Examination of Mental Health Accession Screening: Predictive Value of Current Measures and Processes

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
HEALTH AFFAIRS
7700 ARLINGTON BOULEVARD, SUITE 5101
FALLS CHURCH, VA 22042-5101

DEFENSE
HEALTH
BOARD

MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS

SUBJECT: Examination of Mental Health Accession Screening: Predictive Value of Current Measures and Processes

The Defense Health Board (DHB) is pleased to submit its report and its accompanying findings and recommendations from its independent review of the Department's mental health accession measures and processes. This review will summarize knowledge regarding the effectiveness of psychiatric and psychological assessments in accession screening, identify strategies to support Service members' mental fitness throughout their military careers, and propose a shift in how mental health concerns are conceptualized and addressed at accession and throughout military service.

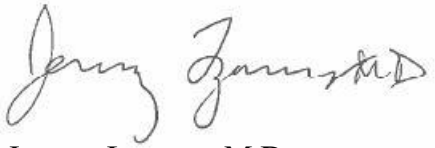
On July 29, 2019, the Assistant Secretary of Defense for Health Affairs (ASD(HA)) directed that the DHB, through its Neurological/Behavioral Health Subcommittee, provide recommendations to the Department in order to improve mental health accession measures and processes. Specifically, the ASD(HA) requested the DHB to:

- Determine factors, to include historical or current diagnoses or symptoms, that predispose or protect a person to/from poor outcomes under stress of military service;
- Evaluate the predictive validity and effectiveness of psychiatric/psychological assessments and applicability to accession screening;
- Identify stressors and risks inherent in military service that can both positively and negatively influence Service member mental health morbidity; and
- Optimize ways to support recruits' mental fitness

The Neurological/Behavioral Health Subcommittee reviewed scientific literature of military and civilian research on mental health screening tools to evaluate current measures and effectiveness; to identify risk and examine attrition data that relates to Service members' mental health fitness; and to provide additional recommendations that promote mental health and wellbeing. The Subcommittee received briefings from, and consulted with, experts from both military and civilian institutions.

The Neurological/Behavioral Health Subcommittee presented to the DHB on August 7, 2020 and, following public deliberation, the findings and recommendations were approved. The findings and recommendations address four main themes that affect Service member mental health and military readiness: the recruiting and mental health screening process; a comprehensive research strategy to inform mental health accession standards and processes; mental health data use and availability for screening personnel and medical providers; and lethal means restriction for suicide prevention.

On behalf of the Board, I appreciate the opportunity to provide the Department with this independent review and hope that it provides useful information to support the DoD's mission to maintain a ready Force by optimizing Service members' mental health.



Jeremy Lazarus, M.D.
President, Defense Health Board

Attachment:
As stated

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Knowesis, Inc.

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Paul Schaettle, MPH
Brendan Thornton, MA
Clarice Waters, PhD, MS

Neurological/Behavioral Health Subcommittee Members

Sonia Alemagno, PhD
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Stephanie Reid-Arndt, PhD
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Thomas Uhde, MD
Alex Valadka, MD, *Board Member*

Executive Summary

The Department of Defense (DoD) leadership and Congress have had a recurring interest in mental health screenings during the accession period when recruits are medically evaluated for military service. A significant number of Service members – approximately 9% – receive a mental health diagnosis within the first 180 days after accession.[1] These conditions are usually not disclosed or are undetectable during the accession period and are associated with an increased rate of attrition (69%) and reduced odds of deploying (77%).[1] The DoD could benefit from improving the screening for, and identification of, pre-existing mental health conditions in recruits and early career Service members. This could reduce the significant number who separate early and provide an opportunity to support Service members who could have successful military careers if offered early intervention. This also recognizes that disclosure-based screening of mental and behavioral health conditions, by itself, is an imperfect tool.

On July 29, 2019, the Assistant Secretary of Defense for Manpower and Reserve Affairs directed the Defense Health Board (DHB), through its Neurological/Behavioral Health (NBH) Subcommittee, to provide recommendations to the DoD that would improve mental health accession measures and processes. In this request, the NBH Subcommittee was directed to determine factors that predispose an individual to, or protect them from, the poor outcomes that may occur under stress from military service; evaluate the predictive validity and effectiveness of psychiatric and psychological assessments and their applicability to accession screening; identify stressors and risks inherent in military service that can both positively and negatively influence Service members' mental health morbidity; and optimize ways to support Service members' mental fitness throughout their service.

For this report, the DHB adopted guiding principles to frame the review, findings, and recommendations. First, the DHB views accession into the military as part of the Service members' career life course; decisions made during the accession process affect future outcomes for the Service member and the military as a whole. Determination of success for the individual is multifactorial. An approach that focuses only on recruitment but not the career life course of the recruit may be limiting. Second, one intent of mental health screenings, whether done at accession or throughout other points in a Service member's career, is to manage risk for both the individual and the Enterprise as a whole. The screenings are just one component of a suite of tools the DoD can use to identify and mitigate adverse mental health outcomes. With the understanding that mental health conditions do not uniformly create risks to readiness, DoD requires attention to potential risks to readiness posed by treated versus unidentified or untreated mental health conditions. Finally, the DHB views the integration of innovative solutions for supporting mental health to be important steps toward reducing risk and increasing resiliency across the military career. Admissions and retention methodology and strategy have changed in many sectors; there is benefit in evaluating state of the art practices. To ensure current and novel practices are appropriate, DoD should consider institutional beliefs and values when evaluating outcome metrics and incentives.

Over the course of a year-long investigation, the DHB observed that specific contextual factors affect the utility of the Learning, Psychiatric, and Behavioral Disorder standards defined

in Department of Defense Instruction (DoDI) 6130.03 applied at accession. The DoD model of accession testing relies on the ability of screening tools based on self-disclosure to predict future functioning on the basis of history and point-in-time measurement. Current screening methods prevent the majority of unqualified applicants from entering the military, for example, someone suffering from schizophrenia; however, accession medicine is unable to identify less severe conditions, such as mild-moderate depression or anxiety disorder, with confidence despite the skill of accession personnel in detecting undisclosed disqualifying conditions. The prediction of future functioning based on behavioral health diagnoses is not a simple task, given the evidence that many Service members diagnosed with some conditions or past adverse experiences have positive career outcomes despite their diagnosis or disorder.[2]

This report describes the mental health screening process during accession and details the procedures in place to ensure only medically qualified candidates enter into the U.S. Military. From there, the report details challenges inherent to mental health screening – especially screening that allows for applicants with mental health conditions that could cause them to perform poorly if not adequately supported. Next, the report examines the link between mental health and the risk of suicide. In support of Service members' mental health, the DoD has varied resilience and suicide prevention programs across the Services. Restricting access to lethal means is one suicide prevention strategy with the most supporting evidence and the least standardized implementation. Lastly, this report makes the case for a paradigm shift in the military – to view mental health screening and support programs as tools designed to create a comprehensive approach to retain Service members at their peak physical and mental fitness to best serve. In the resulting report, the DHB identified strategies that can support DoD's mission to identify recruits most ready for military service and support Service members' mental health throughout their military career. Drawing from previous research, current evidence, and subject matter expert consultations, the DHB recommends the DoD implement these efforts within the context of a fundamental shift in how recruit mental health fitness is conceptualized, pursued, and evaluated. Intentionally constructing environments that draw on individual, group, and system-wide factors will promote mental health and a successful military career. This integrated approach focuses on readiness outcomes and will result in optimized mental health outcomes for the Service member
and improve mental health fitness across the military.

The DHB has made the following findings and recommendations over the course of their investigation in response to the tasking:

Finding 1: Mental health accession screening takes a "deficit-minded" approach: a recruit with a specific mental health history, condition, or diagnosis fails to meet the qualification standards that define the acceptable recruit.

Evidence suggests that the relationship between mental health conditions and military success is more complicated than this approach can accommodate.

The impact of this discrepancy is less noticeable in a robust recruiting environment. Today, however, only one in three 18-year-olds can meet the enlistment standards and fewer than one in five wants to serve.

Recommendation 1: Work to redefine the current paradigm of mental health readiness, using examples from other organizations, to incorporate both individual and organizational correlates of success. Consider DoD's socio-ecological model of resilience as a starting point and develop an organizational version of Total Force Fitness to identify and track organizational variables.

Finding 2: Challenges and complexities inherent in accession screening make it difficult to identify with confidence those recruits who do not meet the standards.

There is a "wide zone of clinical uncertainty" within the recruit population. Some recruits may have a history of mental or behavioral health conditions, trauma, and/or ACEs and do well while others do poorly.

Some of these recruits enter the military on a behavioral health medical waiver and do well, while others do not. Waiver studies are not systematically conducted on all disqualifying diagnoses, but a small number of studies show that the majority of Service members who are admitted on a waiver are successful in the military.

Recommendation 2: Develop a mental health research strategy that includes a set of Enterprise-wide, measurable readiness outcomes that are tracked as a function of individual and organizational mediators across a Service member's career, beginning at accession. The Department should include evaluating the reliability and validity of current disqualification criteria to determine the relationship between specific diagnoses and career outcomes and conduct waiver studies on all disqualifying diagnoses. Recommendations 5, 6.1, and 6.2 discuss additional variables for inclusion in a comprehensive research strategy.

Finding 3: Challenges and complexities beset current screening methods.

Screening tools used at accession are thought to be clinically useful but are not scientifically validated.

Co-located mental health expertise at Military Entrance Processing Stations (MEPS) has been shown to improve detection of applicant mental or behavioral health issues during screening.

Behavioral health providers who have military experience provide particularly effective consultation.

Contextual and environmental factors affect applicant and recruit disclosure. The time at which a screening tool or test is administered during the accession process appears to be an important factor affecting predictive validity.

There is interest in finding ways to access more objective applicant data. A pilot is underway to access applicant prescription data through the Milliman company. In addition, the Military Health System (MHS) GENESIS Electronic Health Record (EHR) will integrate with MEPS in 2023, allowing fuller access to records of applicants who are also Department of Defense (DoD) beneficiaries. Data sharing efforts not currently applied to recruitment may provide additional sources of objective information about applicant health. Specifically, expansion between DoD, Veterans Affairs (VA), and private sector health facilities will provide an avenue for securing health information of non-DoD affiliated applicants more easily once applicants consent.

Recommendation 3.1: Supplement static prediction with existing opportunities for real-time observation. Utilize the first 180 days of a Service member's career for enhanced screening for pre-existing mental health disorders and common disqualifying conditions. Include embedded mental health providers in training units for closer observation during the training period.

Recommendation 3.2: Further scientific validation of screening tools, including the Omaha-5, should be done to determine the extent to which they are predictive of future mental health diagnoses and related career outcomes.

Recommendation 3.3: Create opportunities for on-site psychiatric and/or mental health staff at MEPS who can conduct applicant mental health assessments where possible, or innovative solutions to better integrate mental health providers who provide assessments in complex situations, such as a centralized mental health team accessible via telemedicine that are available to all MEPS locations.

Recommendation 3.4: Replicate the Air Force's BEST Program across the Services. DoD should conduct a second round of mental health screening during the first 72 hours of Basic Military Training (BMT) across all Services.

Recommendation 3.5: Before instituting opportunities to obtain objective information on an Enterprise scale, further evaluate the risks and benefits of allowing access to an applicant's pediatric health record data, specifically related to behavioral health conditions.

Finding 4: Current quota-based recruiting incentives impact the mental health accession process.

Recommendation 4: Revise recruiting metrics and incentives to encourage retention. A pilot program of revised evaluation metrics would inform the effectiveness of this revision. For example, evaluate performance based on number of recruits retained through a period instead of the number of recruits successfully entering the U.S. Military Services. Consider innovative recruiting strategies to boost likelihood of obtaining healthy applicants.

Finding 5: No formal feedback loops currently exist between recruiters, MEPS personnel, and the Services to communicate outcomes of the recruiting, accession, and waiver processes.

Recommendation 5: A feedback loop of outcome data would better inform recruiters, MEPS personnel, and waiver authorities on their methods and processes. These data should include early attrition, mental health diagnoses during the entry-level period, and deployability. Data should be obtained as part of the research strategy recommended above.

Finding 6: 17% of enlisted Active duty Service members attrit within the first three years, with approximately 64% attriting by the end of the first year and 52% within the first 70 days of service. Comprehensive data on the reasons why Service members separate from service during the entry-level period are currently unavailable.

Adjustment Disorder is the most frequent behavioral health diagnosis given to active duty Service members. However, the context(s) in which this diagnosis is given is not well understood.

Recommendation 6.1: Study the reasons why people separate from service during the entry-level period and use these findings to inform enhanced mental health screening and evaluation of personal characteristics that may contribute to attrition in this period. Data should be obtained as part of the research strategy recommended above.

Recommendation 6.2: Study the context in which the Adjustment Disorder diagnosis is made. If poor fit drives a significant portion of Adjustment Disorder diagnoses, consider whether it is more cost-effective and beneficial to ease the burden of separation for recruits with this diagnosis. Data should be obtained as part of the research strategy recommended above. Easing the burden of separation for DoD could entail extending the period in which entry-level separation can occur. Reducing the burden for recruits could also include instituting an "off-ramp" mechanism allowing them to leave during a certain period of time.

Finding 7: The scientific literature overwhelmingly demonstrates that lethal means restriction is the most effective method to prevent suicide in both civilian and military populations. The Israeli Defense Force's (IDF) Suicide Prevention Program provides evidence of the effectiveness of firearm restrictions in the prevention of suicide by military personnel. The majority of Service member suicides are carried out using a personally-owned firearm. Very little data are available on risk factors related to personal firearm ownership or safety practices.

Commanders are able to restrict personal firearms to a certain extent by requesting a Service member surrender their personal firearm or restricting them from leaving post during a mental health crisis and can initiate a command-directed behavioral health evaluation to assess the Service member's current risk level.

Recommendation 7.1: Address access to firearms as a manageable health risk factor equivalent to tobacco, automobile use, and alcohol use.

Recommendation 7.2: Add firearm ownership and safety questions to the annual Periodic Health Assessment.

Recommendation 7.3: Consider registration of personal firearms of military personnel to provide additional information about possible lethal means restriction.

Recommendation 7.4: Maximize the ability and training of Commanders to intervene to separate lethal means from suicidal Service members.

Recommendation 7.5: Implement a consistent approach across the DoD to train and support Commanders' ability to restrict personal firearms when there is concern that a Service member is a threat to themselves or others.

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Definitions

Please note that this document uses behavioral health and mental health interchangeably. In addition, this document uses a "life course" to describe the continuum of development an individual goes through and recognizes that individuals enter different stages at different times. Other documents use the term "lifecycle" to connote the same meaning.

The following terms describe individuals at different points in the accession process:

- Applicant: An individual who has been recruited to the military but has not yet passed accession screening.
- Recruit: An individual who has passed accession screening and will begin their career.
- Trainee: A Service member at the beginning of their career going through Basic Military Training (e.g., boot camp).

Chapter 1: Introduction

On July 29, 2019, the Assistant Secretary of Defense for Manpower and Reserve Affairs, Performing the Duties of the Under Secretary of Defense for Personnel and Readiness, requested the Defense Health Board (DHB) provide recommendations to improve mental health accession measures and processes. Specifically, the DHB should address and develop findings and recommendations on the policies and practices in place to:

- Determine factors, to include historical or current diagnoses or symptoms, that predispose or protect a person to/from poor outcomes under the stress of military service;
- Evaluate the predictive validity and effectiveness of psychiatric/psychological assessment and applicability to accession screening;
- Identify stressors and risks inherent in military service that can both positively and negatively influence Service member mental health morbidity; and
- Optimize ways to support recruits' mental fitness.

To accomplish the objectives above, the DHB's Neurological/Behavioral Health (NBH) Subcommittee was specifically tasked to:

- Review the most current research findings regarding factors that predispose or protect a person to/from poor outcomes under stress, such as post-traumatic stress disorder (PTSD) and suicide, including the most current DoD Clinical Guidelines regarding suicide prevention.
- Review the most current research findings on the ability to predict future functioning based on historical or current diagnoses or symptoms and on factors that may promote resilience. Include work done by the Defense Science Board and both the Navy and the independent investigation of the Washington Navy Yard shooting.
- Review findings on predictive validity of psychiatric/psychological screenings within the context of data on predictive validity of physical screenings.
- Review existing mental health and neuropsychological assessments and evaluation strategies to assess effectiveness and applicability to use in the pre-accession period.
- Describe how the stressors, risks, and structure inherent in military service can positively and negatively influence Service member mental health.
- Consider alternative ways to assess future mental fitness among recruits (e.g., an increased post-accession period subject to EPTS discharges during which fitness can be assessed) and alternative means of supporting recruits (e.g., Israeli Defense Force's Suicide Prevention Program)

The NBH Subcommittee met in person on September 20, 2019, and by video teleconference on November 12, 2019, December 10, 2019, December 13, 2019, January 10, 2020, March 10, 2020, April 14, 2020, May 12, 2020, May 26, 2020, June 9, 2020, June 25-26, 2020, July 14, 2020, and July 28, 2020. The NBH Subcommittee examined current accession standards and processes, military resilience programs, suicide prevention programs, and best practices in mental health screening and institutional behavioral health support methods.

Chapter 2: Accession to the U.S. Military – An Overview

United States Code (USC) Title 10, Subtitle A: General Military Law, PART II –PERSONNEL, Chapter 31, Enlistments establishes that:

> *The Service Secretary concerned may accept original enlistments in the Regular Army, Regular Navy, Regular Air Force, Regular Marine Corps, or Regular Coast Guard, as the case may be, of qualified, effective, and able-bodied persons who are not less than seventeen years of age nor more than forty-two years of age.*

The design of accession screening is to identify those factors that are likely to enable success in the military and those that preclude it. Medical accession standards list those conditions that warrant disqualification from a physical or mental health perspective. This chapter provides an overview of the process by which recruits enter the U.S. military, the measures used to determine fitness or lack thereof, and ongoing or planned initiatives that augment the accession process.

