DOD SUICIDE PREVENTION RESEARCH STRATEGY

FY 2020-2030

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Executive Summary

- The National Action Alliance for Suicide Prevention (NAASP), Centers for Disease Control (CDC) and Defense Strategy for Suicide Prevention (DSSP) call for a comprehensive approach to prevent suicide
- The Department of Defense (DoD) Suicide Prevention Research Strategy aligns with the NAASP, CDC and DSSP approaches and complements the Veterans Affairs (VA) 2018-2028 National Strategy for Preventing Veteran Suicide
- The strategy supports the National Research Action Plan and is organized around the six key questions of the NAASP Prioritized Research Agenda for Suicide Prevention, but focuses on closing military-specific gaps across the prevention/interventions continuum for mental health
- The overarching goal of the DoD Suicide Prevention Research Strategy (SPRS) is to support suicide prevention research that will lead to actionable policies and practices that reduce the military suicide rate
- The DoD SPRS identifies short-term and long-term objectives to understand, prevent, and treat military suicidality and is part of an integrated psychological health research strategy aimed at delivering solutions to prevent and treat co-occurring psychological health problems and promote psychological health and resilience to stressors
- Sustainment and implementation of evidence-based solutions positively impacts health and readiness of Service members and military families

DoD Suicide Prevention: Statement of the Problem

Suicide is a preventable public health problem that ranks as the 10th leading cause of death in the United States¹, with an estimated economic cost, predominantly comprising lost productivity, of about \$58.4 billion nationally.² Over time, suicide rates in the U.S. have gone up with the ageadjusted suicide rate having increased by 30% from 2000 to 2016.³ In the U.S. military (current DoD personnel), the overall suicide rate has remained stable in the shorter term (i.e., 2012-2016), but appears to show an overall increase in the longer term (i.e., 2005-2016).^{4,5} A number of studies³⁻⁹ have helped advance our knowledge of possible factors that may elevate risk for suicide in the military; however, the reasons for the increases in suicide rates remain unknown and it is unclear how identified possible factors relate to suicidal behavior.^{10,11} After adjusting for age and sex (in order to make the populations comparable), the U.S. general population suicide rate and the overall military suicide rate are comparable in recent years (i.e., the adjusted military suicide rate is neither statistically higher nor lower than the general population rate).¹²

Suicidality, linked to multiple factors, needs to be addressed at the individual, unit, leader, family, community, medical, psychological, educational, social, and political levels. While psychotherapeutic interventions like cognitive behavioral therapy and others have been shown to be effective in reducing suicide attempts, some Service members may prefer to seek help and access care from nonmedical settings.¹³ Much progress relative to the empirical understanding of suicide has been made¹⁴; however, relatively less has been achieved in terms of postulating a unifying paradigm that bridges interdisciplinary perspectives.^{15,16} Interdisciplinary risk assessment and management strategies that are effective, adaptive, actionable and easily implemented, are essential to manage the issue of death by suicide.^{17,18,19} These strategies that seamlessly bridge medical and non-medical approaches are critical for addressing factors such as culture, social, economic and other determinants of health. The National Action Alliance for Suicide Prevention (DSSP)²¹ emphasize that in order to address the suicide problem, strategies and interventions are needed across the spectrum of health promotion, prevention, treatment and surveillance, research, and evaluation.

Strategic Framework and Objectives

The overarching goal of the DoD Suicide Prevention Research Strategy (SPRS) is to support suicide prevention research that will lead to actionable policies and practices that reduce the military suicide rate. The DoD SPRS lays out short- and long-term goals for DoD-supported research aligned to the six key questions identified by the NAASP Research Prioritization Task Force's (RPTF)²² Suicide Research Prioritization Plan of Action. The Defense Suicide Prevention Office's (DSPO) DSSP²¹ and National Research Action Plan (NRAP)²³ goals and objectives can be mapped onto the six key questions of the NAASP. The DoD SPRS supports a comprehensive approach that has corresponding research gaps across the Institute of Medicine, now National Academy of Medicine (NAM) Classification of Prevention of Mental Health Intervention Spectrum²⁴ with a focus on addressing unique research needs directly relevant to preventing military suicide.

