



U.S. Department  
of Veterans Affairs

# Rehabilitation of mild Traumatic Brain Injury: VA Programs Overview

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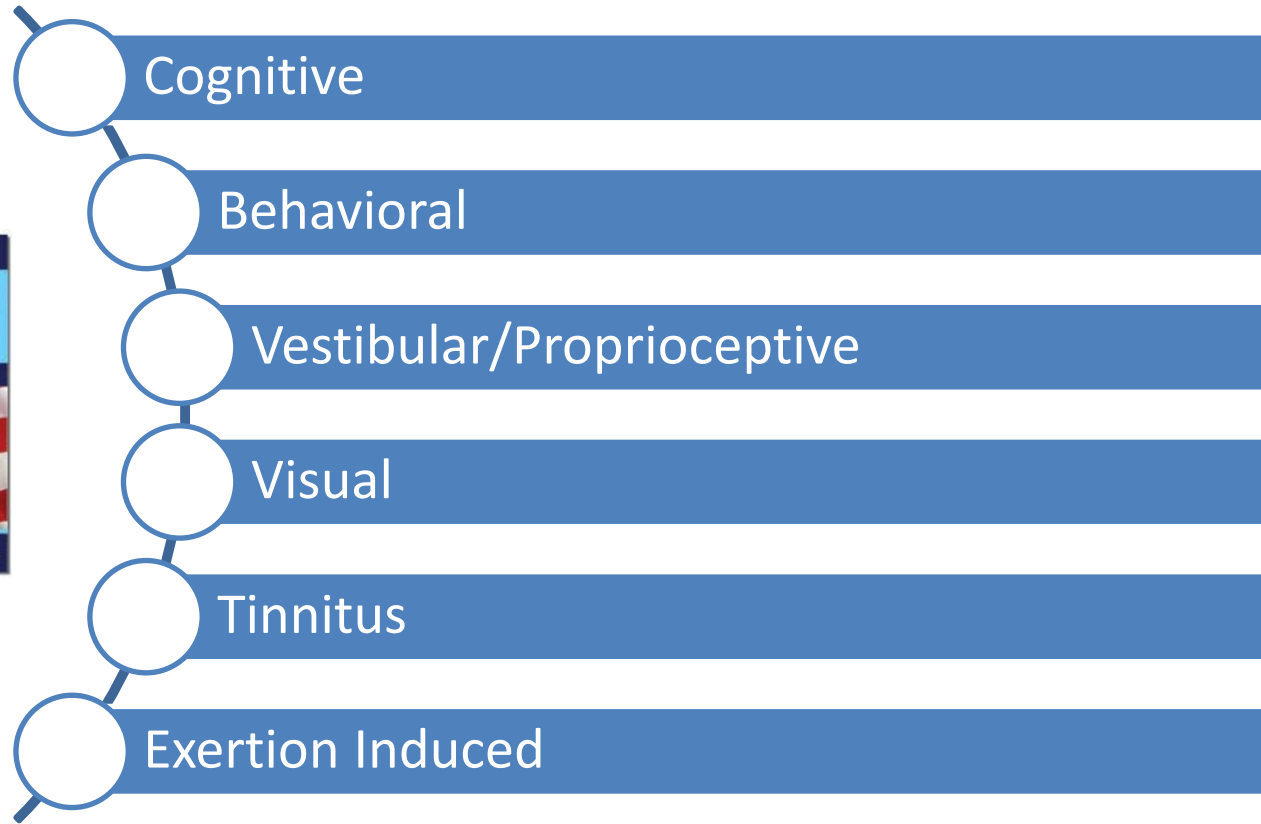
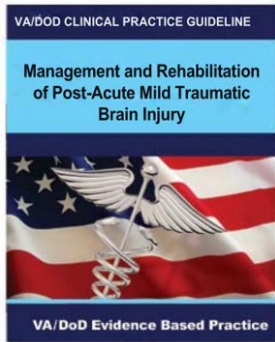


# DISCLOSURES

- Karen M. Skop has no disclosures
  - Sandra Dunaway has no disclosures
  - Eleanor Woodson has no disclosures
  - April Cerqua has no disclosures
  - Chenal Roberts has no disclosures
  - Craig Caya has no disclosures
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- **Disclaimer:** The views, opinions, and/or findings contained in this presentation are those of the authors and should not be construed as an official position of the US government or its agencies



