

**BLINDED VETERANS ASSOCIATION**

**TESTIMONY  
PRESENTED BY**

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**HOUSE COMMITTEE ON  
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SUBCOMMITTEE ON  
OVERSIGHT AND INVESTIGATIONS**



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## **INTRODUCTION**

Chairman Mitchell, Ranking Member Brown-Waite, and Members of the House Veterans Affairs Subcommittee on Oversight and Investigations, on behalf of the Blinded Veterans Association (BVA), thank you for this opportunity to present our testimony on Traumatic Brain Injury (TBI) as it relates to vision. BVA is the only Congressionally chartered Veterans Service Organization exclusively dedicated to serving the needs of our Nation's blinded veterans and their families. The Association has been helping blinded veterans for more than 63 years.

BVA appreciates the invitation you have extended to Operation Iraqi Freedom (OIF) blinded veterans to share their stories today. Like other visually injured service members, they have had to work through a bureaucratic system that does not even attempt to track, report, and provide a Seamless Transition of care for them. For nearly three years, BVA has tried to bring this issue to the attention of the Armed Services Committees, the VA Committees, DoD, and VA itself.

Of paramount concern are the growing numbers of those returning from battle with penetrating direct eye trauma as well as the increase in cases of TBI visual dysfunction. OIF and Operation Enduring Freedom (OEF) returnees trying to enter the VA health care and benefits system today should never have encountered such a difficult process. Quick administrative changes are now vital to correct this.

BVA wishes to make clear that the clinical skills of the DoD professional eye care providers have been deemed excellent. In many cases, outstanding ophthalmology surgery on the battlefield and in military facilities has saved partial vision of soldiers and Marines, a feat that could not have been possible in any previous wars. The weakness is in the administrative systems within both DoD and VA that account for the combat eye wounded and the TBI patients that need specialized vision screening.

## **PREVALENCE AND INCIDENCE OF VISUAL IMPAIRMENTS**

As of February 26 of this year, there were 29,317 wounded in OIF/OEF operations, of which 8,904 required air medical evacuation. Another 8,273 military personnel injured in non-hostile action have also been evacuated from Iraq or Afghanistan. Between March 19, 2003 and September 17, 2007, 1,162 of those evacuated had sustained direct eye trauma. This means that 13 percent of all evacuated wounded had sustained direct eye trauma, the highest percentage of eye wounded in more than 160 years of American wars. Based on additional information that we have received during the aforementioned four-year period, mostly anecdotal in nature, BVA believes that perhaps many more than 1,162 service members evacuated from Iraq or Afghanistan have experienced direct eye trauma.

The top three contributors to combat eye injuries have been 1) Improvised Explosive Devices (IEDs), which caused 56.5 percent of the injuries, 2) Rocket-Propelled Grenades (RPGs), and 3) Mortars. The Landstuhl, Germany, Military Medical Center began a TBI screening program last May, reporting that 33 percent of all wounded were diagnosed with mild, moderate, or severe TBI. The Defense Veterans Brain Injury Center reports that from October 2001 through September 2007, 4,471 were diagnosed with TBI-injuries. The number of service members who have actually sustained moderate-to-severe TBI injuries, to the extent that they are experiencing neurosensory visual

complications, is essentially a guessing game. This is because emerging articles and surveys on TBI complications reveal updated numbers almost every month.

What most concerns BVA are studies revealing that 75 percent of those with TBI injuries also have complaints about vision problems. Approximately 60 percent of those injured have associated neurological visual disorders of diplopia, convergence disorder, photophobia, ocular-motor dysfunction, and an inability to interpret print. Some TBIs result in visual field defects with sufficient loss to meet legal blindness standards.

One early VA research study (2005) of OIF and OEF service members who had entered the VA system with an ICD-9 (diagnostic code) search found 7,842 with a traumatic injury of some kind. Consistent with recent media articles and VA reports, the most common traumatic injury diagnoses were hearing loss and tinnitus (63.5 percent). Nearly 70,000 of the more than 1.3 million troops that have served in OIF and OEF are now service-connected for tinnitus while 58,000 are service-connected for hearing loss. A major cause of this epidemic of hearing loss (60 percent of the cases) is exposure to IEDs. The second most common VA diagnostic code was for visual impairment (27.9 percent).