The DoD SPRS is designed to complement both National and Defense Suicide Prevention Strategies. The NAASP has led a comprehensive effort to identify capability gaps and research pathways and objectives required to address the National suicide crisis. The CDC Technical Package lists a core set of policies, programs, and practices for communities and states to implement as part of their suicide prevention efforts. However, there are unique military gaps identified through the DoD Task Force on the Prevention of Suicide by Members of the Armed Forces Final Report²⁵, MOMRP state-of-the-science workshops, an OASD (HA) joint capabilities needs assessment, ongoing suicide prevention research portfolio analyses, and by military stakeholders, such as DSPO.

The following tables reflect the DoD SPRS objectives, address unique military gaps in suicide prevention and take into account past and current research investments as well as future research needs. The research strategy is organized around the six key questions of the NAASP Suicide Research Prioritization Plan of Action but focuses on military suicide research short-term (1-5 years) and long-term (>5 years) objectives. It should be noted that the intent of the research objectives are to convey the breadth of the gaps that need to be addressed; therefore, the objectives are not prioritized and there may be insufficient resources to support achievement of all of these objectives.

NAASP RPTF Key Question 1: Why do people become suicidal?

DoD Short-Term Research Objectives

a. Identify external factors (e.g., social determinants, military cultural influences, resources, policies, deployment, spouse status (e.g., employment; mental health; ability to be supportive of Service member), media coverage of high profile military suicides) contributing to well-being and contributing to suicide risk increasing or decreasing across the military lifecycle

b. Develop group-level risk models (e.g., military occupational specialty, unit, operational communities, racial/ethnic, females, LGBT, Reserve Component, dependents) and trajectories of suicidality over time (suicide, suicide attempts and suicide ideation/plans)

c. Understand and characterize individual-level dynamic risk factors that precede the outcome of interest and can be used to divide the population into high- and low-risk groups, influencing suicide risk and trajectories over time (e.g., psychiatric disorders/dimensions, behavioral conditions, insufficient personal skills and resources, trauma exposure prior to and during military service, neurocognitive dysfunction, developmental stage, career course trajectories of risk, critical events and transition periods including the timing of risk at accession, during service and transition into and out of active service)

DoD Long-Term Research Objectives

d. Identify factors that foster healthy environment for Service members and family members and mitigate counterproductive behaviors and reduce suicide risk

e. Establish validated models of the complex interaction between biopsychosocial and other external factors and experiences and their effects on trajectories and time course of suicide risk over the military lifecycle

f. Understand genetic-associated risk and identification of endophenotypes of genetic risk in the context of a diathesis stress and other models of suicide [Leverage other Agency investments and efforts to accelerate progress]

NAASP RPTF Key Question 2: How can we better or more optimally detect/predict risk?

DoD Short-Term Research Objectives

a. Determine effectiveness and relative value of current screening tools and protocols for assessing risk upon entry to service and throughout military career lifecycle

b. Develop effective detection methods that take into account time-course and trajectories of suicide risk across the personal, developmental and military lifecycles (identify and learn from groups that are less at risk)

c. Develop effective methods to assess risk among individuals with no previously identified mental health problem and those not receiving frequent health care

d. Develop validated methods (e.g., machine learning, predictive analytics, natural language processing) that leverage existing or passive data sources (e.g., medical records, administrative data, social media) to improve assessment and categorization of suicide risk

DoD Long-Term Research Objectives

e. Deliver improved strategies for more effective risk and protective factor assessment tools and screening and risk assessment protocols appropriate for different time points and settings (medical and non-medical) across the military lifecycle

f. Deliver valid objective non-self-report risk assessment approaches (e.g., implicit measures, physiological measures, genetic screening) [Leverage other Agency investments and efforts to accelerate progress]

g. Develop validated complex multifactorial algorithms and models based on integrated data sources (e.g., electronic medical records, administrative data) for identifying emergence of risk in a subpopulation (i.e., models to predict in which communities or groups suicide rates are likely to increase or where a suicide cluster may emerge) [Leverage other Agency investments and efforts to accelerate progress]

NAASP RPTF Key Question 3: What interventions are effective? What prevents individuals from engaging in suicidal behavior?

