)

Question. I would like to get your comments about several concerns and questions I have related to the December 14, 2002 break-in of the offices of TriWest, a TRICARE contractor. I am told that TriWest did not notify the Department of Defense of the break-in and theft of personal information of over 500,000 TRICARE beneficiaries for almost a week after the event. Apparently, TriWest didn't have even basic security equipment—guards, locks, cameras—and, as a result, this incident amounts to the biggest identity theft in U.S. history.

Is this information true?

Has the Department of Defense finished its investigation of this case and have sanctions been levied against TriWest or punitive actions taken against TRICARE officials?

Answer. The criminal investigation is being conducted by the Defense Criminal Investigative Service (DCIS) and the Federal Bureau of Investigation (FBI), in coordination with other Federal and local law enforcement agencies. The Assistant Secretary of Defense, Health Affairs [ASD(HA)] directed the Services and TRICARE Managed Care Support Contractors to conduct an assessment of their information security safeguards using a matrix composed of Defense Information Systems Agency physical security requirements and industry best practices. TRICARE Manage-

ment Activity (TMA) conducted on-site validation of these assessments. The ASD(HA) asked the DOD Inspector General to conduct facility security evaluations and a draft report is expected by July 2003.

Sensitive information pertaining to TRICARE beneficiaries is maintained by TRICARE contractors subject to the Privacy Act of 1974, as implemented by the DOD Privacy Program (DOD 5400.11–R). The Act provides criminal penalties for any contractor or contractor employee who willfully discloses such protected information, in any manner, to any person or agency not entitled to receive the information. The Act also provides for civil penalties against DOD if it is determined that the Department (or contractor) intentionally or willfully failed to comply with the Privacy Act. To date, no sanctions have been levied upon or punitive actions taken against TriWest or TRICARE officials. The investigation is still ongoing, and its findings are pending.

Question. Would you please share what you can about the lessons learned as a result of this incident and the steps the Department and the TRICARE organization and its contractors are taking to guarantee beneficiary privacy?

Answer. Maintaining information security controls and awareness has always been a critical priority for the senior leadership of the Military Health System (MHS), in the interest of both national security and beneficiary privacy.

Some of the lessons learned as a result of the TriWest incident include:

—Scrutinized security practices across the entire MHS;
—Emphasized the necessity of staying alert to new information security threats; and
—TriWest widely publicized a new process whereby individual beneficiaries may, through TriWest, seek to place fraud alerts on their records at national credit bureaus.

Some of the steps taken by the Department and its TRICARE contractors to enhance beneficiary privacy include:

—Led and coordinated a health care information security assessment at MTFs and contractor locations;
—Reviewed existing procedures at all locations;
—Ensured physical security of facilities that house beneficiary information;
—Conducted on-site validations of its contractors' assessments;
—Initiated DOD Inspector General facility physical security evaluations;
—Verified that DOD health information systems are compliant with Health Insurance Portability and Accountability Act Protected Health Information requirements;
—Established plan of action for TRICARE contractors to correct deficiencies of the facility security assessment;
—Strengthened the overall security posture of the Military Health System (TRICARE Management Activity, its contractors, and Military Treatment Facilities); and
—Broadened the scope of information assurance and security programs.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

MEDICAL TREATMENT FACILITIES

Question. Healthcare, pay, and housing are the greatest Quality of Life issues for our troops and their families. With the numbers of health care staff deployed from your Military Treatment Facilities, what strategies did you use to effectively plan and care for beneficiaries back home?

Answer. Navy Medicine implemented core doctrine and conducted intense scrutiny of Military Treatment Facilities (MTFs) services availability. We identified the appropriate reservists to support the Military Treatment Facilities (MTFs) in maintaining services, in some cases adding contract personnel. Navy Medicine made every effort to take care of our patients in the MTFs, and assisted in both referral and care management for those patients that required care in the local healthcare network. Each week we tracked the availability of services at each MTF. Personnel (both active duty and reservists) exerted extraordinary efforts (which were possible in the short term but would not be sustainable indefinitely) to ensure access to care was maintained at all MTFs. The health care team felt the same devotion to their special duties during the conflict as did the deployed forces. They recognized that providing care for both returning casualties and local beneficiaries was their part in the war effort. For these reasons, individual productivity was particularly high and resulted in minimal reductions in health care access. A comprehensive survey of activated reservists and MTF operations during Operation Iraqi Freedom is now

underway to fully assess the productivity and effectiveness of our MTFs in ensuring that access to care was maintained for all beneficiaries.

Question. How are you able to address the needs of patients coming in from the battlefields and is this affecting the care of beneficiaries seeking regular care?

Answer. We have been able to maintain services required to address the needs of both patients coming in from the battlefields and those seeking regular care through significant deliberate planning. We implemented core doctrine and deployed active duty forces that were well trained in providing advanced medical care in the field. As a result, intense scrutiny of Military Treatment Facilities (MTFs) services availability and their ability to sustain the Graduate Medical Education (GME) programs were conducted, and we identified the appropriate reservists to support the Military Treatment Facilities (MTFs) in maintaining services and future readiness via sustainment of GME programs.

Question. What authority were you given to back-fill your vacancies and are the funds sufficient to attain that goal?

Answer. Navy Medicine issued $18 million that was originally targeted for our Maintenance of Real Property, Facility Projects in order to provide MTFs with the funding needed to obtain contract physician and medical personnel needed as back-fill in addition to the 50 percent Reserve Recall. The commands were able to obligate $11 million of that $18 million and obtained critical physician specialists on short timeframe contracts and other medical support personnel.

Question. What measurements were used in determining what the services were able to back-fill and how does that compare to current requirements?

Answer. The measurement tool used to assess services requiring augmentation was based on weekly reports that monitored facility services by beneficiary category i.e. AD/ADFM/RET/RETFM. This tool provided the level of detail needed to reflect which MTFs were in need of support based on the services identified, taking into account geographic issues related to Network availability and GME program sustainability. The report is being utilized to follow the flow of returning forces ensuring efficient demobilization of reserve personnel while maintaining MTF service availability.

RETENTION AND RECRUITMENT

Question. With increasing deployments in support of Operation Iraqi Freedom and the Global War on Terrorism, can you describe your overall recruitment and retention status of the Medical Department in each of your services? What specific corps or specialties are of most concern?

Answer. There is no way to predict the influence the current increased operational tempo will have on recruiting and retention. Because active duty personnel must request release from active duty 9–12 months in advance in order to arrange for their billet to be backfilled, the effect upon release from active duty rates won't be known until approximately spring/summer 2004.

Dental Corps: The Dental Corps is currently undermanned at 93 percent

The loss rate for dentists in fiscal year 2002 was 12.2 percent, which was above the 11-year average of 10.8 percent. Projections are for increasing shortfalls with manning at 90 percent or below at the end of fiscal year 2003.

Accession goals have not been reached over last 3 years; accessed only 85 percent of goal. Most significant shortfall is in the Direct (non-scholarship) accession category.

Recruiting goals are not being met with only 10 percent of the goal for Direct accessions (3/39), Reserve Recalls (2/7) and 1925i Dental Student program (0/5) met midway through the third quarter fiscal year 2003. The primary accession pipelines for Navy dentists are the scholarship programs. The Health Professions Scholarship Program (HPSP) and the Health Services Collegiate Program (HSCP) have both been successful in meeting 100 percent of goal for fiscal year 2003 and we expect to access 67 HPSP and 22 HSCP students upon graduation from dental school. HSCP has in the past been a significant but not the largest source of accessions for the Dental Corps. Currently only 25 percent of the combined fiscal year 2004/05 recruiting goal has been attained for HSCP accessions in fiscal year 2004 (12/25) and fiscal year 2005 (0/25). Interest in this program has significantly declined due to the increasing cost of dental school education, which continues to diminish the benefits offered through this program.

Retention rate at first decision point for junior officers steadily declined over past 6 years; low point was 38 percent in fiscal year 2001 from high of 64 percent in fiscal year 1995. Disparity between military and civilian pay and education debt are major factors in low retention rates.

Medical Corps

The Medical Corps continues to have difficulty in retaining certain specialties. The Medical Corps has less than 80 percent manning in Anesthesia, Radiology, General Surgery, Pathology, and Radiation Oncology. Internal Medicine and subspecialties (84 percent) and Dermatology (83 percent) are near the critical point of under manning.

Inability to access or retain specialties noted above can be attributed to significant military-civilian pay gaps and declining number of quality of work attributes that once made practicing in Navy Medicine enticing over the private sector (e.g., increased operational tempo). Additionally, the changing face of medicine in the civilian sector (e.g., fewer applicants for medical school and even fewer medical school graduates going into the above specialties) is affecting Navy Medicine as well.

The primary pipeline for Navy physicians is the Health Professions Scholarship Program (HPSP), which brings in 300 of the 350 individuals entering as medical students. The HPSP recruiting goal for fiscal year 2003 is 300. The Navy is behind in recruiting, in that by May, there are usually about 150 recruited. Presently there are only 51. It should be noted that not only is the number of HPSP recruits diminishing, but the quality has also decreased when utilizing MCAT scores as an indicator of quality. In he past, HPSP recipients had MCAT scores of 26–30. Applicants with scores as low as 22 are being considered in order to fill quotas.

Medical Service Corps

Retention in the Medical Service Corps is good overall. End of fiscal year 2002 manning was at 98.5 percent with projections for the next two years at or near 98 percent manning. However, difficulties remain in retaining highly skilled officers in a variety of clinical and scientific professions.

The Medical Service Corps is comprised of 32 different health care specialties in administrative, clinical, and scientific fields. The education requirements are unique for each field; most require graduate level degrees, many at the doctoral level.

Biochemistry, Entomology, and Podiatry are undermanned by more than 10 percent. Average yearly loss rates are high in Biochemistry, Physiology, Environmental Health, Dietetics, Optometry, Pharmacy, and Psychology. Loss rates this year are very high for Microbiologists & Social Workers.

The Medical Service Corps does not have available to them retention tools or special pays for scientists and very limited ones for clinicians such as Optometrists, Pharmacists, and Podiatrists.

Nurse Corps

The Nurse Corps continues to be healthy considering the national nursing shortage. The affect of a decreasing number of students who choose nursing as a career and the ever-increasing demand for professional nursing services will need to be closely monitored to ensure that the Navy Nurse Corps is able to meet the requisite number and specialty skill mix.

The successful ability of the Nurse Corps to meet requirements is due to concerted efforts in diversifying accession sources and increased retention as a direct result of pay incentives and graduate education opportunities.

Hospital Corps

HM and DT Retention has never been higher and we have met/fulfilled recruiting goals for the last two years. In the past two years our overall manning has significantly increased from 87 percent to 97 percent.

8404 HM E1–6 are on STOP LOSS per NAVOP 005/03 over 2,616 Sailors are affected by this program.

Per the OPHOLD MSG NAVADMIN 083/03 all hospital corpsmen assigned to deployed USMC units, possessing NEC's 8403, 8404, 8425 and 8427 may be OPHELD.

The HM Rating ended fiscal year 2002 at 95.8 percent manning (23,218 INV/ 24,320 BA or −1,102). The HM Rating has been undermanned since 1997 (low point was 89.1 percent manning as of end fiscal year 2000), but has steadily increased to current end February 2003 of 97.1 percent (23,843/24,553). The improved manning is the result of an increase in the HM A-School plan from a traditional 3,000 inputs to 4,500 inputs per year along with a reduction in HM A-school attrition from 18 percent to 8 percent. Out year projections have the rating maintaining 98 percent manning for the next two years.

As overall HM rating manning has improved, C school seats are increasingly being filled. Along with realignment of SRB and SDAP to retain existing and attract applicants, inventories in the shortfall NECs are steadily improving. Of the 40 distinct HM NECs, the following are critically manned (manning <90 percent) as of end February 2003.

NEC	NAME	INV	EPA	PCT	+/−
HM–8401	SAR TECH	89	111	80	−22
HM–8403	RECON IDC	26	29	90	−3
HM–8408	CARDIOVASULAR TECH	77	105	73	−28
HM–8416	CLIN NUC MED TECH	59	70	84	−11
HM–8425	SURFACE IDC	868	1,020	85	−152
HM–8427	RECON IDC	43	70	61	−27
HM–8432	PREV MED TECH	642	710	90	−68
HM–8452	ADV XRAY TECH	566	654	87	−88
HM–8466	PHYS THERAPY TECH	201	252	80	−51
HM–8467	OCC THERAPY TECH	12	19	63	−7
HM–8478	MED REPAIR TECH	197	270	73	−73
HM–8485	PSYCH TECH	273	376	71	−103
HM–8486	UROLOGY TECH	68	87	78	−19
HM–8489	ORTHO TECH	124	153	81	−29
HM–8492	HM SEAL	124	164	76	−20
HM–8493	HM DIVER	83	106	78	−23
HM–8494	HM DIVER IDC	69	80	86	−11
HM–8495	DERMATOLOGY TECH	40	54	74	−14
HM–8506	LAB TECH	1,246	1,594	78	−348
HM–8541	RESP THER TECH	102	147	69	−45

Dental Technicians

—Overall DT rating manning has held constant over the last several years with end February 2003 inventory at 102 percent (3,177/3,150). The DT NECs listed below are critically manned.

NEC	NAME	INV	EPA	PCT	+/−
DT–8703	DT ADMIN TECH	241	268	90	−27
DT–8708	DT HYGIENE TECH	53	84	63	−31
DT–8753	DT LAB TECH	100	113	89	−13
DT–8783	DT SURGICAL TECH	99	111	89	−12

The shortages in these NECs have been caused by limited availability of school quotas at tri-service schools. The exception is DT Hygiene Tech, established in fiscal year 2000. The Hygiene Tech school pipeline is two years long and inventory has been slowly growing toward the billet target. For the remaining shortages, efforts continue to obtain quotas at the tri-service schools to ensure that we obtain the seat increases we need to maintain the inventory.

Question. Did the Critical Skills Retention Bonus given for this year help these specialties? In light of shortages and the disparity between military and civilian salaries, how have you planned for additional retention bonuses in future years?

Answer. A detailed explanation is provided by Corps in order to detail the impact of the CSRB.

Dental Corps

When the CSRB was combined with the renegotiation of Dental Officer Multi-year Bonus (DOMRB) contracts, the effect was increased obligation for those that took DOMRB contracts. This in effect tied the one-year CSRB to a multi-year obligation, having some positive effect. However, a more comprehensive pay plan is needed for the long term.

—The NDAA fiscal year 2003 increased the caps on the Dental Officer Multi-year Retention Bonus (DOMRB).

—Fiscal year 2004 and fiscal year 2005 dental pay plans need to take advantage of the increase in the cap for the DOMRB as provided by the fiscal year 2003 NDAA which would help bring pay to higher levels, although are not in parity with civilian pay, demonstrate a commitment by Navy to increase compensation. However, in fiscal year 2004, funds have not been budgeted for increases in Medical Special Pays.

—The Health Professions Incentives Work Group (HIPWG) is working on a ULB fiscal year 2006 proposal that will raise Additional Special Pay (ASP) for targeted year groups to enhance retention after the first decision point for junior officers and after training obligations are paid off by mid-career officers. This ULB also proposes retaining ASP while in a training (DUINS) status in efforts to attract more qualified applicants for residency training. This proposal is under review within the Department.

—A comprehensive pay plan is needed to enhance retention and narrow the civilian-military pay gap. In the absence of such a plan and in recognition that the status of the Incentive Optimization Plan previously worked by OSD/TMA is unknown, the Navy has proposed utilizing a multi-year dental CSRB to critical shortages, namely dental officers with 3 to 7 years of service. This is designed to address a significant downward trend in retention of LT/LCDR General Dentists (anecdotally due to high debt load). This shortage in turn has significantly diminished our pool of applicants for residency training. Applications for post-graduate residency training are down 54 percent over past 10 years, which has resulted in increasing difficulty of producing specialists with the skills required to meet mission requirements. This proposal is under review within the Department.

Medical Corps

The CSRB helped retain some individuals in Anesthesia, Radiology, Orthopedics, and General Surgery who would have otherwise gotten out of the Navy. Because the CSRB was limited to a one year contract, the long term benefit is minimal.

The fiscal year 2003 NDAA raised the maximum on special pays to increase flexibility and utility of special pays. Development of a special pay plan for fiscal year 2005 by OOMC and N131 is in progress which takes advantage of the new maximums and increases the Multiyear Special Pay (MSP) to levels that although not in parity with civilian pay, demonstrates a commitment by the Navy to increase compensation. Because of the process involved in creating a DOD Pay Plan, the final pay plan for fiscal year 2005 may not emphasize the Navy's needs, reflecting instead the overall needs of DOD (Air Force and Army.) This proposal is under review within the Department.

Medical Service Corps

The Critical Skills Retention Bonus was not offered to any of the Medical Service Corps specialties.

During fiscal year 2001, DOD (HA) provided guidance allowing the Services to begin paying an Optometry Retention Bonus and a Pharmacy Special Pay based on each Service's "own accession requirements and capabilities." The Army and Air Force have funded the new pays. Due to funding constraints, the Navy has not yet begun paying the Optometry Retention Bonus or the Pharmacy Special Pay, however, the Navy has planned and budgeted for future funding of these bonuses and specialty pays.

Nurse Corps

The Critical Skills Retention Bonus was offered to qualified nurses resulting in acceptance rates of 87 percent for Certified Registered Nurse Anesthetists (CRNAs) and 98 percent for Perioperative Nurses. For the CRNAs, it has been a positive influence for staying beyond their obligated service period. We are presently at end-strength in both communities based on a combination of factors such as special pays, scope of practice satisfaction and a focus on quality of life issues. Therefore because the process involved in creating a DOD Pay Plan must reflect the overall needs of DOD (including Army and Air Force,) the final pay plan for fiscal year 2005 may not emphasize the Navy's specific requirements.

The fiscal year 2003 NDAA raised the maximum on special pays to increase flexibility and utility of special pays. Development of a special pay plan for fiscal year 2005 by the Nurse Corps Office and N131 is currently under review within the Department. The proposal, which takes advantage of the new maximums and increases the Nurse Accession Bonus and CRNA Incentive Pay to levels that although not in parity with civilian pay, demonstrates a commitment by the Navy to increase compensation.

Hospital Corps

We are working on an increase in our critical NEC's in SRB, SDAP and accelerated advancement programs.

Question. Are there recruitment and retention issues within certain specialties or corps? If so, what are your recommendations to address this in the future?

Answer.

Dental Corps

As a result of a significant downward trend in retention of LT/LCDR General Dentists coupled with significant under execution of CNRC DC accessions, the Dental Corps is undermanned.

—Dental Corps overall manning has been trending downward for the last three years, ending fiscal year 2002 at 94.4 percent (1,294 INV/1,370 BA or −76). The EFY 2003 projection is estimated at <90 percent.

—A BUMED-BUPERS working group is evaluating the following recommendations for the future: increase in HPSP Scholarships from 70 to 85 per year, establish a special pay that targets General Dentists with 3 to 7 years of service; establish Dental Corps Health Professions Loan Repayment (HPLRP) Program; increasing the number of years of service for statutory retirement to 40 years of service for 06s, along with raising the age limit to 68. Active Duty dentists tend to leave the service at 22 years vice 30 in order to enter the civilian market at a competitive age range. If given the option of a career for an additional ten years of service, many dentists would choose to stay on Active Duty. Prior to approval additional study is required on how this will impact the 06 promotion cycle.

—The shortage of General Dentists has directly impacted the Oral Surgery and Endodontic communities, which are also significantly undermanned. Since we train the vast majority of our specialists from within, the shortage of General dentists and the increase in loss rates has resulted in a reduction in the numbers of officers available to enter the training pipeline.

Corps Specialty (PSUB)	INV	BA	PCT	+/−	Fiscal Year 2004	Fiscal Year 2005
DC—Dentist (1,700)	486	594	82	−108	80	78
DC—Oral Surg(1,750J/K)	66	82	80	−16	78	72
DC—Endodontist (1,710J/K)	44	52	85	−8	83	80

—The remaining Dental Corps specialties are stable at this time with sufficient gains to compensate for losses, but that will take a turn for the worse if the problems with General Dentist retention and accessions are not corrected, as this is the applicant pool for specialty training.

Medical Corps

Although pay is just one part of the benefits of a military career, the civilian to military pay gaps are so large in some specialties that it is difficult to recruit or retain someone after completion of their obligated service for training. A comparison of civilian and military average pays is as follows (this data was retrieved from an internet physician pay site used by medical students):

Specialty	Civilian Pay	LCDR Mil Pay	Differential
Anesthesia	$278,802	$140,556	$138,246
Radiology	319,380	140,556	178,824
General Surgery	261,276	133,556	127,720
Pathology	197,300	120,556	76,744
Internal Medicine	160,318	118,556	41,762
Dermatology	232,000	122,556	109,444
Orthopedics	346,224	140,556	205,668
Neurosurgery	438,426	140,556	297,870

To improve accessions (in the above specialties), the following monetary and marketing tools are being evaluated by CNP/BUMED Integrated Process Team (IPT):

—A Health Professional Loan Repayment Program (HPLRP).

