



United States Military Suicide Research

ATACCC • August 2011

Ongoing Suicide Research in the DoD: Military Suicide Research Consortium (MSRC)

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Military Suicide Research Consortium

ATACCC
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Special Thanks to Peter Gutierrez, PhD,
Jennifer Marshall, PhD & Timothy Lineberry, MD

Suicide as Public Health Problem

- 34,598 deaths in the US (2007)
- 90% of suicides associated with psychiatric illness
- 3rd leading cause of death of young people
 - 11th leading cause overall
- Context
 - 14,831 homicide deaths in US (2007)
 - Greater than all but 3 types of cancer deaths

National Vital Statistics Reports, 58(19)

U.S. DOJ, FBI, "Crime in the United States"; 2007

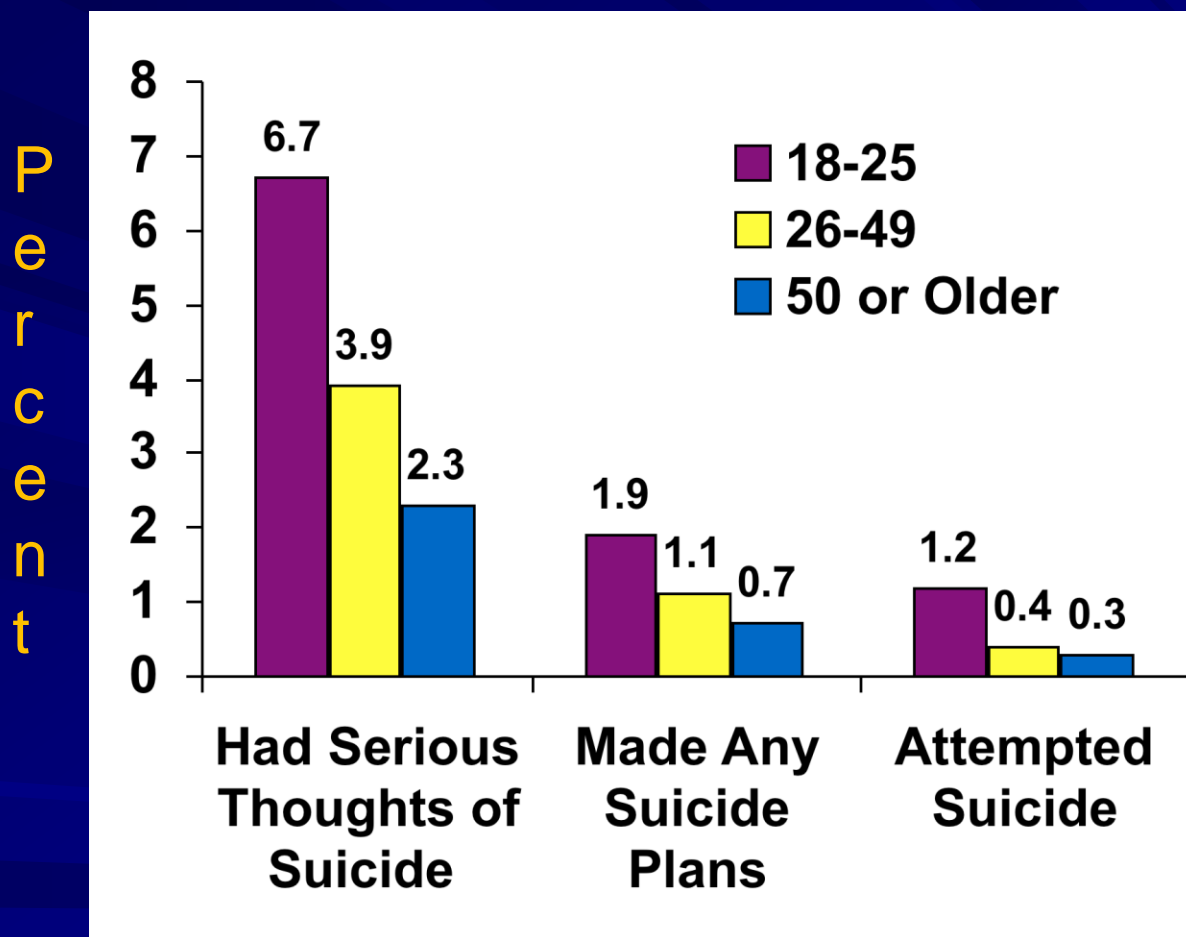
US Prevalence Suicidal Behavior (Adults)

	%/yr	#/yr
Serious Thoughts¹	3.7	8,300,000
Made Plan¹	1.0	2,300,000
Suicide Attempt¹	0.5	1,100,000
Suicide²	~ 0.01	34,598

1 NSDUH Report Sep 2009 (2008 Data)

2 CDC 2007 Data

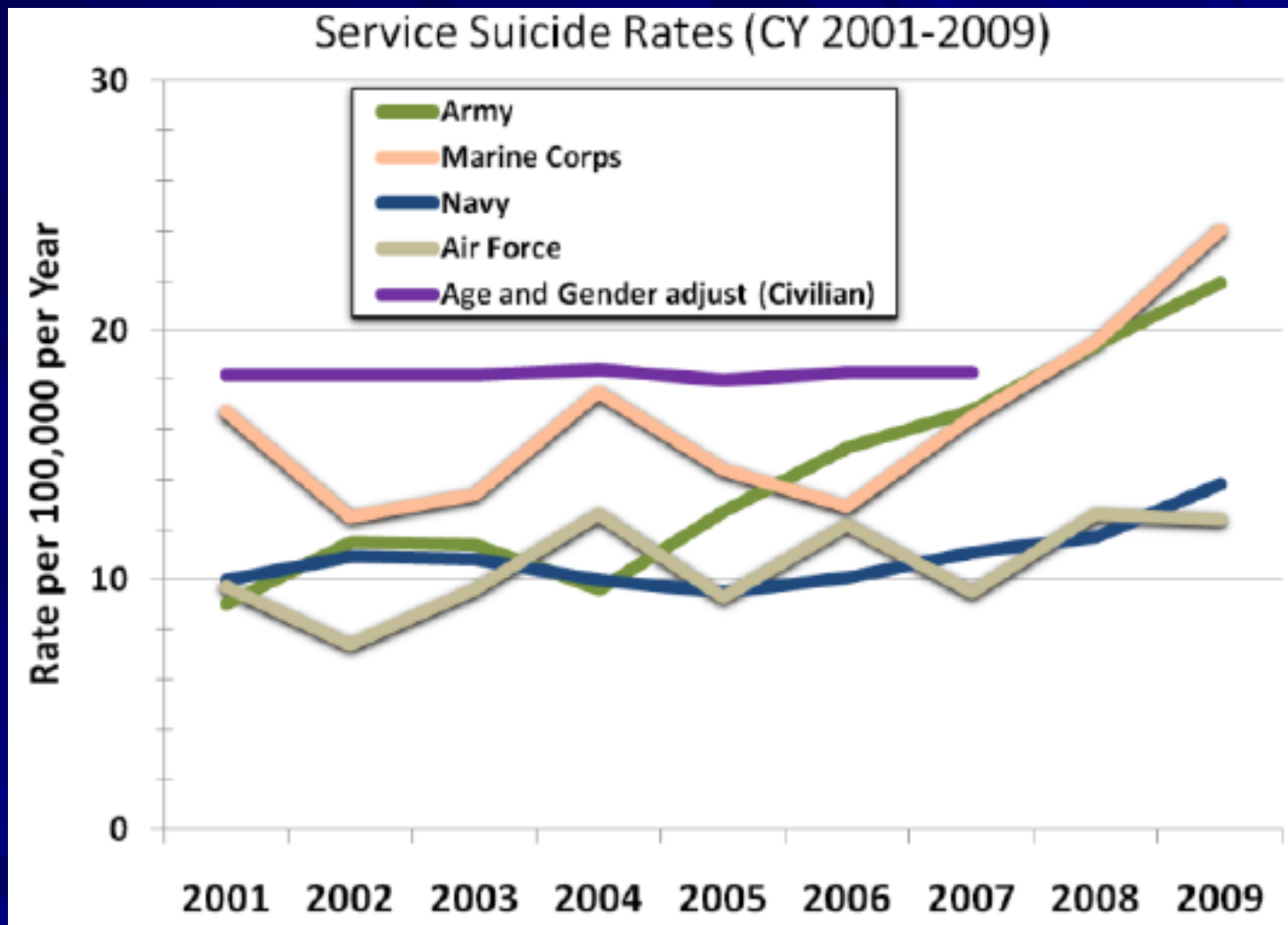
Suicidal Thoughts and Behaviors Past Year (2008) in Adults



