

# THE HEART OF THE VETERAN – BIG DATA AND SURVEY APPROACHES TO HEALTH SERVICES RESEARCH

*Where Research Meets the Road: Using science to support  
Veterans in their journey to health and resilience*

TexVet Symposium

Texas A&M Health Science Center

Round Rock, TX: 18-Feb-2016

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# Disclosure Information for Feb 18 2016

- I will not discuss off-label or investigational drug use in my presentation.
- I have no financial relationships to disclose.
- Employee of: Department of Veterans Affairs; Baylor Scott & White Health
- Consultant for: N/A
- Stockholder in: N/A
- Honoraria from: N/A
- Research support within past 3 years from: Veterans Health Administration HSR&D, Veterans Health Administration RR&D, National Institute of Mental Health, Commonwealth Fund, Scott & White Research, VA Office of Rural Health, and the Henry M. Jackson Foundation for the Advancement of Military Medicine (with Wounded Warrior Project, Walmart Foundation, May and Stanley Smith Charitable Trust, Robert R. McCormick Foundation, Onward Veterans and Schultz Family Foundation, Bob Woodruff Foundation, Phil and Marge Odeen, and the Rumsfeld Foundation)
- The author has no conflicts of interest to declare.

# Early Work on Serious Mental Illness

- Congress wanted to know why VA patients with schizophrenia or other psychotic disorders died of untreated heart disease (1990)
- 1,425 VA patients with 150+ psychiatric inpatient days or 5+ psychiatric admissions were enrolled 1991-1994 (LTMH, VA Ann Arbor)
- Surveys of patients and their providers every 6-12 months
- I was hired by the Serious Mental Illness Treatment Research & Evaluation Center (SMITREC) in 1996
- Then the VA de-institutionalized and adopted a managed care model in 1995-1997
- LTMH: Partial hospitalization and **community care management** programs were better at reducing symptoms than standard outpatient care programs

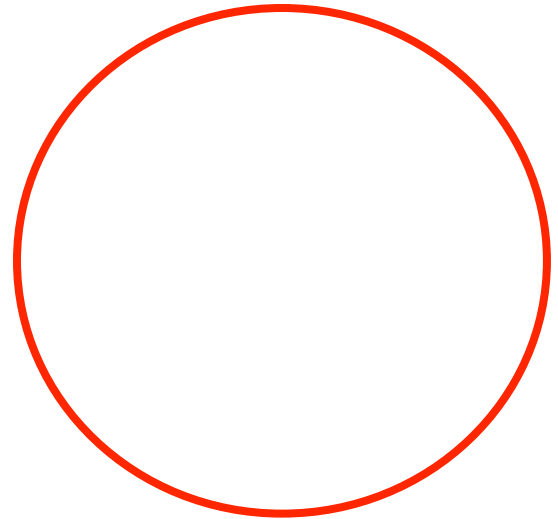
# More Research into Chronic Diseases

- VA patients with schizophrenia were more likely to arrive at the hospital and die within 2 days, with no past-year history of mortal illness. Why?
- Comparing **preventive outpatient care** for schizophrenia vs diabetes
- Testing for and treating blood sugar elevation – rare for those with schizophrenia
- Testing for and treating diabetes – predicted longer survival

# Transitioning into Younger Cohorts

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- September 11, 2001 – World Trade Center



# Global War On Terror

- **OEF = Operation Enduring Freedom**
- **October 2001-August 2010**
- OPERATION ENDURING FREEDOM (In and Around Afghanistan) includes casualties that occurred in Afghanistan, Pakistan, and Uzbekistan as well as Guantanamo Bay (Cuba), Djibouti, Eritrea, Ethiopia, Jordan, Kenya, Kyrgyzstan, Philippines, Seychelles, Sudan, Tajikistan, Turkey, and Yemen
- **OND = Operation New Dawn, operation in Iraq since August 2010**
- **OIR = Operation Inherent Resolve, the campaign against ISIL in Iraq & Syria since June 2014 (named October 2014)**
- **OIF = Operation Iraqi Freedom**
- **March 2003-December 2014**
- OPERATION IRAQI FREEDOM includes casualties that occurred on or after March 19, 2003 in the Arabian Sea, Bahrain, Gulf of Aden, Gulf of Oman, Iraq, Kuwait, Oman, Persian Gulf, Qatar, Red Sea, Saudi Arabia, and United Arab Emirates
- Prior to March 19, 2003, casualties in these countries were considered OEF
- **OFS = Operation Freedom's Sentinel, current operation in Iraq**

# Orientation



- OEF
- OFS
- OIF
- OND
- OIR

# Death During Deployment

- Department of Defense (<http://www.defense.gov/news/casualty.pdf>)
- **2,359** US military deaths in **OEF + OFS**
- **20,096** wounded in action in **OEF + OFS**
- **4,493** US military deaths in **OIF + OND + OIR**
- **32,271** wounded in action in **OIF + OND + OIR**

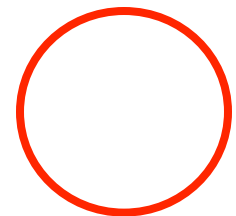


# Death After Deployment

Deaths among VA patients following deployment 2001-2011  
(Bollinger et al 2015)