—An increase in recall and direct accession goals for medical officers.

—An increase in accession bonuses for health professionals from $30,000 to an $80,000 cap for high demand specialties.

—An increase in Incentive Specialty Pay (ISP) and Multiyear Specialty Pay (MSP) to decrease the pay gap. Emphasis is being placed on increasing MSP so that retention may be improved.

Medical Service Corps

All specialties have met (or are expected to meet) fiscal year 2003 recruiting goals except for:

—Entomology (Goal: 4; 0 attained) have not met direct accession goal since fiscal year 1999. There are limited Medical Entomology graduate programs in the United States. Fiscal year 2002 manning was 89 percent.

—Physiology (Goal: 2; 0 attained) have not met direct accession goal since fiscal year 1998. Fiscal year 2002 manning was 86 percent.

Use of the Health Services Collegiate Program (HSCP), a Navy student pipeline program for Entomology was instituted in fiscal year 2002 and for Physiology in fiscal year 2003.

Retention in the Medical Service Corps is good overall. However, difficulties remain in retaining highly skilled officers in a variety of clinical and scientific professions.

Explore the possible use of Engineering and Scientific Career Continuation Pay (U.S. Code: 37, Section 315) to improve the retention of our highly skilled scientific officer.

Other tools being considered:

—Health Professional Loan Repayment Program (HPLRP). Those HPLRP scholarships allocated to Medical Service Corps will be used for both retention and accession.

Nurse Corps

The Active Duty force is expected to meet fiscal year 2003 recruiting goal.

The Reserve force has met 61 percent of the fiscal year 2003 recruiting goal, maintaining the same pace as last year. Successful recruiting incentives for reservists in the critically undermanned specialties include: The $5,000 accession bonus and loan repayment and stipend programs for graduate education.

The BUMED Integrated Process Team (IPT) will evaluate two initiatives to improve the end-strength of the Reserve force:

—Allocating the $5,000 accession bonus for all new nursing graduates to the Reserve force. With the civilian recruiting bonuses and loan repayment programs for student graduates, new nurses are deferring entry into the Navy Nurse Corps Reserves until they gain the one-year experience required to qualify for a bonus.

—Instituting "pipeline" scholarship nursing programs for the reserve enlisted component similar to those available to active duty enlisted.

Hospital Corps

No recruitment issues as CNRC has been able to fill requirements.

We have increased retention and programs have been put in place directing Sailors into our undermanned NEC's. Some of the programs instituted include job fairs, Detailers visits along with visits from the Force Master Chief.

Question. Have incentive and special pays helped with specific corps or specialties?

Answer.

Dental Corps

Although pay is just a portion of the military benefits package, the dental military-civilian pay disparity is so large in certain specialties that it is very difficult to recruit or retain a dental officer after completion of their obligated service for training.

—There was a slight enhancement in overall retention as a result of increases in dental ASP in 1997 and the initial offering of DOMRB in 1998 when compared to previous years, but that effect has since worn off. Despite the introduction of the DOMRB and increase in ASP rates, the overall loss rate continues to climb to the highest it has been at 12.2 percent in fiscal year 2002, higher than the 11-year average of 10.8 percent. The majority of losses are junior officers (LT–03) releasing from active duty at the completion of their initial obligated service. These year groups are not eligible for the DOMRB at this point in their careers and the current ASP rates are too low to impact their decision to stay on active duty.

Medical Corps

There is no study that correlates retention and accession with special pays.

Medical Service Corps

The Medical Service Corps has very limited incentive and special pays.

—*Optometry Special Pay (U.S. Code: Title 37, Section 302a).*—Each optometry is entitled to a special pay at the rate of $100 a month. This special pay has not been increased in thirty years and therefore has lost value as an incentive or retention tool. Fiscal year 2001 and 2002 manning was 88 percent and 98 percent. The manning is expected to drop below 98 percent during fiscal year 2003.

—*Psychologist and Nonphysician Health Care Providers Special Pay (U.S. Code: Title 37, Section 302c).*—This Special Pay is better known as Board Certification

Pay. Board Certified Nonphysician Health Care Providers are entitled to a pay of $2,000 per year, if the officer has less than 10 years of creditable service; $2,500 per year (10–12 yrs); $3,000 per year (12–14 yrs); $4,000 per year (14–18 yrs); and $5,000 per year (18 or more). This special pay does not become a significant annual amount until late in an officer's career and therefore has a minimal impact as a retention tool. The Navy is manned at 70 percent licensed psychologists.

—*Accession Bonus for Pharmacy Officers (U.S. Code: Title 37, Section 302j).*—This accession incentive of $30,000 may be paid to a person who is a graduate of an accredited pharmacy school and who, executes a written agreement to accept a commission as an officer and remain on active duty for a period of not less that four years. This accession bonus was first used in fiscal year 2002 and accession quotas were met in that year. Long-term effectiveness as a successful accession incentive has not yet been established. Fiscal year 2002 manning was 96 percent. The manning is expected to drop below 96 percent during fiscal year 2003.

Nurse Corps

The Nurse Accession Bonus, Incentive Pay for Certified Registered Nurse Anesthetists (CRNAs), and Board Certification Pay (for those eligible) contribute to successful recruitment and retention efforts. Current CRNA manning is 108 percent. Manning is expected to drop to 100 percent throughout the year as members depart.

The increase of the maximum allowable compensation amount under NDAA for the CRNA Incentive Pay and the Accession Bonus will further enhance our competitive edge in the nursing market.

Hospital Corps

When incentive and special pays have been put in place for undermanned specialties, accessions have increased.

Psychiatry Technician and Respiratory Therapy Technician communities manning increased, 36 percent and 28 percent respectively, after implementation of the Selective Training and Reenlistment (STAR) Program and increased Selective Reenlistment Bonus.

Question. How does the fiscal year 2004 budget request address your recruitment and retention goals?

Answer.

Medical Service Corps

The fiscal year 2004 budget request includes funding for the Optometry Retention Bonus and the Pharmacy Special Pay (both discretionary pays).

Nurse Corps

The fiscal year 2004 budget request includes increases to both the Nurse Accession Bonus and the Incentive Pay for Certified Registered Nurse Anesthetists.

FORCE HEALTH PROTECTION (FHP)

Question. As a result of concerns discovered after the Gulf War, the Department created a Force Health Protection system designed to properly monitor and treat our military personnel. What aspects of the Department's Force Health Protection system have been implemented to date? What are the differences between the system during the Gulf War, Operation Iraqi Freedom, and Operation Enduring Freedom and Operation Noble Eagle?

Answer. There has been a fundamental shift in Navy Medicine from treating illness, to focusing on prevention and health. Our mission is to create a healthy and fit force, so that when we deploy a pair of muddy boots, the Sailor or Marine wearing them is physically, mentally and socially able to accomplish any mission our nation calls upon them to perform. This focus on prevention and health includes the delivery of care to the spouses and families at home because by caring for them, our warriors can focus on the fight. The Navy Medicine "office place" is the battlefield because our Sailors and Marines deserve the best possible protection from all potential hazards that could prevent mission execution. A critical element of our FHP continuum is having in place, along with the Department of Veterans Affairs (DVA), mechanisms for making sure that people who become ill after deployment are evaluated fully. Navy Medicine has several established mechanisms with the DVA regarding post deployment illnesses. Between the Gulf War and Operation Noble Eagle, several specific Force Health Protection (FHP) measures were implemented. These include: Pre-Deployment Health Assessment with the DD2795, Disease and Non-Battle Injury (DNBI) surveillance, Post-Deployment Health Assessment with the DD2796, pre- and post-deployment serum archival at the DOD

Serum Repository, anthrax and smallpox vaccination programs, occupational and environmental health surveillance, formation of specialized deployable teams for FHP (Navy Forward Deployable Preventive Medicine Units, Theater Army Medical Laboratory, and Air Force Theater Medical Surveillance Team), and the Post Deployment Health Clinical Practice Guideline. Just before Operation Iraqi Freedom, the Joint Medical Work Station (JMeWS) was deployed in the CENTCOM theater of operations, providing the capability to collect patient encounters, DNBI, and general medical command and control reports. With over 26,000 patient encounters and 1,000 DNBI reports, this system has provided a substantial analysis and archival tool for the combatant commanders and senior leadership.

OPTIMIZATION

Question. Congress initiated optimization funds to provide flexibility to the Surgeons General to invest in additional capabilities and technologies that would also result in future savings. It is my understanding that a portion of these funds are being withheld from the Services. Can you please tell the Committee how much Optimization funding is being withheld from your service, what are the plans for distributing the funds, and why funds since fiscal year 2001 are being withheld?

Answer. In fiscal year 2002 59 Optimization Projects were approved but only one was funded before April 2002. Total funding for fiscal year 2002 was $49.6 million. Twenty-seven of the projects were funded in late September 2002 and are in their infancy. Since most of the projects involved personnel actions, up to six months passed before personnel were in place due to required DOD civilian hiring processes. Hard evidence of financial return on investment is not yet available. Anecdotal positive feedback, however, is plentiful, especially in the following areas:

—*Case management ($8.5 million fiscal year 2002).*—All facilities are reporting that the recently hired case managers are champions for the transition from intervention to prevention. Commanders have commented that case management is "one of the best BUMED programs in 30 years." The primary barrier to success is the lack of integration of case management software with the Composite Health Care System (CHCS).

—*Clinic manager's course ($400,000 fiscal year 2002).*—Over 500 personnel have benefited from the week long course and 80 percent of participants reported in follow up surveys that the course adequately prepared them to implement optimization concepts within their clinics. Barriers to achievement of the goal of improved clinic effectiveness include lack of reliable, readily available performance data and high turnover of clinic management teams.

—*Population Health Website ($400,000 fiscal year 2002).*—Access to real time patient level data regarding disease prevalence, care provided, and patient panel demographics was viewed as "extremely valuable" by the 103 users trained thus far. Key to success is WEB access (begun January 2003) and dedicated training.

$11.4 million was devoted to critical advances in Medical Practice supporting longer term goals of sustaining quality and reducing invasive procedures where possible. The remaining $29.3 million was devoted to targeted improvements in the Primary Care Product Line, Birth Product Line and Mental Health Product Line as well as specific interventions designed to ensure continued excellence in training in mission-critical specialties (radiology and cardiology). Many of the initiatives are designed to correct staffing ratios allowing clinicians more time to devote to direct patient care. A full review of financial and non-financial performance measures is underway for each of the projects but conclusive data is not yet available given the recent start up of the vast majority of the initiatives.

Question. How have you benefited from optimization funds? What projects are on hold because OSD has not released funding?

Answer. Navy Medicine has not delayed projects due to OSD withholding funds.

Question. What are the projected projects using the proposed $90 million in the fiscal year 2004 budget request?

Answer. If the Navy's share of the $90 million in the fiscal year 2004 budget request amounted to $30 million, the following is the current proposal for the use of funds. Continuation of current optimization projects is expected to require $16.6 million, planned advances in medical practices (AMP) programs will require an additional $10 million, and focused improvements in perinatal care, early mental health intervention and training of clinic managers will require the final $3.4 million. A full review of the proposed use of the funds is underway as part of the annual budget and business planning process.

QUESTIONS SUBMITTED TO LIEUTENANT GENERAL JAMES B. PEAKE

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

DEPLOYMENT OF MEDICAL PERSONNEL

Question. The staff's discussions with The Surgeons General indicate that the Services have backfilled for deployed medical personnel at the Medical Treatment Facilities at varying levels.

Some of the Services are relying more heavily on private sector care rather than backfilling for deployed medical personnel.

To what extent has the recent deployment of military medical personnel affected access to care at military treatment facilities?

Answer. Recent deployments of medical personnel have had varying impacts upon access to care in individual Army medical treatment facilities (MTFs). With the initial deployment of medical personnel, there was an approximate 15–30 day underlap until Reserve Component (RC) personnel arrived at the various MTFs. Additionally, RC backfills were authorized only at approximately 50 percent of the deployed losses. Although some have indicated that there should be no impact on access to care because medical personnel were deployed as well as troops (i.e., patients), this assumption is flawed. Troops are generally the healthiest of the patient population served and do not comprise a significant portion of the care provided at any one MTF. In addition, at several posts, the medical personnel deployed long before the troop populations mobilized.

While MTFs had varying strategies in dealing with these significant shortages, there was some impact on access to routine and wellness care. Strategies included utilization of the network, hiring/contracting for civilian positions and reserve backfill. Success was limited by network inadequacy, inability to hire, and insufficient reserve backfills. Success varied by location due to the variability of these factors.

Question. What are you doing to ensure adequate access to care during this time?

Answer. Most MTFs have skillfully attempted to manage the access to care issue by closure/consolidation of clinics, beds and operating rooms; shifting of care to the network; extending shifts for both physicians and nurses; double-booking appointments; overtime, including mandatory weekend overtime; increasing resource-sharing contracts and increasing contract hires. Urgent care access was maintained, but all MTFs have had varying degrees of success in maintaining access to routine and wellness visits. They have managed to decrease the number and significance of access-to-care issues, but most MTFs continue to struggle with the issue.

Question. What percentage of mobilized reservists in medical specialties are being used to backfill positions in the United States?

Answer. The Reserve Component (RC) provided 22 percent of its mobilized medical specialties to backfill the Army's Active Component (AC) losses in the Medical Treatment Facilities (MTFs). This accounts for 1,631 reservists' backfilling AC personnel losses in MTFs out of the total mobilized RC medical force of 9,195. This does not take into consideration the physicians, dentists, and nurse anesthetists that are on a 90-day rotation policy. There are 485 scheduled 90-day rotators in the aforementioned 1,631 RC personnel backfill. To further compound the backfill requirements the Senior Civilian Leadership only authorized a 50 percent backfill cap or one RC backfill for every two AC losses.

Question. Are there shortages of personnel in some specialties?

Answer. Yes.

Question. If so, which specialties are undermanned and by how much?

Answer. The Reserve Component (RC) backfill was initially undermanned by seven medical specialties for a total of sixteen personnel. These medical specialty shortages were Nuclear Medicine Officer, Pulmonary Disease Officer, Dermatologist, Allergist, Pediatric Cardiologist, Peripheral Vascular Surgeon, and ten Obstetrics Nurses. The 90-day rotation policy added additional requirements by having to rotate physicians, dentists, and nurse anesthetists. In the second 90-day rotation the following medical specialties were undermanned by an additional ninety-five physicians and dentists: three Urologists, an Obstetrician and Gynecologist, six Psychiatrists, thirty-six Family Physicians, six General Surgeons, five Thoracic Surgeons, five Orthopedic Surgeons, two Radiologists, five Emergency Physicians, and twenty-six Dentists.

Question. Are there other ways of structuring the staffing of military medical units that might help address shortages in a few specialties, such as making increased use of civilian contractors or DOD civilian personnel in MTFs stateside?

Answer. The staffing of Army Medical Treatment Facilities (MTF) is a mix of Active Duty military, direct hire civilians, and resource sharing/contract arrange-

ments. The Active Duty component is based upon the wartime needs of the numbers and types of health care providers needed to staff the deploying medical support units (Professional Filler System and cadre hospital organizations). Many of the more expensive specialties required at the MTF are the same specialties needed for deployments. Even though more than 50 percent of the MTFs' staffing is non-military, this tends to be in specialties that can be afforded by the General Schedule payment tables. Beyond the direct hire civilian staffing, MTFs also form a number of resource sharing agreements and local contracts for services available in the area. These contracting efforts are in addition to the TRICARE network that may have some health care resources in the area. Healthcare providers not already engaged with the MTF are fulltime engaged in their own practices with limited expansion capability. The sudden demand for additional health care services in an area is an immediate shock and drain on the limited healthcare resources in the area.

Changes to structure and policy would assist in the future. There should be a restructuring of Reserve Component Table of Distribution & Allowance assets to match those of PROFIS losses in our MTFs. Modules within Combat Support Hospitals (CSHs) and Forward Surgical Teams (FSTs) to facilitate the mobilization/movement of mission-specific teams should have corresponding backfill modules in the reserves. Military authorizations for high OPTEMPO specialties—61J (General Surgery), 61M (Orthopedic), 60N (Anesthesia), 66F (Nurse Anesthetists), 66H8A (Intensive Care Nursing) and 66E (Operating Room Nurse)—should be increased for these hard-to-hire specialties. Pay scales need to be increased for health care specialties as current scales and funding levels for Civil Service and contracts are out-of-sync with the civilian market. Increasing military authorizations for primary care specialties in order to fill the PROFIS requirements for 62Bs (Field Surgeon) would prevent the military from having to use critically short subspecialties, such as pediatric cardiologists, to fill these slots. Some specialties—60C (Preventive Medicine) and 61N (Flight Surgeons)—have had to be structured to the military setting and it is difficult to recruit for these same positions through the civilian sector since the training, education, and experience levels are so different. This lack of military-focused training in these specialties has made it impossible to backfill losses in these specialties with the reserves.

MONITORING THE HEALTH OF GUARD AND RESERVE PERSONNEL

Question. What improvements have been made to the medical information systems to track the health care of reservists? Are they electronic, do they differ among services?

Answer. The Army Medical Department's (AMEDD) Medical Operational Data System (MODS) has added modules to address the need of improving the health care for both the Guard and Reserve. The Active Duty Medical Extension (ADMR) Web Reporting module manages those Guard and Reserve soldiers requiring medical treatment that cannot be completed in less than 30 days. The Line of Duty (LOD) Automated module automates the completion of LOD Investigations and ancillary activities. To assist the National Guard (NG) MODS has a NG Physical Web Reporting module that allows the NG to obtain the physical information on each soldier by state. The Automated Voucher System (AVS) facilitates scheduling physical exams, dental exams, and immunizations for Army National Guard and Army Reserve personnel. As a closeout to the AVS cycle, AVS provides Medical Readiness results to MEDPROS module. MEDPROS provides the Army Knowledge On-line (AKO) with a real time update of Active Duty, National Guard and Army Reserve Individual Medical Readiness elements to over 1.2 million registered AKO users at logon.

There is no significant difference in the Individual Medical readiness tracking between the active or reserve component of the Army.

Question. During the mobilization for Operation Iraqi Freedom, how many reservists could not be deployed for medical reasons?

Answer. Overall the medically non-deployable rate for reserve component (RC) soldiers was 2.2 percent or 3,147 out of 141,365 RC soldiers processed for mobilization. 566 of these non-deployable soldiers are currently undergoing a medical board. More than 80 percent of the non-deployable soldiers had a chronic medical problem. The most common medical reasons for non-deployability were orthopedic and mental health problems followed by adult onset diabetes. 27 percent of reserve component soldiers had orthopedic conditions with the most common problem areas being the back (32 percent), knees (24 percent), and shoulders (14 percent). 8 percent of the non-deployable RC soldiers had mental health problems and 6 percent had diabetes. Orthopedic conditions and diabetes are expected to be more common in reserve component soldiers given their generally older average age.

This information will be used to guide policy changes. Health Affairs has mandated an Individual Medical Readiness metric that requires the armed services to monitor compliance with required periodic health assessments and identification and management of those soldiers with deployment limiting conditions. Improving and enforcing the profile process will enable earlier identification of significant medical problems. However, until a digital profile process is in place early identification of deployment limiting conditions will remain problematic.

Question. An April 2003 GAO report documents deficiencies by the Army in monitoring the health of the early-deploying reservists. Annual health screening is required to ensure that reserve personnel are medically fit for deployment when called upon. Review found that 49 percent of early-deploying reservists lacked a current dental exam, and 68 percent of those over age 40 lacked a current biennial physical exam. In addition, monitoring the health of reservists returning from deployment will be critical to ensuring the long term health of those service members, and assisting in the identification of common illnesses, such as those associated with the Gulf War Syndrome.

How many deployments (soldiers) were delayed due to dental reasons, and how many reservists are not in Dental Class 1 or 2?

Answer. Only 192 soldiers (0.11 percent of 176,846 mobilized) were delayed due to dental reasons; 33 were disqualified (0.02 percent). However, several factors contributed to this extremely low number. First, dental assets at mobilization sites, composed of both active and reserve dental assets, worked very assiduously to bring mobilizing reservists to deployable standards. Despite poor dental health of many reservists, dental facilities worked tirelessly to accommodate their acute oral health needs. Second, as funding for dental readiness of the reserve components is lacking, Army G–3 provided an additional $23 million in OMA funds to support medical and dental readiness. As a result, many reservists obtained dental examinations and requisite dental care prior to mobilization. This care was provided primarily by contracts with civilian network providers. Recent figures from mobilization sites reflect that only 14 percent of those reporting to mobilization sites were dental class 3 (non-deployable), reflecting a vast improvement in dental readiness of our reserve forces over previous mobilizations.

Current dental readiness of the reserves, reflected in MEDPROS data, reflects that 64.4 percent (223,140) of the Army National Guard are dentally non-deployable, and 72.9 percent (241,907) of the U.S. Army Reserve (USAR) are dentally non-deployable. For the USAR, a significant number of Class 4 soldiers are in the Individual Ready Reserve, who are not considered early deployers. With adequate funding, these statistics would be greatly improved.