Source: 2008 Substance Abuse and Mental Health Services Administration (SAMHSA) National Survey on Drug Use and Health (NSDUH)

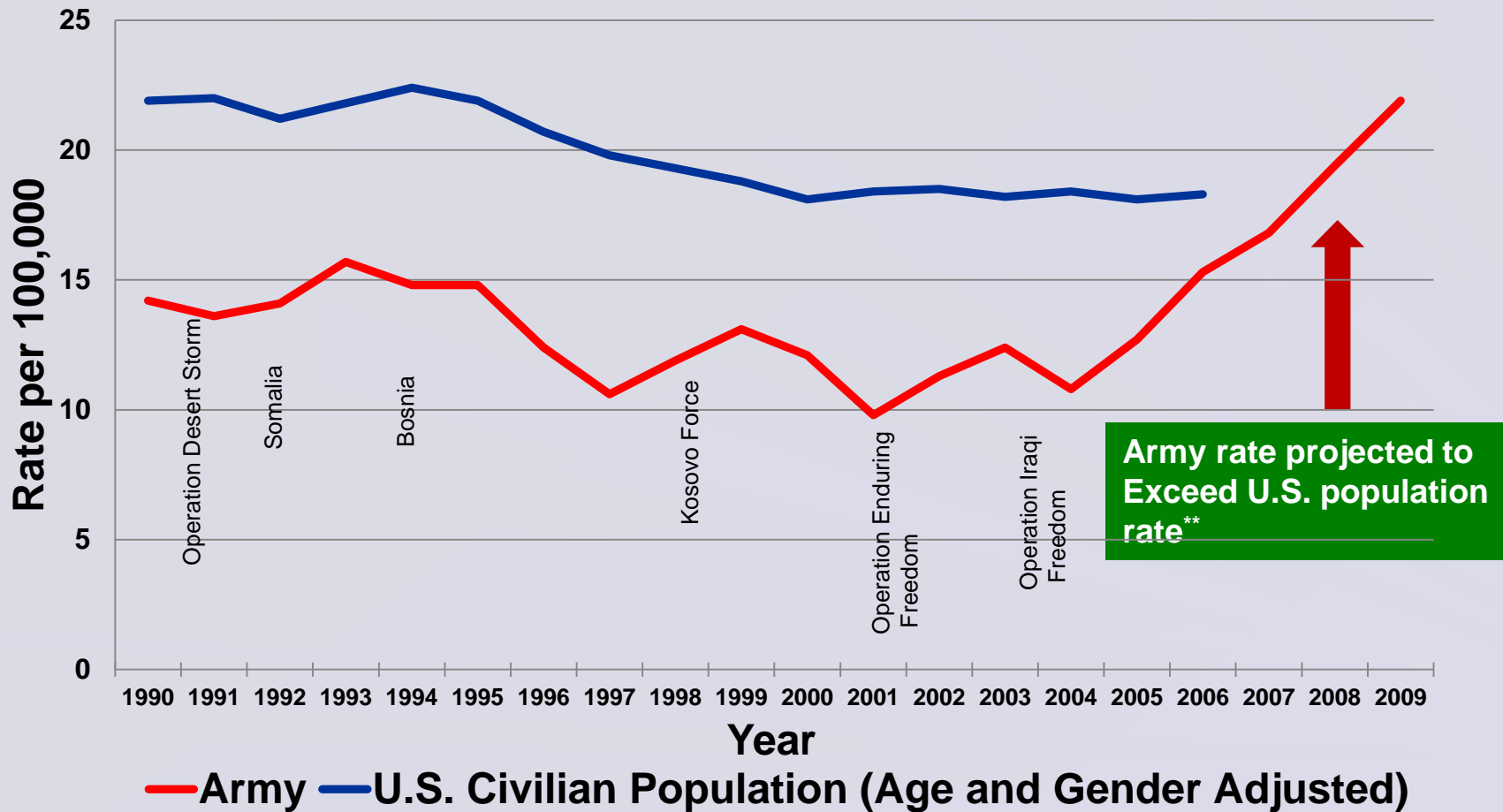
Suicide in the Military Historically

- Leading cause of death
 - Primary causes of death in US in young people are accidents, suicide, and homicide
 - Military population is younger comparatively
- Lower than civilian rate after adjusting for age and gender
 - 86.6% male composition of Army



¹ Army Health Promotion Risk Reduction Suicide Prevention Report 2010 (AHPR/RR/SP)
 July 28, 2010