Excess mortality relative to US Population, SMR 3.1:1.0

Excess mortality relative to Dept of Defense, SMR 2.1:1.0



# Wounded Warrior Transition from DoD to VA

"Tracking OEF/OIF Transition from DOD to VA"

Established feasibility of transferring patient identifiers and health data from DoD Medical Treatment Facility to the VA on a local level

Tracked seriously wounded warriors who transitioned from Brooke Army Medical Center into the VA

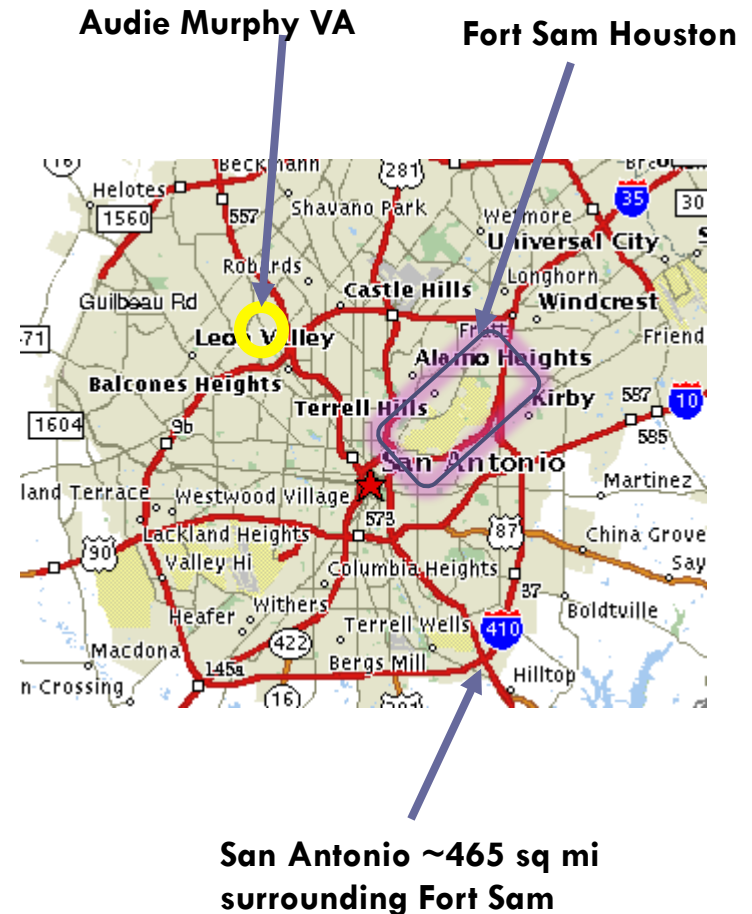
# Transfer of Data from BAMC/USAISR to South Texas VA

## ■ VA:

Laurel Copeland, John Zeber,  
MJ Pugh, Val Lawrence

## ■ DoD:

Mona Bingham – Brooke Army  
Medical Center, Research  
Nursing Service, Fort Sam  
Houston



# Care Transition from DoD to VA

994 inpatients discharged FY02–FY06 from BAMC/USAISR:

- 62% full-time military vs. 38% Reserve/National Guard
- 34% with burn injuries -- TBSA averaged 16% (SD17%)
- 21% had mental health diagnoses, primarily --
  - ▣ 12% drug abuse (no alcohol)
  - ▣ 4% adjustment reaction diagnoses (no PTSD)

232 transitioned into the VA:

- 81% used VA mental health care
- 71% had psychiatric diagnoses
- Half met criteria for depression (27%) or PTSD (38%)
- 9% had drug /alcohol abuse diagnosed (6% alc, 3% other drugs)
- Receiving mental & behavioral health care was associated with staying in VA care through FY09 (98% with MBH vs 62% no MBH)

# Studying Veterans Outside the VA

Finley, Zeber and Noel survey of community providers

- providers not prepared to work with veterans on war-related trauma
- wide circle of influence of war-related trauma on friends and relatives of veterans

Copeland, Trent study of the Scott & White Homefront Healthcare Program which operated 2008-2012

- tremendous need for counseling among soldiers and their partners and children (anxiety, depression, family conflict)

# Care Equity among Veterans

“Racial/ethnic disparities in monitoring metabolic parameters for patients with schizophrenia receiving antipsychotic medications”

- monitoring rates higher for whites than blacks  
2002-2005, equivalent by 2009

“Prevalence of suicidality among Hispanic and African-American veterans following surgery”

- elevated for black veterans, in spite of generally lower suicide rates among blacks vs whites

# Care Equity among Veterans

“Use of obesity-related care by psychiatric patients”

- equivalent for SMI and non-SMI patients

“Mortality after cardiac or vascular operations by pre-existing serious mental illness status in the Veterans Health Administration”

- 24% with schizophrenia vs 20% non-SMI died within 1 year postop vascular surgery

“Prevalence of QT prolongation among veterans with severe mental illness”

- extremely elevated among SMI patients because of the psychotropic medications they use: **heart disease risk**

# Well-Being of Newly Post-Deployment Veterans

## The Veterans Metrics Initiative: Linking Program Components to Post-Military Well-Being

- in start-up
- will survey 7,500 veterans who separated from the military 2-3 months before
- goal: identify what components we should put into our transition assistance programs to help new veterans the most
- focus on the whole veteran: mental health, physical health, employment & job satisfaction, social & community reintegration, romantic attachment and family



# Contact Information

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