During the past four years, and especially recently, BVA has attempted to find out just how many total OIF and OEF service members have sustained a traumatic eye injury requiring evacuation. We have suspected that the number is greater than the reported 1,162 stated above. We have also tried to determine how many service personnel from each branch of the military have been diagnosed with a TBI visual dysfunction. The answer from DoD has been either that this information is unknown or that it cannot be shared. We have also been told “off the record” within the past two weeks that as of March 1, 2008, there have been 1,499 serious eye injuries requiring evacuation from Iraq. A total of 376 of the 1,499 are now legally blind in one eye.

Other retired military sources have indicated that another 3,000 men and women with eye injuries have been returned to duty in Iraq after treatment of eye injuries. Some experts have projected that 7,000-8,000 veterans who, if screened, would be diagnosed with some visual dysfunction. We submit to this Subcommittee that OIF eye injuries could well be classified a “Silent Epidemic” and that the dual sensory loss of hearing and vision complications from TBI are, respectively, the number one and two injuries from OIF and OEF.

## **NEUROLOGICAL IMPACT OF TBI DYSFUNCTION**

Perception plays a major role in an individual’s ability to live life. Although all senses play a significant role in perception, the visual system is critical to perception, providing more than 70 percent of human sensory awareness. With hearing being another critical component, IED blast injuries can obviously impair markedly these two key sensory systems.

Vision provides information about environmental properties. It allows individuals to act in relation to such properties. In other words, perceptions allow humans to experience their environment and live within it. Individuals perceive what is in their environment by a filtered process that occurs through a complex, neurological visual system. With various degrees of visual loss comes greater difficulty to clearly adjust and see the environment, resulting in increased risk of injuries, loss of functional ability, and unemployment. Impairments range from loss in the visual field, visual acuity

changes, loss of color vision, light sensitivity (photophobia), and loss of the ability to read and recognize facial expressions.

Although one can acquire visual deficits in numerous ways, one leading cause is injury to the brain. Damage to various parts of the brain can lead to specific visual deficits. Some cases have reported a spontaneous recovery but complete recovery is unlikely and early intervention is critical. Current complex neuro-visual research is being examined in an attempt to improve the likelihood of recovery. The re-training of certain areas and functions of the brain has improved vision deficits in some disorders. Nevertheless, the extent of the recovery is often limited and will usually require long-term follow-up with specialized adaptive devices and prescriptive equipment.

The brain is the most intricate organ in the human body. The visual pathways within the brain are also complex, characterized by an estimated two million synaptic connections. About 30 percent of the neocortex is involved in processing vision. Due to the interconnections between the brain and the visual system, damage to the brain can bring about various cerebral visual disorders. The visual cortex has its own specialized organization, causing the likelihood of specific visual disorders if damaged. The occipitotemporal area of the brain is connected with the "what" pathway. Thus, injury to this ventral pathway leading to the temporal area of the brain is expected to affect the processing of shape and color. This can make perceiving and identifying objects difficult. The occipitoparietal area (posterior portion of the head), is relative to the "where," or "action" pathway. Injury to this dorsal pathway leading to the parietal lobe will increase the likelihood of difficulties in position (depth perception) and/or spatial relationships. In cases of injury, one will find it hard to determine an object's location and may also discover impaired visual navigation.

It is highly unlikely that a person with TBI will have only one visual deficit. A combination of such deficits usually exists due to the complexity of the organization between the visual pathway and the brain. The most common cerebral visual disorder after brain injury involves visual field loss. The loss of peripheral vision can be mild to severe and requires specific visual field testing to be correctly diagnosed. In turn, a number of prescribed devices are frequently necessary to adapt to this loss.

Accompanying such complex neurological effects on the patient is the overwhelming emotional impact of brain injury on the patient and his/her family. BVA would ask Members of this Subcommittee to seriously consider the ramifications of such injuries. Brain injuries are known for causing extreme distress on family members who must take on the role of caregivers. According to a **New England Journal of Medicine** report of January 30, 2008, TBI "tripled the risk of PTSD, with 43.9 percent of those diagnosed with TBI also afflicted with PTSD."

At present, the current system of screening, treatment, tracking, and follow-up care for TBI vision dysfunction is inadequate. Adding visual dysfunction to this complex mix, especially if undiagnosed, makes attempts at rehabilitation even more daunting and potentially disastrous unless there are significant improvements soon.

## **VA LOW VISION AND VA BLIND REHABILITATION PROGRAMS**

A positive note is that the challenges inherent in the growing number of returning OIF and OEF service members needing screening, diagnosis, treatment, and coordinated Seamless Transition

of services can be met, at least to some extent, by the existence of world-class VA Blind Rehabilitation Centers (BRCs). The programs provided at such centers now have a 60-year history.