Question. What is the current enrollment rate in the TRICARE Dental Program (TDP) for reservists, and what action has DOD taken to encourage reservists to enroll in TDP?

Answer. Data provided by TRICARE Management Activity (TMA) reflects an overall DOD reserve component enrollment rate of 4.9 percent as of January 2003. Mobilizations and deployments have decreased enrollment temporarily; as a result, latest numbers were not used. Army specific numbers are: USAR = 4.3 percent, and ARNG = 3.1 percent.

The TDP contractor markets the plan to its potential beneficiaries. The initial marketing effort by the contractor entailed sending TDP information to each reserve and guard unit. Quantities of information sent were based on unit end strengths. The Defense Manpower Data Center provides the TDP contractor quarterly files listing newly eligible sponsors. This file is used for the ongoing marketing efforts under the TDP. The contractor has also established a website for TDP. The contractor has a staff of Dental Benefits Advisors that travel to military installations to include reserve and guard facilities. TMA's Communication and Customer Service marketing office has worked with Reserve Affairs to develop and post TDP fact sheets on the TMA website that are linked to other reserve and guard websites.

Question. What needs to be done and what will it cost to ensure that reservists are medically and dentally fit for duty?

Answer. Despite numerous initiatives, the active component dental assets shoulder the majority of Reserve Component (RC) mobilization workload, a requirement for which they are not resourced. Additionally, when active component dental assets are shifted to accommodate RC mobilization requirements, a concomitant drop in active component dental readiness occurs (a 7 percent drop in dental readiness of the 3rd Infantry Division occurred at Fort Stewart during mobilization of the 48th Infantry Brigade [ARNG]). Use of active component dental assets will remain a necessity, but ideally only as a back up and not the primary means of preparing RC soldiers for deployment.

Title 10 USC Section 1074a authorizes members of the Selected Reserve that are assigned to units scheduled for deployment within 75 days after mobilization, an annual dental screen and dental care required to ensure deployability, at no cost to the soldier. However, funding for this requirement is lacking. When OMA funds were recently shifted to support this requirement for current operations, dental Class 3 (non-deployable) rates dropped to 14 percent for RC soldiers reporting to mobilization sites, a vast improvement from earlier deployments that documented a range of 20–35 percent dental Class 3 (depending on mobilization and units involved). If a greater response time had been available, even greater improvements in dental readiness would have been realized. Adequate funding for this requirement would greatly enhance dental readiness of the RC.

Several avenues are being studied to fulfill the dental requirements outlined in Title 10 USC Section 1074a. DOD(HA) has chartered an integrated process team to determine the best course of action. However, one estimate of Class 3 costs, based on a Tri-Service Center for Oral Health Studies Year 2000 Recruit Study of oral health needs reported a cost of $334 per trainee. Annual dental examination and required radiographs are estimated at $116 per soldier. Another estimate using the TRICARE Dental Program to pay the entire premium and selected co-pays to eliminate only Class 3 dental conditions resulted in a government cost of $124.4 million for premiums and $16.5 million for Class 3 dental care.

Question. Are there any repercussions for commanders who do not ensure that their troops are fit for duty?

Answer. Fitness for duty effects overall readiness of a unit. It is the commander's responsibility to ensure that all of his soldiers are medically fit. He can do this by ensuring the soldiers have current physicals, immunizations, dental exams, and participate in the semi-annual Army Physical Fitness Test (APFT) and weigh-in. It is also the commander's responsibility to take appropriate action when a soldier does not meet the medical fitness standards as prescribed in Army Regulation (AR) 40–501, Standards of Medical Fitness. Appropriate action would include the medical board process and/or separation of soldiers in accordance with (IAW) AR 135–175, Separation of Officers or AR 135–178, Enlisted Administrative Separations. Repercussions for commanders who do not enforce individual medical readiness standards are not punitive in nature, but could include relief of command or less than adequate comments on the commander's performance evaluations.

COMBAT TREATMENT IN IRAQ AND AFGHANISTAN

Question. How well have your forward deployed medical support units and the small modular units performed in Operation Enduring Freedom and Operation Iraqi Freedom?

Answer. The transformation initiatives have greatly enhanced the ability of the medical planners and commanders to place the appropriate amount of medical care, up close where the soldiers needs it, yet balanced with an economical use of the force. The Forward Surgical Teams (FST) were used very effectively first in Afghanistan and then they demonstrated dramatic results in Operation Iraqi Freedom (OIF). The FST is extremely lightweight, 100 percent mobile and has the speed to stay close to the combat element and provide immediate surgical care close to the place of injury. In OIF a FST was placed with each Brigade Combat Team. In addition each Brigade Combat Team was assigned 3 Medical Evaluation Helicopters to link the FST with the next element of care the Combat Support Hospital (CSH). The CSH has a split base operating capability demonstrated in OIF with the 21st CSH and the 86th CSH. This flexibility allowed for the unit to more appropriately move with the flow of Combat, remain with evacuation distance, yet provide the next echelon of medical care in the theater. Three CSHs were assigned to the 5th Corp and 3 CSHs were in the theater rear.

DEPLOYMENT OF MEDICAL PERSONNEL

Question. What are some of the lessons learned from our experience in Iraq?

Answer. Operation IRAQI Freedom (OIF) reinforced the timeless lessons of military medicine of proximity to the wounded, preventive medicine, echeloned care, flexibility, and mobility. What was unique about this war was the large dimensions of the battlefield and the speed of the operation. The AMEDD has applied many of the lessons learned from the first Gulf War and recent operations other than war. As a result, our service members reaped the benefits of revised doctrine and procedures during OIF. During the first Gulf War, Combat Support Hospitals (CHSs) designed for the Cold War were large and immobile. Today our CSHs are modularized and able to provide split based operations. This war validated the importance of Forward Surgical Teams (FST), which are attached to brigade combat teams. These

teams are light, extremely mobile, and have been trained as a trauma team at some of the most advanced trauma centers in the United States. FSTs take advantage of the "Golden Hour" and quickly provide life-saving surgery close to the point of wounding. OIF also validated our 91W transformation program. The 91W (Health Care Specialist) program increased the training of basic combat medics to the Emergency Medical Technician (EMT) level. Furthermore, medical planning officers were included at the various operational staff levels in the planning of OIF military campaign plan.

The Army and the Army Medical Department (AMEDD) have a formal lessons learned process. As part of the initial OIF planning, The Surgeon General directed comprehensive data collection to facilitate the lessons learned process. Currently data collection is in process and additional lessons learned will result from formal data analysis.

The preliminary analyses of injuries from this war indicate that improved ballistic protection for the head and thorax resulted in a reduction of immediately life threatening injuries. Patterns of injury were very different in Iraqi vs. U.S. soldiers. Iraqi soldiers experienced the whole spectrum of injuries: upper and lower extremities, chest, abdomen and back. U.S. soldiers have had predominately upper and lower extremity injuries. The use of body armor has reduced abdominal, chest and head penetrating injury.

Excellent pre-deployment screening and preventive medicine kept the disease rate extremely low. Increased automation of the AMEDD's major systems such as logistics and patient tracking highlighted the need for improved access to assured data communications throughout the battlefield. The TRANSCOM Regulating and Command and Control Evacuation System (TRACES) improved the ability to evacuate casualties. However this system is still evolving and with appropriate funding, should have the capability to electronically track patients from point of injury to final disposition. The lessons learned from this war indicate that the AMEDD is on the right track and will keep improving as medical transformation continues.

IMPROVEMENT OF EQUIPMENT FOR COMBAT CASUALTY CARE

Question. What tools/equipment is still required to improve the care provided to combat casualties?

Answer. In order to expedite treatment, it is critical that evacuation assets be available to facilitate the continuity of patient care. Current modes for patient evacuation include ground and air platforms, which includes the modernization of the UH60 Aero-medical fleet. As part of the Aviation Modernization Program, the HH60 Aero-medical evacuation helicopter has demonstrated exceptional capability in providing enroute care in Afghanistan and during Operation Iraqi Freedom. This is a significant improvement in the standard of care provided during Operation Desert Storm. Continued fielding throughout the entire MEDEVAC fleet is paramount to continued future success.

T-NEX, THE NEXT GENERATION OF TRICARE CONTRACTS

Question. The next generation TRICARE contracts will replace the seven current managed care support contracts with three contracts. This consolidation is intended to improve portability and reduce the administrative costs of negotiating change orders and providing government oversight across seven contracts.

The award date for these contacts has slipped from the scheduled date in July of 2003.

Since the timeline for awarding the contracts has slipped, what is the expected start date for the delivery of T-Nex?

Answer. The Army has not been notified of the slippage of award date you describe. However, if that were to occur, we anticipate that the currently planned start dates for all regions except Region 11 will likely remain the same and that the Region 11 start date will be adjusted to allow for a full ten month transition period.

Question. What planning is taking place to help ensure that when the contracts are entered into there will be a seamless transition for beneficiaries?

Answer. It is very important that transition to the T-Nex family of contracts be seamless to beneficiaries and that continuity of care be preserved to the greatest extent possible. Planning for seamlessness and continuity started with the development of the T-Nex contract request for proposals (RFP). Rules for interfacing of outgoing and incoming contractors to ensure smooth hand off of claims, records, and the like are designed into each RFP. A communications plan to inform beneficiaries and providers about the change has been developed and is being executed. Further, our beneficiary counseling and assistance coordinators are trained and ready to assist beneficiaries should T-Nex issues, questions, or problems arise. For example,

the first T-Nex contract—TRICARE Mail Order Pharmacy (TMOP)—occurred March 1, 2003. Based on a very low number of patient complaints, hand off of patient records and prescriptions and delivery of pharmaceuticals according to schedule went well from the beneficiary perspective. When problems occurred, they were relatively minor and the incoming contractor moved quickly to correct them. Our beneficiary counseling and assistance coordinators were prepared and ready to assist beneficiaries if problems occurred.

The larger Managed Care Support Services T-Nex contract, due to be awarded this summer, is a larger and more complex contract than TMOP, but the principles of execution to support seamless transition and continuity still apply: intense prior planning and designing in phase in/phase out rules to ensure smooth hand offs of records and claims information, develop and execute a communication plan to inform beneficiaries and all TRICARE providers of the coming contract change, and intense preparation of the cadre of beneficiary counselors to directly assist with beneficiary problems, issues, and concerns should they occur. Other more specific provisions in this contract include requiring the incoming contractor to negotiate with all current network providers and encourage them to remain in the network, careful planning to preserve continuity of care when resource sharing agreements are converted to direct contracts or other contracting arrangements within the military treatment facilities, preservation of the access standards as in the previous contracts, preservation of the primary care manager concept, and continuation of major programs—like TRICARE for Life and TRICARE Prime Remote—continue unchanged.

Question. Are beneficiaries experiencing any change in quality of care due to DOD's inability to enter into new long-term managed care agreements?

Answer. Due to extensions of all seven current managed care support contracts, beneficiaries continue to access quality health care both in military treatment facilities and in the civilian networks just as they have over the course of the current contracts. Quality of care complaints from beneficiaries remain rare and almost always come from beneficiaries in remote areas. When quality of care issues are raised by beneficiaries, the complaint is immediately validated and is brought to the attention of the relevant Lead Agent medical director. The medical director presents the case to the responsible managed care support contractor for investigation and resolution of the complaint.

Question. Under T-Nex, what services currently provided by the TRICARE contractors will shift to the direct care system and what are the costs associated with this shift in services?

Answer. Services that shift from the current TRICARE contractors to the direct care system are military treatment facility appointing/referral management, management of all resource sharing agreements, internal utilization management services, management of the Health Evaluation Assessment Report, management of the health care information line, and transcription services. The estimated total cost to implement these services by Army facilities is $753.4 million through the last contract option, fiscal year 2008.

The cost for appointing services consists of personnel and essential telephone equipment upgrades. To start health care delivery in fiscal year 2004 (prorated to account for staggered start ups) $16.7 million is required with $26.5 million needed for the full fiscal year, 2005.

The estimated cost for replacing contractor personnel and equipment to perform internal utilization management services for fiscal year 2004 is $6.5 million and $21.9 million in fiscal year 2005.

Converting over 1,100 resource sharing providers to direct contracts or other arrangements to preserve continuity of care requires $15.8 million in fiscal year 2004 and $104.6 million in fiscal year 2005.

To manage the health care information line, we estimate $2.3 million in 2004 and $7.3 million in 2005 is necessary. To assume management of the Health Evaluation Assessment Report within our facilities, the Army requires $.3 million in 2004 and $1.1 million in 2005.

RECRUITING AND RETENTION

Question. Personnel shortfalls still exist in a number of critical medical specialties throughout the Services. The Navy has reported shortfalls in Anesthesiology, General Surgery, Radiology, and Pathology, and has stated the civilian-military pay gap is their greatest obstacle in filling these high demand specialties. Recruiting and retaining dentists appears to be a challenge for all the services.

To what extent have Critical Skills Retention Bonuses or other incentives been successful in helping to retain medical personnel?

Answer. The table below shows the results of the recent Critical Skills Retention Bonus (CSRB).

Corps	Eligible	Takers	Percentage
Medical Corps	753	177	24
Dental Corps	596	416	70
Nurse Corps	493	329	67

As can be seen, the program seems more successful within the Dental and Nurse community than the physician. What overall effect this will have on retention has yet to be determined. We are hopeful that those who opted for the CSRB in fiscal year 2003 will remain in the force beyond that. The increases in the Fiscal Year 2003 National Defense Authorization Act (NDAA) to the special pay ceilings may help us retain some assuming that appropriation support for these increases is also forthcoming.

Question. What else needs to be done to maximize retention of medical personnel?

Answer. The retention of our highly trained and skilled health care professionals is one of our greatest challenges. A recent study submitted to Congress indicated that the pay compatibility gap at seven years of service is between 13 and 63 percent, depending on the specialty. The Fiscal Year 2003 National Defense Authorization Act (NDAA) raised the ceilings on discretionary special pays for our health care providers for the first time in ten years. We are now working within our system to obtain funding to support increases in our special pays against these new ceilings. However, we need to recognize that it isn't all about the money. The pay compatibility gap will never be completely closed. There are a multitude of other factors that we have addressed and keep addressing. Such things as adequate and skilled administrative support staff to allow our clinicians to maximize the time they spend practicing their craft is vitally important. That, coupled with modern facilities and equipment, create an environment of practice that is attractive to health care providers, and is often more important than pure economics. In many cases the scope of practice of our non-physician health care providers is greater than that in the civilian community and is extremely satisfying. The ability of our personnel to enter academic or research fields, in additional to the purely clinical is another important facet that we will continue to support. Quality of life is equally important to many of our personnel. The benefits of service, such as housing, paid leave, and base facilities, are difficult to replicate in the civilian sector. By addressing the whole package—money, quality of life and environment of practice, we hope to retain dedicated health care professionals that will insure the soldier on point will not be alone and will have world class health care both at home and while deployed.

Questions Submitted by Senator Pete V. Domenici

JESSE SPIRI MILITARY MEDICAL COVERAGE ACT

Question. In 2001, a young Marine Corps 2nd LT from New Mexico lost his courageous battle with cancer. Jesse Spiri had just graduated from Western New Mexico University and was awaiting basic officer training when he learned of his illness. However, because his commission had triggered his military status to that of "inactive reservist," Jesse was not fully covered by TRICARE. As a result, he was left unable to afford the kind of special treatment he needed. I believe it is time to close this dangerous loophole. That is why I intend to offer a bill entitled the "Jesse Spiri Military Medical Coverage Act." This bill will ensure that those military officers who have received a commission and are awaiting "active duty" status will have access to proper medical insurance.

Would you agree that this type of loophole is extremely dangerous for those who, like Jesse, suffer with a dreaded disease?

Answer. Yes, we agree that for someone like Jesse, who has a terminal illness, having no health insurance is very dangerous. We mourn, as well, for the tragic loss of Jesse Spiri. The death of one's child is perhaps the most difficult thing a parent must bear, and my heart goes out to his family. The more potent issue for the Military Health System is that Jesse suffered from a disease which made him unable to perform military duties, and that existed prior to service (EPTS). Similarly, any soldier on active duty who had Jesse's condition would have been separated from active duty. And for those on active duty less than 8 years who suffer from congenital or hereditary conditions, they would not receive any disability benefits or coverage for health care after they are discharged.

Question. And do you agree that our military health care system should close this loophole, and can do so very cost effectively (given the relatively low number of officers it would affect)?

Answer. We agree that individuals such as Jesse, who are part of the 41.2 million uninsured (2001) in our country, face negative health and financial consequences from terminal illnesses. We also recognize that finding solutions to the problem of health coverage for the uninsured is difficult and will require the efforts of both the government and private sectors. The mission of the Military Health Care System is to meet the challenge of maintaining medical combat readiness while providing the best health care for all eligible personnel. These include active duty and retired members of the uniformed services, their families, and survivors, which today total approximately 8.5 million. Congress can expand the categories of eligible personnel, but there are significant policy and equity issues of expanding eligibility only to selected inactive Reserve Component officers. And any expansion of TRICARE benefits to any Reserve Component personnel and/or families must be accompanied by increases in Defense Health Program budgets. The list of hereditary or congenital components (e.g., brain damage from an Arteriovenous malformation, certain types of breast cancer, retinitis pigmentosa) is continually growing as medical science advances, making it impossible to implement fairly a system that mandates denial of benefits if a condition is determined to be hereditary or congenital. The Army would like to attain congressional approval of an initiative that would reduce the 8-year provision to requiring only 18 months of continuous active service before pre-existing conditions are covered.

MILITARY FAMILY ACCESS TO DENTAL CARE ACT

Question. I think everyone here is familiar with the adage that we recruit the soldier, but we retain the family. That means taking care of our military families and giving them a good standard of living. I have introduced a bill that would provide a benefit to military families seeking dental care, but who must travel great distances to receive it. Specifically, my bill, the "Military Family Access to Dental Care Act" (S. 336) would provide a travel reimbursement to military families in need of certain specialized dental care but who are required to travel over 100 miles to see a specialist. Often, families at rural bases like Cannon Air Force Base in Clovis, NM meet with financial hardship if more than one extended trip is required. This bill reimburses them for that travel and is a small way of helping our military families.

Given that current law provides a travel reimbursement for military families who must travel more than 100 miles for specialty medical care, do you believe it is important to incorporate specialty dental care within this benefit?

Answer. I fully concur with the concept of providing a travel reimbursement for military families who must travel more than 100 miles for specialty dental care. However, most active duty family members participate in the TRICARE Dental Program (TDP), the DOD-sponsored dental insurance program. If these family members must travel greater than 100 miles for specialty dental care at a civilian TDP provider, travel reimbursement would ease some of their financial burden. Management of this program may prove difficult, however. Unlike the TRICARE Health Plan, DOD does not monitor nor control where TDP enrollees go for care. Verification of that travel may prove problematic, as greater reliance on the contractor (United Concordia) for verification would be necessary.

Question. Do you think this benefit would improve the standard of living of our military families.

Answer. Clearly, this benefit would improve the standard of living of our military families.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

PATIENT PRIVACY (TRICARE)

Question. I would like to get your comments about several concerns and questions I have related to the December 14, 2002 break-in of the offices of TriWest, a TRICARE contractor. I am told that TriWest did not notify the Department of Defense of the break-in and theft of personnel information of over 500,000 TRICARE beneficiaries, for almost a week after the event. Apparently, TriWest didn't even have basic security equipment—guards, locks, cameras—and as a result, this incident amounts to the biggest identity theft in U.S. history. Is this information true?

Answer. The physical break-in of the locked TriWest Healthcare Alliance corporate offices and theft of computer equipment occurred on Saturday, December 14, 2002. On Monday, December 16, 2002, the break-in and theft was discovered, au-

thorities contacted, and TRICARE Management Activity (TMA) operations staff were advised. Back-up tapes were run on Tuesday, December 17, 2002, (which took 30 hours), and on Friday, December 20, 2002, TMA/HA leadership was notified of the beneficiary information theft. TriWest at that time had available from their back-up tapes beneficiary information including names, addresses, phone numbers, Social Security Numbers, some claims information with relevant procedure codes, and personal credit card information on 23 individuals.

To date, the Army Medical Department has not received notification of a single verified case of identity theft related to TriWest stolen computer equipment.

Question. Has the Department of Defense finished its investigation of this case and have sanctions been levied against TriWest or punitive actions against TRICARE officials?

Answer. The criminal investigation is being conducted by the Defense Criminal Investigative Service (DCIS) and the Federal Bureau of Investigation (FBI), in coordination with other federal and local law enforcement agencies.

To date, no sanctions have been levied upon or punitive actions taken against TriWest or TRICARE officials. The investigation is ongoing, and its findings are pending.

Sensitive information pertaining to TRICARE beneficiaries is maintained by TRICARE contractors subject to the Privacy Act of 1974, as implemented by the DOD Privacy Program (DOD 5400.11–R). The Act provides criminal penalties for any contractor or contractor employee who willfully discloses such protected information, in any manner, to any person or agency not entitled to receive the information. The Act also provides for civil penalties against DOD if it is determined that the Department (or contractor) intentionally or willfully failed to comply with the Privacy Act.

