Serve, Support, Simplify

Report of the President's Commission on Care
For America's Returning Wounded Warriors
July 2007

Subcommittee Reports & Survey Findings

Table of Contents

Work of the Commission 5

Commissioners' Biographical Profiles 7

Subcommittee Reports 9

A System that Serves

- The Continuum of Care 11
- Post-Traumatic Stress Disorder & Traumatic Brain Injury 35
- Rehabilitation 53

A System that Supports

- Family Support 69
- Education, Training, & Employment 81

A Simpler System

- Disability Evaluation & Compensation 93
- Information Systems 117

Key Survey Findings 145

The Work of the Commission

President George W. Bush established the President's Commission on Care for America's Returning Wounded Warriors by executive order (EO 13426, March 8, 2007). Section 3 of the order specifies:

> The mission of the Commission shall be to:
>
> (a) examine the effectiveness of returning wounded service members' transition from deployment in support of the Global War on Terror to successful return to productive military service or civilian society, and recommend needed improvements;
>
> (b) evaluate the coordination, management, and adequacy of the delivery of health care, disability, traumatic injury, education, employment, and other benefits and services to returning wounded Global War on Terror service members by Federal agencies as well as by the private sector, and recommend ways to ensure that programs provide high-quality services;
>
> (c) (i) analyze the effectiveness of existing outreach to service members regarding such benefits and services, and service members' level of awareness of and ability to access these benefits and services, and (ii) identify ways to reduce barriers to and gaps in these benefits and services; and
>
> (d) consult with foundations, veterans service organizations, non-profit groups, faith-based organizations, and others as appropriate, in performing the Commission's functions under subsections (a) through (c) of this section.

Our report is rooted in the work done by the Commission, plus the work of the several other Task Forces and Commissions that in recent months have been examining similar issues. This Commission heard testimony at seven public meetings and conducted 23 site visits to military bases, VA hospitals and treatment centers across the country. We heard from experts on providing physical and mental health care, navigating health care and disability evaluation and compensation systems, members of Congress and their staff, and most importantly, service men and women, their families, and the health care professionals charged with their care. The Commission also conducted its own nationwide survey of more than 1700 injured service men and women, and findings from this June 2007 survey are noted throughout the main report and the Subcommittee reports.

Given the short timeframe of the Commission and the desire of Commission members to reach as many service men and women and their families as possible, a public website

was established with a special "Share Your Story" feature at www.pccww.gov. From April 14th through July 9th, the Commission received 473 "Share Your Story" e-mails. Individuals also could contact the Commission by mail (P.O. Box 12588, Arlington VA 22219-2588) or toll-free telephone number (1-877-588-2035), where detailed messages could be recorded. Commission staff reviewed every in-person, electronic, written, and telephonic submission. As of July 9th, the Commission received and responded to 502 pieces of correspondence and 414 phone calls.

Site Visits

The Commission visited the following facilities:

California
- Camp Pendleton (San Diego)
- Balboa Naval Medical Center (San Diego)
- San Diego VA Medical Center

Florida
- Miami VA Medical Center
- Ryder Trauma Center
- James A. Haley VA Medical Center (Tampa)

Illinois
- North Chicago VA/Great Lakes Naval Hospital
- Rehabilitation Institute of Chicago

Maryland
- National Naval Medical Center

Minnesota
- National Guard "Beyond the Yellow Ribbon" Program

Nevada
- Southern Nevada VA Medical Center

New Jersey
- New Jersey VA Medical Center – Lyons Campus

New York
- Bronx VA Medical Center

North Carolina
- Camp Lejeune
- Womack Army Medical Center (Fort Bragg)

Texas
- Brooke Army Medical Center (Fort Sam Houston)
- Wilford Hall Medical Center (Lackland Air Force Base)
- Audie Murphy VA Medical Center (San Antonio)

Virginia
- Hunter Holmes McGuire VA Polytrauma Rehabilitation Center (Richmond)
- Fort Belvoir

Washington, DC
- National Rehabilitation Hospital
- Walter Reed Army Medical Center
- Washington Navy Yard

Commissioners' Biographical Profiles

President Bush named nine members to the President's Commission on Care for America's Returning Wounded Warriors, including two co-chairs. Each Commission member brought unique personal and professional experience to the work of the Commission. The following are brief biographical profiles of our Commission members:

Co-Chairs

Bob Dole: Senator Bob Dole was elected to Congress from his home state of Kansas in 1960 and to the U.S. Senate in 1968. He resigned from the Senate in 1996. His personal history of service includes active duty in World War II, during which he was gravely wounded and received for heroic achievement two Purple Hearts and a Bronze Star with Oak Leaf Cluster.

Donna Shalala: In 1993, President Clinton appointed Donna Shalala Secretary of Health and Human Services (HHS), where she served for eight years, becoming the longest serving HHS Secretary in U.S. history. She has served as President of the University of Miami since June 1, 2001.

Commissioners

Edward A. Eckenhoff: Edward A. Eckenhoff is Founder, President, and CEO of the National Rehabilitation Hospital and a Member of the District of Columbia Hospital Association Board of Directors. As the leader of one of the largest medical rehabilitation providers in the Washington-Baltimore area, he is an innovator in the field of rehabilitation medicine. Earlier in his career, he served as Vice President and Administrator at the Rehabilitation Institute of Chicago. He received his bachelor's degree from Transylvania University in Kentucky and his master's degree in Health Care Administration from the Washington University School of Medicine.

Tammy Edwards: Tammy Edwards is a strong advocate for families of wounded service members. In 2005, her husband, U.S. Army Staff Sergeant Christopher Edwards, was severely burned in Iraq when a 500-pound bomb exploded under his vehicle. Since her husband's injury, Tammy has provided support for family members of wounded veterans in her community of Cibolo, Texas. She received her bachelor's and master's degrees from Florida State University.

Kenneth Fisher: Kenneth Fisher is Senior Partner of Fisher Brothers and Chairman and CEO of Fisher House Foundation, a not-for-profit organization that constructs "comfort

homes" for families of hospitalized military personnel and veterans. Fisher Houses serve 8,500 families every year. Mr. Fisher has more than 26 years of experience in the real estate industry and attended Ithaca College.

C. Martin Harris: C. Martin Harris is Chief Information Officer and Chairman of the Information Technology Division at the Cleveland Clinic. He has been a practicing physician since 1987. He has served on government and private sector commissions that have addressed health care interoperability issues, including the Congressional Commission on Systemic Interoperability and as Chairman of the Healthcare Information and Management Systems Society's National Health Information Infrastructure Task Force. Dr. Harris received his MBA from the Wharton School of Business and his MD from the University of Pennsylvania School of Medicine.

Marc Giammatteo: Marc Giammatteo is a student at Harvard Business School, a graduate of the U.S. Military Academy at West Point, and a former Captain in the U.S. Army. In 2004, his leg was severely injured during a rocket propelled grenade attack in Iraq. He has undergone more than 30 surgeries at Walter Reed Army Medical Center. From 2004 to 2007, he served as an Unofficial Patient Advocate at Walter Reed. He is a recipient of the Bronze Star and Purple Heart.

Jose Ramos: Jose Ramos is a student at George Mason University, where he is pursuing a major in International Studies and minor in Islamic Studies and Arabic. While serving as a Hospital Corpsman 3rd Class in the U.S. Navy, he treated soldiers who were injured during unconventional warfare in Iraq. In 2004, during his second tour of duty in Iraq, he lost his arm during combat. He also served one tour of duty in Afghanistan.

Gail Wilensky: Gail Wilensky is an Economist and Senior Fellow at Project HOPE, an international health education foundation. She also serves as Co-Chair of the Task Force on Future Health Care at the U.S. Department of Defense. Earlier in her career, she served as the Chair of the 2003 President's Task Force to Improve Health Care Delivery for Our Nation's Veterans and Chair of the Medicare Payment Advisory Commission. She also directed Medicare and Medicaid programs at the U.S. Department of the Health and Human Services. Dr. Wilensky received her bachelor's, master's, and doctoral degrees from the University of Michigan.

Subcommittee Reports

THE CONTINUUM OF CARE

THE CHALLENGE

Advances in military medicine, rapid evacuation, and improved protective gear have increased survival of our injured service members compared to previous conflicts and wars. Care from the point of injury through medical evacuation is demonstrably first-class. Service members can arrive in the continental United States within 36 hours after sustaining very serious and complex injuries.

Although the military health system is responding admirably to the rapidly increasing number and complexity of injuries, evidence has arisen of gaps in care, lack of accountability, and bureaucratic mazes. Fragmentation in the health and social services systems creates frequent confusion and uncertainty.

Processes for access to care, case management, coordination of services, and inpatient to outpatient transitions lack clear and common definition. Further, these processes have not evolved to meet the changes in health care needs. Successful transition from inpatient to outpatient status requires attentive coordination and management of care, focusing on the service member's readiness to begin the journey from the inpatient environment to life in the community.

BACKGROUND

Military medicine has contributed greatly to improvements in care and management of the severely wounded. From the concept of triage—the system for prioritizing injuries for treatment, which began in World War I—to rapid transportation of the wounded to sites for definitive care, the advances and lessons learned during times of war have created and improved the system of trauma care for both U.S. service members and civilians. During World War II, for example, the process for storing blood was put to the test in the field by the British Red Cross. In Korea, MASH units were developed and used as forward surgical units to improve care for the wounded, and helicopter ambulances created the first formal air evacuation system. In Vietnam, the air evacuation system was advanced to the point where injured service members were transported from the point of injury to definitive care within two hours, compared with 12 to 48 hours in World War I.

The current wars in Iraq and Afghanistan have also seen great strides in the development of trauma medicine. Advances in body armor and hemorrhage control techniques have dramatically reduced mortality rates and limited the severity of many injuries.

According to a recent report, the proportion of *combat casualties*—active-duty service members who have to leave the theater because of a medical condition, including injury, illness, or non-combat injury[1]—who are killed in action fell from 20 percent in World War II to 13.8 percent in Afghanistan and Iraq. This decrease in the number dying instantly from their wounds is a measure of the effectiveness of early care and evacuation in the face of more deadly weapons.[2] Another way of measuring this effectiveness is the *case fatality rate*, which is the percentage of killed and wounded who die from injuries, either immediately (killed in action) or after a lapse of time (died of wounds). The case fatality rate has fallen from 19.1 percent in World War II to 10.1 percent in Iraq and Afghanistan. [3]

$$\text{Case Fatality Rate} = \frac{\text{killed in action + died of wounds}}{\text{killed in action + wounded in action}} \times 100$$

$$\text{\% Killed in Action} = \frac{\text{killed in action}}{\text{killed in action + (wounded in action – return to duty)}} \times 100$$

OVERVIEW

The military readiness mission of the military health system is twofold: 1) to maintain the health of America's fighting force and 2) to care for those service members who are ill or injured. Casualty planning for each war builds on the lessons learned from previous wars and conflicts. Allocation of medical resources for any war is based on the number of deployed troops.

For the current wars in Iraq and Afghanistan, the general plan for access to medical care for our service members encompasses five levels:

Level I :	Medic (Army or Air Force)/Corpsman (Marine) Battalion Aid Station (Army) /Regimental Aid Station (Marine)
Level II :	Forward Surgical Team (Army) / Forward Resuscitative Surgical System (Marine)
Level III :	Combat Support Hospital/Air Force Theater Hospital/Naval Hospital Ship
Level IV :	Landstuhl Regional Medical Center, Germany
Level V :	Continent of the United States

All service members are first-aid trained in order to assist a wounded comrade. When a service member is injured during combat, he or she is trained to self-apply a tourniquet if necessary. A medic (Army) or corpsman (Navy) assists if immediate lifesaving measures are required, and with evacuation. The injured service member is transported to the next appropriate level of care, depending on the type and severity of the wounds.

For some, this means being air evacuated to Landstuhl Regional Medical Center in Germany, where they receive additional care and stabilization. As of June 30, 2007, 37,851 individuals had arrived at Landstuhl from Iraq and Afghanistan, and 23,270 of these returned to duty within 72 hours.[5] Not all of these service members were injured in combat, and not all actually required hospitalization at Landstuhl. (From the beginning of Operation Iraqi Freedom until May 15, 2003, 1,236 patients were evacuated to Landstuhl, only 620 required inpatient admission; 256 of these had been injured in battle. [6])

Service members with any injury or illness which requires additional expertise, or which will prevent their returning to their military duties, are generally air evacuated to medical treatment facilities in the United States.[7] Prior to evacuation, physicians at Landstuhl determine the optimal medical treatment facility to refer the patient, given the individual's injuries or medical needs. Receiving physicians at stateside military treatment facilities are provided with a summary of the medical condition for which the patient was referred.

On arrival in the United States, injured service members are taken to the appropriate medical treatment facility where they are examined and placed into inpatient or outpatient status. After recovery, some return to duty. Others begin the process of evaluation to determine whether or not they are medically fit to continue in their military job. Service members found unfit are then evaluated for separation or medical retirement from the military. (The details of this process are fully discussed in the Subcommittee Report on Disability.)

Most veterans file for a disability rating from the VA, and all those who were deployed to Iraq and Afghanistan are eligible for two years of free medical care in the VA health system. To continue receiving health care from the VA, they must enroll. Many veterans are also eligible for other benefits, such as vocational rehabilitation or education benefits through the Montgomery GI Bill. Various federal and state programs also provide support and assistance with employment. These aspects of veteran benefits are detailed in the Subcommittee Report on Education, Training, and Employment.

On February 18, 2007, the Washington *Post* began publication of a series focusing on deficient conditions in Building 18, an outpatient unit, located on the campus of Walter Reed Army Medical Center. That and subsequent events led to the creation of a task force and an inter-agency review, along with a host of corrective actions on the part of the military and VA. Congress has held hearings, and hundreds of bills have been proposed to address the perceived problems.

PREVIOUS REPORTS AND RECOMMENDATIONS

Previous Commission and Task Force reports have examined care and services that injured service members receive. A common theme among these reports is the need for coordinated care, with a mechanism to assist service members as they transition from

inpatient to outpatient care and services. The following specific recommendations were made:

- The **Task Force on Returning Global War on Terror Heroes** (March 2007) recommended development of a system for co-management and case management for returning service members to ease the transition from DoD to VA care. Specific recommendations from this report included:
    - Standardization of VA Liaison Agreements across all military treatment facilities
    - Enhancement of electronic health records to facilitate complete reporting of medical information between DoD and VA.

- A 2007 report by the **Government Accountability Office (GAO)** on challenges encountered by injured service members during their recovery process concluded that transition of care for the seriously injured, and DoD and VA's efforts to provide rehabilitation services as soon as possible after the injury, constituted the greatest areas of challenge. This has resulted in streamlining of processes between DoD, VA, Department of Labor, and other federal agencies to develop measures to ensure better outcomes.[8]

- The **Independent Review Group** (April 2007) criticized shortcomings in the areas of continuum of care, leadership, and policy in regard to care of injured service members. The report specifically recommended:
    - Developing a tri-service policy for case management services
    - Assigning every returning service member assigned a primary care manager and a case manager as the basic unit of support
        - Creating a standard for qualifications and initial and recurring training for all case managers.

- In a 2006 report, the **GAO** observed that many outreach efforts were underway between DoD and the VA to provide seamless transition of care for Iraq and Afghanistan service members and veterans. It concluded that efforts to get information to service members and veterans about VA health care services were successful. Results of these efforts included memoranda of agreement between DoD and VA health care facilities for transfer of injured service members, and initiatives to improve the electronic exchange of information between DoD and the VA. [9]

- In a report to Congress in 2006, the Transition Assistance and Disabled Transition Assistance Programs (TAP and DTAP) were the focus. Work done in this area has led to the restructuring of the TAP program to include a web-based portal for information, increases in TAP briefings

done jointly between DoD and the VA, and measures to enhance the existing TAP program.[10]

WHAT THE COMMISSION FOUND

Introduction

The Commission learned a great deal about the care and benefits provided to America's military personnel and veterans. The Commission learned that, on the whole, we are a generous and giving Nation when it comes to providing for our service members and veterans. Benefits include health care for veterans through the VA health care system and for retirees through the military health system and through civilian providers through TRICARE. In addition, we pay retirement and disability benefits, and provide for education, adaptive equipment, employment hiring preferences, and more. The total cost of these benefits was well over $127 billion in 2006.[11]

The Commission was not charged with determining if this amount is sufficient. Instead, the Commission was charged with determining if the benefits and services provided to our wounded service members are ***effective*** in maximizing their potential for a productive life—either by returning to full military service or transitioning to civilian life. This is a big challenge.

The Commission recognized that it could not tackle every problem in the care of injured service members within its four-month time frame and determined to focus on the disability system for the military and the VA, rehabilitation, education/training and employment, families, post-traumatic stress disorder and traumatic brain injury, and information transfer. Each of these areas is discussed in the subcommittee reports that follow. The remainder of this Subcommittee Report discusses coordination and delivery of care and benefits to our injured service members.

Transition: Becoming a Patient

From the time of injury, service members progress through a series of recovery transitions. The first occurs at the front lines, when the service member is injured and becomes a patient. Experience in the field has documented that the greatest threat to life is the immediate blood loss associated with the injury. [12],[13] In response, the combat health support system has provided more first responder training and has positioned advanced trauma management capabilities closer to the front lines.[14] As a result, if an injured service member arrives at any level of theater medical care, he or she has a 97.5 percent chance of surviving.[15]

The process of getting injured services members the care they need while remaining in a combat zone is excellent. The Army, Marines, Air Force, and Navy have each created a system of combat care and evacuation that quickly moves the injured individual through the various levels of care and back to military treatment facilities in

the United States. It is not uncommon for an injured service member to arrive at a stateside military treatment facility within 36 hours after injury. [16]

The Commission found no area of concern regarding in-theater care and evacuation of injured service members.

Transition: Evacuation & Triage

A later transition involves the decision to evacuate an active-duty service member to the United States, typically from Landstuhl Regional Medical Center in Germany (Table 1). This decision is based on a determination that the patient's condition is so serious that returning to duty is not feasible or that additional resources are required to care for the individual. The physicians at Landstuhl first match the patient's needs with a referral hospital that can provide the necessary services. The referral hospital is notified, and arrangements are made for transfer. The air evacuation manifest, containing specific information about the patient, is sent to the referring hospital prior to the patient's arrival.

Upon arrival at the destination facility, the patient is triaged to either inpatient or outpatient status. Within 24 hours, outpatients are usually seen in a clinic, where an evaluation is completed and referrals are made for needed services. Inpatients receive further stabilization for their injuries and additional procedures before being discharged to outpatient status or transferred to another hospital.

In general, patients with traumatic amputations are cared for at Walter Reed Army Medical Center, Brooke Army Medical Center, and Naval Medical Center San Diego. Burn patients are admitted directly to the burn unit at Brooke Army Medical Center. Patients with spinal cord injuries are stabilized and then transferred to a VA spinal cord center. Patients with penetrating head injuries are primarily cared for at National Naval Medical Center, Bethesda, Maryland. Service members with multiple injuries are stabilized at one of the military treatment facilities and may, afterwards, be transferred to one of four VA Polytrauma Rehabilitation Facilities.

As of July 23, 2007, 911 service members experienced an amputation from injuries sustained in Iraq or Afghanistan. Of these, 644 have been for the loss of an arm, leg , han d, or foot, including those individuals with multiple amputations. Approximately 76 percent of these have been cared for at Walter Reed Army Medical Center.

Accounting for all patients with traumatic brain injury is more difficult (see Subcommittee Report on Post-Traumatic Stress Disorder and Traumatic Brain Injury). As of March 2007, 2,726 service members had been reported to the Defense Veterans Brain Injury Center with the diagnosis of traumatic brain injury. Of these, 2,094 were classified as mild and 255 as moderate. Another 192 had severe traumatic brain injuries and 171 had penetrating brain injuries.

Ninety-one service members had been treated for spinal cord injuries in the VA, as of June 8, 2007. Brooke Army Medical Center's burn unit reports receiving 598 service members evacuated from Iraq and Afghanistan with burns as of June 30, 2007. Fifty-three service members have received blind rehabilitation services from the VA as of April 3, 2007.

The Commission found no area of great concern with the inpatient treatment of patients evacuated from Landstuhl. The medical care at Walter Reed Army Medical Center, Brooke Army Medical Center, National Naval Medical Center at Bethesda, Naval Medical Center San Diego, and other military treatment facilities is compassionate and complete. The specialized services and programs for amputations and burns, in particular, are world-class.

Transition: Inpatient to Outpatient

Transitioning from an inpatient to outpatient setting can be difficult for patients—in or out of the military. Being an outpatient places the burden to follow through with instructions and plans for recovery directly on the patient and family. This may be an easier task for those with relatively minor injuries.

Patients with complex and chronic problems are less likely to do well without additional guidance and attention. The Commission heard concerns that care in the outpatient setting was less well coordinated, difficult to access, and fragmented. Some injured service members reported waiting two to three weeks between appointments for specialty services, consistent with the access standard for all military patients. In addition, access to support and administrative services is challenging. Outpatient care can be further complicated by the structure, rules, and regulations required by the military.

Transition to VA: Medical Hold & Holdover

In the Army, ***medical hold*** is a term used to describe the duty status of active-duty service members who are unable to perform in their duty capacity.[17] ***Medical holdover*** is the term used for the duty status of Army reservists who need medical care at any time during their mobilization or who experienced a medical condition in the line of duty.[18] The Air Force has a similar concept for airmen, called ***patient squadrons***, although an airman who can work at any duty is returned to his unit. The Navy and Marines also use the terms medical hold and medical holdover. Service members who require more than 30 days for recovery prior to returning to duty are placed in medical hold/medical holdover/patient squadrons.

These administrative terms are used to maintain command and control of service members during outpatient recovery or treatment. The ability to reassign an individual to medical hold also enables commanders to maintain unit strength by filling the position.

For those whose medical condition precludes a return to their military duties, the evaluation process for separation or medical retirement begins. Medical hold is not intended to be permanent or a means to maintain active-duty status.

Currently in the Army, there are 1,530 active duty and 2,069 reservists on medical hold or medical holdover. The average length of time spent in medical hold or medical holdover is 174 days, with many spending 122 days.[19]

Durations are similar for the Air Force, where the average length of time is 222 days, and, for sailors and Marines, the average time spent in medical hold is 130 days. There have been instances, however, when service members have spent more than years in medical hold.[20]

Although the Army's Office of the Surgeon General was unable to provide the number of soldiers in medical hold or holdover status since 2001, it did provide data on soldiers in medical hold and holdover status at each military treatment facility (Table 2). The highest number of soldiers in medical hold or holdover status continues to be at Walter Reed Army Medical Center, followed closely by Fort Sam Houston. While soldiers in medical hold or holdover status at other military treatment facilities may actually be recovering at home, those recovering at Walter Reed present a housing issue. Walter Reed is not co-located with an active troop command center, such as Fort Bragg , and therefore housing for outpatients is limited.

Many long lengths of stay in medical hold and holdover status are the result of injury complexity and the natural progression of recovery. Other delays, however, appear to result from suboptimal care coordination and planning, long waits for outpatient appointments, lack of accountability for soldiers' whereabouts, and service members' desire to remain on active duty for as long as possible, in order to receive active-duty pay and benefits.

Recently, the Army Medical Department implemented the Army Medical Action Plan to address problems at Walter Reed.[22] The plan includes development of Warrior Transition Units. These units are intended to replace medical hold and holdover with a formal military unit structure and will be located at every medical treatment facility where at least 35 soldiers qualify. A primary care provider, case manager, and squad leader are assigned to each recovering soldier. The plan also calls for expedited access for outpatient appointments and appropriate diagnostic tests.

The Wounded Warrior Regiment, established in April 2007, is the comparable Marine Corps program. This is a centralized unit with command and control of all wounded and ill Marines. Some of these Marines live in Wounded Warrior barracks; others live on or off base with their families. Medical case management is provided by the closest naval medical center, and coordination between the regiment and the medical team is facilitated with biweekly meetings. The Regiment commands two Wounded Warrior Battalions; East at Camp Lejeune, North Carolina, and West at Camp Pendleton, California.

The Navy and Air Force also have similar programs. Safe Harbor (Navy) assists injured sailors with access to existing support resources, while encouraging them to remain in the Navy. While the Palace HART (Air Force) program works to retain combat-injured service members on active duty, provides benefits counseling, and facilitates civilian employment for those medically separated.

These programs are commendable and will assist service members while reducing medical hold and holdover excesses. But, they are not sufficient to solve the fundamental problem of transitioning service members through a complex and, at times, convoluted process.

Transition: From Active Duty to Veteran

Prior to 2000, access to VA health care was only possible after leaving the military. Today, however, many active-duty services members are treated for their injuries in VA Polytrauma Rehabilitation Centers and Spinal Cord Centers. Furthermore, they may be transferred back to a military treatment facility for additional care. These transitions and transfers can be challenging. Few service members or their families know how to navigate the VA system.

To help resolve some of these problems, in January 2005, the VA established the Office of Seamless Transition. This Office provides oversight and assistance for military-VA facility patient transitions.[23] The VA provides social work liaisons in ten of the major military hospitals. These liaisons serve as part of the health care team, and facilitate transfer to a VA facility when the team thinks it is in the patient's best interest. When a service member is transferred to a VA facility, he or she is assigned a case manager to assist with care and help educate the patient and the family.

Transitioning to the VA after leaving the military can be difficult as well. For veterans who served in Iraq and Afghanistan, two years of health care is provided in the VA health care system without the need to enroll. Veterans who believe they have service-related or service-aggravated conditions must apply for VA disability benefits. Under a new VA program, Benefits Delivery at Discharge, injured service members can file for VA claims if they are within 180 days of military discharge. This program is working quite well and appears to be achieving the goal of providing injured service members with disability income by the time they leave the hospital.

A host of programs and benefits assist veterans at the federal, state, and community levels. Identifying these programs and benefits, the requirements for eligibility, and the forms needed to apply can be complicated and difficult to access, even for those posted on the Internet. Sometimes there appears to be too much information provided and, at others, not enough. A contemporary, interactive personalized online resource is needed for service members and veterans to access this information. (This concept is more fully discussed in the Subcommittee Report on Information Systems.)

Managing Transitions

Optimally, case management assists and guides patients in a collaborative process, using a defined plan to meet the individual's health needs.[24] It can include both clinical and non-clinical components. The concept is an important one—coordination of care. Unfortunately, in the military health care system, every process and point of health care delivery now "does" case management. Consistency is further weakened by differences among the Services in requirements for case management positions, training, certification, and case load ratios.

At a recent Military Health System Case Management Summit, at least 16 areas were identified as providing case management services at 11 types of facilities (Table 3). An injured service member hospitalized at one military treatment facility and discharged to outpatient status may have as many as 15 case managers—all at the same facility. Patients requiring more complex care get more case managers; patients going between DoD and VA facilities for care get even more. The individual's health needs may be met, but it appears that much of the time case managers are managing the patient through a set of services or episodes of care instead of coordinating service. *The end result for the service member and his or her family is confusion and redundancy in a system that was intended to coordinate care. No one is in charge.*

Survey and Survey Results

The Commission conducted a telephone survey of 1,730 current and former service members who sustained injuries in Iraq and Afghanistan that necessitated their medical evacuation to the United States. In general, these are young people inexperienced in navigating any health system, who find themselves thrust into a highly complex one (Table 4). Most were satisfied with their inpatient care (Figure 1). To a lesser degree, they were generally satisfied with rehabilitative care and outpatient care.

We asked respondents whether they could easily find a doctor or other provider, and most could do so (Figure 2). When asked whether they had a medical provider to coordinate their care, only half of active duty said they did, and a fifth of reserve component or separated/retired said they had such a person.

ACTION STEPS

Integrated *care* management offers a better approach than fragmented *case* management for managing and assisting injured service members and their families in navigating difficult and cumbersome systems of care and benefits. Integrated care management provides patients with the right care and benefits at the right time in the right place by leveraging all resources appropriate to the needs. For injured service members—particularly the severely injured—integrated care management would build

bridges across health care services in a single facility and across health care services and benefits provided by DoD and VA.

Integrated care management begins with a comprehensive, patient-centered evaluation by a multidisciplinary team of physicians, nurses, allied health care professionals, mental health professionals, rehabilitation and vocational rehabilitation specialists, and social workers, as needed, completed as early in the acute care phase of a service member's recovery as possible. This evaluation guides the development of a comprehensive, but flexible, ***recovery plan***.

Components of the recovery plan include:

- Identifying the patient's goals for rehabilitation and outpatient care, taking into account plans for returning to military duty or transitioning to civilian life, including identification of any education, training, or employment needs
- Specifying all resources needed to meet these goals
- Setting milestones and estimates of time for recovery
- Identifying the most appropriate facilities to meet the needs for rehabilitation and clinical care
- Evaluating the needs of the family and providing the necessary resources for support.

In our vision, the recovery plan is managed by a ***Recovery Coordinator***. These highly skilled and cross-trained individuals work with existing case managers and other personnel involved in the various aspects of care needed by the patient to recover. In addition, the Recovery Coordinator arranges for any support program services required and serves as the patient's advocate. The Recovery Coordinator must be able to operate across Departments to access the best that each has to offer in helping an injured service member to reach his or her maximum potential. The Recovery Coordinator will need to be knowledgeable not only about health care, but about benefits provided at the local, state, and federal levels, particularly the broad range of services provided by the VA.

This will not be an easy task and will require a certain type of individual with extraordinary skills. We have developed a job description that includes a listing of the capabilities we expect these individuals will need (Appendix). We believe that, to be effective, these individuals should become part of the Commissioned Corps in the Public Health Service of the Department of Health and Human Services. This new unit's commander would report directly to the U.S. Surgeon General.

We thought long and hard about placing the Recovery Coordinators outside of the two Departments. In the end we believe that this is necessary. Placing these individuals in either Department is unlikely to work in the manner we have described. We do not suggest creating another agency or office, but propose using an existing, well respected source of strength—the U.S. Public Health Service's Commissioned Corps.

To make sure that this approach works, we believe the Surgeon General (Public Health Service [PHS], Department of Health and Human Services) should sit on the current Strategic Operating Committee and hold a permanent place on the Joint Executive Committee. The PHS Surgeon General should work with the service Surgeons General and the Under Secretaries for VA Health and Benefits to quickly develop a memorandum of understanding that would provide the authority and access needed to implement this strategy.

The Recovery Coordinators can immediately be recruited from individuals currently working in the Commissioned Corps, DoD, and VA. A training course also must be immediately developed jointly with the DoD and VA, under direction of the Surgeon General. We believe that our approach will ultimately reduce the current number of case managers and VA health and benefits liaisons. This adjustment should take place over time, with evaluation, and as experience is gained with the Recovery Coordinator concept.

The effectiveness of the Recovery Coordinators—their annual performance reviews—should be conducted by the Unit Commander, Hospital Commanders, VA Hospital Chiefs of Staff, patients, and families. The case load for each Recovery Coordinator should not be mandated, but must be flexible to meet the needs of patients. Because patients tend to improve with time, a Recovery Coordinator may manage up to 20 or so patients, depending on their combined needs and time required. Most important, these individuals *must have the authority to tap all resources necessary to implement each patient's Recovery Plan*. Everyone, regardless of Department affiliation, rank, or seniority, must cooperate.

Recovery Coordinators will need timely access to medical and benefits information in order to properly coordinate services. This will not require any new information systems, but improved access to existing electronic resources. As the information technology in each Department continues to evolve, the information needs of the Recovery Coordinators must be considered and incorporated. An important component is the proposed "My eBenefits" web portal (discussed in the Subcommittee Report on Information Systems). This would serve as an integrated care management tool and allow instant communication between Recovery Coordinator and patient, assisting in the overall coordination of care and benefits.

The Commission believes that many current injured and recovering service members, as well as those arriving daily from Iraq and Afghanistan, will benefit from this approach.

Table 1. DESTINATIONS FOR MEDICAL EVACUATIONS FROM IRAQ AND AFGHANISTAN, January 2005 – March 2007.

Destination Facility Name	Number	Percent
Walter Reed Army Medical Center, Washington D.C.	2236	18
Eisenhower Army Medical Center, Ft. Gordon	1015	8
Darnall Army Medical Center, Ft. Hood	903	7
National Naval Medical Center, Bethesda	801	7
Brooke Army Medical Center, Ft. Sam Houston	766	6
Womack Army Medical Center, Ft. Bragg	671	6
Naval Hospital Camp Lejeune, North Carolina	435	4
Madigan Army Medical Center Ft. Lewis	379	3
Blanchfield Army Community Hospital, Ft. Campbell	357	3
Naval Hospital Camp Pendleton, California	348	3
All other facilities combined	4177	35
Total	**12,088**	**100**

Source: USTRANSCOM TRAC2ES, January 2005 to March 2007

Table 2. NUMBER OF SERVICE MEMBERS ON MEDICAL HOLD OR HOLDOVER STATUS, BY SITE, JULY 2007.