Suicide Rates from 1990-2009

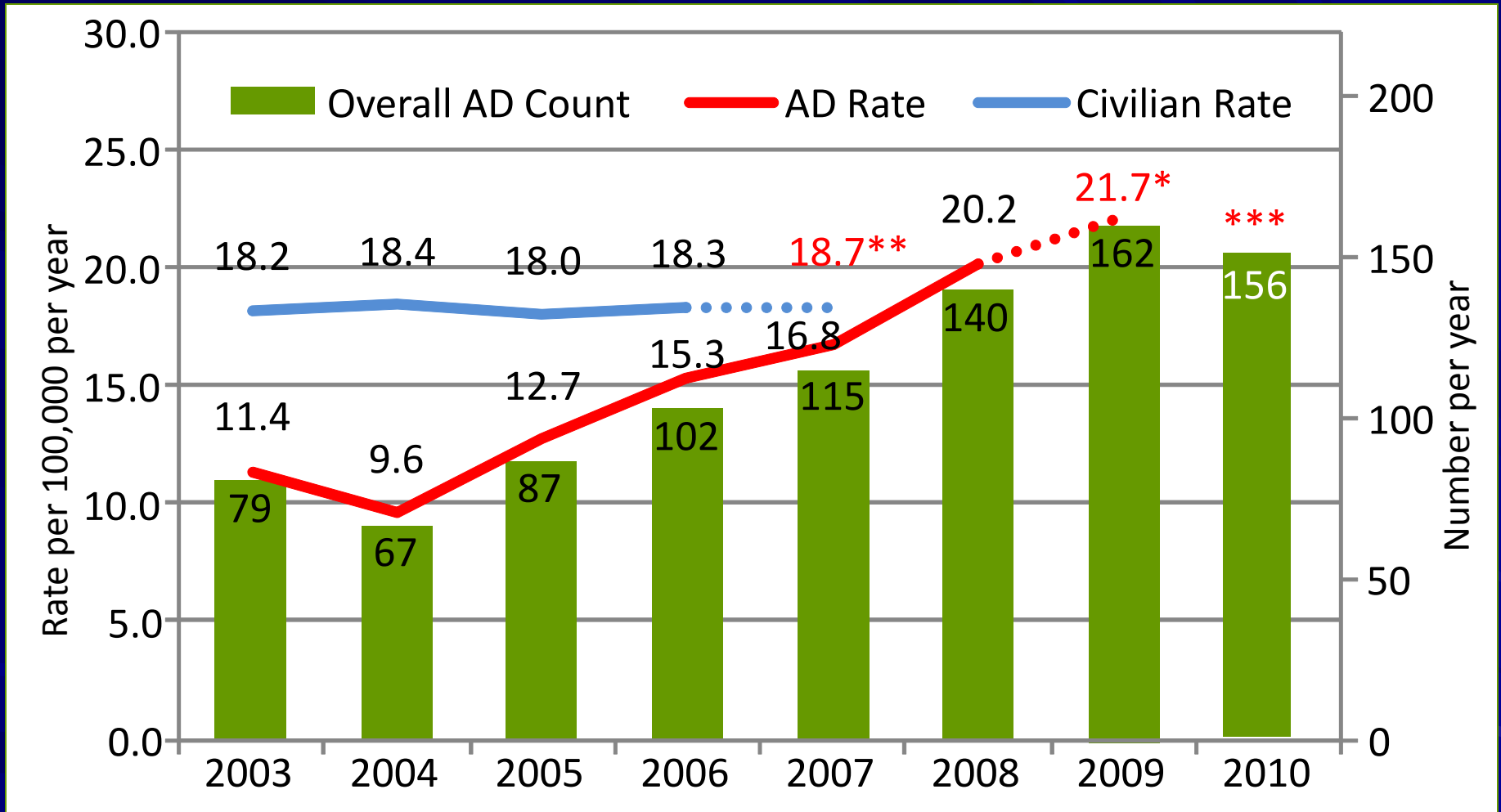


SOURCE: CDC/NCHS, National Vital Statistics System (civilian data). G1 (Army data)

Prepared by: USAPHC-P BSHOP

**Comparable civilian rates were only available from 1990-2006

Active Duty Suicide Deaths

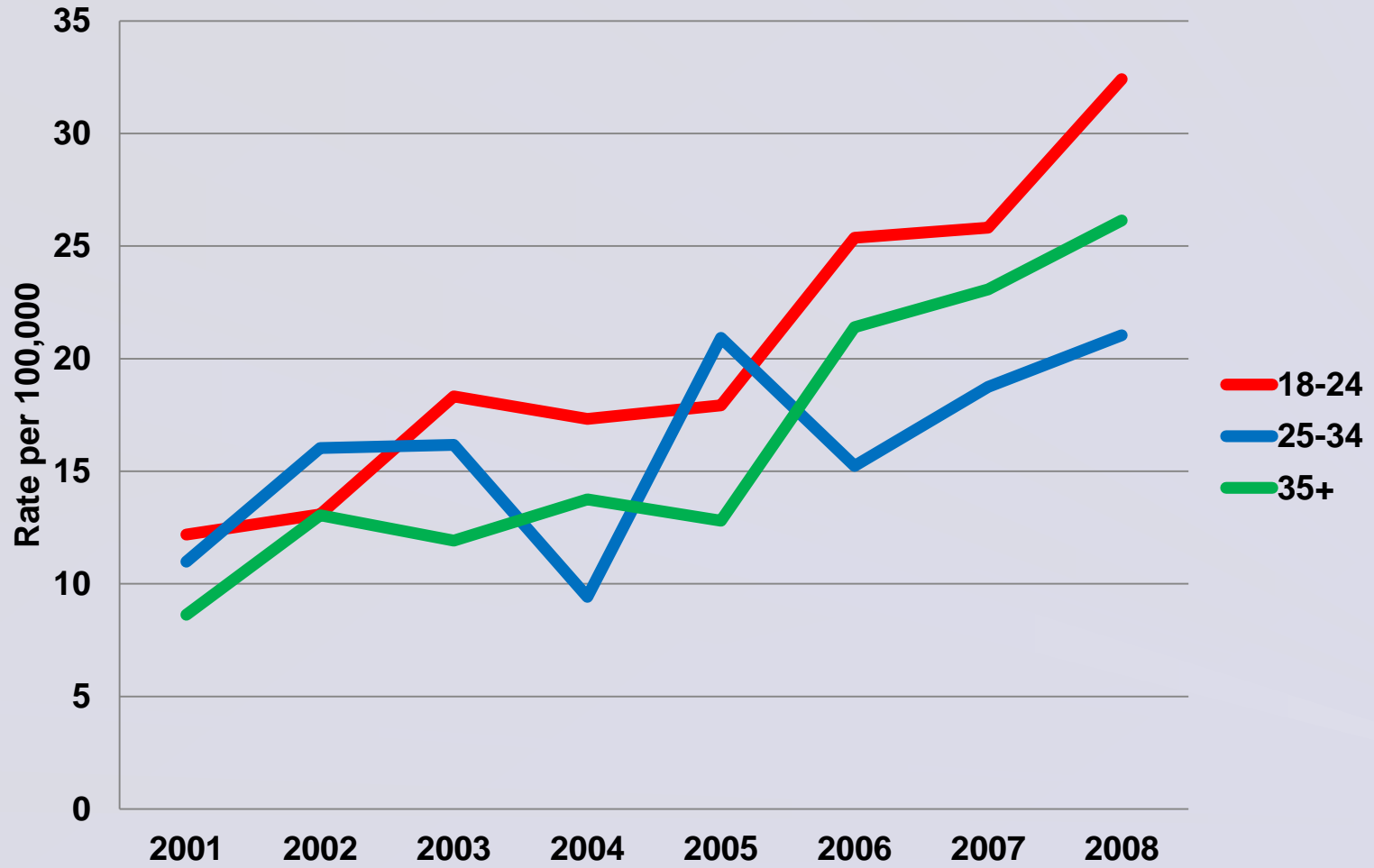


* = Initial Armed Forces Medical Examiner rate NOT DoD OFFICIAL

** = Civilian Rate from CDC, adjusted to age and gender composition of US Army

*** = Official Active Duty Suicide rate has not yet been made available

Army Suicide Rates by Age Group



Source: ABHIDE

Prepared by: USAPHC-P BSHOP

Army Members Dying by Suicide¹

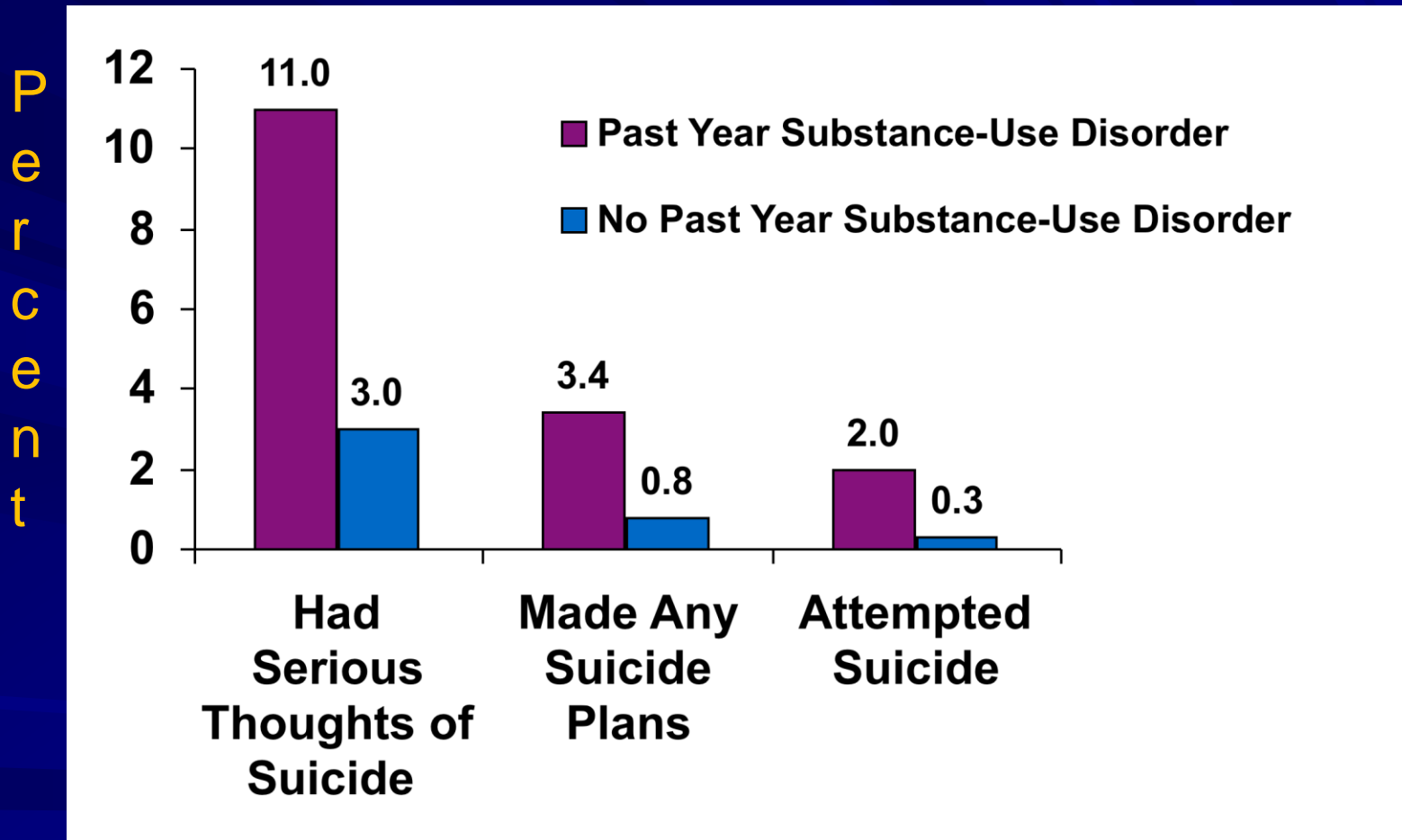
Active Duty Suicide Demographics	Active Duty Army 2009 Demographics	Active Duty Suicide Deaths 2003- 2009	Active Duty Suicide Deaths 2009	2009 Difference From Army Demographic:
Gender: Male	86.6 %	94.4%	96.9%	+10.3%
Age (Mode)	23 ²¹	21	23	0
Race: Caucasian	62.7%	74.3%	76.7%	+14%
Marital Status: Married	58.0%	52.1%	48.5%	- 9.5%
Rank: Jr. Enlisted	45.5%	57.1%	58.3%	+ 12.8%
Career Field: Infantry	13.2%	20.7%	23.9%	+ 10.7%
Component: AC	77.0%	83.3%	89.0%	+ 12%
Deployment History: One or more	70.9%	69.3%	68.7%	-2.2%