The U.S. Military Entrance Processing Command (USMEPCOM) is a joint Service command within the Department of Defense (DoD). Its mission is to evaluate applicants to the U.S. Military using established DoD accession standards. The Department of Defense Instruction (DoDI) 6130.03, "Medical Standards for Appointment, Enlistment, or Induction into the Military Services," provides comprehensive policy guidance regarding procedures and all disqualifying medical conditions used during the accession process. The USMEPCOM implements the DoDI 6130.03 procedures and standards, along with its own supporting policies and regulations, at all 65 of its Medical Entrance Processing Stations (MEPS).

Legislation and Policy Governing Mental Health Accession Screening

The DoDI 6130.03, Medical Standards for Appointment, Enlistment, or Induction into the Military Services establishes policy for the enlistment of "qualified, effective, and able-bodied persons" as outlined by USC Title 10. This report specifically addresses Section 5: Disqualifying Conditions, Subsection 28: Learning, Psychiatric, and Behavioral Disorders of the DoDI 6130.03.

The DoDI 6130.03 also describes the entities involved in the development and review of military medical accession policy. The Under Secretary of Defense for Personnel and Readiness, the Assistant Secretary of Defense for Health Affairs, the Secretaries of the Military Departments, and the Commandant of the Coast Guard exercise oversight and direction over various aspects of the medical accession process. The DoDI also references three important collaborative groups involved in accession policy: Medical and Personnel Executive Steering Committee (MEDPERS), Accessions Medical Standards Working Group (AMSWG), and Accessions Medical Standards Analysis and Research Activity (AMSARA).

Per DoDI 6130.03, the MEDPERS[3]:

1. Provides the Accession Medical Standards Working Group with guidance and oversight on setting standards for accession medical and physical processes.

2. Directs research and studies as necessary to produce evidence-based accession standards using the Accession Medical Standards Analysis and Research Activity.
3. Ensures medical and personnel community coordination when changing policies that affect each community and other relevant DoD Components.

The MEDPERS directed the establishment of the AMSWG. It is co-chaired by a representative of the Deputy Assistant Secretary of Defense for Military Personnel Policy and the Principal Deputy Assistant Secretary of Defense for Health Affairs. The role of the AMSWG is to[4]:

1. Establish proposed military accession medical standards and develop policy recommendations utilizing evidence-based information provided by analysis and research.
2. Support issuance and periodic updating of DoDI 6130.03.
3. Identify and review medical issues related to accession.
4. Provide direction in research initiatives for the Accession Medical Standards Analysis and Research Activity (AMSARA).
5. Act as advisors on accession for the MEDPERS.

Finally, AMSARA monitors all accession data. Specifically, AMSARA analyzes the DoD's accession medical standards, including attrition data, with the goal of "maximizing both the accession and retention of motivated and capable recruits."[2]

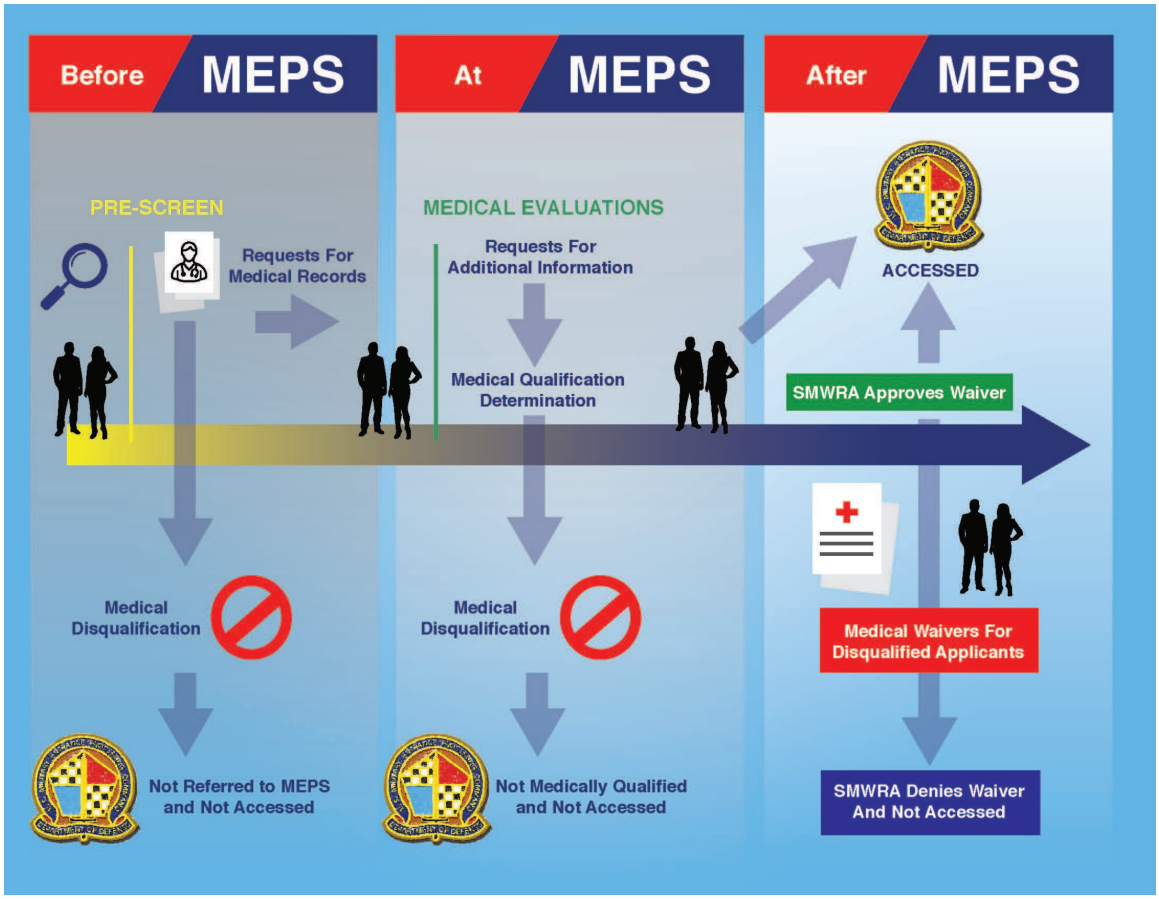
Accession Processes

Mental health accession screening is one part of the USMEPCOM's procedures for selecting qualified, capable, and able-bodied applicants for military service. These include background checks, vocational aptitude testing, and physical as well as mental health evaluations. Sixty-five MEPS across the United States

Figure 1. Map of MEPS Locations and Administrative Regions[5]

process applicants to the U.S. Military Services. Figure 1 provides a map showing the locations and administrative regions for each MEPS. USMEPCOM data for fiscal year (FY) 2018 recorded 476,000 applicants processed, with 232,000 applicants successfully passing accession and joining the military.[5] The USMEPCOM uses a multi-step screening process for all applicants, involving constant coordination with Service recruiting commands. Figure 2 provides a visual representation of this process. Figure 4 illustrates the steps of the medical waiver process.

Figure 2. MEPS Processing Flow[5]



Pre-screen

Before applicants travel to a MEPS, they must fill out Department of Defense Form (DD Form) 2807-2, "Accessions Medical Screen Report" (Appendix G: MEPS Mental Health Screening Forms and Tools). DD Form 2807-2 collects information about an applicant's medical history and contains 164 "Yes" or "No" questions over 27 categories. Specifically, these categories assess the presence of medically disqualifying conditions in each corporal system, including organs, joints, dental, systemic, neurologic, and psychiatric. The purpose of these questions is to ascertain the presence of a potentially disqualifying medical condition. If the applicant answers "Yes" to any item on the form, further review is required to determine

if the condition medically disqualifies that applicant. The form also requests information about the applicant's medical provider and permission to access the applicant's medical records to conduct this additional review.

If the USMEPCOM and the Service recruiters review an applicant's paperwork and find no evidence for disqualification, the applicant will schedule an in-person screening at a MEPS. Figure 2 provides a visual representation of the medical screening process at a MEPS.

The Medical Accession Process

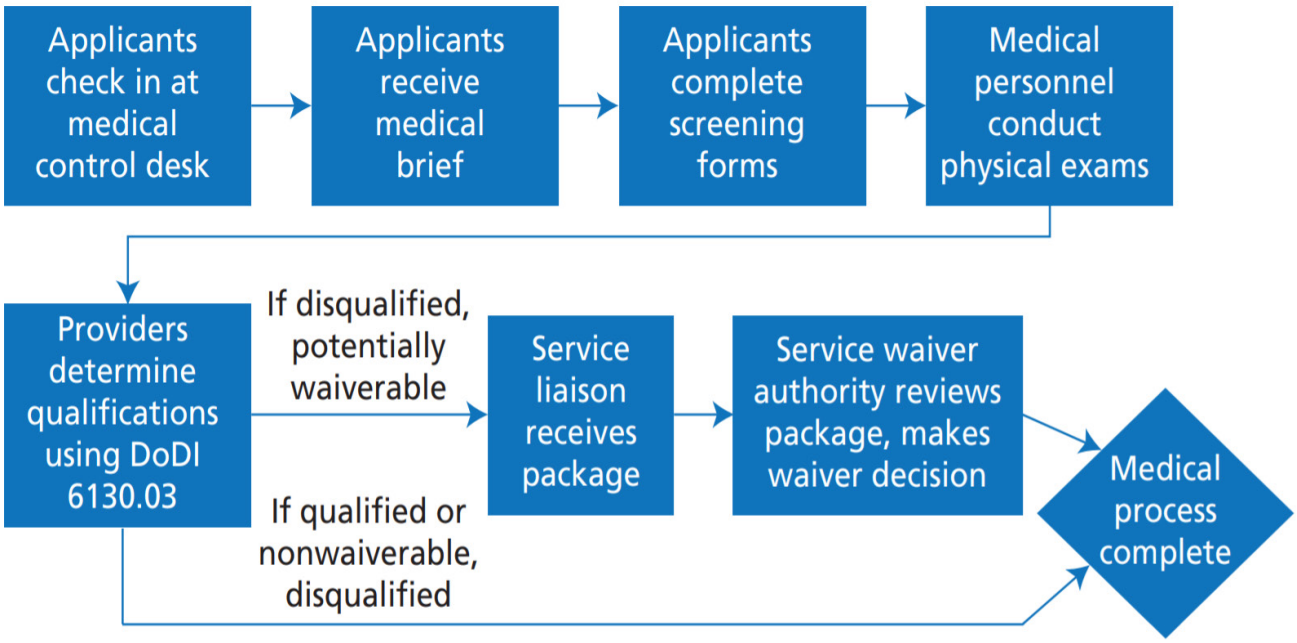
DoDI 6130.03 "establishes policy, assigns responsibilities, and prescribes procedures for physical and medical standards for appointment, enlistment, or induction into the Military Services" in accordance with Title 10.3 The USMEPCOM is the implementing authority for DoDI 6130.03 for the enlisted applicant population and specific groups of officer applicants, including health care professionals. The Department of Defense Medical Examination Review Board (DoDMERB) is the implementing authority for officer applicants, including applicants to the military service academies and Reserve Officers' Training Corps (ROTC) scholarship programs. Accession-related challenges apply equally to both DoDMERB and USMEPCOM; thus, recommendations may apply to both entities.

USMEPCOM utilizes specific screening processes and tools at each of its 65 MEPS across the US to determine suitability and medical fitness for military service. Screening results in a "qualification decision," which the MEPS passes on to the Services for ultimate adjudication[6]:

> *A qualification decision, medical or otherwise, is a MEPS authority's determination as to whether the applicant meets prescribed standards for military service as stipulated by Department of Defense requirements. It does not reflect the final judgment as to whether an applicant may enlist. Final decision authority for enlistment resides with the Service.*

Specifically, post-assessment, the MEPS assigns applicants a status of fully qualified, temporarily disqualified, or permanently disqualified (PDQ). Temporarily disqualified and PDQ applicants may subsequently access to one of the Services through the waiver process. This process allows the Services to evaluate MEPS-disqualified applicants within the context of Service-specific needs and occupational opportunities. The Services can then decide whether to accept the potential risk attributed to accepting such applicants – in other words, to look at how applicants disqualified according to MEPS criteria are likely to fare once enlisted into a particular Service or a particular occupation within a Service. Figure 3 shows an overview of the in-person medical screening and waiver processes, if applicable. The waiver process occurs after the in-person medical screening and is described later in this chapter.

Figure 3. USMEPCOM In-Person Medical Screening Process for Enlisted Recruits[7]



The Mental Health Screening Portion of the Medical Evaluation

MEPS medical providers use several methods to screen applicants for behavioral and mental health conditions. Table 1 provides an overview of the mental health components of the forms and screening tools used during the accession process at a MEPS.

Table 1. MEPS Mental Health Screening Forms and Tools

Resource	Description
DD Form 2807-2 "Accessions Medical Prescreen Report"	• Applicants fill out this form prior to arrival at the MEPS for processing. • Contains a section on mental health where applicants can provide their behavioral health history. • Asks specifically about Learning, Psychiatric, and Behavioral health history, including behavioral health diagnosis or treatment; home or school disciplinary issues; suicidal thoughts; self-mutilation; and substance use.
DD Form 2807-1 "Report of Medical History"	• Applicants fill out this form at the MEPS. • A MEPS medical provider reviews the form with the applicant. • Includes questions on behavioral health including history of anxiety attacks; memory loss; trouble sleeping; received counseling; depression; evaluation for a mental condition; suicide attempt; and substance abuse.
Supplemental Health Screening Questionnaire (SHSQ)	• Applicants fill out this form at the MEPS. • Used by the MEPS medical provider in support of the Applicant Behavioral Health Interview. • Asks about history of depression; suicidal ideation; self-mutilation; law enforcement encounters; employment and home problems; sleeping problems; and alcohol use.
Applicant Behavioral Health Interview (the "Omaha-5")	• Asks about any encounters in five areas: law enforcement, school authority, behavioral health professionals, self-mutilation, and home environment. • Closing question asks the applicant to disclose any other medical problem he or she may not have mentioned or written down.

MEPS providers use information gathered from DD Forms 2807-2, 2807-1, and 2808 to record data and evaluate if an applicant is medically qualified for military service.

The medical evaluation consists of both physical and mental health screenings. Evaluators conduct these screenings separately; however, much is learned about the applicant's mental health status throughout the entire evaluation. MEPS providers stated one of their best resources for assessing applicants for behavioral or mental health issues is observed during the medical exams. The screening process for a cohort of applicants starts at 6:00 in the morning and sometimes does not end until 5:00 in the evening. Given this extensive timeframe, MEPS providers can observe the behaviors and interactions of applicants throughout the day. In addition, providers discuss applicants who require additional attention and will seek guidance from the MEPS Chief Medical Officer (CMO) or Assistant CMO on the best course of action.[6]

Predictive Validity of Non-Cognitive Testing at MEPS

Applicants undergoing screening at a MEPS will take Service-specific tests to assess applicant characteristics, such as career aptitude and motivation. Researchers have evaluated some of these tests to determine their predictive validity for mental health diagnosis risk and poor career outcomes such as early attrition. One example is the Tailored Adaptive Personality Assessment System (TAPAS), a non-cognitive personality test used by the Army, Air Force, and Marine Corps. The aim of the test is to assess applicant motivation. Researchers have found that the "TAPAS may have an important use as a mental health fitness screening tool for those who wish to serve in the military by identifying a limited high-risk group of applicants for mental health diagnostic evaluation."[8] In their retrospective cohort study of 15,082 Army recruits who took the TAPAS in FY 2010, researchers examined associations between TAPAS personality dimension score quintiles and mental health diagnoses, early attrition, and mental health care utilization.[8] The study found when comparing scores from the lowest quintile to the highest quintile, the TAPAS was predictive at a 95% confidence interval for all three factors, with an odds ratio of 1.41, 2.08, and 1.61, respectively.[8]

During a briefing provided to the NBH Subcommittee, accession policy personnel cautioned against placing too much confidence in the TAPAS's predictive validity.[9] The briefing emphasized that the TAPAS is not intended to be used as a stand-alone mental health screening tool as its function is to assess "determination and follow-through," and is not to inform a medical qualification decision for accession to the military.[9] The TAPAS is a useful component of the screening procedures during the evaluation of applicants at MEPS, but is insufficient as a stand-alone screening method.

External Mental Health Evaluations by Contracted Providers

In addition to the medical records review and screening questionnaires, MEPS providers may refer an applicant with suspected behavioral or mental health issues for a consultation with a psychiatrist. The

consultation may take place at a military treatment facility, if available, or at a contracted mental health specialist. [10] The contracted providers arrange for an appointment within 15 business days, with results provided within three business days. During research and interviews for this report, several parties commented that quality of service across contracted providers is not uniform and the consultants may not have expertise in military service requirements. If the recruiter initiates a waiver recommendation, they will send the file to the respective Service Medical Waiver Review Authority (SMWRA). The sections below describe the policy, process, and outcomes of the Service medical waiver review system.

After an applicant completes his or her processing, the CMO at the MEPS will review the applicant's paperwork and determine if they are medically qualified, temporarily disqualified, or PDQ. The CMO will note the decision on DD Form 2808. In cases in which an applicant is "temporarily disqualified" on DD Form 2808, the MEPS provider will give the applicant guidance about what they must do to resolve their temporary disqualification and instruct them to return later for resolution of their case. The MEPS provider reports all dispositions back to the Service-level recruiter who may institute the waiver process to determine the applicant's eligibility for military service via medical waiver in cases of temporary or permanent disqualification.