Walter Reed AMC	628	Tripler	68
Ft. Sam Houston	512	Ft. Eustis	38
Ft. Hood	184	Ft. Buchanan	66
Ft. Bragg	306	West Point	25
Ft. Lewis	269	Ft. Dix	103
Ft. Gordon	252	Ft. Sill	48
Ft. Bliss	163	Ft. Polk	94
Ft. Knox	219	Ft. Leonard Wood	5
Ft. Benning	96	Ft. Richardson	34
Ft. Carson	67	Ft. Irwin	16
Ft. Campbell	73	Ft. Jackson	6
Ft. Drum	162	Ft. Belvoir	10
Ft. Stewart	73	Ft. Leavenworth	3
Ft. Riley	40	Camp Shelby	39

TOTAL: 3599

Table 3. Range of Case Management Services

	Military MTF	Base Clinics	Co. CMD	Med Hold	AD/RC Centers	VAMC	VA Clinics	Day Programs	Trans Programs	State Rehab Centers
Nurse CM	√	√	√	√		√	√	√	√	√
SW CM	√	√		√	√	√	√	√	√	√
Clergy	√	√	√	√	√	√		√	√	√
PEBLO	√	√	√	√	√	√			√	√
SSL	√	√	√	√	√			√		√
Service F SCP	√	√		√	√			√	√	
VA STL	√			√		√	√	√	√	
VA OEF/OIF PM	√			√		√	√	√	√	√
VA Poly CM	√			√		√				
VA Vet Centers	√				√	√	√	√	√	
VA Women's VPM	√	√		√		√	√	√	√	√
VA TPA	√					√				
VA VIST, SCI CM	√			√		√	√	√	√	√
VBO and VSO	√	√	√	√	√	√	√	√	√	√
CBO	√	√		√	√	√	√	√	√	√
Others	√	√	√	√	√	√	√	√	√	√

LEGEND:

MTF – Military Treatment Facility
Co CMD – Company Command
Med Hold – Medical Hold Facilities
AD/RC Centers – Active Duty and Reserve Component Service Centers
VAMC – VA Medical Centers
VA Clinics – VA Community Based Outpatient Clinics
Day Programs – Structured Day Programs
Trans Programs – Independent Living Programs
State Rehab Centers – State Rehabilitation Centers

CM – Case Manager
SW – Social Worker
SSL – Service Support Liaison
Service FSC – Service Family Support Center Personnel
VA STL – VA Seamless Transition Liaisons
VA OEF/OIF PM – VA OEF/OIF Program Managers
VA Poly CM – VA Polytrauma Case Managers
VA Vet Centers – VA Community Based Vet Centers
VA Women's VPM – VA Women's Veteran Program Manager
VA TPA – VA Transition Patient Advocates
VA VIST, SCI CM – VA VIST, SCI Case Managers
VBO and VSO – Veterans Benefits Organizations and Veterans Service Organizations
CBO – Community Based Organizations

Table 4. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS, PCCWW SURVEY

Characteristic	Active Duty Component (%)	Guard/Reserve Components (%)
Age		
▪ 18-24	42	16
▪ 25-34	41	30
▪ 35+	17	54
Military rank		
▪ Junior enlisted	52	36
▪ Senior enlisted	39	57
▪ Officer	9	7
Male	94	92

Figure 1. INJURED SERVICE MEMBERS' SATISFACTION WITH MEDICAL CARE, PCCWW SURVEY

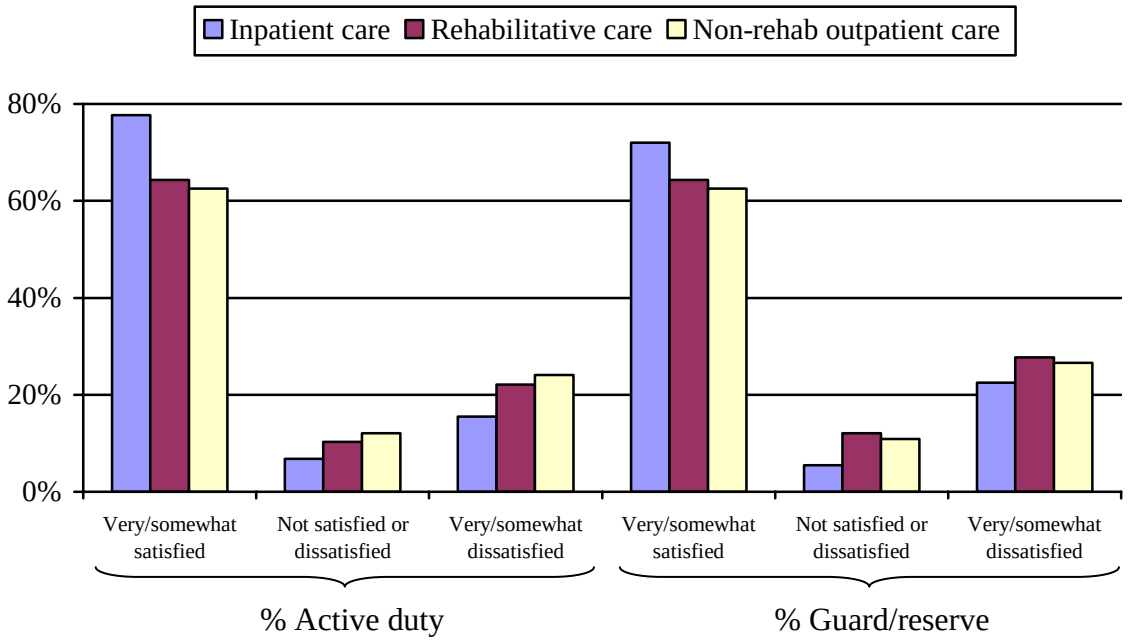


Figure 2. INJURED SERVICE MEMBERS' ACCESS TO MEDICAL PROVIDERS AND CARE COORDINATORS, PCCWW SURVEY

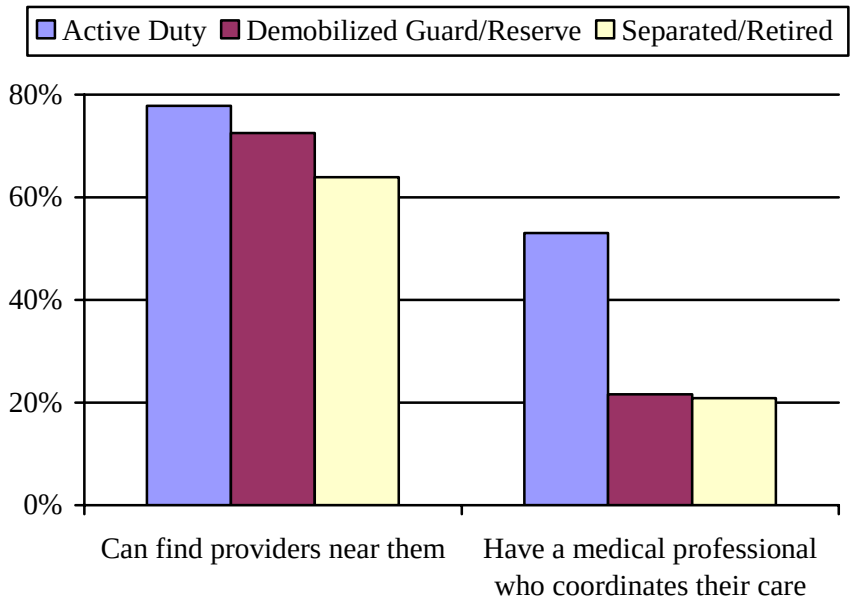
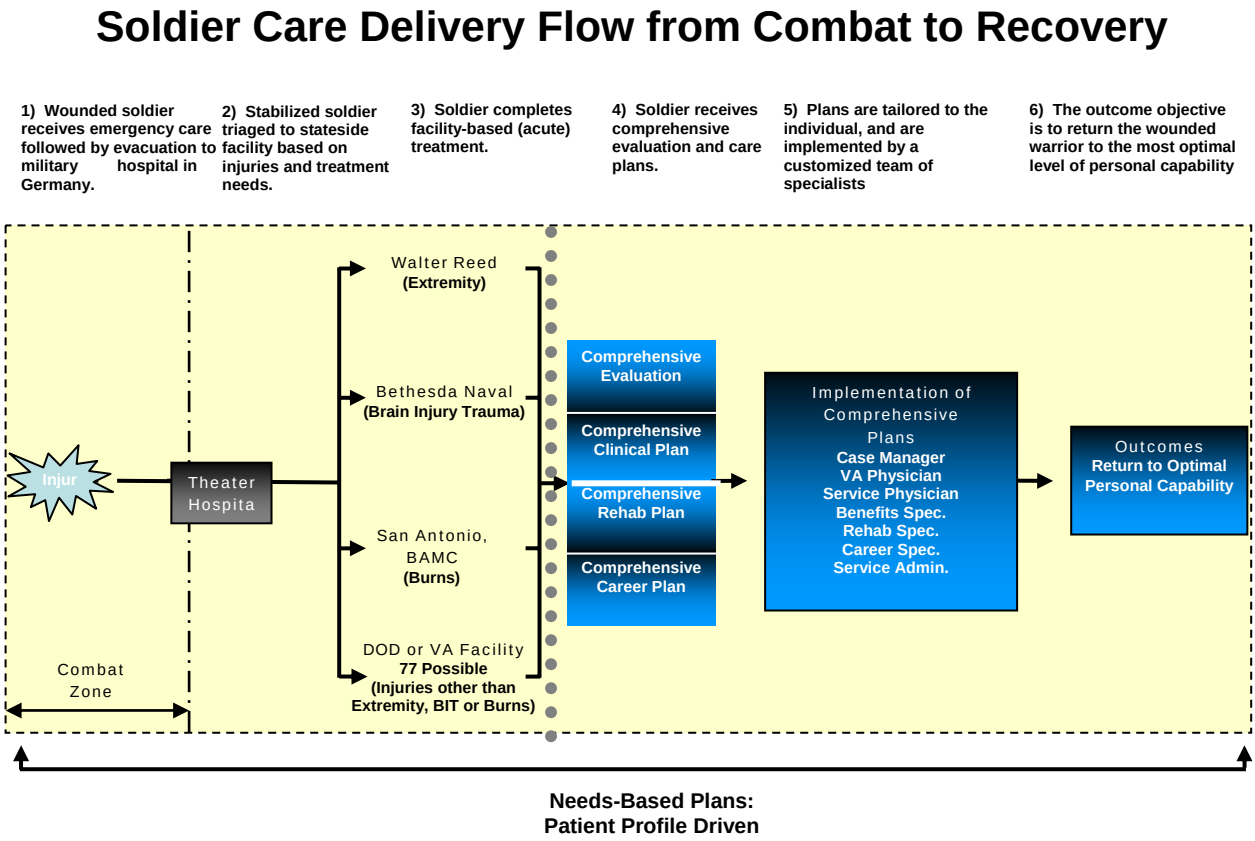


Figure 3.


Soldier Care Delivery Flow from Combat to Recovery
1) Wounded soldier receives emergency care followed by evacuation to military hospital in Germany.
2) Stabilized soldier triaged to stateside facility based on injuries and treatment needs.
3) Soldier completes facility-based (acute) treatment.
4) Soldier receives comprehensive evaluation and care plans.
5) Plans are tailored to the individual, and are implemented by a customized team of specialists
6) The outcome objective is to return the wounded warrior to the most optimal level of personal capability
Injur
Theater Hospita
Combat Zone
Walter Reed (Extremity)
Bethesda Naval (Brain Injury Trauma)
San Antonio, BAMC (Burns)
DOD or VA Facility 77 Possible (Injuries other than Extremity, BIT or Burns)
Comprehensive Evaluation
Comprehensive Clinical Plan
Comprehensive Rehab Plan
Comprehensive Career Plan
Implementation of Comprehensive Plans
Case Manager
VA Physician
Service Physician
Benefits Spec.
Rehab Spec.
Career Spec.
Service Admin.
Outcomes
Return to Optimal Personal Capability
Needs-Based Plans:
Patient Profile Driven

Endnotes

[1] Holcomb JB, Stansbury LG, Champion HR, Wade C, Bellamy RF. Understanding Combat Casualty Care Statistics. J Trauma. 2006;60:397-401.
[2] *ibid.*
[3] Force Health Protection and Readiness Programs, TRICARE Management Activity, Office of the Assistant Secretary of Defense (Health Affairs), July 23, 2007.
[4] http://www.defenselink.mil/news/newsarticle.aspx?id=45404. Accessed July 19, 2007.
[5] Personal communication, Defense Manpower Data Center.
[6] Johnson B, Carmack D, Neary M, et al. Operation Iraqi Freedom: The Landstuhl Regional Medical Center Experience. *J of Foot and Ankle Surgery 44*:177-183, 2005.
[7] Personal communication, Defense Manpower Data Center.
[8] U.S., Government Accountability Office, GAO-07-589T. *DoD and VA Health Care: Challenges Encountered by Injured Servicemembers during their recovery process*. March 2007.
[9] U.S., Government Accountability Office, GAO-06-794R. *VA and DoD Healthcare: Efforts to Provide Seamless Transition of Care for OEF and OIF Servicemembers and Veterans*, June 2006.
[10] *Report to Congress, 4 May 06 Transition Assistance and Disabled Transition Assistance Programs (TAP/DTAP).*
[11] In 2006, the annual budget for the Department of Veterans Affairs was $70.8 billion. That same year, the annual budget for retired military personnel and survivors was $40.5 billion and the cost for retiree health care approximately $16 billion.
[12] Heydorn WH, Basic and advanced combat casualty care: a military problem. *Military Medicine 155*: 229-231, 1990.
[13] Chambers LW, Rhee P, Baker BC, et al. Initial experience of US Marine Corps forward resuscitative surgical system during operation Iraqi Freedom. *Arch Surg 140*:26-32, 2005.
[14] Strawder GS. The "golden hour" standard: transforming combat health support. *JFQ 41:* 60-67, 2006.
[15] Defense Medical Data Center, Force Health Protection and Readiness Programs.
[16] Montgomery SP, Swiecki CW, and Shriver CD. The evaluation of casualties from Operation Iraqi Freedom on return to the continental United States from March to June 2003. *J Am Coll Surg 205*:7-13, 2005.
[17] Army Regulation 40-400.
[18] Definition *from Annex S (Glossary of Terms) to EXORD 118-07 [Healing Warriors]).*
[19] Army medical hold data from Col Michael J Carion, OTSG, 9 July 2007.
[20] Personal communication, Carol J. Thompson, Assistant Deputy (Health Policy) Force Management Integration (SAF/MRM).
[21] Montgomery SP, *op. cit.*
[22] Independent Review Group. *Rebuilding the Trust: Report on Rehabilitative Care and Administrative Processes at Walter Reed Army Medical Center and National Naval Medical Center*, April 2007.
[23] U.S., Government Accountability Office, GAO-06-794R. *Transition of Care for OEF and OIF Servicemembers*, 2006.
[24] Case Management Society of America. Available at: http:www.cmsa.org.

Appendix to
Subcommittee Report on Continuum of Care

Interagency Recovery Coordinator
Position Description & Qualifications

JOB SUMMARY:

The Interagency Recovery Coordinator (IRC) must be a member of the Commissioned Corps of the United States Public Health Service (USPHS) and will serve as the executive-level coordinator for the delivery of health care and benefits to severely injured, ill and wounded service members and their families. The IRC is responsible for the implementation and oversight of a full recovery plan, working with existing DoD and VA case managers to provide the optimal services that meet the individual needs of each severely injured, ill or wounded service member. The IRC must be cross trained by the DoD and VA in all existing programs, rules and regulations pertaining to their mission.

MAJOR DUTIES:

The IRC has overall responsibility for coordinating medical, administrative and supporting operations across the spectrum of patient care services and benefits between the DoD, VA and private sector. The individual, in collaboration with others, implements a three part recovery plan that consists of acute care, rehabilitative care, outpatient care, and benefits and services. This plan is designed to assist service members in achieving their maximum potential.

The individual will exercise executive-level authority to coordinate the necessary services and programs in order to implement a patient's full recovery plan. The individual must possess excellent communication skills in order to work with Federal, State, local, nonprofit and private sector organizations in implementing recovery plans. In addition, the individual must have excellent judgment, initiative, and drive.

SUPERVISORY CONTROLS:

The Coordinator reports directly to and is rated by the CEO of the supported DoD or VA facility; a senior member of the USPHS, as designated by the United States Surgeon General, will review and approve the performance appraisal in accordance with Health & Human Service Instruction 430-4.

TECHNICAL QUALIFICATION:

Knowledge of health care and benefits systems and the ability to manage and direct a health care recovery program for seriously wounded or injured patients are essential.

Individuals with personal knowledge and experience in DoD or VA health care services or benefit programs are considered ideal candidates.

QUALIFICATIONS REQUIRED:

As a basic requirement for entry for this position, applicants must provide evidence of leadership experience indicative of senior level management capability, familiarity with clinical care, and skills and abilities related to the Technical Qualifications and Executive Core Qualifications listed below. Typically, experience of this nature will have been gained at or above the GS-13 or 0-5 grade level in the federal service or its equivalent in the private sector.

EDUCATION REQUIREMENTS:

Master's of Public Health or Master of Social Work or Master of Science in Nursing or Social Science Ph.D. or Master's of Health Care Administration

Incumbent will have a minimum of 10 years' documented experience in a health care and/or benefits environment.

U.S. citizen

Background Investigation: This position is a sensitive position and the tentative selectee must undergo and successfully complete a background investigation as a condition of placement/retention in the position. A Secret security clearance is required.

HOW YOU WILL BE EVALUATED:

Please provide a narrative, **not to exceed three (3) pages for each Technical Qualification (TQ) below:**

TQ-1: Expert knowledge of and ability to plan, coordinate and participate in developing and implementing policies and procedures for a variety of complex health care and/or benefits delivery systems.

TQ-2: Specialized experience with highly sensitive and potentially controversial management and administrative matters that affect the planning, delivery, and evaluation of health care/benefits.

You will also be evaluated on the following Executive Core Qualifications. Please provide a narrative **not to exceed two pages per ECQ and not more than 10 pages in total**:

ECQ 1 - LEADING CHANGE . This core qualification involves the ability to bring

about strategic change, both within and outside the organization, to meet patient life recovery goals. Inherent to this ECQ is the ability to establish a patient/family focused plan recovery plan and to implement it in a continuously changing environment.

Leadership Competencies:

1. **Creativity and Innovation**
   Develops new insights into situations; questions conventional approaches; encourages new ideas and innovations.

2. **External Awareness**
   Understands and keeps up-to-date on local, national, and international policies and trends that affect the DoD and the VA and shape stakeholders' views; is aware of the organization's impact on the external environment.

3. **Flexibility**
   Is open to change and new information; rapidly adapts to new information, changing conditions, or unexpected obstacles.

4. **Resilience**
   Deals effectively with pressure; remains optimistic and persistent, even under adversity. Recovers quickly from setbacks.

5. **Strategic Thinking**
   Formulates objectives and priorities, and implements plans consistent with the long-term interests of the patient. Capitalizes on opportunities and manages risks.

6. **Vision**
   Takes a long-term view and builds a shared vision with others; acts as a catalyst for organizational change. Influences others to translate vision into action.

ECQ 2 - LEADING PEOPLE. This core qualification involves the ability to lead people toward meeting the goal of promoting a rapid recovery for the injured with a return to military or civilian life. Inherent to this ECQ is the ability to provide an inclusive workplace that fosters the development of others, facilitates cooperation and teamwork, and supports constructive resolution of conflicts.

Leadership Competencies:

1. **Conflict Management -** Encourages creative tension and differences of opinions. Anticipates and takes steps to prevent counter-productive confrontations. Manages and resolves conflicts and disagreements in a constructive manner.

2. **Leveraging Diversity -** Fosters an inclusive workplace where diversity and individual differences are valued and leveraged to achieve the vision and mission

of the organization.

3. **Developing Others -** Develops the ability of others to perform and contribute to the organization by providing ongoing feedback and by providing opportunities to learn through formal and informal methods.

4. **Team Building -**Inspires and fosters team commitment, spirit, pride, and trust. Facilitates cooperation and motivates team members to accomplish group goals.

ECQ 3 - RESULTS DRIVEN. This core qualification involves the ability to meet recovery plan goals and objectives. Inherent to this ECQ is the ability to make decisions that produce high-quality results by applying technical knowledge, analyzing problems, and calculating risks.

Leadership Competencies:

1. **Accountability –** Primarily accountable to the patient, but takes into account the control systems and rules of the respective departments. Holds self and others accountable for measurable high-quality, timely, and cost-effective results. Determines objectives, sets priorities, and facilitates work. Accepts responsibility for mistakes.

2. **Customer Service -** Anticipates and meets the needs of patients and families. Delivers timely and strategic counseling and support; is committed to continuous improvement.

3. **Decisiveness -** Makes well-informed, effective, and timely decisions, even when data are limited or solutions produce unpleasant consequences; perceives the impact and implications of decisions.

4. **Entrepreneurship -** Positions the patient for future success by identifying new opportunities; contributes to DoD and VA processes and policies by developing or improving products or services.

5. **Problem Solving -** Identifies and analyzes problems; weighs relevance and accuracy of information; generates and evaluates alternative solutions; makes recommendations.

6. **Technical Credibility -** Understands and appropriately applies principles, procedures, requirements, regulations, and policies related to specialized expertise.

ECQ 4 - BUSINESS ACUMEN. This core qualification involves the ability to contribute to the management of human, financial, and information resources strategically.

Leadership Competencies:

1. **Technology Management**
   Keeps up-to-date on technological developments. Makes effective use of technology to achieve results. Ensures access to and security of technology systems.

ECQ 5 – SEAMLESS TRANSITIONS. This core qualification involves the ability to guide Service Members and Veterans within and across Departments and to bring together Federal agencies, State and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve recovery goals.

Leadership Competencies:

1. **Partnering**
   Develops networks and builds alliances; collaborates across boundaries to build strategic relationships and achieve common goals.

2. **Political Savvy**
   Identifies the internal and external politics that impact the work of the Departments. Perceives organizational and political reality and acts accordingly.

3. **Influencing/Negotiating**
   Persuades others; builds consensus through give and take; gains cooperation from others to obtain information and accomplish goals.

Fundamental Competencies These competencies are the foundation for success in each of the Executive Core Qualifications.

Competencies:

1. **Interpersonal Skills**
   Treats others with courtesy, sensitivity, and respect. Considers and responds appropriately to the needs and feelings of different people in different situations.

2. **Oral Communication**
   Makes clear and convincing oral presentations. Listens effectively; clarifies information as needed.

3. **Integrity/Honesty**
   Behaves in an honest, fair, and ethical manner. Shows consistency in words and actions. Models high standards of ethics.

4. **Written Communication**

Writes in a clear, concise, organized, and convincing manner for the intended audience.

5. **Continual Learning**
   Assesses and recognizes own strengths and weaknesses; pursues self-development.

6. **Public Service Motivation**
   Shows a commitment to serve the public. Ensures that actions meet public needs; aligns organizational objectives and practices with public interests.

POST-TRAUMATIC STRESS DISORDER & TRAUMATIC BRAIN INJURY

THE CHALLENGE

Post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI) can be serious problems for service members returning from the conflicts in Iraq and Afghanistan. *PTSD* is an anxiety disorder that can develop after exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened. *TBI* can occur when a sudden trauma causes damage to the brain, such as when the head violently hits or is hit by an object, or when the head is exposed to significant external forces including those that may be generated from an explosive blast. PTSD and TBI are sometimes referred to as "invisible injuries" because outwardly the individual's appearance is just as it was before the injury or onset of symptoms. Although they are distinct disorders, a number of service members have both PTSD and TBI. Diagnostic confusion between the two disorders can result because both can result from the same trauma and some symptoms of PTSD overlap those of TBI. Although service members with more severe PTSD or TBI are generally diagnosed and treated, many mild cases go unrecognized by the service member, commanding officers, family, friends, and health care providers, and so are left untreated. Even in cases with significant additional physical trauma, the presence of TBI and/or PTSD may be initially overlooked as the immediate focus is on the more readily identifiable, "visible" injuries.

BACKGROUND

Although PTSD and TBI are relatively common medical conditions of the Iraq and Afghanistan wars, both conditions have been recognized for decades, and much is known about their causes, diagnosis, and treatment.

PTSD Overview

Reactions to a traumatic event depend on, among other things, details of the situation and the specific individual's personality, level of resiliency, and past experiences. Many symptoms of anxiety are considered normal responses in the immediate aftermath of a traumatic event. Fortunately, for most individuals, emotional and behavioral reactions to a stressful event—stress responses—resolve over time.[1] However, when symptoms like frequent flashbacks or nightmares, withdrawal, or

[1] Although approximately 60% of men and 50% of women in the general population experience the type of traumatic event that *may* lead to PTSD, only about 8% of the men and 20 % of women develop PTSD. National Center for Post Traumatic Stress Disorder Fact Sheet "How Common is PTSD?" http://www.ncptsd.va.gov/ncmain/ncdocs/fact_shts/fs_how_common_is_ptsd.html

difficulty controlling anger last longer than 30 days and impair the individual's day-to-day functioning, the individual should be evaluated for PTSD.

At present, there is no test that reliably shows whether a person does or does not have PTSD. Instead, the diagnosis is based mainly on a detailed clinical interview by a qualified mental health[2] professional. Because symptoms can emerge or change long after the traumatic event, it can be useful to educate individuals exposed to trauma regarding what is considered a healthy versus unhealthy response, in addition to what resources are available should they require them in the future.

The course of PTSD is variable. The National Co-Morbidity Survey, a large nationally representative mental health survey, found that individuals who receive treatment for PTSD typically experience symptoms for about three years, whereas those who do not receive treatment experience symptoms for about 5 years.[3] However, for many individuals PTSD is a chronic condition characterized by periods of symptom improvement and worsening. Additionally, the initial onset of PTSD symptoms can occur days, weeks or even years after the traumatic event is experienced. The National Co-Morbidity Survey also demonstrated that men who experience combat trauma are more likely to have chronic or delayed onset of PTSD symptoms.[4]

The goal of treatment for PTSD is to reduce symptoms and return the affected individual to optimal functioning. The choice of treatment is based on many variables, including the patient's other health problems, the home and social environment, therapists' skills, and potential side effects. Four-fifths of people diagnosed with PTSD also have a major depressive disorder, or some other psychiatric condition, such as substance abuse.[5] Treatment approaches for PTSD, therefore, must also include interventions for these other conditions. Evidence-based treatment for PTSD typically includes one or more of the following:

- Cognitive behavioral therapies,
- Exposure therapies,
- Targeted anxiety therapies,
- Drug therapy.

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[2] For ease, the term "mental health" is utilized in an all-inclusive manner in this report, at times referring to disorders or services that could alternatively be accurately described using the terms "behavioral health" or "psychological health."

[3] "Evidence Relevant to Compensation Awards for PTSD; A Report to the Institute of Medicine" Presentation by Matthew J. Friedman, MD, PhD, Executive Director of VA National Center for Post Traumatic Stress Disorder. Information from the National Co-Morbidity Survey, a large scale survey used to establish benchmarks for the prevalence of mental health disorders in the U.S.

[4] *Ibid*.

[5] Institute of Medicine, *PTSD Compensation and Military Service,* May 2007. Committee on Veterans' Compensation for Posttraumatic Stress Disorder. The National Academies Press, Washington, DC.

PTSD and DoD/VA

Exposure to traumatic events, such as terrorist attacks, natural disasters, motor vehicle accidents, and violent personal crimes including sexual assaults can lead to PTSD. For service members, the realities of war may result in combat stress reactions which, in turn, can develop into acute stress disorder and ultimately, PTSD:

- The current conflicts involve intense urban fighting, often against civilian combatants, and many service members see or experience acts of terrorism.[6]
- A study of four Marine and Army infantry units found that nearly all unit members had been shot at or exposed to small arms fire. Eighty-five percent had known someone who was killed or seriously injured, and half had handled or uncovered human remains.[7]
- Five hundred thousand service members have been deployed multiple times. Service members who have been deployed multiple times or for longer periods are more likely to experience more symptoms of acute stress disorder.[8]

A 2006 study found that in the year following their deployment, 35 percent of Iraq veterans used mental health services.[9] Best estimates are that PTSD occurs in approximately 6 to 11% of veterans serving in Operation Enduring Freedom and in approximately 12 to 20 % of Operation Iraqi Freedom veterans.[10] These rates are lower than the rates for the Vietnam War, after which 30% of veterans experienced PTSD. The reason for the difference is not entirely clear. The lower OEF/OIF rate may reflect earlier identification and treatment of symptoms and preventative efforts before and during deployment. However, it is still early in the recovery process for veterans of this war, and those with delayed symptoms may not have sought care yet. Clearly though, not everyone experiencing a traumatic event develops symptoms of PTSD, and not everyone who is symptomatic develops PTSD.

Recent DoD efforts to mitigate PTSD have centered on prevention and early intervention. *Prevention* efforts identify and enhance factors that help protect individuals from developing PTSD if they experience a traumatic event. According to former Army

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[6] Litz, BT. "The Mental Health Impact of the Wars in Afghanistan and Iraq: What Can We Expect?" (Information for Professionals), Department of Veterans Affairs, National Center for post-traumatic stress disorder, available at [http://www.ncptsd.va.gov/ncmain/ncdocs/fact_shts/fs_iraq_afghanistan_lay_audien.html?opm=1&rr=rr140&srt=d&echorr=true]

[7] Hoge, CW, Castro, CA, Messer, SC, et al. "Combat Duty in Iraq and Afghanistan, Mental Health Problems, and Barriers to Care." *New England Journal of Medicine 351:* 13-22, 2004.

[8] Mental Health Advisory Team IV Operation Iraqi Freedom 05-07 Final Report, November 2006. (www.armymedicine.army.mil)

[9] Hoge, CW, Auchterlonie, JL, and CS Milliken. "Mental Health Problems, Use of Mental Health Services, and Attrition From Military Service After Returning from Deployment to Iraq and Afghanistan." *Journal of the American Medical Association 295*: 1023-32, 2006.

[10] National Center for PTSD Fact Sheet, "How common is PTSD?" (http://www.ncptsd.va.gov/ncmain/ncdocs/fact_shts/fs_how_common_is_ptsd.html)

Surgeon General Kevin C. Kiley, "the Army has found that soldiers who undergo the most intense, realistic training before deploying to combat tend to experience the fewest associated mental health problems."[11] By using live ammunition and having realistic, harsh, extended in-field exercises away from families, the Army prepares soldiers for the realities of battle. The Army also employs "battlemind training,"[12] which trains leaders how to mitigate risk and build resilience in their soldiers, and trains deploying soldiers in potential emotional responses to combat. However, even with the best training and prevention methods, many service members with multiple or extremely stressful deployments to combat zones require additional assistance to prevent PTSD.

The objective of *early intervention* techniques is to identify individuals at risk for developing PTSD and equip them with coping strategies to prevent the condition from occurring and to make any case that does emerge as manageable as possible. To this end, the Army deploys mental health teams along with operational units to bring early intervention techniques to the battlefield. Similarly, the Marine Corps' Operational Stress Control and Readiness (OSCAR) program embeds mental health professionals in combat units to enhance access to mental health care and build resilience. Another objective of embedding these providers with operational units is to break down the stigma associated with mental health problems.

Brief screening questions for PTSD and other mental health issues are included on the standard form for post-deployment health assessment, which is administered prior to the service member's return from deployment, along with the post-deployment health reassessment, which takes place 3 to 6 months after return in order to detect delayed or previously unacknowledged symptoms. Upon departure from theater, many service members may choose not to report symptoms they assume will require further evaluation and delay their return to family or limit their military activities. To illustrate, in the post-deployment health assessment, only 5 percent of active-duty service members and 6 percent of reservists report symptoms consistent with PTSD. But, in the reassessment, fully 27 percent of active-duty members and 42 percent of reservists note mental health concerns.[13] The increased reporting of mental health concerns on the reassessment also may reflect adjustments inherent in homecoming. Administering the reassessment is difficult, though, due to repeat deployments and other factors. Although initially not consistently provided to Reservists, the post-deployment health reassessment is now offered, with VA assistance, to all active and reserve service members.

Once identified through screening, self-referral, medical referral, or another way, individuals still on active duty can obtain mental health services in settings ranging from medical centers with research and training programs to small-scale community clinics to

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[11]Miles, D. Army "Providing 'Unprecedented' Mental-Health Support to Troops." American Forces Press Service, July 2006.
[12] Battlemind website [www.battlemind.org].
[13] Statement of Michael E. Kilpatrick, MD, Deputy Director, Force Health Protection and Readiness Programs, Department of Defense, to House Committee on Oversight on Government Reform Hearing on Mental Health Concerns of May 24, 2007.

rugged deployed settings. DoD mental health professionals include uniformed and civilian psychologists, psychiatrists, social workers, psychiatric nurses, and mental health technicians.

The difficulties with PTSD care in the military reflect larger problems that exist in military mental health care, as well as in the civilian mental health care community[14]. A widespread reluctance to disclose symptoms, due to the stigma of mental health problems, delays treatment and may lead to worse outcomes of care. Clinical approaches and structures vary across and even within the same organization, producing inconsistencies in care. Gaps in care occur and are in part due to significant personnel shortages. To improve services, some practitioners and organizations have developed innovative programs that could serve as models for broader use.[15] Today, DoD resources include:

- The Deployment Health Clinical Center that performs deployment-related health research, develops deployment-related health education and training programs for conditions including PTSD, and offers an intensive 3-week day treatment program for patients with PTSD at Walter Reed Army Medical Center
- The Center for Deployment Psychology, which trains military and civilian providers treating mental health conditions of returning combat veterans
- U.S. Army Center for Health Promotion and Preventative Medicine, which produces combat and operational stress research and education materials
- Walter Reed Army Institute of Research, whose research has resulted in the implementation of military programs such as "Battlemind."

Recognizing the fragmentation and duplication of mental health efforts among different agencies, the Army established the Proponency Office for Behavioral Health in March 2007 to assist in coordinating and integrating efforts within their jurisdiction.

VA is a recognized leader in the treatment of combat-related PTSD, with an extensive network of specialized inpatient, outpatient, day hospital, and residential treatment programs, some of which are directed at underserved populations, minorities, or women. VA excellence in PTSD clinical care and research was sparked by the National Vietnam Veterans Readjustment Study which examined the psychological effects of war on combatants, published in 1988.[16] Today, VA resources include:

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[14] "Each State faces individual legislative, financial, and social constraints and uses different opportunities in its efforts to transform the mental health delivery system. Yet, they all confront similar challenges: shrinking resources, increasing needs, and a desire to provide the most effective treatments and services." U.S. Department of Health and Human Services "Trends in Mental Health System Transformation: 2005" page 3. www.samhsa.gov

[15] For example, to assist in combating stigma and improving access to mental health care many individual military facilities have integrated qualified mental health providers into primary care settings, a strategy that many states have supported and the VA has recently implemented. Ibid reference 14 for state details.

[16] Testimony of Terence M. Keane, PhD, Director, Behavioral Sciences Division, National Center for Post-Traumatic Stress Disorder, VA Boston Healthcare System, to Presidential Commission on Care for America's Returning Wounded Warriors on May 24, 2007.

- The National Center for Posttraumatic Stress Disorder, consisting of seven VA academic centers of excellence located throughout the country
- Ten Mental Illness Research, Education, and Clinical Centers, one of which specifically focuses on the post-deployment needs of Iraq and Afghanistan war veterans
- 209 Vet Center clinics that provide community-based mental health services.[17, 18]

VA provides routine screening for PTSD, substance abuse, depression, and sexual trauma. Of the more than 225,000 Iraq and Afghanistan war veterans who sought care at a VA facility through December 2006, 17 percent reported concerns indicating possible PTSD.[19]

TBI Overview

A traumatic brain injury occurs when a blow or jolt to the head is significant enough to change the person's normal level of neurological functioning, often producing an immediate change in consciousness, orientation, awareness, or recall of events surrounding the injury. The consequences of TBI can be temporary or permanent, and many factors combine to result in highly individualized injuries. An array of physical, cognitive, emotional, and behavioral problems may result from TBI, such as sleep disturbances, headaches, sensitivity to light and noise, decreased attention and poor frustration tolerance.

When a traumatic injury to the head results in an object entering the brain, it is labeled a penetrating brain injury. In contrast, a closed head injury occurs with blunt force trauma. Closed brain injuries are typically classified as mild, moderate, or severe, depending on the length of time the individual lost consciousness and the level of post-traumatic amnesia. Penetrating head injuries are not further classified by level of severity. Most TBI cases are mild closed brain injuries, with good prospects for recovery.[20] In one study, 89 percent of TBI patients injured in terrorist attacks in Israel returned to independent living.[21]

Mild TBI can be difficult to identify. Some patients have other, more "visible" injuries; radiological brain scans often fail to identify a problem; and frequently the

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[17] Department of Veteran's Affairs Fact Sheet (2006). "Veterans with Post Traumatic Stress Disorder (PTSD)", Washington D.C.
[18] Statement of Antoinette Zeiss, PhD, Deputy Chief Consultant, Office of Mental Health Services, Department of Veterans Affairs, for House Committee on Oversight and Government Reform on May 24, 2007.
[19] Overall, 37 percent had possible mental health conditions. Other high frequency mental health diagnoses included non-dependent abuse of drugs (33,099) and depressive disorders (27,023). Ibid reference 18.
[20] Langlois, J., Rutland-Brown, W. and Thomas, K. "Traumatic Brain Injury in the United States: Emergency Visits, Hospitalizations, and Deaths." Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2006.
[21] Schwartz, I, Tsenter, J, Schochina, M, et al. "Rehabilitation Outcomes of Terror Victims with Multiple Traumas." *Archives of Physical Medicine and Rehabilitation 88*: 440-448, 2007.

patient attributes the subtle changes in thinking and feeling to something else. To aid in diagnosis and document recovery, neuropsychological tests are used with all severity of brain injuries in order to examine cognitive functioning, including attention, processing speed, memory, problem solving, language, visual perception, and testing effort. Tests are also given that evaluate emotional and behavioral symptoms, such as depression, anxiety, aggression, and motivation.

TBI and DoD/VA

The four most common causes of traumatic brain injury for service members in Iraq and Afghanistan are blast exposure, motor vehicle accident, falls, and gunshot wounds.[22] Consistent with civilian population findings, the majority of these traumatic brain injuries are identified as mild, closed head injuries. However, it is important to note that a person who has previously experienced even a mild traumatic brain injury may be at risk for greater impairment from subsequent TBIs.

It is not known how many service members have suffered a mild TBI that went undiagnosed. Recently, over 35,000 otherwise healthy service members returning from deployment were screened for TBI and approximately 10-20% screened positive for having experienced a mild TBI while deployed.[23] The majority of this group was no longer symptomatic at the time of screening.

Most individuals with mild TBI recover completely within a few months, although a minority may experience more persistent symptoms.[24] A primary component of current evidence-based treatments for mild TBI is psycho-educational counseling for the patient and family members.[25] Mild TBI cases are identified in theatre through the use of recently established clinical practice guidelines. These individuals are not typically evacuated out of the combat theatre; rather the Defense Veteran Brain Injury Center recommends that these individuals receive rest, education and symptomatic treatment of their complaints (for example, pain medicine for headaches) as close to their units as possible. Mild to moderate TBI cases identified after returning from deployment may be managed by local military, VA, TRICARE network providers, or some combination thereof depending on the geographic location and capabilities of their local military medical facility.

In 2007, TBI screening questions were added to the post-deployment health assessment and reassessment questionnaires in order to identify individuals who may

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[22] "Traumatic Brain Injury in Returning Warfighters," Presentation by Dr. Louis French, Defense Veterans Brain Injury Center, to the President's Commission on America's Returning Wounded Warriors, May 4, 2007.
[23] Zoroya, G. Army Times Lawmakers may halve brain injury funding August 21, 2006.
[24] Schatz, P. & Barth, J. "Assessment of Severity of TBI and Functional Outcome Measurement:" http://nanonline.org/nandistance/mtbi/modules/outcome/outcome.html.
[25] Ponsford, J, Willmott, C, Rothwell, A, et al. "Impact of early intervention on outcome following mild head injury in adults." *J Neurol Neurosurg Psychiatry 73*: 330-332, 2002.

have experienced a mild TBI in theatre, but never sought or received care.[26] In addition, the VA has designed an electronic prompt to remind health professionals to screen Iraq and Afghanistan veterans for TBI on their first VA health care visit.

Compared to previous wars, the proportion of injured service members surviving serious brain injury has increased greatly due to state-of-the-art care. Penetrating traumatic brain injuries in OIF/OEF are treated early using American Association of Neurological Surgeons guidelines for severe and penetrating TBI. Moderate to severe closed traumatic brain injuries are also typically identified early and evacuated for care.

The multi-site Defense and Veterans Brain Injury Center also plays a major role in identifying and evaluating moderate to severe TBI patients at selected DoD hospitals. Many of the moderate to severe TBI patients are then referred to VA Polytrauma Rehabilitation Centers for neurobehavioral rehabilitation.

The goal of TBI treatment is to maximize functioning and provide techniques for managing any remaining cognitive deficits. Prompt identification and treatment enhance the chances of recovery. In relatively serious cases, treatment usually includes medical stabilization in the acute-care hospital, followed by rehabilitative care by a multi-disciplinary team of providers in diverse settings:

- Acute-care hospitals
- Post-acute care units
- Rehabilitation hospitals
- Outpatient rehabilitation departments
- Day treatment centers
- Transitional treatment facilities
- Home.

The scope, duration, and intensity of rehabilitation vary markedly, depending on individual patient needs. Certain permanently disabled patients may require significant supervision and care, in nursing or assisted care facilities or at home with family caregivers or hired attendants.

PREVIOUS RECOMMENDATIONS AND FINDINGS

Over the past few years many task forces have focused on PTSD, and TBI is beginning to receive the same level of attention. Summarized findings from several of the most recent of these studies are presented here.