# 2021 VA/DOD CPG FOR THE MANAGEMENT OF MILD TRAUMATIC BRAIN INJURY



2016, 2021 Revised

[www.healthquality.va.gov](http://www.healthquality.va.gov), accessed Dec.2022



# 2021 VA/DOD CPG FOR THE MANAGEMENT OF MILD TRAUMATIC BRAIN INJURY

Sidebar 3: Possible Post-Concussion Symptoms <sup>a,b</sup>		
Physical Symptoms	Cognitive Symptoms	Behavior/Emotional Symptoms
<ul style="list-style-type: none"><li>• Headache</li><li>• Dizziness/vertigo</li><li>• Balance problems</li><li>• Nausea</li><li>• Fatigue</li><li>• Sleep disturbance</li><li>• Visual disturbance</li><li>• Sensitivity to light</li><li>• Hearing difficulties/loss</li><li>• Tinnitus</li><li>• Sensitivity to noise</li></ul>	<p>Problems with:</p> <ul style="list-style-type: none"><li>• Attention</li><li>• Concentration</li><li>• Memory</li><li>• Speed of processing</li><li>• Judgment</li><li>• Executive functions</li><li>• Speech and language</li><li>• Visual-spatial function</li></ul>	<ul style="list-style-type: none"><li>• Depression</li><li>• Anxiety</li><li>• Agitation</li><li>• Irritability</li><li>• Impulsivity</li><li>• Aggression</li></ul>

<sup>a</sup> Symptoms that may develop within 30 days post-injury

<sup>b</sup> Symptoms can be monitored with instruments such as the NSI or RPCQ



# Evidence based mild TBI rehabilitation program

## Development and Evolution of a Comprehensive Mild Traumatic Brain Injury Inpatient Rehabilitation Program A Nursing Perspective

Susan Modi, FNPI\*; Deanna Goff, RN\*; Dara Guess, MSN, RN\*; Karen Meigs, RN\*; Areca Hoskin, MSN, RN\*; Selina Doncevic, MSN, RN\*; Lisa Perla, PhD, FNP\*; Susan Pejoro, MSN, RN\*; Cheryl Sallah, MSN/Ed, RN\*

### ABSTRACT

The James A. Haley Veterans' Hospital in Tampa, Florida has developed an innovative approach to the unique rehabilitation needs of active duty Special Operations Forces (SOF) and veterans with chronic conditions related to their military service. Tampa's program, the Post-Deployment Rehabilitation and Evaluation Program (PREP), was established in 2008. The interdisciplinary team includes one nurse practitioner and eight staff registered nurses. The Veterans Health Administration

individualized rehabilitation community reintegration (IRCR) treatment program.

### History

The Global War on Terrorism Freedom (OEF) (2001-2011) and the Global War on Terror (OWT) (2003-2011) led to

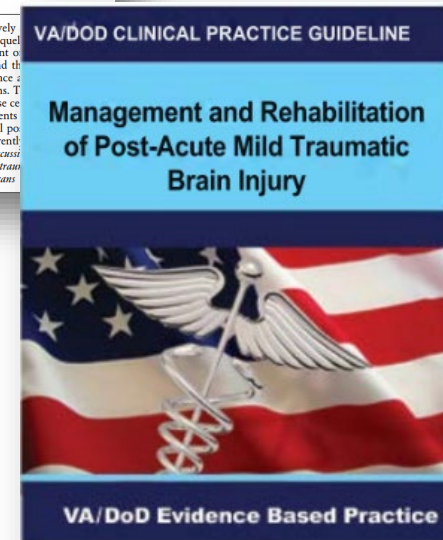
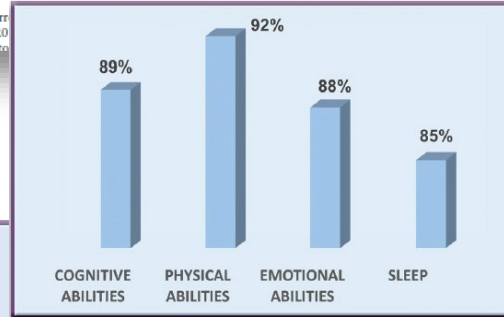
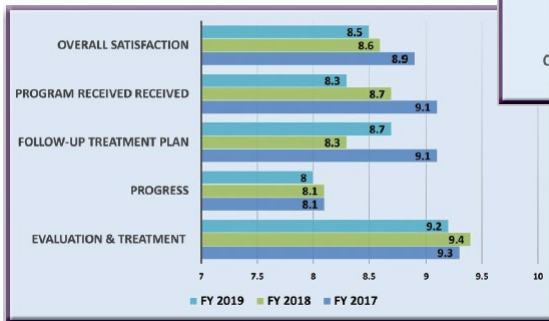
*J Head Trauma Rehabil*  
Vol. 34, No. 6, pp. 402-408  
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## Unique Features of the US Department of Defense Multidisciplinary Concussion Clinics

