



Looking Forward. Seeing the Future.

# VISION CENTER OF EXCELLENCE

## Update to Recovering Warrior Task Force (RWTF)

Mary G. Lawrence, MD, MPH  
Interim Director  
Vision Center of Excellence  
[mary.lawrence@dha.mil](mailto:mary.lawrence@dha.mil)  
[mary.lawrence@va.gov](mailto:mary.lawrence@va.gov)





# Agenda

- Background
- VCE Mission
  - Mission Areas
  - Stakeholder Engagement
  - CoE Collaboration
  - Continuum of Care
- Eye Injury Statistics
- VCE Organization Status
- Defense & Veterans Eye Injury & Vision Registry (DVEIVR)
- Accomplishments
- Strategic Communication and Strategic Planning
- Vision Research
- Disseminating Information
- Challenges and Needed Changes
- Looking Ahead – Value Proposition



“We have accomplished a lot over the past three years, but there is still a lot to be done towards giving people their lives back.”

Sara Wade  
JPC-8



# Background

- The Vision Center of Excellence (VCE) was established by National Defense Authorization Act (NDAA) (Section 1623) of Public Law 110-181 (January 2008) to improve the prevention, diagnosis, mitigation, treatment, research, and rehabilitation of military eye injuries and diseases including visual dysfunction related to Traumatic Brain Injury for Service members and Veterans
- Additionally, the NDAA required the implementation of a Vision Registry to collect longitudinal data on eye injuries, guide research, promote best practices, and guide clinical education for the treatment of eye and vision related injuries for Service members and Veterans
- NDAA 2008 further mandates the “Secretary {of Defense} shall ensure that the center collaborates to the maximum extent practicable with the Secretary of Veterans Affairs, institutions of higher education, and other appropriate public and private entities (including international entities) to carry out the responsibilities in subsection (c) {of Section 1623}.”
- A VA and DoD Memorandum of Understanding (MOU), dated October 8, 2009 established the VCE under the authority of the Secretary of Defense in collaboration with the Secretary of Veterans Affairs

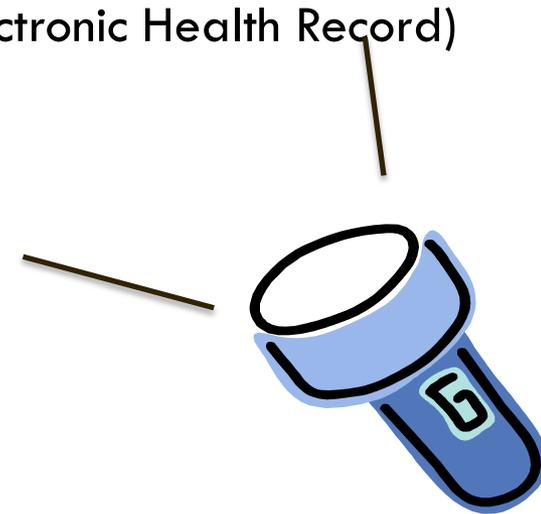




# Initial Definition and Value Proposition for Centers of Excellence<sup>1</sup>

Centers of excellence (COEs) focus on an associated group of clinical conditions and create value by achieving improvement in system-wide outcomes through clinical, educational and research activities.

- CoEs develop Pathways of Care covering the clinical spectrum from prevention through reintegration or transition
- Products of Pathway of Care development include:
  - Guidance regarding structured documentation (Electronic Health Record)
  - Clinical practice guidelines
  - Process and outcome measures
  - Educational materials
  - Innovation and identification of research priorities
  - Strategies for improving access to care



<sup>1</sup>Department of Defense Report to Congress, April 2011



## Mission

**To improve vision health, optimize readiness, and enhance quality of life for Service members and Veterans**

- Provide leadership and advocacy for programs and initiatives focused on improving the full spectrum of ocular care, including prevention, diagnosis, mitigation, treatment, and rehabilitation of eye injuries and disorders of the visual system
- Contribute to the continuous improvement in DoD and VA system-wide vision care through clinical, educational and research activities



# VCE Mission Areas

VCE's core mission areas...



Data to Support Evidence-Based Care, Research, Education, and Policy



Clinical Care Integration



Education & Training



Rehabilitation & Reintegration



Research & Surveillance



...focus efforts to ensure mission success



# Stakeholder Engagement

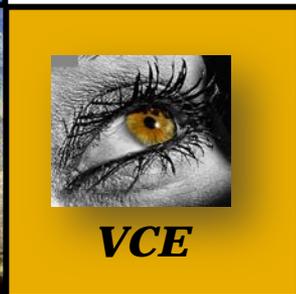
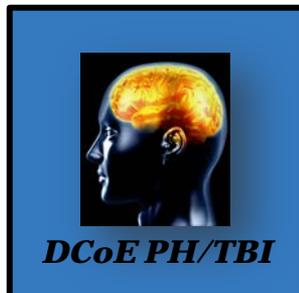


Keeping Service Members, Veterans, and their families at the center of our mission, the VCE **links together** a network of DoD and VA clinical and research centers around the world and **engages** a vast array of other strategic partners.