Question. Would you please share what you can about the lessons learned as a result of this incident and the steps the Department and the TRICARE organization and its contractors are taking to guarantee beneficiary privacy?

Answer. As a result of close evaluation of our physical and information security we found the following:

—Backup tapes not protected. For example, tapes left on the top of servers, or left lying out in the open.

—A general lack of proper security in areas where servers reside. In particular, Defense Blood Standard System and Pharmacy servers were not being properly protected.

—Most sites had excellent password management policies and guidelines in place, but they were not being followed.

—In general, there were proper locks on doors, but in several cases, not being properly used. Many doors that should have been locked after hours were found open which allowed entry to areas where patient information is kept. Most items not secure were portable medical devices containing patient medical information and medical records.

—In many cases contingency plans for disaster recovery were lacking or out-of-date.

—Lost hardware not reported through official channels.

—Hardware being turned in without data being wiped from hard drives.

—Concerning recent physical security self-assessments, a second look found almost 60 percent of local assessments were inaccurate or inexact.

—As a result of the TriWest issues all Army medical activities participated in a Health Affairs directed self-assessment of local physical security practices. Mitigation plans for all deficiencies are due on May 16, 2003.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

MEDICAL TREATMENT FACILITIES

Question. Healthcare, pay, and housing are the greatest Quality of Life issues for our troops and their families. With the numbers of health care staff deployed from your Military Treatment Facilities, what strategies did you use to effectively plan and care for beneficiaries back home?

Answer. The most expeditious means to maintain services for our beneficiaries was accomplished by looking across our own regional medical commands for opportunities to cross-level providers when possible. The TRICARE Health Plan was designed with contingency operations in mind and the Managed Care Support Contractor's (MCSC) network of providers becomes the second echelon for health care services if the MTF is unable to provide the care. Before requesting any reserve

component activation for backfill support, the MEDCOM staff coordinated with the TRICARE Lead Agents and the MCSC to evaluate the adequacy of the civilian provider network, especially in relation to specific clinical specialties and locations that were hard hit. When network adequacy was less than adequate, the request for reserve component backfill request was prepared to maintain health care services. Additionally, the MCSC provided backfill providers and support staff through resource sharing agreements. A summary of resource sharing backfill by DOD Region and skill type is provided below for Army MTFs. The MCSC was successful in providing 88 percent of the requested backfill. The majority of those filled by the MCSC were in the Registered Nurse and Para-Professional skills. For those positions capable of being filled with resource sharing personnel, the MCSC's average "fill time" was 16 days compared to the industry standard of 90 days.

Skill Type	Data	DOD TRICARE Region					Grand Total	Percent By Type
		3	5	6	12	7/8		
Physicians	Subtotal FTEs Requested	3	5	0.5	1.66	8.5	18.66	12
	Subtotal FTEs Filled	3	5	0.5	1.66	8.5	18.66	14
PAs/NPs	Subtotal FTEs Requested	1	1	....	....	....	2	1
	Subtotal FTEs Filled	1	1	....	....	....	2	1
RNs	Subtotal FTEs Requested	21	9	....	....	39	69	45
	Subtotal FTEs Filled	11	9	....	....	39	59	43
Paraprofessionals	Subtotal FTEs Requested	19	5	....	....	30	54	35
	Subtotal FTEs Filled	10	5	....	....	30	45	33
Administrative	Subtotal FTEs Requested	....	9	....	....	2	11	7
	Subtotal FTEs Filled	....	9	....	....	2	11	8
Total FTEs Requested		44	29	0.5	1.66	79.5	154.66	....
Total FTEs Filled		25	29	0.5	1.66	79.5	135.66	88

Question. How are you able to address the needs of patients coming in from the battlefield and is this affecting the care of beneficiaries seeking regular care?

Answer. Casualties evacuated from Operation IRAQI Freedom (OIF) and Operation Enduring Freedom (OEF) were initially sent to either the fleet hospital at ROTA Spain or Landstuhl Regional Medical Center (LRMC). The staffing of LRMC was increased to manage the flow of casualties. This enabled LRMC to execute both its peacetime mission of providing health care to beneficiaries stationed in Europe and its wartime mission of the primary OCONUS military treatment facility (MTF) supporting the Global War on Terrorism. Evacuation from Europe was facilitated by the TRANSCOM Regulating and Command and Control Evacuation System (TRACES). This system improved the ability to send casualties to medical centers best equipped to manage their specific medical problem. For example: TRACES expedited the evacuation of burn patients to the specialized burn center at Brooke Army Medical Center (BAMC).

Army Medical Centers, such as Walter Reed Army Medical Center and Womack Army Medical Center/Fort Bragg, and Army Community Hospitals, such as the hospital at Fort Hood, deployed many health care providers and paraprofessionals. Reserve component backfill and cross leveling within the Army Medical Department maintained the capacity of most MTFs in the Army. Localized shortages of certain beneficiary services did occur. However, when the network capability was adequate, beneficiaries were able to obtain health care on the local economy through TRICARE if care within the MTF was not available or if waiting times exceeded TRICARE access standards. In some locations, the TRICARE network capability and the adequacy of that network, remains problematic. In these areas, TRICARE access standards were exceeded. Across the Army there has been approximately a 20 percent increase in purchased care. This increase combined with the augmented numbers of reserve soldiers on active duty, and the need to send health care providers on extended temporary duty, will significantly increase the resource requirements of the Army Medical Department.

Question. What authority were you given to backfill your vacancies and are the funds sufficient to attain that goal?

Answer. The Army Medical Department has supported and is supporting a number of missions requiring the deployment of medical personnel in addition to those deployed in support of Operation Iraqi Freedom (OIF) and Operation Noble Eagle. None of our MTFs are overstrength, and the impact of these deployments is always felt, but can generally be managed for the short duration missions.

Dr. David Chu, Under Secretary of Defense for Personnel and Readiness, authorized a 50 percent backfill by Reserve Component personnel of the number of vacancies created by the deployment of active duty in PROFIS (professional filler system) positions to OIF only. Additionally, limiting the amount of active duty time to 90-day rotations for RC physicians, dentists, and Nurse Anesthetists has been problematic as there are insufficient reserves to fill multiple rotations in some specialties. Attempting to maintain the high quality of care and the access to care for our beneficiaries with this reduction in personnel has been extremely challenging. Increasing the amount of funding for reserve backfill would increase the ability to replace losses, especially in areas of inadequate TRICARE networks. To accommodate the 90-day rotational policy, a significant increase in the number of slots for reserves will be needed.

Question. What measures were used in determining what the services were able to backfill and how did that compare to current requirements?

Answer. Current staffing before deployment; staff losses, by specialty, due to deployment; loss of borrowed military manpower; losses due to other taskings; TRICARE network adequacy; non-network adequacy; historical ability to hire/contract healthcare workers; reserve availability; and the ability of the regions to cross-level losses, especially low-density specialties, were all taken into account to determine the level and kind of backfill needed. As deployment schedules, troop mix and actual units changed for this fluid operation, reserve backfill and cross-leveling were and continue to be adjusted.

RETENTION AND RECRUITMENT

Question. With increasing deployments in support of Operation Iraqi Freedom and the Global War on Terrorism, can you describe your overall recruitment and retention status of the Medical Department in each of your services?

Answer. Our current accession projections for the year (as of May 7, 2003) are in the table below:

Corps	Mission	Projection	Percentage
Army Nurse Corps	373	283	75.87
Dental Corps	117	112	95.73
Medical Corps	389	389	100.00
Medical Service Corps	369	369	100.00
Medical Specialist Corps	83	106	127.71
Veterinary Corps	40	43	107.05
Total	1,371	1,302	94.97

Our current loss projections seem to be following a historical glide path, but this may have been influenced by the various programs put in place to stop personnel from exiting the service. Once these programs are no longer in place, it is unclear how our force will react. If we utilize, for example, the number of people eligible for Incentive Special Pay compared to those that elected to execute a contract, we see that this fiscal year is significantly below the last three years. This may well indicate a problem within the Medical Corps. We project meeting our accession program for Medical Corps officers. However, chronic shortages in some specialties (such as surgical subspecialties) continue to exist in the Medical Corps.

Question. What specific corps or specialties are of most concern?

Answer. Currently, the Army Nurse Corps is of the most concern. The nation wide shortage, coupled with two years of an inability to achieve our accession target, has created a significant shortage of skilled nurses. We are hopeful that utilization of the Health Professions Loan Repayment Program, changes with United States Army Cadet Command and planned increases in the Accession Bonus will enable us to more successfully compete within the civilian market place for these skills. Within the Medical Corps, our surgical specialties continue to present us with the largest challenge. General surgery, orthopedic surgery and anesthesiology continue to be specialties with a high Operational Tempo. This high Operational Tempo, coupled with a significant pay gap when compared to civilian situations, makes the retention of these specialties difficult. Our radiology community is also experiencing a decline in the inventory. Our past efforts within the Dental Corps are now starting to pay dividends. While still short in terms of total inventory, past increases in our student program support for this Corps has resulted in positive strides toward eliminating our accession problems.

Question. Did the Critical Skills Retention Bonus given for this year help these specialties?

Answer. Within the Nurse Corps, 55 percent of the Nurse Anesthetists and 76 percent of the Operating Room Nurses that were eligible for the Critical Skills Retention Bonus (CSRB) opted for the program. Within the Dental Community, 70 percent of those eligible took the program. Medical Corps response was somewhat less than this with only 24 percent of the eligible physicians opting for the program.

Question. In light of shortages and the disparity between military and civilian salaries, how have you planned for additional retention bonuses in future years?

Answer. The Fiscal Year 2003 National Defense Authorization Act (NDAA) increased the ceilings on our retention and accessions pays. In the absence of any appropriation to support these additional authorizations, we have attempted to make small modifications within existing budgets for fiscal year 2004. However, working with our sister services and Health Affairs, we are developing an aggressive plan with increases in all specialties for fiscal year 2005 and beyond. The actual amount of the increase will be determined based on projected inventory. The proposed increases range anywhere from $2,000 to $25,000 (assuming a four year contract) depending on the specialty. This plan is contingent on the availability of funds. Currently funds are not programmed within the Defense Health Program or the services military personnel accounts for this initiative.

Question. Are there recruitment and retention issues within certain specialties or corps?

Answer. Currently, the Army Nurse Corps is of significant concern. The nationwide shortage, coupled with two years of an inability to achieve our accession target—86 percent (288 of 333 authorizations) and 79 percent (291 of 367 authorizations) for fiscal year 2001 and fiscal year 2002 respectively—has created a significant shortage of skilled nurses. Our predominant nursing shortages are for Operating Room Nurses—86 percent (290 of 339 authorizations), Nurse Anesthesists—72 percent (200 of 277 authorizations) and OBGYN Nurses—73 percent (129 of 177 authorizations). We are hopeful that utilization of the Health Professions Loan Repayment Program, changes within United States Army Cadet Command and planned increases in the Accession Bonus will enable us to more successfully com-

pete within the civilian market place for these skills. Within the Medical Corps, our surgical specialties continue to present us with the largest challenge. General Surgery—50 percent (126 of 251 authorizations), Orthopedic Surgery—54 percent (116 of 215 authorizations) and Anesthesiology—84 percent (138 of 164 authorizations) continue to be specialties with a high Operational Tempo. This high Operation Tempo, coupled with a significant pay gap when compared to civilian situations—36 percent for General Surgeons, 48 percent for Orthopedic Surgeons and 42 percent for Anesthesiologist (data as of fiscal year 2000 for providers at seven years of service as reported in the Health Professions' Retention-Accession Incentives Study Report to Congress by the Center for Naval Analysis) makes the retention of these specialties difficult. Our radiology community—58 percent (119 of 204 authorizations) is also experiencing a decline in the inventory. Our past efforts within the Dental Corps are now starting to pay dividends. While still short in terms of total inventory—87 percent (987 of 1,136 authorizations), past increases in our student program support for this Corps has resulted in positive strides toward eliminating our accession problems (achieved an average of 77 percent of accession requirements over the past five years, as opposed to an average of 64 percent success rate over the last ten years). We continue to use a variety of bonus programs as well as initiatives to improve the quality of medical practice to enhance provider satisfaction and improve retention.

Question. If so, what are your recommendations to address this in the future?

Answer. Fully funded student programs coupled with accession incentives comparable with those offered within the civilian market place will be critical to maintaining our force structure. Aggressive utilization of the Health Professions Loan Repayment Program as a retention tool within the Nurse Corps will hopefully change some retention behavior. We are also increasing the use Reserve Officer Training Corps scholarships, restructuring bonuses and seeking increased funding to increase bonus payments. We are also working to improve our providers' satisfaction with the quality of their clinical practice to improve retention. If this is successful within this Corps, we will evaluate its utility within other Corps.

Question. Have incentive and special pays helped with specific corps or specialties?

Answer. This is a difficult question to quantify. The percentage of officers who elected to avail themselves of these special pays can be an indication of success. For example, when we offered new retention pays to our Optometry and Pharmacy community, 86 percent and 88 percent respectively, opted for the pays. There is no way to refute the argument that some of these individuals would have been retained without these pays, however the bottom line is they work and are a valuable aid to retention.

Question. How does the fiscal year 2004 budget request address your recruitment and retention goals?

Answer. The Army has funded to 100 percent the requested Program Objective Memorandum (POM) through fiscal year 2004. Even though the fiscal year 2003 NDAA increased the discretionary special pay caps, additional dollars were not appropriated. The Army is supportive of validated POM requirements submitted for fiscal year 2005–09. We anticipate the ability to implement partial changes in fiscal year 2004 and further aggressively increase special pay rates in fiscal year 2005 and the out-years.

FORCE HEALTH PROTECTION

Question. As a result of concerns discovered after the Gulf War, the Department created a Force Health Protection system designed to properly monitor and treat our military personnel.

What aspects of the Departments' Force Health Protection system have been implemented to date?

Answer. The Persian Gulf War and experience with illnesses among Gulf War veterans highlighted some deficiencies in the Army's force health protection capabilities. The Army Medical Department (AMEDD) has made significant progress in addressing these shortfalls, but more needs to be done.

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) was formed in 1994 to improve integration of AMEDD's force health protection efforts for the warfighter. The emerging capabilities of USACHPPM allow the AMEDD to anticipate, communicate, and protect against health threats to deployed soldiers, including those posed by the environmental health threats on the battlefield, through Occupational and Environmental Health Surveillance. The USACHPPM, in collaboration with the Armed Forces Medical Intelligence Center (AFMIC) and other elements of the Defense intelligence community, has dramati-

cally improved the intelligence preparation of the battlefield so that commanders are informed about potential environmental health risks before they occupy a site that could cause their soldiers to become ill. This is accomplished in part through a secure website. The USACHPPM deploys preventive medicine teams to survey the occupational and environmental health (OEH) risks to our forces. As these potential OEH risks are identified, control measures are quickly recommended to local commanders in the field. In addition, these exposure data are now archived and will be included as part of the Defense Occupational and Environmental Health Readiness System (DOEHRS) for review in later retrospective health studies. Occupational and environmental health surveillance policy, doctrine, tactics, techniques and procedures are also continually being developed and updated by the AMEDD to further promote the safety of our deployed forces.

The AMEDD tracks soldiers health throughout the career life-cycle through the Defense Medical Surveillance System, which includes data on pre- and post-deployment health assessments, episodes of health care, immunizations, reportable disease conditions for over 7.6 million personnel serving on active duty since 1990, and is linked to the DOD Serum Repository in Silver Spring, MD, housing over 31 million serum specimens collected from active duty service members since the late 1980's.

The 520th Theater Army Medical Laboratory, bringing state-of the-art medical laboratory science and technical support for the combatant commander, was established in 1995 and first deployed to Bosnia in early 1996.

The Medical Protection System (MEDPROS) automates the Army's medical readiness system, including tracking immunizations for soldiers, beginning with anthrax vaccine in 1998, and continuing with smallpox and other militarily important vaccines today.

The Army is Executive Agent for the DOD Global Emerging Infections Surveillance and Response System (GEIS), established in 1996. Since 2001, GEIS has operated Project ESSENCE to provide early notification of outbreaks of infectious diseases in military communities around the world, including those that may represent manifestations of use of a biological weapon.

Since 1991, the U.S. Food and Drug Administration has licensed vaccines against hepatitis A, Japanese encephalitis, and smallpox, and Soman Nerve Agent Pretreatment, Pyridostigmine (SNAPP). These and other products of military medical research allow the AMEDD to provide high quality disease countermeasures to protect the deployed force.

As always, the AMEDD attends to the health care needs of soldiers while they are deployed. In 2000, the AMEDD began the transformation of the combat medic into the 91W ("Whisky"), the medical soldier for the objective force.

The AMEDD provide quality care for soldiers following deployment, employing valuable lessons learned from the first Persian Gulf War in the Deployment Health Clinical Practice Guideline, and establishment of the DOD Deployment Health Clinical Center at Walter Reed Army Medical Center, Washington, DC in 1998.

Question. What are the differences between the system during the Gulf War, Operation Iraqi Freedom, and Operation Enduring Freedom and Operation Noble Eagle?

Answer. All accomplishments listed above reflect the growth and evolution of the Army's robust deployment surveillance capability since 1991. Probably the most significant improvements in this capability are the Deployment Health Clinical Practice Guideline and the extensive longitudinal baseline health database provided by the Defense Medical Surveillance System.

The Deployment Health Clinical Practice guideline is a very useful tool for health care providers to assist patients with any health problem or concern that the patient judges to be related to a military deployment. By addressing deployment-related concerns proactively, we anticipate that this guideline will facilitate appropriate, timely, and trusted health care for soldiers and their families following deployments.

The Defense Medical Surveillance System permits extensive analysis of health issues among deployed personnel from all Services. In the wake of the Gulf War, we were unable to answer many basic questions about health and disease among military members due to lack of appropriate data. With the establishment and growth of the Defense Medical Surveillance System, including the DOD Serum Repository, we can provide much more timely, accurate, and comprehensive answers to questions about the health of the service members, individually and collectively, including those deployed on contingency operations.

For Operation Iraqi Freedom, the deployment health surveillance program has been enhanced with the addition of a more extensive post-deployment health assessment questionnaire, a requirement for face-to-face encounter between a health care provider and each service member before demobilization, and the collection of a post-deployment serum specimen to be added to the DOD Serum Repository. In this

way, we are collecting adequate information on the health of redeploying service personnel to satisfy our surveillance requirements while assuring that each service member receives the appropriate medical attention and care he or she deserves before demobilization.

OPTIMIZATION

Question. Congress initiated optimization funds to provide flexibility to the Surgeons General to invest in additional capabilities and technologies that would also result in future savings. It is my understanding that a portion of these funds are being withheld from the Services.

Can you please tell the Committee how much Optimization funding is being withheld from your service, what are the plans for distributing the funds, and why funds since fiscal year 2001 are being withheld?

Answer. The AMEDD validated and approved 23 projects in fiscal year 2003. At this point, 15 of those projects with a fiscal year 2003 cost of $2,143,800 have not been funded by OSD. My staff is reviewing an additional 14 Optimization projects targeting fiscal year 2003 funding. Once approved, they will be forwarded to OSD for funding. Optimization funding is being held by OSD to resource a portion of their fiscal year 2003 $800 million shortfall. OSD does not plan to distribute funding until they resolve the funding shortfall.

Question. How have you benefited from optimization funds?

Answer. Army Medical Treatment Facilities have benefited greatly from your support to optimize the direct care system. This support enables the Army to exploit cost effective opportunities to achieve maximum benefit from existing MHS structure. The AMEDD actively manages 32 Optimization initiatives with an annual investment value of $16 million and a projected net annual savings at maturity of $5 million. Although these projects are in varying stages of maturity the majority have achieved self-financing status and are positioned to recoup their initial investment. Much of the savings occur in private sector care expenditures. Optimization funding is being used not simply to recapture workload from the private sector but rather optimize the mix of services making the most efficient use of existing MHS infrastructure and private sector care capability. The benefits of optimization may not always be apparent due in large part to the gap between budgeted and actual medical inflation rates and changes to the medical benefit. Optimization funding reduces the overall cost to the MHS. Those costs would be rising at an increased rate absent your support and commitment to the Optimization program.

Question. What projects are on hold because OSD has not released funding?

Answer. The AMEDD has 15 Optimization projects on hold awaiting OSD release of funds. Although time may not permit me to go into great detail on each, there are some interesting characteristics of this group. A VA/DOD sharing agreement brings MRI capability to the Fort Knox community while increasing the VA's capacity to deliver those same services in their local market. Optimization projects targeting child mental health in the Northwest, active duty inpatient psychiatry in the Southwest, and substance abuse in Hawaii are awaiting funding. A number of projects such as lithotripsy at Fort Bliss and automated surgical clothing swap stations at Fort Campbell can be implemented quickly and offer rapid return with a modest investment.