¹ Army Health Promotion Risk Reduction Suicide Prevention Report 2010 (AHPR/RR/SP)
July 28, 2010

Hypotheses/Explanations for Higher Rates

- Effects of multiple deployments and combat
- Population changes: ↑ in new enlistees receiving entry waivers + a ↓ in separations
- Increased risk taking behavior across wider service
- PTSD, Depression, TBI, mTBI/concussion effects
- Substance misuse (alcohol, illicit & prescription drugs)
- Quality of care issues: screening, identification and referral, transitions of care
- Stigma associated with seeking help
- Rotation/Force Generation effects on cadre building and in-garrison supervision/mentoring

Suicidal Thoughts and Behaviors Past Year (2008) in Adults, by Past Year Substance-Use Disorder



Source: 2008 Substance Abuse and Mental Health Services Administration (SAMHSA) National Survey on Drug Use and Health (NSDUH)

Joint Suicide Research Working Group Assessment of Army Suicide Research and Suicide Prevention and Treatment

Medical Problem/Threats

- Suicide rates have risen among Soldiers and Marines
- Pre-deployment training not validated to demonstrate training actually prevents or reduces suicides or suicidal behavioral
- Lack of validated screening measures for those at high risk of suicide
- Lack of effective treatments (psychotherapy and medication) to treat service members who are suicidal
- Lack of effective care management and follow-up treatment guidelines for behavioral health providers to follow

US Army Medical Research and Materiel Command (USAMRMC)



MISSION

Provide medical knowledge and materiel lifecycle management to protect, treat and optimize Warfighter health and performance across the full spectrum of operations.

VISION

We are the world's experts and leaders in the military relevant biomedical research and medical materiel communities, delivering the best medical solutions to enhance, protect, treat, and heal our Warfighters.

Mission: Develop effective medical countermeasures against combat and operational stressors to maximize Warrior health, performance and fitness

PSYCHOLOGICAL HEALTH AND RESILIENCE

THREATS

Posttraumatic Stress Disorder
Suicide Behavior
Concussion (mTBI)
Alcohol/Other Drug Use Problems
Co-occurring Mental Disorders
Access/Retention in Behavioral Health Care
Family Transitions and Stressors

INJURY PREVENTION AND REDUCTION

THREATS

Acoustic Trauma
Blast Overpressure
Blunt Head and Body Trauma
Traumatic Brain Injury
Face, Eye and Spinal Cord Injury
Musculoskeletal Injury
Toxic Gas Inhalation
Laser Eye Injury

PHYSIOLOGICAL HEALTH

THREATS

Malnutrition
Dehydration
Sustained Fatiguing Work (Physical/Mental)
Sleep Deficit & Circadian Desynchrony
Distributed/Continuous Operations
Dietary Supplements

ENVIRONMENTAL HEALTH AND PROTECTION

THREATS

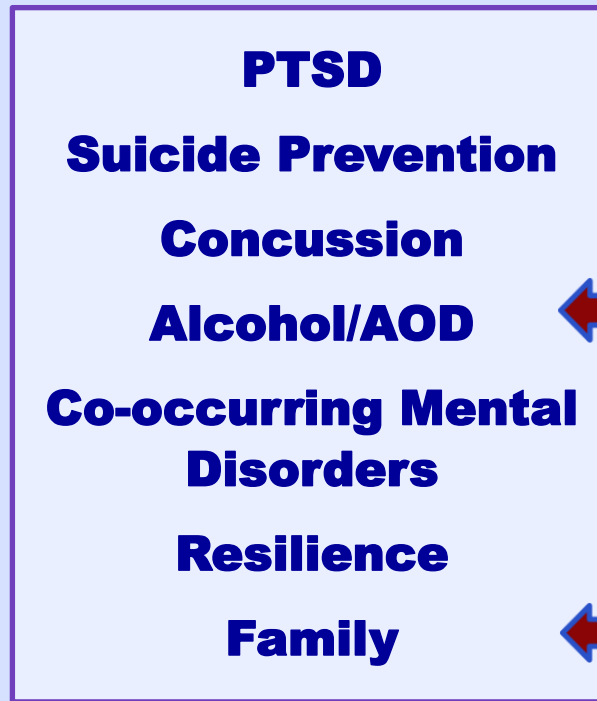
Toxic Industrial Chemicals and Materials
Dust and Air Pollution
Altitude and Hypoxia
Cold Stress AND Heat Stress
Protective Equipment/Clothing



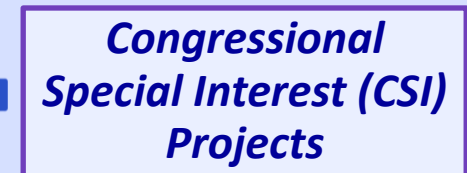
Psychological Health and Resilience

R&D Funding Appropriations

Research Priorities



Congressional Appropriations



Core Army Funding

Intramural →

Extramural →

Suicide Prevention Medical Research Continuum of Care

Risk Assessment and Intervention for Soldiers, Leaders and Service Providers

RESEARCH NEEDS

1 Basic Science / Neurobiological Mechanism, 2 studies***
 2 Epidemiology / Army STARRS and 1 study \$61,961003 M

- 1** Evidenced-based Suicide Prevention Training
- 2** Population-based Training
- 3** Leader Training
- 4** Selective Indicated Training
- 5** Validated Population-based Screening Measure
- 6** Early Selective Identification Screen & Referral
- 7** Validated Risk Assessments
- 8** Imaging & Biomarkers
- 9** Impact of Co-morbidities
- 10** Clinical Practice Guidelines
- 11** Effective Medications
- 12** Cognitive & Behavioral Interventions
- 13** Recovery Protocols
- 14** Evidenced-based System of Care Models
- 15** RTD Standards
- 16** Postvention Care for Service Members and Families
- 17** Rescreening
- 18** Unit Support