# Centers of Excellence Collaboration

Coordination and collaboration with other Centers of Excellence is a priority



- The VCE is currently collaborating and integrating with the other CoEs (including the National Intrepid Center of Excellence; the Defense Center of Excellence for Psychological Health and Traumatic Brain Injury; the Hearing and Auditory System Injury Center of Excellence; and the Extremities and Amputation Center of Excellence)
  - VCE is leading the registry efforts and partnering with the Hearing, Extremities and Amputation and Psychological Health and Traumatic Brain Injury Centers of Excellence
  - At present, these interagency CoEs are working towards achieving optimal healthcare for the War Fighter by:
    - Enhancing the interagency continuum of care from battlefield, to bedside, to reintegration into the patient's home and community
    - Developing agile and adaptive information systems
    - Linking specialty focused care and research to facilitate clinical improvement and research translation
    - Including Quality of Life as an outcome variable
    - Identifying key capabilities and targeting redundancies for most effective and efficient function



# Continuum of Care

## Continuum of Care for Eye and Vision Injury

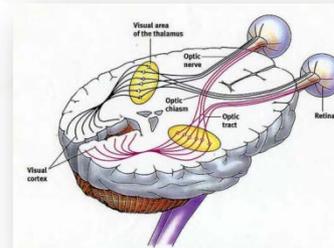
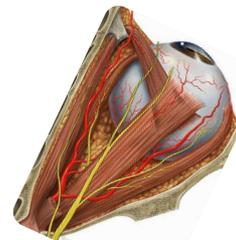


### Ocular Trauma

- Globe
- Orbit
- Eyelids

### Brain (TBI-associated Vision Dysfunction)

- Optic nerve injuries
- Diffuse brain injury affecting visual processing
- Cranial nerves (eye movement)
- Visual field losses
- Photo sensitivity





# VCE Full Operational Capability (FOC)

- Background: Joint Strategic Plan for FY 2011-2013 Goal 2, Sub-goal 2.1, Smart Objective 2.1.I, established FOC for VCE by the end of FY 2013
  - In FY12 VCE briefed government staffing levels at 30% of that required for FOC to Recovering Warrior Task Force and to senior staff of Rep C. W. Young, Chair, Subcommittee on Defense Appropriations
  - Current government staffing levels are unchanged from FY12
- Discussion: VCE is mitigating government staffing shortfalls with contract support satisfying immediate critical need, but not providing a sustainable capability



# Leadership Changes and Pending Decisions

VCE Staffing Levels				
	DoD Active Duty	DoD Civilians	Public Health Service	VA
<b>Authorized</b>	1	9	1	6.0
<b>Special Status*</b>	0	0	0	0.6
<b>Current</b>	0	9	1	3.6
<b>Vacant</b>	1**	0	0	3***

\* Former VA Armed Forces Institute of Pathology (AFIP) health scientist relocated to VCE when AFIP closed

\*\* Executive Director position vacant since Mar 13

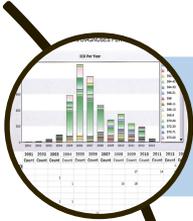
\*\*\* Plans in place to hire an additional 3 FTEs in 2014

- VCE Executive Director
  - VA Deputy Director functioning in Interim Director role
  - DoD Executive Director has been selected
- Additional VA hires underway
- Pending decision about potential realignment of medical CoEs within the Military Health System (MHS)

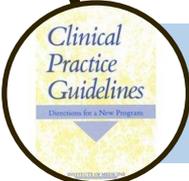


# Defense and Veterans Eye Injury and Vision Registry (DVEIVR)

## *Creating Opportunities to Improve Vision Health*



Longitudinal analysis of conditions, treatments, and outcomes data



Expand best practices and clinical guidelines for vision injuries and dysfunction