Accessing Disqualified Applicants: Medical Waivers

If an accession determination of temporarily or permanently disqualified has been made, the CMO sends DD Form 2808 to the relevant Service recruiter, who will make the decision on whether or not to initiate a medical waiver application. If the recruiter initiates a waiver recommendation, the recruiter sends the applicant's file to the respective SMWRA. Specific policy defines the waiver process. Figure 4 provides an overview of the medical waiver process.

Medical waivers are a Service responsibility. The DoDI 6130.03 grants authority to the DoD components to initiate and request medical waivers, and stipulates the component's waiver authority for medical conditions "will make a determination based on all available information regarding the issue or condition, as well as the specific needs of the Military Service."[3] There is no DoD-wide policy establishing guidelines for waiver decisions. Each SMWRA evaluates each case differently based on the applicant's profile and Service requirements.

Service medical waiver policies describe retention standards. These are the medical requirements a recruit must meet in order to continue to qualify as fit for service. In general, aside from referencing the DoDI 6130.03 as the standard for accession, retention standards are broader and emphasize multiple levels of review to decide whether a condition would cause a recruit to fail to meet retention standards.

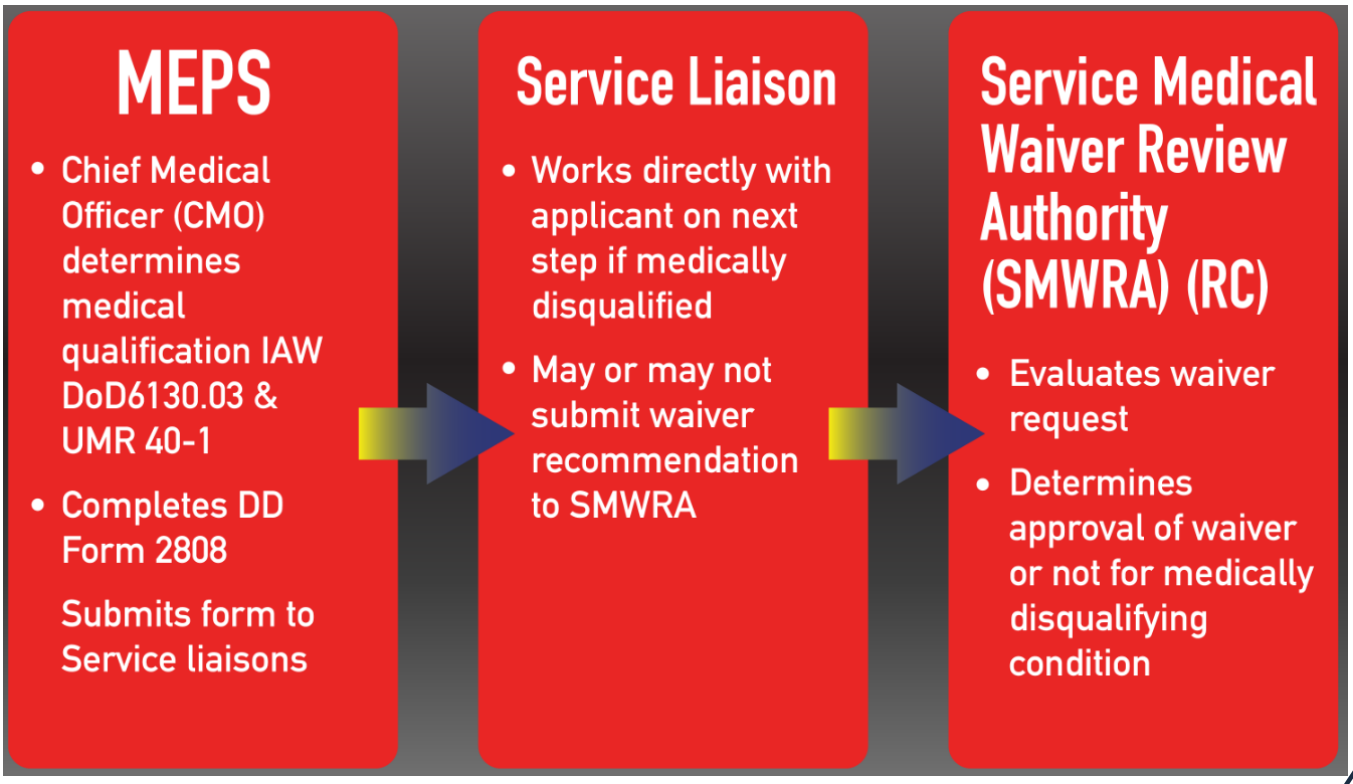
The U.S. Navy's Manual of the Medical Department states, "the ability to perform military duties is a critical component of the waiver decision," and SMWRAs should seek to "maximize positive waiver recommendations while maintaining quality applicants."[11] The Navy recently revised its waiver process

and named it in posthumous honor of Senior Chief Petty Officer Shannon Kent. Among the changes is a mandatory peer review of all waivers to "boost quality assurance and consistency."[12] Though the majority of the changes aim to optimize the waiver process for deployed personnel, the changes also affect waivers for recruits by allowing for increased scrutiny of each case.

Air Force Instruction (AFI) 48-123 Medical Examinations and Standards Section 4.1.1 states, "Personnel rejected for military service for any medical condition or physical defect listed in DoDI 6130.03 may be reviewed if the condition has resolved and a history of the condition is not disqualifying [in accordance with] this AFI."[13] Chapter 5 of the instruction contains retention standards and emphasizes that decisions are dependent on the assessment of an examining physician, adding "potentially disqualifying medical conditions and defects" are subject to review.[13]

Army Regulation (AR) 40-501 Standards of Medical Fitness and Army Directive (AD) 2018-12 (New Policy Regarding Waivers for Appointment and Enlistment Applicants) provide guidance on the authorities and standards for Army medical waivers. The AD 2018-12 specifically lays out guidelines for the Army SMWRA, stating a waiver may be granted if the SMWRA determines the diagnosis of a disqualifying condition "is not supported by available medical evidence, does not represent current or active diagnoses, and meets accession standards."[14] During a briefing to the NBH Subcommittee, a member from the Army SMWRA stated the general guiding principles used in the waiver decision-making process are to deny a waiver if the applicant would fail retention standards as listed in AR 40-501 or if the condition renders the applicant non-deployable.[15] This guidance states Army SMWRA personnel will "assess risk based on prior disease severity, frequency, required treatment, and time since remission."[9]

Figure 4. Medical Waiver Process[16]



Feedback between Training Commands and USMEPCOM

Anecdotal reports from briefers familiar with accession screening and processes suggest that MEPS personnel do not receive any feedback from training commands on recruit outcomes. As a result, this lack of consistent feedback affects USMEPCOM's ability to make evidence-based accession decisions.

Increasing Access to Health Data

Use of Prescription Medication History

To provide more objective medical and mental health data, USMEPCOM has developed a pilot with the Milliman consulting firm to obtain prescription history for the past seven years for all applicants. The pilot will include approximately 8-10 MEPS in the program. USMEPCOM will incorporate assessment and evaluation into the pilot program to measure effectiveness and outcomes.

Use of Prior Medical History

The MEPS will migrate to the DoD's new electronic medical record, MHS GENESIS, in 2023. This migration will allow MEPS providers to access data for applicants with records in GENESIS, i.e., dependents of Service members. It is unclear whether MEPS providers will have access to all data or just prior medication history. Comparable data will not be available from applicants who are not also DoD beneficiaries unless they choose to provide it. However, there may be a future opportunity for non-DoD affiliated applicants to more easily authorize private sector sharing of health histories with DoD. Streamlined sharing capability recently became available between the DoD, the Department of Veterans' Affairs (VA) and more than 54,000 outside hospitals, health clinics, pharmacies and laboratories through the primary contractor for MHS Genesis, Cerner. This step enables "a seamless, secure exchange of health data between the departments and an extended network of community partners." In addition, "clinicians will have the right data at the right time to make more informed medical decisions."[17]

DoD should be cautious in the implementation of this type of data sharing. As data will only be available at first for only a subset of recruits, former DoD dependents, this data sharing could favorably or unfavorably impact decisions for this cohort but not for all applicants. Secondly, there could be a negative impact on seeking health care or symptoms disclosure by an individual or a parent. This relates to concern about the impact of medical or mental health history on a future application for the military. Additionally, there could be a misunderstanding of the unclear validity, or inappropriate use, of a childhood medical history, diagnosis, or prescription as a predictor of future risk of mental health conditions. Behavioral health conditions identified in children and teenagers may be normal developmental events and not necessarily predictive of their suitability for a military career as adults and inappropriately influence their MEPS evaluation.

Improving Identification of At-Risk Recruits: The Behavioral Evaluation and Screening of Trainees (BEST) Program

The Air Force conducts a second mental health screening within 72 hours after new recruits enter basic military training (BMT). The Behavioral Evaluation and Screening of Trainees (BEST) program is a 3-phased effort designed to address potential non-disclosure of behavioral health issues during mental health accession screening. This is a challenge discussed in Chapter 4: Screening for Mental Health Conditions at Accession – Challenges and Complexity.

Phase I consists of administration of the Lackland Behavioral Health Questionnaire (LBQ) to new recruits within the first 72 hours of BMT. This period is characterized by increased stress and a focus on U.S. Air Force (USAF) core values, including integrity. These environmental and contextual factors – along with the fact that applicants have successfully entered into the military – play an important role in influencing how much an applicant shares in response to the LBQ.

The LBQ is a 61-item measure of pre-service mental health and behavioral problems designed to identify individuals in basic training who are at increased risk of early attrition, mental health diagnoses, and criminal charges/discipline offenses. The questionnaire addresses temper/anger, anxiety/depression, trouble with police, history of psychiatric medication, suicidal thoughts/attempts, conduct problems in high school, alcohol abuse, history of counseling/psychotherapy, destruction/theft of property, and history of evaluation and treatment for substance abuse. There is some overlap in the types of questions asked on the LBQ and those asked at Military Entrance Processing Stations (MEPS). BEST experts report that when evaluators ask recruits about discrepancies in answers given during MEPS screening and BEST screening, they frequently say they were instructed by the recruiter not to disclose certain information at the MEPS. These reports are anecdotal, but it is worth noting that these match previously cited reports of recruits tailoring their responses to avoid more in-depth mental health screening at accession.

If a recruit scores within a particular range on the LBQ, he or she enters BEST Phase II and undergoes an interview with a mental health technician. Phase II results may yield a recommendation or disqualification from sensitive occupations. Results from Phase II are entered into the Armed Forces Health Longitudinal Technology Application, the U.S. Military's legacy Electronic Health Record (EHR) system. From the 39,676 trainees who took the LBQ in FY 2019, 2,253 (5.7%) were identified for BEST Phase II. Data indicate that 43% of trainees who return to duty at the end of BEST Phase II do not complete their first four years of enlistment.[18]

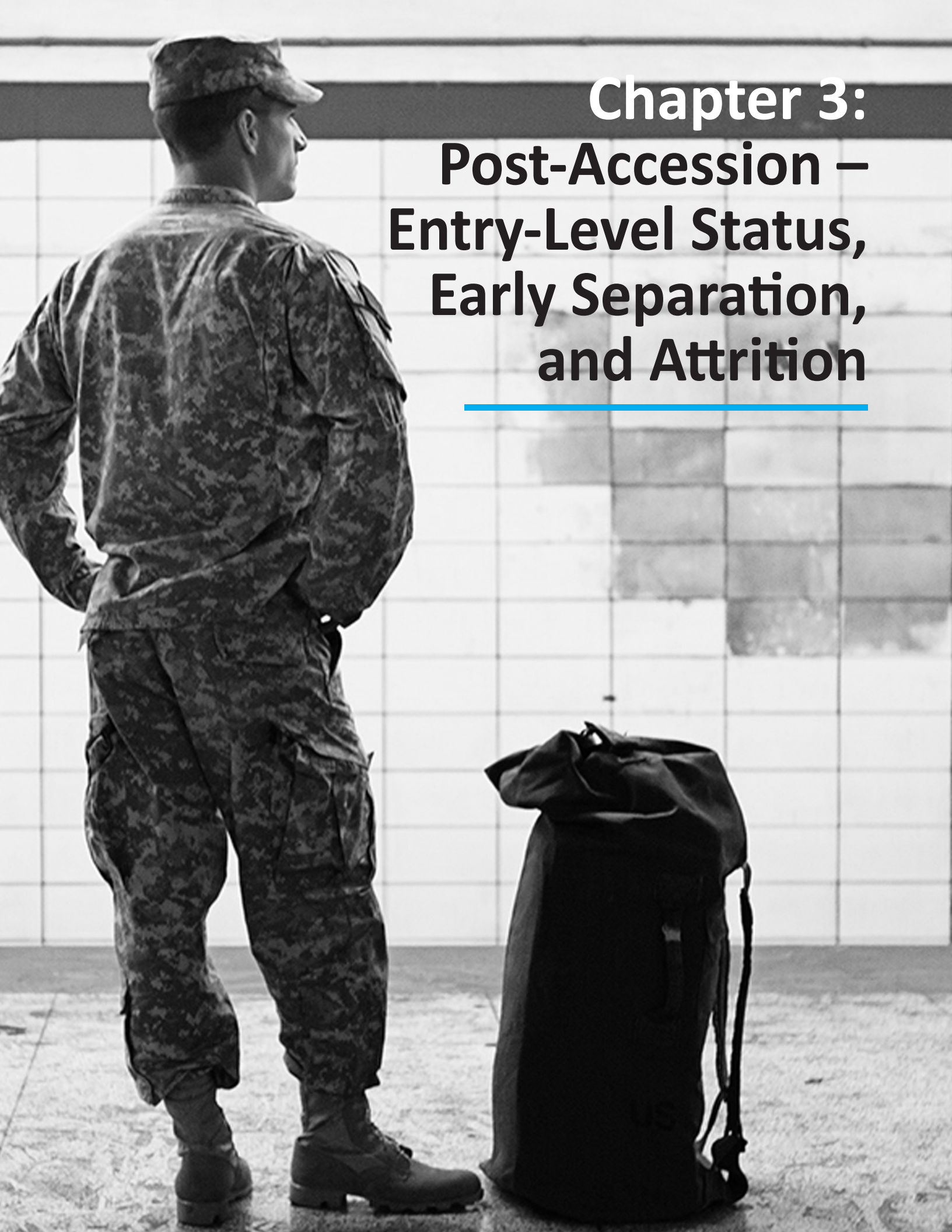
BEST program statistics for 2019 indicate that 3.1% (n=1,238) of trainees received a recommendation for disqualification from sensitive skills and security forces career fields. Recommendations included reclassifying 119 trainees from Special Forces and 192 from sensitive skills jobs. This recommendation to keep these trainees from attending technical school and processing security clearances is estimated to have saved between $9-10 million.[18]

BEST Phase II results may lead a trainee to be referred to BEST Phase III, consisting of an evaluation with a psychologist in the Behavioral Analysis Service (BAS) of the USAF. BAS providers administer fitness for duty evaluations and brief interventions, yielding dispositions ranging from a return to duty, with or without additional evaluation and/or treatment, or a recommendation to separate a recruit from service. Recent data indicate that BAS saw about 4% of the BMT population (approximately 40,000 trainees), recommended 63% of this group for separation, and returned 37% to training. Of those returned to training, 56% ended up separating prior to completing their first term of service (about four years). Trainees referred to BEST Phase III have a 470% increase in mental health-related separation and an 850% increase in criminal/discipline issues.[18]

Implementation of an early screening process such as the BEST Program across all of the Services would provide a secondary level of screening that has been shown to identify those new Service members who may not be fully fit for duty, but whose condition was not detected at MEPS. The Services would be better able to identify trainees who should be disqualified from sensitive occupations or unfit for continued service early on in the career. This early assessment represents a benefit to the Services in terms of money saved in training by avoiding early attrition and increased readiness by avoiding poor performing Service members. There are already mechanisms in place that accommodate separation of recruits who are found to be unfit for duty early in the career through entry-level discharges described in the next chapter.

The Impact of Recruiting on Accession and Retention Outcomes

Throughout the DHB's year-long evaluation of mental health accession screening and related topics, members heard anecdotal reports of the impact of recruiting incentives and associated issues on accession and retention outcomes. Issues raised included an emphasis on getting enough applicants to the MEPS station and to BMT – rather than recruiting with retention in mind. As noted previously, there are also anecdotal reports of recruiters advising potential recruits to omit relevant conditions or behaviors during the screening process which will be discussed in Chapter 7: Beyond Prediction. An assessment of issues related to recruitment is outside the scope of this report. However, the Services may wish to examine the impact of recruiting incentives on retention goals. The Services may also benefit from considering innovative strategies to maximize the likelihood of recruiting healthy applicants.