- 3** Prevention/ Education & Training
- 4** Early Screening/ Intervention
- 5** Risk Assessment
- 6** Treatment
- 7** Recovery and Return to Duty
- 8** Postvention

- 3** Selection, Resilience Training
- 3** Validated Pre-Deployment Training
- 3** Validated Leader Training
- 4** Screening Assessment (Pre-/Post-Deployment)
- 4** Unit Level Screening
- 5** Evidenced-based Clinical Assessments
- 5** Validated Protocol to Identify High Risk Individuals
- 6** Inpatient/Outpatient Psychotherapies
- 6** Medications
- 6** Follow-up Care for Suicide Attempters/ High Risk Patients
- 7** Medication/ Therapy
- 7** Co-Morbidities
- 7** Collaborative Case Management
- 8** Evaluation/ Measurement
- 8** Rescreening
- 8** Psychological Autopsy

3 studies***
 \$21 M, 2 studies + MSRC**
 \$3.4M, 4 studies**, 2 studies***
 \$11.3 M 4 studies **
 \$1.4M 2studies ***

Effective Prevention and Training Practices
 Validated Screening Measure
 Identification of High Risk Individuals
 Evidenced-based Treatment Strategies
 Evidenced-based Recovery Models
 Postvention Care

Military Suicide Research Consortium \$17M

SOLUTIONS

Current DoD & Army Suicide Research Projects (\$100.3 M)

Principal Investigator	Organization	Proposal Title	Award	Gap Addressed
Bob Ursano, MD	USUHS	Army Study to Assess Risk and Resilience in Service Members (Army STARRS)	\$60,000,000 60 months	2
Mark Reger, PhD	National Center for Telehealth and Technology	The Association between Suicide & OEF/OIF Deployment History	\$1,961,003 36 months	2
Marianne Goodman, MD	James J Peters VAMC	High Risk Suicidal Behavior in Veterans- Assessment of Predictors and Efficacy of Dialectical Behavior Therapy	\$1,279,912 36 months	6,5
Toby Cooper, BCPS	Darnell Army Medical Center	Drug Related Overdoses Among Military Personnel	\$282,040 18 months	7,3
Marjan Holloway, PhD	USUHS	A Brief Intervention to Reduce Suicide Risk in Military Service Members and Veterans	\$2,666,717 36 months	6
Marjan Holloway, PhD	USUHS	Pilot Trial of Inpatient Cognitive Therapy for the Prevention of Suicide in Military Personnel With Acute Stress Disorder or PTSD	\$663,741 48 months	6
Marjan Holloway, PhD	USUHS	Post Admission Cognitive Therapy (PACT) for the Inpatient Treatment of Military Personnel with Suicidal Behaviors: A Multi-Site RCT	\$6,000,000 60 months	6
MAJ Owen T. Hill	USARIEM	Suicide in the Active Duty Army 2000-2009	\$137,000 24 months	5,3
Thomas Joiner, PhD	Florida State University (FSU)	Optimizing Screening and Risk Assessment for Suicide Risk in the U.S. Military	\$753,159 36 months	4,5
Mark George, MD	Medical University of South Carolina	Transcranial Magnetic Stimulation: Effect of TMS vs Sham on Suicidality	\$354,287 24 months	6,1
Valerie Stander, PhD	NHRC	Posttraumatic Stress Disorder, Substance Abuse and Self Harm: Mediating Relationships with Respect to Combat Stress	\$218,000 18 months	5,6

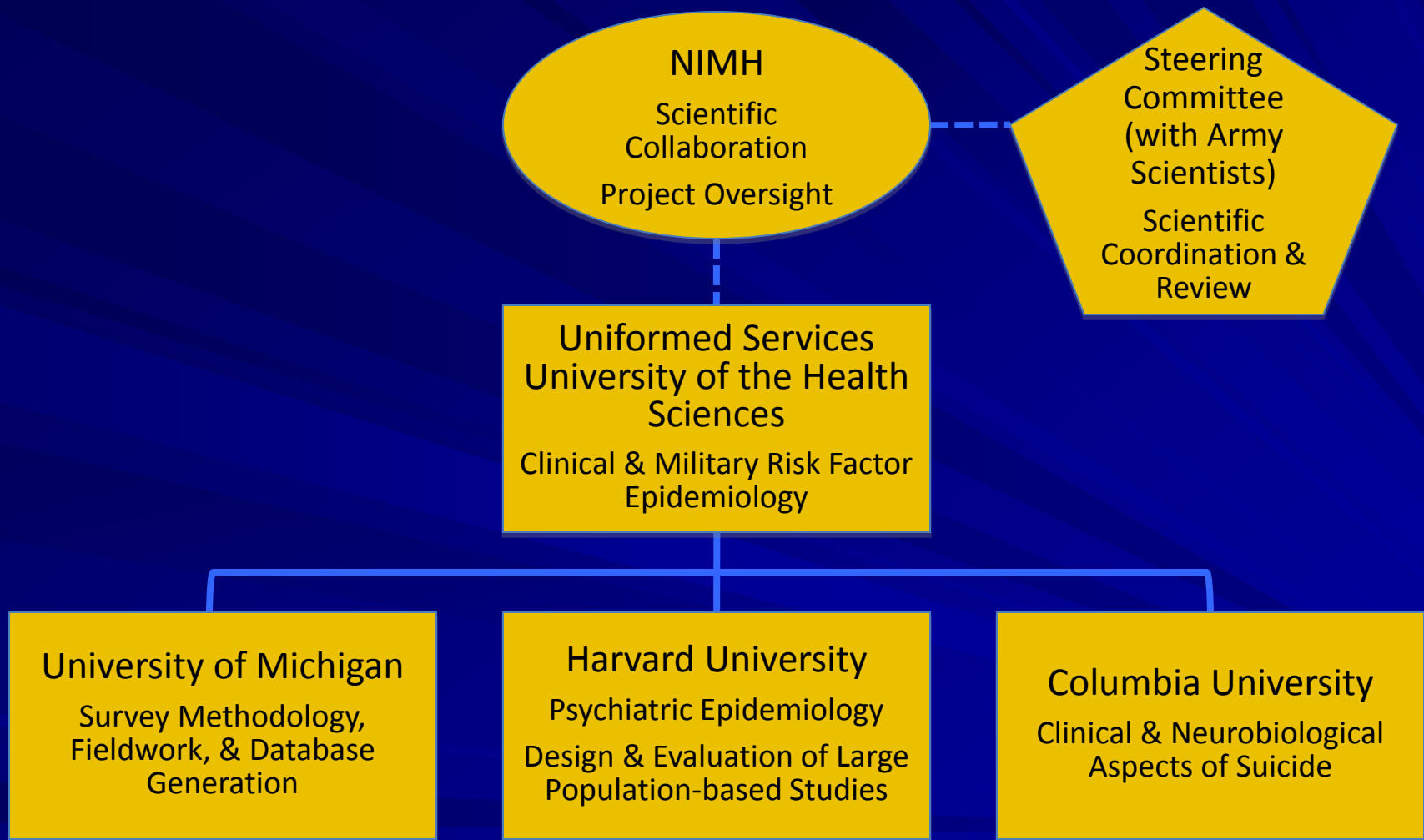
Current DoD & Army Suicide Research Projects Continued (\$100.3M)