Guide eye injury related research

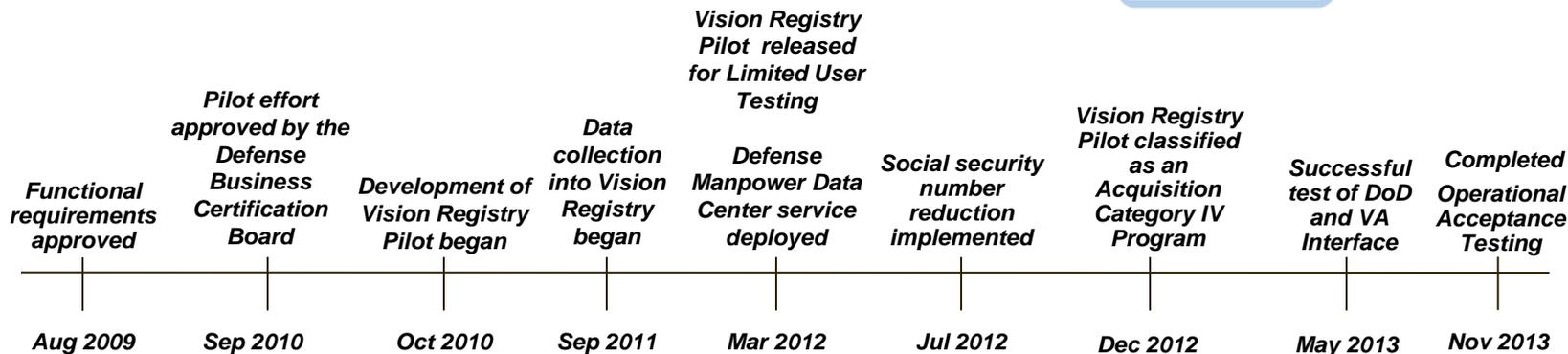
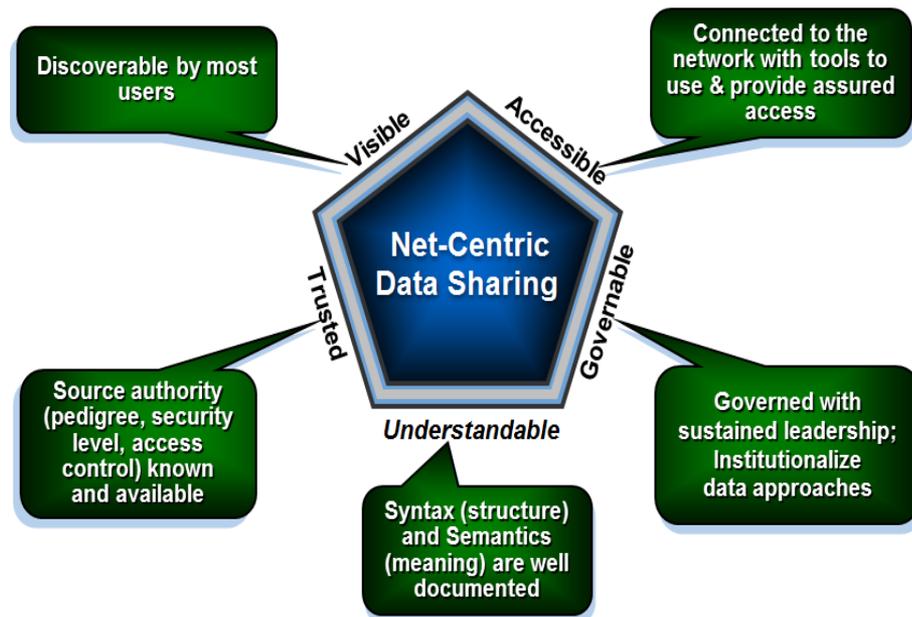


Inform DoD and VA policy regarding vision care



# Status Update: DVEIVR

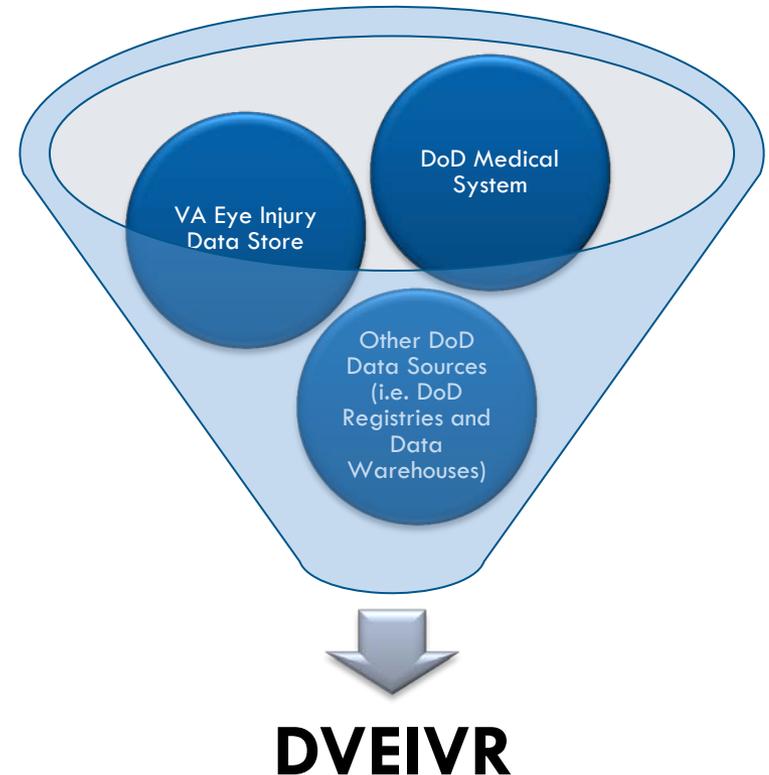
- DoD/VA initiative that provides quantitative data for longitudinal outcome analyses of eye trauma and vision impairment
- Will support more effective prevention, mitigation, treatment and rehabilitation of injuries and disorders of the visual system
- Conducting data collection effort in preparation for a Milestone C Initial Operational Capability decision