Although the VA formally disagreed with the findings, the **Government Accountability Office (GAO)** asserted[27] in 2005 that the VA had failed to implement

[26] Winkenwerder, W. Traumatic Brain Injury: Questions for the Post-Deployment Health Assessment Memorandum of March 8, 2007.

many 2004 recommendations of VA's own congressionally mandated Special Committee on PTSD, including the following:

- Provide increased access to PTSD services through VA community-based clinics and Vet Centers
- Develop effective dual treatment for veterans with both PTSD and substance abuse problems, and a dual rehabilitation approach to PTSD and coexisting conditions
- Improve the continuum of care, supported by electronic health records that follow veterans across VA's system of care
- Expand treatment to include family assessment and treatment services.

Additionally, in 2006, the GAO called on DoD to investigate differences across the Services in referral rates for PTSD treatment following positive screening on post deployment health assessment evaluations.[28]

In April 2007, the Presidential **Task Force on Returning Global War on Terror Heroes** made two recommendations on PTSD and TBI:

- DoD and VA should train clinicians in PTSD and TBI, and ensure that patients are referred to facilities with appropriate multi-disciplinary teams
- VA staff should attend PDHA events to provide information about VA health care and benefits, enroll eligible veterans, and schedule outpatient appointments.

After noting inconsistencies in early TBI diagnosis and treatment in DoD in April 2007, the **Independent Review Group** recommended a more structured approach, including:

- Development of functional and cognitive measures for all new service members, as a baseline for evaluating any future changes in the member's condition
- Inclusion of functional and cognitive screening in the post-deployment health assessment and post-deployment health reassessment
- Documentation of all exposures to blast in service members' health records
- Development of a clinical practice guideline for TBI
- Coding guidelines for TBI to facilitate standard documentation in medical records, research, and education
- Cognitive remediation for service members who experience a decrease in cognitive ability at any point during their service
- Establishment of a DoD/VA center of excellence in PTSD and TBI for research, training, and patient care
- Improvement in mental health staffing through changes in compensation and recruiting.

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[27] U.S., Government Accountability Office, GAO-05-287, *VA Health Care: VA Should Expedite the Implementation of Recommendations Needed to Improve Post-Traumatic Stress Disorder Services*, February 2005.

[28] U.S., Government Accountability Office, GAO-06-397, *DoD Needs to Identify the Factors Its Providers Use to Make Mental Health Evaluation Referrals for Servicemembers.*

In May 2007, the **Institute of Medicine (IOM)** issued a report, for the Veterans Disability Benefits Commission, on VA's practices in evaluating and compensating veterans for PTSD.[29] The IOM panel recommended that VA should:

- Develop a new method for evaluating how well PTSD patients are functioning, and, while the form is being developed, use the PTSD rating criteria of the Diagnostic and Statistical Manual of Mental Disorders
- Develop training programs for clinicians who evaluate patients for PTSD and for personnel who administer PTSD claims
- In light of the recurring and relapsing nature of the condition, consider a minimum level of benefits for all veterans with service-connected PTSD, regardless of their initial health status
- Use experienced mental health professionals to evaluate all new applicants for VA benefits for PTSD
- Establish a database and research program to improve evaluation in the future, paying special attention to female and minority veterans
- Adopt an integrated benefits approach for achieving maximum mental functioning, using case managers.

The congressionally mandated **DoD Mental Health Task Force** released an extensive report in June 2007[30]. The Task Force found that the stigma about mental health problems remains pervasive in the military and often prevents service members from seeking needed care. It further found significant gaps in the continuum of care, due mostly to shortages of mental health professionals, as well as quality-of-care deficits involving inadequate monitoring and insufficient use of evidence-based treatment. In addition, it found that TRICARE mental health benefits are hindered by fragmented rules and policies, inadequate oversight, and insufficient reimbursement. The Task Force recommended that DoD:

- Build a culture of support for psychological health and dispel stigma
    - Establish visible leadership and advocacy for psychological health
    - Embed training about psychological health throughout military life
    - Revise military policies to reflect up-to-date knowledge about mental health
    - Make professional mental health services easily accessible
    - Make psychological assessments an effective, efficient, and normal part of military life.
- Ensure that service members and their families receive a full continuum of excellent care
    - Make prevention, early intervention, and treatment universally available to service members and their families

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[29] Institute of Medicine, *PTSD Compensation and Military Service*, May 2007. Committee on Veterans' Compensation for Posttraumatic Stress Disorder. The National Academies Press, Washington, DC.
[30] *An Achievable Vision: Report of the Department of Defense Task Force on Mental Health*, June 2007.

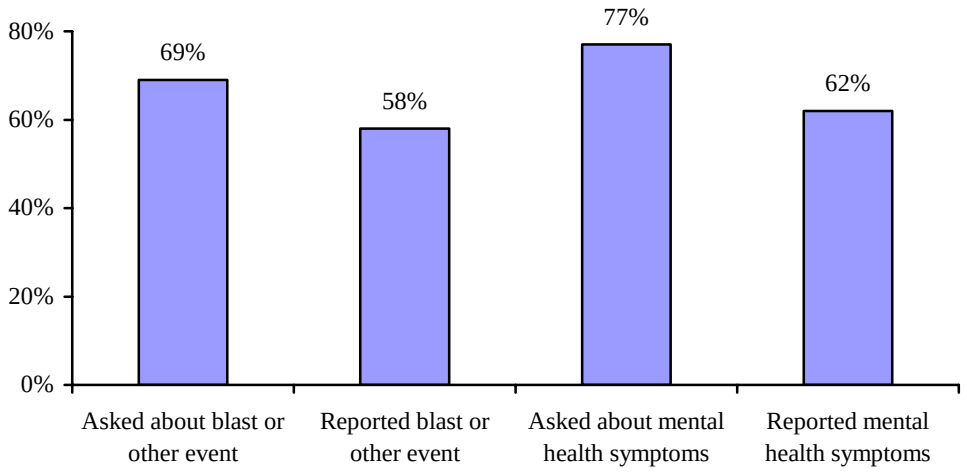
- Ensure an adequate number of uniformed providers and other staff in military treatment facilities and a robust network of TRICARE providers
- Maintain continuity of care across transitions to new assignments and out of service
- Use evidence-based treatments.

WHAT THE COMMISSION LEARNED

The Commission's survey of injured service members sought to determine whether medical providers were screening for traumatic brain injury and deployment-related mental health conditions in injured, medically evacuated patients (Figure 1). Nearly 70 percent of those surveyed reported having been asked if they experienced a blast or event causing blow or jolt to the head and almost 60 percent said that they reported such an event to a medical provider. Recognizing that not all individuals were appropriately screened for TBI risk factors, the DoD has added screening questions to the post deployment health assessment forms, and the major military hospitals have implemented universal screening of all injured, medically evacuated patients.

In assessing the screening of mental health issues, the survey results indicate that close to 80 percent of respondents reported having been asked about mood changes, nervousness or hopelessness; about 20 percent of these individuals said that they were asked about these symptoms at every clinic visit. A majority of respondents said that they reported these symptoms to a medical provider.

Figure 1—Percent of Injured Service Members Reporting Screening for and Symptoms of PTSD and TBI, PCCWW Survey



Through site visits, meetings and reviews of programs, studies, and earlier reports, the Commission has identified key issues in PTSD and TBI workforce requirements, quality of care, disability evaluation, family support, and research.

Workforce Requirements

Evidence consistently supports the DoD Mental Health Task Force's conclusion that "the Military Health System lacks the fiscal resources and fully-trained personnel to fulfill its mission to support psychological health in peacetime or fulfill the enhanced requirements imposed during times of conflict."[31] DoD methods for determining the number of providers required do not allow for the large prevention and education mission needed in military mental health. Recently, even when positions are authorized, filling them with qualified professionals has been difficult:

- The number of uniformed mental health professionals has significantly decreased, and those remaining on active duty are frequently deployed to theatre. For example, attrition of Army psychologists increased 55 percent between 2004 and 2006, whereas the authorizations for psychologists increased 11 percent between 2005 and 2007.[32]
- The current strategy of using temporary contract positions to replace deployed mental health professionals is problematic in part because it is difficult to attract experienced professionals to positions that are only 12 months in length.
- Government Service (GS) civilian positions are filled through cumbersome hiring practices[33] and provide inadequate salaries, especially in rural locations and for subspecialists.[34]

VA also faces challenges in filling mental health positions, especially in rural communities where some community-based outpatient clinics have no mental health professionals at all. The mental health component of VA's new Quality Enhancement Research Initiative, along with the expansion of telehealth services that link community facilities to experts in distant locations, may alleviate some of these needs.

Quality of Care

Treatment approaches for PTSD and TBI continue to evolve, but knowledge generated through research and clinical experience is not systematically disseminated to all DoD and VA providers of care. One survey conducted found that 90 percent of DoD providers had received no training on, or even were unaware of, a joint DoD/VA clinical

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[31] *Ibid*.

[32] Statement of Bruce Crow, Army Psychology Consultant to the Surgeon General, to the President's Commission on America's Returning Wounded Warriors, May 3, 2007.

[33] Among other things, those hiring permanent GS non-physician mental health specialists do not have direct hire authority, resulting in extended delays in hiring - on average 83 days for social workers and 87 days for psychologists. *Ibid*.

[34] For example, a 2005 Salary Survey of Neuropsychologists (The TCN/AACN 2005 Salary Survey, Professional Practices, Beliefs, and Incomes of U.S. Neuropsychologists, *The Clinical Neuropsychologist, 20*: 325–364, 2006) identifies the median salary of a Neuropsychologist practicing in Maryland as $102,000. At that same time, the GS Locality Pay table for Maryland identified the salary range of a GS-13 employee (the advertised level for a GS Neuropsychologist) at $74,782 to $97,213.

practice guideline for PTSD.[35] DoD mental health providers tend not to be fully informed about what services are available through VA, and *vice-versa*.

Joint DoD/VA clinical practice guidelines exist for the diagnosis and treatment of PTSD, although as just mentioned, awareness and use of these guidelines may be limited. Clinical practice guidelines were also identified for the in-theatre care of TBI;[36] however there is some question about the consistency with which these are utilized. American Association of Neurological Surgeons' guidelines on the acute management of severe and penetrating TBI are utilized in theatre. The Commission found no universal or joint clinical practice guidelines in use for the management of mild or moderate TBI patients following return from deployment. DoD facilities that were visited frequently had individual practices and policies regarding the identification, treatment and management of TBI patients, however these varied from site to site. At the time of this report, joint clinical management guidelines for symptomatic mild TBI were being developed and the DoD and VA planning group described below was meeting to develop clinical practice guidelines for the primary care management of TBI.

On the TBI front specifically, the Armed Forces Epidemiological Board concluded that DoD "lacks a system-wide approach for proper identification, management, and surveillance" of TBI patients.[37] Providers and case managers have varying levels of training and incomplete knowledge in the recognition and management of TBI. Confronting the same problem in recent years, the VA developed a web based independent study course in TBI symptom identification, evaluation and treatment. VA providers in primary care, mental health, spinal cord injury, and rehabilitation care are required to participate in this training.

Commission members observed during site visits that appropriate educational counseling is not consistently provided to patients with mild TBI. Some symptomatic TBI patients may go without formally coordinated care and referral.

DoD and VA recently have developed initiatives to remedy poor information dissemination and training regarding PTSD and TBI, including:

- A requirement that all Army social workers attend combat and operational stress training classes[38]

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[35] "The Future of Mental Health Care in DoD: Carpe Diem." Presentation by CDR Mark Russell to DoD Mental Health Task Force in San Diego, Calif., 19 Oct 06.

[36] Defense and Veterans Brain Injury Center (DVBIC) Working Group on the Acute Management of Mild Traumatic Brain Injury in Military Operational Settings Clinical Practice Guideline and Recommendations; *Joint Theater Trauma System (JTTS) Clinical Practice Guidelines for In-Theatre Management of Mild Traumatic Brain Injury (Concussion), Updated Aug 06; Guidelines for Field Management of Combat-Related Head Trauma, 2005.*

[37] Armed Forces Epidemiological Board. Memorandum dated August 11, 2006, on Traumatic Brain Injury in Military Service Members 2006-02 to The Honorable William Winkenwerder, Jr., MD.

[38] Department of the Army Executive Order 118-07, "Healing Warriors."

- Collaborative efforts allowing DoD mental health providers to attend VA training sessions in PTSD and to take the VA's independent study course in TBI
- A DoD/VA consolidation initiative on TBI, in which a multidisciplinary group of DoD, VA, and Defense and Veterans Brain Injury Center experts are developing a common definition of TBI, a standard curriculum for provider and patient/family training, and model programs for long-term care, disability assessment, research, testing, and treatment.

Disability Evaluation

The IOM panel has convincingly argued that VA's system of evaluating and rating individual veterans' PTSD status is seriously inadequate. Similar shortcomings may be present in the DoD disability system. Not only might current evaluations miss true cases, but also some healthy service members may be able to intentionally report non-existent symptoms in order to receive compensation.

Recently, a concern was raised that DoD, and the Army specifically, may be discharging large numbers OIF/OEF veterans with PTSD under a personality disorder diagnosis in order to save money.[39] A discharge for a personality disorder is an administrative action that is different from a medical discharge. In investigating this allegation the Commission found that

- As Figure 2 demonstrates, the annual number of personality disorder discharges in the DoD has dropped since the late 1990's and has remained relatively stable since the beginning of the Global War on Terrorism.[40]
- While the raw number of Army personality disorder discharges has increased, the Army's total number of discharges is quite comparable to the other Services despite having a far larger troop contingency.
- The number of Army personality discharges over the past 10 years represents only between approximately 1 to 1.5 percent of total Army discharges per year.
- 88 percent of the total DoD personality disorder discharges from 2001-2006 and 78 percent of total Army personality disorder discharges from that same time frame had never been deployed in Operations Iraqi or Enduring Freedom.[41]

These facts do not support the assertion that the Army or DoD is supporting a large scale effort to use the administrative personality disorder discharge for OIF/OEF veterans suffering from PTSD in order to save money. Further, Army policy requires that

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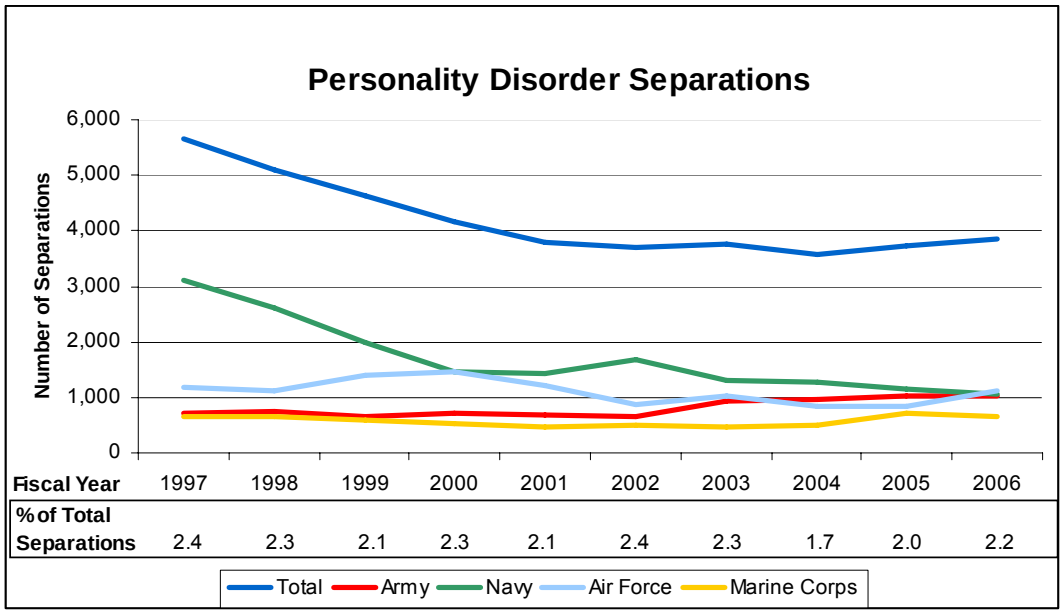
[39] Kors, Joshua. "How Specialist Town Lost His Benefits." *The Nation*, April 9, 2007. Available at http://www.thenation.com/doc/20070409/kors.

[40] Defense Manpower Data Center (DMDC). Personality Disorder Separations by Service and Component by Fiscal Year, FY 97-07, prepared July 16, 2007 Active component data used.

[41] *Op. cit.*, reference 39.

a psychiatrist or doctoral-level clinical psychologist establish the diagnosis of a personality disorder prior to administrative discharge. Any large scale effort to save money using the personality disorder discharge instead of a medical discharge for PTSD would require large numbers of these licensed professionals to act unethically, something we found no evidence to support.[42]

Figure 2–Number of Service Members Discharged with a Diagnosis of Personality Disorder, Total and by Service, 1997-2006



Fiscal Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
% of Total Separations	2.4	2.3	2.1	2.3	2.1	2.4	2.3	1.7	2.0	2.2

Within the DoD and VA, TBI disability evaluation and rating similarly is inconsistent, due to the absence of clear criteria and standardized training for raters. Unlike PTSD, TBI involves well-validated neuropsychological assessment methods to confirm symptoms, aid in diagnosis, and quantify cognitive impairments. The use of recent neuropsychological assessment by qualified professionals and well-trained raters may improve disability determinations, particularly in cases where a decline in functioning is subtle or brain abnormality is not readily observable; however the use of neuropsychological testing is frequently non-specific and non-prescriptive.

Family Support

The Commission has repeatedly heard about dedicated family members whose financial, family, and professional sacrifices allowed them to participate in their loved one's TBI care. Some patients with severe TBI may need family members or others to

[42] Individual instances of service members feeling pressured by commanders, practitioners or peers to accept administrative discharges were beyond the purview of this Commission, however, the Government Accountability Office has been commissioned to investigate this matter further.

provide care for an extended period. Families are often thrust into an intensive long-term caregiving role for which they are ill-prepared and are offered limited respite care options for occasional relief. Although caregiver education is crucial, the Commission found only very limited caregiver educational training opportunities.

For PTSD, family members need to be educated about symptom identification and management in order to provide support and better understand their service member's symptoms. This education may help keep the family intact and provide a supportive environment for recovery. Currently DoD and VA provide limited mental health services for family members in their own facilities. Family members of active-duty personnel typically use TRICARE network providers, while almost all family members of veterans must use other third-party insurers to receive community-based care. The limitations of TRICARE mental health care benefits described in the DoD Mental Health Task Force report were voiced repeatedly to this Commission.

Recent Research on PTSD

Over the past ten years, research into the mental and biological foundations of PTSD has rapidly progressed and scientists and practitioners now frequently focus their efforts on prevention in addition to treatment efficacy. Examples of prevention include everything from identifying and enhancing cognitive, emotional and social protective factors, to a current NIMH study exploring medications believed to target underlying causes of PTSD in order to prevent the development of the disorder. Within DoD there has been interest in large scale testing of all service members' "hardiness" or "resiliency" in order to predict vulnerability to PTSD. However research has not been completed to establish the predictive validity of any specific testing instrument for this purpose; policies have not been developed to determine what decisions will be based on the findings; and the potential ethical misuse of such findings has not been adequately addressed. Notably, previous attempts to use personality variables to screen out individuals presumed at risk for becoming psychiatric casualties resulted in "the elimination of nine out of ten who would have succeeded in order to eliminate the one out of ten who would not succeed in the military."[43]

Research into primary prevention and early intervention in TBI is also ongoing in the military and includes among other things, the use of personnel sensors to monitor blast exposure. There are also interesting developments in evaluating cognition in deploying troops. Mandatory and universal pre-deployment cognitive testing for use as a baseline comparison post deployment is a very popular recommendation at the time of report. The use of pre-injury cognitive baselines is typically quite beneficial in determining declines in cognitive functioning following an identified brain injury. However, ongoing research demonstrates that the impact of war-zone deployment on cognitive performance needs to be further examined before testing results are

[43] Glass, A. & Jones, F. "Psychiatry in the U.S. Army: Lessons for Community Psychiatry" Monograph, Uniformed Services University of the Health Sciences, (2005).

implemented for purposes that may include the identification of mild TBI post deployment. For example, a major study that conducted cognitive testing both before and after deployment found that deployment alone (independent of head injury, depressive symptoms, or stress) was associated with changes in some measures of attention, learning and memory in the post-deployment evaluation.[44] The Defense Veteran's Brain Injury Center currently has targeted pilot studies further examining the utility of pre-deployment baseline testing, including the effectiveness of neurocognitive instruments that may be used for such.

It was clear to the Commission that DoD needed to direct research and policy development efforts toward identifying the utility of mandatory, large scale service entry or pre-deployment cognitive and/or personality testing for the purposes described above. While universal testing to predict risk for PTSD or establish a cognitive baseline appears meritorious in concept, science and military policy development at this time do not support large scale implementation of such.

Difficulties in preventing TBI and PTSD, and in determining the utility of interventions directed at both are not unique to the DoD and VA, but the two departments are in a unique position to address these issues through research.

ACTION STEPS

DoD and VA should make a maximum effort, visibly backed by leadership, to improve the diagnosis and care for these significant combat injuries, while fostering a culture that promotes mental health care.

Action Step: DoD should establish a TBI "network of excellence" utilizing and expanding upon existing DoD, VA, and private sector resources. A lead office should coordinate policy, research, education, clinical guidelines, and foster intercommunication among the network of clinical programs. Clinical coordination should promote seamless transitions as patients move from one setting to another. Areas of immediate focus for the lead office should include:

- Comprehensive training programs in TBI designed to educate military leaders, VA and DoD medical personnel, family members, and caregivers
- The distribution of existing TBI clinical practice guidelines to all involved providers; where no guidelines exist in the continuum of care for TBI, DoD and VA should work together with other national experts to develop them
- Development of a state-of-the-art quality improvement program to assure services consistently meet the highest standards.

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[44] Vasterling, J, Proctor, S., Amoroso, P., et al. Neuropsychological outcomes of army personnel following deployment to the Iraq war. JAMA, 2006: 296(6):519-29.

Action Step: DoD and VA must move rapidly to resolve shortages in the mental health workforce that serves injured service members and veterans. DoD personnel requirements must allow for the practitioners needed for prevention and education missions, in addition to the expected long term demand that may arise from chronic or delayed onset symptoms of PTSD.

Action Step: Any service member or veteran who has deployed to Afghanistan, Iraq, and other theaters in the current war and presents with PTSD symptoms should be eligible at anytime, without restriction within the VA to receive an expedited initial evaluation by a qualified VA mental health provider. If determined to have combat related PTSD symptoms, the veteran should have access to VA PTSD care regardless of eligibility category.

REHABILITATION

PROBLEM STATEMENT

The rehabilitation needs of injured service members are currently met through an array of military, Department of Veterans Affairs (VA), and private-sector health facilities. Many of these facilities are state-of-the-art centers of excellence. Some facilities specialize in a particular injury, whereas others have the capability to care for a full spectrum of injuries.

The process of rehabilitation requires time, a complex array of services, and multiple levels of care, depending on the patient's needs and abilities. By marshaling the expertise in the nation's best rehabilitation facilities, injured service members can be restored to the highest possible level of functioning and independence.

Within the Department of Defense (DoD) and VA, the resources required to develop specialized centers limit their number, so that severely injured service members and veterans often are treated far from home. To expand geographic access and assure excellence, a comprehensive system of rehabilitation for our injured service members is needed that taps into the private sector as well as the public sector.

BACKGROUND

The Role of Rehabilitation

Through a series of individually designed interventions, rehabilitation restores the skills—lost through illness or injury—which an individual needs in order to function at the highest possible level. Rehabilitation programs and services improve the patient's functional recovery, health care outcome, and quality of life, and include the family in the scope of support.

Components of rehabilitation include:

- Preventing additional impairments or disabilities
- Protecting uninjured or uninvolved body systems
- Improving functional capacity lost from injury
- Promoting use of adaptive equipment and technology
- Enhancing patient and family adjustment through education, and
- Removing barriers from the patient's environment.

Rehabilitation programs are intensive, individualized, and coordinated programs designed to achieve total optimal functioning after a major event, such as severe traumatic brain injury or amputation. (This report focuses on rehabilitation programs related to injury recovery, although civilian and military rehabilitation facilities also treat

other conditions, such as stroke and joint replacement.) ***Rehabilitation services*** involve physical therapy or occupational therapy after relatively minor injuries and include, for example, an exercise protocol following a sprains and strength training after a fracture has healed.

For most injured patients, rehabilitation should begin as early as the patient's medical condition allows and progresses through a carefully orchestrated sequence of inpatient and outpatient services provided by a team of rehabilitation specialists. For our injured service members, rehabilitation services are available from military, the VA, and private sector sources. *The goal is to achieve optimal physical, psychological, social, and vocational functioning.*

Rehabilitation in the Military

Even preparing for war and maintaining the peace is a hazardous occupation. In the peacetime year of 1994, for example, 4,500 soldiers were disabled, 20,000 were hospitalized, and 400,000 took sick call because of injuries.[45] In peacetime, injuries sustained by service members range from minor (such as the result of a fall during a training fitness run) to severe (such as the result of a helicopter crash). Most of the time, particularly for those serving in the Army, hospitalizations are for musculoskeletal problems related to training and athletic activities.[46]

These peacetime needs establish the ongoing *baseline* requirements for rehabilitation in the military. To meet baseline needs, most military treatment facilities provide a consistent level of rehabilitation services, either in the facility itself or through referral to other military treatment facilities, the VA, or the private sector.
In wartime, both the number of injured service members and the complexity of their injuries increase, creating occasional peak needs for rehabilitation.

The military's major rehabilitation programs were developed around specific, high-incidence injuries and are scattered across the country (Figures 1 and 2).

Burns

The vast majority of service members with major burns are transported to the burn unit at Brooke Army Medical Center in San Antonio, Texas, for acute care**.** The unit contains 16 intensive care unit beds, 24 step-down beds, and an outpatient clinic, and is accredited by the American Burn Association. Burn rehabilitation begins during the acute care phase and continues after the patient is discharged to a rehabilitation facility, usually Brooke's burn rehabilitation center. Complete burn rehabilitation can take from two to four years.

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[45] Amoroso PJ, NS Bell, SP Baker, & L. Senier. "Understanding injuries in the military environment." In *Injury Control Part I.* U.S. Army Research Institute of Environmental Medicine, 1999.

[46] Smith GS, AL Dannenberg, & PJ Amoroso. "Hospitalization due to injuries in the military: evaluation of current data and recommendations on their use for injury prevention," *Am J Prev Med 18*: 41-53, 2000.

Brooke Army Medical Center's burn unit reports receiving 598 service members evacuated from Iraq and Afghanistan with burns as of June 30, 2007.

Amputation

Service members with traumatic amputations are generally taken to Walter Reed Army Medical Center, in Washington, DC, for both acute care and rehabilitation. With the opening of the Center for the Intrepid at Brooke Army Medical Center and a new amputee rehabilitation center at Naval Medical Center San Diego, in California, capacity and capability to care for service members with amputations have been greatly expanded.

As of 7/23/2007, 911 service members had an amputation from injuries sustained in Iraq or Afghanistan. Of these, 644 have been for the loss of an arm, leg, had, or foot, including those individuals with multiple amputations. Approximately 76% of these have been cared for at Walter Reed Army Medical Center; the rest were cared for at Brooke Army Medical Center.

Traumatic Brain Injury

Most traumatic brain injuries (TBI) are mild and improve with time (see the Subcommittee Report on Post-Traumatic Stress Disorder and Traumatic Brain Injury). Most patients only need education about their injury, which can be furnished in a military outpatient clinic or by TRICARE[47] network providers. Other patients, with moderate to severe TBI, receive some inpatient rehabilitation services during their acute medical stabilization in military treatment facilities. After stabilization, most of these patients are transferred to VA Polytrauma Rehabilitation Centers or to specialty private-sector facilities for inpatient or outpatient rehabilitation programs.

Accounting for all patients with traumatic brain injury is more difficult (see subcommittee report on Post Traumatic Stress Disorder and Traumatic Brain Injury). As of March 2007, 2,726 service members had been reported to the Defense Veterans Brain Injury Center with the diagnosis of traumatic brain injury. Of these, 2,094 were classified as mild and 255 as moderate. Another 192 had severe traumatic brain injuries and 171 had penetrating brain injuries.

Spinal Cord Injury and Blindness

Acute hospital care for spinal cord injuries is generally provided at Walter Reed. After stabilization, these patients are transferred to specialized VA spinal cord rehabilitation facilities. The military does not provide specialized *vision* rehabilitation care.

Ninety one service members had been treated for spinal cord injuries as of June 8, 2007, in the VA. Fifty-three service members have received blind rehabilitation services from the VA as of April 3, 2007.

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[47] TRICARE is DoD's health care program for members of the uniformed services, their families, and survivors, as well as some retired military personnel.

Community Based Care

In 2004, the Army created eight Community Based Health Care Organizations to provide case management—coordinating rehabilitation and other health care needs—for injured National Guard and Reserve members who return home. Care is arranged with military, VA, and (through TRICARE) private-sector facilities throughout the United States. The Army plans to expand Community Based Health Care Organizations to cover members on active duty.

Rehabilitation at VA

The VA has developed rehabilitation capability and capacity with a specific focus on certain types of injuries and on the needs of veterans. VA rehabilitation programs and services—on which the military also relies—are typically organized in "hub-and-spoke" systems with a few highly specialized research, treatment, and training centers linked to a larger number of less specialized treatment facilities throughout the country (Figures 1 and 2). This arrangement maximizes efficiency and helps the patient gradually achieve reintegration into the community.

All VA rehabilitation facilities are accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF). Accreditation means that these facilities meet national standards of care and that the quality and effectiveness of programs and services are monitored by an independent entity.

Polytrauma Rehabilitation Network

In 1991, the VA, with funding support from DoD, designated three VA facilities as TBI centers for active-duty service members, with a fourth center added in 1993. Under 2004 legislation requiring the VA to expand the centers so they could treat multi-injured service members,[48] the centers were renamed "Polytrauma Rehabilitation Centers."

The Polytrauma Rehabilitation Centers are located in Palo Alto, California, Richmond, Virginia, Tampa, Florida, and Minneapolis, Minnesota. Admission criteria are:

- Must be active duty or a veteran discharged from military service under other than dishonorable circumstances
- Medically stable
- Have sustained multiple physical, cognitive, and/or emotional injuries secondary to trauma
- Not require one-to-one staffing for medical or behavioral reasons
- Not require a ventilator to breathe
- Have the potential to benefit from rehabilitation OR need an initial, comprehensive rehabilitation evaluation and care plan.

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[48] Veterans Health Programs Improvement Act of 2004, P.L. 108-422; Consolidated Appropriations Act for 2005, P.L. 108-447.

In addition to the four inpatient Polytrauma Rehabilitation Centers, with a total bed capacity of 48, the VA developed a rehabilitation network to address the ongoing needs of multi-injured service members and veterans:

- 23 Polytrauma Network sites provide both inpatient and outpatient rehabilitation care
- 72 Polytrauma Support Clinic Teams are distributed in VA facilities across the country to assist veterans and service members with rehabilitation needs close to their home communities
- A Polytrauma Telehealth Network provides additional support for patients throughout the system, by using communications technologies to involve experts from distant locations in the patient's care.

Amputations

Once separated from active duty, amputee patients can receive care at one of 76 VA facilities with amputation outpatient rehabilitation clinics. The VA also has 58 VA prosthetic labs and contracts with local prosthetists for ongoing care close to veterans' homes.

Spinal Cord Injury

The VA supports 23 regional Spinal Cord Injury Centers, with 150 acute rehabilitation beds, dedicated to the acute care and rehabilitation needs of spinal cord injury patients. These centers provide a multi-disciplinary team approach to the care of approximately 400 spinal cord injured veterans and active-duty service members each year. After patients leave these centers, their medical needs are cared for by specifically trained primary care physicians at 135 VA medical centers.

Blind Care and Rehabilitation

The VA has made a substantial investment in the care of veterans who are visually impaired:

- 10 blind inpatient rehabilitation centers located at VA facilities provide training in orientation and mobility, independent living, and computer access
- Day outpatient rehabilitation programs are available through the Visual Impairment Services Outpatient Rehabilitation Program for veterans with low vision who can live independently but need additional training in specific skills, such as orientation and mobility
- Four VICTORS (Visual Impairment Centers To Optimize Remaining Sight) provide diagnosis, evaluation, and training for patients with low vision
- Blind Rehabilitation Outpatient Specialists provide training to visually impaired veterans in diverse settings, including nursing homes, assisted living facilities, Walter Reed Army Medical Center, and National Naval Medical Center

- Visual impairment service teams and coordinators, placed at several VA medical centers and outpatient clinics, identify, evaluate, and provide direct services and case management to veterans adjusting to vision loss.

Private Sector Rehabilitation

Private-sector rehabilitation programs and services are provided to injured service members in a variety of ways and locations, depending on the needs and capabilities of the patient. According to the Centers for Medicare and Medicaid Services, there now are 224 free-standing ***inpatient rehabilitation hospitals***—where the most intensive rehabilitation programs are based—and 1,010 ***inpatient rehabilitation units within acute care hospitals***.

Patients in private-sector inpatient programs engage in a series of daily activities, such as occupational and physical therapy and speech and language recovery, usually for three to six hours per day, five to seven days per week. For patients whose conditions allow them to stay at home, ***day rehabilitation programs*** typically provide at least two different types of therapy for three hours per day, five days per week. Many patients participate in day programs, as a next step toward independence, after being discharged from inpatient settings. Another post-hospitalization option, ***residential programs***, are similar to day rehabilitation programs but provide additional, limited assistance with activities of daily living.

Other settings include:

- ***Moderately intensive rehabilitation*** programs in outpatient departments for one to two hours per day, three days per week
- ***Low to moderately intensive rehabilitation*** programs at home or in skilled nursing facilities
- ***Limited rehabilitation*** services during an acute hospitalization, such as assistance with early mobilization, ambulation aids (crutches, walkers, etc.), and training.

The choice of setting depends on several factors:

- the patient's diagnosis
- ability to recover
- other diseases or conditions
- level of functioning prior to the illness or injury
- support systems
- mental status
- ability to tolerate the intensive nature of the program.

For each level of rehabilitation, health insurers enforce specific criteria for demonstrating positive progress toward goals and time benchmarks for program completion (such as 45 days for spinal cord injury recovery at an inpatient rehabilitation facility).

The Commission on Accreditation of Rehabilitation Facilities (CARF) currently accredits civilian facilities (Figure 3).

PREVIOUS RECOMMENDATIONS AND REPORT FINDINGS

Previous Commission and Task Force reports examining injured service members' needs have not addressed rehabilitation specifically. However, several reports did issue broad recommendations that would affect rehabilitation in important ways. A common theme emerging from these reports is the need for greater collaboration and resource-sharing between the military and VA to improve access to high-quality care and allow patients to be treated closer to home. Previous commissions and their key recommendations are:

- The ***Congressional Commission on Service Members and Veterans Assistance*** (1999) recommended a review of the geographic structure of the DoD and VA health systems. The Commission observed that "both systems have beneficiaries who could more conveniently obtain care at facilities operated by the other system."
- The ***Independent Review Group*** (April 2007) criticized the unavailability of technologically advanced follow-up care for amputees in the VA (a breakdown in the transition from inpatient to outpatient status). It cited the need for more extensive training for case managers and a need to develop practice guidelines and research on TBI. Specifically, the report recommended:
    - Creating a DoD-VA partnership to provide ongoing amputee treatment and prosthetic services
    - Providing greater access to private-sector health facilities and stronger incentives for private providers to participate in TRICARE
    - Reviewing post-service care for reservists and considering expansion of the Army's Community Based Health Care Organization network.
- The ***President's Task Force to Improve Healthcare Delivery for Our Nation's Veterans*** (2003) recommended:
    - Identifying and correcting staff shortages
    - Creating consistent clinical scopes of practice for non-physician practitioners
    - Creating an interface between VA and DoD systems for credentialing individual and institutional providers.
- In support of warriors returning home for outpatient rehabilitation, the ***Task Force on Returning Global War on Terror Heroes*** (April 2007) recommended that Adapted Housing and Special Home Adaptation Grant claims be expedited.
- A 2004 report by the ***Government Accountability Office (GAO)*** on outpatient rehabilitation services for blind veterans concluded that the VA's outpatient care capacity was inadequate and recommended that inpatient and outpatient

services be made more widely available to legally blind veterans.[49] The VA has responded by expanding blind rehabilitation centers across the country.

- In a 2007 report, ***GAO*** observed that allowing injured service members to receive early rehabilitation at VA facilities should be coordinated with DoD's evaluation of whether they could become fit to return to duty.[50]

WHAT THE COMMISSION LEARNED

The Commission has learned that access to high-quality, comprehensive rehabilitation programs and services should be part of the recovery plan of every injured service member, to provide the opportunity to reach one's full potential.

The Effectiveness of Rehabilitation

Rehabilitation is essential to the recovery of injured individuals.[51] Although randomized clinical trials demonstrating the effectiveness of rehabilitation are seldom conducted, because that would deprive patients of basic and standard care, many studies document that rehabilitation improves health care outcomes. Examples for TBI, amputation, and burns follow.

