



The Path to VA Telemedicine



GlobalMed[®]

Transforming Healthcare Globally™

The history of benefits¹ paid to U.S. Military Veterans is actually as old as the Declaration of Independence. The Continental Congress approved the nation's first pension law in 1776, granting half-pay for life to Revolutionary War Veterans in cases of loss of limb or other serious disability.



The first national effort to provide disabled Veterans with medical care began with the opening of the Naval Home in Philadelphia in 1812, followed by the Soldiers' Home in 1853 and St. Elizabeth's Hospital in 1855 – both in Washington, D.C.

Veterans Bureau

After World War I, most medical care was provided in armed services hospitals, but the number of injured Veterans prevented facilities from keeping patients through to recovery. President Herbert Hoover signed the bill establishing the Veterans Bureau in 1930 and making it responsible for medical services for war veterans. Between 1931 and 1941, the number of VA hospitals grew to 91.

In 1940, prior to the surprise attack on Pearl Harbor, there were 458,000 active members of the Army, Navy and Marine Corps with more than 4,286,000 living veterans. Former members of the military had served in World War I, the Civil War and the Spanish American War. At that time, the Veterans Affairs Budget amounted to \$561.1 million. The benefits² paid to Veterans came in the form of military pensions determined by a medical screening system for rating and compensating disabilities.

About 16 million people³ – 12% of the U.S. population and more than half the men eligible at the time - were brought into the armed forces during World War II. Some 617,000 men and women were wounded during the war. The VA's experience in assisting thousands of Veterans led it to become a world leader in the development of prosthetic limbs. Only after World War II did the VA form a separate department of medicine to provide outpatient treatment for Veterans with disabilities not related to military service.

The Korean War added to the VA's workload and brought about the reorganization of the agency into three areas: medical care, financial assistance to Veterans, and insurance. Returning Vietnam War-era Veterans had the distinction of providing the largest percentage of disabled than any

¹ "VA History in Brief", Department of Veterans Affairs, 2007.

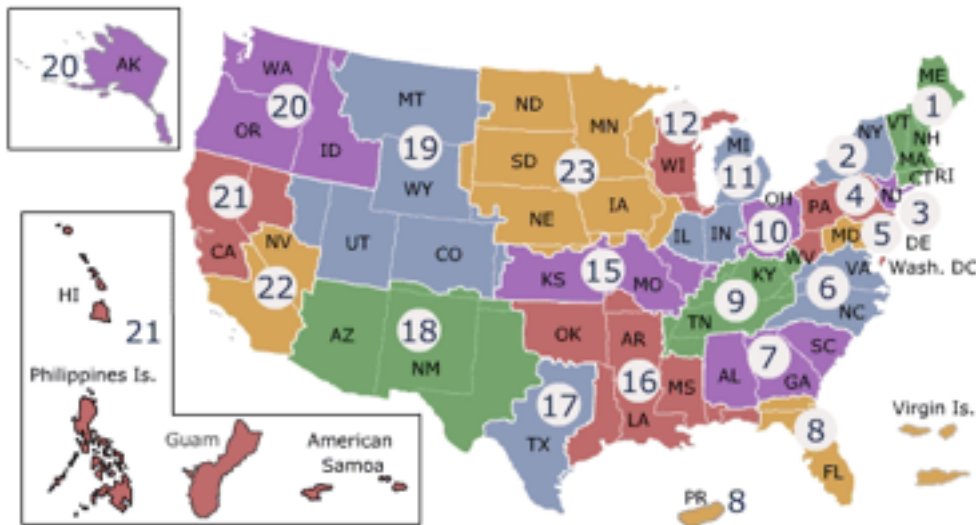
² Blanck, Peter and Song, Chen. "Never Forget What They Did Here: Civil War Pensions for Gettysburg Union Army Veterans and Disability in Nineteenth-Century America", William & Mary Law Review, Vol.44, Issue 3, Article 5, 2003.

³ Segal, David R. and Segal, Mady Wechsler. "America's Military Population", Population Bulletin, Vol.59, No.4, P.4, December 2004. Population Reference Bureau.

previous conflict; in 1972, more than 300,000 had disabilities connected to their military service. Meanwhile, World War II Veterans were rapidly reaching the age of 65, increasing disability pension payments.