# Data Collection: DVEIVR

- DVEIVR is being populated using both electronic and manual data collection methods
- As of 8 Jan 2014, there were 22,793 unique patients enrolled in the Vision Registry





# Significant Accomplishments - 2013

## Clinical Recommendation Regarding Vision Problems Following Traumatic Brain Injury

- VCE, in collaboration with Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE), developed a clinical recommendation and reference card: *“Assessment and Management of Visual Dysfunction Associated with Mild TBI Reference Card and Clinical Recommendation”*
- The new resource offers a practical approach for providers to identify patients with mild TBI who may benefit from further eye or vision evaluation and care



DCoE Clinical Recommendation I January 2013

### Assessment and Management of Visual Dysfunction Associated with Mild Traumatic Brain Injury

#### Introduction and Background

More than 253,000 traumatic brain injuries (TBI) have occurred in the military from 2000 through the second quarter of 2012<sup>1</sup>. During the height of combat, the numbers of service members who sustained a TBI increased by approximately 10,000 per quarter<sup>2</sup> and the majority of these (80-85 percent) have been classified as mild TBI (mTBI). Although most patients with mTBI recover completely within three months of injury, a small subset of individuals experience persistent symptoms and difficulty in rehabilitation, particularly in the setting of co-occurring disorders.<sup>3,4</sup> Visual dysfunction is a common co-occurring disorder of mTBI and has a significant functional impact on the lives of affected service members and veterans.<sup>2,5</sup> Two of the most common forms of visual dysfunction following mTBI are oculomotor dysfunctions and visual field loss.<sup>4,6</sup>

Visual dysfunction associated with mTBI can be the result of direct trauma to the eye and orbit as well as from neurologic injury following concussion, blast exposure or other head trauma. The human visual system is highly complex and vulnerable at numerous points to concussive events. This clinical recommendation is intended to offer the medical primary care provider (PCP) an approach to identifying patients with mTBI who may benefit from further eye or vision evaluation and care, as well as recommendations on minimum vision testing. The recommendations are based on a review of current published literature as well as the proceedings of a February 2012 expert panel convened by the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) and the Departments of Defense and Veterans Affairs' (VA) Vision Center of Excellence (VCE) that included clinical subject matter experts representing the military services, VA, DCoE, VCE and academia. This clinical practice recommendation was developed with the participation of representatives from VA and the Defense Department's TBI Quad Services Call, which includes TBI representation from the Air Force, Army, Marine Corps and Navy.

#### Clinical Recommendation

This clinical recommendation is designed to assist providers in the diagnostic process. It provides pathways for specialty referrals for patients complaining of visual disturbances following mTBI. Included in this document is the clinical algorithm that addresses red and yellow flags, identifying comorbidities, basic visual assessment and referral options.

#### Physical Examination

A comprehensive primary care examination for complaints of visual disturbances should include a comprehensive patient history, a functional questionnaire/survey and a basic eye/vision assessment. Due to the nature of visual dysfunction and the complexity of comorbid conditions potentially involved, to fully assess the visual dysfunction the same diagnostic approach can be used regardless of the date of injury or onset of symptoms. In the primary care setting, a patient presenting with a suspected concussion and vision complaints should be evaluated with a comprehensive history and appropriate screening physical examination as outlined in **Figure 1** on the following page.