DoD Short-Term Research Objectives

a. Develop and test military system interventions and/or approaches that address underlying social and non-medical conditions (training and strategies for how and when to take steps to reduce lethal means access and improve leadership engagement, safe messaging, provider training, Service member and family resilience training, and bundled approaches) to address needs of the highest risk subgroups and develop abilities to prevent onset or relapse of suicide risk

b. Determine effectiveness of promising healthcare-based/medical interventions and approaches (e.g., caring contacts, mobile applications, psychotherapies, collaborative care models, crisis response planning, training)

c. Establish effective follow-up and post-acute care approaches to reduce risk in identified Service members and family members at risk

d. Develop and test interventions to rapidly reduce acute and enduring suicidality (e.g., medications, technologies, and combination therapies) [Leverage other Agency investments and efforts to accelerate progress]

DoD Long-Term Research Objectives

d. Develop effective approaches that systematically address reasons why at-risk individuals do not seek care, while also avoiding the risks of normalizing suicidal behavior

e. Validate use of precision matching of interventions to right person/group at the right time (critical periods throughout military lifecycle)

f. Determine whether selective/indicated interventions that reduce underlying risk (e.g., management of insomnia, anger, loneliness, burdensomeness, acquired capability, alcohol and substance use, relationship problems, sexual harassment and assault, and family violence) and/or increase protective factors (e.g., social connectedness, problem solving, reasons for living, safe messaging, community engagement, guidance for DoD schools) also mitigate suicide risk, and whether more adherent and complete responses to these conditions are sufficient to mitigate risk

NAASP RPTF Key Question 4: What services are most effective for treating the suicidal person and preventing suicidal behavior?

DoD Short-Term Research Objectives

a. Develop and evaluate methods to substantially increase retention in care and treatment engagement and reduce barriers to accessing care (e.g., beliefs that treatment is not effective, beliefs that a problem will go away on its own, embarrassment, concern of career implications of help seeking)

b. Apply effectiveness studies to identify efficient ways to optimize the quality and delivery of suicide assessment, treatment and follow-up care delivered by military clinicians that are consistent with Clinical Practice Guidelines

c. Identify feasible, acceptable, and effective methods for implementing health promotion and preventive care in military Healthcare services to reduce suicide risk

d. Identify feasible, acceptable, and effective methods for implementing services to those in the military community affected by suicide deaths and /or attempts and implement community wide postvention strategies to help prevent subsequent suicides or other counter-productive behaviors

DoD Long-Term Research Objectives

e. Develop approaches to effectively improve coordination of care and support bi-directional communication within and between non-medical and medical systems to deploy precision matching (of suicidal person to optimal treatment and services) to optimize military healthcare

NAASP RPTF Key Question 5: What other types of prevention interventions (outside of healthcare settings) reduce suicide risk?

DoD Short-Term Research Objectives

a. Develop effective individual, peer/unit, leader, family, community, and enterprise-level approaches to encourage appropriate help-seeking and reduce barriers to care

b. Develop effective universal prevention approaches (e.g., spouse and peer-support approaches, chaplaincy spiritual/religious, reducing access to lethal means, promote means safety, decreasing sexual harassment and assault, organizational policies and culture, community-based norms, promoting connectedness) and methods to create supportive protective environments and positively affect multiple mental health outcomes including suicidality

c. Develop effective public messaging, tools, policies and practices for communications and public awareness to reduce suicide risk and rates in the population (e.g., reducing barriers to help-seeking while avoiding risks of normalizing suicidal behavior, safe messaging, encouraging help-seeking, normalizing lethal means safety practices)

d. Increase practical application and integration of universal Skills-Based Training (e.g., problem-solving, emotion regulation, forming and maintaining relationships with appropriate boundaries, communication) to increase resilience to stressors and decrease suicide risk

e. Develop effective practices for engaging Service members and family members during highrisk periods (e.g., accession, first deployment, permanent change of station, promotion, demotion, major interpersonal/relationship problems, separation) to reduce risks and increase protective factors, including promoting access to care, increasing lethal means safety, and enhancing social connectedness including unit cohesion

DoD Long-Term Research Objectives

f. Develop and test systems-level, enterprise-level, and community-based policy, environment, leadership, and military culture approaches to address precipitant factors to reduce suicide risk and increase protective factors

g. Conduct community engaged and participatory research on effective strategies for reducing suicide disparities and increasing protective factors among high-risk groups.

h. Develop effective approaches and interventions for addressing environmental factors identified to influence suicide risk in Key Question #1

i. Evaluate multi-factorial approaches that address various stages of risk (reduce risk factors; prevent ideation; prevent behaviors)

j. Develop and deliver prevention and intervention strategies that culturally align to why people join the military, align with military requirements/needs and have a positive impact that balances decreasing risk factors without risking mission effectiveness

NAASP RPTF Key Question 6: What new and existing research infrastructure is needed to reduce suicidal behavior?