Question. What are the projected projects using the proposed $90 million in the fiscal year 2004 budget request?

Answer. My subordinate commanders continue to develop optimization opportunities in anticipation of fiscal year 2004 and beyond funding. The AMEDD has institutionalized the optimization process. Early successes improved our ability to develop and implement initiatives. I anticipate increasing incremental benefit of the Optimization program going forward.

QUESTIONS SUBMITTED BY SENATOR DIANNE FEINSTEIN

PATIENT PRIVACY (TRICARE)

Question. In December, 2002, one of the Department's managed care support contractors for the military's TRICARE program experienced a significant theft of military beneficiary personal identification—possibly the largest personal identification theft in U.S. history. This theft has potentially significant and serious implications for those beneficiaries, and the vulnerability of these individuals may well extend for years.

The Department pledged a full investigation of this matter, yet little has been heard on the status and outcome of internal and external reviews and investigations.

What is the status and outcome of the Department's Inspector General investigation into this theft?

Answer. As requested by the Assistant Secretary of Defense for Health Affairs [ASD(HA)], the DOD Inspector General will complete all facility physical security evaluations, by the end of May 2003. Soon thereafter, they will brief the ASD(HA) on their preliminary findings.

Question. Has the Department determined that its policies and oversight of its TRICARE managed care support contractors' personal information security are adequate given the December incident?

Answer. We believe that our policies are strong, sound and adequate, and this has been verified by a study conducted by the Gartner consulting group. Each TRICARE contractor has the primary responsibility for implementing sufficient security safeguards to prevent unauthorized entry into its data processing facility and unauthorized access to TRICARE beneficiary records in contractor custody. We have also initiated a review of TRICARE contract language to ensure that it incorporates current security policies. In addition, we continue with oversight of managed care support contractors through DOD's process of ongoing accreditation and certification of contractor systems and networks, a process which incorporates into its criteria a variety of facility physical security controls.

Question. Is the Department convinced its policies for the security of personal health care information adhere to established industry best practices?

Answer. The results of recent assessments, validations and the Gartner study demonstrate that the Department's policies for the security of personal health information meet, and in some cases, exceed established Federal, DOD, and industry information security standards.

Question. Does the Department need any new authorities to address personal information security and deal appropriately with entities failing to adequately safeguard such sensitive information?

Answer. At this time, DOD does not require any additional authorities to address personal information security.

Question. Is the Department considering implementing a system of sanctions or penalties against companies who fail to provide reasonable protections for personal information?

Answer. DOD currently has procedures and mechanisms in place to address inappropriate management of personal and medical information. Sensitive information pertaining to TRICARE beneficiaries is maintained by TRICARE contractors subject to the Privacy Act of 1974, as implemented by the DOD Privacy Program (DOD 5400.11–R). The Act provides criminal penalties for any contractor or contractor employee who willfully discloses such protected information, in any manner, to any person or agency not entitled to receive the information. The Act also provides for civil penalties against DOD if it is determined that the Department (or contractor) intentionally or willfully failed to comply with the Privacy Act.

QUESTIONS SUBMITTED TO LIEUTENANT GENERAL GEORGE PEACH TAYLOR, JR.

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

DEPLOYMENT OF MEDICAL PERSONNEL

Question. The staff's discussions with the Surgeons General indicate that the Services have backfilled for deployed medical personnel at the Medical Treatment Facilities at varying levels.

Some of the Services are relying more heavily on private sector care rather than backfilling for deployed medical personnel.

To what extent has the recent deployment of military medical personnel affected access to care at military treatment facilities? What are you doing to ensure adequate access to care during this time?

Answer. Despite deployments, access to routine health care in the Air Force Medical Service (AFMS) has improved seven percent since August 2002. Currently, military medical treatment facilities (MTFs) are able to provide routine access to health care (within seven days) 83 percent of the time. MTFs are able to provide access to acute care (within 24 hours) 96 percent of the time. MTFs have met peacetime standards, but there has been an overall increase in costs, particularly to supple-

mental care, in order to meet the health care needs of Guard and Reserve members called to active duty.

Through the working relationships between our Managed Care Support Contractors (MCSCs) and our MTFs, gaps in beneficiary access were determined and resolutions sought throughout the activation and deployment of service members to contingency locations. A multi-level communication plan was developed and disseminated to support our MTF effort to educate our beneficiaries of where and how medical services could be accessed.

Question. What percentage of mobilized reservists in medical specialties are being used to backfill positions in the United States?

Answer. No Air Force medical reservists were activated as backfill during Operation Iraqi Freedom.

Question. Are there shortages of personnel in some specialties? If so, which specialties are undermanned and by how much?

Answer. The Air Force Medical Service has personnel shortages in a variety of specialty areas. According to the Health Manpower Personnel Data System Data from September 30, 2002, some of our more significant shortages can be found in:

—Anesthesiology (63 percent staffed)
—Aviation/Aerospace Medicine (Residency Trained Only) (81 percent staffed)
—Cardiology/Cardiovascular (64 percent staffed)
—Emergency Medicare (79 percent staffed)
—Otorhinolaryngology (ENT) (77 percent staffed)
—Radiology (65 percent staffed).

Question. Are there other ways of structuring the staffing of military medical units that might help address shortages in a few specialties, such as making increased use of civilian contractors or DOD civilian personnel in MTFs stateside?

Answer. The TRICARE Next Generation (T-Nex) of contracts addresses this very issue. While the current contracts provide staffing during times of war, the new contracts allow for civilian backfill staffing through a spectrum of military operations. Specifically, the T-Nex Statement of Work states: "a contingency plan designed to ensure that health care services are continuously available to TRICARE eligible beneficiaries as the military treatment facilities respond to war, operations other than war, deployments, training, contingencies, special operations, et cetera." Additionally, contingency plans require an annual review and require the contractor to implement their contingency plan within 48 hours of notification.

Question. Is DOD considering any changes to the mix of active duty and Reserve personnel in medical specialties?

Answer. The mix of skill sets in the Active and Reserve Components is currently being examined in several forums. The Operational Availability Study, the OSD AC/RC Mix study, as well as individual Service studies are all looking at the right mix of Active and Reserve capabilities to ensure that the needs of the National Security Strategy are met through the key factors of availability, responsiveness, agility, and flexibility. The studies are ongoing, but initial results indicate some capabilities need to be addressed. We will be examining the possibility of rebalancing capabilities within war plans and between the Active and Reserve Components. While recent mobilizations have highlighted shortages in certain capabilities that stressed Reserve forces, there are multiple solutions to address those issues. Application of a variety of actions, including innovative management techniques for the Reserves, will maximize the efficiency of our existing forces and may therefore require very little change to existing force structure.

MONITORING THE HEALTH OF GUARD AND RESERVE PERSONNEL

Question. An April 2003 GAO report documents deficiencies by the Army in monitoring the health of the early-deploying reservists. Annual health screening is required to insure that reserve personnel are medically fit for deployment when call upon.

Review found that 49 percent of early-deploying reservists lacked a current dental exam, and 68 percent of those over age 40 lacked a current biennial physical exam.

In addition, monitoring the health of reservist returning from deployment will be critical to ensuring the long term health of those service members, and assisting in the identification of common illnesses, such as those associate with the Gulf War Syndrome.

What improvements have been made to the medical information systems to track the health care of reservists? Are they electronic, do they differ among services?

Answer. Although I am not familiar with the capabilities of the other services, both the Air Force Reserve Command, and Air National Guard unit programs have developed independent state-of-the art computer physical exam management sys-

tems that track the health and dental status of all assigned personnel, in real time. Data is available at each supervisory level so all commanders can know the status of their troops.

The Air National Guard and the Air Reserve Personnel Center implemented the Reserve Component Periodic Health Assessment and Individual Medical Readiness (PIMR) software this fiscal year to track the medical readiness of the Air National Guard. Air Force Reserve Command will soon attain this milestone. This software tracks six key elements identified by Health Affairs for monitoring individual medical readiness.

Headquarters Air Reserve Personnel Center has developed an access database for all the 12,000+ Individual Mobilization Augmentees. It provides Direct demographics downloaded from personnel system; Tracking/recording of physical exam dates; Tracking/management of medical/dental deferment, assignment and deployment restrictions, and medical board action; Tracking/management of deployment and post-deployment medical information (DD2796). Post-deployment assessment has recently been upgraded to include a more robust questionnaire, an interview with a provider, and a blood sample for later analysis.

Question. During the mobilization for Operation Iraqi Freedom, how many reservists could not be deployed for medical reasons?

Answer. The Air Force Reserve Unit program was able to meet 100 percent of its taskings with 1.5 percent not being able to deploy for medical reasons (only 22 out of 1,450 total mobilized).

Five percent of our Individual Mobilization Augmentees were unable to deploy; 40 out of 800 mobilized. Of these 40, four were later mobilized by exception to policy (ETP) due to mission requirements. A plan of care for these members was identified before mobilization and approved by the wing commander.

The Air National Guard was able to meet 100 percent of its mission taskings with 5,500 members deploying, each being medically and dentally qualified for deployment. Local units may have substituted personnel, but numbers are not available at this time.

Question. How many deployments were delayed due to dental reasons, and how many reservists are not in Dental class 1 or 2?

Answer. Air Force Reserve Command: Five personnel had deployments delayed for dental reasons. Currently 1,470 reservists are dental class three and 34,473 are in dental class four (35,943 are not class one or two). It is important to note that the majority of class three or four reservists are in that category because of administrative and dental records issues that can be corrected quickly if notified of deployment. At a minimum, 78 percent of all class three and four members are in that category because they have yet to insert their most recent civilian dental examination paperwork into their Air Force dental record. This issue is usually rectified immediately upon notification of deployment and has not had negative impact on readiness during Operation Iraqi Freedom or previous contingencies.

Air Reserve Personnel Center had 21 personnel out of 800 (2.6 percent) with delayed deployments for dental reasons. Currently the Immediate Medical Associates (IMA) dental program has 328 personnel in class three, and 4,616 (37 percent) who are class four.

Air National Guard had no deployments delayed due to dental reasons. As of April 15, 2003 with 50 percent of the Air National Guard units reporting: One percent was Class III (622); five percent was Class IV—no exam (2,488). NOTE: When PIMR gets 100 percent populated (July 2004) with data, the Air National Guard will be able to see percentages on a real time basis.

Question. What is the current enrollment rate in the TRICARE Dental Program for reservists, and what action has DOD taken to encourage reservists to enroll in TDP?

Answer. Air Force Reserve Command (unit and IMA programs): 11 percent (8,290 Personnel with Dental Contracts of the 73,961 assigned); Air National Guard 8 percent (6,158 Personnel with Dental Contracts of the 78,663 assigned).

The Air Force Reserve and Air National Guard have all fully advertised the TDP including notices on their web pages, coverage of the program at major conferences and direct mailings to all personnel.

Question. What needs to be done and what will it cost to ensure that reservists are medically and dentally fit for duty?

Answer. Both the Air Force Reserve Command and the Air National Guard welcome enactment of legislation authorizing funding for annual dental exams.

The Air Force Reserve favors funding annual dental exams, which would cost approximately $3 million to $4 million. It is likely this cost will be offset by the number of personnel who see their civilian dentists and provide a completed DD Form 2813 (DOD Active Duty/Reserve Forces Dental Examination). To ensure that reserv-

ists are medically ready for duty, full funding of validated dental support Unit Type Codes and full time manpower requirements will give medical units the requirements necessary to accomplish the exams and assessments.

The Air National Guard favors providing dental treatment as a benefit; pay the member's premium for dental insurance. The projected cost to provide such a benefit to 78,663 traditional members at $9.00 per month is $8.5 million.

Unlike medical examinations, annual dental examinations are a new unfunded requirement. Compliance with this requirement is contingent on receipt of funds unlike the medical examination process, which is well established and fully supported through POM submissions.

Both Air Force Reserve Command and Air National Guard continue to enhance long established medical examination processes and record keeping. This evolving process enjoys a robust partnership with active duty support, the guidelines for which are included in the Program Objective Memorandum (POM). No additional funding is required.

Question. Are there any repercussions for commanders who do not ensure that their troops are fit for duty?

Answer. Although there are no commander-specific repercussions specified in Air Force Regulations, fitness for duty is part of the overall unit readiness equation along with factors such as dental fitness and training reports. These factors are reviewed at Wing, Numbered Air Force (or State), and Command levels. Disciplinary actions for low readiness levels are at commander's discretion at each of these levels.

COMBAT TREATMENT IN IRAQ AND AFGHANISTAN

Question. All of the Services have undertaken transformation initiatives to improve how medical care is provided to our front line troops.

The initiatives have resulted in more modular, deployable medical units which are scalable in size to meet the mission.

How well have your forward deployed medical support units and the small modular units performed in Operation Enduring Freedom and Operation Iraqi Freedom?

Answer. Our transformation to these smaller, highly mobile, units has paid huge dividends in Afghanistan and Iraq. Although many Expeditionary Medical Support (EMEDS) activities in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) are still classified, I can share with you that we have positioned 24 EMEDS facilities in 12 countries. Four of these units are currently far forward in Iraq.

When U.S. forces captured one of the Iraqi air bases, elements of the Air Force Medical Service were there with the entering forces. Prior to creation of EMEDS units, it would have taken two to three weeks before we could have erected an Air Force medical facility to care for or troops occupying the base. In this conflict, we had the capability to provide care to our troops the same day we took the air base. Within just a couple days, we had established, equipped, and manned a fully functioning EMEDS unit.

EMEDS not only ensures we can provide health care far forward, it also helps us prevent illnesses and injuries. In OIF we have achieved the lowest disease and non-battle injury rate in military history—almost 20 percent lower than Operation DESERT SHIELD/STORM.

I am also quite proud of the Aeromedical Evacuation (AE) piece of the EMEDS system. To date they have moved more than 2,000 patients (including 640 battle casualties) in OIF without using dedicated AE aircraft.

Aeromedical Evacuation operations in OIF comprise the most aggressive evacuation effort since Vietnam, with not a single patient death in transit, which makes it the most successful aeromedical operation in military history.

Question. What are some of the lessons learned from our experience in Iraq?

Answer. The Air Force Medical Service is in the initial stage of collecting Operation IRAQI FREEDOM lessons learned. Two major issues identified at this point are as follows.

First, concerns with "In-Transit visibility" (ITV). ITV of our deploying personnel and equipment is a significant problem. Many man-hours were spent searching each Aerial Port of Embarkation (APOE) pallet yard for medical equipment pallets that did not meet the required delivery dates. Additional man-hours were spent tracking down individuals who departed their Continental United States (CONUS) duty station, but did not make it to the deployed destination by the required in-place dates. This severely hampered the ability of operational planners and commanders to effectively employ constrained resources to meet mission requirements.

TRANSCOM Regulating and Command & Control system (TRAC[2]ES) was designed to provide ITV of patients returning from the theater of operations to more definitive care. TRAC[2]ES was never designed to provide visibility of patients when they exit the system, nor does it provide information to deployed commanders on a return to duty status or the patient's medical condition. Therefore, commanders, who have overall responsibility for these individuals, in some cases had no visibility of their status or medical condition, and no service-wide system exists to provide them that critical information.

Second, validation of our concept of Critical Care in the Air. Operation IRAQI FREEDOM demonstrated the value of teaming our Critical Care Air Transport (CCAT) teams and our Aeromedical Evacuation (AE) system. The CCAT teams are capable of providing critical care in the air, a level of medical service that was unavailable to our forces until our recent conflicts in Afghanistan and Iraq. Additionally, CCATs can accompany their wards on most any cargo aircraft transiting the theater through the use of innovative Patient Support Pallets (PSPs). These pallets contain the tools and equipment that permit CCAT team members to quickly convert cargo aircraft into aeromedical evacuation platforms. The synergistic relationship between our AE, PSPs, and the CCAT teams who use them, permitted the AE movement of over 2,000 patients, some critically ill/injured and unstable, in the first 35 days of Operation IRAQI FREEDOM, including 640 battlefield casualties.

Question. What tools/equipment is still required to improve the care provided to combat casualties?

Answer. The challenges facing the deployed medical commander drive requirements that the traditional conventional wartime scenario never anticipated. As conflicts become more diverse and the potential for unconventional warfare increases, so does our need for tools and equipment that will assist us in preventing, detecting, and operating within an unconventional chemical or biological environment.

Of great importance is the research and development, testing and evaluation of initial patient decontamination equipment. These tools are being developed now and will greatly aid our medics by allowing them to perform their life-saving activities while protecting both provider and patient from the contaminated environment.

Once biological, chemical, or radiological weapons are detected, the Air Force medics will need NBC Casualty Treatment Capabilities (ventilators, facility and personal protective equipment, etc.). This equipment currently exists, but we require more to ensure a full spectrum protection of our fielded medics and the patients for whom they will provide care.

Disease surveillance programs are critical to early identification of disease trends and appropriate responses. This includes both Weapons of Mass Destruction (WMD) detection units and the software programs capable of aggregating their data and providing meaningful information to commanders and medics about potential epidemics or WMD attacks.

Another critical component to any casualty treatment plan is oxygen, specifically the ability to generate oxygen for treatment in a deployed environment. The Air Force Medical Service requires Deployable Oxygen Systems (DOS) that can be inserted into its modular treatment facilities in austere environments.

Finally, although TRAC[2]ES performs successfully to provide us visibility of our patients as they are transferred in virtually any aircraft, that visibility becomes much more difficult once the patient enters the receiving medical facility. As of yet, there is no TRAC[2]ES-like system that track the patient's discharge or transfer to other locations. The entire Department of Defense health care system would benefit from a program that would provide overarching patient location visibility in both the sky and on the ground.

T-NEX—NEXT GENERATION OF TRICARE CONTRACTS

Question. The next generation TRICARE contracts will replace the seven current managed care support contracts with three contracts. This consolidation is intended to improve portability and reduce the administrative costs of negotiating change orders and providing government oversight across seven contracts.

The award date for these contracts has slipped from the scheduled date in July of 2003. Since the timeline for awarding the contracts has slipped, what is the expected start date for the delivery of T-Nex?

Answer. The overall schedule for the suite of T-Nex solicitations has not been changed although some award dates may be delayed if proposals require more extensive review. The TRICARE Mail Order Pharmacy Contract was awarded, and performance began on March 1, 2003. The TRICARE Retiree Dental Contract was also awarded and performance on this contract began on May 1, 2003. Proposals have been received for both the TRICARE Healthcare and Administration Managed

Care Support and the TRICARE Dual-Eligible Fiscal Intermediary contracts, and the evaluation process for both of these is ongoing. Requests for Proposal have been issued for the TRICARE Retail Pharmacy and National Quality Monitoring contracts, and those proposals are due June 11 and June 3, respectively.

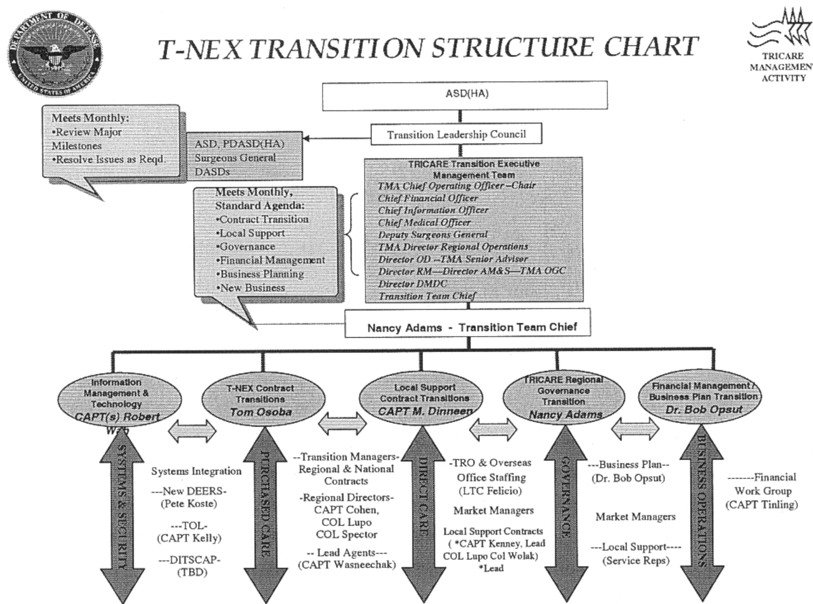
Procurement sensitivity rules prohibit disclosure of any specific information or details about the ongoing evaluation of proposals. However, I can tell you that the evaluations are ongoing. No decision has been made to alter the implementation schedule for any of the contracts.

Question. What planning is taking place to help ensure that when the contracts are entered into there will be a seamless transition for beneficiaries?

Answer. No transition of this magnitude is easy. A customer-focused perspective in execution is central to making this as seamless as possible. We have already transitioned the TRICARE Mail Order Pharmacy contract with success. The TRICARE Retiree Dental Plan contract was also awarded without protest and now is in its first month of operation without issues. With regard to our managed care contracts, going from seven contracts to three will simplify administration, but more importantly better serve our beneficiaries with incentivized performance standards, greater uniformity of service, alleviation of portability issues, and simplified business processes.