# Significant Accomplishments – 2013 (continued)

Additional VCE Clinical Recommendations (CR) under final review:

- CR for the Eye Care Provider, Eye Care and Visual Dysfunction Following Possible Traumatic Brain Injury: Assessment, Management, Rehabilitation and Referral
- Oculomotor Dysfunction Associated with Traumatic Brain Injury: Assessment and Rehabilitation
- Visual Field Loss Associated with Traumatic Brain Injury: Assessment, Referral and Rehabilitation

## Assessment and Management of Oculomotor Dysfunction Associated with TBI

These cards are intended to help guide the assessment, management and referral of patients with oculomotor dysfunction associated with traumatic brain injury. Recommendations are provided for tests that can help eye care providers identify the most common oculomotor dysfunctions associated with TBI. Additional recommendations are also included to help provide guidance for treatment options. The information included here should not replace sound clinical judgment or standard practice when caring for a patient.

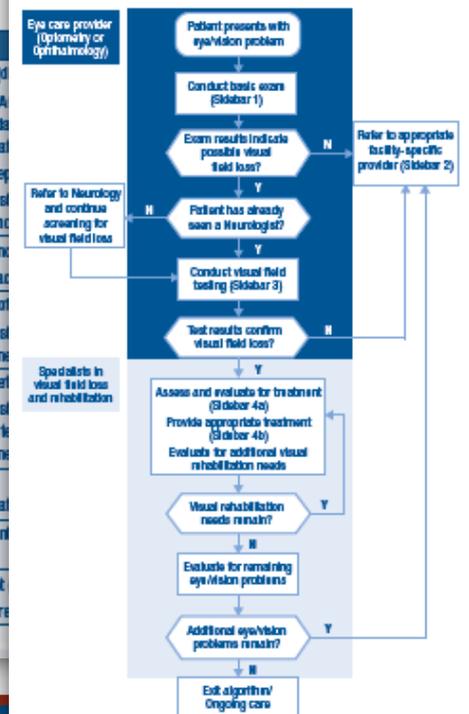
### Recommended Tests to Screen for Oculomotor Dysfunction

Using their best corrective lenses, the patient should be given adequate time to complete the tests below:

Oculomotor Parameter	Testing
Eye alignment	<ul style="list-style-type: none"> <li>Cover test (dissociated)</li> <li>Calculated A (accommodative convergence/eye divergence)</li> <li>Parks 3-Step</li> <li>Auxiliary base</li> <li>Modified Thorpe</li> </ul>
Fusional vergence	<ul style="list-style-type: none"> <li>Step vergence</li> <li>Vergence fusional</li> </ul>
Convergence amplitude	<ul style="list-style-type: none"> <li>Near point of convergence</li> <li>Auxiliary base</li> <li>Repeated measurement</li> </ul>
Accommodative amplitude	<ul style="list-style-type: none"> <li>Push-up method</li> <li>Auxiliary base</li> <li>Minus lens test</li> <li>Repeated measurement</li> </ul>
Accommodative facility	<ul style="list-style-type: none"> <li>Monocular accommodation</li> </ul>
Eye movements (tracking, pursuits and saccades)	<ul style="list-style-type: none"> <li>Developmental Eye Movement (DEM) test</li> </ul>
Suppression check	<ul style="list-style-type: none"> <li>Worth 4 Dot</li> <li>Randot Stereoacuity</li> </ul>

## Assessment and Management of Visual Field Loss Associated with Traumatic Brain Injury

This algorithm is intended to help guide the assessment, management and rehabilitation of patients with traumatic brain injury (TBI) and visual field loss. The algorithm involves eye care providers (ophthalmologists and optometrists), specialty care providers and rehabilitation specialists over the course of assessment, screening, referral and rehabilitation of a patient. The algorithm includes tests that will screen for and indicate the type of visual field loss as well as the type of treatment or rehabilitation recommended. The processes outlined in this algorithm should not replace sound clinical judgment or standard practice when caring for a patient.





# Significant Accomplishments – 2013 (continued)

- Developed an eLearning course on the proper application of post-trauma (Fox) eye shields for ocular trauma cases
  - Led the way to initial inclusion of protective (Fox) eye shield in joint first aid kits (JFAKs); coordinating with Services to expand into the individual first aid kits (IFAKs)
  - Spearheaded effort to include use of protective eye shield on 2013 edition of Tactical Combat Casualty Care (TCCC) card recently approved by DoD
- December 2013: United States Forces-Afghanistan (USFOR-A) Message 13-067 Disseminates Command Guidance And Instruction To USFOR-A Personnel For Reinforcing The Distribution And Use Of Fox Eye Shields To Treat Eye Injuries For The Combined Joint Operations Area-Afghanistan





# Use of Rigid Eye Shields (Fox Shields) at the Point of Injury in Afghanistan

- Clinical Practice Guideline (CPG) for initial care of the ocular casualty, core tenets include:
  - Placement of a rigid shield over the eye without an intervening dressing between the shield and the eye
- In one of the few studies documenting the use of eye shields in ocular trauma, overall compliance was ~39% in a military combat setting (61/157)
- Further analysis found successful mitigation (a shield placement at the point of injury without an intervening dressing between the shield and eye) was only 4.2% (1/24)



Figure 1A. Pre-fabricated metal eye shield.