Chapter 3: Post-Accession – Entry-Level Status, Early Separation, and Attrition

The DoDI 1332.14: Enlisted Administrative Separations, establishes "the first 180 days of continuous active military service" as a period of entry-level status for all Service members. During this six-month timeframe, an enlisted Service member may be easily separated from the military if they are determined to be "unqualified for further military service by reason of unsatisfactory performance, conduct, or both." The DoDI 1332.14 generally classifies separation during this entry-level period as an "Uncharacterized" discharge; however, a classification of "Honorable" or "Other than Honorable" may apply when extenuating circumstances warrant.[19] See Appendix F: Types of Discharges from the U.S. Military for the types of discharges and the implications of each. The Air Force, Army, Marine Corps and Navy all characterize a Service member in their first 180 days of service, or the 180 days of service after a break of 92 days, as "entry-level status."[20-23]

Entry-level separation for mental health issues is an appropriate measure after a "diagnosis by an authorized mental health provider" who concludes "that the disorder is so severe that the member's ability to function effectively in the military environment is significantly impaired."[19] Personality disorders are one potential cause for mental-health related entry-level separation as noted in DoDI 1332.14: "The onset of personality disorder is frequently manifested in the early adult years and may reflect an inability to adapt to the military environment as opposed to an inability to perform the requirements of specific jobs or tasks or both."[19]

Separation after the Entry-Level Period: the Integrated Disability Evaluation System

Once a Service member has passed 180 days of continuous service, they are subject to retention standards. A Service member is potentially eligible for disability benefits if a Medical Officer deems a mental health condition that manifests after 180 days is connected to service. A Medical Evaluation Board (MEB) makes this determination through a lengthy adjudication process. If the MEB finds the Service member to have a condition related to "an injury, illness, or disease while in the line of duty," they will issue a Line of Duty (LOD) determination and the Service member will receive benefits.[24] If the LOD determination establishes the condition existed prior to service or the Service member entered on a waiver related to the same condition, however, they "will not be entitled to disability separation or retired pay unless military service permanently aggravated the condition."[25] There must be "clear and unmistakable evidence" indicating the injury or condition existed before the Service member began their current military service period if the Service member is denied benefits.[25] The Service member can pursue Administrative separation in lieu of lengthy medical board determinations in certain circumstances, for example, when a Medical Officer makes a diagnosis of Adjustment Disorder.

The process to assess the classification of a Service member's injury or newly diagnosed condition is much more complex after the initial 180-day period. This process is adjudicated through the Integrated Disability Evaluation System (IDES), a collaboration between the DoD and the Department of Veterans Affairs to streamline disability evaluation. A Service member enters the IDES if their medical provider diagnoses them with a disqualifying condition or determines that the condition or injury will impact them enough to cause them to "fail medical retention standards."[24] If this happens, the physician will refer the Service member to an MEB. At least two physicians, with a senior physician, and, in cases involving behavioral health

conditions, a mental health care provider, make up an MEB.[26] The senior physician is the approving authority on each MEB evaluation.[27] The MEB determines the "fitness for duty" of the Service member through three possible findings, displayed in Table 2. Service members have the option of choosing the Legacy Disability Evaluation System (LDES) in order to leave service more quickly. Under LDES, the Service Medical Evaluation Board will make a fitness determination and award the DoD disability rating utilizing the same rating manual as the VA. However, the Service member will have to initiate their own VA claim with a veteran service organization, or through eBenefits once a discharge date has been established.

Table 2. Possible MEB Outcomes[28]

MEB Finding	Actions
Meets retention standards	Service member is returned to duty
Does not meet retention standards	Case forwarded to Physical Evaluation Board
Insufficient information provided	Case is returned to physician

When an MEB finds that a Service member does not meet retention standards, the MEB forwards the case to a Physical Evaluation Board (PEB).[28] In this case, the Service member has the right to obtain a second opinion through an Impartial Medical Review (IMR), a process in which a physician who is independent from the MEB reviews the case and presents their findings as a Memorandum of Record in the MEB case file. The IMR may concur with the MEB's finding or it may contain "specific evidence supporting that a MEB may not have appropriately [captured] all of [the Service member's] medical conditions."[29] The Service member has the option to appeal the MEB's finding by submitting a rebuttal to the PEB with the evidence supported by the IMR. The PEB consists of at least two officers who consider the recommendation of the MEB, the Service member's rebuttal, military and civilian medical records, and the narrative summary of the Service member's conditions as prepared by the MEB. With all of this information, the PEB makes the final determination of whether or not the Service member is fit to return to duty. If the PEB determines the member is unfit for duty, the PEB also assigns a disability rating. The disability rating prescribes the level of benefits the Service member will receive.

At this point, the Service member may accept the finding of the PEB or appeal by requesting a Formal Physical Evaluation Board (FPEB). The FPEB includes at least three officers, representation by legal counsel, and an in-person hearing. At the end of this process, if the FPEB finds a Service member unfit to continue serving, the Service member may file an additional request to their specific Service to continue serving in a reserve capacity.[26]

The IDES process is both lengthy and complex to ensure that only those who are able to return to duty after an injury or medical diagnosis are able to do so. Its complexity also ensures that only those who are due disability benefits receive them. Unlike physical conditions documented in medical records or uncovered by physical examination, mental or behavioral health conditions may not be detected as readily. This poses a challenge for assessing the origin of a mental or behavioral health condition, especially in the early stages of

a military career. The military assumes a condition is pre-existing if it is discovered during the initial medical screening at MEPS or during the first 30 days of active duty.[10] If the condition manifests at some point after the 30-day point, there is a requirement that the IDES adjudicate the Service member's case to determine if it is military-related. If the condition is not linked to military service, the individual will be ineligible for medical benefits.

Given the fact that some mental health conditions may not manifest in disqualifying behaviors prior to accession or during the first 30 days of service, it is possible that individuals at risk for mental health morbidities will enter military service and perform well. In some cases, however, the condition may manifest early in a Service member's career but not affect their performance until after the first 30 days. The phenomenon of psychiatric illnesses being undetectable before causing disability is well documented.[30] Indeed, the diagnostic criteria for many conditions in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) require disability or dysfunction for up to six months. This means that a person with a mental health condition may join the military, pass all required screenings, and begin their training without anyone, including themselves, being aware of the condition. Eventually the condition may emerge and lead the Service member to be unable to complete their duties or function effectively in their unit. Since mental health screening in the military relies on an individual's self-reported and formally documented medical history, the military will attribute a pre-existing mental health condition to military service unless proven otherwise through the IDES process.

Early separation is important because there is a high rate of attrition among Service members who pass the entry-level period, but separate between 12 to 36 months.[31] This indicates that perhaps more can be done at accession and during the entry-level period to better understand and support mental health of Service members.

36-Month Attrition Data

A 2020 report by the RAND Corporation supports the assertion that attrition is higher during the beginning of a military career and that Service members attrit for different reasons throughout this early-career period. This report analyzed attrition rates at different points during the first 36 months of Service members' careers in each of the Services. The exploratory analysis builds on past research to determine whether it is possible to differentiate individuals who will attrit from those who will continue in service based on data gathered at accession. The report relies on geographic, institutional, demographic, and medical data to assess which variables have an effect on attrition and at what points in the first three years of the Service member's career each variable is most relevant to attrition. The report found, "For all Services, the attrition rate is highest prior to month six and levels out by month seven, staying roughly constant after that," and concluded that "it is unlikely that simple policies aimed at screening candidates based on their probability of attrition will be cost-effective." The report explains that the limited specificity of the analysis of these characteristics at accession would screen out too many individuals who would not attrit and would not be an effective screening method.[31]

Put simply; there are additional factors that lead an individual to attrit after accession that are either not recorded during accession (e.g., personality traits and other measures such as grit or perseverance) or are specific to a particular individual, unit, or occupation and would not become apparent until the individual enters that environment. The combination of personal characteristics and individual circumstances may lead to different risks of attrition at different points in a Service member's career.[31] While this report concludes that screening for these particular variables would not be a cost-effective method to predict attrition, its analysis of attrition trends during the first three years of a military career provides evidence that attrition is an issue beyond the initial entry-level period. Utilizing the first 180 days for further observation and screening would allow greater opportunity to detect underlying mental health conditions while avoiding the full IDES process that applies after the entry-level period.

Table 3. Average Characteristics of Accessions Across Service Branches, FYs 2001– 2013[31]

Variable	Army	Air Force	Navy	Marine Corps
Number of Accessions	871,426	357,751	438,907	381,369
3-month attrition (%)	5.1	5.1	6.3	5.3
6-month attrition (%)	9.9	9.0	8.5	7.7
12-month attrition (%)	15.0	12.2	11.8	10.5
36-month attrition (%)	29.7	23.1	23.6	18.5

Table 3 compares the attrition rates across the Services and shows that attrition occurs at varying levels over time. While the attrition rate is highest in the first six months, the rate is still significantly high enough in the period afterwards to spur the DoD to identify the causes of attrition and address them beyond the entry level period.

The extended period of dysfunction or disability required for diagnosis of many mental health conditions and the observed rates of attrition beyond the first six months of military service support the use of a longer observation period to assess the presence of mental health conditions in new Service members. This would improve the military's ability to accept only those who are truly medically qualified for service. Beyond the accession period, the military is also concerned with reducing negative outcomes for Service members throughout the career life course. There is a wide range of programs focused on supporting Service members in many facets of their lives to improve performance, reduce attrition, and properly support Service members through military career challenges.

Reducing Attrition Rates

Throughout the DHB's year-long evaluation of mental health accession screening and related topics, members heard anecdotal reports about the financial and administrative burden incurred when trainees are discharged after 180 days. As the process of separating a Service member is much shorter during the entry-level period, there is a savings to the Service in the form of reduced total pay than for a Service

member who undergoes a full MEB review – a process that can take up to 12 months. One of the goals of mental health screening is to prevent individuals who are ineligible for service from entering, thus avoiding costly outcomes. Mental health screening is also an important step in maximizing force readiness.

The U.S. Military evaluates applicants' suitability for service through a series of questionnaires, interviews, record reviews, and medical examinations. This process begins before processing at USMEPCOM and may continue afterwards, in the case of a waiver application. The high level of investment in new recruits and the nature of the DoD mission make it essential to determine which applicants are most likely to be successful in the military. However, a number of challenges and complexities, such as applicant non-disclosure, beset mental health accession screening. Chapter 4: Screening for Mental Health Conditions at Accession – Challenges and Complexity will discuss other issues, including limited predictive validity of screening tools, resource availability for screening, and complex diagnoses of disorders. It is important to note that behavioral health testing remains an essential accession tool, and additional complementary strategies may improve DoD's ability to achieve the best person – occupation fit.

As the 2020 RAND report explains, the limited specificity of the analysis of individual characteristics and their effect on future attrition are unlikely to be cost-effective and would simply screen out too many individuals. Individual characteristics that accession screening cannot record may not become apparent until the individual enters the training environment. This makes the first 180 days after accession an ideal time to identify possibly disqualifying conditions or behaviors.

Chapter 4: Screening for Mental Health Conditions at Accession – Challenges and Complexity

A career in the U.S. Military entails a unique array of risks and stressors to mental health. Service members are required to put their military duties first and be available whenever called. They contend with frequent and recurrent moves away from extended family and/or established support networks of friends and colleagues. They endure long separations from loved ones during deployments. These factors can tax personal resources and fray supportive relationships; they can pose additional challenges for those with spouses and children.

The potential for combat exposure requires special consideration. Citing research on post-conflict mental health outcomes for Service members, Hoge et al. state, "Exposure to combat results in increased risk of PTSD, major depression, substance abuse, functional impairment in social and employment settings, and… increased use of health care services."[32] Additionally, Service members may suffer "moral injury," defined by Litz et al. as "…perpetuating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations," resulting in adverse emotional, behavioral, spiritual, and social impacts on the individual.[33]

Other characteristics of military life may offset these stressors: a stable, defined occupational structure and social network; an emphasis on honor, integrity, and accountability, and the camaraderie of sharing those values with others; and various benefits, including access to an integrated system of military health care. Service members who can leverage their own strengths and the benefits of military life to navigate its challenges make up an enduring, effective fighting force. As described in Chapter 2: Accession to the U.S. Military – An Overview, accession testing aims to identify applicants who possess traits associated with success in military service and those with conditions thought to be incompatible with military service. Mental health accession screening provides data to determine the latter, by identifying recruits with the disqualifying conditions listed in Section 5.28 of DoDI 6130.03: Learning, Psychiatric, and Behavioral Disorders.[3] This chapter describes the challenges and complexities inherent in mental health accession screening.

Challenges

Identification of psychiatric, learning, and behavioral disorders among recruits during accession testing is challenging for several reasons. These include applicant non-disclosure, limited predictive validity of assessment measures, and resource constraints relative to screening requirements such as the limited time that providers have with each applicant and the current requirement that MEPS contract more in-depth mental health screening to an off-site provider. These challenges may affect the accuracy of screening results.

Issues Related to Applicant Non-Disclosure

Many disqualifying conditions require evidence of a history of illness. In the case of physical accession screening, a medical exam provides objective data and supplements similarly objective medical history and

records. In the case of mental health accession screening, MEPS examiners rely on applicant information from a pre-screening form, applicant answers during interview, and information from available medical records. Applicants must gather many of their own records.

During discussions with the research team for this report, USMEPCOM and DoD accession policy personnel emphasized how much of the mental health screening process is dependent on applicant disclosure. A significant amount of information online advises applicants on how to avoid disclosing a disqualifying condition.[10] Unfortunately, these information sources confound efforts to assess applicants' suitability for accession given that accurate self-disclosure is a major source of data in the screening process.

To mitigate the issues surrounding non-disclosure, USMEPCOM implemented the Supplemental Health Screening Questionnaire (SHSQ) in 2009 and the Applicant Behavioral Health Interview (the "Omaha – 5") in 2011. The written SHSQ questionnaire and Omaha-5 interview provide an additional opportunity for applicants to share information with the MEPS medical provider.[6] Personnel agreed the utility of these instruments derives from the fact that both target the information needed to support the mental health assessment without unduly lengthening the interview process and creating a resource burden.[35] An analysis of the self-disclosure of potentially disqualifying behavioral health conditions shows that the Omaha-[5] garnered more disclosures than the SHSQ by itself.[5] Though it occupies an important role in the applicant behavioral health interview, the Omaha-5 has not undergone scientific testing to establish its validity and utility as a mental health screening tool. Accession policy personnel noted that a scientific study on the effect of the Omaha-5 on screening and applicant outcomes would increase its utility in the accession process. This study would define the extent of the test's effectiveness in eliciting self-disclosure of potentially disqualifying mental health conditions.[34]

Limited Predictive Validity of Mental Health Screening Tools

The effectiveness with which we can predict future functioning based on current or historical mental health symptoms or diagnoses has been a subject of scientific study for over fifty years.[35,36] This limitation is relevant to career outcomes such as attrition and readiness, along with mental health outcomes including, suicide and PTSD. The most recent review of mental health accession screening processes and measures was completed in response to the National Defense Authorization Act for FY 2016, Section 593.37. This provision required DoD to investigate "the feasibility of conducting, before the enlistment or accession of an individual into the Armed Forces, a mental health screening of the individual to bring mental health screenings to parity with physical screenings."[37] The resulting report recommended no changes to existing processes, citing a lack of scientifically validated tools with sufficient predictive validity that would be viable alternatives to the tools currently in use. The report highlighted a meta-analysis of 50 years of research on suicide risk factors that showed the ability to predict suicide risk has not improved over time, and current tools are marginally more accurate than chance.[10] The meta-analysis explains how current guidelines on predicting suicidal thoughts and behaviors are imprecise, stating[36]:

> *Taken together, these guidelines indicate that any individual with nearly any type of mental illness (i.e., internalizing, externalizing, psychotic, or personality disorder symptoms), serious or chronic physical illness, life stress (e.g., social, occupational, or legal problem), special population status (e.g., migrant, prisoner, non-heterosexual), or access to lethal means (e.g., firearms, drugs, high places) may be at risk for [suicidal thoughts and behaviors].*

Similarly, significant limitations in the predictive validity of behavioral health measures for violent behavior emerged across investigations into the Fort Hood shootings in 2009 and 2014 and the Navy Yard shooting in 2013, details of which are found elsewhere.[38-40] In particular, the Defense Science Board Task Board Report: Predicting Violent Behavior notes that[41]:

- There is no effective formula for predicting violent behavior with any degree of accuracy.
- [N]o single screening method, checklist, or list of behavioral indicators/criteria can reliably predict violent behavior.
- [E]xhaustive inquiry into current tools, including various prediction systems [revealed that]… none…withstood intense scrutiny on reliability, practicality, and maturity.

The Report of Investigation into the 2 April 2014 Shooting Incident at Fort Hood cites the limiting role of self-report in predicting risk behavior[42]:

> *Risk assessment tools depend on self-reporting, [so] are subject to the Soldier's willingness to identify risk factors accurately. For example, the Soldier-Leader Risk Reduction Tool (SLRRT) relies heavily on self-reporting, so it is difficult to use it as a measure of the Soldier's behavior or intentions. Moreover, in many instances, leaders are often not trained to administer the SLRRT or to address issues that arise from the SLRRT. Likewise, medical diagnostic tools like the Post-Deployment Health Assessment (PDHA) are dependent on accurate self-reporting.*

Of note, the 2013 report Se*curity from Within: Independent Review of the Navy Yard Shooting* makes an overt link to accession testing, stating that[43]:

> *Current recruiting and accession procedures are poorly suited to screening out the mentally unfit…We recommend that DoD move away from exhaustive lists of disqualifying conditions and go beyond cognitive assessments toward evaluation of dimensions such as personality and motivation…the connection between a particular illness and functional problems can be limited…Accession standards based on diagnoses also promote deceit among many applicants who ultimately do enlist and ship to recruit training. Given the obvious incentive to withhold information, it is not surprising that pre-existing mental health conditions are found at recruit training.*

Information gathered during research for the current report supports the foregoing conclusion regarding limited predictive validity of current measures. There is a plethora of investigative tools, surveys, and other methods available for assessing mental health. However, these tools either are not scientifically validated as effective, or they are too resource-intensive to be integrated into the military accession process. Regarding the tools that the DoD currently uses, the Omaha – 5 has led to increased applicant disclosure during accession screening. As discussed previously in this chapter, the Omaha – 5 warrants further evaluation.

In contrast, indicators and measures of physical health are generally more objective than the mental health measures employed. MEPS personnel do use their observations about physical aspects of an applicant's presentation, such as scars from deliberate self-harm, eye contact, or involuntary movement, to draw conclusions about their mental health; however, much of the mental health evaluation relies on the recruit's self-report – particularly in the absence of a full set of medical records. For their part, physical conditions or illnesses are more readily detected during accession and more reliably predictive of specific difficulties or limitations that an applicant may experience in the U.S. Military Services than mental health conditions.