In the larger picture of VA programs for blind and visually impaired veterans, BVA began working more than four years ago to ensure that VA expand its current capacity as the aging population of veterans with degenerative eye diseases requiring such specialized services continues to increase. Our organization has been particularly supportive of recent plans for intermediate and advanced low-vision VA rehabilitation programs on an outpatient basis. Several such programs are now opening with veteran-centered, vision-specialized teams providing the full range of services. Accompanying this effort is an emphasis by VA on outcome measurements and research projects within the Veterans Health Administration (VHA)

The VA approach of coordinated team methods for rehabilitation care has unlocked strategies for new treatment, providing the most updated adaptive technology for blinded veterans. VHA Prosthetics reports \$200,674 spent during FY 2003-07 on OIF/OEF blinded veterans who have required equipment and aids. The following three sections describe programs within an already existing system that DoD should utilize and coordinate with VHA. Doing so will ensure that veterans and their families receive the best care.

## **THE VISUAL IMPAIRMENT SERVICES TEAM (VISTs) AND BLIND REHABILITATION OUTPATIENT SPECIALISTS (BROS)**

The mission of each Visual Impairment Services Team (VIST) program is to provide blinded veterans with the highest quality of adjustment to vision loss services and blind rehabilitation training. To accomplish this mission, VISTs have established mechanisms to facilitate more completely the identification of blinded veterans and to offer a review of benefits and services for which they are eligible. The VIST concept was created in order to coordinate the delivery of comprehensive medical and rehabilitation services for blinded veterans. VIST Coordinators are in a unique position to provide comprehensive case management and Seamless Transition services to returning OIF/OEF service personnel for the remainder of their lives. They can assist not only newly blinded veterans but can also provide their families with timely and vital information leading to psychosocial adjustment.

Seamless Transition from DoD to VHA is best achieved through the dedication of VIST and Blind Rehabilitation Outpatient Specialist (BROS) personnel. VIST Coordinators are now following the progress of 102 blinded OIF/OEF veterans who are receiving services. The VIST system now employs 99 full-time Coordinators nationwide. There are also 37 full-time BROS serving as the critical source of blind rehabilitation for OIF and OEF blinded veterans.

The VIST/BROS teams provide improved local services when veterans needing continued services leave inpatient BRCs and return home. Such veterans require this additional training due to changes in adaptive equipment or technology advances. Because of recent legislation, VA Blind Rehabilitation Service will establish 20 new BROS positions during FY 2008 and another ten the following year. The creation of these additional positions provides VA with an excellent opportunity to deliver more accessible, cost-effective, and top-quality outpatient blind rehabilitation services.

## **ADVANCED BLIND PROGRAMS: VISUAL IMPAIRMENT SERVICES OUTPATIENT REHABILITATION (VISOR)**

In 2000, VA initiated a revolutionary program to deliver services: Pre-admission home assessments complemented by post-completion home follow-up known as Visual Impairment Services Outpatient Rehabilitation (VISOR). The program offers skills training, orientation and mobility, and low-vision therapy for veterans who need treatment with prescribed eye wear, magnification devices, and adaptive technology to enhance remaining vision. Veterans returning from BRCs, especially those requiring additional outpatient assistance, seem to benefit most from a VISOR experience. A VIST Coordinator with low-vision credentials manages the program. Other key staff consists of certified BROS Orientation and Mobility Specialists, Rehabilitation Teachers, Low-Vision Therapists, and a part-time Low-Vision Ophthalmologist or Optometrist.

According to VA Outcomes Project Research, patient satisfaction with the program is nearly 100 percent. VHA recommended and endorsed a plan for this delivery model within each VISN Network's Advanced or Intermediate Program. During a VISOR experience, medical, subspecialty surgery, psychiatry, neurology, rehabilitative medicine, pharmacy, physical therapy, and prosthetics services can all be consulted as needed within the VA Medical Center, effectively providing the full continuum of care. DoD and VA are now establishing the means by which clinical eye trauma information is shared through an exchange of electronic health care records.