Figure 1B. Improvised eye shield using military combat eye protection.



Figure 2. Inappropriately patched eyes (i.e., "What NOT to do").

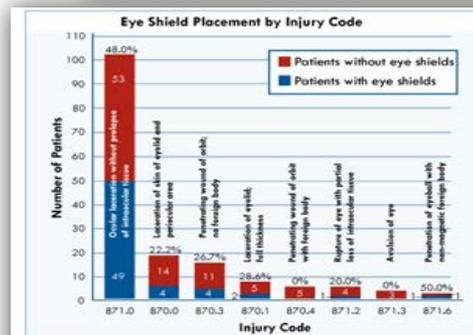


Figure 3. Incidence (%) of eye shields placed on patients with eye injuries (n = 157) by ICD-9 injury code.

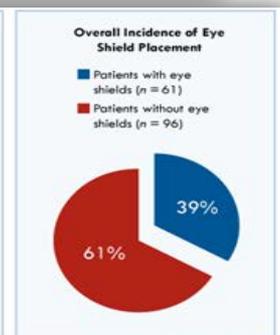


Figure 4. Incidence of eye shield placement in study population (n = 157).

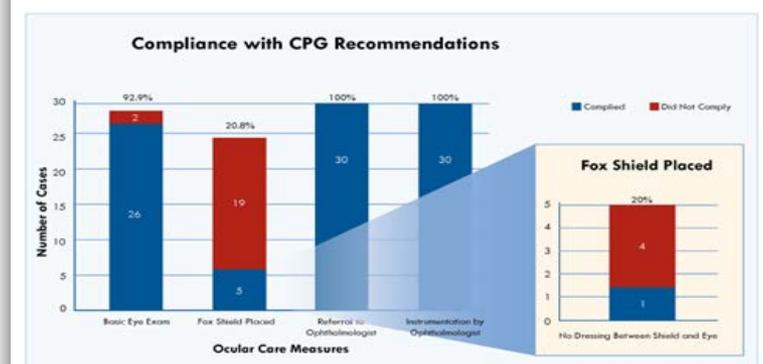


Figure 5. Compliance with ocular core measures in a subset of randomly selected cases (n = 30). Inset: Compliance with CPG recommendation of no dressing between Fox shield and eye (n = 5).



# Significant Accomplishments – 2013 (continued)

- Designed an educational pamphlet geared toward the inpatient care team caring for blind and visually impaired patients in the hospitalized setting. The pamphlet is being distributed to hospitals throughout both DoD and VA healthcare systems.
- Documented all policies, guidance and recommendations related to eye-care across the VA and DoD
  - VCE inventoried and catalogued over 100 policies across the continuum of eye care from prevention to rehabilitation
- Completed an environmental scan of patient and provider education tools related to vision loss and visual dysfunction, and collected 150 paper, video, mobile application and technology based (e.g., audio recordings) tools for patients, family members and care givers, as well as 80 paper, video, mobile application and technology based tools for providers
- Conducted an analysis of the gaps in existing tools as well as the identification of tools that may be adapted or adopted from external government agencies or non-government stakeholders
  - Recommendations for educational tools to be developed or adapted from existing tools



# Significant Accomplishments – 2013 (continued)

- Hosted a knowledge-based workshop in collaboration with the VA Employee Education System, entitled “Managing Vision Disorders Following Traumatic Brain Injury” to teach VA ophthalmologists and optometrists how to clinically assess and manage eye and vision disorders associated with blast injury and TBI
- Conducted a systematic review of literature with the intent to produce a meta-analysis of published literature regarding visual field losses, and oculomotor dysfunction associated with TBI
- Convened an expert working group in collaboration with the Combat Critical Care Research Program of the U.S. Army Medical Research & Materiel Command (MRMC), to identify studies that support the potential uses of eye-movement techniques and technologies for the assessment of mild traumatic brain injury (mTBI) and concussion
- Compiled a glossary of terms to accompany the Eye Care Provider Clinical Recommendations
- Completed an educational and awareness campaign to encourage the use of appropriate protective eyewear and promote vision-saving, injury response practices
- Initiated plan to develop an updated and validated visual functioning questionnaire for age specific populations of Service members and Veterans with eye injuries and diseases by March 31, 2015