Principal Investigator	Organization	Proposal Title	Award	Gap Addressed
Matthew Miller, MD	Harvard College	Antidepressants and the Risk of Self-harm and Unintentional Injury Among Younger Veterans	\$656,184 24 months	5
David Rudd, PhD	Texas Tech University	Brief Cognitive Behavioral Therapy for Military Populations	\$1,967,035 36 months	6
Peter Gutierrez, PhD	Denver VAMC	Blister Packaging Medication to Increase Treatment Adherence and Clinical Response: Impact on Suicide-related Morbidity & Mortality	\$1,173,408 36 months	7
Thomas Joiner, PhD & Peter Gutierrez, PhD	FSU & Denver VAMC	Military Suicide Research Consortium	\$17,000,000 60 months	3,4,5,6, 7 &8
David Jobes, Ph.D.	Catholic University of America	A Randomized Clinical Trial of the Collaborative Assessment and Management of Suicidality vs. Enhanced Care as Usual for Suicidal Soldiers	3,400,000 48 months	5
Steven Vannoy, Ph.D.	University of Washington	Development and Validation of a Theory Based Screening Process for Suicide Risk	1,800,000 24 months	4

Army Study to Assess Risk & Resilience in Service members (Army STARRS)

- Collaboration between NIMH and the Army
- Epidemiologic study of mental health, psychological resilience, suicide risk, suicide-related behaviors, and suicide deaths in the U.S. Army
- Largest study of suicide and mental health among military personnel ever undertaken
- Goal: Identify, as rapidly as possible, risk and protective factors to assist Army in developing effective strategies for mitigating Soldiers' suicide risk

Army STARRS Organization



Current Research Gaps

- Evidence-based universal prevention (e.g., peer based, family based, community based, military-ecologically based)
- Psychometrically sound, theory-driven screening measure(s)
- Basic science validating underlying psychological and biopsychosocial theories of suicide
- Focused methodological treatment studies: theory-driven & evidence-based; inpatient and outpatient (i.e., Cognitive behavioral Therapy [CBT], Cognitive Therapy [CT], Dialectical Behavioral Therapy [DBT], Interpersonal Therapy [IPT])

Research Gaps

- Other evidence-based indicated interventions to prevent and manage suicide behavior (e.g., caring outreach, collaborative assessment and management, safety planning, collaborative care models, etc.) across clinical care settings (e.g., ED, BH, Primary Care, etc.)
- Combined psychotherapy and pharmacotherapy treatment studies

Research Gaps

- Effects of brief interventions to reduce problem drinking on suicide behavior and other outcomes (e.g., accidents, homicide, intimate partner violence)
- Systems approaches integrating brief evidence-based intervention to reduce problem alcohol or drug use in the primary care setting (e.g., enhanced RESPECT-MIL)
- Evidence-based systems of care to manage at-risk individuals (e.g., processes, health database mgt., technologies)

USAMRMC Funding Opportunities

■ Periodic Funding Opportunities

- www.grants.gov, enter 12.420 in the CFDA field under the basic search option
- Defense Health Program
- Congressional Appropriations
- Military Operational Medicine Research Program (MOMRP)

■ Open Broad Agency Announcement (Open BAA)

- http://www.usamraa.army.mil/pages/baa_paa/mrmcbaalist.cfm

■ Military Operational Medicine Research Program

- Website: <https://momrp.amedd.army.mil>
- Register for listserv:
https://momrp.amedd.army.mil/MOMRP_HTTP/Listserv/

Military Suicide Research Consortium

Peter M. Gutierrez, Ph.D.

VA VISN 19 MIRECC

University of Colorado Denver, School of Medicine

Thomas Joiner, Ph.D.

Florida State University



www.msrc.fsu.edu

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Welcome to the Military Suicide Research Consortium Project

The \$17 million Consortium is part of an ongoing strategy to integrate and synchronize U.S. Department of Defense and civilian efforts to implement a multidisciplinary research approach to suicide prevention. Funded through the Military Operational Medicine Research Program (MOMRP), this innovative cutting-edge research aims to enhance the military's ability to quickly identify those at risk for suicide and provide effective evidence-based prevention and treatment strategies.



Col. Carl Castro, Director
The Military Operational Medicine
Research Program

Need Help?

Resources for Soldiers and Families »

Announcements & Updates

- **New Website**
We've launched the new look for the MSRC website.
- **MSRC Consortium meeting**
The next MSRC Consortium meeting will be held on November 7, 2011 at the VA in Denver. Additional information forthcoming.
- **New Perspectives on Suicide Prevention in Behavioral Healthcare**
- **PTSD app gives veterans a coping tool in Suicide Prevention Resource Center**

[more...](#)

Internet 100%

Co-PIs

MIRECC

- Lisa Brenner, Ph.D., ABPP
- Pamela Staves, CNS, NP
- Perry Renshaw, M.D.
- Deborah Yurgelun-Todd, Ph.D.
- M. David Rudd, Ph.D., ABPP (University of Utah)

FSU

- Greg Riccardi, Ph.D.
- Jon Maner, Ph.D.
- Chris Schatschneider, Ph.D.
- Richard Wagner, Ph.D.

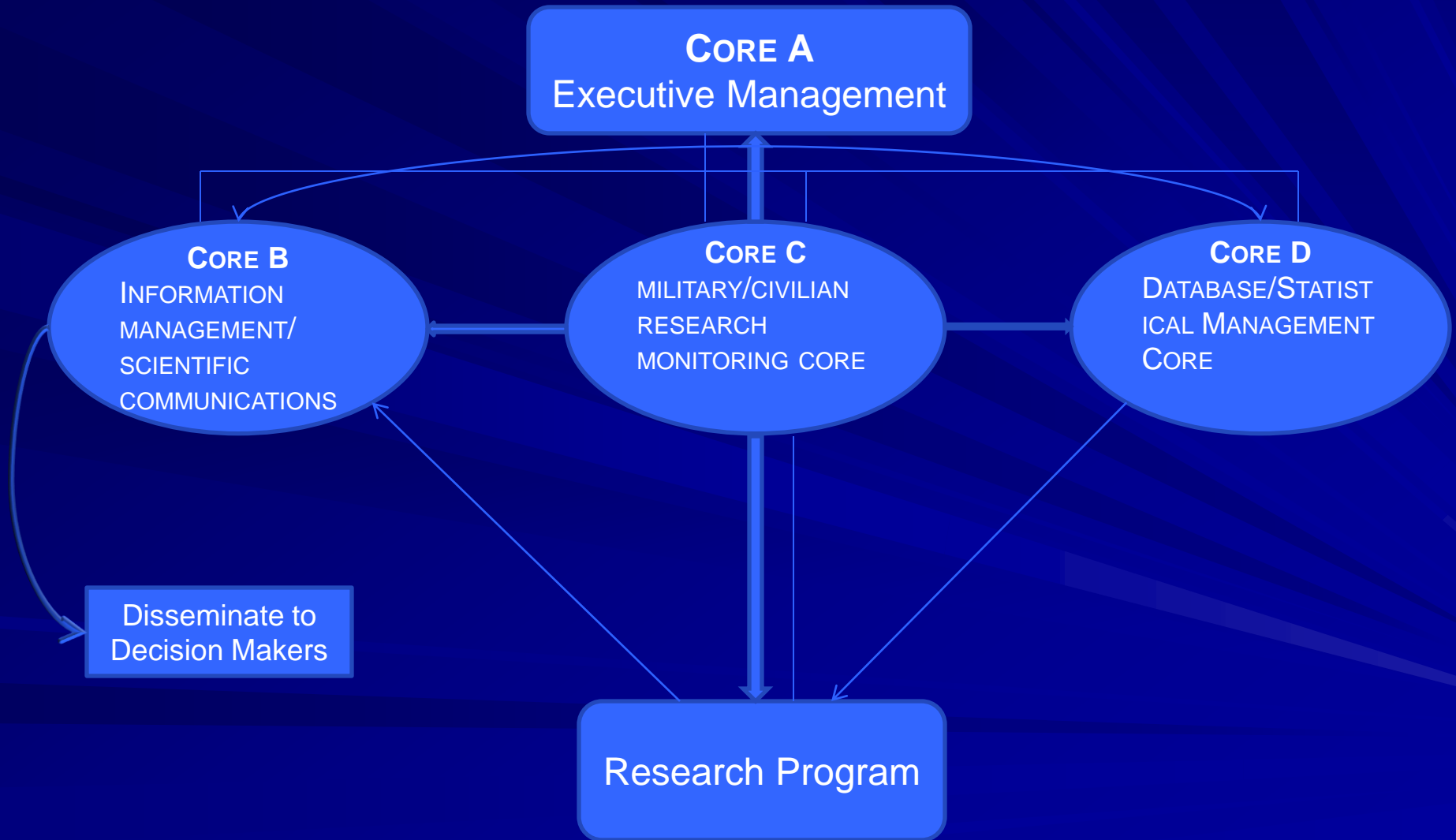
Award Date: September 28, 2010

Award Amount: \$17 million

Background/Rationale

- Produce new scientific knowledge about suicidal behavior in the military
- Use high-quality research methods and analyses to address problems in policy and practice
- Disseminate knowledge, information, and findings