The VA began setting up a network of Vet Centers across the country in 1979 that were separate from other VA facilities. In the 1980s, Congress mandated VA health care for Veterans so that by 2005, more than 200 Vet Centers were providing counseling services and post-traumatic stress disorder treatment. And in 1988, President Ronald Reagan elevated the VA to Cabinet status, changing the name to the Department of Veterans Affairs.

The Modern VA System



1995 saw the grouping of the VA's hospitals into 22 Veterans Integrated Service Networks, or VISNs, to respond to a shift to outpatient care from inpatient care. Two years later, the VA established eight Comprehensive Women's Health Centers due to a substantial increase in women Veterans.

The growing number of all Veterans, the aging of this population and the increasing cost of providing health services to Veterans called for a re-examination of where and how the department's assets should be focused. The result of a three-year study was the creation of more than 15 new community clinics around the country. By 2005, the VA's healthcare footprint had grown to 157 medical centers and more than 850 community-based outpatient clinics, or CBOCs

The 2012 U.S. Census identified more than 12.4 million military veterans 65 years of age or older. These Veterans served in World War II, the Korean War, the Vietnam War, and the Persian Gulf Wars. Some 650,000 service members were involved in Operations Desert Storm and Desert Shield in the early 90s. A decade later, the U.S committed 148,000 troops to Operation Enduring

Freedom, the allied effort in Iraq, and even more to the subsequent battle against Al Qaeda in Afghanistan.

Throughout its history, the VA has evolved to meet the needs of Veterans. Despite expansion to more than 1,300 sites of care, the VA was finding it difficult to serve the millions of Veterans while keeping costs under control. VA officials decided to research telemedicine as a way to trim transportation and accommodation expenses for which the department reimbursed its beneficiaries. VISN 19, known as the Rocky Mountain Network, became the research laboratory for the VA.

GlobalMed's Experience

The first contact GlobalMed had with the VA was in 2008, shortly after the company announced the release of its first TotalExam® examination camera. Officials of VISN 19 purchased five of the cameras, initially for testing in their mobile platforms. Less than a year later in 2009, GlobalMed received the first order from the VA for five mobile telemedicine stations. Upon delivery, the i8500™ stations were placed in VISN 19 CBOCs in Colorado and Utah. VISN 19 Staff came to GlobalMed in October 2009 for training.

That successful deployment led to the largest rollout of telemedicine technology in history when the VA made its first major purchase of GlobalMed solutions in 2010. At around the same time, the VA validated GlobalMed's image automation software, CapSure®, for use with its VistA Imaging electronic medical record system, a major achievement for the small company. The software has enabled the VA to use the "store-and-forward" method to save patient medical images for transmission and review by doctors and specialists at a later time. The results of the pilot program showed that telemedicine worked, and then the VA took it to scale. In the years since, the VA has invested in hundreds of GlobalMed solutions for some 2,000 installations.



Adam Darkins, MD
VA Care Coordination Services

By 2012, the VA's telemedicine portfolio included e-consults, mobile health and teleradiology. Part of the VA's success with telemedicine was due to the organization's commitment. "This wasn't thinking we might do it or we'll try it and see how it goes,"⁴ said Adam Darkins, MD, then-chief consultant to the VA's care coordination services. It was the underlying patient need driving telemedicine. Without it, Darkins said, "You're not going anywhere." Telemedicine has shown to reduce utilization, decrease lengths of stay and increase patient satisfaction while resulting in avoiding \$1,900 in costs per patient.

In 2014, the VA⁵ announced that some 690,000 Veterans had participated in more than two million

⁴ Walsh, Beth. "Connected Health: VA Leads Way for Telemedicine", October 29, 2012. <http://www.clinical-innovation.com/topics/mobile-telehealth/connected-health-va-leads-way-telemedicine> Viewed on November 24, 2015.

⁵ Vesely, Rebecca. "VA To Expand Telehealth in 2015," December 22, 2014. <http://www.ihealthbeat.org/insight/2014/va-to-expand-telehealth->

virtual appointments. Forty-four percent of Veterans living in rural areas have received some form of telehealth services. This proven technology⁶ has enabled the world's largest integrated healthcare delivery system to target care and case management to improve access to care and improve the health of Veterans. Telemedicine changed the paradigm and the location where the VA routinely provided healthcare. Darkins said, "Go see what it means to patients...the absolute test of this is smiles on their faces – not traveling 200 miles from home for healthcare." In fact, a survey⁷ of about 10,000 Veterans who have used telemedicine showed a 94% satisfaction rate.