For TBI, rehabilitation—along with clinical pathways and early consultation—improves efficiency, optimizes outpatient care, and decreases hospital lengths of stay. *Patients with severe TBI* experience fewer complications and spend less time in the hospital if they are given clearly defined goals and a structured progression of rehabilitation services.[52,53] Early consultation with a physiatrist (physical medicine specialist) and prompt referral to rehabilitation programs apparently improve functional outcomes for these patients.[54] Similarly, *patients with moderate to severe TBI* recover their personal independence faster when they are provided with more intensive

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[49] U.S., Government Accountability Office. *VA HEALTH CARE: More Outpatient Rehabilitation Services for Blind Veterans Could Better Meet Their Needs.* GAO-04-996T, July 22, 2004.
[50] U.S., Government Accountability Office. *Challenges Encountered by Injured Servicemembers During Their Recovery Process.* GAO-07-589T, March 5, 2007.
[51] Mock C, Lormand JD, Goosen J, et al. *Guidelines for essential trauma care*. Geneva, World Health Organization, 2004.
[52] Vitaz TW McIlvoy L, Raque GH, et al. Development and implementation of a clinical pathway for severe traumatic brain injury. *J of Trauma 51*:369-375, 2001.
[53] Wagner AK, Fabio T, Azfonte RD, et al. Physical medicine and rehabilitation consultation: relationships with acute functional outcome, length of stay, and discharge planning after traumatic brain injury. *Am J Phys Med Rehabil 82*: 526-536, 2003.
[54] *Ibid*.

treatment,[55,56] and comprehensive, integrated outpatient rehabilitation programs improve these patients' functioning even if provided one year after the acute injury.[57]

For amputations, prosthetics has changed dramatically over the years.[58] Accompanying the development of sophisticated artificial limbs was the rise of structured rehabilitation programs to return amputees to functional independence.[59] A coordinated, multi-disciplinary approach to prosthetic rehabilitation reduces the length of time patients spend in the hospital and decreases the amount of physical therapy needed in the outpatient setting.[60] Structured programs that include vocational rehabilitation, community reintegration, and sports activities improve the quality of life for these individuals.[61]

Burn patients face significant rehabilitation challenges. Serious burns often require multiple operations and generate chronic pain and psychological problems.[62] Moreover, burned service members frequently have other injuries and are at risk for PTSD.[63] A comprehensive multidisciplinary approach to burn rehabilitation is, therefore, critical.[64] Providing burn care in a burn center with a rehabilitation unit decreases lengths of stay and more rapidly restores function to the patient.[65] Because of the intensive nature of the care required, along with the resources needed, burn care in the United States is provided through a regional approach.

Optimal Rehabilitation Staffing

Staffing for rehabilitation programs and services varies by type of facility, such as (as categorized by the World Health Organization's 2004 "Guidelines for Essential Trauma Care") basic (clinic), general practice (non-specialty hospital), specialist hospital,

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[55] Shiel A, Burn JPS, Henry D, et al. The effects of increased rehabilitation therapy after brain injury: results of a prospective controlled trial. *Clinical Rehabilitation 15*:501-514, 2001.
[56] Zhu XL, Poon WS, Chan CH, & Chan SH. Does intensive rehabilitation improve the functional outcome of patients with traumatic brain injury? Interim result of a randomized controlled trial. *British Jounal of Neurosurgery 15*:464-473, 2001.
[57] High WM, Roebuck-Spencer T, Sander AM, et al. Early versus later admission to postacute rehabilitation: impact on functional outcome after traumatic brain injury. *Arch Phys Med Rehabil 87*: 334-342, 2006.
[58] Eldar R & Jelic M. The association of rehabilitation and war. *Disability and Rehab 25*: 1019-1023, 2003.
[59] Pezzin LE, Dillingham TR, & MacKenzie EJ. Rehabilitation and the Long-Term Outcomes of Persons with Trauma-related Amputations. *Arch Phys Med Rehabil 81*: 292-300, 2000.
[60] Kent R & Fyfe, Neil. Effectiveness of rehabilitation following amputation. *Clinical Rehab 13*: S43-S50, 1999.
[61] Pasquina PF, Bryant PR, Huang ME, et al. Advances in Amputee Care. *Arch Phys Med Rehabil 87I:* S34-S43, 2001.
[62] Esselman, PC, Thombs, BD, Magyar-Russell, G, & Fauerbach, JA. Burn Rehabilitation: state of the science. *Am J Phys Med Rehab 85*: 383-413, 2006.
[63] *Ibid*.
[64] Jonsson, CE, et al. Rehabilitative, psychiatric, functional and aesthetic problems in patients treated for burn injuries--A Preliminary follow-up study. *Act Chir Plast 39*:3-8, 1997.
[65] DeSanti, L, et al. Development of a burn rehabilitation unit: Impact on burn center length of stay and functional outcome. *J Burn Care Rehabil 19*: 414-419, 1998.

and tertiary care facility for extremity injuries. In order to determine the types of staffing available, the Commission obtained data from selected military treatment facilities where a majority of injured service members are taken when evacuated and compared these staffing levels with WHO standards (Table 1).

Community hospitals provide primary and general acute care with a limited number of specialty providers. Tertiary referral hospitals, by contrast, have a concentration of specialists and few primary care providers. Medical centers have a mix of primary care and specialty care, but neither as many specialists as tertiary hospitals nor as many primary care providers as community hospitals.

Most tertiary referral military hospitals generally meet WHO standards, but only two—Walter Reed and Brooke Army Medical Centers—have rehabilitation nurses on staff. Staffing at military treatment facilities is always vulnerable to deployment and the routine base rotational life of military personnel. While every attempt is made to "back fill" these positions, periods of staff unavailability occur throughout DoD, not only for rehabilitation staff, but also for general medical staff.

Matching rehabilitation needs with capability and capacity at each facility should be a priority. For those injuries with specialized needs, plans need to be in place for obtaining rehabilitation services elsewhere, including in the private sector.

Optimal Rehabilitation Programs and Services

Only three facilities have specialized rehabilitation programs for upper and lower extremity amputations (Walter Reed Army Medical Center, Brooke Army Medical Center, and Naval Medical Center, San Diego). Five facilities have had programs for mild TBI, and two have specialized rehabilitation programs for moderate TBI. There are no programs in the military for rehabilitation for severe TBI. Brooke is the only facility with specialized burn rehabilitation.

In responding to the Commission's data request, only Walter Reed expressed the belief that it had facilities meeting a strict definition of both inpatient and outpatient rehabilitation units and services. Most of the other facilities reported that services were obtained by referral to military specialty hospitals, TRICARE network providers (Figure 4), or through the VA.

Recently, the Army Surgeon General created an office of Rehabilitative Care Proponency. Working in coordination with other DoD, federal, and community rehabilitation authorities, this office will identify the rehabilitation capabilities of the Army's military treatment facilities and recommend improvements. This initiative is specific to the Army, and thought does not appear to have been given to a DoD-wide activity.

Challenges for War-Related Injury Rehabilitation

The military has state-of -the-art amputee and burn centers; the VA maintains special expertise in spinal cord injuries and blindness; and both treat TBI patients depending on the level of severity. It is clear, however, that no unified rehabilitation strategy exists between the two departments or with private-sector providers, particularly during this peak need for additional rehabilitation services and programs. The lack of strategic planning results in uneven availability of community-based rehabilitation, unused capacity in some costly specialized facilities, and stretched capacity in other facilities. The recently established Army's Rehabilitative Care Proponency Office should be able to determine needs and create opportunities to coordinate the best rehabilitation care, but the extent to which the other Services are conducting similar efforts is unknown.

A contemporary rehabilitation system would adjust resources according to the *volume* of patients and the severity of their injuries and needs. This would prevent congestion, excessively low patient volumes, and gaps in care. Research shows that, for other types of highly specialized care, the number of patients treated at a facility is related to better outcomes.[66, 67] In some specialty fields, this research has led to patient care guidelines that incorporate minimum patient volume standards.[68] In rehabilitation, too, it is difficult to justify the ongoing expense of equipment and a skilled multidisciplinary team, if that team is not fully utilized, and of course, that team will become less skilled over time.

The military faces a special challenge in planning for successive generations of war injuries. Once war ends, specialized military rehabilitation facilities and programs may lose the patient volume necessary to sustain excellence. The burn center at Brooke has met this challenge by serving as the sole treatment site for all military beneficiaries with severe burns and by treating other patients from around the world. This model can be adapted to other specialized care facilities, such as Walter Reed's amputee center. An alternative strategy would be to rely on leading VA or private-sector facilities, providing support to ensure that the particular expertise needed to treat service members is sustained through research and training.

Most private sector and all VA rehabilitation facilities are accredited by CARF. Military rehabilitation facilities do not participate in CARF accreditation. (An Army spokesperson explained to the Commission that military hospitals primarily provide acute rehabilitation services and so do not require specialized accreditation.) In light of the

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[66] DiSario, JA. Hospital volume and ERCP outcomes: the writing is on the wall. *Gastrointestinal Endoscopy 64*: 348-350, 2006.

[67] Harmon JW, Tang DG, Gordon TA, et al. Hospital volume can serve as a surrogate for surgeon volume for achieving excellent outcomes in colorectal resection. *Ann Surg 230*: 404-411, 2000.

[68] Birkmeyer JD, Finlayson EV, Birkmeyer CM. Volume standards for high risk surgical procedures: potential benefits of the Leapfrog initiative. *Surgery 130*:415-422, 2001.

expansion in inpatient and outpatient rehabilitation programs and services, several large Army and Navy medical centers reasonably would seek and obtain CARF accreditation to assure that they meet the highest standards.

Using Community-Based Rehabilitation

Specialized military and VA centers for rehabilitating seriously injured service members and veterans provide technologically advanced treatment, and research at these facilities has led to improvements in prosthetics, burn care, and other rehabilitation services. Yet *prolonged stays* at these centers keep some patients from returning to their homes and may require their families to relocate for extended periods. These long stays may also delay community reintegration and social, vocational, and psychological adjustment needed for optimal recovery.[69] Some patients, particularly National Guard and reserve members, may prefer to receive their care at private-sector rehabilitation facilities closer to their homes.

In general, very little is understood about long-term outcomes of care in different settings,[70] although some evidence suggests that early vocational rehabilitation and medical rehabilitation care close to the patient's home improve long-term recovery.[71] In any event, patients should be transferred to other facilities if the type of rehabilitation available is consistent with their recovery plan.

ACTION STEPS

- The military should maintain a level of rehabilitation services and programs in keeping with the need to maintain America's fighting force.
- The military should develop a strategy to adjust peak demands for rehabilitation services and programs utilizing military, VA, and private sector sources.
- The military should develop a plan for utilization and maintenance of specialty rehabilitation centers and programs.
- The military should assess the specific staffing needs of each rehabilitation programs to assure adequacy.
- The VA should maintain an inventory of contemporary prosthetics consistent with those supplied by the military.

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[69] U.S., Government Accountability Office (GAO), *DoD and VA Health Care: Challenges Encountered by Injured Servicemembers during Their Recovery Process.* GAO 07-606T, March 2007; GAO , *Vocational Rehabilitation: More DOD and VA Collaboration Needed to Expedite Services for Seriously Injured Servicemembers*, GAO 05-167, January 2005.

[70] Dillingham, TR. Musculoskeletal Rehabilitation: Current Understandings and Future Directions. *Am J of Phys Med Rehab 86:* S19-S28, 2007.

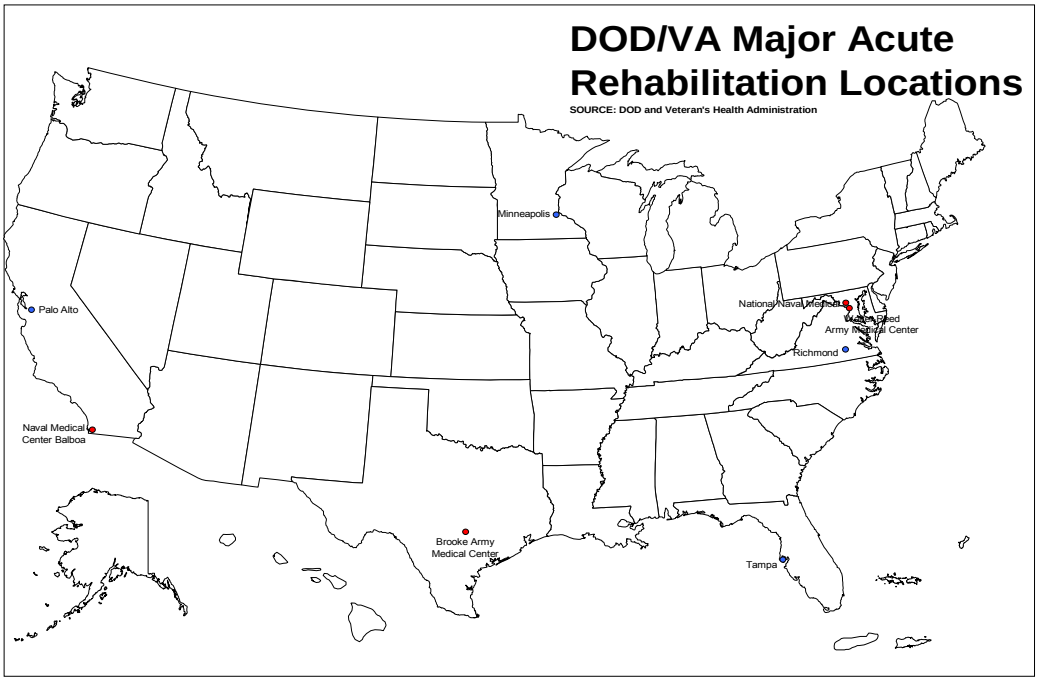
[71] The two GAO reports cited above recommend early intervention to maximize work potential and rehabilitation needs.

Table 1: STAFFING AT MILITARY TREATMENT FACILITIES

Services	Community Hospitals					Medical Centers				Tertiary Referral Hospitals						
	* WHO	IACH	LNCH	BACH	PNCH	* WHO	DAMC	EAMC	WAMC	* WHO	WRAMC	NNMC	BAMC	NMCSD	MAMC	NMCP
Physical Medicine and Rehabilitation Physician	I	○		★		D	★	★		D	★	■	★	★	★	★
Rehabilitation Nurses	I					D				D	★		★			
Physical Therapists	I	■	★	★	★	D	★	★	★	D	★	★	★	★	★	★
Occupational Therapists	I	■	★	★	★	D	★	★	★	D	★	★	★	★	★	★
Speech Pathologists	I	●		○		D	★	★	★	D	★	★	★	★	★	○
Neuropsychology/ Psychological counseling	I/E	●			○	D/E	★	★	★	D/E	★	★	★	★	★	○
Vocational Therapists							★	★			★	○	★			
Prosthetists	I	○	○	○	○	D	○	★	○	E	★		★	★	○	○
Orthotists		○	○	★	○		★		○		★	○	★	★	○	○

- E = essential, D = desirable, I = ideal
- Stars indicate staff in that hospital;
- Filled boxes indicate that the service at that facility and by referral to TRICARE, VA or military specialty hospitals
- Open circles indicate that the service is available by referral to TRICARE, VA or to military specialty hospitals
- Open boxes indicate emerging capability at this military hospital
- WHO = World Health Organization
- WRAMC = Walter Reed Army Medical Center
- NNMC = National Naval Medical Center
- BAMC = Brooke Army Medical Center
- MAMC = Madigan Army Medical Center
- NMCP = Naval Medical Center Portsmouth
- NMCSD = Naval Medical Center San Diego
- DAMC = Darnall Army Medical Center
- EAMC = Eisenhower Army Medical Center
- WAMC = Womack Army Medical Center
- IACH = Ireland Army Community Hospital
- LNHC-LeJune = Naval Hospital Community Hospital – Lejeune
- BACH = Blanchfield Army Community Hospital
- PNCH=Naval Community Hospital - Pendleton

Figures 1 and 2. DOD AND VA ACUTE AND POST-ACUTE REHABILITATION LOCATIONS



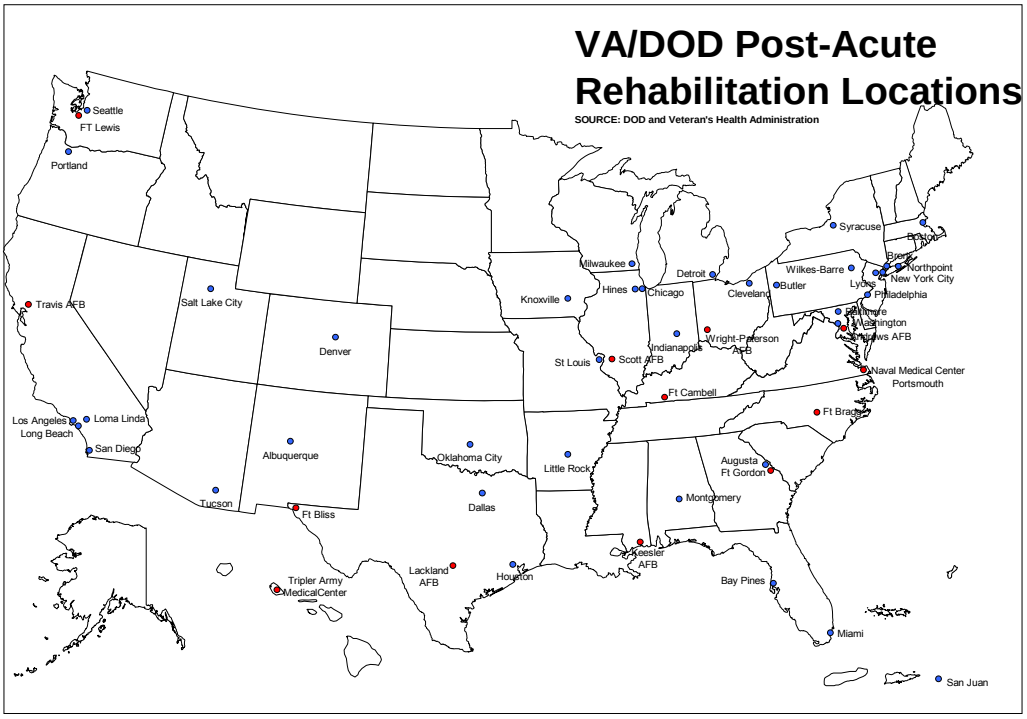


Figure 3. DISTRIBUTION OF COMMISSION ON ACCREDITATION OF REHABILITATION ACCREDITED FACILITIES

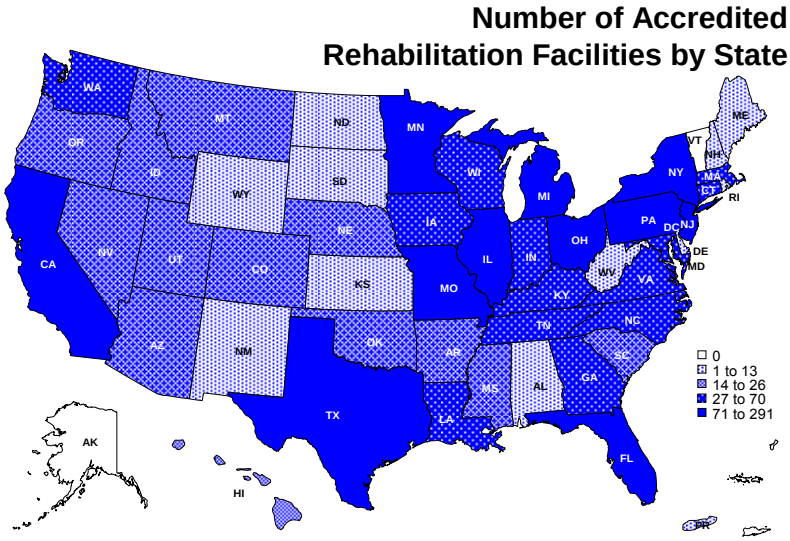
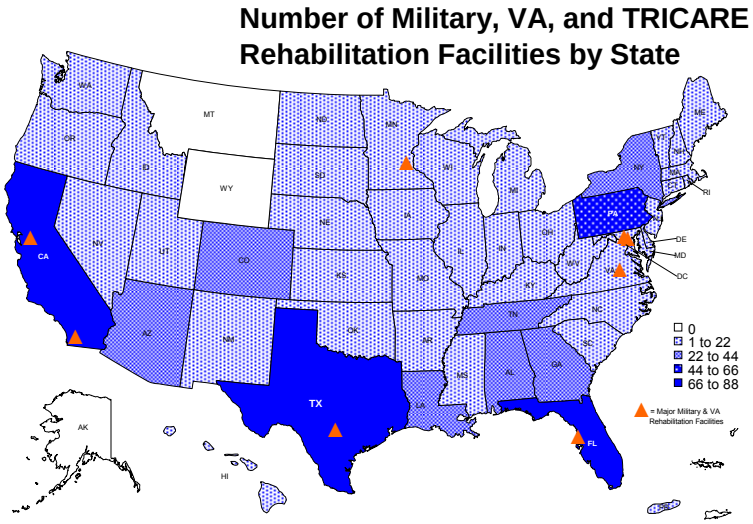


Figure 4. DENSITY OF TRICARE NETWORK REHABILITATION FACILITIES



FAMILY SUPPORT

THE CHALLENGE

Families are a vital aspect of injured service members' concerns, attitude, treatment, recovery, and ongoing state of health and social connections. During the current conflict, the military and other organizations have made great strides in integrating families into the programs and services available to injured service members.

Nevertheless, family members often are left confused and needing assistance as they navigate the complicated military and veterans systems. Families would benefit from—and deserve—greater and more systematic involvement in information-sharing, care of injured service members, and the shaping of programs and policies.

BACKGROUND

Initial Support

Families of injured service members usually learn of the injury in a telephone call placed to the next of kin, as designated by the member before deployment, by either a military casualty affairs staff member or the unit commander in the field. Family members quickly receive information about travel, lodging, and support at the treating medical facility. If the injury falls into defined serious or very serious categories, Invitational Travel Orders can be issued for up to three family members, usually for 14 days and sometimes for 30 days (or even longer, under the Service Secretary's order). Travel orders provide:

- Travel expenses
- Lodging
- Local transportation expenses
- Daily allowance.

An official of the Service meets family members at the airport and drives them to the local finance office—to receive a five- to 15-day advance—and then to their lodging and the hospital. If the hospital has a Family Assistance Center, it is the first stop. As soon as possible thereafter, the family is escorted to meet the charge nurse at the hospital and then to the bedside.

When the service member is discharged from the hospital, a Non-Medical Attendant Order can be issued if the attending physician believes that having a family member in attendance will aid in the patient's recovery. These orders cover transportation and meals and are usually issued in 14-day increments to only one family

member, although additional family members may receive them in extraordinary circumstances.

All families need support at some point, but some families need more services than others and for much longer periods of time. In cases where recovery will take a long time—for example, severe burn cases—the military Service may decide to move the family permanently. Moving the family facilitates normal family interactions, which may be especially important if there are children, but uproots families from their community. To fill the resulting gap, an abundance of military and community support organizations—including more than a thousand non-profit organizations—play a vital role in family support.

Family members' bedside lengths of stay range from one day to six months, with an average of 45 days. Most injured service members recover quickly and return to duty. Others take longer to recover, but eventually return to full functioning. A small number of the most severely injured never fully recover and remain dependent on family members for care-giving and economic support.

Walter Reed and Brooke Army Medical Centers have Soldier and Family Assistance Centers, where family members are connected on-site with a host of programs and referral services. The Army recently directed all its medical facilities to develop a capability to open such Centers if needed, while the other Services offer family support in other ways. Additionally, DoD and VA treatment facilities offer family members:

- Education about the service member's specific injuries and the physical, psychological, and social functioning changes that will result in both the short and long term
- Training for family members who will need to be caregivers
- Counseling to deal with their emotional reactions and adjustments.

Fisher Houses—which provide a "home away from home" for families of injured and wounded service members, at no charge—are located near all military medical centers as well as several VA medical centers and military community hospitals on large bases. In this private-public partnership, the private Fisher House Foundation raises funds, constructs the houses, and provides programs and other support services to family members, while the Department of Defense (DoD) or Department of Veterans Affairs (VA) operates and maintains the house. Currently, 38 Fisher Houses house 8,500 families per year. The foundation now plans to construct 22 more houses, mostly at VA medical facilities.

Ongoing Support

Each Service has a program to help seriously wounded and injured service members and their families:

- Army Wounded Warrior Program
- Navy Casualty and Safe Harbor Program
- Marines Wounded Warrior Regiment

- Air Force Palace HART (Helping Airmen Recover Together) Program.

These wounded warrior programs help in many ways:

- furnishing advice and assistance during treatment, recovery, and reentry to military or civilian life
- cutting through bureaucratic red tape
- providing referrals to public and private agencies
- facilitating job searches
- helping to remedy communication problems affecting families and injured service members
- identifying needed changes in policies or procedures.

In addition, DoD's Military OneSource program gives assistance around the clock to service and family members and is accessible electronically and by telephone. This program provides information and referrals for support services ranging from child day care to elder care, from education to employment, from financial to legal aid, and from housing to relocation. It also can arrange up to six counseling sessions for service or family members experiencing problems. Military OneSource's partners include VA, the Departments of Labor and Education, veterans service organizations, state agencies, and non-profit organizations.

Military OneSource also manages the Military Severely Injured Center. In close collaboration with the Services' wounded warrior programs, the Center helps injured service members and their families with:

- Financial planning
- Education, training, and job placement
- Information on VA benefits and other entitlements
- Home, transportation, and workplace accommodations for disabilities
- Personal, couples, and family issues counseling
- Personal mobility and functioning.

After leaving the hospital, some service members need personal caregiver services, sometimes for a long time or even permanently. VA provides two kinds of support:

- An *aid and attendance allowance* ranges from $1,851 to $2,757 per month for veterans living at home who are blind, need routine assistance with activities of daily living, or have at least two significant impairments. This allowance pays for nursing assistants or other aides; the higher amounts cover licensed health professionals who provide services directly or supervise the aides. (Most beneficiaries of this allowance are rated as 100 percent disabled and a veteran with a spouse and two children receive monthly disability compensation ranging from $2,781 to as much as $7,380 if severely impaired.)
- *Respite care* is available for up to 30 days a year for all disabled veterans. Respite care provides care-giving services while family caregivers take a break from their daily burden.

DoD provides no explicit benefits for care-giving. Aid/attendance and respite care are not available to injured service members on active duty—even though the TRICARE Extended Health Care Option provides these benefits to service members whose children or other dependents have special needs. A few states provide benefits to disabled adults who need care-giving (in most states, this benefit is only for the elderly), and some charitable organizations offer respite care to military families.

While the service member is on active duty, spouses and dependents receive comprehensive health benefits through TRICARE. This coverage continues after a medical retirement from service—but, for regular service members who receive a medical separation (with a DoD disability rating of zero to 20 percent) and for demobilized reservists, this extension lasts only 180 days.[72]

PREVIOUS RECOMMENDATIONS AND REPORT FINDINGS

Prior to this year, family issues received little attention in the multitude of task force and commission reports published. However, recent reports have cited areas in need of attention.

The **Independent Review Group** is the only recent task force that made specific recommendations for family support. These called on DoD to:

- Inform family members about the support they are entitled to, and assign individuals to assist with travel, lodging, and other support
- Consider permanently moving families of wounded, ill, and seriously injured service members who need long-term rehabilitative care in outpatient settings. Moves should be considered on a case-by-case basis with consideration given to the needs of the family.

The **DoD Task Force on Mental Health** included services for family members in its extensive review of the military's mental health system. The task force concluded:

- Families receive inadequate education about psychological health
- The military health system lacks the resources and personnel needed to provide adequate mental health service to family members
- Coordination among the many DoD organizations that provide psychological care is lacking.

The **Army's Wounded Warrior Program** sponsors regular symposia twice a year for severely injured service members and their family members. The top issues identified by participants at the last two meetings included several recommendations for improving family support:

[72] For more details about medical retirement, separation, and TRICARE benefits, see the Subcommittee Report on Disability Evaluation and Compensation. Separated individuals may purchase up to 18 months of additional coverage; the cost for a family is about $8,000 per year.

- Provide support groups, led by trained social workers, and counseling for family members at military treatment facilities, and inform families about the groups when they first arrive
- Provide a stipend for caregivers until the soldier returns to duty or VA benefits begin
- Before the service member's discharge from the hospital, train family caregivers and provide them with specific instructions and medical supplies and equipment
- Develop a package of materials for families about the notification process, the importance of powers of attorney, and mental health issues.

WHAT THE COMMISSION LEARNED

Families are integral to the care and recovery process. They contribute critical emotional and practical support to recovering service members, sometimes for life. *Patient-centered care,* as advocated by the Commission, integrates families along the continuum of care and provides them with information and support.

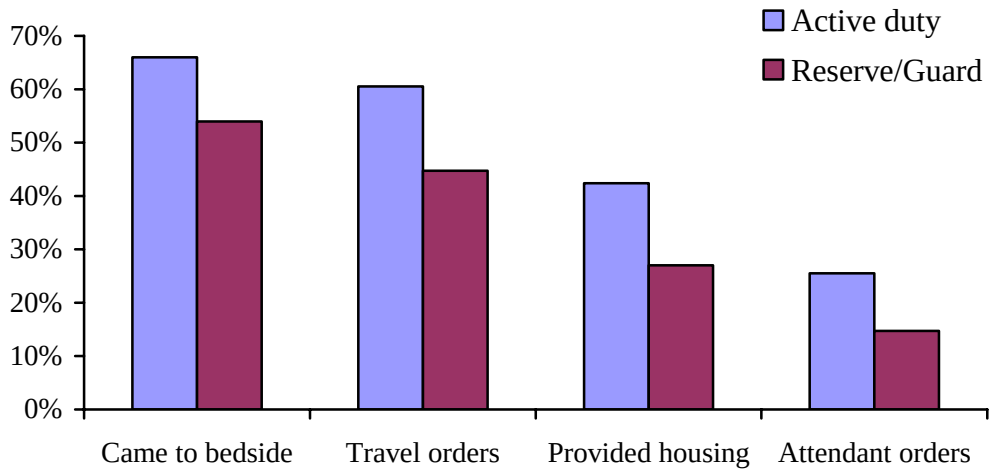
Typically, a family's first concern is to get to the bedside, and the Services appear to have developed effective procedures for meeting this fairly basic need. Once the family's immediate needs for travel and temporary lodging are satisfied, it requires more individualized support, depending on the service member's medical condition and the family's own situation. Beyond issues involving in bringing the family to the injured service member, information gathered through the Commission's site visits and DoD and VA expert consultations revealed issues in four other areas:

- Information and administrative help
- Financial support during the recovery phase
- Health care for the family
- Special needs for family caregivers.

Bringing Families to Injured Service Members

Most injured service members, especially active-duty personnel, have had family members join them soon after they are medically evacuated to the United States (Figure 1). In almost all cases, these family members have traveled at government expense, and two-thirds were provided housing. Only one-third were issued Non-Medical Attendant Orders after the service member left the hospital, however.

Figure 1—Percentage of Returning Injured Service Members with Families in Attendance, PCCWW Survey



Over the past five years, the Services have fine-tuned their policies and practices for bringing family members to the bedside. The level of support is impressive. Travel arrangements are made quickly, and family members are escorted upon arrival and then prepared for their initial bedside encounter.

Family members who will stay for an extended period of time deserve comfortable and safe temporary lodging. The Fisher Houses and certain other facilities meet this need. When a military medical center's capacity for temporary housing is exceeded, local officials are usually able to arrange off-base housing in hotels until the family can be moved to the base.

Large bases with military medical centers have extensive services for families, including commissaries, child care, and recreational facilities. Military spouses have immediate and permanent access to these services, and parents and other relatives usually can obtain temporary access to them.

Information and Administrative Help for Families

In conversations with many injured service members and their families at different stages along the continuum of care, the Commission heard a recurring theme of confusion and frustration in navigating the medical and benefits systems. Some families described receiving very limited or inconsistent information about the anticipated course of treatment and recovery—and recovery is families' overriding concern—and how that course would affect eligibility for, and appropriateness of, specific services and benefits.

Many family members' knowledge of the military is quite limited, and they could use a "crash course" in the many administrative processes and service programs relevant to their situation. The Army's Soldier and Family Assistance Centers and the Services'

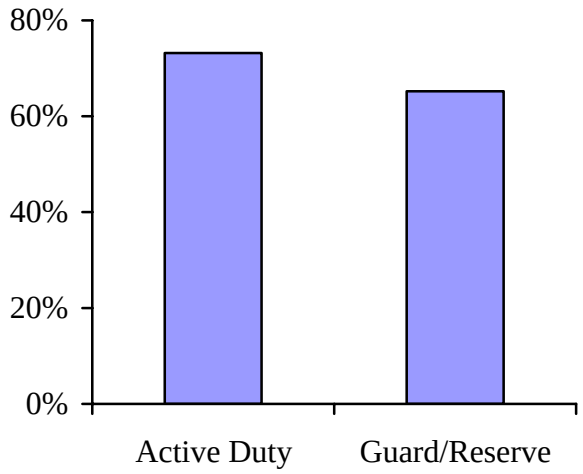
wounded warrior programs—developed during the current conflict—help meet this need. VA also has expanded the number and locations of liaison staff at military treatment facilities. These VA staff members inform patients and families about VA benefits and facilitate the transition to civilian life and VA care.

As the Subcommittee Report on the Continuum of Care describes, a host of "case managers," assigned at various stages of the treatment and recovery process, help patients and families navigate the complex system of care and benefits. Some patients and families are fortunate to find a single person at each stage of the process—such as a medical case manager or hospital social worker—to serve as a single coordinator.

Once a service member (including National Guard and reserve personnel) leaves the military, the flow of information and support tends to become more fragmented. Various websites, supported by the wounded warrior programs and other sponsors, try to make information readily available to this dispersed population. These websites contain a wealth of information, but navigating them to get answers to specific questions can be difficult.

The Commission's survey asked injured service members whether their families received all the information they needed and wanted. Three-fourths of active-duty personnel, and slightly lower proportions of National Guard members and reservists, said their families were well-informed (Figure 2). (Note that this is second-hand information related by the service member, and some family members might have responded differently.) This finding suggests that information was a problem for a substantial minority of families.

Figure 2—Percentage of Families Who Received All the Information They Needed, PCCWW Survey

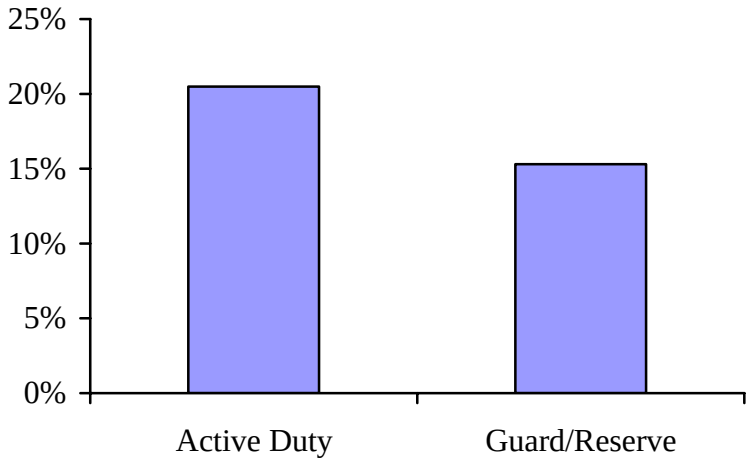


Family Financial Support During Recovery

While the injured service member remains on active duty, military income and benefits continue, which provides some stability to the family. But, almost one in five respondents to the PCCWW Survey reported that family members gave up a job to help care for them after they were injured (Figure 3). Sixty percent of the medically evacuated service members who were surveyed were married and 42 percent had children living with them. Supporting the family when the injury is severe and the recovery is long can be a challenge.

For families of the most seriously injured, the income from these jobs can be replaced, temporarily, by the Traumatic Servicemembers Group Life Insurance program. This program, which most service members join, pays up to $100,000 for injuries involving loss of limb, eyesight, hearing, burns, and severe traumatic brain injuries (TBI) that impede the ability to perform activities of daily living. In the first nine months after the program began in December 2005, roughly 400 claims were paid, assisting about half of combat-injured patients evacuated to a DoD medical center. Payment is lump-sum (averaging $52,000) except for service members with TBI, who receive $25,000 per month while they are unable to perform activities of daily living. The program does not provide benefits to individuals who can perform such daily living activities as bathing and dressing but are unable to work, prepare meals, or perform other functions necessary to live independently

Figure 3—Percent of Service Members with a Family Member Who Gave Up a Job, PCCWW Survey



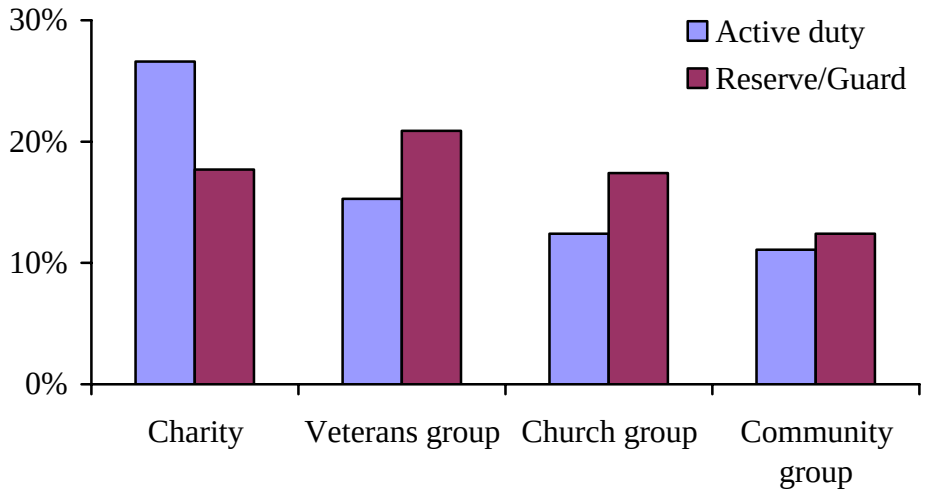
Recalling that some family members average 45 days on travel orders and some stay for up to six months, returning to the same job may not be possible. The Family

Medical Leave Act protects employment for up to 12 weeks, which covers the average leave but not the long leaves necessitated by the most serious injuries.[73]

Returning to work can be especially problematic for spouses and parents of injured service members who are permanently dependent on attendant care. When employer taxes and agency overhead are taken into account, the VA aid and attendance allowance barely covers the costs of full-time attendant care.[74] Family members who assume the caregiver role themselves—and manage to qualify for payment through the VA allowance, which isn't always easy—may earn less in this "job" than they would otherwise. Families are financially strapped whether they hire caregivers or serve as caregivers themselves.