Katherine M. Lee, MS; Walter M. Greenhalgh, MD; Paul Sargent, MD; Heechin Chae, MD; Scott Klimp, MPAS; Scot Engel, PsyD; Bryan P. Merritt, MD; Tracy Kretzner, PhD; Laura Bajor, DO; Steve Scott, DO; Scott Pyne, MD

The Department of Defense (DoD) and the Department of Veterans Affairs (VA) actively support service members (SMs) who experience prolonged symptoms and adverse sequelae of mild traumatic brain injury (MTBI). The development of DoD and VA multidisciplinary concussion clinics and implementation of several reinforcing policies within the DoD and VA primarily support these patients through intensive outpatient programs. This program that utilizes specialized capabilities. The features unique to several of these programs include: (1) providing for similar patient care needs, each clinical setting implements different modalities to target analogous goals of return to the highest functional level possible to enhance health, quality of life, and readiness to perform military duties. Current data are being collected. **Key words:** intensive outpatient programs, multidisciplinary concussion clinics, National Intrepid Center of Excellence, Intrepid Spirit Centers, novel neuroimaging, postdeployment, posttraumatic stress, service members, traumatic brain injury, unique therapeutics, university model, veterans

FIGURE 2 PREP Patient Satisfaction Survey Results, FY2017–FY2019



MHSRS  
Military Health System  
Research Symposium



**VA**



U.S. Department  
of Veterans Affairs



**P**ost-deployment  
**R**ehabilitation  
**E**valuation  
**P**rogram

**James A. Haley Veterans'  
Administration  
Hospital, Tampa, FL**



## POST-DEPLOYMENT REHABILITATION & EVALUATION PROGRAM (PREP) **THE EARLY DAYS**

- Developed in 2008
- Created in peak of GWOT for inc. TBI care
- Initially was 2-week program (2008), quickly changed to 3 weeks
- Early days, military LNO present on JAHVA campus x each branch
- This early strategic alliance positioned Tampa PREP team to meet the needs of the military as the conflict continued and the needs of the military evolved
- SM return to unit with plan of care/recommendations



## POST-DEPLOYMENT REHABILITATION & EVALUATION PROGRAM (PREP)

### SOF INTEGRATION

- 2014 developed into 3-12 week program to afford service member time away from their unit to dedicate to rehab
- Began to offer comprehensive rehabilitation *and* evidence-based trauma therapy
- Integration with the SOF community began







# PREP – 18 SPECIALTIES IN 2 WEEKS

**Week 1** Medical, nursing, rehab, social work, mental health & specialty TBI evaluations complete (PT/Vestibular, TBI Optometry, Audiological, Neuropsych, sleep)

**Interdisciplinary Team Meeting (IDT)**

**Week 2** Goal/progress reporting, medical summary of eval findings, rehabilitation initiated, group physical rehab & community reintegration. Family / social focus