DoD Short-Term Research Objectives

a. Require use of common data elements

b. Leverage the National Data Archive to encourage secondary data analyses of aggregated data

c. Maintain and Update a Robust Surveillance System

d. Utilize or establish a centralized repository for genetics, RNA and proteomic work for VA, DoD and NIH efforts

e. Include language to allow consenting for passive longitudinal follow-up including mortality outcomes, brain tissue donation, and sharing of VA and DoD data

f. Develop a communication and dissemination structure to help researchers know what others are doing, avoid duplications, and optimize opportunities to leverage/collaborate

g. Expand capacity of public health research community to conduct effective and ethical population based behavior change research especially focused on suicide prevention and risk behavior

DoD Long-Term Research Objectives

h. Develop Sustained Clinical trials network within DoD

i. Develop programs in training/education for Precision Medicine/Computational biology for research and health care administration, data management, and biostatistics

j. Create seamless data sharing between VA and DoD for research purposes that addresses HIPAA and other privacy/confidentiality complications

k. Implement Joint DoD/VA education exchange program/fellowships

 Integrate and coordinate DoD suicide prevention efforts (e.g., Family Advocacy Program, Sexual Assault Prevention Research Office, Alcohol and Drug Abuse Prevention, Transition Assistance Program, Physical readiness) and improve cross sector and community partnerships/collaborations (education, transition services, family advocacy, labor, chaplains, law enforcement, Criminal Investigative Divisions) to promote wellbeing and reduce suicidality m. Develop capacity of military health research community to conduct effective and ethical

community engaged and participatory research

n. Effective policies, infrastructure and resources to promote an accountable culture committed to use of best practices identified (e.g., allowing providers time and "credit" for adequate suicide assessment and management skills; empowering individuals, units, and commanders to engage in and implement evidence-based practices; facilitating reduction of barriers to care)

Appendix A: Highlighted Strategic Drivers Guiding the DoD Suicide Prevention Research Strategy

The DoD Task Force on the Prevention of Suicide by Members of the ARMED FORCES FINAL REPORT (2010), <u>https://apps.dtic.mil/docs/citations/AD1034133</u>

National Action Alliance for Suicide Prevention (NAASP) National Strategy for Suicide Prevention (NSSP) (SEP 2012), <u>https://theactionalliance.org/our-strategy/national-strategy-suicide-prevention; https://www.ncbi.nlm.nih.gov/pubmed/23136686</u>

2012 National Strategy for Suicide Prevention: Goals and Objectives for Action: A Report of the U.S. Surgeon General and of the National Action Alliance for Suicide Prevention. https://www.ncbi.nlm.nih.gov/pubmed/23136686

National Action Alliance for Suicide Prevention: A prioritized research agenda for suicide prevention, <u>https://theactionalliance.org/sites/default/files/agenda.pdf</u>

DoD Strategy for Suicide Prevention (DSSP) (2015), https://www.dspo.mil/Portals/113/Documents/TAB% 20B% 20-% 20DSSP_FINAL% 20USD% 20P R% 20SIGNED.PDF

EO 13625 Improving Access to Mental Health Services for Veterans, Service Members and Military Families (August 31, 2012) <u>https://obamawhitehouse.archives.gov/the-press-office/2012/08/31/executive-order-improving-access-mental-health-services-veterans-service</u>;

National Research Action Plan (NRAP) (2013) <u>https://obamawhitehouse.archives.gov/sites/default/files/uploads/nrap_for_eo_on_mental_health_august_2013.pdf</u>

EO 13822 Supporting Transitions from Service to Civilian and associated Joint Action Plan for Supporting Veterans During their Transition from Uniformed Service to Civilian Life (revised APR 2018), <u>https://www.federalregister.gov/documents/2018/01/12/2018-00630/supporting-our-veterans-during-their-transition-from-uniformed-service-to-civilian-life</u>

TRADOC Pamphlet 525-3-1, The United States Army Operating Concept 2016-2028, https://dde.carlisle.army.mil/LLL/DSC/readings/L19_tradocPam525-3-1.pdf

The US Army in Multi-Domain Operations 2028, https://www.tradoc.army.mil/Portals/14/Documents/MDO/TP525-3-1_30Nov2018.pdf