Organization Chart



CORE A

MSRC Executive Management

coreA | MSRC | Military Suicide Research Consortium - Windows Internet Explorer provided by ECHCS OI&T

http://www.msrc.fsu.edu/aboutProject/projectStructure/coreA

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coreA | MSRC | Military Suicide Research Consortium

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Core A – Military Research Consortium Executive Management



Peter M. Gutierrez, Ph.D.



thomasJ

Thomas Joiner, Ph.D.

The Executive Management Core (Core A) has the ultimate responsibility for ensuring that the MSRC's overall mission is accomplished successfully, with proper vision and oversight. This Core facilitates and evaluates the operation of the MSRC, including supervising the operation of the other three Cores, the training of pre-doctoral and postdoctoral scholars, and the research program. Core A (in conjunction with Core B) coordinates public relations activities to alert the public to suicidal behavior as a massive public health problem, and to explain how the activities of the MSRC are striving to address the problem in the military. Core A is also charged with developing procedures for publication and data dissemination. This Core manages dispute resolution related to these areas. Importantly, Core A coordinates the external review of MSRC activities through an external advisory

Core A: Executive Management Core

- Responsible for ensuring that the mission is accomplished successfully
- In conjunction with Core B, coordinates public relations activities
- Develops procedures for publication and data dissemination
- Oversee disclosure of conflict of interest

Additional Elements of Core A

- Military External Advisory Board (MEAB)
 - representatives from all branches, VA and civilian experts
 - establish initial gaps in the literature on military suicide to be filled by the research program
 - identifying research program members and outside collaborators
- Peer Review Program

Core B: Information Management/ Scientific Communications

- Responsible for disseminating consortium knowledge, information and findings
- Rapid response to queries
- Creates and uses controlled vocabularies to ensure accurate searching
- Technical assistance and support for decision makers
- Warehouses knowledge about suicidal behavior

Core C: Military/Civilian Research Monitoring

- Monitors current military and civilian research
- Works with MEAB for input to address gaps in research
- Contacts authors to request information about ongoing research
- Ensures that all aspects of the Consortium are relevant and sensitive to military-related issues

Core D:

Database/ Statistical Management

- Coordinates and assures quality of data collection, data management and data analyses across Consortium
- Provides support to research projects in the development of tools
- Monitors the accuracy and confidentiality of all collected data, ensuring data safety is provided
- Facilitates communication and sharing data, using a Progress Monitoring and Reporting Network (PMRN)
- Constructs a uniform database structure (UDS) across projects

Research Program Areas

- Treatment and Case Management
- Screening and Risk Assessment
- Basic Research (includes neurobiology and genetics)
- Prevention
- Postvention

MSRC Funded Research

- Caring Texts:
 - Katherine Comtois, PhD, University of Washington
- Behavioral Sleep Intervention
 - Rebecca Bernert, PhD, Stanford University
- Virtual Hope Box
 - Nigel Bush, PhD, National Center for Telehealth & Technology (T2)
- Reasons for Living
 - Craig Bryan, PsyD, Florida State University
- Anxiety Sensitivity
 - Norman B. Schmidt, PhD, Florida State University

Continuity Contacts Via Text (CCVT)

*Texting a brief intervention to prevent
suicidal ideation and behavior*

Katherine Anne Comtois, PhD MPH

Michael McDonell, PhD

Richard Ries, MD

University of Washington Department of Psychiatry

Caring Contacts

A brief, simple, effective intervention for suicide

↓ Suicides

↓ Attempts

↓ Thoughts of Suicide

Letters – 1976¹, 2003², 2005³, 2010⁴

Phone – 2006⁵, 2008⁶

Emails – ongoing⁷

Texts – first pilot 2010⁸



Dear _____,

It has been some time since you were here at the hospital, and we hope things are going well for you. If you wish to drop us a note we would be glad to hear from you.

Sincerely,

Two Possible Mechanisms for Change

- 1) Social isolation: a strong and consistent risk factor for suicide. Joiner proposes it is an observable indicator that a fundamental human need is unmet – the need to belong⁹.
- Over 40 studies confirm the importance of “thwarted belongingness” in predicting suicidal behavior¹⁰⁻¹³.
- Caring contacts may improve a sense of belonging and through this, the desire to live.

2) It has also been hypothesized that caring contacts work because they lead to a more positive attitude toward the behavioral health system, which increases utilization of outpatient (OP) services, which decrease suicidal behavior¹⁴.



Aims / Hypotheses

- Aim 1: Determine if the addition of 12 months of CCVT + TAU results in lower rates of suicidal ideation and behavior relative to TAU alone
 - 1a: Reduced suicidal ideation at 12 months
 - 1b: Fewer suicide risk incidents (i.e., those requiring medical evacuation or hospital admission) per participant over 12 months
 - 1c: Fewer total # of suicide risk incidents over 12 months
- Aim 2: Test two proposed mechanisms of action of CCVT outcome: 1) reduced “thwarted belongingness” and 2) increased engagement in behavioral health services
 - 2a: The effect of CCVT compared to TAU will be mediated by reductions in “thwarted belongingness” from pre to post-study
 - 2b: The effect of CCVT compared to TAU will be mediated by increased use of OP behavioral health services in CCTV condition

•At 3 military installations (TBD)

In-clinic staff identifies suicidal Service Members

Continuity Clinician (i.e., research staff) introduces study, conducts Informed Consent and Baseline Assessment

Randomization

CCVT +
TAU

TAU

Texts at:
1 day, 1 week,
1,2,3,4,6,8,10, & 12
months + birthday

Usual behavioral
health care

Usual behavioral
health care

Records
Review

12 month
Follow Up

12 month
Follow Up

Records
Review

A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans: A Randomized Controlled Study

Rebecca Bernert, Ph.D.
Department of Psychiatry
and Behavioral Sciences



A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans

- The overarching aim of this proposal is to develop and test a behavioral sleep intervention to prevent suicidal behaviors among OEF/OIF veterans in a randomized controlled study.

A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans

- Growing evidence that suggests that sleep disturbance may be an important, modifiable risk factor for suicide
 - Disturbed sleep is modifiable
 - Poor sleep is amenable to treatment
 - Low- risk intervention targeting high-risk sample
 - Sleep problems are less stigmatizing
 - Research tested interventions are scarce

A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans

- Primary Aim 1: To develop and test an integrated, manualized behavioral sleep intervention for suicidality, MSPI (Military sleep-based preventive intervention) for suicidal behaviors
- Primary Aim 2: To examine MSPI effects in lowering suicidal ideation and behavior compared to a control treatment
- Secondary Aim 3: To examine MSPI effects on improving sleep indices (insomnia, sleep variability, nightmares, poor sleep quality) compared to control
- Secondary Aim 4: To explore MSPI effects on improving mood and stress measures
- Secondary Aim 5: To explore if mood or stress indices mediate or moderate MSPI suicidality reductions in treatment

A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans

- Proposed integration of two efficacious behavioral therapies:
 - CBT for Insomnia (CBT-I) will address insomnia, poor sleep quality, and sleep variability;
 - Imagery Rehearsal Treatment (IRT) will address residual nightmare symptoms.
- RCT: N=60 per arm:
 - MSPI
 - Pseudo-Desensitization Treatment for Insomnia (DTI)
- Recruitment at VA Palo Alto Health Care System

A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans

Researchers hypothesize that, compared to a control condition, the active intervention will produce significant post treatment reductions in:

1. suicidal ideation and suicide attempts (primary hypothesis),
2. sleep indices: insomnia, poor sleep quality, and nightmares (secondary hypothesis).