# VCE Strategic Communications Plan

- **Goals**
  - Create external VCE visibility and organizational awareness
  - Establish, build and strengthen VCE partnerships and collaborative relationships
  - Increase the quality, quantity and consistency of VCE communications
- **Major products**
  - Shields Save Sight Campaign – October 2013
  - VCE Annual Report 2012-2013 – April 2014



# “Shields Save Sight” Overview

- “Shields Save Sight” launched on October 1, 2013...
  - To raise awareness leading to an increase in the use of DoD- approved eye protection listed on the Authorized Protective Eyewear List (APEL) among active duty Service members
  - To encourage proper procedures following an eye injury by promoting the proper use of rigid eye-shields and discouraging the common technique of applying pressure following an injury
- “Shields Save Sight” communicated important eye safety information, and promoted preventative and response best practices to active duty Service Members, front line leadership and medical first responders





# S3 Campaign Results Highlights



- Produced two radio and two television public service announcements
- **Nearly 700 airings on TV and 340 airings on radio**
- Distributed via Armed Forces Network that broadcasts to **over one million US Service members and their families**, including those serving aboard U.S. Navy ships
- Ran Oct. 1-Nov. 17



- Secured three ads on the InfoNet system that supplies LCD announcements to 44 installations throughout the DC area
- Message exposure to 160,000 personnel weekly for three months
- **Potential reach of nearly two million people**



- Established Facebook and Twitter pages
- Posted 74 times on Facebook alone, resulting in a reach of at least 4,675 individuals
- **Secured 106 Facebook and 37 Twitter followers by campaign's end, exceeding initial goal by 70%**
- **Overall message exposure is nearly 15,400**



- **Experienced a 44% increase in web traffic**
- Nearly 20% of the monthly traffic was to eye shields pages
- Downloads:
  - Authorized Protective Eyewear List (19)
  - Eye Pro (16)
  - Injury Response (14)

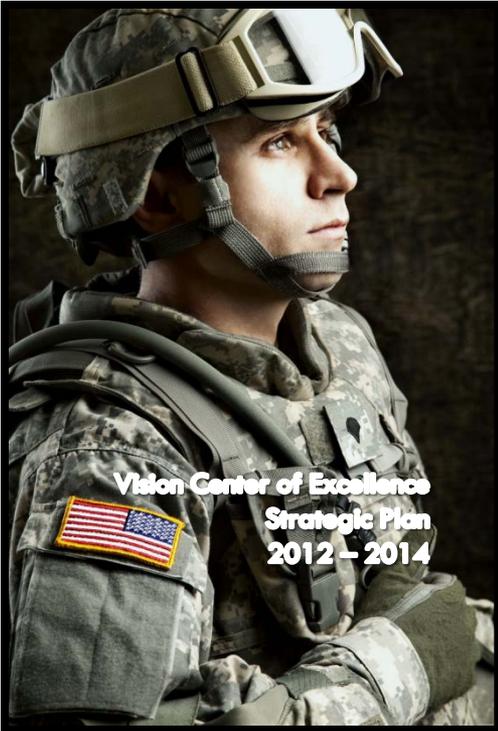


- BUMED blog re: injury response resulted in:
  - **241 page views**
  - **Shared 19 times on BUMED's Facebook, 14 times on Twitter & 37 shares on other social media sites**
- Secured placement of the eye pro feature with the Army National Guard blog

Overall potential message exposure to 3,052,561



# VCE Strategic Plan - Status



- *VCE Strategic Plan 2012 – 2014*
  - Approved by CoE Oversight Board January 2012
- VCE is in process of updating Strategic Plan
  - Examine strategic direction mission, goals, objectives
  - Develop a path to the desired future
- Status:
  - Completing interviews of VCE stakeholders
  - Completing phase 2 in the first quarter of FY 2014
  - Completion of Phase 3 may be delayed until new Executive Director is named and onboard

## PHASED STRATEGIC PLANNING APPROACH





# Vision Research

- VA funded vision research (intramural only)
  - 19 funded projects, including pre-clinical, translational, and clinical, and two vision research centers of excellence (Atlanta, Iowa City)
- DoD funded vision research (intramural and extramural)
  - 67 funded projects covering prevention, genetics, treatment, and rehabilitation
- Interagency vision research coordination
  - VCE tracks vision related research outcomes (publications, patents, product development)
  - VCE established and chairs Interagency Vision Research Scientific Steering Committee
  - VCE Chaired Clinical and Rehabilitative Medicine Research Program (CRM RP) Joint Programmatic Committee-8 (JPC-8) programmatic review for 2012 – 2013 program
  - VCE Chaired CRM RP JPC-8 programmatic review of proposals submitted for the Assistive Technologies Research Award (including VA, NIH representatives)