Many charitable organizations have stepped up to assist families—starting as early as April 2003 with the American Red Cross, Walter Reed Army Community Service, Fisher House Foundation, and United Services Organization (USO). Today the number of organizations serving inured service members and their families exceeds 1,000. Families benefit enormously from this philanthropy (Figure 4), but a key problem for families is that no centralized clearing-house lists all these organizations, many of which are local. The DoD-approved "America Supports You" and Military OneSource websites, for example, list only those organizations that register with the website.

Figure 4—Percent of Families Helped by Non-Profit Groups, PCCWW Survey



[73] The Family Medical Leave Act requires reinstatement in a comparable position for immediate family members only (spouses and parents) who work for a public employer or private employer with 50 or more employees. Up to 12 weeks are authorized each year.

[74] *See* Small, VD. "What is a Fair Wage When Provided by Family or Friend?" *The Case Manager 17*: 63-66, 2006.

Caregivers often experience considerable financial, physical, and emotional stress. Studies of caregivers consistently show high levels of psychological stress and unmet service needs. Multi-faceted programs that tailor benefits and services to family needs are the most effective.[75]

Health Care for Families

While injured service members are receiving acute care and rehabilitation, their families—spouses, children, parents, and others—also need unencumbered access to health care. Military treatment facilities care only for TRICARE beneficiaries, including active-duty and retired families, and are not authorized to provide non-emergency services such as prescription refill orders or primary care to others.

A clear area of family need is psychological services directed, in part, at healing the family unit. Family members bear the brunt of daily care for long periods of rehabilitation and recovery, while their own emotional stability and well-being, along with those of the injured service member, are placed at great risk. Ideally, these family members could obtain psychological services at the military medical facility, where they could be coordinated with other health services; referral to community providers in the TRICARE network is a less desirable alternative. But, the shortage of mental health professionals throughout the military, coupled with the deployment of many mental health professionals to theaters of operations, prevents the military facilities from being able to offer such services to family members routinely.

For health care generally, TRICARE provides a comprehensive health benefit at no cost to active-duty personnel (including activated reservists) for themselves and their dependents. This is helpful, because few spouses of active-duty personnel have their own health insurance. That makes the loss of TRICARE coverage significant, though, when the injured service member separates from the military, especially if recovery will be a long haul. The Subcommittee Report on Disability Evaluation and Compensation discusses offering TRICARE to all service members whose injuries lead to their leaving military service. This change would fill an important gap in support for a number of families.

Overall Satisfaction with Family Support

The PCCWW survey asked injured service members how satisfied they were overall with the support provided to their families. Sixty percent were very or somewhat satisfied and only 27 percent were very or somewhat dissatisfied (top panel of Figure 5).

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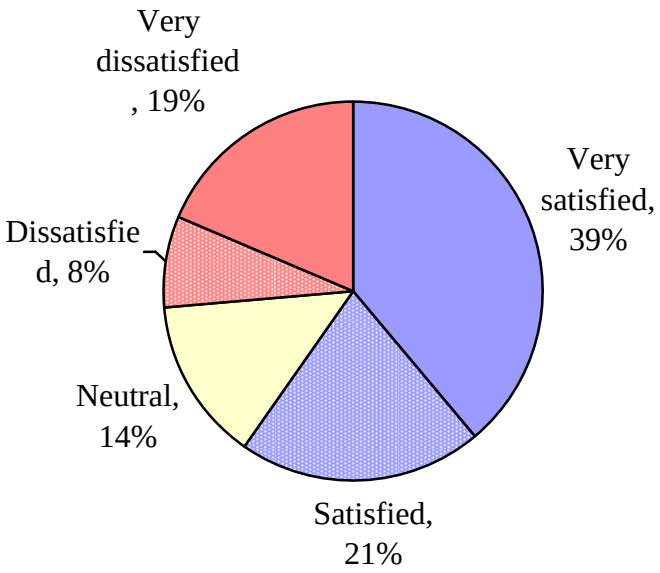
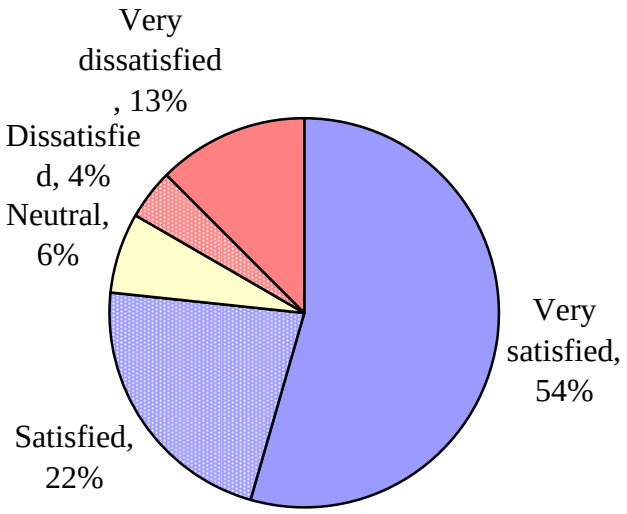
[75] U.S., Department of Health and Human Services, National Institutes of Health. "Caring for the Caregivers: The Hidden Victims of Long-Term Illness." *News in Health*, August 2006. Available at http://www.newsinhealth.nih.gov/pdf/NIHNiH%20August06.pdf.

This figure is for all evacuated service members. We expected that the results might differ for the more seriously injured, whose families need more support. Using whether the military issued non-medical attendant orders to flag seriously injured service members, we find noticeably higher satisfaction levels in this group (bottom panel of Figure 5).

Figure 5--Satisfaction with Support for Families, PCCWW Survey



All Evacuees



Evacuees with Attendant Orders

ACTION STEPS

Complementing action steps presented in other subcommittee reports—such as including family members in discussions about the recovery plan, having a single Recovery Coordinator, and extending TRICARE coverage to all service members who leave the military because of a combat-related injury—the following measures would help support families of injured service members now and in the future:

Action Step: DoD should establish a standby plan for family support of injured service members in future conflicts, drawing on the experiences and model programs developed during this conflict.

Action Step: Congress should make injured service members eligible for the TRICARE respite care and aid and attendance services benefits through the Extended Care Health Option.

Action Step (suggested): DoD and VA should standardize, and assure universal access to, family services early in the treatment process. This package should include education about the service member's injuries and expected progress, caregiver training, and counseling and psychological services.

Action Step: DoD and VA, in regularly evaluating their programs for injured service members, should routinely consider the interests of families and solicit family members' comments, suggestions, and feedback on proposed changes.

Action Step: Congress should amend the Family Medical Leave Act to allow up to six months' leave for a family member of a service member who has a combat-related injury and meets the other eligibility requirements in the law.

EDUCATION, TRAINING, AND EMPLOYMENT

THE CHALLENGE

The Department of Veterans Affairs (DVA), Department of Labor (DOL), Department of Defense (DoD), state, private, faith based, community based, and other organizations are providing employment services to assist veterans with disabilities returning from the war to become suitably employed. VA and DoD along with the other organizations, work together to assist veterans with disabilities obtain suitable employment for veterans. Each organization provides employment, education and training services through different venues. The primary function of these organizations is to assist in providing the veteran with the tools necessary to return to work, attain self-sufficiency, and participate in family and community life.

BACKGROUND

Education and Training Services

Employment is the dominant concern for most veterans making their transition to civilian life. A veteran with a suitable job is in a position to face the challenges that come with beginning a new life. The VA's Vocational Rehabilitation and Employment program provides education, training, and employment services to disabled veterans who have an **employment handicap**—defined by VA as "an impairment of a veteran's ability to prepare for, obtain or retain employment consistent with his or her abilities, aptitudes and interests." To apply for the program, veterans must have at least a 10% disability rating to receive the comprehensive evaluation that determines the presence of an employment handicap. If the veteran's disability rating is right at 10%, the employment handicap has to be serious. The many services offered in this program and other DoD and VA programs are summarized in Table 1.

While recovering on active duty, injured service members whose condition permits it could begin an educational program under DoD's tuition assistance program. However, it is unclear how many could or would want to do this.

The objective of vocational rehabilitation services is to prepare veterans for suitable employment that is consistent with their aptitudes, interests, and abilities. Services—such as vocational assessment, labor market surveys, developing alternative work plans, retraining, and assistance with job-seeking skills—focus primarily on helping individuals with disabilities enter a different job or career. For severely disabled veterans for whom employment is not an option, the program focuses on enhancing their ability to live more independently in their home and/or community.

Table 1—DoD and DoD Education, Training, and Employment Benefits

Benefit Type	Eligibility Criteria	Services/Benefits
Tuition Assistance (DoD)	Active Duty	• Up to $4500/ year
Computer/ Electronics Accommodation Program (DoD)	Service members with injuries that have caused: • Dexterity impairment • Vision/hearing loss • Cognitive injury	• Assistive technology and services for: • Active duty during medical recovery • Veterans in a federal job
Vocational-educational counseling (VA)	• Eligible for a VA education program: e.g., o Montgomery GI Bill o Reservists Education Program • If active duty, within 6 months of separation	• Interest and aptitude testing • Setting occupational goal • Locating appropriate educational or training program
Vocational rehabilitation and employment (VA)	• Honorable or other than dishonorable discharge; • Service-connected disability at least 20%; • Comprehensive evaluation shows employment handicap • Period of eligibility is 12 years	• Full tuition in approved training programs • Subsistence allowance (e.g., $508/mo if single, $799 for a family of 4) • Employment assistance • Independent living assistance
Educational assistance for veterans not eligible for the services above (DoD/VA)	Montgomery GI Bill • High school degree • Active Duty: 2-3 yrs service, honorable discharge, $100/mo while serving • Selected Reserve: 6 year obligation, in good standing with a reserve unit Reserve Educational Assistance Program • Reserve component members with 90+ days on active duty after 9/11/2001	• Monthly benefit varies by benefits program, type of educational program, attendance level (standard benefit for full-time college is $1,075/mo.) • 36 months over 10 years after discharge • Some recruiting contracts include higher benefits
Dependents' educational assistance (VA)	• Dependent of service member or veteran who is permanently and totally disabled due to a service-related condition	• Up to $860/month for 48 months

Finally, the VA program also provides education and training for spouses and dependents of service members who are permanently and totally disabled. This benefit recognizes that most of these veterans cannot work, making their family members' earnings especially important.

Research has shown that vocational rehabilitation and employment services should be provided as early as possible after the onset of the disability to significantly impact the service members' return to work.[76]

In collaboration with DoD, VA has several policies that expedite entry into its programs:

- VA places a vocational rehabilitation counselor at eight military medical centers[77] to advise assist those service members who need to prepare for civilian life. The counselor can arrange through the Coming Home to Work program for service members qualified for vocational rehabilitation and facing separation to work in a government office, gain on-the-job training, and be considered for post-service employment
- Since 1992, DoD and VA have collaborated to offer the Disabled Transition Assistance Program, an expanded version of an educational program offered to all service members when they leave the military.
- DoD provides VA with data on all OIF/OEF veterans who have been discharged from service. VA identifies those with pending claims and these claims receive expedited processing.
- Veterans who are newly separated, disabled, or burdened with a barrier to employment have priority for receiving vocational and employment services.

Employment Services

An array of employment services and employer incentives has been developed to promote employment opportunities for veterans in general and disabled veterans in particular. Federal and state hiring gives veterans preference. Disabled veterans qualify for 10 extra points on the federal civil service examination. For scientific and professional positions at GS-9 or higher, candidates are rank-ordered by points including preference points. For other positions, veterans with a disability rating of 10% or higher are listed above all other candidates for the position. In general, a veteran may not be passed over for a non-veteran without good reason. Disabled veterans also may be appointed without competition through a Veterans Recruitment Appointment. Finally,

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[76] GAO-05-167, Vocational Rehabilitation: More VA and DoD Collaboration Needed to Expedite Services for Seriously Injured Servicemembers, January 2005; GAO-96-133, SSA Disability: Return-to-Work Strategies from Other Systems May Improve Federal Programs, July 1996; Michigan Bureau of Disability Workers' Compensation, Report of The Task Force on Vocational Rehabilitation in Workers' Compensation.

[77] Walter Reed Army Medical Center; National Naval Medical Center at Bethesda, Brooke Army Medical Center, Naval Medical Center San Diego, Eisenhower Medical Center (Fort Gordon, Georgia), Evans Army Community Hospital (Fort Carson, Colorado), Darnall Army Community Hospital (Fort Hood, Texas), and Madigan Army Medical Center (Fort Lewis, Washington).

federal agencies are required by law to establish a separate affirmative action program for disabled veterans to promote their "maximum of employment and job advancement opportunities."[78] In fiscal year 2005, 92,642 disabled veterans were employed in non-postal federal jobs—an 18% increase since 2001. An additional 63,456 disabled veterans were employed in postal jobs. Reflecting an overall decline in postal employment, this number was down 18% since 2001.[79]

The Department of Labor's Veterans Employment and Training provides funding through grants to the states ($225 million in fiscal year 2006) to hire staff to assist veterans in finding employment:

- Disabled Veterans Outreach Program specialists work from VA facilities, state or local veterans service offices, or nonprofit agencies. They act as case managers for veterans with a serious employment handicap and work with DoD and VA, employers in the veteran's community, Veterans Service Organizations, and others to identify appropriate training and employment opportunities. They also follow up with veterans who find jobs and their employers to assist in job retention.
- Local Veteran Employment Representatives are state employees who work in local state employment offices and assist veterans with all the employment services provided by these offices.

The grants carry a requirement to give "special disabled veterans"[80] preference in referrals to potential employers.

The Workforce Investment Act of 1998 authorized a network of community One-Stop Career Centers around the country. The Department of Labor coordinates with other federal agencies, state and local employment boards, and other public and community-based organizations to operate offices where people can receive or be referred to all the qualified education, training, and employment services in the area. There are currently 3500 Centers and an online portal (Career One Stop). Combined, 62 percent of service members, including those in transition, entered employment and most retained it.

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[78] Section 4214 of Title 38, United States Code.

[79] U.S. Office of Personnel Management, Report to the Congress: The Employment of Veterans in the Federal Government: FY 2005, November 2006.

[80] **Special Disabled Veteran -** A Veteran (see definition above) entitled to disability compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the U.S. Department of Veterans' Affairs for a disability:

- Rated at 30 percent or more; or
- Rated at 10 or 20 percent in the case of a veteran who has been determined by the U.S. Department of Veterans' Affairs to have a serious employment handicap under Chapter 31, Training and Rehabilitation for Veterans with Service Connected Disabilities; or
- A person who was discharged or released from active duty because of a service connected disability.

Employers have incentives to hire veterans from the VA's Vocational Rehabilitation and Employment Program, who are eligible for special incentives in addition to incentives that apply to all veterans. Incentives offered by VA include:

- **VA On-the Job Training Program:** VA supplements entry wages for disabled veterans hired through the Vocational Rehabilitation and Employment program. The employer pays an apprentice wage and VA increases the wage to the journeyman level. The employer is eligible for the federal Work Opportunity Tax Credit (see below).
- **VA Special Employer Incentive Program:** Employers who hire veterans judged to have extraordinary obstacles to employment are reimbursed for up to 50% of the veteran's pay for up to six months and also qualify for the federal Work Opportunity Tax Credit.
- **VA Non-Paid Work Experience Program:** This program places veterans in local, state, or federal government agencies to gain particular skills and, hopefully, obtain a permanent position in the agency. VA pays the veteran its standard monthly subsistence allowance for trainees.

Other federal incentives include:

- **Architectural / Transportation Tax Deduction:** Businesses can deduct up to $15,000 per year to make facilities or work vehicles more accessible and usable by disabled persons.
- **Disabled Access Credit:** Small businesses that incur expenses to provide access to persons with disabilities can take a tax credit of 50% of costs per year above $250 and up to $5125. The expenses must be necessary for compliance with the Americans with Disabilities Act.
- **Veterans Job Training Act:** VA provides training costs incurred by employers who hire long-term unemployed veterans. This program currently applies only to veterans from the Korean and Vietnam eras; it will likely be extended to veterans of the current war when the time comes.
- **Work Opportunity Tax Credit:** One-time tax credit of up to $2400 for businesses that hire individuals with disabilities who have completed or are in the process of completing rehabilitative services, including the VA's.

Federal contractors must comply with several veteran hiring provisions. Contractors and subcontractors must list all job openings with state employment offices, file an annual report on veteran employment, and have an affirmative action plan that addresses disabled veteran hiring.

To raise employer and veteran awareness of these programs and incentives for veteran employment, the Jobs for Veterans Act in 2002 established the President's National Hire Veterans Committee within the Department of Labor. The committee brings together representatives from private employers, organized labor, and service organizations with officials from the Small Business Administration, Office of Personal Management, United States Postal Service, VA, DoD, and Department of Labor; most of the members are veterans themselves.

Roughly half of service members injured in Iraq and Afghanistan are reservists, most of whom took leave from a civilian job when they were called to active duty and deployed. The Uniform Services Employment and Reemployment Rights Act (USERRA) requires that civilian employers rehire reservists after they return from deployment in the same or comparable position and precludes employment discrimination based on military service, particularly in the Guard and Reserve. The National Committee for Employer Support of the Guard and Reserve, operated within the Office of the Secretary of Defense, educates Reserve component members and civilian employers about the provisions of USERRA and assists in the resolution of conflicts arising from an employee's military commitment.

PREVIOUS RECOMMENDATIONS AND REPORT FINDINGS

The 1999 report of the Congressional **Commission on Servicemembers and Veterans Transition Assistance** reviewed the many programs and services that assist service members making the transition to civilian life. Among the Commission's recommendations was one that has not so far been implemented:

- DOL, DoD, and VA should establish a customized, separate Veterans and Servicemembers Internet Site (VASIS) on the Department of Labor's web site.[81]

In 2004, the **VA Task Force on Vocational Rehabilitation and Employment** was convened to analyze and assess the VA's Vocational Rehabilitation and Employment program. It concluded that "over the past decade, the Veterans Benefits Administration (VBA) has reduced its focus on the ultimate VA mission of returning veterans with service-connected disabilities to the workforce and the preeminent role of vocational rehabilitation in achieving that goal." The task force recommended reorganization and increased staffing to support the following actions:

- Streamline eligibility and entitlement for those veterans in most critical need,
- Replace the current vocational rehabilitation and employment process with a five-track employment-driven service delivery process,
- Expand counseling benefits to provide VR&E services to service members before they leave military service and veterans,
- Improve the capacity of the information technology systems and
- Develop online systems for job placement instead of relying on other agencies' systems,
- Improve intra-and interagency coordination within VA and with DoD, the Department of Labor, and the states,
- Implement a long-term research and program evaluation agenda to assess the life cycle outcomes of the vocational rehabilitation program.

[81] This targeted web site would be similar to MonsterTRAK, which assists college students and recent alumni as they transition from school to the job market. The website includes job listings, a resume database, statistics about the jobs being offered and accepted, job fair and campus interview schedules, and a network of mentors. The President's National Hire Veterans Committee maintains a web site with links to existing employment resources (www.HireVetsFirst.gov) but it is not the full-service site envisioned in the 1999 report.

A 2005 **Government Accountability Office** (GAO) report on DoD reviewed VA's ability to expedite vocational rehabilitation and employment services for seriously injured service members.[82] The report notes that the recovery process differs substantially across patients with similar injuries and, for many, prospects for return to duty may be uncertain for some time. Under these circumstances, determining when to approach injured service members about these VA services is not straightforward. GAO recommended that:

- VA and DoD should reach an agreement about providing information that VA needs to promote the recovery and return to work of seriously injured service members,
- The need for VA to develop policies and procedures for regional offices to maintain contact with seriously injured service members who do not initially apply for vocational rehabilitation and employment services.

In light of the GAO recommendations, VA and DoD signed an agreement in June 2005 to lay the groundwork for sharing data and improving their assistance to seriously injured service members, including reservists, as they transition to civilian life.

The 2007 **Presidential Task Force on Returning Global War on Terror Heroes** made the following employment related recommendations:

- Increase attendance at TAP and DTAP Sessions.
- Department of Education staff participate in Department of Labor-sponsored job fairs
- Integrate the "Hire Vets First" Campaign into existing job and career fairs.
- Improve civilian workforce credentialing and certification.
- Train active duty, Guard and Reserve personnel on the Uniformed Services Employment and Reemployment Rights Act (USERRA)
- Develop a financial education module for transitioning service members on the benefits
- Increasing Employment Within The Federal, State, Private and Faith Based Sectors

WHAT THE COMMISSION LEARNED

Other studies find that disabled veterans are slightly less likely to be working than their non-disabled counterparts and, among workers, disabled veterans earn somewhat less. Almost all of these differences are concentrated among veterans with a VA disability rating above 50%.[83] These veterans make up more than one-third of the Vocational Rehabilitation and Employment program's caseload—about the same fraction that are under age 30

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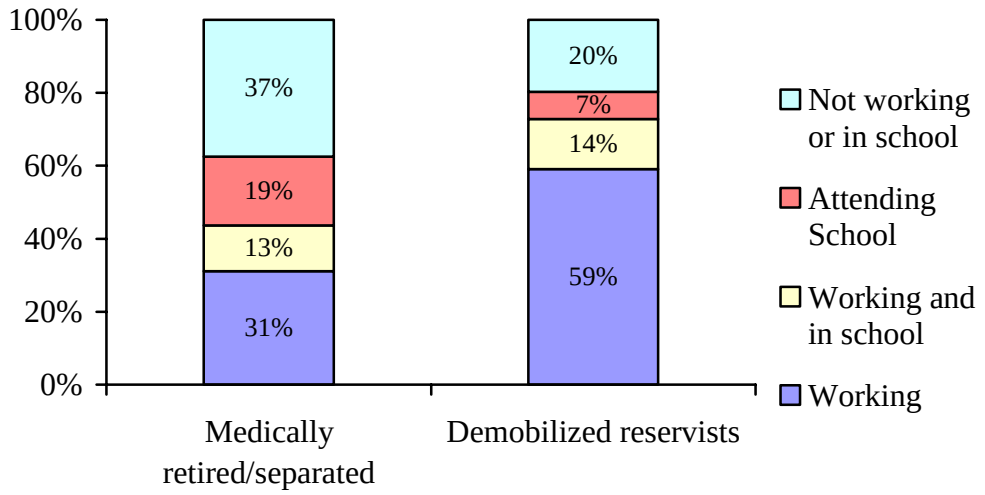
[82] U.S., Government Accountability Office, GAO-05-167. *Vocational Rehabilitation: More VA and DoD Collaboration Needed to Expedite Services for Seriously Injured Servicemembers*, January 2005.

[83] Buddin, Richard J. and Kanika Kapur. *An Analysis of Military Disability Compensation*, MG-369-OSD, RAND Corporation, 2005; U.S., Bureau of Labor Statistics, *Employment Situation of Veterans: August 2005*, news release, May 26, 2006; U.S., Bureau of Labor Statistics, *Employment Situation of Veterans Summary*, USDL 06-897, 2006.

The survey fielded for this Commission also found relatively high employment rates even for those who were medically evacuated to the U.S. and subsequently left active service (Figure 1). The employment and school attendance rates were similar for veterans in their first and second years post-service.

Figure 1—Employment and School Attendance for OIF/OEF Veterans and Demobilized Reservists, PCCWW Survey



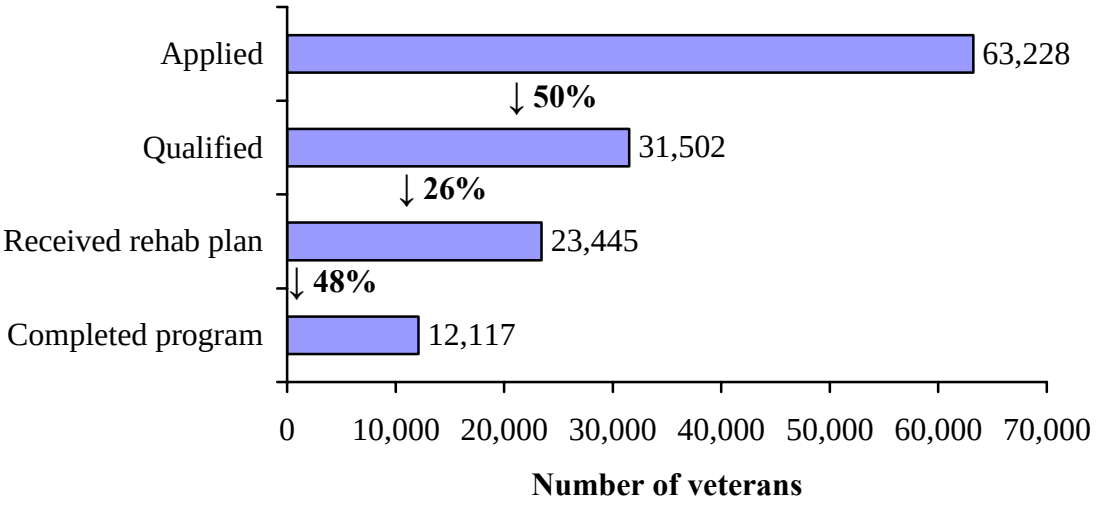
The VA Task Force on Vocational Rehabilitation and Employment found that VA data on program participants could not support an evaluation of program outcomes over time. Studies of other vocational education programs have found that they can substantially improve employment outcomes in the first few years.[84] For men with musculoskeletal and mental health disabilities, a $1 investment by the public in federally subsidized state vocational rehabilitation has been estimated to return $3 in (discounted) future earnings.

Each year, about 65,000 veterans apply for the VA's Vocational Rehabilitation and Employment program (Figure 2). Historically, most applicants were seeking the program's generous education and training benefits—more generous than the benefits available through the GI Bill. All program participants must be judged to have an employment handicap, but for many participants their goal is to improve their employment opportunities and earnings. As the 2004 Task Force on Veterans Vocational Rehabilitation and Employment observed, many more veterans apply for the program than are accepted and dropouts are relatively common over the course of a program that traditionally averaged three or more years to complete. The task force anticipated that its five-track employment program, individually tailored to the veteran's goals, would

[84] Jellinek HM and Harvey RF. "Vocational/Educational Services in a Medical Rehabilitation Facility: Outcomes in Spinal Cord and Brain Injured Patients." *Archives of Physical Medicine and Rehabilitation 63*, 87-88, 1982. Dean, DH, RC Dolan, RM Schmidt. "Evaluating the Vocation Rehabilitation Program Using Longitudinal Data: Evidence for a Quasiexperimental Research Design" *Evaluation Review 23*, 162-89, 1999.

decrease the dropout rate. VA data for fiscal year 2006 show that about half of the applicants qualify for the program and fewer than 40% of qualified veterans complete the program. These statistics differ little from the statistics quoted in the task force report for 2003.

Figure 2—Vocational Rehabilitation and Employment Program Statistics, Fiscal Year 2006



Three-quarters of the disabled veterans who complete the Vocational Rehabilitation and Employment Program are on a job track rather than an independent living track. Over 90 percent found jobs, most in the private sector (Figure 3) where their monthly pay averaged almost $3000 (Figure 4). The most lucrative jobs were in the federal government, where 12% found a position.

The earnings for veterans who complete vocational rehabilitation appear to compare favorably with earnings achieved through the state vocational rehabilitation programs that serve the general population with disabilities.[85] However, earnings for the state programs were measured three years after completion, whereas the VA data are initial earnings. Both employment and earnings outcomes have been shown to slip over time and disabled workers may find that their ability to perform their jobs is limited.[86] VA does not routinely track vocational rehabilitation participants over time to evaluate program outcomes and identify factors associated with success. Therefore, it is difficult

[85] Hayward, BJ and H Schmidt-Davis, *Longitudinal Study of the VocationalRehabilitation Services Program, Final Report: VR Services and Outcomes*, RTI International, May 2003.
[86] Butler, RJ, WG Johnson, and ML Baldwin, "Managing Work Disability: Why First Return to Works is Not a Measure of Success," *Industrial and Labor Relations Review*, 48:3, April, 1995. MacKenzie EJ, MJ Bosse, JF Kellam, et al. "Early Predictors of Long-Term Work Disability after Major Limb Trauma. *Journal of Trauma 61*, 688-94, 2006. Pezzin, LP, TR Dillingham, and EJ MacKenzie. "Rehabilitation and the Long-Term Outcomes of Persons with Traum-Related Amputations." *Archives of Physical Medicine and Rehabilitation 81*, 292-300, 2000.

to assess the patchwork of programs and hiring incentives described earlier. We cannot determine whether these programs are allowing disabled veterans to reach their full potential after they return to civilian life.

Figure 3—Sector Where Veterans with Disabilities Found Employment, FY 2006

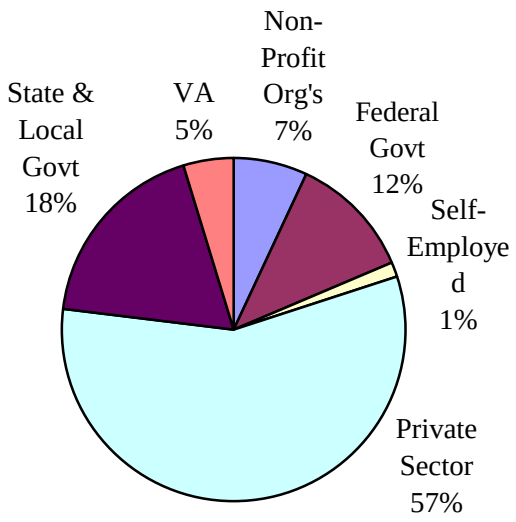


Figure 4—Average Monthly Pay Offered to Veterans with Disabilities by Sector, FY 2006

Although not definitive, the evidence points to the effectiveness of vocational rehabilitation in improving employment opportunities for the disabled and the benefits of early intervention. VA's Vocational Rehabilitation and Employment program appears to have good results with those veterans who are eligible for and complete the program. However, of the 65,000 veterans who apply for the program each year, at most 10,000 of all ages complete the employment track in the program each year (another 2,000 or more complete the independent living track). Including a vocational rehabilitation plan in the recovery plan outlined by this Commission's Subcommittee on the Continuum of Care

may lead to more injured service members benefiting from the VA's program. This could be accomplished by expanding the Coming Home to Work program that provides vocational evaluation and assistance to injured service members in eight military treatment facilities. Some other disability systems in the U.S. and overseas require participation in vocational rehabilitation, where it is likely to be beneficial, for continued receipt of disability compensation.[87] This would be a dramatic departure in policy for disabled veterans, however.

On the surface, it appears likely that expanding eligibility for the program and improving the completion rate would be highly cost-effective, substantially improve long-term outcomes for injured service members, and decrease the substantial lifetime earnings losses experience by the most severely disabled veterans. More systematic collection of information on the life course of disabled veterans and the employers who hire them will be needed to develop the most effective strategy for vocational rehabilitation and employment.

ACTION STEPS

The Commission believes that the public investment in education, training, and employment services for injured service members should be increased and incentives should be provided to encourage veterans to complete their education and training programs. Veterans who have been injured in service to their country should be given the education or training they need for the most complete life recovery possible and help finding a job.

Action Step: VA should intervene early to plan for and provide education, training, and employment services for injured service members.

- The recovery plan for seriously injured service members should include an initial vocational rehabilitation plan based on a vocational evaluation by a VA counselor as early as the member's medical condition allows.
- Vocational services should begin as early as possible, whether or not the service member is still on active duty and be closely coordinated with the state employment and veteran agencies where the service member will live.
- VA vocational staffing and location must be adequate to support early intervention.

Action Step: VA should make the following modifications in its Vocational Rehabilitation and Education program to improve completion rates:

- Extend the maximum number of months for a veteran who attends part-time (up to 72 months), with approval of their Recovery Coordinators and vocational counselor
- In addition to providing financial support for participants through transition pay (as described in the Subcommittee Report on Disability Evaluation and

[87] U.S., General Accounting Office, GAO-01-153. *SSA Disability: Other Programs May Provide Lessons for Improving Return-to-Work Efforts*, January 2004.

Compensation), pay a retention bonus equal to 10 percent of annual transition pay for completion of the first and second years and 5 percent for completion of the third year.

Action Step: VA should institute a quality improvement program for vocation rehabilitation involving systematic collection of data on employment and earnings of disabled veterans over time and employer hiring practices. Through regular program evaluation and well-designed experimental interventions, VA should evaluate its methods for identifying candidates for vocational rehabilitation and employment services, retaining them in the programs, and providing incentives for employers to hire them.

DISABILITY EVALUATION & COMPENSATION

THE CHALLENGE

The current disability evaluation and compensation systems within the Departments of Defense and Veterans Affairs were developed after World War II. Their methods for rating the level of an injured service member's disability need to be updated. DoD's disability evaluation process appears to have multiple objectives and can be overly complicated; VA's system compensates for the inability to earn what a non-disabled veteran earns. The two systems provide different amounts of compensation for the same injury, based on their different approaches to rating disabilities. The procedures for obtaining benefits have, over many years, become overly bureaucratic, hard to navigate, and confusing for some. Injured service members who received excellent medical care on the battlefield and in the acute care hospital setting sometimes find themselves in a maze of disability policies and procedures.

BACKGROUND

A service member who is injured and cannot continue in military service navigates the military disability system and then the VA disability system. Each system rates the member's disability level and each has a disability compensation package. Most service members can receive disability compensation from only one department. This section first describes the military and VA evaluation (rating) systems and then the compensation systems.

DoD's Physical Disability Evaluation System

The Secretaries of each branch of the military have the authority to develop systems to assess whether service members are capable of carrying out the activities of their military occupation (Figure 1). Service members deemed "unfit" to carry out these activities are given a disability rating from zero to 100 percent (in 10 percent increments), based on the condition or conditions that make them unfit for duty. They are then discharged from the military into one of three categories:

- Medical separation: 0-20% rating
- Temporary disability retirement: 30-100% rating, but level of impairment may change
- Permanent disability retirement: 30-100% rating and level of impairment is stable.

The Department calculates the disability compensation that members will receive based upon either years of service or percent disability rating; the final rating is permanent.

The disability evaluation process generally begins at a military treatment facility, after medical personnel determine that a service member has received the maximum

benefit from medical care for his or her injuries. At that point, the member undergoes a complete physical examination, the results of which are summarized in a written report to a **Medical Evaluation Board**, which typically includes at least two physicians from the military treatment facility. The Board receives additional information from the service member's commanding officer, addressing his or her ability to perform assigned duties, and, if necessary, evidence that the injury was not due to the member's own misconduct. The report from the medical examination conducted when the member entered service is included in the package, if it is available. If the member fails to meet general medical standards for continuing in service, the Medical Evaluation Board refers the case to the **Physical Evaluation Board.**

This Board determines the member's specific fitness for continued military service. The standard for determining fitness is whether the medical condition precludes the member from reasonably performing the duties of his or her military occupation and rank.[88] For those found unfit, the Board further determines whether the member qualifies for medical separation or retirement and, if so, assigns a disability rating based on the **Veterans' Affairs Schedule for Rating Disabilities**. Only the medical conditions affecting fitness are rated. Membership on the Physical Evaluation Board varies by service, but generally includes a physician and two line officers or civilian equivalents. The initial Board review is considered informal. Service members who do not concur with its findings may request reconsideration and submit new medical information or additional supporting evidence. If found unfit, they may demand a formal Physical Evaluation Board hearing and, if found unfit again, may petition the Secretary of their Service for relief.

Physical Evaluation Board Liaison Officers are available at all military treatment facilities to counsel service members on their legal rights and benefits during each step of the disability evaluation process. These liaison officers inform service members of the Physical Evaluation Board's findings and help them complete an "election of options" form, indicating whether they accept the Board's findings. The liaison officer then notifies the Board as to how members have decided to proceed. Liaison officers receive annual training, but at present that training is not standardized, and there is no certification program.