I have instituted a solid oversight structure (see attachment), and appointed a senior executive to spearhead this transition and supervise all aspects of the procurement, including the implementation of the new regional governance structure. This operational approach and structure requires my direct involvement through the Transition Leadership Council made up of the Surgeons General, the Principal Deputy Assistant Secretary of Defense for Health Affairs and the Health Affairs Deputy Assistant Secretaries of Defense. This body is supported by a TRICARE Transition Executive Management Team which is chaired by TMA's Chief Operating Officer.

An area of detailed focus right now is access to care and all business processes that will impact access including: networks, provider satisfaction, appointing and scheduling, Military Treatment Facility (MTF) optimization, and local support for MTF commanders. We are optimistic that robust networks can be maintained. On all customer service fronts, my staff and other participants are poised to execute a smooth transition immediately following contract award. Regular meetings are underway to measure our progress and formulate sound decisions on any problematic issues. A contract transition orientation conference is planned for June 2003 to fully engage government participants in all aspects of the transition process.



Question. Are beneficiaries experiencing any change in quality of care due to DOD's inability to enter into new long-term managed care agreements?

Answer. The evaluation of contractor proposals is now underway and will culminate in the awarding of three new Health Care and Administration regional contracts. A planned 10-month minimum transition period will precede start of health care delivery. Surveillance for the delivery of services of outgoing contractors during the transition period will remain focused to avoid any deterioration in customer service standards. Current contracts have been extended beyond original termination dates to ensure there is no adverse impact on the beneficiary or quality of care.

Any signs of negative shifts in quality during this transition period will be quickly recognized and dealt with on a priority basis. Our proactive posture is expected to result in a near-seamless transition to next generation contracts.

Additionally, in T-Nex contracts, industry best business practices are fully expected to emerge through the competitive process. Customer service protocols will be favorably impacted by outcome-based requirements and accompanying performance standards. Additionally, web-based service applications will also improve business processes and the way customers can access information. This is all very exciting and bodes well for our customers in the new contracts.

Question. Under T-Nex, what services currently provided by the TRICARE contractors will shift to the direct care system and what are the costs associated with this shift in services?

Answer. Appointing, Resource Sharing, Health Care Information Line, Health Evaluation & Assessment of Risk (HEAR), Utilization Management, and Transcription services will transition from the Managed Care Support Contracts to Military Treatment Facilities (MTFs) under T-Nex.

The Services have been tasked to provide requirements in each of these areas, cost estimates, and transition timelines. We have worked with the Services to develop a joint approach to determine local support contract methodology.

Transition of Local Support Contract services must be completed not later than the start of health care under T-Nex in each region.

Based on known contract and staffing lag times, funding is required six months prior to the start of health care delivery to ensure smooth and timely stand-up of new services. At this stage, cost estimates are varied and of limited value until the requirement is validated and fully known. Initial rough estimates are in the hundreds of millions of dollars. The funding source for Local Support will come from funds committed to the current Military Health System (MHS) Managed Care Support contracts. Those funds were programmed based on existing purchased care contracts that included these services. Because it is understood that these funds may not cover the entire spectrum of Local Support contracts, the Medical Services have prioritized these services across the MHS into three tiers based on impact and need. Initial costs may ultimately include some investment in telephone and appointing infrastructure, thus driving a significant increase in front end costs.

RECRUITING AND RETENTION

Question. Personnel shortfalls still exist in a number of critical medical specialties throughout the Services. The Navy has reports shortfall in Anesthesiology, General Surgery, Radiology, and Pathology, and has stated the civilian-military pay gap is their greatest obstacle in filling these high demand specialties. Recruiting and retaining dentist appears to be a challenge for all the services.

To what extent have Critical Skills Retention Bonuses or other incentives been successful in helping to retain medical personnel?

Answer. Critical Skills Retention Bonuses (CSRB) helped retain several hundred medical specialists, but may have had a greater impact if it were to have been executed in its original form, as a two-year program. This additional impact may have provided each Service with a bridge to the long-term initiative of optimizing Special Pay incentives, currently a goal for fiscal year 2005. Just over 850 physicians, dentists, and nurses in critical specialties accepted the CSRB despite its one-year design. The CSRB became more of a good faith gesture to show that we are making plans for the future, acknowledging to those in the field that special pay increases are necessary if we value the professions and the investment that the Air Force has made by training highly specialized personnel.

We have a success story with the incentives that were implemented to improve recruitment and retention of Pharmacists. We are interested in repeating this success for physicians, dentists, and nurses if we are allowed to optimize new special pay authority from the Fiscal Year 2003 National Defense Authorization Act. The Pharmacy accession bonus increase to $30,000 in fiscal year 2002 and especially the

Pharmacy Officer Special Pay (implemented in fiscal year 2002) has greatly improved recruiting and retention of pharmacists to the point that we will reach our targeted endstrength in fiscal year 2003. Obtaining appropriation for optimizing Special Pays by fiscal year 2005 is a priority.

Lastly, we have seen short-term success in applying the Health Professions Loan Repayment Program (HPLRP) and hope to continue using it over the next several years. We currently offer HPLRP for both recruiting (accession) and retention, and the program has been quite successful in buying-down debt in our critically manned specialties within Biomedical Sciences Corps, Dental Corps, and Nurses Corps with 133, 74, and 241 HPLRP contracts signed respectively in fiscal year 2002. The HPLRP not only improves quality of life for personnel by reducing their debt, it benefits the Service by adding a minimum of two-year active duty commitment for one-year of loan repayment amount of up to $26,000. (Note: The recipient of HPLRP has a two year minimum active duty obligation attached to the first year of loan repayment and for second, third and fourth year of loan repayment it is a one for one active duty obligation payback). The goal is to enable officers to remain serving and not be overburdened with financial commitments (debt). For all Corps it is seen as a good faith gesture and carries active duty obligation payback. For the Medical Corps (MC) and Dental Corps (DC) and Certified Registered Nurse Anesthetist (CRNA) program it is a bridge to the long-term optimization of the Health Professions Scholarship Program (increased quotas for MC, DC and CRNAs. It is also a bridge to implementing the discretionary pay increases authorized by the Fiscal Year 2003 National Defense Authorization Act (mentioned). Funding of HPLRP is necessary beyond fiscal year 2005 to offer the accession incentive necessary to recruit the critical Nurse Corps and Biomedical Sciences Corps specialties. We are hoping to realize additional success especially with the new allowance for Health Profession Scholarship Program and Financial Assistance Program recipients to apply for HPLRP. MC and DC officers will then have better access to the benefits of this program. The Air Force has committed funding through fiscal year 2005 at $12 million per year (since fiscal year 2002). This commitment is a testament to our belief that HPLRP should remain a tool for both recruiting and retention in the future.

Question. What else needs to be done to maximize retention of medical personnel?

Answer. I perceive a three-fold approach to improving retention of medical personnel: (1) Increasing incentives such as special pays, bonuses, and loan repayment is a key component. The special pays and health professions scholarship programs are two high-impact tools used to recruit and retain medical professionals. Our collective effort to increase the authorizations for these tools under the National Defense Authorization Act 2003 was a true victory, but our commitment will be proven when we provide funding to see these programs through execution. Only then will our people see the benefits of our efforts. (2) Another component linked to improving medical officer retention is continued support for optimizing the medical officer promotion policy. The policy should be enhanced to ensure our clinical staff members are provided equitable opportunity for advancement. (3) Another tool to maximize the retention of our medical personnel is improving the clinical practice environment. This is accomplished by investing in our medical infrastructure—our facilities—and optimizing our support staff. Such optimization funding improves workplace support, enhances workflow, and contributes to both provider and patient satisfaction.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

DOD/VA HEALTHCARE RESOURCE SHARING

Question. Combining the resources of the Veterans' Administration and the Department of Defense to address health care needs of active duty personnel and our veterans is a concept that I am proud to say I championed a number of years ago. That initial effort combined brought together the resources of the VA and AF to provide care for the military at Kirtland Air Force Base and the city of Albuquerque's sizable veteran population. To date, the results have been very good.

General Taylor, can you provide an update on the progress of the joint venture concept in general, and between DOD and VA at the Albuquerque VA hospital specifically?

Answer. The Air Force Medical Service continues to partner with the Department of Veteran's Affairs (VA) in a number of locations. Examples include joint ventures at Elmendorf AFB, AK; Nellis AFB, NV; Travis AFB, CA; and Kirtland AFB, in Albuquerque, NM.

The Albuquerque joint venture in particular has demonstrated the benefits of joint venture relationships. In fiscal year 2002, the VA and Kirtland AFB medical group exchanged $6.5 million in health care resources. This facilitated 8,100 outpatient referrals, 3,400 emergency department visits, and 14,000 ancillary procedures. If the two partners had purchased the services from local providers—as they would have before the joint venture—it would have cost an additional $1.32 million. In fiscal year 2003, the joint venture program will build upon its success and expects to execute $6.7 million of sharing.

Question. What is the status of their agreement to provide professional VA psychologist oversight to our Air Force mental health services in Albuquerque?

Answer. The Veteran's Administration and Kirtland Air Force Base have been extremely successful in this endeavor. The agreement has been in place since 2001 and provides supervision to Air Force psychology residency graduates. This supervision is required as 49 of the 50 states require at least one year of post-doctoral supervision. Without this agreement, the Air Force would be forced to hire additional psychologists. The agreement with the Veteran's Administration is a vital and successful part of the Air Force mental health mission at Kirtland.

Question. Also, has there been progress in reducing the veterans' colonoscopy procedures backlog?

Answer. Over the past year, the Kirtland Air Force Base medical facility has provided both operating room space and support personnel in assisting the VA in completing colonoscopies on veterans. This is another example of the cooperative efforts ongoing between Kirtland and the VA, and allowed the Air Force to perform about 40 VA colonoscopies a month. However, although I do not know how exactly how many procedures are "backlogged," I do know that demand is still outpacing supply.

Recent deployments have required we cease sharing activities for colonoscopies. As most of the combat activity appears to be behind us now, our facility in Albuquerque will soon be able to turn its attention once again toward the joint venture and determine how it can best assist the VA with this and other issues.

JESSE SPIRI MILITARY MEDICAL COVERAGE ACT

Question. In 2001, a young Marine Corps 2nd Lieutenant from New Mexico lost his courageous battle with cancer. Jesse Spiri had just graduated from Western New Mexico University and was awaiting basic officer training when he learned of his illness.

However, because his commission had triggered his military status to that of "inactive reservist," Jesse was not fully covered by TRICARE. As a result, he was left unable to afford the kind special treatment he needed.

I believe that it is time to close this dangerous loophole. That is why I intend to offer a bill entitled the "Jesse Spiri Military Medical Coverage Act." This bill will ensure that those military officers who have received a commission and are awaiting "active duty" status will have access to proper medical insurance.

Would you agree that this type of loophole is extremely dangerous for those who, like Jesse, suffer with a dread disease?

Answer. Lieutenant Spiri's tragedy with cancer is a loss not only to his family, but also to our country that he spent years preparing to serve. This is indeed a tragic case; however, limiting TRICARE coverage legislation to commissioned inactive reservists would establish an inequity with over 40,000 annual Air Force delayed enlistees that have also pledged themselves to our country. Additionally, all new recruits and officers are counseled that they must maintain their private health insurance until they enter active duty to ensure there are no gaps in medical coverage.

Question. And do you agree that our military health care system should close this loophole, and can do so very cost effectively (given the relatively low number of officers it would affect)?

Answer. To understand the scope of the issue, my staff has done some preliminary research on the cost of the change in legislation.

The studied group includes Reserve Officer Training Corps (ROTC) and other commissioning sources where there is a delay from commissioning to active duty and our delayed enlistment programs. Air Force ROTC commissions approximately 2,500 lieutenants annually, while our direct commissioning program for the Judge Advocate Corps, Chaplains and Medical professions bring in about 1,500 officers annually. The delayed entry program for enlistees ensures our military training schools have a steady flow of students and provides new recruits with increased choice of available career fields. We estimate 40,000 enlisted enlistees would be affected.

Your proposed benefit change will affect each source differently due to the commissioning/enlistment dates of the various programs. These delays may be a month

to multiple years based on approved delays (i.e. educational delay). For the purposes of this analysis, we used an estimate that the average wait is two months prior to active duty.

Our 2003 evaluation of military compensation and benefits compared to the civilian sector equates our healthcare benefit to a monthly value of $279.35 per individual and $758.36 family rate respectively. Our estimate of 3,000 inactive reserve officers would potentially cost $1.6 million annually, while the delayed enlistment program would require an additional $22.3 million bringing the total annual cost for just the Air Force to about $24 million.

The impact of this legislation on our Sister Services must also be analyzed in order to truly appreciate the total cost and provide an informed recommendation.

MILITARY FAMILY ACCESS TO DENTAL CARE ACT

Question. I think everyone here is familiar with the adage that we recruit the soldier, but we retain the family. That means taking care of our military families and giving them a good standard of living.

I have introduced a bill that would provide a benefit to military families seeking dental care, but who must travel great distances to receive it. Specifically, my bill, the "Military Family Access to Dental Care Act" (S. 336) would provide a travel reimbursement to military families in need of certain specialized dental care but who are required to travel over 100 miles to see a specialist.

Often, families at rural bases like Cannon Air Force Base in Clovis, NM meet with financial hardship if more than one extended trip is required. This bill reimburses them for that travel and is a small way of helping our military families.

Given that current law provides a travel reimbursement for military families who must travel more than 100 miles for specialty medical care, do you believe it is important to incorporate specialty dental care within this benefit?

Answer. Yes, although the proposed legislation (S. 336), as written, does not enhance the current travel benefit because travel reimbursement is already provided when a Primary Care Manager refers a TRICARE Prime enrollee for covered dental adjunctive care under 10 USC 1074i.

Question. Do you think this benefit would improve the standard of living of our military families?

Answer. Yes, travel reimbursements do enhance beneficiary quality of life. Such benefits become especially important to beneficiaries in rural or remote areas since their travel costs can be expensive if they are referred to multiple treatment appointments for a dental condition.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

PATIENT PRIVACY (TRICARE)

Question. I would like to get your comments about several concerns and questions I have related to the December 14, 2002 break-in of the offices of TriWest, a TRICARE contractor. I am told that TriWest did not notify the Department of Defense of the break-in and theft of personnel information of over 500,000 TRICARE beneficiaries, for almost a week after the event. Apparently, TriWest didn't even have basic security equipment—guards, locks, cameras—and as a result, this incident amounts to the biggest identity theft in U.S. history. Is this information true?

Answer. The physical break-in of the locked TriWest Healthcare Alliance corporate offices and theft of computer equipment occurred on Saturday, December 14, 2002. On Monday, December 16, 2002, the break-in and theft was discovered, authorities contacted, and TRICARE Management Activity (TMA) operations staff were advised. Back-up tapes were run on Tuesday, December 17, 2002, (which took 30 hours), and on Friday, December 20, 2002, TMA/HA leadership was notified of the beneficiary information theft. TriWest at that time had available from their back-up tapes beneficiary information including names, addresses, phone numbers, Social Security Numbers, some claims information with relevant procedure codes, and personal credit card information on 23 individuals.

To date, the Army Medical Department has not received notification of a single verified case of identity theft related to TriWest stolen computer equipment.

Question. Has the Department of Defense finished its investigation of this case and have sanctions been levied against TriWest or punitive actions against TRICARE officials?

Answer. The criminal investigation is being conducted by the Defense Criminal Investigative Service (DCIS) and the Federal Bureau of Investigation (FBI), in coordination with other federal and local law enforcement agencies.

To date, no sanctions have been levied upon or punitive actions taken against TriWest or TRICARE officials. The investigation is ongoing, and its findings are pending.

Sensitive information pertaining to TRICARE beneficiaries is maintained by TRICARE contractors subject to the Privacy Act of 1974, as implemented by the DOD Privacy Program (DOD 5400.11–R). The Act provides criminal penalties for any contractor or contractor employee who willfully discloses such protected information, in any manner, to any person or agency not entitled to receive the information. The Act also provides for civil penalties against DOD if it is determined that the Department (or contractor) intentionally or willfully failed to comply with the Privacy Act.

Question. Would you please share what you can about the lessons learned as a result of this incident and the steps the Department and the TRICARE organization and its contractors are taking to guarantee beneficiary privacy?

Answer. As a result of close evaluation of our physical and information security we found the following:

—a. Backup tapes not protected. For example, tapes left on the top of servers, or left lying out in the open.

—b. A general lack of proper security in areas where servers reside. In particular, Defense Blood Standard System and Pharmacy servers were not being properly protected.

—c. Most sites had excellent password management policies and guidelines in place, but they were not being followed.

—d. In general, there were proper locks on doors, but in several cases, not being properly used. Many doors that should have been locked after hours were found open which allowed entry to areas where patient information is kept. Most items not secure were portable medical devices containing patient medical information and medical records.

—e. In many cases contingency plans for disaster recovery were lacking or out-of-date.

—f. Lost hardware not reported through official channels.

—g. Hardware being turned in without data being wiped from hard drives.

—h. Concerning recent physical security self-assessments, a second look found almost 60 percent of local assessments were inaccurate or inexact.

—i. As a result of the TriWest issues all Army medical activities participated in a Health Affairs directed self-assessment of local physical security practices. Mitigation plans for all deficiencies are due on 16 May 2003.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

MEDICAL TREATMENT FACILITIES

Question. Healthcare, pay, and housing are the greatest Quality of Life issues for our troops and their families. With the numbers of health care staff deployed from your Military Treatment Facilities, what strategies did you use to effectively plan and care for beneficiaries back home?

Answer. The Air Force Medical Service, our sister Services, TRICARE Management Activity, and the Office of the Assistant Secretary of Defense for Health Affairs collaborated to develop a Regional Contingency Response Plan to be executed by each Lead Agent to ensure continued beneficiary care during the current deployments.

Specifically, each Medical Treatment Facility (MTF) and Managed Care Support Contractor (MCSC) were tasked to analyze their capacity and that of the local civilian network with attention paid to possible mobilized assets deployed over a specific period of time.

Working together, MCSCs and MTFs identified potential gaps in beneficiary access that might be caused by the deployment of service members. The MCSCs and MTFs then drafted a comprehensive communication plan MTFs could use to educate beneficiaries of where and how medical services could be accessed.

The uncertainty of the duration of the operations precluded a one-for-one reserve backfill of forces to our MTFs. Specific guidance and requirements to mobilize a Guard or Reserve medical backfill in our MTFs was developed to guide MTFs and Air Force Major Commands.

To ensure continuity of care with our current beneficiaries and the addition of activated Guard and Reserve members and their families, a coordinated Health Affairs letter was disseminated to the field directing our MTFs and Major Commands to prioritize and efficiently use available resources of the direct care system and net-

work system as available. These resources consist of reallocation of internal staff, Major Comman leveling manning assistance, expansion by resource sharing and continued partnering with the Veterans Affairs.

Despite deployments, access to routine health care in the AFMS has improved seven percent since August 2002. Currently, MTFs are able to provide routine access to health care (within seven days) 83 percent of the time. MTF are able to provide access to acute care (within 24 hours) 96 percent of the time.

Question. How are you able to address the needs of patients coming in from the battlefields and is this affecting the care of beneficiaries seeking regular care?

Answer. The operational success of our young women and men was not only in our combat victories, but also in our delivery of care from the battlefield through our joint evacuation responsibilities to our theater hospitals. We were able to address the needs of patients coming from the battlefield; one of the most successful was the use of our aeromedical evacuation system. Using non-dedicated available aircraft, aeromedical evacuation crews and our TRAC^{2}ES regulating system provided continuity of care and visibility of our patients from the theater to our CONUS receiving facilities.

United States Joint Forces Command (USJFCOM) revised the Concept of Operations for patient distribution for treatment in DOD/TRICARE facilities ensuring our casualties were closer to their unit's home location and individuals support network. These facilities included the direct care MTFs, TRICARE network partners including the VA and finally the National Disaster Medical System (NDMS) if needed.

Fortunately our casualties were limited and our Military Healthcare System was able to support both missions of caring for patients returning from the Theater of Operations and our regular non-contingency beneficiaries without significant impact to access or quality of care to either.

Question. What authority were you given to back-fill your vacancies and are the funds sufficient to attain that goal?

Answer. The Air Force did not require the Air Reserve Component (ARC) forces to backfill our medical facilities during Operation Iraqi Freedom; however, if we had required backfill to sustain Graduate Medical Education or to expand beds to receive war illness or injuries, the policy providing for this activity was developed in concert with both Assistant Secretary of Defense (Health Affairs) (ASD/HA) and the Assistant Secretary of the Air Force Manpower and Reserve Affairs (SAF/MR) guidance.

Funding was readily available for backfills. Funds to support pay, allowances, and per diem for mobilized personnel are reimbursable funds. Had ARC forces been required, all associated costs would have been charged to Emergency Special Program Coded (ESP Coded) fund which was reimbursable to the Air Force Major Commands.

Question. What measurements were used in determining what the Services were able to back-fill and how does that compare to current requirements?