Diagnosing Personality Disorders

Personality Disorders, though uncommon compared to depression, anxiety, or substance misuse, are another example of mental health conditions that are difficult to diagnose through screening or during the current MEPS examination process. However, personality disorders not only affect an individual's military career but can also be very disruptive to their unit and significantly compromise readiness. The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) defines a personality disorder as "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment."[43] Maladaptive behaviors stemming from a personality disorder can make it difficult to have a successful career in the military. The importance of interpersonal relationships is common in any professional environment, and the military is no exception. Recruits forge relationships beginning during training that will last throughout active duty, including during deployments and potential combat exposure. A Service member with an undiagnosed personality disorder may act in ways that are disruptive to their unit, which may significantly compromise readiness. The DoDI 6130.03 provides the conditions under which a personality disorder merits disqualification for military service (Figure 5). Successful diagnosis of personality disorders is difficult during the accession process, where medical examiners have less than an hour to interview each candidate and must make informed decisions based on how much information the applicant provides.

Figure 5. Disqualifying Conditions for a Personality Disorder in DoDI 6130.03[3]

i. Any personality disorder including unspecified personality disorder or maladaptive personality traits demonstrated by:
(1) Repeated inability to maintain reasonable adjustment in school, with employers or fellow workers, other social groups, or psychological testing revealing that the degree of immaturity, instability, of personality inadequacy, impulsiveness, or dependency may reasonably be expected to interfere with their adjustment to the Military Services;
(2) Recurrent encounters with law enforcement agencies (excluding minor traffic violations) or antisocial behaviors are tangible evidence of impaired capacity to adapt to military service; or
(3) Any behavioral health issues that have led to incarceration for any period.

Resource Availability Versus Constraints

One of the biggest obstacles to conducting in-depth mental health assessments during accession is time. Medical examiners have a short amount of time to interview each applicant regarding their mental health. MEPS staff in Baltimore stated, on average, each interview with a male applicant is 15 minutes, and each interview with a female applicant is 30 minutes. This is due to a large number of applicants and the battery of examinations and tests each individual must undergo at the MEPS.

Interviews with the Chief Medical Officers (CMO) of four different MEPS illustrated the utility of having on-site mental health providers. They related that mental health concerns revealed in initial processing could be addressed more readily on-site than when the applicant has to travel to a contracted provider off-site for further evaluation. The CMOs expressed that the greatest constraint is the short amount of time examiners have available to spend with each applicant. They explained that in cases that are more complex, there is insufficient time to discuss all mental health questions in appropriate detail.

Given the limited amount of time with each applicant, examiners rely upon documentation filled out by the applicant during the pre-screen stage and during processing while at the MEPS (see Table 1). A key challenge for any solution to the obstacle posed by limited time with applicants at MEPS is mitigating additional resource burdens to USMEPCOM and the Services. Specifically, solutions that do not substantially increase screening requirements or time spent with medical providers would be easier to implement.

Complexity

The DoDI 6130.03 brings structure and clarity to the complex issue of pre-existing mental health conditions among recruits. Analyses of the Army Study to Assess Risk and Resilience in Service members (STARRS), an interdisciplinary study of mental health risk and resilience among U.S. military personnel, reveal the prevalence of mental health conditions among recruits. The STARRS analyses found that 77% of the 50,765 Soldiers in the study reported their mental illness began prior to enlisting.[44] Additionally, 13% of these Soldiers reported severe impairment due to their condition.[45] These analyses show a growing proportion of Soldiers entering the military with psychiatric disorders. Over time, this increases the risk for suicidal behaviors within the military. However, traumatic experiences do not necessarily lead to negative mental health outcomes and can, in fact, lead to a positive result. To illustrate the conflicting sides of the issue, Dr. Charles Hoge, an expert on PTSD and

other physiological reactions to war, stated, "Sometimes the adverse experiences that people have had in life can make one predisposed to having worse outcomes when they face trauma while they're in the military…And sometimes on the other hand, the adverse experiences can make one more resilient."[46] Studies of a specific set of traumatic experiences, referred to as Adverse Childhood Experiences (ACEs), have been influential in understanding physical and mental health outcomes to traumatic events.[47]

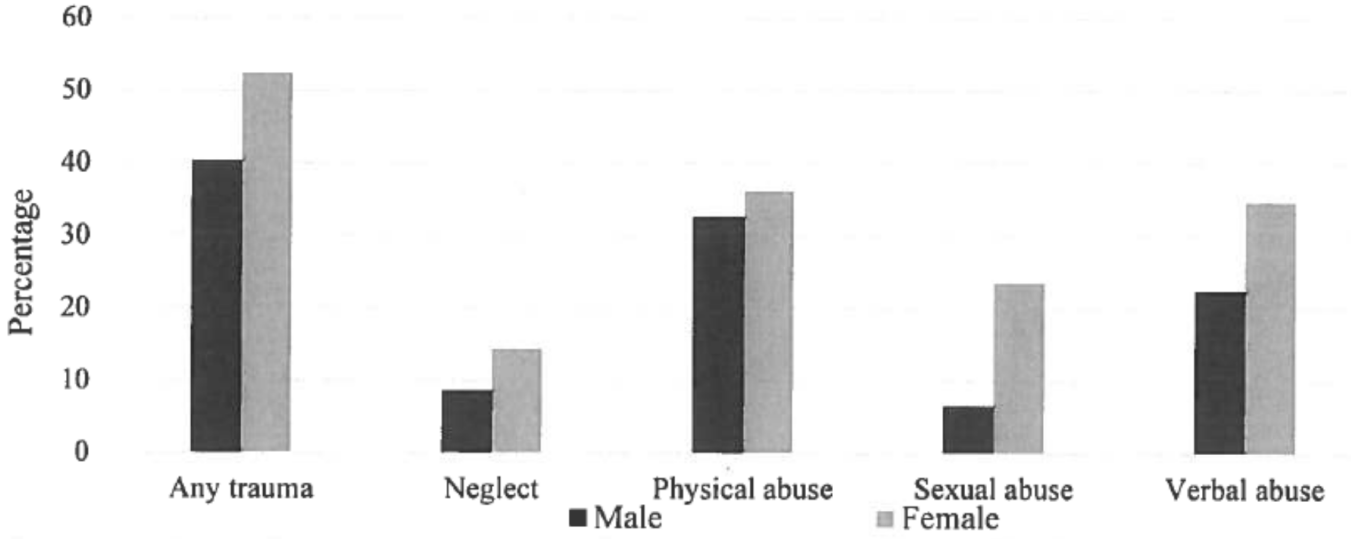
Adverse Childhood Experiences (ACEs)

Adverse Childhood Experiences (ACEs) refer to 10 categories of adversities occurring before age 18: neglect, abuse (physical, sexual or emotional) and/or household dysfunction (intimate partner violence, parental mental illness, substance use, incarceration, parental separation or divorce). According to the ACEs Aware initiative, led by the Office of the California Surgeon General and Department of Health Care Services, "ACEs are strongly associated, in a dose-response fashion, with some of the most common and serious health conditions, including at least nine of the 10 leading causes of death in the U.S."[47]

Research has found that adults with four or more ACEs were more likely to suffer from chronic illness, and shortened life expectancy of up to 20 years, than adults who experienced zero ACEs.[48] The higher the ACE score, the greater the likelihood an individual may experience mental health disorders such as depression, post-traumatic stress disorder, anxiety, and sleep disorders. They also engage in risky behaviors such as new and high-risk sexual behaviors and substance use. Other outcomes include increased likelihood of substance abuse, depression, attempted suicide, and victimization or perpetration of violence. It is important to note that while ACEs are risk factors for significant medical and mental health effects, they do not preclude positive health and behavioral outcomes. Studies show that protective factors such as safe, stable, nurturing relationships can help mitigate the impact of childhood adversity. These findings have particular relevance for military accession and service over the life course.

Prevalence of a subset of ACEs in the DoD is tracked through the Millennium Cohort Study, the largest and longest running longitudinal health study in military history. The study aims to determine the prevalence and impact of a subset of childhood ACEs (neglect, physical, sexual and verbal abuse) among military personnel, examining the links to a range of outcomes including homelessness, comorbid mental disorders, marital quality, work-family conflict, and family satisfaction. Figure 6 illustrates the prevalence of the four ACE items included in the Millennium Cohort Study survey by gender. Results suggest that a history of childhood trauma is common among military personnel.[49] Given this prevalence, the military is in a position to support Service members who have experienced ACEs in an effort to promote positive outcomes. A study of 53,692 Air Force trainees published in 2017 exemplifies the importance of measuring factors associated with ACEs such as resilience. The study examined the association between mean resilience levels and military career outcomes such as attrition and mental health diagnosis. Study results indicate "that resilience measured at the beginning of military services is a significant predictor of attrition from service and obtaining [a] mental health diagnosis within 6 months of entry."[50]

Figure 6. Prevalence of ACEs in Millennium Cohort Participants



Waiver Research

As described in Chapter 2: Accession to the U.S. Military – An Overview, applicants disqualified for military service under DoDI 6130.03 may enter one of the Services via waiver. In determining whether to grant a waiver, the Services make case-by-case judgments about the degree of risk posed by applicants presenting with disqualifying diagnoses. Waiver research – or outcome studies of Service members with disqualifying diagnoses that entered by waiver – provides insight into the trajectories of Service members with specific conditions and the impact of these conditions on readiness. These studies also illustrate the complexity of factors that accession authorities consider when determining suitability of applicants with disqualifying health diagnoses.

A Naval Health Research Center (NHRC) study of Marines who entered on a waiver for Attention Deficit Hyperactivity Disorder (ADHD) provides one example.[51] Per DoDI 6130.03, ADHD is disqualifying if there is:

- A recommended or prescribed Individualized Education Program, 504 plan, or work accommodations after the 14th birthday;
- A history of comorbid mental disorders;
- Prescribed medication in the previous 24 months; or
- Documentation of adverse academic, occupational, or work performance

Previous research found increased mental health problems, overweight, and obesity in Israeli service members with ADHD had similar attrition rates among Marines with and without ADHD.[52,53] Williams and colleagues analyzed data from 106,129 active duty Marines, entered service between 2003 and 2013, including 5,441 (5.1%) Marines who indicated a history of ADHD and 100,687 who did not indicate a history of ADHD.[51] Many of the Marines who indicated ADHD also indicated being in special education or having had a learning disability. Findings indicate that recruits with ADHD reported more attentional issues, conduct disorders, adverse childhood experiences, and traumatic experiences.[51] However, recruits with

ADHD scored within two points of the control group on the Armed Forces Qualification Test and had lower body mass index scores than the control group. The authors theorized that recruits with ADHD might be "held to a higher standard" on cognitive, physical and other accession measures than recruits without ADHD.[51]

Study results noted a small increase in attrition before 46 months of service among Marines with ADHD.[51] However, the majority of Marines with a history of ADHD:

- Deploy
- Complete 46 months of service
- Receive a positive reenlistment indicator

Similarly, an NHRC study of Marines with school problems found that the majority[54]

- Do not receive a mental health diagnosis
- Deploy
- Complete 46 months of service
- Receive a positive reenlistment indicator

The researchers concluded, "In an era where recruiters are challenged to meet recruiting goals, carefully screened recruits with a history of ADHD and school problems are a valuable source of recruits."[54] Further, "current screening policies and processes appear to support the identification of recruits who can be successful despite having a mental health condition." Study limitations include (1) a lack of data on prospective recruits with ADHD or learning disorder who were rejected and (2) inclusion of subjects in the study on learning disorders who only had one school problem; the researchers note "this is not the normative situation and may have influenced the results."[54]

Two studies found that recruits who entered on waivers for moral (i.e., conduct, drugs), medical, or other disqualifications were less likely to attrit and more likely to re-enlist; more likely to demonstrate successful adjustment to military life and requirements; and more likely to receive medals for good conduct and valor and to be promoted faster.[55,56]

Beyond Mental Health Screening

Recruits are likely to present with varied backgrounds and experiences. Certain mental health disorders may also have an initial age of onset during the recruitment and early career stages of military life. The impact of these experiences and conditions on readiness among Service member is difficult to predict, challenges related to non-disclosure aside.

It is difficult to know with certainty the extent to which a trauma history does or does not affect military readiness. As indicated in the previous section, an incentive to 'look good' may discourage recruits from disclosing a history of trauma; in those whose performance remains uncompromised, a trauma history may never become known. This complexity highlights the limitations of disqualifying applicants based on a history – which may or may not be 'codified' into a formal diagnosis at the time of accession. As illustrated previously, individual characteristics such as resilience are associated with a lower risk of attrition and serve as a mitigating factor for ACEs exposure.[50]

Waiver studies find that mental health conditions do not invariably preclude effective military service; these results suggest that condition-based disqualification may be insufficiently nuanced. Unfortunately, an inability to track outcomes for disqualified applicants who did not enter service on a waiver precludes a deeper understanding of the waiver process.

The design of accession screening is to identify those factors that are likely to enable success in the military and those that preclude it. Medical accession standards list those conditions that warrant disqualification from a physical or mental health perspective. However, due to the complex diagnosis of mental health conditions and the initial age of onset, accession screening may have limited effectiveness. Therefore, the following chapter details the prevalence of mental health conditions among Service members in the DoD and proposes examining mental health throughout the military career.

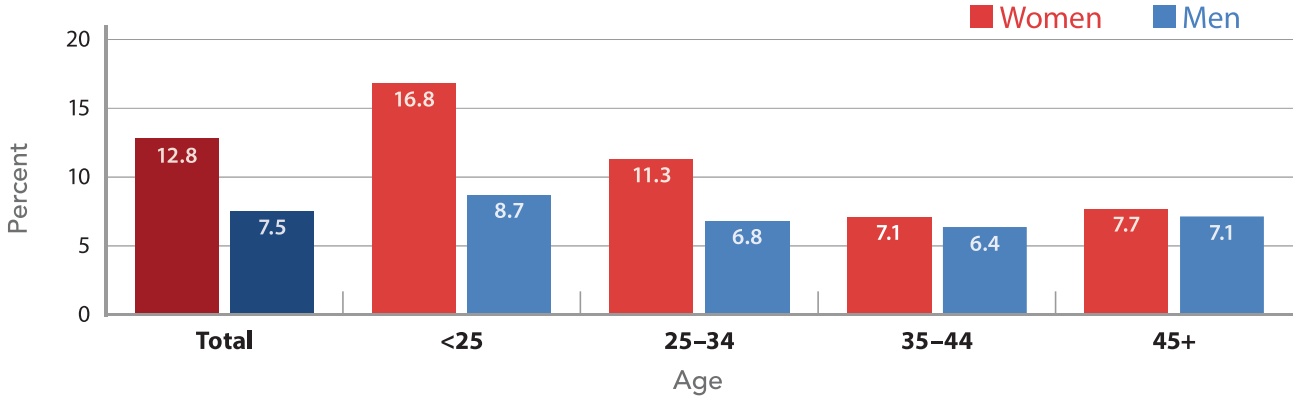
Chapter 5: Mental Health Conditions among Active Duty Service Members

The previous chapters described the varied experiences and conditions that recruits may present with at the time of accession. Certain mental health conditions may also have an initial age of onset during recruitment and early stages of a military career. The impact of these experiences and conditions on readiness among Service members is difficult to predict. This section provides an overview of mental health conditions in the military using data from the DoD Health of the Force annual report, the Military Health System Data Repository (MDR), and data collected from the Administered Schedule for Nonadaptive and Adaptive Personality for military recruits.[57]

DoD Health of the Force

The annual report, DoD Health of the Force, provides an overview of behavioral health (BH) conditions among Service members. The report defines a behavioral health condition as two or more inpatient, outpatient, or in-theater encounters, accompanied by a behavioral health diagnoses, within one year. The 2018 DoD Health of the Force states that "[b]ehavioral health (BH) conditions are a leading cause of morbidity among Service members, accounting for 1.8 million (16.2%) outpatient encounters in 2018."[58] Data indicate that 8.3% of Service members had a behavioral health disorder in 2018. The prevalence of behavioral health disorders remained steady across the prior five-year period from 2014 – 2018. Women and younger Service members were more likely to be diagnosed with a BH condition (Figure 7). Adjustment Disorder was the most common diagnosis, in terms of both annual and lifetime prevalence, across both male and female populations. Service members also presented with Alcohol-related Disorder, Substance-related Disorder, Anxiety Disorder, Bipolar Disorder, Depressive Disorder, Psychosis, and PTSD.[58]

Figure 7. Prevalence of Behavioral Health Disorders by Sex and Age, Active Component Service Members, 2018[58]



Active Component refers to both Active Duty Service members and Reserve Service members who are currently mobilized.
N = 1,295,000

During their yearlong review, the DHB heard anecdotal reports of Service members seeking an Adjustment Disorder diagnosis for dismissal from the U.S. Military. Given that Adjustment Disorder is the most frequent of behavioral health diagnoses given to Service members, it is important to understand the context in which this diagnosis is made within the military. For example, does this diagnosis convey a mental health issue or a person-environment fit issue? What significance does an adjustment disorder have for one's career in the military? Do providers, or Service members, associate this diagnosis with dismissal from the military?