Private agencies that offer blind rehabilitation rarely have the full medical and surgical subspecialty staffing that VA has within a single facility, meaning that veterans and families taking advantage of such services would be required to travel additional distances to receive other VA care, incurring wait times to see other specialists/consultants and delays in obtaining prescribed medications or new treatment plans. BVA also strongly recommends that private agencies utilized for services be accredited by the Commission on Accreditation of Rehabilitative Facilities (CARF) or the National Accreditation Council for Agencies (NAC) Serving People with Blindness or Visual Impairment, and that such agencies be required to utilize VA electronic health care records for clinical care. BVA asks further that agencies contracted for services meet specific outcome measurements.

## **INTERMEDIATE LOW VISION PROGRAMS: VISUAL IMPAIRMENT CENTER TO OPTIMIZE REMAINING SIGHT (VICTORS)**

Another important model of service delivery that does not fall under VA BRS is the VICTORS program. The Visual Impairment Center to Optimize Remaining Sight is an innovative program operated by VA Optometry Service for more than 18 years. The program consists of specialized services to low-vision veterans who, though not legally blind, suffer from visual impairments. Veterans must generally have a visual acuity of 20/70 through 20/200 to be considered for this service. The program, entirely outpatient, typically lasts 3-5 days. Veterans undergo a comprehensive, low-vision optometric evaluation. They receive prescribed low-vision devices and are trained in the use of adaptive technology to optimize functional independence.

The Low-Vision Optometrists employed in the Intermediate Low-Vision programs are ideal for the highly specialized skills necessary for the assessment, diagnosis, treatment, and coordination of services for Iraq and Afghanistan returnees with TBI visual symptoms. This is because such

veterans will often require long-term follow-up services. The programs will also assist the aging population of veterans with degenerative eye diseases. Such programs often enable working individuals to maintain their employment and retain full independence in their lives. They also provide testing for and research into the effectiveness of adaptive low-vision technology aids that have recently become available. In conjunction with a wide network of VA eye care clinics existing in VA medical centers nationwide, combined VIST/BROS teams and Intermediate/Advanced Outpatient programs can provide a wide network of specialized services for veterans and their families.

## CONCLUSIONS

Serious combat eye trauma and visual dysfunction associated with TBI, and that affect OIF and OEF service personnel, have climbed to second in most common injuries from the two conflicts. If hearing loss and visual impairments (dual sensory injuries) are lumped together, they become the most common type of injury. We urge Members of this Subcommittee to request that DoD/VA provide for the full implementation of the “Military Eye Trauma Center of Excellence (ETCoE) and Eye Trauma Registry.” Congress expected the three Defense Centers of Excellence (DCoE) included in the Wounded Warrior Act to be co-located in the same place so that multiple injuries could be diagnosed and treated more effectively. The establishment of the Mental Health Center and TBI Centers of Excellence, along with ETCoE in the same location, will substantially improve multidisciplinary coordination, treatment, rehabilitation, and research into eye trauma cases across the DoD and VA universes.

At present, BVA is aware that the new military TBI Center of Excellence and Mental Health Center of Excellence will be placed together at the National Naval Medical Center in Bethesda, Maryland. Groundbreaking has been scheduled, a director has been appointed, staffing has been approved for 127 full-time personnel, and funding has been set at \$70 million—all in preparation for the establishment of these two Centers. In contrast, important decisions regarding ETCoE, including its location, are still being debated in a variety of arenas and on various levels. BVA is puzzled that two DCoEs are being fully implemented and funded while ETCoE seems left behind in the process.

As an example of “progress,” working groups of DoD/VA ophthalmologists and optometrists are developing a “computer registry” with data fields. This should not be considered the end product of the Eye Center of Excellence. DoD cannot spend more time trying to decide whether it will devote the full resources needed for a comprehensive, administratively effective DoD/VA Center.

Chairman Mitchell and Ranking Member Brown-Waite, BVA again expresses thanks to both of you for this opportunity to present our testimony. BVA believes that as we move beyond the five-year mark of OIF, the government can do better than it has in the past for those who have returned home with life-altering sensory losses. The urgent need for DoD and VA to implement the Military ETCoE, in the manner Congress intended, is now. Veterans who have suffered combat direct eye injuries, as well as those with TBI visual dysfunction, are at risk for complications in the future. Glaucoma, cataracts, retinal detachments, and other associated complications are all potential problems that we can well expect. We again reiterate our concern for the dual sensory “hearing and vision loss veterans” who are caught up in this system. We hope that such individuals will most assuredly be entered into the clinical and/or administrative tracking system designed in the future.