Total Force Fitness, <u>https://www.ncbi.nlm.nih.gov/pubmed/25735013</u> Holistic Health and Fitness (2017), <u>https://usacimt.tradoc.army.mil/LTB/images/Holistic%20Health%20and%20Fitness_A%20Bette</u> <u>r%20Way%20to%20Readiness.pdf</u> Stone, D.M., Holland, K.M., Bartholow, B., Crosby, A.E., Davis, S., and Wilkins, N. (2017). Preventing Suicide: A Technical Package of Policies, Programs, and Practices. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. <u>https://www.cdc.gov/violenceprevention/pdf/suicideTechnicalPackage.pdf</u>

Executive Order on a National Roadmap to Empower Veterans and End Suicide (March 5, 2019) <u>https://www.whitehouse.gov/presidential-actions/executive-order-national-roadmap-empower-veterans-end-suicide/</u>

VA National Strategy for Preventing Veteran Suicide 2018-2028 (JUN 2018), https://www.mentalhealth.va.gov/suicide_prevention/docs/Office-of-Mental-Health-and-Suicide-Prevention-National-Strategy-for-Preventing-Veterans-Suicide.pdf

National Defense Strategy 2018 https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf

Department of Defense Artificial Intelligence Strategy 2018 https://media.defense.gov/2019/Feb/12/2002088963/-1/-1/1/SUMMARY-OF-DOD-AI-STRATEGY.PDF

Executive Order on Maintaining American Leadership in Artificial Intelligence (February 11, 2019)

https://www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/

NIMH: Suicide Prevention Next Steps https://www.nimh.nih.gov/about/director/messages/2017/suicide-prevention-next-steps.shtml

Appendix B: List of References

1. Centers for Disease Control and Prevention. Rising Across the US: More Than a Mental Health Concern, June 7, 2018 (https://www.cdc.gocv/vitalsigns/suicide/index.html).

2. Shepard, D. S., Gurewich, D., Lwin, A. K., Reed, G. A., Jr., & Silverman, M. M. (2016). Suicide and suicidal attempts in the United States: Costs and policy implications. Suicide and Life-Threatening Behavior, 46, 352–362. http://dx.doi.org/10.1111/sltb.12225

3. Hedegaard H, Curtin SC, Warner M. Suicide rates in the United States continue to increase. NCHS Data Brief. 2018;(309):1-8.

4. Defense Health Agency, Department of Defense Suicide Event Report - Calendar Year 2016, Washington DC: Department of Defense, 2018.

5. Anglemyer, A., Miller, M. L., Buttrey, S., & Whitaker, L. (2016). Suicide rates and methods in active duty military personnel, 2005 to 2011: a cohort study. Annals of internal medicine, 165(3), 167-174.

6. LeardMann, C. A., Powell, T. M., Smith, T. C., Bell, M. R., Smith, B., Boyko, E. J., . . . Hoge, C. W. (2013). Risk factors associated with suicide in current and former US military personnel. Journal of the American Medical Association, 310,496-506.

7. Reger, M. A., Smolenski, D. J., Skopp, N. A., Metzger-Abamukang, M. J., Kang, H. K., Bullman, T. A., . . . Gahm, G. A. (2015). Risk of suicide among US military service members following operation enduring freedom or operation Iraqi freedom deployment and separation from the US military. Journal of the American Medical Association Psychiatry, 72, 561–569. http://dx.doi.org/10.1001/jamapsychiatry.2014.3195

8. Ursano, R. J., Kessler, R. C., Heeringa, S. G., Cox, K. L., Naifeh, J. A., Fullerton, C. S., . . . the Army STARRS collaborators. (2015). Nonfatal Suicidal Behaviors in U.S. Army Administrative Records, 2004–2009: Results from the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS). Psychiatry, 78, 1–21.

9. Schoenbaum, M., Kessler, R. C., Gilman, S. E., Colpe, L. J., Heeringa, S. G., Stein, M. B., . . . for the Army STARRS Collaborators. (2014). Predictors of suicide and accident death in the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS): Results from the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS). Journal of the American Medical Association Psychiatry, 71, 493–503.

10. Castro, C. A., & Kintzle, S. (2014). Suicides in the military: The postmodern combat veteran and the Hemingway effect. Current Psychiatry Reports, 16, 460.

11. Nelson, H. D., Denneson, L., Low, A., Bauer, B. A., O'Neil, M., Kansagara, D., & Teo, A. R. (2015). Systematic review of suicide prevention in veterans. Evidence-based Synthesis Program. Washington, DC: U.S. Department of Veterans Affairs.