Finally, data suggest "a small subset of [active duty Service members] utilize a disproportionately high number of mental health-related outpatient services compared to the remainder of the active duty Service member population seeking mental health care."[59] The extent to which this population reflects those entering on mental health waivers, and the degree to which high mental health usage may correlate with impaired readiness, are important points for investigation. In one such study, Gallaway and colleagues found that "medical enlistment waivers for mental health reasons were not associated with subsequent negative behavioral health outcomes [in] the Army."[55]

Service-specific Prevalence of Mental Health Conditions

A 2019 query of the MDR placed the 2017 prevalence rate of mental health diagnoses among active duty Service members at 13.8%.[60] Adjustment Disorder (5.4%) was the most commonly diagnosed condition category followed by Anxiety Disorder (3.5%), Depressive Disorder (3.3%), Insomnia (2.6%), PTSD (1.9%), Alcohol Use Disorder (1.6%) and Substance Use Disorder (.3%).[60]

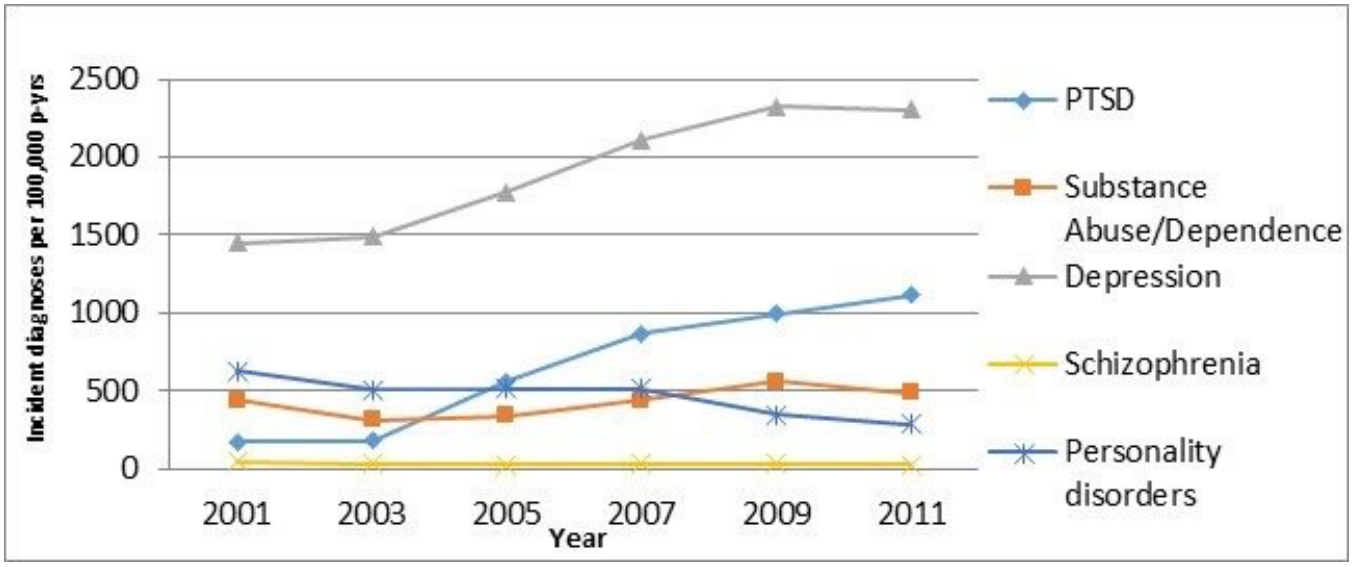
The data on prevalence of mental health diagnoses among active duty Service members must be interpreted within the context of several caveats[60]:

- [P]revalence and incidence estimates only include patients that seek care for a given condition and are coded with a diagnosis for that condition; therefore, patients not seeking care or not coded with a given diagnosis are not counted as cases in these estimates.
- As with all administrative health care data, accuracy depends on provider coding practices. Consequently, provider coding that is inconsistent with established definitions used in metric calculation may result in failure of the metric to identify all instances of mental health utilization accurately. Additionally, the inclusion of a mental health diagnosis in the encounter record does not ensure that mental health services were actually rendered during that encounter. Therefore, utilization may not entirely reflect treatment for the mental health condition of interest.
- Administrative health care data only capture information when medical services are used, and its accuracy is limited by how providers record medical encounters. The utilization estimates only describe patients who both seek care and receive a diagnosis for a given condition. Patients who seek care but do not receive a particular diagnosis, as well as those patients who do not seek care at all, are not represented in these estimates. Consequently, the true impact of a particular condition on both patients and the MHS is likely underestimated by the data shown here.

Personality Disorders in the DoD

Figure 8 presents incidence of personality disorders among active duty Service members between 2001 and 2011. This figure suggests that the incidence of personality disorders in the U.S. Military decreased across the decade, while substance abuse, PTSD, and depression increased. It is unclear whether and to what extent these findings reflect stricter accession criteria, increased attrition among individuals with personality disorders, diagnostic changes and/or the effects of a decade of war. Despite this apparent decrease, detecting personality disorders among applicants at accession remains an important goal given anecdotal evidence that individuals with personality disorder may have a significant impact on unit readiness.

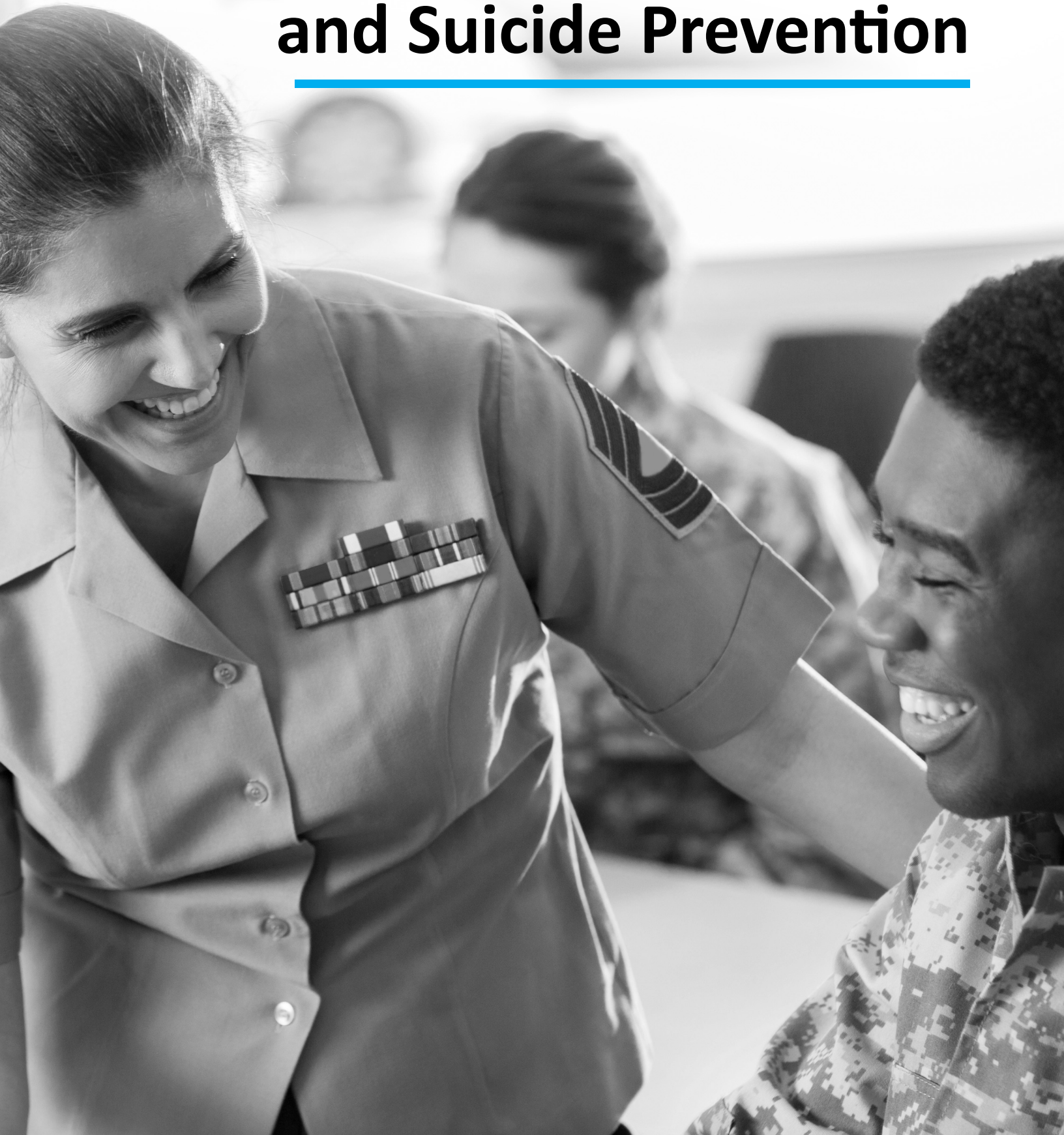
Figure 8. Incidence rates of mental disorder diagnoses, by category, active component, U.S. Armed Forces 2001 – 2011[57]



Linking Mental Health to Outcomes

As noted in this chapter, there is a prevalence of mental health conditions within the Services. The more commonly diagnosed conditions are adjustment disorders, depressive disorders, anxiety disorders, and PTSD. These conditions have a considerable effect on a Service members' operational fit within the military and their ability to optimize readiness. There is a link between mental health and negative physical health outcomes, such as disease and violence to self or others. Understanding that these conditions are considerably complex to diagnose and treat, the DoD continues to put resources towards programs aimed at preventing negative mental health outcomes and promoting resilience.

Chapter 6: Mental Health Screening and Suicide Prevention



As mentioned earlier in this report, the goal of screening at accession is to determine if recruits are physically and mentally fit for service based on standard policy guidance. This screening aims to ensure only qualified candidates enter into military service. Those at risk for poor career outcomes, including those who do not disclose or do not yet have a diagnosed mental health condition, undergo more extensive evaluation at MEPS or through the waiver process before entering service. One negative mental health outcome that accession screening aims to identify risk for is suicide.

Suicide among members of the U.S. Military has been a topic of enduring concern in the DoD and by Congress. Despite application of significant focus and resources, the suicide rate in the military continues to grow. The Department of Defense Suicide Event Report (DoDSER) is the DoD's standardized annual suicide surveillance effort to track both the total number of suicide deaths across the military but also analyze the details surrounding each death. The DoDSER shows increases in the military suicide rate and compares it to the civilian suicide rate. According to the 2018 DoDSER Annual Report, "there were statistically significant linear increases in the age- and sex-adjusted suicide mortality rates for the active component populations of the Air Force and the Marine Corps from [20]11-[20]18."[61] Additionally, the suicide mortality rate for the Marine Corps was statistically significantly higher than the average 2015-2017 average suicide mortality rate. The DoDSER reported that when adjusted for age and sex, "the [20]18 suicide mortality rates for the active and reserve components did not differ from the U.S. adult population suicide mortality rates for [20]17." The report also states, "the observed increase in the DoD suicide mortality rate is consistent with changes in the U.S. population as a whole."[61] Given this similarity in suicide rates between the military and overall U.S. population, this report will examine suicide risk based on mental illness, and highlight suicide prevention efforts within the military, and potential opportunities for intervention to reduce suicide risk.

Suicide Prevention and Lethal Means Restriction

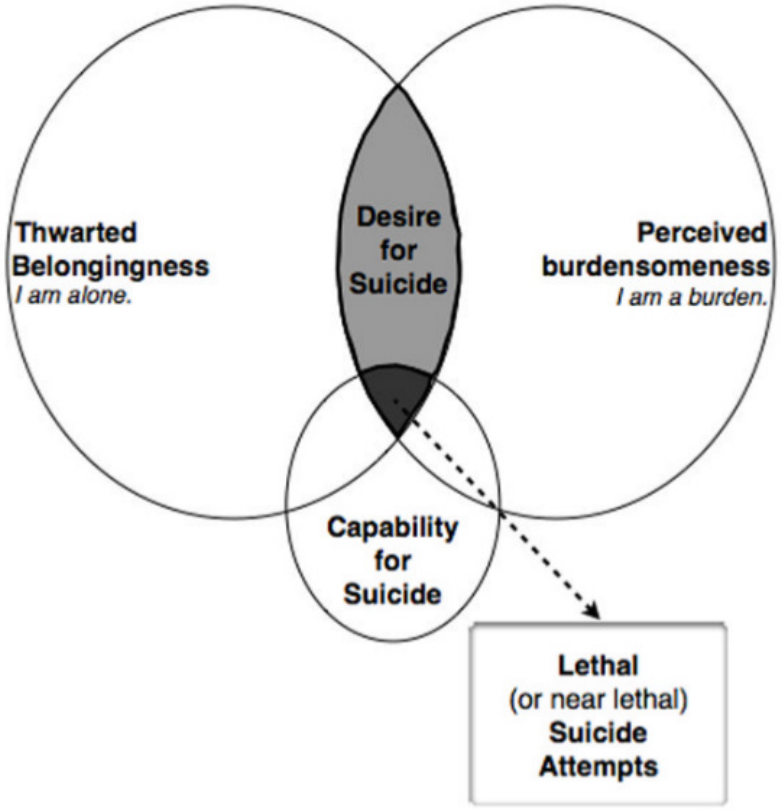
Suicide among active duty and veteran Service members is an enormous issue that has been the focus of many investigations, interventions, policies, and programs. Suicide in the military affects not only the deceased but also their family, unit, friends, community, and country. One aim of this report is to identify further methods of supporting Service members after they join the military. Identifying risk factors for suicide, connecting at-risk individuals to care as early as possible, and reducing risk for suicide in the environment are the best ways to support Service members and avoid the tragic outcome of suicide. To understand how the military works to reduce suicides and what other methods could improve this, it is vital to understand the process of suicide.

Suicide and Lethal Means

Suicide is a process that begins in the mind and transitions to actions that intentionally cause a person's death. The interpersonal-psychological theory (Figure 9) of suicidal behavior provides a framework for three variables that must be present for the suicide process to transition from ideation to action. The first two variables, perceived burdensomeness, and thwarted belongingness explain the origin of the desire for suicide in an individual. The third variable, acquired capability for suicide, explains which individuals are

capable of death by suicide.[62] This third variable forms the basis for many suicide prevention programs. By removing a person's means for suicide, there is an opportunity for further intervention before they make an attempt.

Figure 9. Assumptions of the Interpersonal Theory of Suicide[63]



Suicide prevention methods focus on delaying or permanently abandoning the suicide attempt after ideation. Delaying the attempt after ideation decreases the likelihood that a suicidal person will carry out the attempt. The range of time between when thoughts of suicide begin and when suicidal individuals take self-harming actions varies greatly. In some cases, ideation begins less than 10 minutes from an attempt; for others, it can begin months earlier.[64-67] In a systematic review and meta-analysis of suicide reduction interventions, Pirkis, et al. found a 91% reduction in suicides from interventions that focused on limiting access to lethal means.[68]

Reducing the availability of highly lethal and commonly used suicide methods has been associated with declines in suicide rates by as much as 50% in other countries.[69] These methods include:

- Physically restricting access to means, such as gun locks or barriers on a bridge
- Reducing the toxicity of a given method by reducing the amount of a lethal substance that a person can access at one time with blister packs of medication instead of bottles
- Reducing the "cognitive access" to suicide by discouraging media coverage of specific suicide methods or deaths

In the suicidality literature, a person is unlikely to make a suicide attempt when their chosen means is not available.[69-71] In many cases, it is impossible to completely prevent access to the means by which a person may attempt suicide. To disrupt the process of suicide, methods of securing or increasing the safety of a lethal means of suicide, such as safe storage of firearms or medications, disrupts the process of suicide. It also reduces the lethality of the method if used in a suicide attempt, such as the use of blister packaging for medication rather than in a bottle. These interventions target the capability component of the interpersonal-psychological theory of suicidal behavior rather than the desire to commit suicide.

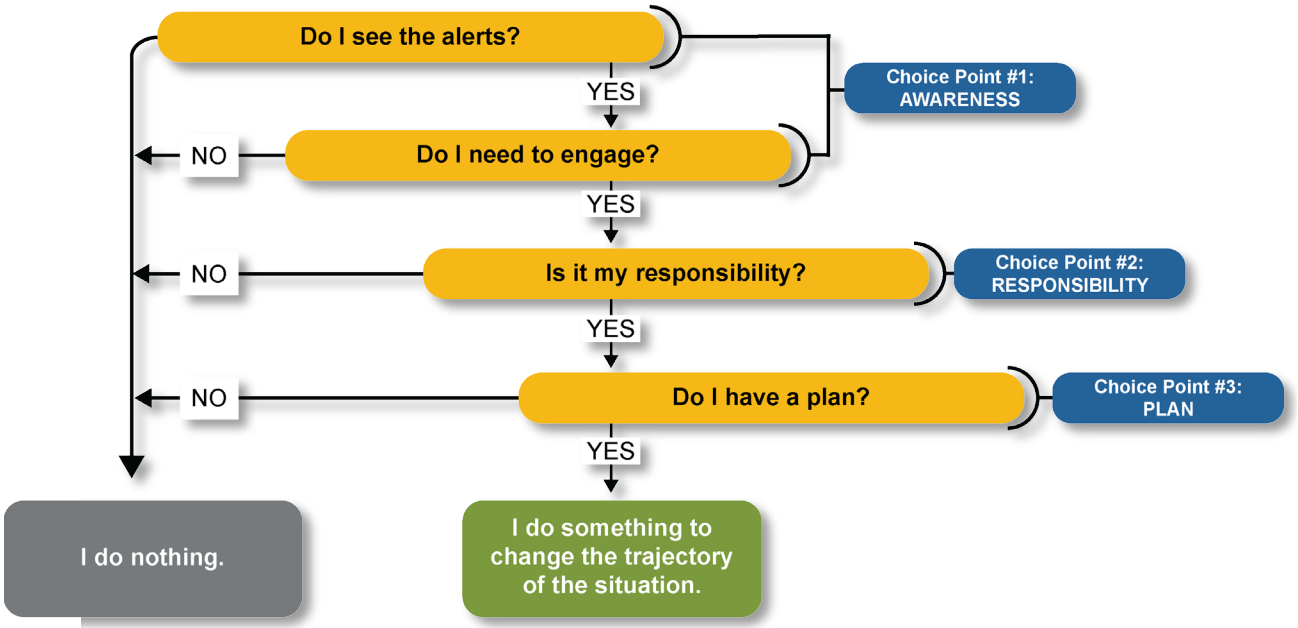
In Betz, Barber, and Miller's telephone survey of U.S. households, researchers found that among those who reported having made a suicidal plan in the past, it is seven times more likely that a firearm was part of the plan if there was one in the home than in those without a firearm.[72] In the 2018 DoDSER Annual Report, the method of injury of 60% of military suicides was by firearm. Of those, only 7% resulted from the self-directed use of a military-issued firearm. These data were not statistically significantly different from the 2015-2017 military average.[61] In a national firearms survey, Hepburn, et al. found that active duty Service members are more likely to own a firearm than both veterans and civilians not affiliated with the military.[73] Given the increased likelihood that those in the military keep a firearm in their home and the higher risk of a suicidal plan involving a firearm if one is present, an intervention to reduce access to the means for suicide would be to reduce access to firearms among at-risk individuals.