Because the population of war wounded is widely dispersed geographically and long travel distances pose delays to follow-up care, BVA never intended that just one medical treatment facility be tasked with all eye wounded or TBI patients with visual dysfunction. We respectfully state that one “treatment center” is not sufficient. We request that House and Senate VA Committees require several Eye Centers of Excellence to coordinate the care and rehabilitation of our Nation’s blinded veterans who have sacrificed so much.

We would now be pleased to answer any questions that Members of this Subcommittee may raise.

## **RECOMMENDATIONS**

The Secretary of Defense and Secretary of Veterans Affairs must appoint an Eye Trauma Acting Administrative Program Director and dedicated DoD/VA clinical/administrative staff teams. The appropriate personnel must secure immediate financial resources now in order to begin the full implementation of the Eye Trauma Center’s operations. They should then report back to this Subcommittee within 90 days. BVA strongly supports, within VHA, an Eye Trauma Program Assistant to work with the Office of the Chief of Ophthalmology and Optometry. Also appointed should be a designated clinical Eye Trauma Coordinator at all four Poly Trauma Centers. A Physician Assistant similar to the TBI Team Coordinator at Walter Reed Army Medical Center could facilitate high-quality clinical care management and participate in research data collection for the ETCoE. All VA Poly Trauma Centers should screen for and report all eye injuries to VHA and review previous cases so they can be tracked and followed.

The Military ETCoE must be patient- and family-centered, comprehensive, coordinated, and compassionate. It must provide genuine Seamless Transition, thus ensuring electronic bi-directional exchange of both inpatient and outpatient eye care clinical records that both DoD and VA eye care staff can update and share with the Veterans Benefits Administration. All DoD/VA case managers need updates on the various programs for TBI visual dysfunction, eye trauma, and family education and information regarding the locations of vision services within VA. VIST/BROS teams must be notified of all transfers of eye wounded and all TBI Centers must report data on these cases to VHA.

ETCoE should develop standards of care. It should also direct educational resources and training programs to DoD/VA eye care personnel on subjects relating to best clinical practices. The Center must also coordinate much-needed research on eye trauma and TBI visual dysfunction with DoD, VA, and the National Institutes of Health. Additional investigation is needed into the consequences of TBI visual dysfunction since many aspects of the long-term consequences of mild-to-moderate TBI in OIF/OEF veterans are still unknown. In addition, in order to ensure a smooth transition for veterans with visual injuries, VA should explore the means by which further assistance can be provided to immediate family members.

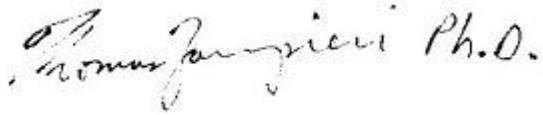
BVA also strongly supports the National Association of Eye Vision Research (NAEVR) position that eye and vision research funding must be expanded in the DoD/Congressionally directed Peer Reviewed Medical Research Program (PRMRP). The Association requests an increase above the \$50 million authorized this year. The request is being made due to the large numbers of combat eye-injured TBI veterans returning from Iraq and Afghanistan, many of whom already have been or will in the near future be diagnosed with visual dysfunction.

## **DISCLOSURE OF FEDERAL GRANTS OR CONTRACTS**

### **Blinded Veterans Association**

The Blinded Veterans Association (BVA) does not currently receive any money from a federal contract or grant. During the past two years, BVA has not entered into any federal contracts or grants for any federal services or governmental programs.

BVA is a 501c(3) congressionally chartered, nonprofit membership organization.



### **THOMAS ZAMPIERI BIOGRAPHY**

Thomas Zampieri is a graduate of the Hahnemann University Physician Assistant Program (June 1978). He obtained a Bachelor of Science degree from State University of New York and graduated with a Masters Degree in Political Science from the University of St. Thomas in Houston, Texas, in May 2003. Mr. Zampieri earned a Ph.D. in Political Science from Lacrosse University in December 2005. He is employed as the National Director of Government Relations for the Blinded Veterans Association, a Congressionally chartered Veterans Service Organization founded in 1945.

Mr. Zampieri served on active duty as a Medic in the U.S. Army from 1972 to 1975. Upon competing Physician Assistant training, he served from September 1978 to August 2000 as an Army National Guard Physician Assistant, retiring as a Major. During this time, he was involved in several military medical training programs and schools, successfully completing the Army Flight Surgeon Aeromedical Course at Fort Rucker in 1989 and the U.S. Army Medical Department's Advanced Officer Course at Fort Sam Houston, Texas, in 1992.