# VCE FY13 Research Productivity and Dissemination

- Active studies:
  - Roadmap for simulation in eye care (Oct '12): 2 reports forthcoming: gap analysis and trauma subsection (under development...pending completion to Telemedicine and Advance Technology Research Center (TATRC))
  - Completed studies:
    - Joint Trauma System/Institute of Surgical Research eye shield compliance (Jan '13)
    - Military Health System Research Symposium (MHSRS)/Advanced Technology Application to Combat Casualty Care (ATACCC) eye shield poster (Aug '13); peer review manuscript in submission process
    - Natick-sponsored blast study on eye pro (an outgrowth of their participation in our VTC/VIZEST). Follow-on study planned.
- Poster/Podium Presentations
  - Blinded Veterans Association (BVA): ~16 different speakers
  - Association for Research in Vision and Ophthalmology (ARVO): Symposium on TBI (collaboration)
  - MHSRS: eye shield compliance poster
  - American Academy of Ophthalmology (AAO) '12: Telemedicine in DoD Ophthalmology;
  - AAO '13 (FY 14) Blast Eye Injuries: Lessons Learned from Boston, West, Texas, Iraq, and Afghanistan, and VA/DoD Leading the Way: Simulation in Eye Care
- VCE also involved in 2 current/ongoing Army Small Business Innovation Research projects (FY12, 13, 14...):
  - Smartphone slitlamp development now in Phase 2
  - Biocompatible material for corneal wound healing now in Phase 1



# Research Suggested Changes in Practice

- Use of and compliance with eye shields for trauma:
  - Recent study showed 20-40% compliance (60% non-compliance)
  - Of those that were compliant, only 20% of shields placed properly
  - Overall effect: 4% of eye injuries were adequately treated
  - Needs: continued education, logistics, policy



# Disseminating Vision Research Information

- A list of Departments of Ophthalmology and Optometry in the United States, Research & Development laboratories in Army, Navy, and Air Force, and Veterans Affairs points of contact for research had been created and the 2013 Vision Trauma Research Program (VRP) Request for Proposals was sent to their e-mail addresses
- Result: The number of submitted proposals in 2013 increased from 151 to 280
- Participation in collaborative conference calls with Allied Neurosensory Warrior-Related Research Consortium (ANSW2R)
- Participation in CoEs collaborative conference calls (VCE staff gave a presentation on the structure, mission, and research at VCE)
- Participation in local Walter Reed National Military Medical Center (WRNMMC) events: Aware for All Walter Reed Research Day; Brown Bag seminars
- Collaboration with Chronic Effects of Neurotrauma Consortium (CENC) on enhancing diagnosis, treatment, rehabilitation strategies and identifying research gaps



# Overall Dissemination of VCE Products Remains a Challenge

- Limited pathways for now:
  - Newsletters (e.g., WRNMMC, Joint Trauma System (JTS))
  - JTS weekly video teleconference (VTC) and monthly ocular trauma VTC
  - Using VCE Advisory Council participants – represents specialty care leads from Services and VA
  - VCE Website, social media
  - Public affairs outlets e.g., Shields Save Sight campaign
  - Personal liaison with other communities - still relies heavily on word of mouth, face-to-face, and professional networking
    - Restrictions on travel and conferences major inhibitor
  - Working with VA Employee Education System (webinars, symposia) and now looking at Military Health System
  - Developing podcasts



# Needed Changes

- Filling of key roles – e.g., Chief of Staff, Director Clinical Care Integration, Director Research, Director of Rehabilitation and Reintegration
- Establishment of procedures to influence policy across the Military Health System and Veterans Health Administration
- Next big need: Readiness during peacetime
  - Consider Center for Sustainment of Trauma and Readiness Skills (C-STARS)-like program for ocular injuries
  - Immediate critical need for robust support of sustained ocular trauma course (central funding, etc.)
  - Simulation remains a major gap (both simulator development and roadmaps) and critical substitution for animal models



# Looking Ahead – Value Proposition

- Conduct Return On Investment (ROI) analysis of VCE initiatives; measure cost/benefit (utility) one of three ways: 1) monetized (optimal goal), 2) tangible, or 3) intangible
- Collaborate with VA and DoD planning committees, vision and blind rehabilitation practitioners, and consumers to review salient literature and standards to develop consensus on best-practice guidance to accommodate the needs of visually impaired Service members and Veterans for VA and DoD facilities
- Develop a communication network plan to integrate VA and DoD research and rehabilitation communities and to expand communication efforts into a nationally integrated network involving stakeholders, VCE sites, VA Medical Centers and Military Treatment Facilities

The wars may be ending, but consequences of the injuries to our warriors will be with us for decades to come