The VA calls its live, real-time telemedicine program Clinical Video Telehealth – CVT or simply telehealth. The patient and the remote physician are present at different locations and communicate via videoconferencing. For years, GlobalMed has offered its customers the added ability to integrate medical devices with the consult so that remote providers can see patient medical images and hear heart and lung sounds as good as if they were with the patient.

Post Traumatic Stress Disorder (PTSD) develops after a terrifying ordeal that involved physical harm or the threat of physical harm. The person with PTSD may not have been the one harmed; the harm could have happened to a loved one or the person witnessed a harmful event. In November 2014, the journal JAMA Psychiatry published a study⁸ about the effectiveness of telehealth visits in dealing with PTSD patients. The authors cited figures that showed nearly 10% of the Veterans Health Administration population were diagnosed with PTSD in 2012. The study of 256 Veterans showed that they had greater participation in interventions and a greater decrease in the severity of symptoms, including depression, after 12 months of treatment via telemedicine. Lead author John Fortney of the VA Puget Sound Health Care System in Seattle, said that previous studies had already found that PTSD treatments delivered by interactive video are equivalent to therapy given in person. And he said the majority of patients are highly satisfied receiving their treatment via telemedicine.

Many Veterans must deal with hearing loss after exposure to the sounds of artillery, explosions and gunfire. Most of the 12,000 hearing specialists in the United States have offices in urban areas, and yet many Veterans have retired in rural America. In 2012, GlobalMed began retrofitting the VA's mobile telemedicine stations in CBOCs with audiology equipment that enables remote specialists to test Veterans' hearing. After determining which sound frequencies a Veteran has difficulty hearing, a distant audiologist can tune hearing aids to match the needs of individuals and improve their hearing.

in-2015 Viewed on November 25, 2015.

6 "VA Telehealth Services", U.S. Department of Veterans Affairs. <http://www.telehealth.va.gov/> Viewed on November 24, 2015.

7 Vesely, Rebecca. "VA To Expand Telehealth in 2015," December 22, 2014. <http://www.ihealthbeat.org/insight/2014/va-to-expand-telehealth-in-2015> Viewed on November 25, 2015.

8 "For Rural Veterans with PTSD, Telemedicine May Help," November 25, 2014. <http://www.foxnews.com/health/2014/11/25/for-rural-veterans-with-ptsd-telemedicine-may-help.html> Viewed November 25, 2015.

There are an estimated 22 million Veterans⁹ from World War II on, including intervening peacetime operations. The VA says that more than three-quarters served during a war or conflict. The number of enrollees and patients will likely reach its peak level in 2019 before plateauing or possibly declining in future years. And yet, the telehealth growth rate is running at about 22% a year. The VA offers 45 specialty clinical areas in its program.

Going Forward

Veterans are older and face more chronic health conditions than the general population. About half of all Veterans are age 65 or older, compared to just 17% of the civilian population. In the Congressionally authorized study of the VA, “Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs,”¹⁰ the authors suggest that significant steps be taken to improve access to care. Among the options considered to have the highest estimated potential impact was the “increasing use of virtual care,” or telemedicine. One of the recommendations made to improve the delivery of care is that there should be better integrated telehealth technologies across VA medical facilities and VISNs. “Assisting Veterans with the use of this technology should improve the Veteran experience and reduce health care costs,” the report states.

⁹ “Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs”, CMS Alliance to Modernize Healthcare Federally Funded Research and Development Center. September 1, 2015. http://www.va.gov/opa/choiceact/documents/assessments/integrated_report.pdf Viewed on November 24, 2015.

¹⁰ Ibid.



Transforming Healthcare Globally™

15020 North 74th Street
Scottsdale, Arizona 85260 USA

1.800.886.3692

+1.480.922.0044 phone
+1.480.922.1090 fax
telemed@GlobalMed.com
www.GlobalMed.com

©2002-2015 GlobalMedia Group, LLC. DBA GlobalMed.
All Rights Reserved. Additional copyright and patent
information can be found at www.GlobalMed.com/legal

MAN-900000 | Rev2



Made in the USA
Products and services
distributed globally