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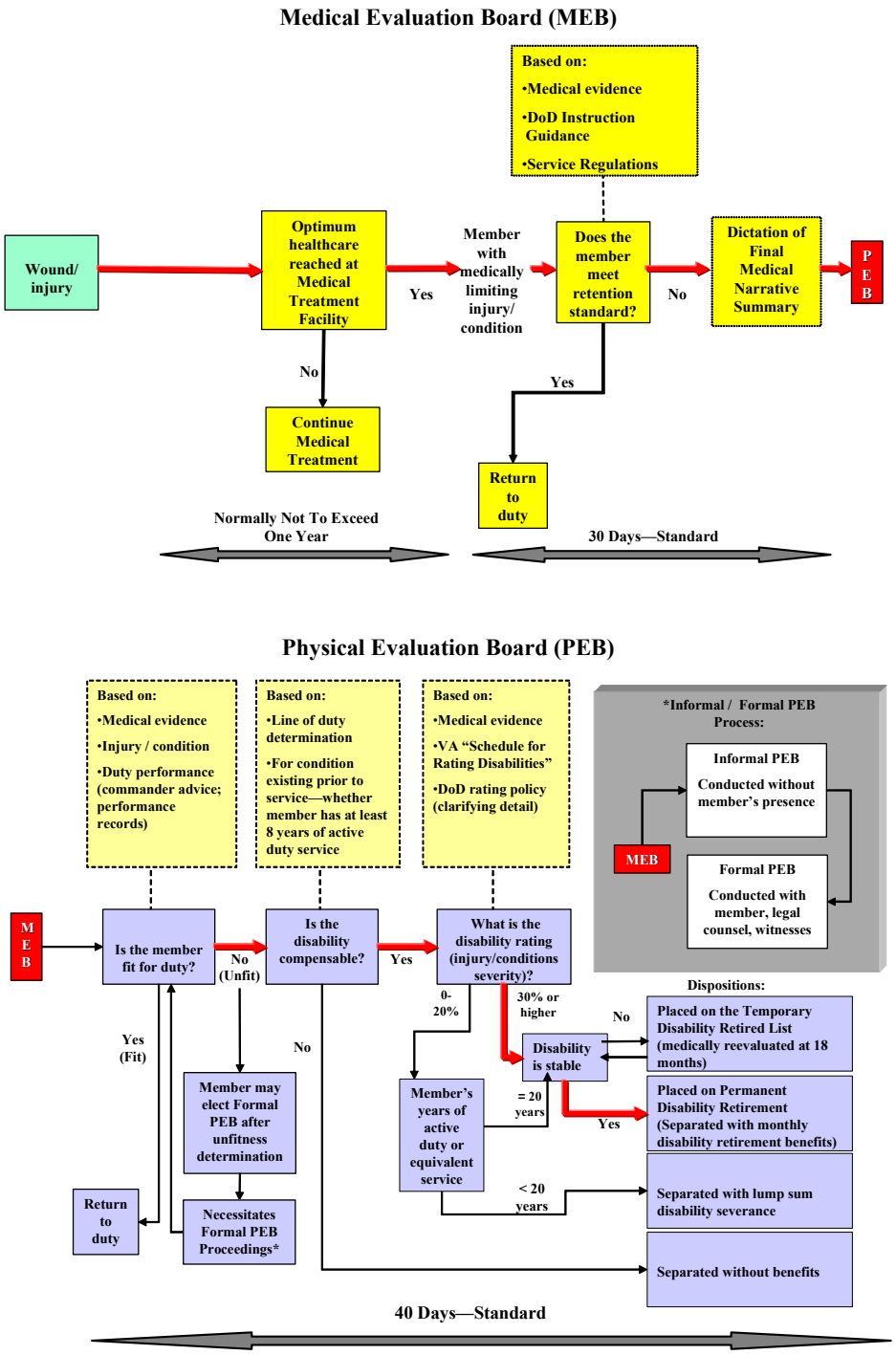
[88] DoDD 1332.18 states: "The sole standard to be used in making determinations of unfitness due to physical disability shall be unfitness to perform the duties of the member's office, grade, rank or rating because of disease or injury." The Directive also specifies the requirements for medical separation and retirement. For members with less than eight years of service, the medical condition must have arisen during service after 30 days or in the line of duty during the first 30 days. If they have more than eight years' active service, they are eligible for disability compensation, even if the disabling condition existed prior to service. Conditions must be permanent and not the result of misconduct or neglect.

Figure 1—DoD Disability Evaluation System



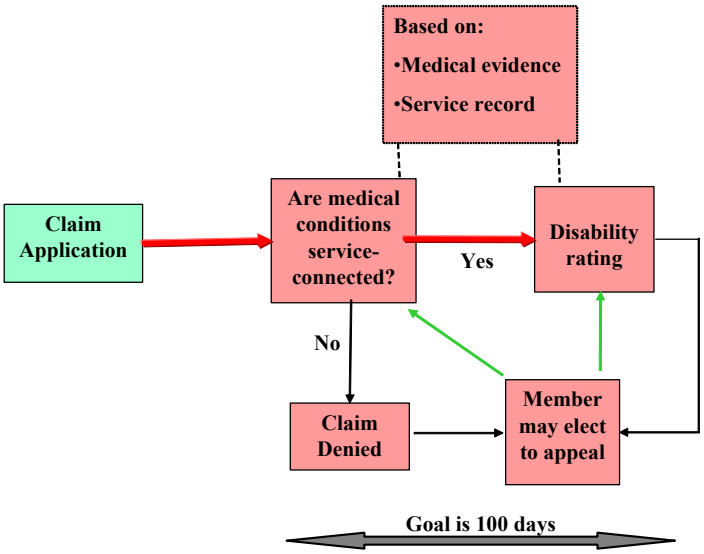
Note: Modified from Commission presentation, Mr. William Carr, Principal Director, Military Personnel Programs, April 14, 2007.

VA's Disability Claims Process

When a veteran files a VA disability claim, the VA's disability evaluation system is set in motion (Figure 2). VA is required by statute to obtain evidence supporting the claim, and claimants may need to undergo a physical examination. VA's rating decision determines whether a claimed disability is service-connected, its severity, and its effective date. VA rates service-connected medical conditions that are service connected, as well as conditions that might have been aggravated by military service. Unlike DoD's rating, VA's rating is not permanent and may be adjusted over time as a veteran's condition improves or worsens.

Approximately 80 percent of all service members who go through DoD's Physical Disability Evaluation System also file a VA claim. VA claims may be filed any time after discharge. Claims by veterans of Iraq and Afghanistan are given top priority for processing, and VA is meeting its goal to complete these claims within 100 days. Veterans who have a single-disability rating of 60 percent or more, or a combined-disability rating of 70 percent or more, and who are unable to work receive compensation at the 100 percent level. Over the past decade, the number of veterans rated **unemployable** has more than tripled.[89]

Figure 2—VA Disability Evaluation System



[89] U.S., Government Accountability Office. *Veterans' Disability Benefits: VA Should Improve Its Management of Individual Unemployability Benefits by Strengthening Criteria, Guidance, and Procedures.* GAO-06-309, May 30, 2006. Available at http://www.gao.gov/new.items/d06309.

A joint VA/DoD initiative, the **Benefits Delivery at Discharge Program,** helps medically separating or retiring service members file for VA service-connected disability compensation up to 180 days before they are discharged. The program is intended to provide a smooth transition into the VA health care system and enable prompt receipt of VA disability compensation. About half of the service members who might be eligible for the program file their claims this way, according to VA.

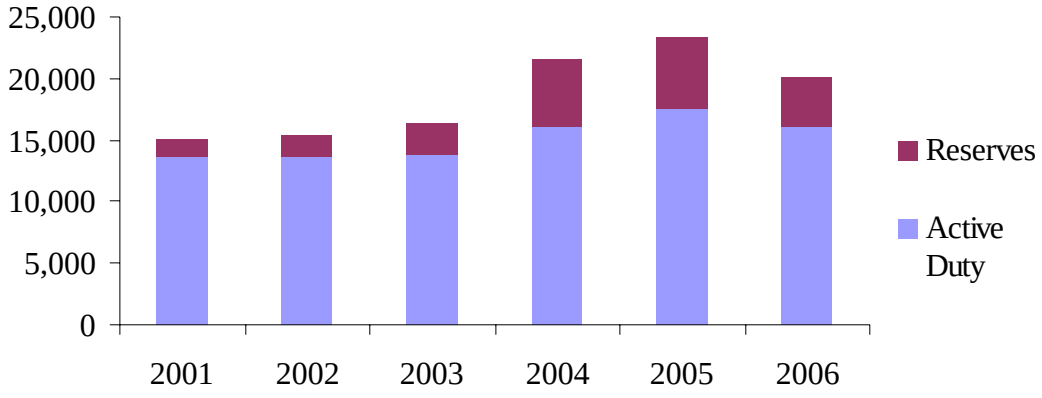
VA and DoD agreed in November 2004 on specific criteria to establish a **single medical examination** at the time of separation from the military. This cooperative examination was intended to improve the quality of service, provide a single portal for establishing eligibility for all benefits to which the veteran is entitled, and enhance the efficiency of the claims process. Local agreements between military installations and VA facilities to implement the single medical examination have been signed at almost all locations, but we could find no data to show how many separating service members complete DoD and VA disability processing with a single medical examination.

Volume of Cases and Timeliness

The volume of disability cases handled by DoD's Physical Evaluation Board system increased 55 percent across all Services between 2001 and 2005 (Figure 3) and then dropped in 2006. The Army has had the largest gain, driven by an almost seven-fold increase in cases for members of the Guard and Reserve Components.

DoD standards call for the Medical Evaluation Board and the Physical Evaluation Board to be completed in 70 days. But, in fiscal year 2005, the Army process exceeded 90 days for 26 percent of active-duty personnel and 52 percent of Guard/Reserve members.[90]

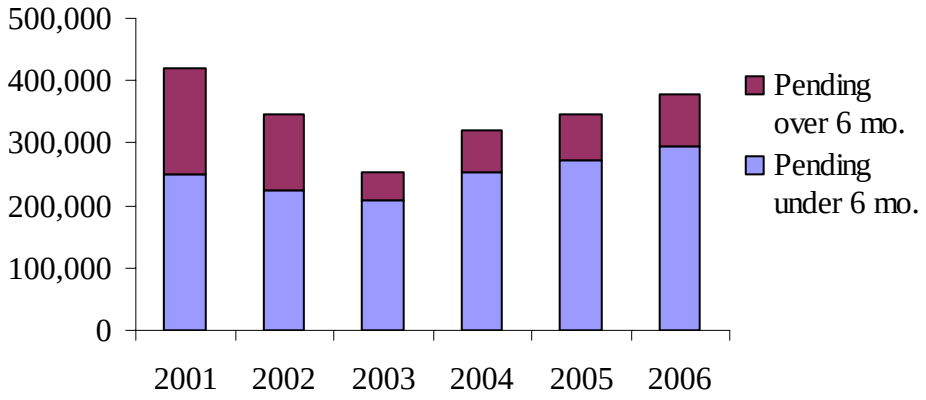
Figure 3—Number of Cases in the Physical Evaluation Board System, 2001-2006



[90] U.S., Government Accountability Office. *Military Disability System: Improved Oversight Needed to Ensure Consistent and Timely Outcomes for Reserve and Active Duty Service Members.* GAO-06-362, March 31, 2006. Available at http://www.gao.gov/new.items/d06362.

In 2006, 806,000 VA claims were filed (Figure 4); only about one-fourth of these were first time or new claims. Between 2001 and 2003, the number of VA claims pending decreased 40 percent, and the number of claims pending for more than six months decreased by almost three-fourths. This progress, however, was stopped by a 2003 court decision which required that VA allow a year for veterans to submit all claim related information before reaching a final determination.[91]

Figure 4—Number of Cases in the VA Disability Claims System, 2001-2006



The growing VA claims workload has caused the average number of days required to process a claim to reach 180. Veterans who appeal their decisions can expect to lengthen the process by, on average, another 657 days[92]—well over two years. The Benefits Delivery at Discharge, described earlier, has been effective in expediting VA claim processing; in fiscal year 2006, it took an average of only 68 days to complete a claim under this program. Since the member is still on active duty, the ready availability of complete medical information facilitates claims review.

VA Schedule for Rating Disabilities

The current VA **Schedule for Rating Disabilities** is the latest in a long list of disability rating schedules dating back to 1921. A 1945 revision is the basis for today's schedule. DoD and VA both use this schedule to evaluate disabilities resulting from diseases or injuries incurred in, or aggravated by, military service. The schedule lists more than 700 disabilities in 15 body systems and provides evaluation criteria for each. The schedule's rating outcomes range between zero and 100 percent, at 10-point increments, depending on severity.

In 1988, the General Accounting Office (later the Government Accountability Office) reported that there had been no comprehensive review of the disability rating

[91] *Paralyzed Veterans of America* et al. v. *Secretary of Veterans Affairs*, U.S. Court of Appeals for the Federal Circuit, 02-7007,-7008,-7009,-7010, decided September 22, 2003.

[92] U.S., Government Accountability Office. "Processing of Claims Continues to Present Challenges." Testimony before President's Commission on Care for America's Returning Wounded Warriors, March 13, 2007.

schedule since 1945, and that the schedule contained outdated terminology, ambiguous classifications, and criteria that threaten consistency in ratings.[93] GAO recommended that VA thoroughly review the schedule and establish a process for systematic review and updating. VA followed up on the recommendation, and over the past 20 years, ratings for 12 of 15 body systems have been revised. The three unrevised body systems account for a disproportionate number of claims, however.

HOW DISABILITIES ARE COMPENSATED

DoD Disability Compensation

A service member's disability rating determines whether he or she receives lifelong **disability retirement** payments or a lump-sum **disability severance** payment. Service members with a zero, 10 or 20 percent disability rating and less than 20 years' service receive a lump-sum payment upon separation from the military. The payment equals twice the number of years served multiplied by monthly base pay at separation. Those with combined disability ratings of at least 30 percent or who have at least 20 years of service, regardless of the percentage rating, receive disability retirement compensation. The monthly benefit is the higher of two calculations, where the base pay amount used is an average over 36 months prior to discharge:

- Disability rating % multiplied by monthly base pay, *or*
- Years of service (up to 12) times 2.5% times monthly base pay.

Disability retirement pay is capped at 75 percent of base pay.[94] DoD also provides a lifetime TRICARE benefit to veterans with disabilities rated at 30 percent or higher or who have at least 20 years of service, regardless of the disability rating percentage. DoD disability pay is taxable unless the medical condition is combat-related.

Table 1 provides approximate disability pay for enlisted personnel and officers at different levels of experience and with different medical conditions. The examples are the same ones used in a recent GAO report comparing disability compensation for military personnel with disability compensation for public safety officers across the nation.[95] The table assumes only one unfitting medical condition in each case; many of the most serious injured personnel would have more than one condition that would be rated. The values are only approximate because the table uses the current level of base pay for calculating disability retirement pay. In reality, the calculation would be based on base pay over the past 36 months. Nevertheless, the table provides a reasonable picture of how disability pay changes across medical conditions and personnel with different ranks and years of service. Since all the calculations are based on monthly base pay,

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[93] U.S., Government Accounting Office. *Veterans' Benefits: Need to Update Medical Criteria Used in VA's Disability Rating Schedule.* HRD-89-28, December 29, 1988. Available at http://www.gao.gov/cgi-bin/getrpt?.

[94] While on the temporary disability retirement list, discharged personnel receive an amount equal to their disability rating times base pay, with a minimum of 50 percent.

[95] U.S., Government Accountability Office. *Disability Benefits: Benefit Amounts for Military Personnel and Civilian Public Safety Officers Vary by Program Provisions and Individual Circumstances.* GAO-06-4, April 7, 2006. Available at http://www.gao.gov/new.items/d064.

officers receive more than enlisted personnel and senior personnel receive more than junior personnel.

Table 1—Monthly DoD Disability Compensation for Selected Cases

Medical Condition	Years of Service	Enlisted Rank	Enlisted Compensation	Officer Rank	Officer Compensation
Tinnitus—10% rating	1	E-2	$2,900*	O-1	$4,900*
	6	E-5	$27,900*	O-3	$55,200*
	12	E-6	$72,000*	O-4	$141,200*
	22	E-9	$3,000	O-5	$4,400
Amputation below knee—40% rating	1	E-2	$ 580	O-1	$ 990
	6	E-5	$ 930	O-3	$1,840
	12	E-6	$1,200	O-4	$2,350
	22	E-9	$3,000	O-5	$4,400
Quadriplegia—100% rating	1	E-2	$1,090	O-1	$1,850
	6	E-5	$1,740	O-3	$3,450
	12	E-6	$2,250	O-4	$4,410
	22	E-9	$3,800	O-5	$5,530

* Amounts shown in blue are lump-sum severance payments; these service members get no monthly pay check.

VA Disability Compensation

Veterans given a VA disability rating of 10 percent or higher can receive monthly compensation from the Department of Veterans Affairs. The base amount of the payment depends on the percent rating and family status—whether the veteran has a spouse and dependents, including parents, and the ages of any children. Congress authorizes the payment amounts annually. VA disability compensation is tax free. The basic compensation rates for single veterans and veterans with a spouse and two children amounts are plotted in Figure 5. Compensation increases with disability level, with a sharp increase from the 90 percent to the 100 percent level. The added amounts for dependents are very modest.

VA also increases the amount provided to veterans with specific impairments through a schedule of Special Monthly Compensation payments. These may add only a modest amount to the basic compensation level, but the most severely impaired veterans can receive almost $7500/month.

Figure 5— Monthly VA Basic Disability Compensation

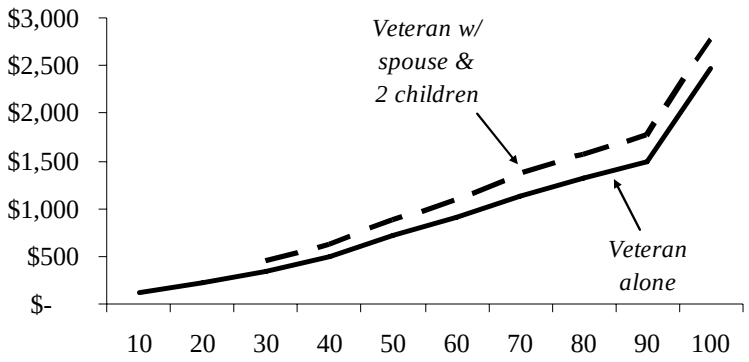


Table 2 shows VA compensation for the same cases used in Table 1 (showing DoD compensation). VA varies its compensation with disability rating level and the number of family dependents, but not with military experience or rank, as DoD does.

Table 2– Monthly VA Disability Compensation for Selected Cases

Medical Condition	Dependents	Basic Amount	Total with Special Monthly Compensation
Tinnitus—10% rating	Any[a]	$ 115	$ 115
Amputation below knee—40% rating	None	$ 501	$ 590
	Spouse	$ 556	$ 645
	Spouse, 2 children	$ 625	$ 714
Quadriplegia—100% rating	None	$2471	$6164
	Spouse	$2610	$6303
	Spouse, 2 children	$2781	$6474

[a]Compensation for veterans with disabilities rated at 10% or 20% do not include additional amounts for dependents.

The law pertaining to VA disability programs specifies that VA's disability ratings should be based on "average impairments of earning capacity resulting from such injuries in civil occupations,"[96] implying that VA compensation should replace lost earnings capacity.

[96] Title 38, U.S.C., Section 1155.

A recent study loss compared survey data on labor force participation and earnings of military retirees with and without a service-connected disability.[97] Military retirees with disabilities rated 50 to 90 percent are less likely to work and work fewer hours than nondisabled retirees. Disabled retirees rated at 100 percent work even less. Conversely, the research shows very little difference in labor force participation or hours for those with lower disability levels. Generally, full-time work yields relatively comparable earnings for disabled and nondisabled retirees. Earnings are lower for individuals at higher disability ratings primarily because of their lower labor force participation rates. Finally, the research showed that VA disability compensation failed to make up for the modest earnings loss at lower disability ratings and more than made up for earnings loss at higher disability ratings, after accounting for the tax exemption.

Various other benefits VA provides—for example, vocational rehabilitation, retraining, and job counseling—are designed to increase disabled veterans' ability to function and work. These various benefits have different eligibility requirements. For health care, a veteran's disability rating determines the priority group he or she falls into and thereby affects eligibility for enrollment, priority for care, and out-of-pocket costs.

Coordination of DoD & VA Disability Payments

All veterans can apply for VA disability pay. Most veterans who are medically separated or retired cannot receive disability pay from both VA and DoD. They must offset one pay with the other. Veterans who receive the lump-sum severance payment do not receive a VA check until VA pays back the DoD severance pay. For example, an enlisted member who separated after a year with only a 10 percent disability rating would not receive any VA disability pay for about the first two years. An ex-officer with 12 years of service would have to wait more than ten years before seeing a VA check; this veteran might not bother to file a VA claim.

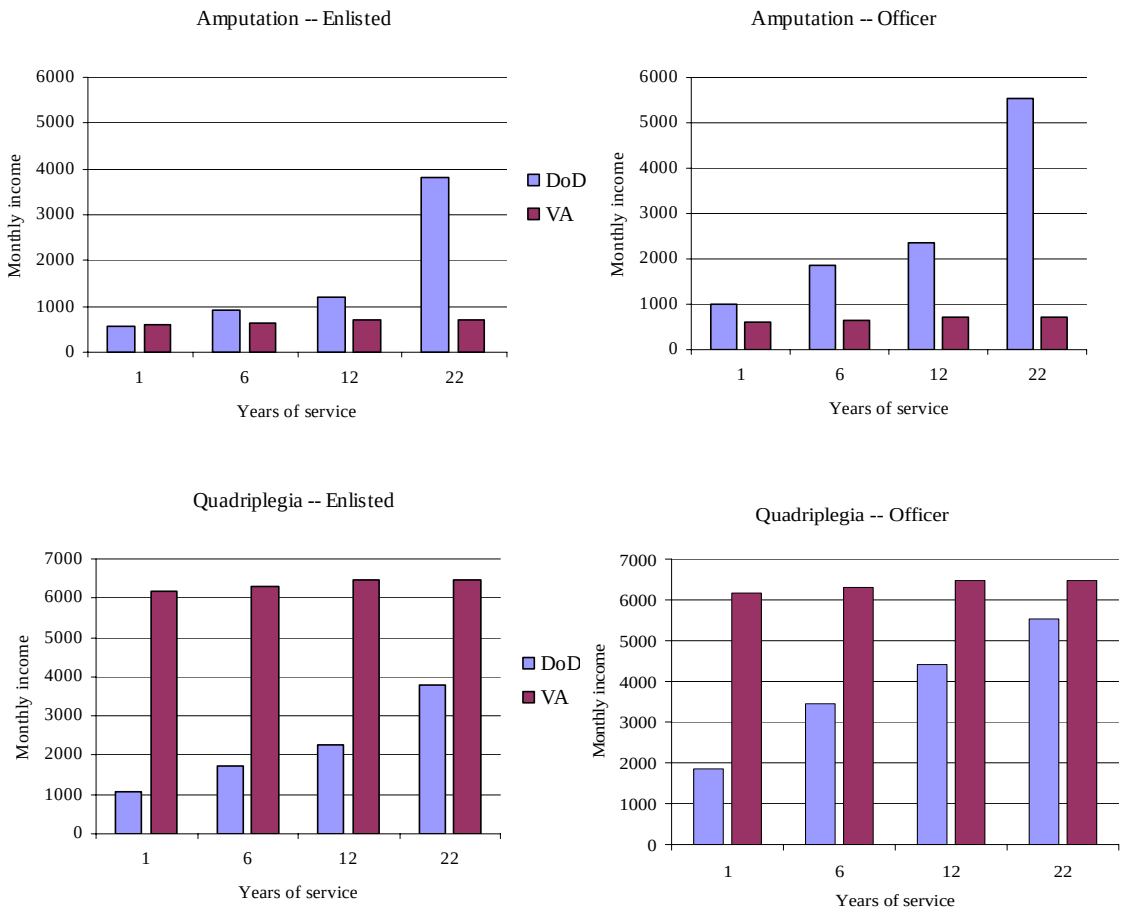
Individuals who are medically retired receive the higher of the two payments. Disabled veterans who have completed 20 years of military service and who have received at least a 50 percent VA disability rating are eligible for *both* DoD and VA disability pay—this is called "concurrent receipt."

Figure 6 illustrates how the two disability compensation systems compare for veterans who were medically retired—in the examples we use, amputees and quadriplegics. In the charts, the higher of the two payments is outlined in black. Except for junior enlisted personnel, DoD disability pay is higher for amputees, whereas Special Monthly Compensation for quadriplegics raises their VA disability pay significantly above their DoD pay. Recall that personnel who reach 20 years of service, have a DoD disability rating at or above 50 percent, and are wounded or injured in the line of duty receive both checks. In the cases shown in Figure 4, only the quadriplegics are eligible for concurrent receipt and they receive a combined annual income of well over $100,000

[97] Buddin, R and K Kapur, *An Analysis of Military Disability Compensation*, Santa Monica, CA: RAND, 2005.

(tax-free). Stepping over the eligibility thresholds for concurrent receipt (50 percent DoD rating and 20 years of service) is worth a considerable amount of money.

Figure 6—Comparison of DoD and VA Disability Compensation for Selected Single Medical Conditions



PREVIOUS RECOMMENDATIONS AND REPORT FINDINGS

The Commission drew on a wealth of information from numerous reports on the veterans' disability system, going back to the 1956 report by the President's Commission on Veterans' Pensions, chaired by General of the Army (Ret.) Omar N. Bradley. Over the years, recommendations similar to those of the Bradley Commission have been made repeatedly.

In 1956, the Bradley Commission concluded that there was *"no clear national philosophy of veterans' benefits."* That Commission's report contains the first clearest statement of goals for veterans' disability benefits programs:

- "Veterans' benefits are one means by which society attempts to ameliorate the human tragedy of war and distribute its burdens….It is clearly a national desire—and fully within our national economic capacity—to do justice by those who were injured or disabled as a consequence of their military service." (page 10)
- "The Government's obligation is to help veterans overcome special, significant handicaps incurred as a consequence of their military service. The objective should be to return veterans as nearly as possible to the status they would have achieved had they not been in military service." (page 4)
- "The rehabilitation of disabled veterans and their reintegration into useful economic and social life should be our primary objective."[98] (page 11)

More recent reports on the military and veterans disability systems have focused on the pressing need for improvement in the system's processes for assessing disabilities, assigning ratings, and determining compensation. Within the DoD disability system, reports issued in spring 2007 by the Army Inspector General and the Independent Review Group (IRG) note that the Services' disability evaluation systems vary significantly in the way they are implemented. The Independent Review Group also found that the various processes are unnecessarily cumbersome and adversarial. It recommended a complete overhaul to create a single DoD-wide Physical Evaluation Board and a common guideline for DoD and VA ratings.

Similarly, the 2003 President's Task Force to Improve Health Care Delivery for Our Nation's Veterans specifically recommended a single discharge examination to document conditions that might indicate a compensable condition[99] and make the transition from DoD to VA more seamless. The Task Force on Returning Global War on Terror Heroes went a step further and recommended "a joint DoD/VA process for disability benefit determinations by establishing a cooperative Medical and Physical Evaluation Board process within the military service branches and VA."[100]

The National Defense Authorization Act for 2004 established the Veterans Disability Benefits Commission and directed it to report on (1) eligibility for disability benefits, and other assistance for veterans and (2) the rates of compensation, including the "appropriateness of a schedule for rating disabilities based on average impairment of earning capacity." The Commission is scheduled to send its report to Congress in October 2007. Although we did not have the benefit of this report, the findings and recommendations of an Institute of Medicine study conducted for the Commission

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[98] The Americans with Disabilities Act of 1990 established similar national goals for all individuals with disabilities: "To assure equality of opportunity, full participation, independent living, and economic self-sufficiency." 42 U.S.C. sec. 12101(a)(8), P.L. 101-336.

[99] U.S., President's Task Force to Improve Health Care Delivery for Our Nation's Veterans. *Final Report*. May 2003, pp. 29-30

[100] U.S., Task Force on Returning Global War on Terror Heroes. *Final Report*. March 2007, p. 4.

provided valuable information and recommendations. The study's findings and recommendations can be summarized as follows:[101]

- Consistent with current models of disability, the veterans' disability compensation program should expand its purpose to compensate for "work disability, loss of ability to engage in usual life activities other than work, and loss in quality of life."
- The VA Rating Schedule is out of date and rates impairments with little or no assessment of a veteran's ability to work, engage in other daily activities, or enjoy quality of life. "VA should immediately update the current Rating Schedule…and devise a system for keeping it up to date." The study recommended adopting a new classification system using standard diagnostic coding systems and either incorporating functional limitation criteria in the schedule or developing a separate mechanism to support compensation for non-work disability.
- Numerous recommendations were directed at improving the implementation of the rating schedule, including better training, access to medical expertise during the rating process, and regular monitoring of consistency in ratings.
- VA should undertake a program of research on the ability of the schedule to predict earnings loss, methods for measuring functional limitation and quality of life, and the outcomes achieved by the services provided to disabled veterans.

WHAT THE COMMISSION LEARNED

Current anecdotal evidence of problems in the care of injured service members focuses heavily on the disability systems of DoD and VA. They and their family members describe a lengthy, hard-to-understand, and difficult-to-navigate process of assessing the individual's extent of disability. Delays in obtaining a VA disability rating can delay receipt of services and benefits. To many, the disability rating systems appear inherently unfair, because of inconsistencies in ratings granted between the different services, the services and VA, and for active-duty versus Reserve or National Guard service members.

From the Service perspective, injured service members unable to perform their duties—but maintained on active-duty status while hospitalized or in rehabilitation—reduce the effectiveness of their units. Given the rapid redeployment turn-around seen in this war, units with injured service members may not be able to replace those members and thus must return to battle shorthanded. The recent formation of an Army Wounded Warrior Regiment, complete with command structure, will allow injured members to be "reassigned," and their units to replace them.

An additional complicating factor is the need for certain service members to remain on active-duty status in order to receive necessary medical and rehabilitation care. This has led to an increase in the amount of time service members spend in medical hold

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[101] Institute of Medicine. *A 21st Century System for Evaluating Veterans for Disability Benefits.* Washington, DC: National Academy Press, 2007.

or medical holdover status, bringing some members closer to 20 years of service. The incentive is to stay until the 20-year mark in order to qualify for full retirement benefits—particularly if the disability rating is less than 30 percent. For others with less time in service, the incentive is to appeal their disability rating to achieve 30 percent or higher in order to also qualify for full retirement benefits.

Earlier studies also have concluded that the disability process needs improvement. These studies, as well as media reports and information gathered during the Commission's meetings and site visits, raised concerns in the following four areas:

- Inadequate and outdated rating schedule
- Inconsistent evaluation processes and ratings outcomes
- Long delays in making determinations and
- Compensation formulas with unclear objectives.

Adequacy of Rating Schedule

As stated earlier, in the current DoD/VA disability systems, **the disability rating** service members and veterans receive determines the health care services, vocational rehabilitation, and other benefits they are eligible for as they recover, become rehabilitated, and adjust to any remaining impairments throughout their lives. The ratings also determine how much they will receive in disability compensation and whether this compensation is one-time-only or lifelong and whether it is tax-exempt.

It has taken 20 years to revise and update 12 of the 15 chapters in the VA disability rating schedule. The slow progress has important implications for service members injured in Iraq and Afghanistan because many of them experience injuries, such as traumatic brain injury and post-traumatic stress disorder, for which the ratings schedule is especially inadequate. The evolving nature of warfare and advances in trauma care change the "signature conditions" associated with new conflicts, and a more rapid and responsive updating and revision of any rating schedule must be a priority.

In its several reports on disability, the Institute of Medicine has stressed the importance of a new **concept** for rating disability.[102] When the Rating Schedule was initially developed, the degree of disability was measured by the degree of impairment. A more comprehensive rating system would:

- Consider disability as the product of a dynamic interaction among a person's health status, environment, and personal context
- Recognize that disability affects more aspects of a person's life than the ability to work and limits all kinds of activity and participation in community and family life and
- Measure the person's ability to function directly instead of inferring it from physical impairments.

VA's rating system, which focuses on limitations or loss of specific bodily parts or functions, does not map well to the more complex understanding of disability that has

[102] The most recent report in the series is Institute of Medicine. *The Future of Disability in America*. Washington, DC: National Academies Press, 2007.

developed over the past few decades. In particular, it does not *directly measure* functional losses relevant to ability to work or participate in other activities.

Consistency of Evaluation Process and Rating Outcomes

Although DoD and VA both use the VA Schedule for Rating Disabilities, the two departments often base their overall ratings on a different set of medical conditions. DoD assigns disability ratings for **service-limiting medical conditions** only, whereas VA ratings take into account **all medical conditions** incurred during or aggravated by military service. For this reason, VA's combined disability ratings for all medical conditions are often higher than DoD's.

For the same medical condition, the ratings should be consistent across and within the departments, because they use the same rating schedule. However, a Center for Naval Analyses comparison of DoD and VA ratings for about 65,000 veterans showed that VA ratings within a year or two of discharge are 20 to 40 percentage points higher than DoD ratings for the same individuals.[103] The higher VA ratings result primarily from the rating of more medical conditions, not higher ratings for individual conditions. Within DoD, the Army's Physical Evaluation Board has granted substantially more zero percent ratings (30 percent of all ratings) than have the other Services' boards (which average 4 to 5 percent).[104] Similar rating inconsistencies have been found across the 57 regional offices where VA claims are processed.[105]

The Physical Evaluation Board procedures described above for active-duty personnel are supposed to be the same for Reserve Component members. However, some of the rules may affect reservists differently, and the process may not unfold in the same way. Indeed, Government Accountability Office (GAO) reports from 2005 and 2006 analyzed Army data and found differences in the handling of Army active-duty and Reserve Component cases, including:

- Reservists declared unfit by a Physical Evaluation Board were less likely to receive permanent disability retirement or lump-sum disability severance pay;
- Reservist cases take longer to resolve and
- The process for extending a reservist's period of active duty, so that he or she may receive medical treatment, is "convoluted and poorly defined," according to the GAO, resulting in some reservists' being inappropriately dropped from active duty and consequent gaps in pay and benefits.[106]

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[103] Commission on Veterans Disability Benefits. Statement Of James Terry Scott, Ltg Usa (Ret) before the United States Senate Joint Hearing of the Armed Services and Veterans' Affairs Committees on April 12, 2007.

[104] This comparison was part of ongoing research for the Veterans Disability Benefits Commission and involved service members who had medical separations or retirements from 2000 to 2004.

[105] U.S., Government Accountability Office. *Veterans' Benefits: Further Changes in VBA's Field Office Structure Could Help Improve Disability Claims Processing.* GAO-06-149, December 9, 2005. Available at http://gao.gov/new.items/d06149.

[106] U.S., Government Accountability Office. *Military Disability Evaluation: Ensuring Consistent and Timely Outcomes for Reserve and Active Duty Service Members.* GAO-06-561T, April 6, 2006. Available at http://www.gao.gov/new.items/d06561t. U.S., Government Accountability Office.

These differences for reservists are compounded by differences in the application of policy between active and reserve personnel. For example, DoD will consider medical conditions that existed before military service only after eight years of service. Part-time reservists do not accumulate eight years' service for many years.

As expected, the Commission's survey shows relatively high DoD disability ratings for injured service members who are medically evacuated to the United States (Figure 7). Three-fourths of those who have completed the ratings process qualified for medical retirement and two-fifths received a rating above 50 percent. Nevertheless, 60 percent thought their DoD rating should be higher and, even thought their VA was substantially higher (Figure 8), almost as many thought it should be higher, too.

Figure 7— DoD Disability Ratings Reported in PCCWW Survey

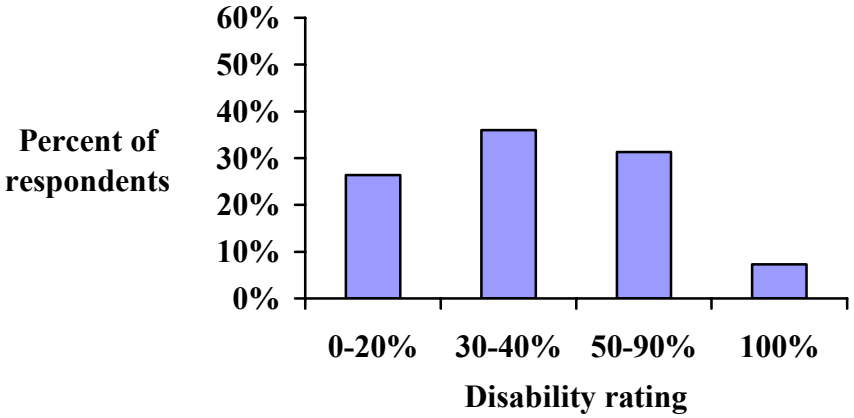
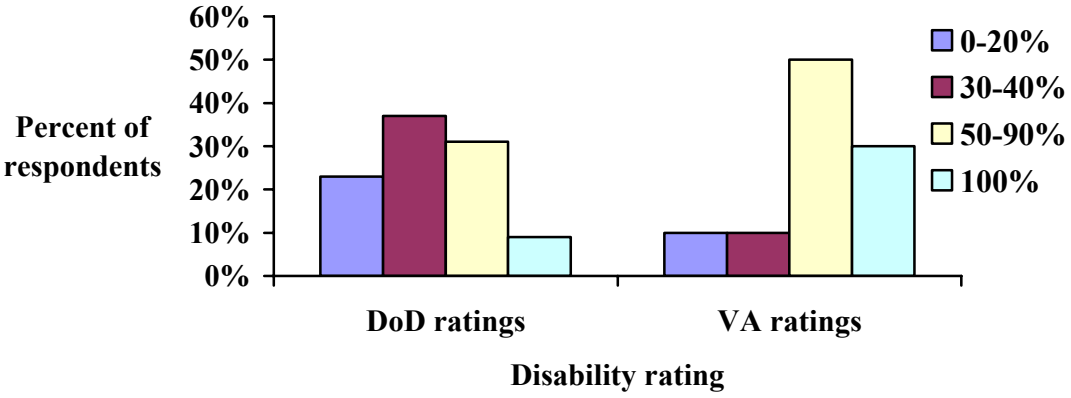


Figure 8— Comparison of DoD and VA Disability Ratings for Separated/Retired Survey Respondents



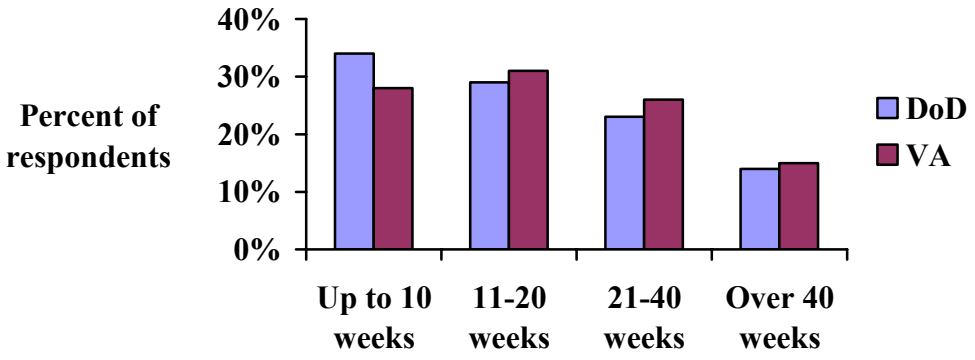
Military Pay: Gaps in Pay and Benefits Create Financial Hardships for Injured Army National Guard and Reserve Soldiers. GAO-05-322T, February 17, 2005. Available at http://www.gao.gov/new.items/d05322t.