**Week 3** Continued rehabilitation & development of care plan.

Transition home

**Week 4-12** Rehab + behavioral health related to TBI / post-deployment sequella / PTSD treatment delivered



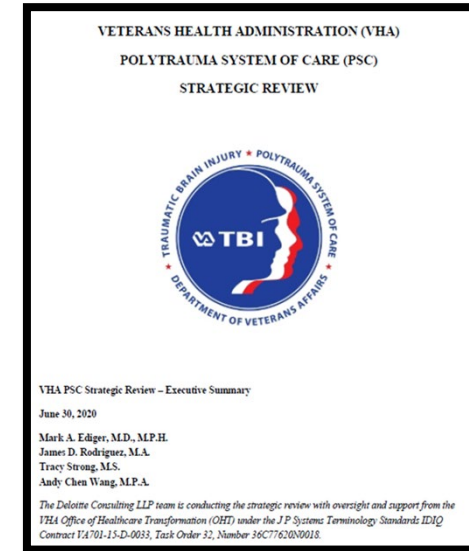
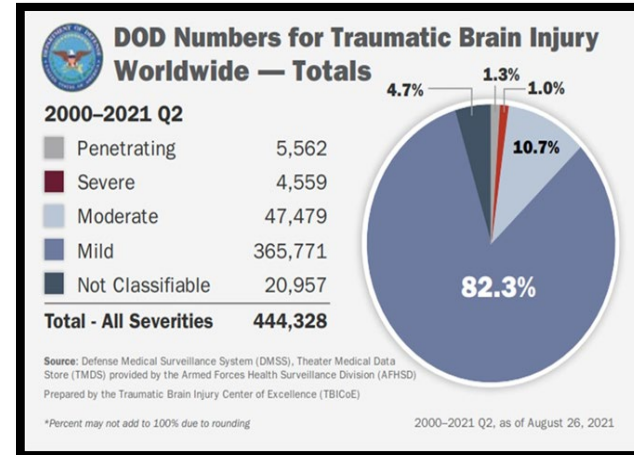
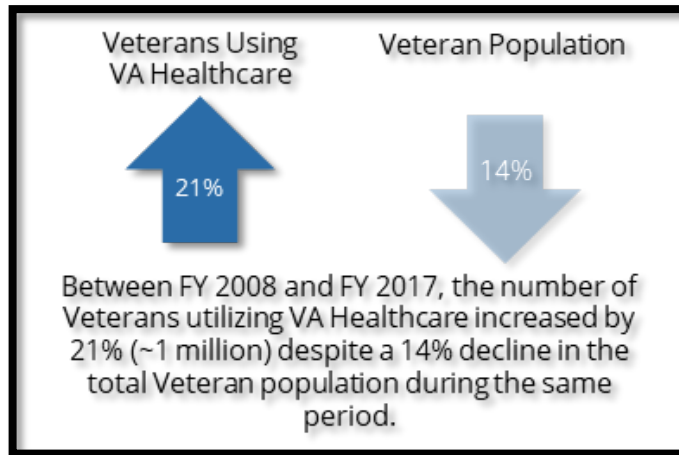
## 2023 DEVELOPMENTS

- Tampa PREP return to pre-covid
- SABIRR TBI screening clinic operational at 6thMDG, Macdill AFB





# DEMAND RISES



- White Paper from SOCOM / Care Coalition lead to....
- 2020 Strategic Review from Deloitte Consulting
  - Growing Veteran population
    - Veteran population increased by 21% 2008 - 2017
  - Growing SOF
    - SOF grew by 21.0% to a programmed end strength of 66,552 for FY 2020
  - Reduced active – duty service members
    - Active-duty service members decreased by 6.2% to 1.36 million in FY 2020




# INTENSIVE EVALUATION & TREATMENT PROGRAM (IETP)

- January, 2020
  - 5 Polytrauma Centers invited to Tampa to begin to develop comprehensive mild TBI care programs across US
  - Special funding allocated to development, training and research across sites



*TBI Intensive Evaluation and Treatment Program (IETP) delivers residential evidence-based care per mTBI guidelines for common co-morbidities*



**PEI Goal: Inform development of a strategic approach to implement IETP throughout the VA Polytrauma System of Care while leveraging the unique characteristics and contributions of each PM&R CoE**



# INTENSIVE EVALUATION & TREATMENT PROGRAM (IETP)

How It Started

## FY20 IETP Program Initiation

### San Antonio

- 1 IETP bed ("ACE") in the acute polytrauma rehab unit
- Plans to implement a 4-bed IETP "PACER" for mid-career SOF

### Richmond

- 10-bed "STAR" program for reintegration services and vocational rehabilitation
- 4 beds designated for IETP programming