Answer. AF/SG backfill policy was developed in concert with both ASD/HA and SAF/MR guidance. Backfill requests had to meet the following specific criteria listed below. Before using members to backfill:

—Medical treatment facilities and headquarters certified all non-mission essential deployed personnel had been returned to base for mission support.
—Headquarters re-directed their own personnel who were not mission-essential or working in their specialty to be moved to the unit level to support mission essential requirements.
—Major Commands had to certify that their support requirement could not be met through internal headquarters cross leveling.
—Efforts to support missions through Major Command-to-Major Command headquarters cross leveling/sharing had been exhausted.
—Volunteers had to have been unsuccessfully sought for the position.
—The backfill request had to be in direct support of OPERATION NOBLE EAGLE or OPERATION IRAQI FREEDOM.
—Before receiving backfills, the gaining unit had to prove that their personnel in the requested specialty were working extended duty hours and that their leave/TDYs had been restricted.
—Services that would be provided by the requested specialty had to be unavailable in local area TRICARE Support network.
—Services requested were not currently covered by Resource Sharing Contracts and that ARC assistance was required only for minimum time until a new contract could be approved and funded.
—Services provided by the requested backfill had to be unavailable through VA partnering.

—If the member was involuntarily mobilized, his or her mobilization must be for the shortest duration possible.

Comparison to current requirements is extremely difficult to answer as all medical facilities have different situations. Some were not heavily tasked with contingency responses and have little impact. Others were heavily tasked and have significant numbers of mobilized ARC dependents authorized care. Additionally these facilities have the added weight of post deployment health assessments and follow-up care for both returning active duty and ARC personnel.

RETENTION AND RECRUITMENT

Question. With increasing deployments in support of Operation Iraqi Freedom and the Global War on Terrorism, can you describe your overall recruitment and retention status of the Medical Department in each of your services? What specific corps or specialties are of most concern?

Answer. Recent operations have truly challenged the Services' resources, but our people have responded with vigor and determination. We have noticed little change in the recruitment of medical professionals during recent operations and are on pace to meet or exceed last year's recruiting averages. Retention has artificially improved due to STOP LOSS policy (effective May 2, 2003 for the Air Force) and programs such as Critical Skills Retention Bonus (CSRB).

The specialties we were forced to STOP LOSS provided a summary of our specific concerns (see Table 1). Note that on May 14, 2003, stop loss specialties were released due to the winding down of Operation Iraqi Freedom.

TABLE 1.—AIR FORCE SPECIALTIES UNDER STOP LOSS (MAY 2, 2003)

Specialty	AFSC
Officer Personnel:	
BIOENVIRONMENTAL ENGINEER	43EX
PUBLIC HEALTH	43HX
BIOMEDICAL LABORATORY	43TX
EMERGENCY SERVICES PHYSICIAN	44EX
INTERNIST	44MX
ANESTHESIOLOGIST	45AX
ORTHOPEDIC SURGEON	45BX
SURGEON	45SX
AEROSPACE MEDICINE SPECIALIST	48AX
GENERAL MEDICAL OFFICER	48GX
RESIDENCY TRAINED FLIGHT SURGEON	48RX
FLIGHT NURSE	46FX
NURSE ANESTHETIST	46MX
CRITICAL CARE NURSE	46NXE
OPERATING ROOM NURSE	46SX
Enlisted Personnel:	
MEDICAL MATERIAL	4A1XX
BIOMEDICAL EQUIPMENT	4A2XX
BIOENVIRONMENTAL ENGINEERING	4B0XX
PUBLIC HEALTH	4E0XX
CARDIOPULMONARY LABORATORY	4H0XX

Question. Did the Critical Skills Retention Bonus given for this year help these specialties? In light of shortages and the disparity between military and civilian salaries, how have you planned for additional retention bonuses in future years?

Answer. Critical Skills Retention Bonus (CSRB) helped retain several hundred medical specialists, but may have had a greater impact if it was executed in its original form, as a two-year program. This additional impact may have provided each Service with a bridge to the long-term initiative of optimizing Special Pay incentives, currently a goal for fiscal year 2005. Just over 850 physicians, dentists, and nurses in critical specialties accepted the CSRB despite the one-year design. The CSRB became more of a good faith gesture to show that we are making plans for the future, acknowledging to those in the field that special pay increases are necessary if we value the professions and the investment that the Air Force has made by training highly specialized personnel.

We are currently drafting the fiscal year 2004 Special Pay Plan to address critically manned specialties with application of minimum increases allowed within our current projected allocation.

Question. Are there recruitment and retention issues within certain specialties or corps? If so, what are your recommendations to address this in the future?

Answer. We do have several challenges in maintaining our required number of medical personnel to perform our mission optimally. I believe in a three-fold approach to improving retention of medical personnel. (1) Increasing incentives such as special pays, bonuses, loan repayment and health professions scholarship programs. Our collective effort to increase the authorities under the National Defense Authorization Act 2003 was a true victory, but our commitment will be proven as we provide funding to see these programs through execution. Only then will our people see the benefits of our efforts. (2) Improving the clinical practice environment by investing in our medical infrastructure and optimizing support staff. (3) A final component linked to improving medical officer retention is continued support for optimizing medical officer promotion policies to ensure our clinical staffs are provided equitable opportunity for advancement.

Question. Have incentive and special pays helped with specific corps or specialties?

Answer. The final results of our efforts to increase incentive and special pays are not yet available, but we have witnessed a noticeable impact from increasing our accession and retention bonuses as well as offering Health Professions Loan Repayment. In fiscal year 2002, 241 nurses signed Health Professions Loan Repayment Program contracts and extended their individual service commitments by two years. Likewise, we have seen positive trends in our Optometry and Pharmacy specialties due to increased accession and retention incentives. We have not realized as much improvement in our physician and dental communities as the military-civilian pay gap is much wider. However, we are highly committed to optimizing our health professions officer special pay program.

Special pays are targeted at professional staff (physicians, dentists, nurse anesthetists, and several allied health professionals), and are designed to improve both recruiting and retention, as well as recognize the market value of these highly trained officers. The National Defense Authorization Act 2003 provided significant increases in the authorities to fund special pays and the three Services are in the process of developing their fiscal year 2004 and fiscal year 2005 special pay plans with ASD/HA. We plan to increase several discretionary special pays for the various specialties that are difficult to recruit and retain. Coupled with improved opportunity to train medical professionals under Health Professions Scholarship Program, increasing these pays will help improve the staffing shortages we've experienced in recent years. We would appreciate your continued support in these efforts.

Question. How does the fiscal year 2004 budget request address your recruitment and retention goals?

Answer. The fiscal year 2004 budget request includes three items that have significant impact on recruiting and retention:

Special Pays.—The fiscal year 2004 Special Pays Plan will serve as a bridge to better optimization of special pays in fiscal year 2005. We are currently drafting the fiscal year 2004 Special Pay Plan to addresses critically manned specialties with application of minimum increases allowed within our current projected allocation.

Health Professions Loan Repayment Program (HPLRP).—The Air Force has committed funding through fiscal year 2005 at $12 million per year (since fiscal year 2002). This commitment is a testament to our belief that HPLRP should remain a tool for both recruiting and retention in the future. HPLRP not only improves quality of life for personnel by reducing their debt and making it more affordable to remain in the military, but adds a minimum two-year active duty commitment for a one-year loan repayment amount of up to $26,000. (Note: The recipient of HPLRP has a two-year minimum active duty obligation attached to the first year of loan repayment while the second, third and fourth year of loan repayment has a one-for-one active duty obligation payback). The goal is to enable officers to remain serving and not be overburdened with financial commitments (debt).

Health Professions Scholarship Program/Financial Assistance Program (HPSP/FAP).—For fiscal year 2004, Health Professions Scholarship Program and Financial Assistance Program will continue to be one of the best recruiting tools for physicians and dentists. Even though we would like to see an increase in HPSP/FAP allocations in fiscal year 2004, this will not be possible because the budget has been locked for that fiscal year. With the rising costs of medical and dental schools, we will actually have fewer allocations in fiscal year 2003 than we had in fiscal year 2002. We hope to increase allocations from 1300 to 2000 between fiscal year 2006 and fiscal year 2009.

FORCE HEALTH PROTECTION

Question. As a result of concerns discovered after the Gulf War, the Department created a Force Health Protection system designed to properly monitor and treat our military personnel. What aspects of the Departments' Force Health Protection system have been implemented to date? What are the differences between the system during the Gulf War, Operation Iraqi Freedom, and Operation Enduring Freedom and Operation Noble Eagle?

Answer. The Department places the highest priority on protecting the health of military personnel throughout their military careers and beyond. Deployments and other military operations often involve unique environments that must be addressed by force health protection procedures. We use lessons learned from each military operation to improve our force health protection program.

Requirements to assess health before, during and after deployments and to assess, monitor and mitigate environmental hazards predate OPERATION DESERT STORM. However, the Department has implemented a number of significant changes since the Gulf War to further inculcate and improve these procedures. In 1997, deployment health surveillance policy was released directing pre and post-deployment health assessments and the collection of pre-deployment serum samples. If concerns or medical problems are identified, a comprehensive evaluation by a provider is required. Data from health assessments and serum samples are stored in a central DOD repository. Health assessments and records of medical evaluations are placed in the member's permanent medical record.

The Chairman of the Joint Chiefs of Staff released an updated deployment health surveillance policy in February 2002. The policy provides more detailed guidance on required health assessments and required prevention countermeasures for deploying personnel. It also greatly enhances the requirements for environmental assessments and implements operational risk management processes for the theater of operations. From the time the Department standardized the requirements for pre and post deployment health assessments, the Air Force has submitted more that 420,000 pre and post deployment assessments to the DOD repository.

After the Gulf War, the Air Force implemented a deployed electronic medical record, called GEMS (Global Expeditionary Medical System), to record clinical care provided in theater. The Air Force implemented an immunization tracking and management system that allows visibility of immunization records and requirements both at home and in theater. The Air Force also has had an ongoing quality assurance program to assess all Active Duty and Air Reserve Component installations for compliance with deployment health surveillance requirements.

Since the beginning of OPERATIONS ENDURING FREEDOM and NOBLE EAGLE, the Department has accelerated efforts to automate the collection of deployment heath surveillance information. OSD is developing a theater medical record system and is now testing parts of a comprehensive theater information management program. Pending implementation of these OSD systems, the Air Force has continued to improve GEMS so it now captures public health and environmental/occupational surveillance information as well as electronically forwards disease and non-battle injury data to headquarters. To date, more than 73,000 theater medical encounters are stored in GEMS.

Furthermore, the Department has implemented a policy for checking, at every patient visit, whether or not a deployment-related health concern exists. The Department implemented a clinical practice guideline, developed by Departments of Veterans Affairs and Defense, to ensure military members receive orderly, standardized evaluations and treatments for deployment-related conditions.

Despite the myriad improvements implemented since the Gulf War, the onset of OPERATION IRAQI FREEDOM illuminated the need for further enhancements to the Department's post-deployment health assessment requirements. Just released OSD policy enhances post-deployment health assessment procedures by requiring that each military member returning from deployment have a blood sample sent to the DOD repository and receive an assessment by a provider to address potential health problems, environmental exposures and mental health issues. The policy also requires more detailed quality assurance programs to validate, within 30 days, that returning personnel have completed all deployment health assessment requirements and that all information is in permanent medical records, and to report on compliance.

OPTIMIZATION

Question. Congress initiated optimization funds to provide flexibility to the Surgeons General to invest in additional capabilities and technologies that would also result in future savings. It is my understanding that a portion of these funds are

being withheld from the Services. Can you please tell the Committee how much Optimization funding is being withheld from your service, what are the plans for distributing the funds, and why funds since fiscal year 2001 are being withheld?

Answer. No optimization funds are being withheld from the Air Force Medical Service. Optimization funds have been released relatively quickly upon request.

Question. How have you benefited from optimization funds? What projects are on hold because OSD has not released funding?

Answer. I view optimization funding as critical to patient care and staff retention. Optimization funds have enabled the Air Force Medical Service to institute loan repayments for selected health professions, with anticipated improvement in recruitment and retention in critical medical and dental specialties; Automate several pharmacies, thereby improving productivity and recapture of pharmacy workload from the private sector; Improve the efficiency of the Heating, Ventilation and Air Conditioning system at Nellis AFB; Hire coders at Medical Treatment Facilities to improve data for billing, population health and accounting; Contract with industry leading business consultants to identify best practices and industry benchmarks to improve Air Force Medical Service business processes; Upgrade Medical Treatment Facility telephony for first time in years for many Medical Treatment Facilities; Contract for providers/staff to address mission critical shortages in Active Duty staffing; Implement a Specialty Care Optimization Pilot resourcing strategy to validate new manpower standards, metrics, and training to improve readiness and clinical currency and increase recapture from network; Perform advanced testing of a Light-weight Epidemiology Detection System; Accelerate deployment of Tele-Radiology capabilities at bases without Active Duty radiology support; Fast-track deployment of counter-chemical warfare training; Accelerate refractive surgery pilot to identify the best technology to address flight crew refractive deficiencies; Accelerate implementation of Long View resourcing strategy Air Force wide for general surgery, orthopedics, ENT, Ophthalmology, and Obstetrics and Gynecology (OB/GYN) to improve expeditionary and clinical currency and increase recapture from private sector to decrease overall DOD cost of healthcare.

No optimization projects are on hold because OSD has not released funding.

Question. What are the projected projects using the proposed $90 million in the fiscal year 2004 budget request?

Answer. The Air Force Medical Service intends to use its portion of fiscal year 2004 optimization dollars for Health Professions Loan Repayments ($12 million) and Long View Execution ($18 million). The Long View is our strategy for achieving the optimal mix of assigned and contracted manpower to Medical Treatment Facilities in such a way as to maximize expeditionary medical capability, clinical currency and cost effectiveness.

QUESTIONS SUBMITTED TO BRIGADIER GENERAL WILLIAM T. BESTER

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

RECRUITMENT AND RETENTION

Question. Recruitment within the services for all the Nurse Corps is better than the civilian market. There have been several tools to help with the recruitment effort including the accession bonus of $5,000 for Nurses joining the services. The greatest retention tool for all services has been the opportunity for advanced outservice education for a masters or doctorate degree. Other issues that have also positively affected retention are: challenging assignments, more leadership responsibility, and greater promotion opportunities. Of the many tools for recruiting and retention, which tools have been most successful?

Answer. We believe that it is vital to have a combination of recruiting and retention tools in order to maintain a successful manning posture. All the tools provided allow us to retain the flexibility to address regional differences in the civilian recruiting market as well as address the retention needs of our officers currently on active duty. It is imperative that we proactively anticipate the continued civilian competition and must have the money to increase our accession bonuses plus our retention bonuses for our critical specialties such as nursing anesthesia. We also anticipate strong results for both recruiting and retention once we implement the Health Professions Loan Repayment Program. Our current promotion percentages are strong in all ranks except for Colonel. We are taking the appropriate actions to resolve some of the systemic personnel issues that have stalled the promotion to Colonel in the past with the intent to enlarge the promotion rate in the future.

Question. Do you think a Loan Repayment Program would be helpful to recruit more nurses?

Answer. Absolutely. The Health Professions Loan Repayment Program is absolutely essential to our efforts to remain competitive with the recruitment activities currently in place by our civilian counterparts. In fact, we plan to execute the Health Profession Loan Repayment Program through fiscal year 2005 with monies we obtained through a Defense Health Program (DHP) Venture Capital Initiative. We plan to program monies for fiscal year 2006 to sustain this program in the future.

WAR'S EFFECT ON THE NURSE CORPS PLAN

Question. The number one retention tool is the opportunity for advanced education. The war could negatively affect the number of Nurses that will be available to begin out-service education opportunities in fiscal year 2004, thereby mitigating the effectiveness of this important retention tool. How has the war in Iraq and deployments of personnel to the Middle East affected your overall out-service education plan for this year and next?

Answer. We are taking all measures possible to ensure that all Army Nurse Corps officers scheduled to attend an out-service education program this year and next year are redeployed in the appropriate amount of time to begin their education program. At this time, we do not anticipate any education losses due to deployment.

Question. For instance will you have to send fewer nurses to school for advanced degrees this year because of the numbers deployed?

Answer. At this point, we are taking all measures to ensure that officers scheduled to attend out-service education in fiscal year 2004 are redeployed in a timely manner. If redeployment for some or all of the officers is delayed for reasons out of our control, it could result in a decrease in the number of officers attending out-service education and would negatively affect our overall numbers.

Question. How will the continued deployments affect you staffing plans for the Medical Treatment Facilities?

Answer. To ensure we have had adequate numbers and mix of providers, we have taken the following measures to ensure acceptable staffing plans. We have initiated regional cross leveling of staff to ensure appropriate distribution of staff to provide care and meet patient demand and used internal management decisions by commanders such as decreasing the number of beds available for care, and in some instances, decreasing the number of surgical cases performed. In addition, we have combined patient care units, used creative scheduling to ensure appropriate staffing coverage, increased the use of contract nurses, requested and received reserve backfill up to the 50 percent authorized fill rate and invoked the local commander's consideration to send patients to the TRICARE network for care as needed. We will continue to use all appropriate staffing management tools to ensure that we meet the care needs of our beneficiary population.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

RECRUITING AND RETENTION

Question. In light of a national nursing shortage, please describe the status of your recruitment and retention efforts in the Nurse Corps for each of your services?

Answer. We are approximately 230 Active Duty nurses below our budgeted end strength of 3,381. We are proceeding with the following initiatives to improve accessions and maintain a steady state retention posture. We are developing an implementation plan with the Triservice Recruitment and Retention Workgroup to obtain the funding to support an incremental increase in the accession bonus starting in fiscal year 2005. It is imperative that we proactively anticipate the continued civilian competition and must have the resources necessary to increase our accession bonuses plus our retention bonuses for our critical specialties such as nursing anesthesia. Funds for HPLRP are available now (fiscal year 2003) until fiscal year 2005 and we plan to POM funds beginning in fiscal year 2006. We are also exploring the feasibility of reinstituting the Army Nurse Candidate Program as funding permits and have expanded the number of slots available for the Army Enlisted Commissioning Program from 50 to 85 per year. We will continue to send approximately 100 Army Nurse Corps officers to out-service schooling each year and will continue to provide specialty care courses in all our specialty areas. We will continue to provide a wide variety of clinical and work experiences in both the inpatient and ambulatory care settings as well as in the field setting, both in the United States and overseas. We feel strongly that providing leadership opportunities early in the offi-

cer's career is crucial in preparing officers for positions with greater scope of responsibility. We strongly promote collegiality, camaraderie, and teamwork and develop these concepts initially in our entry-level officer basic course and reinforce these concepts throughout the officer's career. We continue to support career progression, educational opportunities, and continuing education for all our officers. Finally, we are proud of our excellent promotion opportunities as well as the military benefit package that all soldiers and their families are entitled.

MEDICAL TREATMENT FACILITIES

Question. With the numbers of nurses and medics/corpsmen deployed from your facilities, how have you ensured the delivery of safe patient care at the military medical facilities here at home?

Answer. To ensure we have had adequate numbers and mix of providers, we have taken the following measures to ensure acceptable staffing plans. We have initiated regional cross leveling of staff to ensure appropriate distribution of staff to provide care and meet patient demand and used internal management decisions by commanders such as decreasing the number of beds available for care, and in some instances, decreasing number of surgical cases performed. In addition, we have combined patient care units, used creative scheduling to ensure appropriate staffing coverage, increased use of contract nurses, requested and received reserve backfill up to the 50 percent authorized fill rate and invoked the local commander's consideration to send patients to the TRICARE network for care as needed. We will continue to use all appropriate staffing management tools to ensure that we meet the care needs of our beneficiary population.

DOCTORATE PROGRAM IN NURSING

Question. Fiscal year 2003, this Subcommittee appropriated funds to create a Nursing PhD program at the Uniformed Services University of the Health Sciences. Students will begin in the fall of 2003. How do you plan to use this PhD Program to educate your leaders and nurse researchers?

Answer. The Army Nurse Corps has 33 validated Army Nurse Corps prepared positions with a current inventory of 26 Active Duty nurses holding Doctorate degrees. The Uniformed Services University of the Health Sciences (USUHS) PhD program will afford us additional diversity for our fully funded doctoral education program. In addition, this program will provide the unique focus on content that is out of the ordinary from civilian content and specific to the needs of the military. This year, we will send two Active Duty Army Nurse Corps officers to USUHS and in the future, will attempt to send 3–4 per year. We also plan to support attendance by Active Duty personnel on a part-time basis. We are exploring the options for attendance by Reserve personnel.

NURSING RESEARCH

Question. The Committee appropriated $6,000,000 for the TRISERVICE Nursing Research Program and directed the Secretary of Defense to fully fund it in the fiscal year 2004 budget request. To my knowledge, there are no funds for this program in fiscal year 2004. Why was this not funded and what are the potential implications if this is not funded in future years?