Long Processing Delays

Survey respondents who completed the DoD and VA disability processes reported their estimates of the length of time each process took (Figure 9). One-third reported that they received an answer from the DoD process within the 10-week standard; at the high end, 14 percent said their medical and physical evaluation board process took more than 40 weeks. The VA disability process took a similar amount of time.

Lost or incomplete paperwork likely added to the DoD and VA processing times; 40 to 50 percent of service members reported that they had to resubmit paperwork. Two-thirds said they were kept informed of progress during this time, but one-third said they were not kept informed.

Figure 9—Length of Time to Complete DoD and VA Disability Processes, PCCWW Survey



Compensation Structure

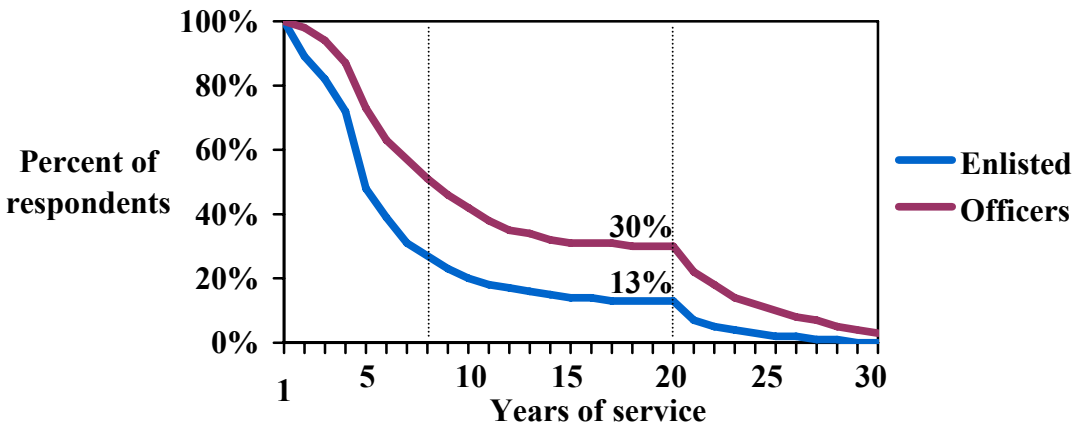
The objectives of the two Departments' disability compensation systems are unclear. The Commission identified four potential rationales for offering disabled veterans a compensation benefit, which this paper will discuss in turn:

1. Military personnel found unfit for duty lose the option to complete a 20-year career and thereby earn substantial retirement benefits
2. Civilian employment opportunities may be more limited, possibly leading to lower earnings and the loss of preferred occupations
3. The disabled veteran potentially suffers other quality-of-life losses—including disfigurement, inability to participate in favorite activities, and social problems
4. Transition to civilian life and employment takes some time, especially if the veteran takes full advantage of the VA's education, training, and job search programs.

Annuity Pay for Loss of Military Retirement Opportunity. Service members who are separated or retired because of disability lose the opportunity to qualify for generous retirement benefits after a 20- to 30-year military career. These benefits can be

thought of as "deferred earnings" that vest only after 20 years of service.[107] This is called cliff vesting because there is no retirement benefit at all before the service member reaches 20 years and a large benefit at 20 years. Most injured service members who must leave the military do not reach the cliff at 20 years of service. A reasonable objective of DoD's disability compensation system would be give them a retirement benefit in the form of annuity pay scaled to the years of service they did provide. Indeed, the DoD compensation formula for medical retirees mirrors in part the formula of retirement pay for qualifying individuals.

Figure 10— Percent of Enlisted and Officer Personnel Who Remain in Service



Source: Defense Manpower Data Center continuation rates for 2006.

The loss of benefit is higher the greater the likelihood that the service member would have stayed for 20 years. The vast majority of service members do not plan on a military career and return to civilian life after four to eight years of service (Figure 10). After the eighth year of service, however, most members who intend to leave have done so, and those remaining are likely to be committed to a military career. Since most career personnel retire promptly when they become eligible to do so, at 20 years of service, the value of military retirement pay and benefits appears to be an important reason to stay in service to that point. A service member who is medically discharged after reaching the eight year "career stage" does lose significant lifetime income by not qualifying for retirement.

[107] Any change in military retirement would call for a change in military disability pay. The military retirement system has been a subject of policy debate for some years. The current system largely drives the tenure profile shown in Figure D-4. It provides no benefit for service members who leave before 20 years of service and offers little incentive to stay in service after 20 years. The most recent retirement reform proposal was in 2006, when the Defense Advisory Committee on Military Compensation recommended full vesting at 10 years of service in an annuity beginning at age 60. If this proposal were adopted, and if the goal were to replace the retirement benefit for injured service members, then military disability compensation would be needed only for personnel in their first 10 years of service.

The retirement benefit lost when the career is cut short depends on rank (enlisted personnel earn less than officers) and years of service (members in higher years of service are more likely to reach retirement), but not on the level of disability. The current policy (which substantially increases disability compensation at 20 years in service or 30 percent or higher disability ratings) creates incentives to reach these thresholds.

A new compensation system that provides all medically discharged service members annuity pay, scaled to their years of service, would eliminate the thresholds in the current system. Different formulas could be used to calculate the annuity pay, including for example:

- The formula currently used to calculate regular retirement pay, which is 2.5% multiplied by the years of service and base pay.
- A formula that calculates the actuarially fair value of retirement pay accrued at each year of service, based on the formula now used to compute the accrual cost of retirement pay for current service.

Table 3 presents monthly estimates of DoD annuity pay for injured service members in a new system, applying the first method to the cases we used earlier for Tables 1 and 2.

Table 3—Estimated Monthly Pay under a DoD Disability Retirement Pay System

Years of Service	Enlisted Pay	Officer Pay
1	$ 36	$ 62
6	$ 349	$ 690
12	$ 900	$1,765
22	$3,800	$5,530

Table 4 shows how total DoD and VA pay would be affected by the change to a DoD compensation system. If, as the Institute of Medicine has recommended, VA disability pay is restructured with a substantially revised rating schedule and compensation for quality of life loss, there would be a further change. Unlike Figure 6, the comparison in Table 4 incorporates the higher VA disability rating for amputees to account for other service-connected medical conditions. Under the current VA disability compensation scheme and adding a DoD annuity payment, all of the cases would gain under the new DoD system.

An increasingly valuable benefit is lifetime TRICARE coverage for retired service members and dependents. However, the current policy of offering TRICARE only to those whose disability is rated at 30 percent or more appears arbitrary. Providing TRICARE to all medically discharged members whose injuries are determined to be combat related would ensure access to needed health care services for them and their families.

Work Disability Pay for Loss of Civilian Earnings Capacity. Congress has directed that the VA disability compensation system should replace lost civilian earnings.

It is not easy to know what those earnings might have been. More important, disability pay can reduce an individual's incentive to work or to invest in additional education and training, and warnings about these disincentives have been repeatedly cited, going back to the Bradley Commission.[108] Too generous compensation interfere with the goal of returning disabled veterans to as near-normal life as possible—a goal that this Commission strongly endorses.

Table 4—Effect of DoD Disability Retirement Pay Change on Total Disability Compensation for Selected Cases

Completed years of service	Enlisted		Officer	
	Current System	New System	Current System	New System
		Amputation		
1	$1,165	$ 1,201	$1,165	$1,227
6	$1,220	$ 1,569	$1,840	$1,910
12	$1,289	$2,189	$2,350	$3.054
22	$4,514	$4,514	$6,244	$6,244
		Quadriplegia		
1	$ 6,164	$ 6,200	$ 6,164	$ 6,226
6	$ 6,303	$ 6,652	$ 6,303	$ 6,993
12	$ 6,474	$ 7,374	$ 6,474	$ 8,239
22	$10,274	$10,274	$12,004	$12,004

Preliminary research results show that, *on average,* veterans with a disability rating below 50 percent suffer little earnings loss. This is an average finding and, at each disability rating level, some veterans do make less than they would have without the injury. Others who take advantage of the education and training benefits may earn more than they would have. New models for replacing earnings loss associated with disability are being developed and tested by a number of state workers compensation programs.[109] For example, one new approach replaces the average earnings loss for those who earn less than comparable non-disabled workers but phases out disability pay out for those who earn more. Regardless of the approach used, keeping work disability pay at modest levels for those who should be able to work will support incentives for work.

Quality of Life Pay. Aside from earnings, the disabled veteran potentially suffers a wide array of "quality of life" losses—including the inability to participate in favorite activities, social problems related to disfigurement or cognitive difficulties, and

[108] Research has shown that workers compensation or disability pay tends to decrease employment, functioning, and quality of life. See, for example: Duggan M, R Rosenheck, *Federal Policy and the Rise in Disability Enrollment: Evidence for the VA's Disability Compensation Program*, NBER Working Paper No. 12323, 2006 and Atlas SJ, Y Chang , RB Keller, et al. "The Impact of Disability Compensation on Long-Term Treatment Outcomes of Patients with Sciatica due to A Lumbar Disc Herniation," *Spine 31:* 3061-9, 2006.

[109] Barth, PS. "Compensating Workers for Permanent Partial Disabilities" *Social Security Bulletin 65:*16-23, 2003/2004.

the need to spend a great deal of time performing activities of daily living. VA's monthly payment add-ons for specific impairments—primarily anatomical losses[110] —arguably compensate for some functional limitations not related to work (such as loss of reproductive organs), but basing compensation on the specific loss and whether the veteran has suffered multiple losses is not a good measure of quality of life loss.

A different approach to quality of life loss would be more consistent with the concept of disability advocated by the World Health Organization and the Institute of Medicine. This system would consider the effects of medical conditions on a broad array of outcomes: activities of independent living, recreational and community activities, and personal relationships. Measures of these outcomes are available that could be used as the basis for quality of life pay for veterans and the Canadian and Australian veterans disability system include quality of life payments.[111]

Transitional Income Gap. The current DoD-VA compensation system does not guarantee an uninterrupted income as service members with disabling injuries transition from active duty to veteran status. Even if VA disability pay begins immediately after discharge, all but the most severely disabled veterans experience a decrease in income until the veteran completes rehabilitation, acquires any further education and training, and finds a job.[112] A stipend during rehabilitation, education and training, and a reasonable period for job search would support the veteran and family during this critical recovery and reentry period. The Subcommittee Report on Education, Training, and Employment emphasizes the importance of providing a stipend to encourage and support veterans to invest in education and training to enhance their employment prospects and, for the most disabled, their independent living skills. A similar stipend for a few months would allow veterans who do not pursue education and training to search for a job with help from the VA and other federal and state agencies.

Figure 11 shows how the four types of compensation would be synchronized to support the service member and family during the transition to civilian life and work. All medically discharged service members would receive the following three pay streams:

1. Annuity pay, beginning at discharge and continuing throughout the individual's life
2. Quality of life disability pay, also paid from discharge to death
3. Work disability pay, with two components:
    a. Transition pay while the veteran looks for a civilian job or participates in an intensive medical or vocational rehabilitation program, as called

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[110] The anatomical losses include: loss, or loss of use, of a hand, foot, reproductive organ, both buttocks; immobility of a joint or paralysis; loss of sight of an eye; deafness of both ears; inability to communicate by speech; loss of a percentage of tissue from a single breast, or both breasts, from mastectomy or radiation treatment.

[111] Institute of Medicine. *A 21st Century System for Evaluating Veterans for Disability Benefits.* Washington, DC: National Academy Press, 2007.

[112] Testimony by William Carr, Principal Director of Military Personnel Policy, Office of the Secretary of Defense before the Commission on April 14, 2007 indicated that the average medically discharged service member has experienced an annual income drop from $38,000 to $18,000 during the transition to civilian employment.

for in their recovery plan[113]; those who immediately look for a civilian job would receive transition pay for only three months.

b. Work disability pay, if needed to replace an earnings loss, to begin when the transition pay ends; veterans who receive this pay but are able to work would need to reapply for this pay and be reevaluated on a fixed schedule (such as every five years).

Figure 11. A Streamlined DoD/VA Retirement and Disability Compensation System

At any point in time, disabled veterans would receive three types of payments:

Point of Discharge ▼ Point of Retirement ▼

	Throughout "working years," veterans would receive . . .		After retirement . . .
1. DoD's Military Annuity Payments	*$ amount based on rank and years of military service*		
2. VA Quality of Life Disability Payments	*$ amount based on impacts on quality of life*		
3. Transition payments*		**4. Followed by . . .**	**5. Followed by . . .**
▶EITHER	*Long-term living expense support while in school/VRE*	*Earnings loss payments when employment begins***	*Social Security*
▶OR	*3 months*	*Earnings loss payments when employment begins **	*Social Security*

*To help veterans become established and move into work or, if unable to work, to enable independent living.

**These payments would contribute to veterans' earnings for Social Security eligibility; the amount would be recalculated periodically as veterans' condition or earnings change.

If carefully designed, the compensation package could provide incentives for veterans to make the investment in recovery and education that will enable them to lead productive and active lives. In this way, VA's resources can be redirected over time to education and training investments that make income support for most disabled veterans unnecessary. The Bradley Commission endorsed this strategy 50 years ago, stating:

> Timely assistance on a temporary basis to help wartime veterans become self-sufficient and productive members of society is an effective alternative to the backward-looking, less constructive 'old soldiers' pensions. Education and training and related readjustment benefits are now recognized as the best way of discharging the Government's obligation to the non-disabled.

[113] The recovery plan is described in the Subcommittee Report on the Continuum of Care.

ACTION STEPS

The President's Commission supports a major restructuring of disability benefits that is tailored to the unique needs of individual service members injured in the line of duty and provides the incentives and services necessary to bring disabled individuals back into the mainstream of American life. The restructuring should also substantially simplify the disability program and the processes for evaluating disability and determining fitness for continued military service.

Action: Congress should clarify the objectives for DoD and VA disability systems to reflect the goal of returning injured service members to optimal functioning in American society.

Action: Create a *clear and timely* disability evaluation process that:

- Uses a single medical examination to provide baseline data at the time of military discharge for the initial disability rating
- Allows the different Services to continue to determine fitness to serve
- Applies a single baseline disability rating for all service-connected conditions at the time of discharge from the military
- Updates the disability rating schedule to reflect injuries sustained in modern warfare and modern concepts of the impact of disability on multiple domains of a veteran's life and
- Keeps the rating schedule current as warfare, rehabilitation technology, and medical care changes

Action: *Redesign disability compensation*, based on clarified objectives and clearly differentiating the responsibilities of DoD and VA for separate components of a coordinated system.

- DoD would compensate injured service members for the loss of a military career, with an annuity payment commensurate with time served
- VA would provide transition pay while veterans adjust to civilian life or participate in the Vocational Rehabilitation and Employment program.
- VA would base subsequent compensation on diminished civilian earnings capacity and quality of life.

VA compensation rates would be regularly updated based on frequent evaluation of earnings and quality of life of disabled veterans.

INFORMATION SYSTEMS

THE CHALLENGE

The medical system required to meet the long-term care and rehabilitation needs of America's injured service members has become highly complex. The treatment path stretches from the battlefield to acute and post-acute inpatient/outpatient care to the service members' transition back into military duty and/or civilian life. Vital medical information is captured during the acute phase of this process. However, integration of the information systems necessary to make information available for the comprehensive care and recovery planning needed to return injured individuals to the fullest possible state of health and personal independence has yet to occur. This situation has been recognized for some years and must change.

Electronic information systems are not an end in themselves, but *a means to an end*. The ideal health care outcome is well-managed, high-quality patient care in efficiently run facilities by staff who can obtain the information they need, when they need it, and easily enter important new information. A smoothly functioning benefits process needs to be coordinated with the health care process to ensure that injured service members and their families are supported throughout recovery. The movement towards information interoperability that is under way in some critical systems must be accelerated and expanded to include other information needed day-to-day. Simply put, our nation's service men and women would be underserved if we failed to take this opportunity to improve IT systems at the Department of Defense and Department of Veterans Affairs to create, manage, and transmit vital data that make navigating the system of care and benefits easier, more efficient, and more effective.

BACKGROUND

Information Is Essential for Patient-Focused Integrated Care & Services

Given the complexity of the medical and rehabilitative services required to care for seriously injured military personnel, it is necessary to carefully coordinate the expertise of multiple medical, rehabilitative, and benefits specialists in multiple facilities over an extended period of time. This commission has recommended that care delivery be guided by comprehensive, patient-centric recovery plans, developed by the patient's multi-disciplinary care team, with a Recovery Coordinator responsible for seeing that the plan is implemented.[114] To develop and implement the recovery plan, every Department of Defense (DoD) and Department of Veterans Affairs (VA) physician, allied health professional, and benefits specialist involved in the treatment, rehabilitation, and support

[114] See the Subcommittee Report on the Continuum of Care.

of an injured service member should have immediate access to the relevant medical and administrative information for that individual

The recovery plan program will expand both the quantity and the types of information that the DoD and VA need to share. For example, acute rehabilitation for amputees is provided by DoD, but vocational rehabilitation services are a VA responsibility. All caregivers involved in this example will require immediate access to timely information on a patient's status, service use, and outcomes to create an effective individualized treatment, rehabilitation, health promotion, retraining, and reemployment or independent living plan. Our present challenge centers on integrating DoD and VA information systems that were originally designed to focus on specific components of the care or administrative process and do not readily exchange the information necessary to support a recovery plan.

Current IT Systems Supporting DoD Patient Care

Over the years, information systems have been developed to support specific health care processes of the various military services. As a result, segregated data are often collected in many systems that each support a portion of the overall patient care process. The information needed for care of injured service members currently resides in the following systems:

- **Electronic Health Record.** AHLTA[115], the DoD's electronic health record, is available wherever the military delivers health care services, around the world. At present, the electronic record includes outpatient encounters and laboratory and radiology reports; it does not yet include inpatient medical records, but does include discharge summaries from inpatient hospitalizations.
- **Electronic Health Record-Theater Version**. Military medical personnel in Iraq and Afghanistan have access to a theater version of AHLTA, AHLTA-T.[116] The implementation of AHLTA-T began in 2003 with a fully integrated outpatient record and, as of May 2007, the theater data are globally available for inpatient encounters, pharmacy, laboratory, and radiology reports through a central theater data repository. Providers outside the theater—at Landstuhl Regional Medical Center in Ramstein, Germany, and in the United States—can access information from this repository through a web-based application.
- **Joint Theater Trauma Record**. **This system was developed during the current conflict to** collect theater battle-trauma patient data across all levels of care.
- **Patient Movement and Patient Tracking. The** TRANSCOM Regulating and Command and Control Evacuation System (TRAC2ES) provides in-transit visibility on patients as they are evacuated from a theater hospital to Landstuhl and U.S. facilities. The Joint Patient Tracking Application (JPTA), deployed

[115] AHLTA - Armed Forces Health Longitudinal Technology Application.
[116] AHLTA-T outpatient encounters are transmitted through a theater data repository (Theater Medical Data Store, or TMDS) to the AHLTA Central Data Repository and are viewable in TMDS and AHLTA. Inpatient and ancillary encounters are transmitted to TMDS and are viewable through the TMDS web-based application.

in January 2004, locates patients within military medical treatment facilities, captures diagnoses, and documents patient treatment notes. DoD grants VA providers access to the patient tracking database via the Veteran Tracking Application.

AHLTA resides on networked computers and, because there are separate networks for the different military services, problems occur. Even if the system operates as designed at individual military treatment facilities, the network infrastructures can impede access to information across facilities. For example, Brooke Army Medical Center frequently cannot obtain ready access to the Air Force network to retrieve AHLTA records at the Wilford Hall Medical Center, 18 miles away, even though these two large medical centers treat some of the same patients. As a result, clinicians do not have access to critical patient information and have become increasingly distrustful of the IT community's ability to provide reliable support to patient care.[117]

Current IT Systems Supporting DoD Benefits & Disability Processes

A comprehensive, patient-centric recovery plan would integrate planning for the care of seriously injured service members with their benefits and post-recovery activities. A fully interoperable electronic health record system would provide much of the information needed. However, a relevant picture for each patient is fully achieved when clinical and administrative systems are integrated. Within DoD, the key administrative systems are:

- **Personnel and Pay Systems.** The military services have maintained their own independent personnel systems. Next year, the new Defense Integrated Military Human Resources System will begin to replace these separate systems with a single, integrated system for active duty and reserve component personnel.
- **Disability Systems.** Service disability information systems also are stand-alone, and, in many cases, are using outdated applications to document the medical and physical evaluation processes.

The complexity of moving wounded and injured patients from point of injury to medical facilities throughout the continuum of care is measured by the myriad of Joint- and Service- sponsored systems available (Figure 1). However, despite the number of systems deployed to support this process, there are gaps in available information. Although seriously-injured patients are receiving excellent direct care from health care providers in theater, patients can be invisible to the system during certain phases of evacuation. In addition, health care providers and administrators are often required to enter the same information in several different systems, while information users must access multiple sources in order to piece together a full picture.

[117] Commission staff site visit to Brook Army Medical Center, San Antonio, TX – June 4, 2007. In 2006-2007, DoD expert teams concluded that the current IT network environment is unsustainable and seriously detrimental to patient care.

Current IT Systems Supporting VA Health Care

The majority of VA's IT systems involve multiple sub-systems that have been designed to address specific needs, not to work together in an efficient, coordinated way. In general, VA employees who work in one functional area can see some data from another area, but cannot exchange data from one system to another. Information provided by external sources—DoD, other federal agencies, such as the Internal Revenue Service or the Social Security Administration, or the private sector—that may be of value for care or benefits is rarely available across organizational functions to serve common needs. Figure 2 depicts the existing systems that support the VA's medical and other benefits programs.

Developed in the early 1980's, VistA, VA's electronic medical record system was one of the first such systems. It was revolutionary in its ability to support the clinical decision making process, but it has become rapidly outdated and is increasingly difficult to maintain. VistA currently consists of 128 stand-alone systems[118] that generally run the same software, but different institutions use different formats and include different content, which makes system data difficult to meaningfully integrate and compare. Records for patients usually treated at one facility are viewable by providers at other facilities. However, because the data are not standardized, VistA is not fully interoperable across VHA facilities and can not be used for clinical decision support systems. (Such systems automatically produce clinical reminders or notify providers when there is a potential drug/drug or drug/allergy interaction, for example.)

VA has a long-range plan to update VistA. Like AHLTA, patient data will be stored in a single repository where providers can access and contribute information. The plan involves data standardization and the replacement or re-engineering of the majority of the existing VistA components by 2014. This future system, VistA 2.0, is intended to provide all of the necessary information to support the provision of health care throughout the VA.

Current IT Systems for Administering VA Benefits & Disability Processes

VA also uses a grouping of stand-alone electronic systems to support each of its major service areas: compensation and benefits, education, loan guarantees, vocational rehabilitation and employment, and insurance. Modifications and upgrades to these systems have been ongoing for several years and have undergone a degree of critical scrutiny from several oversight bodies. The information systems share information and computer applications on only a limited basis. Although there has been some degree of re-engineering, for the most part the systems are antiquated, difficult to maintain, and not easily updated when there are changes to the benefits provided to eligible veterans and family members. Additionally integration between these systems and VistA is limited,

[118] Testimony of Dr. Steven H. Rappaport at the Commissions public hearing in Washington, DC – May 16, 2007.

which complicates the consistent provision of benefits or health services. For example, claims for benefits decisions are maintained in multiple places in both benefits and health systems and are not synchronized when the authoritative sources are changed. This can lead to incorrect benefits determinations, mistakenly billing the veteran for care or services that they are entitled to without charge, and general frustration for the veteran and users of these systems.

Current Status of DoD-VA Interoperability: Exchanging Information on Health, Benefits, Disability, & Support Programs

The Center for Information Technology at the National Institutes of Health has defined four levels of data interoperability:[119]

- Level 1: Non-electronic data—paper and phone calls
- Level 2: Machine transportable data—unindexed documents, fax, and email
- Level 3: Machine organizable data—indexed documents and images
- Level 4: Machine interpretable data—transfer of data from one system to another without need for further translation or interpretation.

Calls for DoD-VA data interoperability typically envision exchanges at level 4, whereas much of the current data exchange is at level 3 or below. If the data being exchanged are comprehensive and timely, level 3 exchange can be highly effective as a step toward the much more difficult level 4 exchange.

The missions of DoD and VA are closely intertwined when it comes to the delivery of health care, benefits, and other support services. In addition to its mission to support health care and benefits for disabled veterans, the VA is required to maintain and document additional inpatient capacity during times of war. Today, the VA provides injured or ill service members with:

- Complex medical care at VA Polytrauma Rehabilitation Centers;
- Physical therapy and rehabilitation care;
- Treatment for combat-related Post-Traumatic Stress Disorder (PTSD);

Post–deployment, the VA, in conjunction with the military health system may be heavily involved in assessing and tracking conditions related to service members' environmental exposures, such as Gulf War Syndrome, or other delayed-onset illnesses, such as undetected PTSD.

VA disability determination requires accurate and timely information from DoD, confirming military service and describing the claimant's medical condition. The automated sharing of this information has been a long-standing initiative of the two Departments and has received a significant amount of attention from multiple administrations and legislative bodies.

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[119] http://www.nahit.org/cms/index.php?option=com_content&task=view&id=220&Itemid=115, accessed July 19, 2007.

Interoperability of Health Care Information

Figure 3 depicts the current and planned health information flows between the departments. Prior to combat operations in Afghanistan and Iraq, the focus was on the unidirectional exchange of information from DoD to VA, in order to help the VA understand the care that veterans had received within the military. As efforts progressed, a bi-directional exchange seemed more desirable, to include information about, for example, patients' allergies, lab and radiology results, and pharmacy data. In support of the complex medical needs of service members transferring to VA Polytrauma Rehabilitation Centers, scans of patients' radiology and medical records are now being transferred to the VA's integrated imaging system. At present, the information exchanged between the two Departments is fully viewable within the VA system while the DoD uses a web-based application to view information passed back from the VA.

The Clinical Health Data Repository interface, currently being tested in several locations, supports the interchange of data elements in real time rather than via the movement of batches of data at regular intervals. This system leverages the DoD's Clinical Data Repository and VA's Health Data Repository–the standardized, authoritative source for the exchange of clinical data within each Department. The interface will extend this capability to support exchange between the Departments and guarantee that providers can have the most current patient data available at the point of care.

Electronic information exchange began in 2001 and progressed slowly through 2004, but the pace of progress has increased steadily beginning in 2005. The full timeline and critical milestones supporting the exchange of medical information between the two departments is reflected in Figure 4. External reviews have determined that DoD and VA have made progress in improving the interoperability of their electronic health record systems (level 3) but are far from having comprehensive electronic medical records (level 4).[120]

Interoperability of Benefits & Support Services

The flow of administrative and benefits data between the two Departments is more rudimentary. The current data exchange consists of 31 separate data feeds from DoD's Defense Manpower Data Center to various VA entities and 11 feeds from VA to DoD. In 2003, as part of an Electronic Government (e-Gov) initiative, the Departments began the process of combining these feeds into a single incoming and outgoing data stream. Progress has been made in identifying the business needs for the data and the nature of the information each Department needs. Systems in both Departments are being modified and brought on-line to leverage the new data.

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[120] U.S., Government Accountability Office. Information Technology: VA and DoD Are Making Progress in Sharing Medical Information, but are Far from Comprehensive Electronic Medical Records. GAO-07-852T. Testimony, May 8, 2007.

To support VA's outreach efforts to service members and veterans and to support the provision of VA health care for two years post-deployment, the interfaces were recently upgraded to include information on activations and de-mobilization of reservists. Additionally, as part of the efforts to support the educational benefits program, data were added to the bi-directional exchange of information provided between VA and DoD. The Departments are currently discussing plans for further improvements to support administrative and benefits processes, with emphasis on improving e-benefits systems.

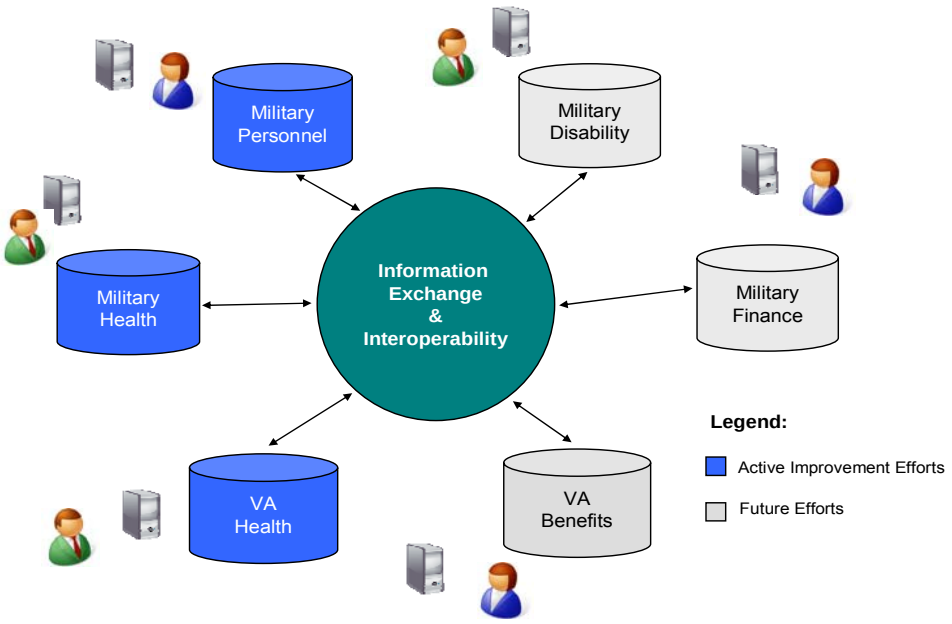
The Future Direction of DoD & VA Health & Benefits IT Systems: What's In the Works…

DoD and VA plan to build data repositories that contain information based on industry or other agreed-upon standards. Figure 5 presents a schematic view of what the Departments are trying to achieve. In summary, they believe that:

- The repository concept will allow for information to be easily exchanged or accessed to meet the health care and benefits needs of any service member or veteran.
- Timely and relevant information will be available from any of the repositories to support care or administrative decisions.

As reflected by the data sources in grey, we observed that little has been done to support the availability of Military Disability and Finance and VA benefits and ratings information.

Figure 5—Overview of DoD/VA Information Exchange Efforts



PREVIOUS TASK FORCE RECOMMENDATIONS AND REPORT FINDINGS

This Commission reviewed numerous reports and task force recommendations that addressed the information systems in the DoD, VA, and private sector and how well they support health care delivery to injured service members and veterans. A common theme among these reports, going back to 2001, is the need for interoperability between the DoD and VA medical information systems. In 1996, the Presidential Advisory Committee on Gulf War Veterans' Illnesses[121] reported on the many deficiencies in the two Departments' capabilities for handling service members' health information. In November 1997, the President called for the Departments to start developing a "comprehensive, lifelong medical record for each service member," and in 1998 issued a directive requiring them to develop a "computer-based patient record system that will accurately and efficiently exchange information."

According to the GAO's most recent congressional testimony regarding the departments' progress toward information-sharing,

> "To achieve this goal, significant work remains to be done, including agreeing to standards for the remaining categories of medical information, populating the data repositories with all this information, completing the development of their modernized systems, and transitioning from the legacy systems. Consequently, it is essential for the departments to develop a comprehensive plan to guide this effort to completion, in line with our earlier recommendations."[122]

In this testimony, GAO summarized several of its recurring recommendations and findings regarding VA and DoD's efforts to create a comprehensive electronic medical record:

- VA and DoD need a comprehensive strategy for implementing a comprehensive medical record;
- Progress has been made exchanging clinical information but a comprehensive medical record would better achieve the departments' long-term goal of comprehensive, seamless exchange of health information;
- Program delays and target date slippage in the implementation of elements of a comprehensive approach have been impeding the exchange of information between the organizations, delaying accomplishment of the long-term objectives;
- It is not clear how short-term initiatives to share health information between existing systems fit into the overall strategy;
- In some areas VA and DoD still need to agree on the information standards needed to facilitate the transfer of information between Departments;
- VA and DoD must address data quality and availability challenges. For example, VA still has to convert its electronic records into the interoperable

[121] Presidential Advisory Committee on Gulf War Veterans' Illnesses. *Final Report*. Washington, DC: U.S. Government Printing Office, December 1996.
[122] U.S., Government Accountability Office. Information Technology: VA and DoD Are Making Progress in Sharing Medical Information, but are Far from Comprehensive Electronic Medical Records. GAO-07-852T. Testimony, May 8, 2007

format appropriate for a repository. DoD, in addition to converting current records from its systems supporting each [military] service, must also address medical records that are not automated.

The influx and complex medical needs of service members injured in Iraq and Afghanistan has intensified the stress on the two Departments' ability to exchange clinical and administrative information. Recent GAO reviews have underscored the need for more rapid progress in information-sharing, in order to streamline delivery of benefits and services. Specific types of information that need to be shared efficiently include:

- Clinical information necessary to help determine the level of services that will be needed once a patient is transferred to a VA Polytrauma Rehabilitation Center[123]
- True interoperability of medical records for active duty service members treated in VA facilities;
- Appropriate and necessary DoD medical and personnel information electronically viewable for VA benefits determination;
- Routine transmittal to VA of health information on service members likely to be discharged from the military due to their medical condition;
- Post-Deployment Health Reassessment Program (PHDRA) data to VA[124]

The 2007 report of the Task Force on Returning Global War on Terror Heroes has provided several short, mid, and long-term recommendations related to the use of information technology to address gaps in services provided to injured service members. Several of these recommendations support of the two Departments' ongoing plans to improve clinical information exchange and interoperability. However, the Task Force identified immediate goals to address issues related to tracking service members and signature injuries and illnesses:

- The provision of increased access by VA and DoD staff to available information systems to assure continuity of care and coordinated patient hand-off.
- The increased use of interfaces that allow scanned records (medical images and inpatient records) to be exchanged between DoD and VA.
- The creation of data markers, clinical reminders and databases to track current combat veterans' identification, and patients with traumatic brain injuries, embedded fragments, and polytrauma.
- Improvements to the VA's Electronic Benefits Claims Enrollment processes and IT systems.

The DoD Task Force on Mental Health also supported the need for the exchange of all relevant medical records between DoD and VA. It also recommended faster development of a mental health module in AHLTA.

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[123] U.S., Government Accountability Office, DOD and VA Health Care: Challenges Encountered by Injured Service members During Their Recovery Process. GAO-07-606T. Testimony, March 8, 2007.
[124] U.S., Government Accountability Office. Computer-Based Patient Records: A and DOD Have Made Progress, but Much Work Remains to Fully Share Medical Information. GAO-05-105IT. Testimony, September 28, 2005

The thread throughout all of these reviews and recommendations is that process improvements to support the needs of returning service members must be supported by improved information systems.

WHAT THE PRESIDENT'S COMMISSION LEARNED

Based on the Commission's recommendation to create a comprehensive patient-centric recovery plan, the first step in implementing this vision is to take a hard look at the Departments' processes, and improving them as needed. The information system can then be designed to reflect best organizational practices.

This Commission is recommending the development of a recovery plan for each seriously injured service member transitioning between the in-patient (hospital) and out-patient (ambulatory) care environments. The recovery plan is fundamental to retaining a patient-focused care philosophy through an injured service member's complete path towards recovery. For the recovery plan to function effectively, every health-care professional and service provider involved in the treatment, rehabilitation, reintegration, and support of injured service members must have immediate access to the medical and appropriate personnel and benefits information.