Military Suicide Prevention Programs

The Services have a multitude of suicide prevention programs that support Service members before, during, and after times of crisis. These evidence-based programs support behaviors that reduce the risk of suicide and follow strategies to mitigate the factors that make a person more likely to consider suicide.

Army Regulation 600-63, Army Health Promotion, is a 2015 revision of a directive that incorporates the Ready and Resilient Campaign and increases the Army's capacity to provide suicide prevention training and improved protocols for handling a suicide. It details roles and responsibilities of Army leadership to implement suicide prevention programs as well as analysis of suicide events. This policy outlines all of the suicide prevention training requirements and Command responsibilities for the Army Suicide Prevention Program. An example is the Engage program (Figure 10), which promotes prosocial behavior in Soldiers and Commanders for identifying when someone is in need, offering to help, and making a plan to assist that person. Data-backed, skill-building initiatives such as Engage promote unit cohesion and equip Soldiers to assist each other in times of crisis when others may miss the signs of danger.

Figure 10. Army Ready and Resilient Engage Choice Point Framework



The Marine Corps implements its Combat Operational Stress Control (COSC) principles across the Service to sustain prevention-focused training and reduce stigma surrounding health-seeking behaviors. This training includes Operational Stress Control and Readiness (OSCAR) Team Training to maximize force preservation and readiness by identifying, managing, and preventing combat and operational stress by embedding mental health personnel into units and training officers "at the battalion and company levels…to be first responders for Marines experiencing combat and operational stress."[74] Additionally, the Marine Awareness and Prevention Integrated Training (MAPIT) program is a continuous education initiative that aims to improve Marine total fitness through training on a variety of topics that promote readiness and resilience. These topics include general stress management, substance misuse prevention, suicide prevention, intimate partner abuse prevention, and child maltreatment prevention.

Means Restriction as Part of Military Suicide Prevention Programs

Each of the Services has comprehensive research-based suicide prevention programs that incorporate mandatory means restriction measures for a suicidal individual to an extent. All of the Services' suicide prevention programs acknowledge the danger of access to lethal means during a crisis. The main means-restriction effort of all Services is firearm safety promotion. However, other direct and indirect tools for means restriction exist, such as command authority to secure personal weapons in the base armory and the restriction of personal weapons in base housing and facilities.

The focus on firearm safety mirrors the successful population-wide public health intervention that reduced automobile deaths due to alcohol use. The intervention does not discourage people from driving, nor does it focus on alcohol use. Instead, it discourages alcohol use before driving by shifting cultural attitudes toward this behavior. By changing the cultural perception of drinking alcohol prior to operating a vehicle, the dangerous practice of drinking and driving decreased. So, too, do firearm safety campaigns change the cultural acceptability of dangerous or irresponsible practices such as improper firearm storage or ammunition storage in a location accessible to children. Safe storage practices increase the time required for a person to access a firearm and, as informed by research on the importance of delaying the time from suicidal ideation to attempt, are an important intervention to protect against suicide.

Healthcare providers and crisis teams take steps to secure personally owned firearms when a Service member is in imminent danger of harming themselves or others. As a prevention measure, each of the Services has a range of programs that emphasize safe storage of personal firearms and normalizing discussion of firearm safety between healthcare providers and patients. The Services have provisions for confiscation of personal firearms or mandated restriction of access during a mental health crisis if ordered by a Commander. There are also instructions that promote voluntary, safe storage or surrender of a personal weapon. The following examples of means safety promotion across the Services show how the principles of means restriction contribute to their existing suicide prevention programs.

The Air Force's "Time-Based Prevention" program aims to increase safe storage of lethal means as a safety initiative. The initiative focuses on the link between availability of lethal means and risk for suicidal

behavior. The program trains Air Force leadership in prevention strategies that delay access to firearms and other lethal means. Leaders are trained in messaging strategies that emphasize the need for Airmen to go "SLO": Use Safes, Locks, or storage Outside the home.[75]

The Army's protocol for restricting access to personally owned firearms is limited to when a Commander believes a Soldier is at risk of harming themselves or others. At that point, the Commander has the authority to request the Soldier bring the weapon to the unit for storage. They may also restrict the Soldier to stay on base or order temporary residence on the installation. In such a situation, the commander should initiate a command-directed behavioral health evaluation to assess the Soldier's current risk level.[76]

For the Navy, Naval Administrative Message (NAVADMIN) 263/14 and DoDI 6490.04 outline policies for restriction of personally owned firearms. Commanding officers and Health Professionals may inquire about, collect, and record information about a Service member's privately owned firearms, ammunition, or other weapons if the command officer or health professional has reasonable grounds to believe the Service member is at risk for suicide or causing harm to others. The Command will provide guidelines for proper safe storage of privately owned firearms on an installation. In addition, the Command should coordinate with local police, sheriff, National Guard Bureau, or Navy Operational Support Command for firearm safekeeping. The Command will return the firearm upon request from the Sailor or at the end of a predetermined storage period. These measures are critical in reducing access to the means by which a person intends to commit suicide.[77]

While the current policies of the U.S. Military contain no mandatory or forced confiscation of personally owned firearms, the scientific evidence supports the efficacy of restricting access to firearms. The Israeli Defense Force's (IDF) Suicide Prevention Program provides evidence of the effectiveness of firearm restrictions in the prevention of suicide by military personnel. This program was attributed with a 40% decrease in the total suicide rate across the force from 2007-2008 after its implementation. Along with increased awareness and training in suicide prevention, IDF members were required to leave their firearm on base when on weekend leave rather than take it with them. Further analysis attributed most of the total decrease in suicides to those occurring over weekends, with those occurring during the week not changing significantly because of the program.[78]

There is currently little data collected by the military on personal firearm ownership among Service members. Systematic collection of this information would assist Commanders in their efforts to assess risk within their units and inform analysis of the effectiveness of lethal means restriction interventions. This information would assist Commanders in assessing risk and making informed decisions when an individual they are responsible for is in crisis.

The evidence for lethal means restriction is a key intervention, and the most effective tool available, for preventing suicide. It also is the suicide prevention method least practiced in the U.S. Military. While the Services incorporate aspects of this evidence into their suicide prevention programs through their means safety campaigns, there are additional opportunities to decrease the risk that personally owned firearms

pose to individuals in crisis. Commanders have a critical duty to create a culture of safety and should be equipped to use their authority to intervene for the wellbeing of the Service members they command.

The Role of Health Care Providers in Suicide Prevention

In addition to lethal means safety, there are additional opportunities to reduce suicide risk by connecting individuals at risk to care as soon as the warning signs become apparent. Health care providers are in a prime position to make this connection. In a meta-analysis of studies examining the length of time between last contacts with their primary care provider and dying by suicide, researchers calculated that 45% of decedents had contact with their primary care provider within one month before their death, and approximately 77% had contact within one year of death.[79] Given the level of contact that health care providers have with members of the military, they have an opportunity to collect information that could be key in identifying individuals at risk for a suicide crisis and connect them to appropriate care.

In discussion with suicide researchers, the DHB repeatedly heard the importance of a public health, prevention-focused approach to suicide prevention that reduces factors that contribute to suicide risk. Suicide researchers emphasized the DoD's ability to support medical providers' ability to promote the prevention process early by asking about firearm ownership. They also stated that one of the most effective interventions for suicide prevention is lethal means safety and that policies that strengthen these activities are vital to mitigating risk and preventing future suicides.[80]

The Role of Data in Suicide Prevention

Predicting suicide is a challenging task and is often unforeseen by even those closest to the decedent. To improve the chance of identifying persons at risk of suicide, the DoD has undertaken various efforts to identify key risk factors that make a person more likely to become suicidal. Through demographic analysis of decedents from suicide, the Army Resilience Directorate identified the population at highest risk for suicidal behaviors as Soldiers who are male, Caucasian, rank E3 (Private First Class)-E6 (Staff Sergeant), 20-29 years old, primarily in a combat role, married, have access to a weapon, and have one or more personal issues such as finances, relationships, physical pain, work-related problems, legal troubles, or behavioral health difficulties. The majority of deaths by suicide occur off the installation. The period of highest risk for these Soldiers is during a transition, such as the time leading up to and following a deployment, unit moves, and relationship changes.[76] All of these transition periods are predictable and information on their presence is available to Commanders and health care providers through non-medical data sources.[81]

To develop a risk profile for those at risk for suicide, the Services have made significant efforts to collect and analyze data to better identify risk factors that lead a person to suicide. This information includes demographic characteristics and analysis of events in a person's life that are linked to their risk for suicide. The Services conduct systematic analysis of this information in various ways. For example, the Marine Corps' Death by Suicide Review Board conducts analyses of suicide deaths and provides actionable

recommendations that inform Commanders how to better understand suicide risk and improve prevention initiatives.[71] The review board is a replica of similar efforts in the Navy and Air Force and aligns with the Centers for Disease Control and Prevention's (CDC) Enhanced Evaluation and Actionable Knowledge for Suicide Prevention project. This project is a public health approach focused on preventing suicidal behavior before it occurs and addresses risk and protective factors related to suicide.[82]

Building on the Services' efforts to collect and understand data related to suicide among Service members to better address suicide prevention across the military, the Defense Suicide Prevention Office (DSPO) conducts an annual suicide death review called the 360-Degree Suicide Case Review. This annual exercise is a unified approach that brings together experts across the DoD to conduct a comprehensive review of all available information related to suicide in the Department. It complements and extends the DoDSER, which is the DoD's suicide surveillance standardization effort. In addition to data from the DoDSER, the 360 Degree Suicide Case Review provides a comprehensive review of administrative records, medical records, fitness reports, legal and disciplinary records, Service member surveys, and reports of (criminal) investigation. Using this comprehensive data, the standardized suicide death review helps the DoD to better understand individuals' trajectories to suicide, identify lessons learned that could help at-risk individuals in the future, and generate actionable recommendations for policies to reduce suicide in the DoD.[83]

After a completed suicide, the 360 Degree Suicide Case Review has access to a wide range of data from disparate and often singular sources such as medical, personnel, and professional records. Such access begs the question of how those data can be more available before a suicide instead of after the event. Artificial Intelligence (AI) is applicable to the previously described efforts to document and analyze factors contributing to suicidality in the military and conduct analysis that is more complex. This technology can play a role in flagging individuals for care before they show outward signs of being in distress. Given the evidence presented in this section that many individuals who die from suicide have contact with the health care system in the months and days leading up to their deaths, there is an opportunity for intervention in some cases. Intervention by a health care provider can be an effective method for preventing suicide, and AI can enhance the ability of the provider to identify the warning signs. Through a combination of traditional screening methods and complex data analysis, there is potential for AI in combination with human expertise to disrupt the suicide process. AI can bolster the DoD's suicide prevention efforts through bodies like the Joint Artificial Intelligence Center (JAIC) and DSPO to support the Services' existing suicide prevention programs.

Machine Learning: An Intervention for Future Consideration

One method that may improve mental health risk assessment is the use of a sub-field of AI, called Machine Learning (ML), to enhance providers' ability to identify individuals at-risk for a mental health crisis and connect them with care sooner. In this context, ML analyzes health record data to identify individual risk for developing a mental health condition sooner than traditional diagnostic methods, which rely on patient self-reporting of their symptoms. Even if an individual receives a formal diagnosis of a mental health

condition, the risk of a negative outcome due to the condition may be difficult to predict. ML can help decrease the time it takes to identify an individual at-risk for a negative mental health outcome, however, the use of ML for mental health prediction is only a tool with future potential utility. ML may complement existing mental health screening measures. Existing bodies should support ML development, such as the JAIC, which is working to increase the level of feedback available for Commanders to identify mental health risks in their units. ML also has utility as an analytical tool for optimizing recruitment strategies as seen in the EpiMaps application, a service by Booz Allen Hamilton® that provides geographic visualizations of population-wide health data from the CDC, U.S. Census, and other representative sources. Using this technology, recruiters can identify areas with the highest proportions of individuals likely to meet accession standards[84].

Numerous examples of ML show its predictive potential and applicability in mental health settings to a limited extent.[36,85,86] These examples also illustrate the challenge of relying on ML for mental health assessment and the difficulty of accurately predicting an individual's future behavior. In a health context, ML algorithms depend on EHR data. This poses challenges due to limited data availability, patient privacy considerations, and the reliance on patient self-disclosure for certain mental health diagnoses. Due to the limited ability of ML to accurately predict a negative mental health outcome, it should be considered a technology with future promise, but not appropriate for widespread clinical use other than for research purposes.

Mental Health on a Continuum

The DoD currently has a range of methods for identifying at-risk individuals through early-career mental health screenings, resilience training, and suicide prevention programs to support Service members throughout their careers, as well as initiatives to further the DoD's ability to detect risk for mental health conditions throughout the career life course. Mental health screening, in its current form, is effective in identifying the vast majority of unqualified applicants. While additional mental health screening tools in pre-accession evaluation is not likely to reduce attrition, there is benefit to understanding mental health conditions at accession. These conditions, whether screeners note them at accession or arise throughout the military career, are part of a continuum of mental health concerns among Service members. Mental health is just one aspect of an individual's overall wellbeing and ability to live a healthy life. As described earlier, the demands of military life require support in all aspects of a Service member's life. While the military currently has many successful programs to support Service members in these aspects, there are opportunities for continuing improvement through innovative approaches. The next chapter proposes a more holistic perspective to understanding mental health in the military, the implications to readiness and resilience, and forging a "recruit-ready military."

Chapter 7: Beyond Prediction

Mental health accession screening takes a "deficit-minded" approach: a recruit with a specific mental health history, condition, or diagnosis fails to meet the qualification standards for military service.[87] Challenges and complexities inherent in accession screening make it difficult to identify with confidence those recruits who do not meet the standards. More significantly, however, evidence suggests that the relationship between mental health conditions to military success is much more complicated than this approach can accommodate. The impact of this discrepancy is less noticeable in a robust recruiting environment. Today, however, only one third of 18 year olds can meet the enlistment standards and fewer than a fifth wants to serve.[88] Further, 17% of enlisted Active duty Service members attrit within the first three years, with 64% occurring by the end of the first year and 52% occurring within the first 70 days of service.[2]

In this context, maximizing the outcome of a qualified, effective, and able-bodied force requires a paradigm shift. The envisioned end is an intentionally constructed system in which recruit success is a shared responsibility between the individual and the organization; readiness outcomes are a function of individual and organizational factors across the Service member's military career; existing opportunities for real-time observation supplement static prediction; and incentives align with desired readiness outcomes. A paradigm shift of this nature rests on the identification of relevant beliefs, including an assessment of their utility in meeting mission requirements in DoD.[87]

Pursue Intentional Design

Intentional efforts to build change into the system can create a successful paradigm shift. The concept of the built environment provides a conceptual parallel here. Research has shown that the characteristics of a given built environment – "all the human-made physical spaces where we live, recreate and work" – impact the health of its occupants, for better or for worse.[87] Public health experts advocate for the intentional design of built environments to support physical health – more green spaces, less traffic congestion, and more grocery stores, for example. Mental health experts are exploring built environment characteristics as potential promoters of adjustment and wellbeing.[87] The DoD must determine those evidence-based characteristics of the organizational and relational environment that support success among Service members and design them into existing processes or alter processes accordingly. Innovative approaches in other disciplines, most notably in higher education, serve as an example.

Pushing Past the Deficit Model: Identifying Organizational Mediators of Recruit Readiness

A paradigm shift occurring in higher education provides direction for moving beyond the deficit approach to applicant success. As the pool of applicants to colleges and universities has changed, these institutions have shifted from a focus on the ideal candidate, or the "college-ready student," to the concept of a "student-ready college."[87] Recognizing that they cannot succeed if students fail, institutions of higher learning are striving to be "responsive to contemporary students' needs and realities."[87]

This paradigm of a "person-ready institution" redefines the operative elements of success. A partnership between the individual and the institution creates a path to mutual goal attainment where one was not readily apparent. Success becomes a process with many inputs beyond the individual. Typical indicators of achievement are broken down into their building blocks and markers of progress identified and tracked. Leaders speak to the strengths and abilities of individuals while "behind the scenes, a sophisticated early warning system helps ensure that at-risk students are quickly identified and supported."[87]

Ready institutions "identify and [scaffold]… the 'lead dominoes' that – if compromised – begin the progressive toppling of the entire support structure" for those at risk.[87] Applying this paradigm in the DoD requires identification of organizational factors that enable or inhibit Service member success and a commitment to organizational learning and institutional improvement. The DoD must prioritize these efforts over periodic attempts to improve predictive power at accession.