Usability and Utility of a Virtual Hope Box (VHB) for Reducing Suicidal Ideation

Nigel Bush, Ph.D.

National Center for Telehealth & Technology
University of Washington

Virtual Hope Box

- Develop and conduct initial proof of concept testing of a Virtual Hope Box app as an alternative to conventional hope kit used in Cognitive Therapy (CT) and Dialectic Behavior Therapy (DBT).

Hope Boxes

A common strategy to cope with suicidal ideation and behavior is the creation of a Hope Box which usually consists of items that are life-affirming.

Hope Boxes

Potential Coping Tools used in Hope Boxes

- Names, phone numbers of supportive people
- Inspirational texts
- Pictures
- Videos
- Positive Experiences
- Distractions
- Relaxation tapes/ tools
- Instructions on Guided Imagery

Virtual Hope Box (VHB)

- Provide real-time access to stress management tools aimed at increasing positive affect and highlighting Reasons for Living (RFLs).
- Include multimedia features such as support contact information, voice or video memos from important others, inspirational text, electronic coping cards, distracting stimuli, and audiovisual relaxation coaching.

Virtual Hope Box

- Researchers hypothesize that
 - the VHB will demonstrate high usability (e.g., easy to learn, efficient and convenient to use)
 - that patients will use the VHB more than a traditional “physical” hope box (PHB),
 - that the VHB will demonstrate high patient acceptability and satisfaction.
 - that users will prefer the convenience, easy utility, content richness, and hip-pocket portability of the VHB to the more static, cumbersome, and immobile PHB.

Virtual Hope Box

- Phase 1: Prototype development & testing
 - Translate design specifications into a working prototype
 - Conduct usability testing
 - 20 active duty service members
 - Joint Base Lewis McChord (JBLM)
 - Modify and improve the initial prototype based on feedback

Virtual Hope Box

- Phase 2: Clinical Proof of Concept Testing
 - Pilot with 10 high-risk-of-self-harm Veterans
 - VAMC Portland Mental Health Clinic
 - Data collected
 - semi-structured interviews
 - electronic usage log
 - PHB & VHB Usability Questionnaire
 - Clinical in-person debrief
 - Clinician focus groups
 - Psychological Outcomes

*Brief Intervention for Short- Term Suicide
Risk Reduction in Military Populations*

Craig J. Bryan, PsyD

University of Texas Health Science Center
San Antonio

Brief Intervention for Short- Term Suicide Risk Reduction in Military Populations

This study's main objective is to identify the most effective intervention for reducing short term risk for suicide attempts in "real world" military settings and to identify potential mechanisms of change underlying the interventions' impact on subsequent suicide attempts.

Brief Intervention for Short- Term Suicide Risk Reduction in Military Populations

Crisis Response Plan:

- * Commonly used for short term management of suicide risk
- * Includes early warning signs of a crisis
- * Identifies self-management skills to reduce distress
- * Identifies social supports
- * Provides crisis management resources

CRP+RFL

- * All of the above
- * Identification and rehearsal of personal reasons for living

Brief Intervention for Short- Term Suicide Risk Reduction in Military Populations

Cognitive fluidity (aka “tunnel vision”) is a hallmark feature of suicidality

Hopelessness entails the inability to recognize positive alternatives

Reasons for Living (RFL) can buffer an individual considering suicide

By increasing the detail and emotional attachment to the items on the RFL, cognitive limitations that contribute to over generalized memory and slow recall can be overcome.

Brief Intervention for Short- Term Suicide Risk Reduction in Military Populations

Researchers Hypothesize:

- The crisis response plan with reasons for living (CRP+RFL) intervention will contribute to significantly decreased risk for suicide attempts and hospitalization during follow-up relative to the crisis response plan alone (CRP) and treatment as usual (TAU).
- The CRP+RFL intervention will contribute to greater ambivalence about suicide and faster recall of reasons for living relative to the CRP and TAU interventions.
- Greater ambivalence about suicide and faster recall of reasons for living will mediate the relationship between intervention and reduced risk for suicide attempt during follow-up.

Brief Intervention for Short- Term Suicide Risk Reduction in Military Populations

- Randomize 360 military personnel (Fort Carson, Colorado)
 - TAU
 - CRP
 - CRP+RFL
- Assessments
 - Baseline (Pre-intervention) assessment: self-report and clinician-administered baseline assessments
 - Post-intervention assessment: self-report measures immediately following the intervention, prior to their final disposition.
 - Follow-up assessments: self-report and clinician-administered follow-up assessments at 1 week, 1 month, and 6 months following the baseline assessment.

Development and Evaluation of a Brief, Suicide Prevention Intervention Reducing Anxiety Sensitivity

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Development and Evaluation of a Brief, Suicide Prevention Intervention Reducing Anxiety Sensitivity

Anxiety Sensitivity: a fear of arousal

Anxiety sensitivity (AS) has been linked to a variety of problems including suicidal ideation. By targeting and treating AS, it is hypothesized that suicidal behaviors among military personnel will decrease.

The Cognitive Anxiety Sensitivity Treatment (CAST) intervention was developed to model psychoeducation and common behavioral techniques used in treatment of individuals experiencing anxiety disorders.

This intervention will be created into a web-based application, making it portable and accessible worldwide. CAST will also be designed to be implemented at any point in a service member's career, allowing CAST to reach the entire military population.

Development and Evaluation of a Brief, Suicide Prevention Intervention Reducing Anxiety Sensitivity

The Researchers Hypothesize:

- **Cognitive Anxiety Sensitivity Treatment (CAST)** will reduce overall AS and Cognitive AS in military, veteran and other relevant samples (e.g., individuals with PTSD).
- CAST will reduce suicidal ideation and risk for suicidal behaviors.
- CAST will have a positive impact on other adverse outcomes associated with elevated AS including PTSD and substance use.
- CAST will impact emotional TBI sequelae.

Development and Evaluation of a Brief, Suicide Prevention Intervention Reducing Anxiety Sensitivity

- **Phase I** will include the modification of the existing AS reduction protocol and application development .
- **Phase II** will include piloting the application on a relevant sample (N=10-20) to solicit feedback and may result in further modifications to the application.
- **Phase III** will include a RCT (N=70) designed to provide evidence of efficacy for the intervention along with platform conversion of the application. (funding of phase III pending revisions)

Development and Evaluation of a Brief, Suicide Prevention Intervention Reducing Anxiety Sensitivity

- The proposed research will take place across three primary performance sites:
 - FSU: Primary research site
 - NCPTSD/ VA Boston: secondary research site primarily responsible for the recruitment of military veterans
 - Infinity Software Development Inc: secondary research site dedicated to software development

MSRC Project Deliverables

- Development of comprehensive approach to preventing suicide among Military Service members and Veterans ensuring scientific basis exists to support suicide risk screening, assessment, prevention efforts, and interventions
- Creation of infrastructure for decision-makers and public for reliable information on questions regarding suicide and suicidal behavior in the military and Veterans
- Expanding knowledge, understanding, and capacity to prevent, treat, and enhance quality of life for those in military communities and the general public affected by suicide and suicidal behavior

Dissemination/Transition Plan

- Website www.msrc.fsu.edu

- Journal articles and books

Ribeiro, J. D., Pease, J. L., Gutierrez, P. M., Silva, C., Bernert, R. A., Rudd, M. D., & Joiner, T. E. (in press). Sleep problems outperform depression and hopelessness as cross-sectional and longitudinal predictors of suicidal ideation and behavior in young adults in the military. *Journal of Affective Disorders*.

- Renewal of consortium after first phase

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