The recovery planning model would expand both the quantity and the types of information that the two Departments would need to share. The services provided by the multi-disciplinary teams reside in both Departments—for example, acute rehabilitation for amputees is provided by DoD, but vocational rehabilitation services are a VA responsibility. Therefore, the seriously injured service members whose care and recovery will be complex will have provider teams that include DoD and VA staff and require coordinated administrative actions. The recovery plan will guide post-acute treatment, rehabilitation, health promotion, retraining, and reemployment. Service members will be periodically reevaluated, and their plans updated, as their medical condition, functioning, and circumstances dictate. Timely information on service members' status, service use, and outcomes will enable the Recovery Coordinator, the care team, and service providers to design and implement the recovery plan and maximize the patient's health and life outcomes.

Capability of Current DoD/VA IT Systems to Support Patient Care

Through testimonies to the Commission during public meetings and opportunities to review the information systems during site visits,[125] the Commission learned that existing information systems within DoD and VA focus on specific components of the care process and have not been built to support activities that cross organizational boundaries. As clinical and administrative processes have been modified to support the seamless transition of the injured service member, the pace of information system development has lagged. Today's information systems are not appropriately aligned to

[125] Testimony of Dr. Paul Tibbits at the Commissions public hearing in San Diego, CA – May 24, 2007.

efficiently support the proposed recovery plan process or effective case management.[126] Examples and observations include:

- The systems have been built to support episodic care and not care based on a long-term treatment plan. The DoD health care model is focused on capturing treatment information and being able to pass it along to the next location where the service member is cared for. The VA's system has traditionally been designed to support care provided within VA medical facilities and other clinical settings. Neither system has been designed to support care across multiple specialties and administrative processes.
- We observed that the existing systems do not support fully the tracking, and health information needs of injured service members who are moving between the DoD and VA medical facilities.

The impact of these weaknesses is particularly evident for polytrauma cases that receive acute care in the military hospital, then are transferred to a VA Polytrauma Rehabilitation Center, and eventually may return to the military health system. To address the shortfall in the availability of electronic clinical data, DoD and VA health providers have established informal standards for what should be included in the paper record that accompanies the patient being transferred. Acute-care information that may be missing is obtained through phone calls and fax requests.[127] VA staff then review the available paper-based information and scan indexed information into VistA Imaging—an interface that allows providers to view scanned records. Though manually intensive, the scanning of information into VistA Imaging will make the image available to all other VA facilities; referring to the definition presented above, this process increases interoperability of information for polytrauma patients from level 1 to level 3. The same level of interoperability is not achieved for all injured service members, however.

In an effort to provide an electronic view of the military's patient record, DoD has begun scanning inpatient medical records and transferring this information to VA's Polytrauma Rehabilitation Centers. As an interim solution, until a standardized data exchange methodology can be determined, VA staff then manually imports this file into VistA Imaging. However, the Commission observed that, since the full record is contained in a single file which is quite voluminous and difficult to search, it may not meet the needs of the providers and are ignored. This is a time-consuming manual process that, if it works at all, works only because of the small number of patients being transferred between the two organizations.

The commission staff also observed that while the information that is currently interoperable at higher levels—such as pharmacy, allergy and laboratory information—may be of some use, other information—such as progress notes, radiology reports, discharge summaries—are not readily available, even though it would be of tremendous value in determining past treatment received or the established care plan. The VA has

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[126] Testimony of Dr. Lynda Davis at the Commissions public hearing in San Diego, CA – May 24, 2007

[127] Only a portion of the outpatient data that is available electronically in AHLTA or VistA electronically is currently exchanged. The paper record that accompanies patients transferred to VA facilities primarily contains inpatient and acute care information from the referring military facility.

modified VistA to support the tracking of service members who have symptoms of traumatic brain injury and post-traumatic stress disorder. Automated clinical reminders in VistA notify clinicians and other health care providers when specific treatment protocols should be consulted. Because a similar automated clinical decision support system does not exist within AHLTA, reminders are generated manually, based on protocols used during the post-deployment health reassessment process.

The DoD and VA's existing interoperability strategy was determined after Operation Desert Storm, and was a logical one. Its focus was on environmental disease surveillance, managed care for TRICARE beneficiaries and exchange of information when service members moved to veteran status. DoD gave priority to the development of an electronic outpatient medical record system because at the time, it had no automated record of ambulatory care in military treatment facilities. Also, there were relatively few traumatic injuries requiring coordinated care by the VA and DoD.

Regardless of the interoperability approach that is taken, the migration of data between complex information systems must start with the standardization of the information to be shared. There is little point in exchanging data if the receiving system is incapable of using it efficiently. Figures 3 and 4 (referenced above) illustrates a strategy that sequences the exchange of data from component systems—such as pharmacy and radiology—based on the amount of work needed to make them interoperable at levels 3 or 4. DoD and VA are partly through the implementation of this strategy, with only some component systems currently interoperable.

Care for injured service members would have been better supported by a different strategy that made all the information needed by clinicians available at the highest level of interoperability possible in the short run and subsequently worked towards a higher level of interoperability through a component-cased strategy. DoD and VA have recognized the current need to support the care of injured service members and developed short-term solutions. Examples include the exchange of data from the Joint Patient Tracking Application to a Veterans Tracking Application and the manual process for scanning more complete medical records for polytrauma patients. A more complete solution would identify the information needed for the current conflicts' most complex and common medical conditions, including polytrauma, traumatic brain injuries, amputations, and post-traumatic stress disorder. The information necessary to care for these patients can be determined by the providers who care for them. Where highly structured data are necessary and available, the Departments can determine the best route to be taken to achieve level 4 interoperability. In the interim, providers could use non-structured data, such as text-based progress notes documenting previous care, information can be made interoperable at level 3.

Capability of Current DoD/VA IT Systems to Support Non-Clinical Services

Over the years the major focus of information exchange between DoD and VA has been on the movement of clinical data. In retrospect, the Departments are finding gaps in supporting case management, disability evaluation, benefits determination, and other

administrative processes that support the seamless transition of patients between DoD and VA. Based on discussions with officials in both Departments, the Commission learned that:

- The DoD disability evaluation process is highly paper-intensive and requires extensive case files to support the workings of the evaluation boards. Currently, little automation supports this process.
- The official report of separation from active duty or from 90 days or more of active service by reservists (DD Form 214) is required before the VA can initiate its disability rating process. VA raters view an image of this form through a web interface, interpret the information they need, and manually enter it in the information system they use. The DD 214 is scheduled to be automated as part of the new Defense Integrated Military Human Resources System (DIMHRS) within the next 12 months.
- As we described earlier, DoD's Joint Patient Tracking System and VA's Veteran Tracking System were developed during the current conflict to fill the information void on patient movement from theater to the VA.[128] The VA uses this information to initiate timely contact with returning service members and initiate the disability claims process as soon as possible

With the prevalence of case management and the increased emphasis on seamless transition between DoD and VA, users often resort to manual processes to exchange information. During the Commission's site visits, users often expressed their frustration with the slowness of the systems or with needing to sign into multiple systems, each having only a portion of the information they need. Interim solutions are coming on line to replace or augment these manual processes, but there is the risk that further stand-alone solutions are being created because a more comprehensive approach has not been identified.

DoD and VA have developed several websites to give service members and veterans access to their personal health information, disability evaluation and benefits, and a host of government and private support programs. We reviewed numerous web sites that may be useful to service members and their families. However, in some cases these web sites do not appear to be well coordinated. Similar information concerning disability benefits, services, military retirement, and so on, was noted on several different sites. Without a coordinated effort to update similar sites' information, they will soon be out of sync and the accuracy of their information will be compromised. We observed that there is no single authoritative web site that can serve as the starting point for injured service members and families.[129] The existing web sites typically focus on linking individuals seeking information to other websites. The wealth of linked information can make it difficult for users to find the specific information they need. A more effective approach would tailor sites to the user's interests and needs (as many commercial web sites now do) and would be interactive, giving the user tools to update information, make

[128] Commission staff meeting with DoD/VA representatives re: Joint Patient Tracking Application/Veteran Tracking Application, June 5, 2007.
[129] Web sites reviewed: www.va.gov, www.dod.gov, www.myhealth.va.gov, www.myarmybenefits.com

appointments, and so on. This would require access to authoritative clinical and non-clinical information systems and more sophisticated software.

Drawing information from DoD and VA information systems, an interactive web portal, such as the prototype "My eBenefits" pages appended to this report, could provide tailored information to each service member and veteran, specific to their situation, and enable them to make appointments, do financial planning, maintain confidential personal health records, and apply for various benefits programs. Today, in order to find such information, armed service members and veterans must navigate a disparate, confusing, and cumbersome array of websites. First-rate content exists online for service members and their families; however, the presentation and organization of this information simply have not evolved to meet the needs and expectations of the next generation of service members.

A one-stop "information shop," such as the prototype "My eBenefits," would be a consumer-friendly, interactive, evolving, fully customizable and personalized information portal. It would host almost every type of data important to a patient's Recovery Plan. It also would include tailored, up-to-date information on federal and state benefits, in-patient and out-patient care, disability evaluation and application status, local and national resources from veterans service organizations and community organizations, area employment opportunities, doctors' names and contact information, news, and the ability to connect easily with other armed service members and veterans.

Capability of Proposed Future DoD/VA IT System Designs to Meet Recommendations of the President's Commission

A number of appropriate information strategies are being implemented to meet the immediate needs of injured service members. DoD's AHLTA is becoming the standard system to support health care from theater to military treatment facilities in the United States, and the VA has plans for a next generation of VistA. Both systems are being designed around clinical and administrative data repositories, which will give providers throughout both Departments access to their patients' health information. Initiatives such as the Clinical Health Data Repository, which supports the real-time exchange of data between DoD and VA, are significant advances and need rapid implementation. Yet, the health information systems provide only some of the information needed to manage the needs of injured service members.

System redesigns should emphasize leveraging single, authoritative data sources rather than duplicating information across multiple systems, which may threaten data integrity and confidentiality. When independent systems maintain separate copies of similar data elements, the ability to control changes in the data and data integrity becomes nearly impossible.[130] Inaccurate information can jeopardize patient safety. Maintaining confidentiality and privacy becomes more difficult.

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[130] Commission staff meeting with DoD/VA representatives re: Joint Patient Tracking Application/Veteran Tracking Application, June 5, 2007: JPTA collects data about patient care, but does not connect to

Interoperable systems based on a repository concept are developed with standardized data elements, definitions, and formats, in order to facilitate information exchange. For example, critical data fields, such as names, dates and times, and laboratory results must look the same across systems.

Efforts are under way to determine whether the two Departments could run the same inpatient information system. However, given DoD's requirement to provide medical support to deployment forces in austere environments, it is not always practical for the Departments to deploy the same information system. Where this is the case, DoD and VA have been able to develop a strategy to exchange data at the level of interoperability necessary. These two approaches can live together to produce an DoD-VA information system that is interoperable, functions well for users, and supports ongoing care and program requirements.

Achieving interoperability even at the highest level does not require adoption of the same computer systems or operation of the same software. Nor does all information present in the electronic health or administrative databases need to be exchanged in order to support health care or administrative action. While universal system interoperability may be an important and appropriate goal, the tasks involved are so varied and complex that it will take years to complete them. Meanwhile, DoD and VA have the ability to achieve a practical level of interoperability in the near term.

ACTION STEPS

The primary concern of this Commission is to ensure that each and every service member injured in the performance of their duty receives all the ongoing healthcare services and benefits they require to achieve and enjoy the greatest possible quality of life. Reaching this objective will be facilitated by the following DoD and VA information systems and process modifications:

Action Step: Within 12 months, DoD and VA should make all essential health, administrative, and benefits data are made immediately available in viewable form to any clinician, allied health professional, or program administrator who needs it.

Action Step: DoD and VA should also develop information support for the recovery plan and its implementation by the recovery coordinator, health care and rehabilitation teams, and benefits administrators. This should include a tool that the recovery coordinator will use in coordinating the development and implementation of the recovery plan and in monitoring patient outcomes

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AHLTA. This creates confusion among providers, and requires them to view separate systems to piece together a puzzle of patient care documentation.

Action Step: DoD should create an interactive web site for injured service members, personalized according to their individual needs. A design for the website is included at the end of this subcommittee report.

Action Step: Without delaying the accomplishment of the first two steps, DoD and VA should expedite the work presently underway to create a fully interoperable information system that will meet the long-term clinical and administrative needs of all injured service members over time.

Action Step: DoD and VA need to report their progress on all steps to higher authority using a detailed scorecard with measures of exact status of information interoperability at each type of medical facility by essential health, administrative, and benefits categories. A template for the scorecard follows.

Scorecard for Information Exchanges – Health

Health Information	*In Theater*	*In Europe*	*DoD Medical Centers*	*DoD Other Facilities*	*VA Polytrauma Facilities*	*VA Other Facilities*
Patient Identification						
Patient Tracking						
Pharmacy/Allergy						
Laboratory Results						
Problem List						
Outpatient Clinical Notes						
Inpatient Clinical Notes						
Trauma Data from Theater						
Discharge Summaries						
Images from Theater						
Radiology Reports						
Vital Signs						
Family History/Health Factors						
Anatomic Pathology Results						
Immunizations						

Legend

- Bi-directional interoperability between DoD/VA
- Electronic data captured locally, partial inter-operability
- Data captured locally, no inter-operability, paper process

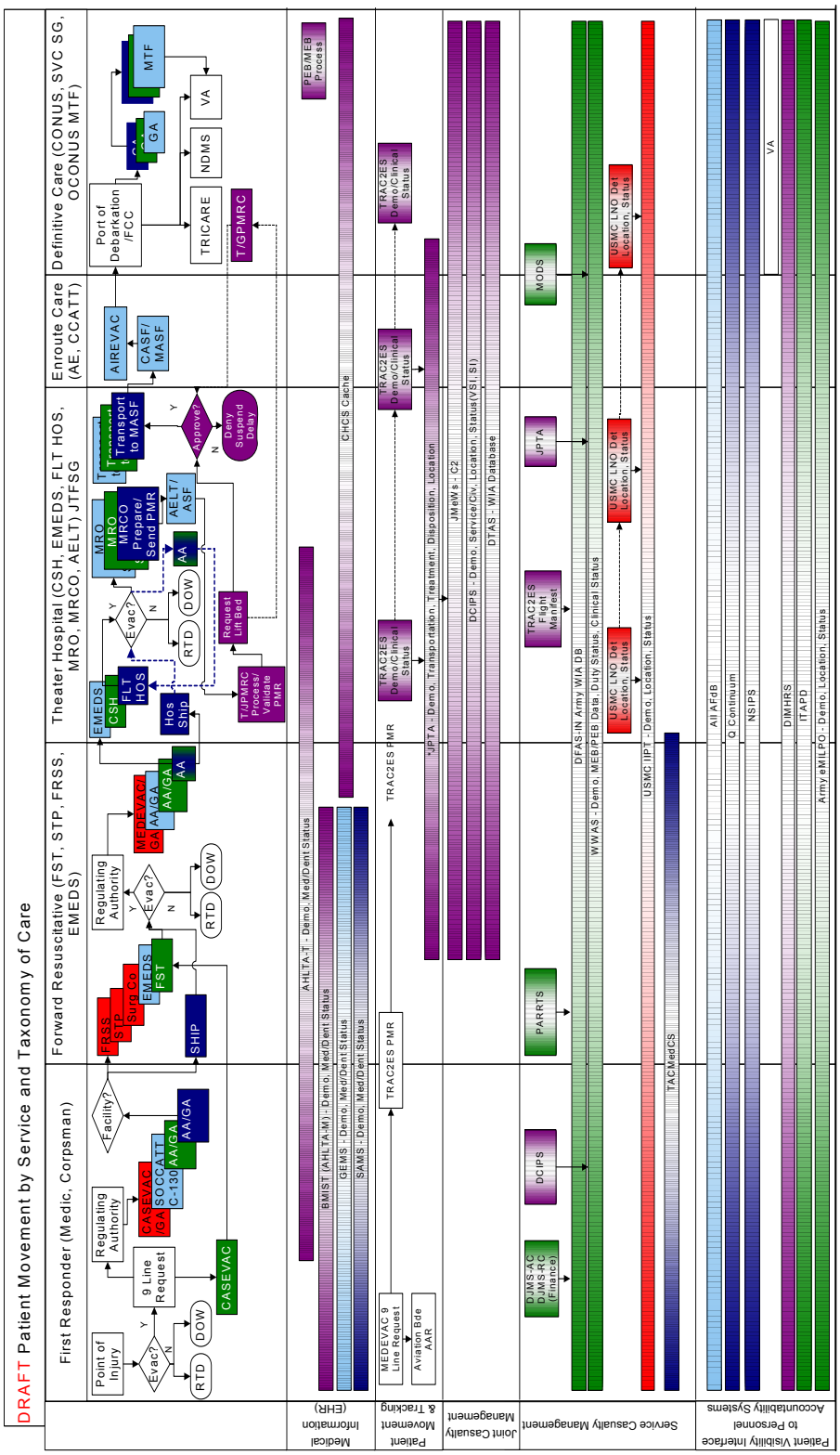

Figure 1: *Source:* DoD Capability Area Management, Joint Logistics Test Case to Improve Patient Tracking Visibility Throughout the Medical Continuum.

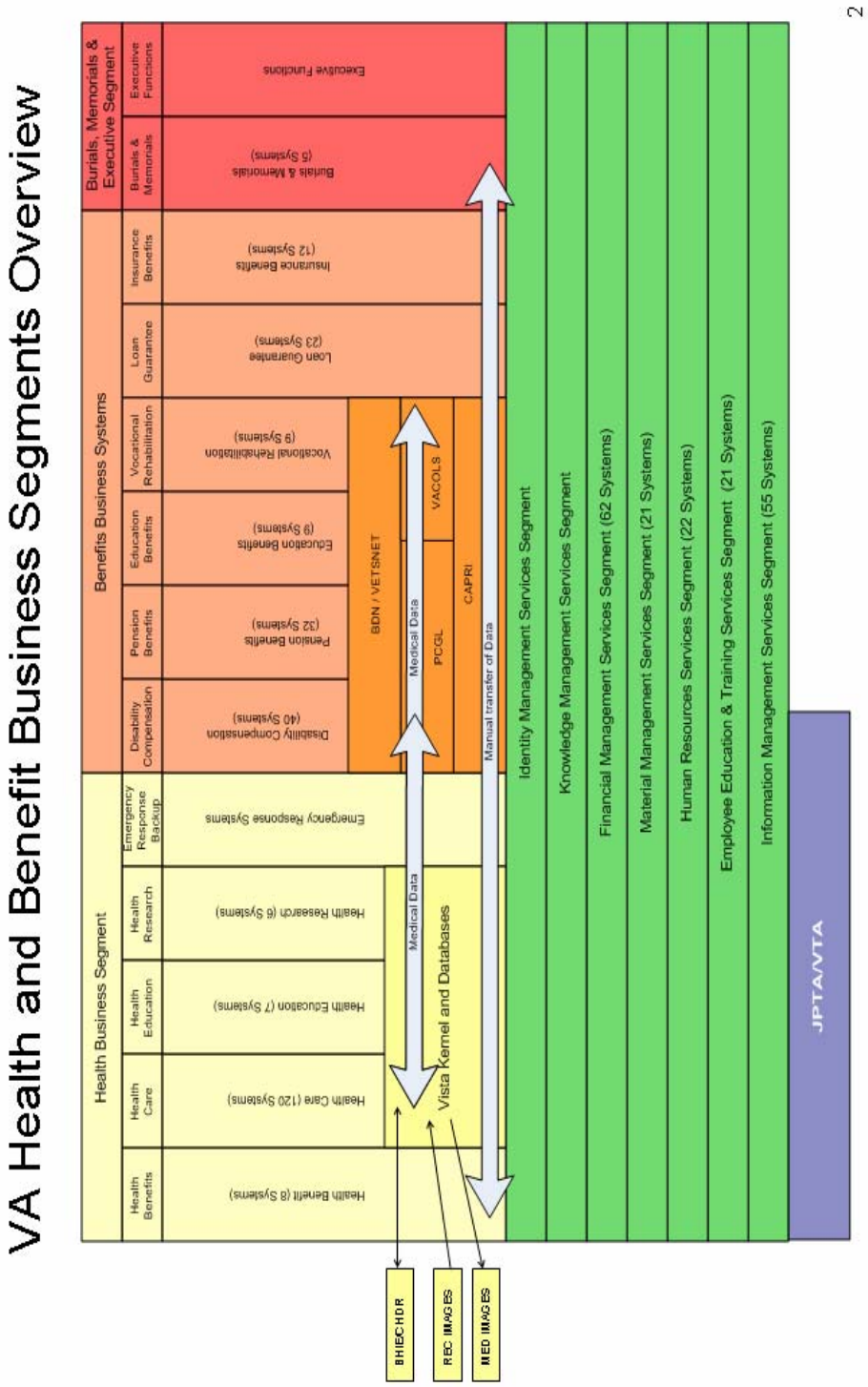

Figure 2: Source: Provided to commission staff by the VA Office of Information & Technology – Enterprise Architecture Department, June 7, 2007

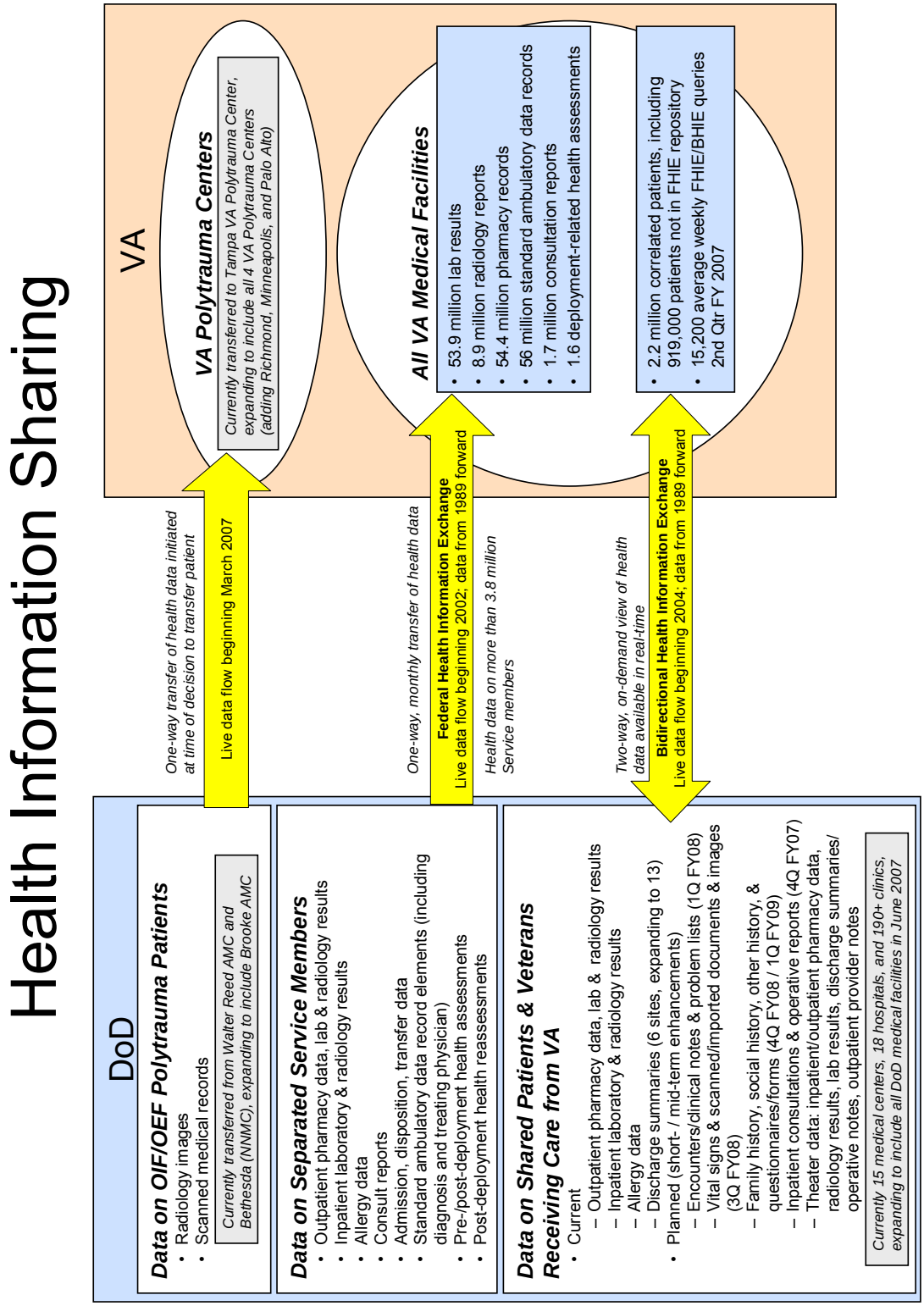

Figure 3, Source: Testimony of Dr. Paul Tibbits at the Commissions public hearing in San Diego, CA – May 24, 2007

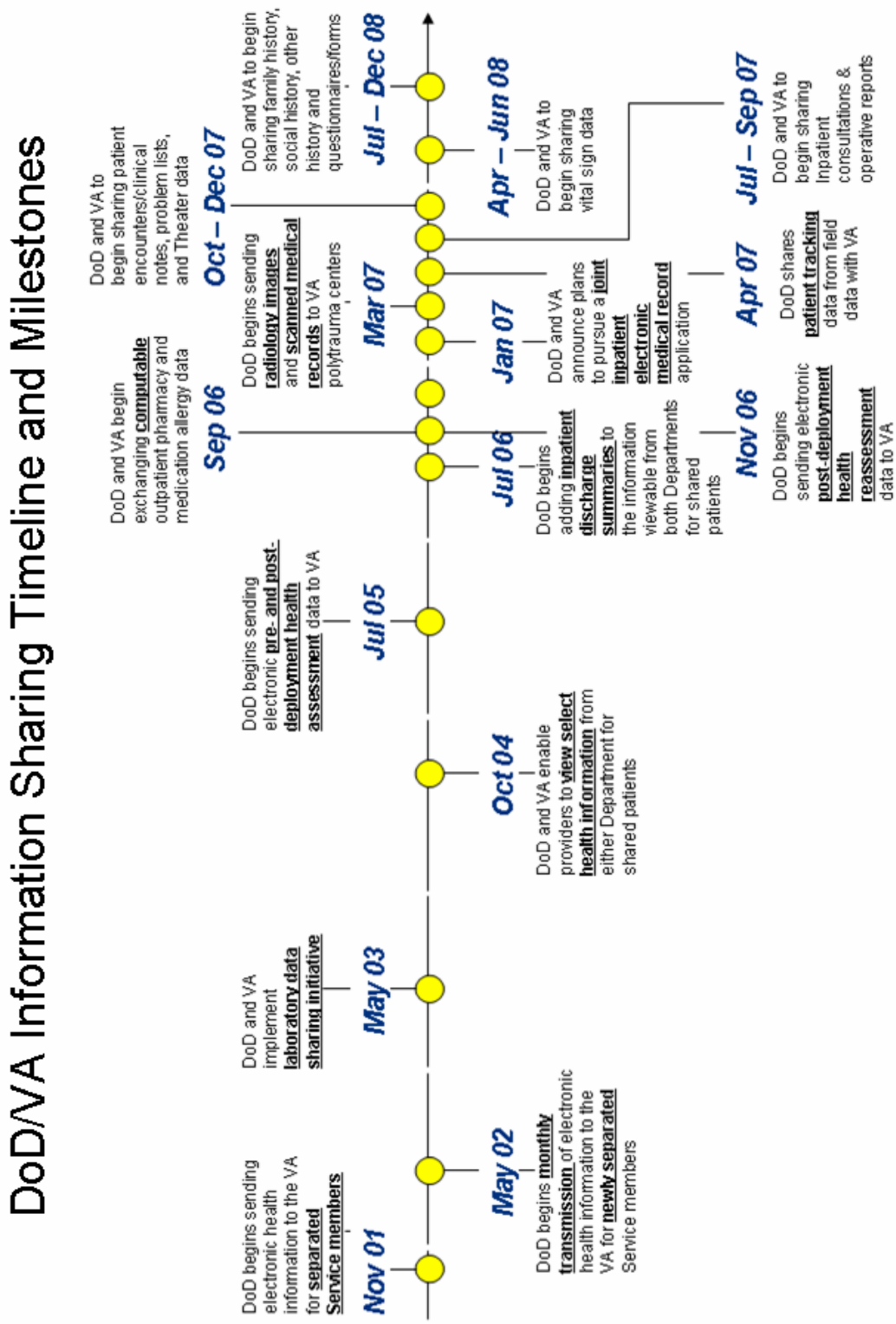

Figure 4 DoD/VA Health Information Sharing Timeline: Sources: Testimony of Dr. Paul Tibbits at the Commissions public hearing in San Diego, CA – May 24, 2007

APPENDIXES TO
Subcommittee Report on Information Systems

Figure: Current Websites for Military Personnel & Veterans

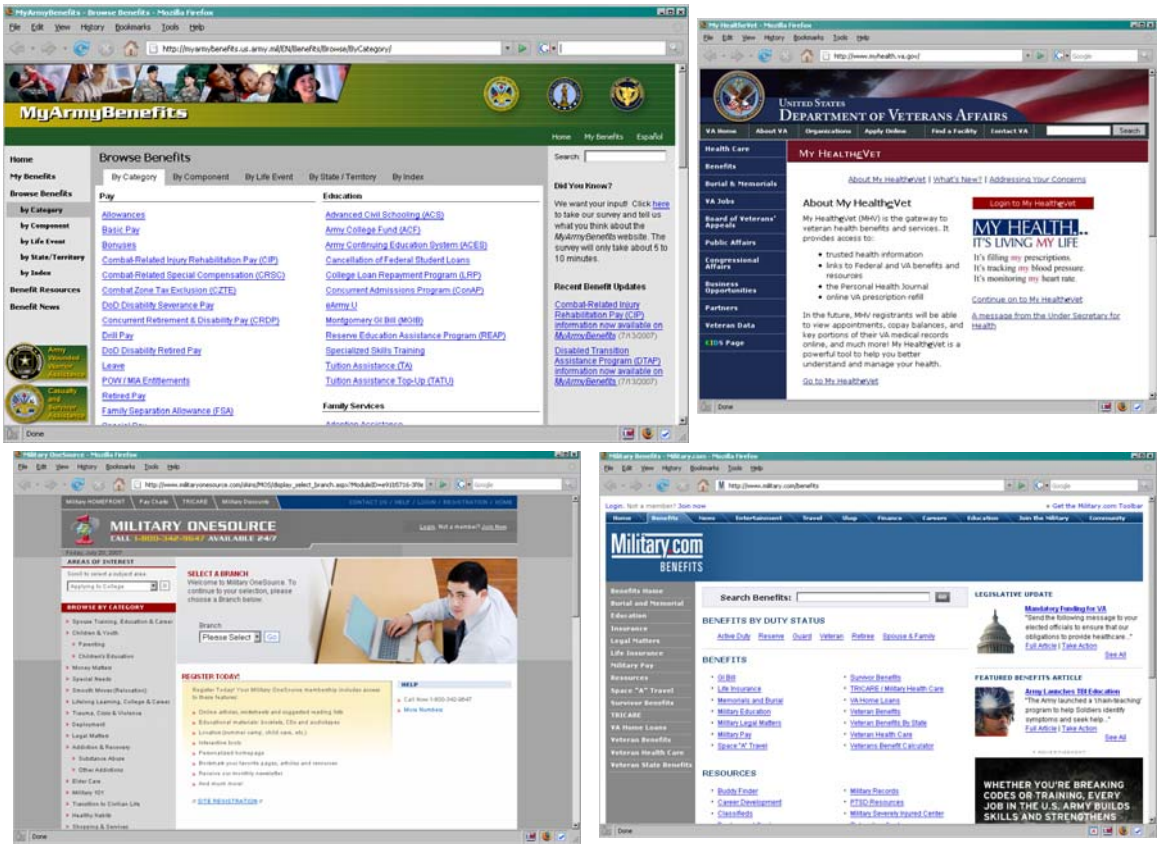

Figure: A comprehensive site home page: My e-Benefits

Figure: A personalized My e-Benefits Page

Abbreviations and Acronyms used in the charts in the Information Systems Subcommittee Report

Abbreviation/Acronym	Definition
AA	Air Ambulance
AAR	After Action Report
AE	Aeromedical Evacuation
AELT	Aeromedical Evacuation Liaison Team
AHLTA	Armed Forces Health Longitudinal Technology Application
AIREVAC	Aero-Medical Evacuation
All AFdB	All Air Force Data Bases
Army eMILPO	Army Electronic Military Personnel Office
ASF	Aerial Staging Facility
BMIST	Battlefield Medical Information System Telemedicine
CASEVAC	Casualty Evacuation
CASF	Contingency Aeromedical Staging Facility
CCATT	Critical Care Air Transport Team
CHCS	Composite Health Care System
CONUS	Continental United States
CSH	Combat Support Hospital
C2	Command and Control
DFAS – IN	Defense Finance and Accounting Service - Indianapolis
DCIPS	Defense Casualty Information Processing System

DENT	Dental
DIMHRS	Defense Integrated Military Human Resources System
DJMS	Defense Joint Military System
DOW	Died of Wounds
DTAS	Deployed Theater Accountability System
EMEDS	Expeditionary Medical Support
EVAC	Evacuation
FCC	Flight Clinical Coordinator
FLT HOS	Fleet Hospital
FRSS	Forward Resuscitative Surgical System
FST	Forward Surgical Team
GA	Ground Ambulance
GEMS	Global Expeditionary Medical System
GPMRC	Global Patient Movements Requirement Center
JMeWS	Joint Medical Work Station
JPTA	Joint Patient Tracking Application
MASF	Mobile Staging Facility
MEB	Medical Evaluation Board
MED	Medical
MEDEVAC	Medical Evacuation
MODS	Medical Operational Data System
MRCO	Medical Regulating Officer
MRO	Medical Readiness Officer

MTF	Medical Treatment Facility
NDMS	National Disaster Medical System
PARRTS	Patient Accounting and Reporting Real-Time Tracking System
PEB	Physical Evaluation Report
PMR	Patient Movement Request
RTD	Return to Duty
SAMS	Shipboard Automated Medical System
SI	Seriously Injured
STP	Site Treatment Plan
SURG CO	Surgical Company
SVC SG	Servicing Surgeon General
T/JPMRC	Theater Joint Patient Movement Requirements Center
TACMedCS	Tactical Medical Coordination System
TRAC2ES	US Transportation Command Regulating and Command and Control Evacuation System
VA	Department of Veterans Affairs
VSI	Very Seriously Injured
USMC II PT	United States Marine Corps Injured/Ill Patient Tracking
WIA DB	Wounded in Action Data Base
WWAS	World Wide Airfield Summaries

Key Survey Findings

President' Commission on Care for America's Returning Wounded Warriors (PCCWW) National Survey on Health Care Experiences of Service Members Injured in Iraq and Afghanistan

The President's Commission on Care for America's Returning Wounded Warriors released today preliminary results of a nationwide telephone survey it conducted to help assess the health care experiences of service members injured in Iraq and Afghanistan.

The Commission survey was conducted from June 7 to June 19, 2007. Participants were military members and veterans who had undergone medical treatment for wounds sustained in Iraq and Afghanistan that led to medical evacuation to the United States. 1,730 interviews were completed.

The following are preliminary results from the Commission survey for the following three segments of the survey population:

- Active Duty
- National Guard/Reserve members serving on active duty or with home units
- Active duty and National Guard/Reserve members who have left the military, most of them with a medical separation or retirement.

The Injured

- The typical active duty service member injured in Iraq and Afghanistan is young. In the survey, 40% are under the age of 25. Guard/Reserve veterans are older—only 16% are under 25 and one of three are from the junior ranks.

- Both active and Guard/Reserve have modest levels of education, with 10 to 15% having some college.

- Overall, 60% are married.

Care System

- These young service members need help navigating the complex medical and disability systems, but many have not had a single coordinator. While on active duty, half of respondents said they had a professional to help coordinate care. After leaving the military, just one in five said they had a coordinator.

Disability System

The survey confirms that the disability evaluation system is source of concern.

- Just over 40% *fully* understood the disability evaluation system and another 30% *mostly* understood the system.
- Help is available for injured veterans moving through the disability evaluation process—two-thirds said they had help. Nevertheless, under 40% were satisfied with the disability system.

- The survey includes 500 medically separated/retired injured veterans who left service in the past two years. Most of them—60% in the Reserve and Guard and 85% of veterans—reported their injuries limit the work they can do. They appear to be overcoming their limits, as 80% of Guard/Reserve and 63% of veterans are either working or in school.

Family

- Two third of injured active duty service members had family come for an extended period to be with them in their recovery; slightly less for Guard and Reserve. Most family members who came were provided housing through Fisher Houses and other local accommodations.

- One in five family members gave up a job in order to stay with their injured family member.

- Family members often act as care coordinators and care takers. Most respondents said family members got the information needed to support this role.

- Non-profit organizations play an important role in family support. 40% of survey respondents said their families receive help from at least one of these groups.

Post-Traumatic Stress Disorder and Traumatic Brain Injury

- The survey confirms the significance of post traumatic stress disorder (PTSD) and traumatic brain injury (TBI) in this conflict. Over 40% of respondents said they reported systems of PTSD or other mental health problems to a health care professional. Sixty percent experienced a blast or other event that could be severe enough to cause brain injury.

- DoD and VA have stepped up screening for these conditions. Almost three-fourths of respondents report being asked questions about PTSD and TBI symptoms.

Information Technology

- Most of the time, the role of information technology is invisible to the service member. They often notice when information is *not* available. A common complaint is lost paperwork. For example, 40% of survey respondents had to resubmit paperwork during the disability evaluation process.