### Palo Alto

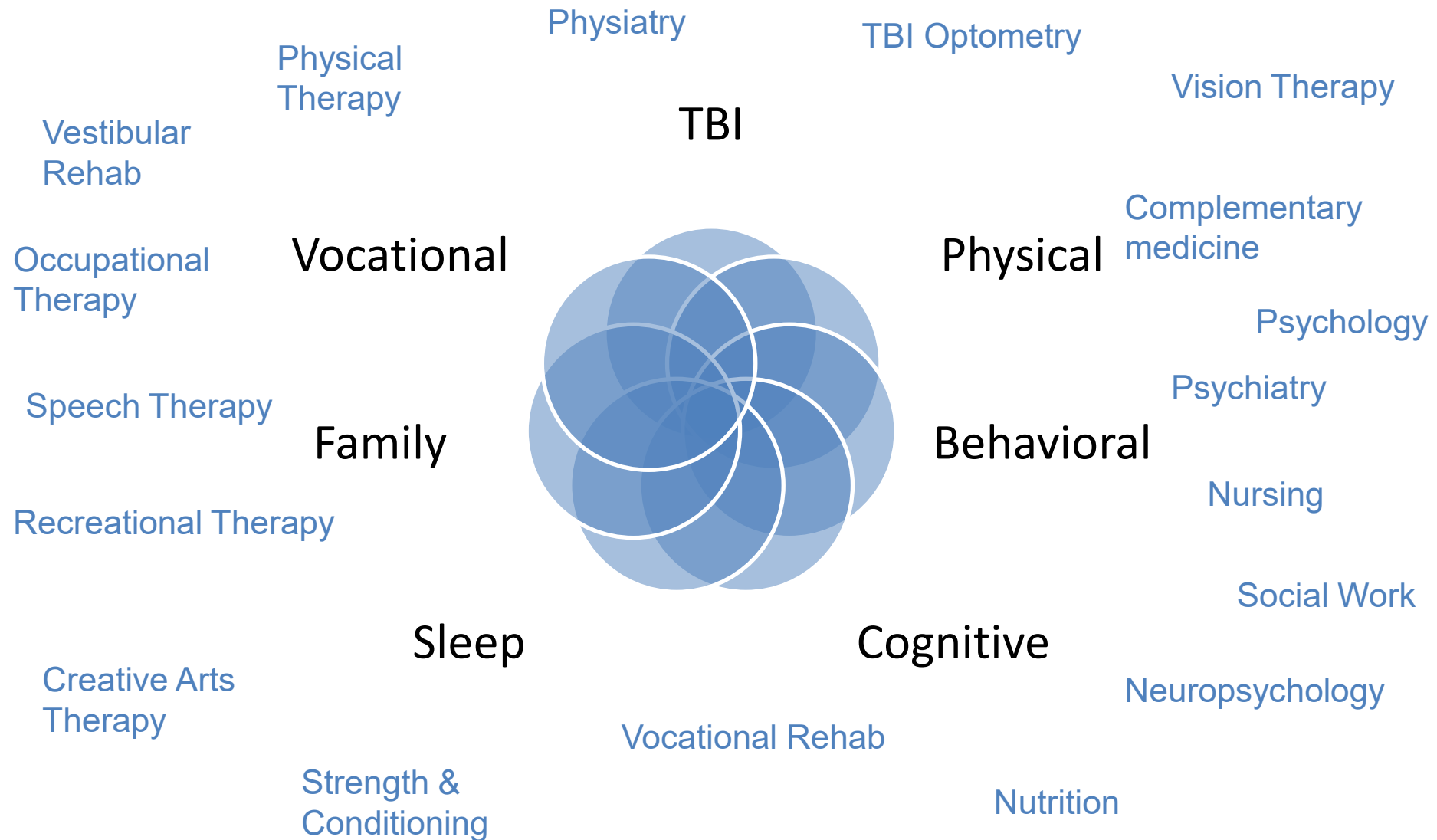
- Plans to implement a 2-bed IETP
- Will expand to 4 beds or more depending on demand

### Minneapolis

- Will designate 2 beds for IETP
- Will focus on conventional forces and Veterans



# INTENSIVE EVALUATION & TREATMENT PROGRAM (IETP)





# INTENSIVE EVALUATION & TREATMENT PROGRAM (IETP)

## Comprehensive inpatient mTBI care

Minneapolis, RENEW





# INTENSIVE EVALUATION & TREATMENT PROGRAM (IETP)

How It's Going

## FY23 IETP Program Status

### San Antonio

- 5 PACER beds co-located in PTRP building
- 3 week program
- 3 patients admitted week 1
- 2 patients admitted week 2

### Richmond

- 10-bed STAR program for reintegration services and vocational rehabilitation
- Transitioned care model to SOF population
- 8-12 week program

### Palo Alto

- 4 beds (expanded from cohorts of 3) located in newly finished rehab building
- 3-week program
- 2 patients admitted week 1
- 2 patients admitted week 2

### Minneapolis

- 2 beds designated for RENEW program co-located within PTRP unit in medical center
- Alternating cohort model
- 5-week program