12. Defense Health Agency, Department of Defense Suicide Event Report - Calendar Year 2016, Washington DC: Department of Defense, 2018.

13. Ho, T. E., Heese, C. M., Osborn, M. A., Schneider, K. G., Smischney, T. M., Carlisle, B. L., Beneda, J. G., Schwerin, M. J., & Schechter, O. G. (2018). Mental Health and Help-Seeking in the U. S. Military: Survey and Focus Group Findings. https://apps.dtic.mil/dtic/tr/fulltext/u2/1059321.pdf

14. Skopp, N. et al. (2019). Circumstances preceding suicide in U.S. soldiers: A qualitative analysis of narrative data, Psychological services, 05/2019, Volume 16, Issue 2

15. Krysinska, K., Batterham, P. J., Tye, M., Shand, F., Calear, A. L., Cockayne, N., & Christensen, H. (2016). Best strategies for reducing the suicide rate in Australia. Australian & New Zealand Journal of Psychiatry, 50(2), 115–118. https://doi.org/10.1177/0004867415620024

16. Kene, P., Yee, E. T., & Gimmestad, K. D. (2019) Suicide assessment and treatment: Gaps between theory, research, and practice. Death Studies, 43:3,164-172, DOI:10.1080/07481187.2018.1440034.

17. Saigle V., Séguin M, and Racine E. Identifying gaps in suicide research: A scoping review of ethical challenges and proposed recommendations. IRB: Ethics & Human Research 2017;39(1):1-9.

18. Sisti, D. A. & Joffe, S. (2018). Implications of zero suicide for suicide prevention research. JAMA, 320(16):1633-1634. doi:10.1001/jama.2018.13083

19. Lubens, Pauline, and Bruckner, Tim A. (2018). A Review of Military Health Research Using a Social–Ecological Framework. American Journal of Health Promotion: 1078–1090. Web.

20. National Action Alliance for Suicide Prevention (NAASP) National Strategy for Suicide Prevention (NSSP) (SEP 2012), <u>https://theactionalliance.org/our-strategy/national-strategy-suicide-prevention; https://www.ncbi.nlm.nih.gov/pubmed/23136686</u>

21. DoD Strategy for Suicide Prevention (DSSP) (2015), http://www.dspo.mil/Portals/113/Documents/TAB%20B%20-%20DSSP_FINAL%20USD%20P R%20SIGNED.PDF

22. National Action Alliance for Suicide Prevention: A prioritized research agenda for suicide prevention, <u>https://theactionalliance.org/sites/default/files/agenda.pdf</u>

23. National Research Action Plan (NRAP) (2013).

 $https://obamawhitehouse.archives.gov/sites/default/files/uploads/nrap_for_eo_on_mental_health _august_2013.pdf$

24. National Research Council and Institute of Medicine. 2009. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Washington, DC: The National Academies Press. https://doi.org/10.17226/12480

25. The DoD Task Force on the Prevention of Suicide by Members of the ARMED FORCES FINAL REPORT (2010), <u>https://apps.dtic.mil/docs/citations/AD1034133</u>

Appendix C: National Action Alliance for Suicide Prevention (2012) and Suicide Research Prioritization Plan of Action

The National Action Alliance for Suicide Prevention (NAASP) National Strategy for Suicide Prevention (NSSP) (SEP 2012) is organized around 4 strategic directions, 13 goals, 60 objectives. This NSSP recognizes that suicide is a complicated issue that requires equally complex solutions. Effective solutions need to incorporate multiple approaches at multiple levels. Effective prevention programs and policies stress the importance of wellness, resiliency, and protective factors; effective suicide response and intervention programs address risk factors, mental health and substance abuse services, and crisis response for those who are struggling with suicidal behaviors; and effective support programs are required for those who have been touched by suicide or suicidal behavior. The NAASP Research Prioritization Task Force (RPTF) released a Suicide Research Prioritization Plan of Action that centers around 6 key questions that align to the 4 strategic directions in the NSSP. There are 12 aspirational goals under the 6 key questions and the Plan of Action lays out suggested research pathways and accompanying short- and longterm objectives. The RPTF has ongoing collaboration with Federal (including DoD) and non-Federal organizations to capture the breadth of suicide prevention research being conducted in a suicide prevention research study database which can be used to conduct gap analyses and inform strategic planning.

Key Question 1: Why do people become suicidal?

Key Question 2: How can we better or optimally detect/predict risk?