Answer. Uniformed Services University of the Health Sciences (USUHS) has long been a strong supporter and proponent of nursing research and the TriService Nursing Research Program (TSNRP) and any decline in this program would have a negative effect on our pursuit of nursing research. In addition, TSNRP has historically been physically located at USUHS. We have learned that USUHS is exploring the development of a center focused on military health and research. If this concept is developed and approved, we feel that this may be an ideal conduit for research funding in the future. We have made contact with USUHS regarding the feasibility of identifying the funding through this option and will continue to explore all options regarding the feasibility of funding TSNRP via USUHS.

QUESTIONS SUBMITTED TO REAR ADMIRAL NANCY J. LESCAVAGE

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

RECRUITMENT AND RETENTION

Question. Recruitment within the services for all the Nurse Corps is better than the civilian market. There have been several tools to help with the recruitment effort including the accession bonus of $5,000 for Nurses joining the services.

The greatest retention tool for all services has been the opportunity for advanced out-service education for a masters or doctorate degree. Other issues that have also positively affected retention are: challenging assignments, more leadership responsibility, and greater promotion opportunities.

Of the many tools for recruiting and retention, which tools have been most successful?

Answer. Our recruitment and retention efforts targeting active duty Navy Nurses have been successful through a blend of initiatives, such as:

—Diversified accession sources, which also include pipeline scholarship programs (Nurse Candidate Program, Naval Reserve Officer Training Corps, Medical Enlisted Commissioning Program, and Seaman to Admiral Program).

—Pay incentives (Nurse Accession Bonus, Certified Registered Nurse Anesthetist Incentive Special Pay, Board Certification Pay and Critical Skills Retention Bonus).

—Graduate education and training programs focus on Master's Programs, Doctoral Degrees, and fellowships. Between 72–80 officers/year receive full-time scholarships based on operational and nursing specialty requirements.

—Initiatives that enhance personal and professional quality of life, mentorship, leadership roles, promotion opportunities, operational opportunities, professional collegiality and full scope of practice.

Question. Do you think that a Loan Repayment Program would be helpful to recruit more nurses?

Answer. With the increasing number of competitive loan repayment programs for student graduates, a Loan Repayment Program with fiscal support will be helpful to recruit more nurses as the national nursing shortage worsens, particularly if the program has the flexibility to be used to repay either baccalaureate degree loans or master's degree loans for critically under manned specialties.

WAR'S EFFECT ON THE NURSE CORPS PLAN

Question. The number one retention tool is the opportunity for advanced education. The war could negatively affect the number of Nurses that will be available to begin out-service education opportunities in fiscal year 2004, thereby mitigating the effectiveness of this important retention tool.

How has the war in Iraq and deployments of personnel to the Middle East affected your overall out-service education plan for this year and next? For instance will you have to send fewer nurses to school for advanced degrees this year because of the numbers deployed?

Answer. Our Navy Nurses in outservice training have continued with their curriculum, unaffected by present deployments. We do not anticipate any delays in the release of our nurses from their present duty stations to begin their advanced education program this coming academic year.

Question. How will the continued deployments affect your staffing plans for the Medical Treatment Facilities?

Answer. Military and civilian nurses who remained at the homefront continue to be the backbone and structure in promoting, protecting and restoring the health of all entrusted to our care. In addition, key Reserve personnel in designated specialties are utilized at specific Military Treatment Facilities (MTFs). Ultimately, all MTFs do everything possible to conserve and best utilize the remaining medical department personnel through appropriate resource management practices and staffing plans (i.e. leave control, overtime compensation, streamlined hiring practices). Through an active Patient Safety Program, our military, civil service and contract personnel are constantly monitoring the delivery of patient care. To insure consistent superior quality of services, we utilize evidence-based clinical practices with a customized population health approach across the entire health care team. To maintain TRICARE access standards, patients may be guided to the appropriate level of care through the Managed Care Support Contract Network resources, assisting them every step of the way. The TRICARE network is designed to support the military direct care system in times of sudden and major re-deployment of MTF staff.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

RECRUITING AND RETENTION

Question. In light of a national nursing shortage, please describe the status of your recruitment and retention efforts in the Nurse Corps for each of your services?

Answer. The Navy Nurse Corps continually strives to be recognized as an employer of choice. National shortage projections and civilian compensation packages are very closely monitored to determine the best course to take in the competitive market. Our recruitment and retention efforts targeting active duty Navy Nurses have been successful through a blend of initiatives such as:

—Diversified accession sources, which include pipeline scholarship programs such as the Nurse Candidate Program, Naval Reserve Officer Training Corps (NROTC), Medical Enlisted Commissioning Program, and Seaman to Admiral Program.
—Pay incentives including the Nurse Accession Bonus, Certified Registered Nurse Anesthetist (CRNA) Incentive Special Pay, Board Certification Pay and the one-time Critical Skills Retention Bonus.
—Graduate education and training programs that focus on Master's Programs, Doctoral Degrees, and postgraduate fellowships. Between 72–80 officers/year receive full-time scholarships based on operational and nursing specialty requirements.
—Initiatives that enhance personal and professional quality of life including mentorship, leadership roles, promotion opportunities, operational opportunities, professional collegiality and full scope of practice.

Recruiting incentives for reservists include:

—The Nurse Accession Bonus ($5,000) for critical wartime specialties.
—Loan repayment and stipend programs for graduate education.
—Several additional initiatives are under review with the Department.

MEDICAL TREATMENT FACILITIES

Question. With the numbers of nurses and medics/corpsmen deployed from your facilities, how have you ensured the delivery of safe patient care at the military medical facilities here at home?

Answer. Navy Medicine is committed to high quality, cost-effective and easily accessible primary and preventive health care services, such as our population health management programs through health promotion, disease management and case management. Military and civilian nurses who remained at the homefront continue to be the backbone and structure in promoting, protecting and restoring the health of all entrusted to our care. In addition, key Reserve personnel in designated specialties are utilized at specific Military Treatment Facilities (MTFs). Ultimately, all MTFs do everything possible to conserve and best utilize the remaining medical department personnel through appropriate resource management practices (i.e. leave control, overtime compensation, streamlined hiring practices). Through an active Patient Safety Program, our military, civil service and contract personnel are constantly monitoring the delivery of patient care. To insure consistent superior quality of services, we utilize evidence-based clinical practices with a customized population health approach across the entire health care team. To maintain TRICARE access standards, patients may be guided to the appropriate level of care through the Managed Care Support Contract Network resources, assisting them every step of the way. The TRICARE network is designed to support the military direct care system in times of sudden and major re-deployment of MTF staff.

DOCTORATE PROGRAM IN NURSING

Question. In fiscal year 2003, this Subcommittee appropriated funds to create a Nursing PhD program at the Uniformed Services University of the Health Sciences. Students will begin in the fall of 2003. How do you plan to use this PhD Program to educate your leaders and nurse researchers?

Answer. Navy Nurse Corps participation in civilian PhD programs has resulted in a community of nurses with an in-depth knowledge of clinical specialty practice, leadership, organizational behavior, health policy, education, and/or scientific research. Historically, only two or three PhD candidates are trained annually, one of which is required to support the Navy Nurse Corps Anesthesia Program. When the PhD program is offered at the Uniformed Services University of Health Sciences, Navy Nurses will be strongly encouraged to apply. We anticipate that one will be selected annually to attend USUHS and adjusted accordingly, based on needs. In our vision, nurse researchers will take on the most senior executive positions to create health policies and delivery systems. Their valued experience will be critical to

advance and disseminate scientific knowledge, foster nursing excellence, and improve clinical outcomes across Navy Medicine and Federal agencies. As role models, they will instruct military and civilian nurses in the accomplishment and utilization of nursing research.

NURSING RESEARCH

Question. The Committee appropriated $6,000,000 for the TRISERVICE Nursing Research Program and directed the Secretary of Defense to fully fund it in the fiscal year 2004 budget request. To my knowledge, there are no funds for this program in fiscal year 2004. Why was this not funded and what are the potential implications if this is not funded in future years?

Answer. The TriService Nursing Research Office, through their component organization, Uniformed Services University of Health Sciences, submitted a request for a fully funded program budget of $30 million beginning in fiscal year 2004 to fiscal year 2009. Since the first budget request submission in 1994, Health Affairs determined that the fiscal support requirements of other competing programs superceded this request. Health Affairs has not released any fiscal year 2004 funding, however we continue to work within the system to stress the importance of TriService Nursing Research. Through your support of TriService Nursing Research Program (TSNRP) funding, Navy Nurses have expanded the breadth and depth of our research portfolio, increased military nursing research capacity, developed partnerships for collaborative research and built an infrastructure to stimulate and support military nursing research. TSNRP-funded research has been conducted at our three major medical centers, our two Recruit Training Centers, several Naval Hospitals, onboard more than six aircraft carriers and collaboratively with our uniformed colleagues and more than thirteen universities across the country. In addition, our Navy nursing research has been published in numerous professional journals. Without TSNRP funding, the contractual management of 58 current active ongoing research grants will cease. Some open studies may require additional dollars, which would no longer be available. Promising new evidence-based practice initiatives to current and emergency military health care delivery and services will be discontinued. Past and current findings to affect change will be not systematically disseminated and military nursing science will only be a dream.

QUESTIONS SUBMITTED BY BRIGADIER GENERAL BARBARA BRANNON

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

RECRUITMENT AND RETENTION

Question. Recruitment within the services for all the Nurse Corps is better than the civilian market. There have been several tools to help with the recruitment effort including the accession bonus of $5,000 for Nurses joining the services.

The greatest retention tool for all services has been the opportunity for advanced out-service education for a masters or doctorate degree. Other issues that have also positively affected retention are: challenging assignments, more leadership responsibility, and greater promotion opportunities.

Question. Of the many tools for recruiting and retention, which tools have been most successful?

Answer. Although the Air Force has many excellent recruiting tools, we cannot yet claim to be better than—or to have reached parity with—the recruitment capabilities of our civilian counterparts. However, each tool currently at our disposal has proven to be essential building a strong Air Force nursing force—a force with the right numbers and the right clinical experience and skills.

We believe the General Accession Bonus and Health Professions Loan Repayment Programs are our most successful recruiting tools. The civilian market is flooded with incentives to capture the best nurses, and our incentive programs offer us the opportunity to compete for this scarce pool. As the nursing shortage grows we feel it is imperative that our recruiting tools remain competitive, and funding is crucial.

Health Professions Loan Repayment Program (HPLRP).—Based on the success of HPLRP as a retention tool last year, we have been able to offer up to $26,000 in exchange for an additional 2-year obligation for new accessions. This is the first time we have offered loan repayment as a recruiting tool and will monitor its impact. HPLRP appears to be a positive incentive for recruitment, a random data pull of 22 new accessions showed 100 percent opted for loan repayment.

General Accession Bonus.—We currently offer a $5,000 bonus for a four-year service obligation. We have the authority to offer up to $30,000. The Health Affairs/

Services Special Pays Working Group is currently working the funding to increase this bonus.

The Critical Skills Retention Bonus was hugely successful and boosted retention 82 percent in the limited specialties targeted, the Certified Registered Nurse Anesthetist and Perioperative nurses. This year, 66 percent of CRNAs and 98 percent of Perioperative nurses accepted the bonus for a one-year obligation. Further application and funding would positively impact nurse retention.

The Health Professions Scholarship Program (HPSP) supports nursing, physician, biomedical science and dental education. We are aggressively seeking an increase in HPSP scholarships for nursing to boost recruiting in the Certified Registered Nurse Anesthetist specialty.

Critical Skills Accession Bonus (CSAB).—We have the authority to provide a CSAB to those specialties manned at less than 90 percent. The Air Force Nurse Corps has submitted packages through the appropriate channels on those specialties to be considered for this bonus. Initiative still pending.

Retention in the Air Force Nurse Corps appears to be healthy overall. We have several specialties that are below the 90 percent staffing threshold. They are: Certified Registered Nurse Anesthetists (CRNAs), Perinatal Nurses, Neonatal Intensive Care Nurses, Women's Health Nurse Practitioners, and Emergency Room Nurses.

One of the most successful retention tools targeting our Certified Registered Nurse Anesthetist is our Incentive Special Pay. We have the authority to offer up to $50,000 on an annual basis for a one-year obligation. Currently we are funded to offer $15,000 for those personnel who are unconstrained by school obligations and $6,000 for those with school obligation. The Tri-Service Health Professions Incentive Pay Group is working to increase the funding by $5,000 in fiscal year 2004 and then incrementally by $5,000 until the desired retention is met. This program is instrumental in bridging the pay gap between civilian and military systems.

Health Professions Loan Repayment Program was offered to junior Nurse Corps officers with outstanding college debt. Results were outstanding, for fiscal year 2002, 241 nurses accepted up to $25,000 for loan repayment in exchange for a 2-year service obligation.

Question. Do you think that a Loan Repayment Program would be helpful to recruit more nurses?

Answer. This year the Air Force Nurse Corps was able to offer loan repayment as an accession tool. This is the first time we have offered loan repayment as a recruiting tool and we will closely monitor its impact. Preliminary data indicates this will be a tremendous success. Technical challenges have limited our ability to fully implement this program and we are working hard to overcome the barriers. Loan repayment appears to be a powerful recruiting tool and we will engage to sustain this tool for the Air Force Nurse Corps.

WAR'S EFFECT ON THE NURSE CORPS PLAN

Question. The number one retention tool is the opportunity for advanced education. The war could negatively affect the number of Nurses that will be available to begin out-service education opportunities in fiscal year 2004, thereby mitigating the effectiveness of this important retention tool.

How has the war in Iraq and deployments of personnel to the Middle East affected your overall out-service education plan for this year and next? For instance will you have to send fewer nurses to school for advanced degrees this year because of the numbers deployed?

Answer. The Air Force Nurse Corps has made every effort to ensure the integrity of our advanced degree program starts. We have worked pre, during and post-deployment personnel actions to ensure all selected for programs will be able to start as requested. We will not change our requirements based on deployments or operations tempo as these programs are vital to retention and the enhancement of quality patient care. We will validate all future advanced education requirements through our usual Air Force processes and will stay the course to ensure system integrity.

Question. How will the continued deployments affect you staffing plans for the Medical Treatment Facilities?

Answer. The Air Force Nurse Corps could and did meet all of our deployment requirements. We sparingly applied stop-loss to three of our critical Air Force nursing specialties as an insurance policy against potential expanded deployments of a prolonged conflict for future requirements.

The Air Force Nurse Corps uses a variety of staffing options to avoid patient risk. We can employ reserve units, individual mobilization augmentees, manning assistance and contract personnel.

In addition, our facilities will continue to be staffed based on patient nurse staffing ratios advocated by National Specialty Organizations. If we cannot meet safe patient care standards we divert to civilian facilities, enroll patients to the civilian network or extend clinic hours. This was needed on a limited basis at some of our Air Force Medical Treatment Facilities.

The Air Expeditionary Forces (AEF) cycle continues to be crucial to maintaining not only deployment unit integrity, but also to planning patient care delivery. Most deployments include multiple personnel specialties from physicians and nurses to technicians. The advanced deployment projections of the AEF allows a facility to plan for manning assistance, service closures and/or contracting of personnel to fill voids. By this methodology we ensure safe patient care through planning.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

RECRUITING AND RETENTION

Question. In light of a national nursing shortage, please describe the status of your recruitment and retention efforts in the Nurse Corps for each of your services?

Answer. The programs initiated on a national level to address the nursing crisis are encouraging. Recruiting nurses will continue to be a huge challenge in the coming decade. Fiscal year 2002 was the fourth consecutive year the Air Force Nurse Corps failed to meet its recruiting goal. We recruited approximately 30 percent less than our recruiting goal and shortfall has remained relatively consistent since fiscal year 1999. Our fiscal year 2003 recruiting goal is 363 and as of March 2003, we had recruited 120 nurses.

We believe the General Accession Bonus and Health Professions Loan Repayment Programs are critical to healthy recruiting. The civilian market is flooded with incentives to capture the best nurses and our incentive programs offer us the opportunity to be competitive for this scarce pool. As the nursing shortage grows we feel it is imperative that our recruiting tools remain competitive and funding is crucial.

Health Professions Loan Repayment Program (HPLRP).—Based on the success of HPLRP as a retention tool we have been able to offer up to $26,000 in exchange for an additional 2-year obligation for new accessions. This is the first time we have offered loan repayment as a recruiting tool and will monitor its impact. We received the funding to start this program in January 2003 and we are working the loan reimbursement constraints. HPLRP appears to be a positive incentive for recruitment, a random data pull of 22 new accessions showed 100 percent opted for loan repayment. Full accounting will be available once all the loan repayments have been made.

General Accession Bonus.—Currently offering a $5,000 bonus for a four-year service obligation. We have the authority to offer up to $30,000.

The Critical Skills Retention Bonus was hugely successful and boosted retention 82 percent in the limited specialties targeted, the Certified Registered Nurse Anesthetist (CRNA) and Perioperative nurses. This year, 66 percent of CRNAs and 98 percent of Perioperative nurses accepted the bonus for a one-year obligation. Further application and funding would positively impact nurse retention.

The Health Professions Scholarship Program (HPSP) supports nursing, physician, biomedical science and dental education. We are aggressively seeking an increase in our HPSP scholarships for nursing to boost recruiting in the CRNA specialty. The program covers tuition costs and provides a monthly stipend.

Critical Skills Accession Bonus (CSAB).—We have the authority to provide a CSAB to those specialties manned at less than 90 percent.

Retention in the Air Force Nurse Corps appears to be healthy overall. We have several specialties that are below the 90 percent staffing threshold. They are: CRNAs, Perinatal Nurses, Neonatal Intensive Care Nurses, Women's Health Nurse Practitioners, and Emergency Room Nurses.

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241 nurses accepted up to $25,000 for loan repayment in exchange for a 2-year service obligation.

MEDICAL TREATMENT FACILITIES

Question. With the numbers of nurses and medics/corpsmen deployed from your facilities, how have you ensured the delivery of safe patient care at the military medical facilities here at home?

Answer. Patient safety remains the central focus of our health care delivery. Our staffing models support healthy patient staff ratios which will not be breached. The Air Force Nurse Corps endorses and supports the standards of practice outlined by nursing specialties or organizations. These standards guide nursing practice and provide the Chief Nurse Executives at our medical treatment facilities the framework for safe care delivery.

We have many tools available to support safe nursing practice. We divert patients to other civilian facilities if patient acuity is higher then the nurse staffing can support. The decision for diversion is a collaborative decision between all healthcare disciplines. Nursing plays a dual role in the diversion option; they are the advocate for patients and staff ensuring neither is placed at risk.

Air Force facilities have embarked on a robust Patient Safety Program that prevents patient harm. The focus of this program is preventive in nature, putting into place the procedures and processes to keep healthcare delivery safe and patients and staff members free from harm.

We have employed the Managed Care Support Contracts and local contracts to fill the gap when deployments have taken their toll on staffing. Air Force Reserve personnel have also been mobilized to fill critical shortfalls.

DOCTORATE PROGRAM IN NURSING

Question. In fiscal year 2003, this Subcommittee appropriated funds to create a Nursing PhD program at the Uniformed Services University of the Health Sciences. Students will begin in the fall of 2003. How do you plan to use this PhD Program to educate your leaders and nurse researchers?

Answer. Each year the Air Force sends nurses back to school for doctorate education in Nursing. Currently there are a total of 20 PhDs in the Air Force Nurse Corps.

The Air Force will request two nurse corps doctoral requirements at the Integrated Forecast Board in June 2003, which is the process the Air Force uses to validate educational requirements. Both of the officers will attend the doctoral program at the Uniformed Services University of the Health Sciences. This program prepares leaders skilled in military-specific health care issues, preparing graduates to conduct research and take leadership roles in federal and military policy development. This program is integral to provide experts who are uniquely qualified in issues specific to the Department of Defense and orchestrates research supporting evidenced-based nursing practice that positively impacts patient outcomes in peacetime and wartime.

NURSING RESEARCH

Question. The Committee appropriated $6,000,000 for the TRISERVICE Nursing Research Program and directed the Secretary of Defense to fully fund it in the fiscal year 2004 budget request. To my knowledge, there are no funds for this program in fiscal year 2004. Why was this not funded and what are the potential implications if this is not funded in future years?

Answer. Uniformed Services University of the Health Sciences (USUHS) has long been a strong supporter and proponent of nursing research and the TriService Nursing Research Program (TSNRP) and any decline in this program would have a negative effect on our pursuit of nursing research. In addition, TSNRP has historically been physically located at USUHS. We have learned that USUHS is exploring the development of a center focused on military health and research. If this concept is developed and approved, we feel that this may be an ideal conduit for research funding in the future. We have made contact with USUHS regarding the feasibility of identifying the funding through this option and will continue to explore all options regarding the feasibility of funding TSNRP via USUHS.

SUBCOMMITTEE RECESS

Senator INOUYE. And I thank all of you for your testimony this morning and the subcommittee will reconvene next Wednesday,

May 7 when we will hear from the chiefs of the National Guard and Reserve components. We will stand in recess.

[Whereupon, at 12:35 p.m., Wednesday, April 30, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, May 7.]