Key Question 3: What interventions are effective? What prevents individuals from engaging in suicidal behavior?

Key Question 4: What services are most effective for treating the suicidal person and preventing suicidal behavior?

Key Question 5: What other types of preventive interventions (outside health care systems) reduce suicide risk?

Key Question 6: What new and existing research infrastructure is needed to reduce suicidal behavior?

Appendix D: Defense Strategy for Suicide Prevention Goals

Goal 1: Integrate and coordinate suicide prevention activities across the Department of Defense (DoD)

Goal 2: Implement research-informed communication efforts within the DoD that prevent suicide by changing knowledge, attitudes, and behaviors

Goal 3: Educate the military community on the protective factors against suicide that also promote resilience, and recovery in the DoD

Goal 4: Encourage responsible media reporting and portrayals of military community suicide and mental illnesses and promote the accuracy and safety of online content related to suicides in the Department

Goal 5: Develop, implement, and monitor effective DoD programs that promote resilience, and prevent suicide and related behaviors

Goal 6: Promote efforts within the DoD to reduce access to lethal means of suicide among individuals with identified suicide risk

Goal 7: Provide military community service providers and military healthcare service providers evidence based training on the prevention of suicide and related behaviors

Goal 8: Promote suicide prevention as a core component of military healthcare services

Goal 9: Promote and implement effective clinical and professional practices in the Military Health System for assessing and treating those identified as being at risk for suicidal behaviors

Goal 10: Provide support and quality services for those in the military community affected by suicide deaths and attempts and implement community-wide postvention strategies to help prevent subsequent suicides

Goal 11: Improve the timeliness and usefulness of DoD surveillance systems relevant to suicide prevention, and improve the ability to collect, analyze, and use this information for improving Department suicide prevention efforts

Goal 12: Promote and support DoD research on suicide prevention

Goal 13: Evaluate the impact and effectiveness of DoD suicide prevention interventions and systems in order to synthesize and disseminate the findings

Appendix E: Funding and Management Oversight

The US Army Medical Research and Development Command (MRDC) is responsible for management oversight and execution of Army medical research funding, and on behalf of the Office of the Assistant Secretary of Defense for Health Affairs (Health Readiness Policy & Oversight) and the Defense Health Agency, is responsible for execution management and coordination of Defense Health Program Funding. Research conducted within and for the Department of Defense (DoD) is requirements-driven, with processes in place to ensure alignment with the National Military Strategy, National Security Strategy, and suicide prevention strategies (see Appendix for a list of the specific drivers guiding the DoD suicide prevention research strategy). Via the Planning, Programming, Budgeting and Execution (PPBE) process, the Joint Capabilities Integration and Development System (JCIDS) and the Defense Acquisition System processes, MRDC achieves integration of strategic level guidance, user requirements and joint gaps, existing Service and other Agency investments, and available Army and Defense Health Program funding to generate a fully justified and defensible research strategy and investment plan.

For the DoD, the Military Operational Medicine Research Program (MOMRP) serves as the key strategic integrator of psychological health research (including suicide prevention research) with the Defense Suicide Prevention Office Serving as the policy office for DoD suicide prevention and the Defense Health Agency directing the DoD's clinical suicide prevention efforts. On behalf of the Armed Services Biomedical Research Evaluation and Management (ASBREM) board, the MOMRP Director is responsible for cross-DoD coordination of RDT&E in these topic areas as the Joint Technology Coordinating Group Chair for Military Operational Medicine and is responsible for coordination and integration of psychological health and resilience research including the suicide prevention research strategy and portfolio of studies.

Through the National Research Action Plan (NRAP)²¹ initiative, the MOMRP maintains collaborative working relationships with program managers within DoD, the Services, the National Institutes of Health (NIH) and the Department of Veterans Affairs (VA) in order to maximize resource impacts, create synergies to accelerate progress, and avoid unnecessary redundancies. The MOMRP does not conduct studies, but manages an integrated program of research conducted by intramural researchers at DoD labs as well as extramural performers at academic institutions, other Federal and non-Federal organizations and industry.

As part of the NRAP effort, the MOMRP in collaboration with the NIH and the VA adapted the Institute of Medicine, now National Academy of Medicine (NAM) Classification of Prevention of Mental Health Intervention Spectrum²² to reflect a comprehensive research continuum.

Appendix F: Acknowledgements

The following individuals provided input to the DoD Suicide Prevention Research Strategy

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