The military's socioecological model of resilience is crucial to this paradigm shift. It reflects evolution of the understanding of resilience from static individual trait to a "multidimensional, dynamic and variable process" resulting from the interplay of individual and environmental factors.[89] This four-factor model includes individual, family, unit, and community-level factors. Individual-level factors are skills that a person can develop, such as positive thinking and behavioral control. Family-level factors depend on relationships with close contacts such as emotional ties and closeness. Unit-level factors have to do with the person's relationship with their environment such as positive command climate, and community-level factors relate to how a person fits with the larger community's cultural values.

Table 4. Socioecological Model of Resilience

Individual-level factors	Positive coping
	Positive effect
	Positive thinking
	Realism
	Behavioral control
Family-level factors	Emotional ties
	Communication
	Support
	Closeness
	Nurturing
	Adaptability
Unit-level factors	Positive command climate
	Teamwork
	Cohesion
Community-level factors	Belongingness
	Cohesion
	Connectedness
	Collective efficacy

The socioecological model of resilience provides a scaffold for the development of organizational correlates of recruit success. The DoD has a very strong model to develop resilience in individual Service members, Total Force Fitness (TFF), described in more detail later in this chapter.[90] Unit performance is often improved as a result of this programming. Service resilience programs focus on individual resilience as well, with some targeting unit and organizational factors. Leadership courses like Strategies for Mitigating the Impact of Operations on Unit Resilience and Building Resilient Organizations, offered through the Army's Institutional Resilience Training series, are one example.[91] Consistent with these observations, research finds that individual (i.e., positive coping, positive affect, positive thinking, realism, and behavioral control) and unit-level factors (i.e., positive command climate, teamwork, and cohesion) were the most frequently used in training programs.[89]

Total Force Fitness as a Model for Organizational Inputs for Recruit Success

The TFF model directly addresses, in depth, the individual component of the socio-ecological model of resilience embraced in the DoD. The TFF model (Figure 11) consists of eight domains designed to address the full spectrum of a Service member's life: psychological, social, physical, financial, ideological and spiritual, medical and dental, environmental, and nutritional.[90] TFF is based upon the Military Demand-Resource model which describes the interaction of internal resources, "includ[ing] awareness, beliefs and appraisals, coping, decision making, and engagement" required of an individual to meet the demands of the military environment.[92,93]

Figure 11. Provisional Total Force Fitness Framework

External resources "include aspects of and from the environment that can be helpful… [And] in a military system, external resources can include leadership, unit members, families, educational and training programs, and community support organizations and programs."[92] A resilient Service member is well equipped to use both internal and external sources to meet the demands of the environment. Moving forward, the DoD can use these rich and detailed models as a framework for the development of unit and community level inputs to Service member success.

Integrate Accession Medicine into the Military Practice

Currently, accession medicine – consisting of health care activities designed to assess fitness for military service – is distinct from retention medicine – or those activities relevant to the health, well-being and medical readiness of members of the U.S. Military Services. Accession medicine is also separate from recruitment of prospective applicants to the U.S. military. Maximizing readiness requires integration across these spheres to enable consistent and related standards, metrics, and incentives – it requires a "life course approach" to Service member health and readiness. A life course approach recognizes the different needs at different points in the individual's life and approaches health and well-being as part of a continuum that differs between individuals. As recommended by the AMSARA²:

Rather than study accession medical standards in isolation, medical standards across the continuum of a service member's career, including medical standards for retention and deployment, should be analyzed using evidence-based principles.

Integration across the spheres of recruitment, accession, and retention medicine enables creative approaches to achieving readiness. In a recent pilot study, for example, researchers developed a system to map the intersection of healthy populations and positive sentiment about the military to enable recruiters to "fish in a readier pool."[94] This approach enhances readiness outcomes downstream by yielding less attrition. A related strategy employs economic data to identify communities in which the deleterious health effects of economic downturn have not yet occurred.[94] These findings allow the military to become a source of stable employment, preventing community decline while enhancing efforts to recruit healthy applicants.

Assess the Impact of Individual and Organizational Mediators of Readiness across the Military Life Course

A life course approach requires a set of Enterprise-wide, measurable readiness outcomes that are tracked as a function of individual and organizational mediators across a Service member's career. The following sections provide examples of potential outcomes and mediators for consideration. These readiness outcomes are:

- Early attrition
- Failure to deploy or complete a deployment
- Receipt of a positive enlistment indicator
- Career progression

Individual Mediators of Readiness

Individual mediators of recruit readiness may include psychiatric and behavioral disorder diagnoses at accession or later in the Service member's career; measures of individual resilience associated with TFF; and other related variables. Of note, there are several limitations to using mental health diagnoses at accession in readiness analyses. For example, the fact that mental health conditions do not always compromise success or readiness complicates the ability to monitor the performance of recruits who do not disclose disqualifying conditions at accession. As a result, their presence and effect on some recruits will remain unknown. Additionally, the fact that USMEPCOM has no way to track outcomes for disqualified applicants who did not enter into the military on a medical waiver limits the conclusions drawn from this type of investigation. Caveats aside, linking behavioral health data sets from annual mental health assessments across the life course of the Service member, and sharing longitudinal outcomes data across inputs (e.g., MEPS), can significantly raise the level of understanding of the impact of behavioral health issues on readiness in the DoD.

Organizational Mediators of Readiness

As noted in the discussion of the DoD's socio-ecological model of resilience, unit and community-level factors are likely candidates for organizational mediators of readiness. Unit-level factors have to do with the person's relationship with their environment such as positive command climate, and community-level factors relate to how a person fits with the larger community's cultural values. Examples of these factors are in Table 5.

Table 5. Potential Organizational Mediators of Readiness

Unit-level factors	Positive command climate
	Teamwork
	Cohesion
Community-level factors	Belongingness
	Cohesion
	Connectedness
	Collective efficacy

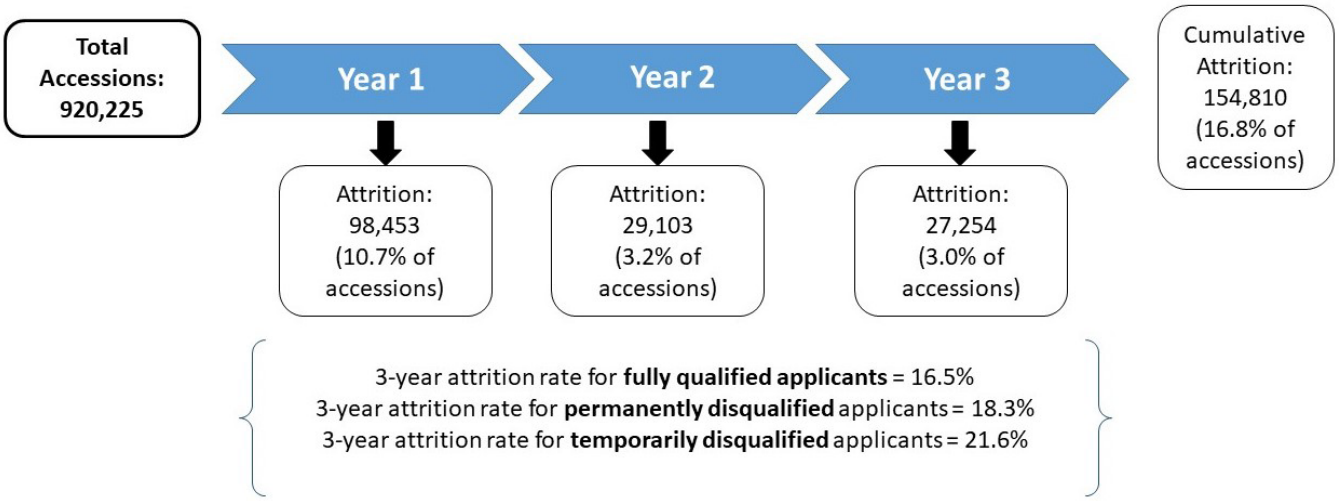
Populating the Model

The following sections provide available data on the impact of behavioral health conditions on two potential readiness outcomes, attrition and deployability. These data provide a starting point for longitudinal investigation of the impact of one type of individual mediator on Service member readiness: mental health. As noted above, the model must be populated with a range of individual and organizational variables to effectively identify the correlates of readiness in this recommended approach.

Attrition

Personnel attrition in the DoD may happen for any number of personal, professional, or medical reasons and can happen at any stage in a Service member's military career. However, early attrition or discharge, defined as occurring within the first three years of service, is of significant interest to the DoD (Figure 12).

Figure 12. Adverse Attrition for First Time Enlisted Active Duty Accessions, First Three Years of Service[34]



This report focuses on those who attrit for medical reasons within the first three years of service. These reasons fall into three major categories: 'Existing Prior to Service (EPTS),' disability discharge, and 'medical/behavioral attrition' that is not due to an EPTS condition. Those who fall into the EPTS category were found to be PDQ after accession screening but were brought into the military on a waiver by one of the Services. There is some concern that Service members with EPTS conditions are at increased risk for poor outcomes in the military. Consistent with this observation, AMSARA found that "[t]hose with any type of medical disqualification prior to accession were at significantly higher risk of disability discharge in the first year of service relative to those who were fully qualified."[2] However, the percentage who falls into this category is low: "among those who accessed after PDQ, [only] 2% were disability discharged."[2]

The rate of early discharge specific to an EPTS condition is also low, "6% were EPTS discharged within the first year of service."[2] Interestingly, "most early discharge among PDQ applicants were due to non-EPTS, non-disability medical/behavioral attrition (92%)."[2] These results suggest that a deeper understanding of the relationship between accession screening and early attrition due to EPTS and non-EPTS conditions – specific to mental/behavioral health, the subject of this study – could be beneficial.

The AMSARA assesses the impact of qualification determinations and wavier status on separation within the first year of service, or "early discharge." It is important to note that no information is available regarding the outcomes for disqualified candidates who did not receive a medical waiver for comparison purposes. Table 6 provides accession data for fully qualified and PDQ applicants who entered service via a waiver for FYs 2012 through 2016. Early discharge rates for fully qualified applicants averaged 11.6%, while the rate for PDQ applicants over the same period was 14.5%.[2]

Table 6. Rates of Accession and Early Discharge among Permanently Disqualified and Fully Qualified Applicants for the Enlisted Active Component across All Services, FY 2012-2017[2]

Application FY	Permanent Disqualification						Fully Qualified					
	PDQ Applicants		Accessions		Early Discharge		FQ Applicants		Accessions		Early Discharge	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2012	29,330	14.9	15,086	51.4	2,275	15.1	159,027	80.8	131,763	82.9	14,728	11.2
2013	33,338	16.5	17,703	53.1	2,578	14.6	160,636	79.3	133,901	83.4	14,986	11.2
2014	28,834	16.4	15,269	53.0	2,320	15.2	139,382	79.4	114,741	82.3	13,155	11.5
2015	30,674	16.0	16,245	53.0	2,397	14.8	153,307	79.7	127,095	82.9	15,392	12.1
2016	31,229	15.9	16,153	51.7	2,064	12.8	156,250	79.4	125,143	80.1	14,918	11.9
2017	30,278	15.1	8,664	28.6	-	-	160,570	80.3	81,767	50.9	-	-
Total	183,683	15.8	89,120	48.5	11,634	14.5	929,172	79.8	714,410	76.9	73,179	11.6

Early discharge percentages for applicants with psychiatric disqualifications closely follow those of fully qualified applicants. Among the Services, the most common psychiatric medical waivers are for current or history of ADHD; history of anxiety disorder; and a history of mood disorder. Table 7 shows the number of active duty Service members who entered service on a psychiatric waiver and had an early discharge due to mental or behavioral health conditions.

Table 7. Waiver Applications, Accession, and Early Discharges for Enlisted Active Duty Applicants with Psychiatric Disqualifications, FY 2012-2016[2]

Psychiatric DQ Category	Number of DQs		Applied for Waiver		Approved for Waiver		Accessions		Early Discharge	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
ADHD	7,092	0.7	5,349	75	3,579	67	3,215	90	385	12
Anxiety Disorder	5,324	0.6	2,972	56	1,155	39	915	79	120	13
Mood Disorder	1,731	0.2	999	58	359	36	302	84	30	10

Attrition rates for waived physical versus psychological conditions provide interesting context. A 2013 survival analysis contrasted attrition rates among fully qualified recruits and those entered on a waiver across specific physical and behavioral health conditions.[95] No significant difference emerged for recruits who entered on a waiver for ADHD. However, researchers found small significant increases in attrition among recruits who entered on medical waivers for specific physical issues, including knee injuries, hearing deficiencies and spinal curvatures.

Deployability

Section 4.3.1 of DoD's Policy Guidance for Deployment-Limiting Psychiatric Conditions and Medications highlights the importance of mental health considerations in the deployment cycle[96]:

> *Medical readiness follows a military lifecycle process that includes sustainment, pre-deployment, deployment, and post-deployment periods. Psychological readiness must be assessed at each phase of that lifecycle with determinations made regarding limitations or restrictions for military occupational requirements or deployment locations.*

Do pre-existing conditions at accession, most clearly defined by existence of a waiver, affect the ability to deploy? Gubata et al. found that accession on a medical waiver did not predict duration of deployments or early return from deployment among Service members who entered on a waiver (18,093) and medically qualified controls (250,209) between September 2001 and March 2011. The researchers hypothesize that rigorous screening at accession and before deployment may separate those at risk of poor outcomes in the military or on deployment from those likely to succeed.[95]

Interestingly, an evaluation of the impact of mental health diagnoses made during the first 6 months (180 days) of service on readiness found different results. In this retrospective cohort study of 576,502 Service members who entered service between 2003 and 2006, those with any mental health diagnosis during the entry-level period were at increased risk of early attrition and were 77% less likely to deploy.[1]

Experts caution that the "failure to deploy" designation is a complex issue. In the case of ADHD, for example, this designation may reflect a tendency to assign recruits with ADHD to military operational specialties that are less likely to deploy in general. Additionally, not all groups that do not deploy are subjects of evaluation in this regard; understanding this differential evaluation strategy may be helpful in determining the significance of the "failure to deploy" designation.[54]

The Importance of Data Quality and Methodological Rigor

It is important to note that methodological rigor and data quality will significantly impact the validity and reliability of analytic results. The AMSARA notes:

> *[V]arious databases must be improved. For example, waiver data do not provide sufficient clinical detail such as severity, duration and prognosis to allow analyses of waiver decision criteria. Similarly, discharge data do not provide medical diagnoses for adverse attrition related to medical reasons and ISC codes are unreliable. [In addition], [i]ncluding more recent [EPTS] records would further enhance our evaluation of medical accession standards.*

Additionally, a RAND study of military resilience programs found a wide range of outcome measures of program effectiveness and concluded that in order to identify the most effective interventions, "it would be helpful to develop standardized resilience measures that could be applied to a variety of populations in different contexts and allow for comparison among programs."[89] The report concluded that "[f]urther methodological development of resilience scales for the military is warranted."[89]

Assess Person-Organization Fit in Real-Time through Existing Channels

As described in Chapter 3: Post-Accession – Entry-Level Status, Early Separation, and Attrition, a recruit is classified as having "entry-level" status for the first 180 days after accession. A series of DoD documents have made note of an additional way to use the 180-day post-accession period: as a planned opportunity for increased mental health screening beyond that which already takes place at MEPS.[10] The 2013 report, Security from Within: Independent Review of the Navy Yard Shooting, makes an overt link to accession testing, stating that[43]:

> *The authors recommend that DoD harness the entry level period, or the first 180 days of service, to actively identify and separate recruits for mental health and conduct problems. Behavioral*

health providers with "expertise in administrative behavioral health, the demands of contingency operations, and recruit management and evaluation procedures" embedded within training commands would assist leaders in this respect. The potential for separating recruits who would have become effective Service members is acknowledged; further research is recommended to identify markers of long-term effectiveness that could be assessed during the training period.

There is also potential benefit in designating the 180-day period as a bi-directional opportunity for both the DoD and recruit to assess suitability and fit. This observation reflects anecdotal reports by Subject Matter Experts (SMEs) that Commanders and recruits must sometimes leverage the behavioral health system to achieve separation subsequent to poor fit. Formal evaluation of the reported phenomenon, i.e., presentation of symptoms by or provision of a behavioral health diagnosis to entry-level recruits as a means to separation, could inform decisions about easing the burden of separation for both DoD and the entry-level Service member. A thorough cost-benefit analysis, including evaluation of the costs incurred for military recruitment and training, would be essential. While this approach has implications for benefit determinations, an examination of these effects is outside the scope of the current report.

Align Incentives with Desired Readiness Outcomes

Current incentives impact the nature of the information that MEPS personnel receive during accession screening. Applicants have an incentive to appear qualified so are less likely to disclose information that would impact the likelihood of being accepted into the military. This tendency toward non-disclosure may be encouraged by recruiters, who operate within a system that incentivizes applicant quantity over applicant fit and retention considerations. According to a 2006 GAO report, "recruiters' performance evaluation and reward systems are generally based on the number of contracts they write for applicants to enter the military."[97] Only the Marine Corps considers completion of BMT by recruits as a component of recruiter evaluations. Recruiting goals may be even more challenging today, given that "less than 30% of American youth are qualified to join the military and less than 1% are even interested."[98]

Identify and Evaluate the Impact of DoD Beliefs on Readiness Outcomes

It is crucial to acknowledge that DoD's mission is distinct from that of most organizations. Military institutional culture and requirements aim to enable deterrence and wartime success. Consequently, the "person-ready institution" approach of supporting at-risk recruits may not be possible or advisable in some cases. This caveat should not prevent DoD from separating potentially change-limiting beliefs from mission-relevant objections to this approach, however. The former might be similar to those voiced in response to changes in higher education, in other words, fears of lowered standards and a 'pull yourself up by the bootstraps' perspective. These beliefs may be countered in part by recent research, which "highlight[s] the potential importance of institution-specific characteristics, implying that personal characteristics may interact with institutional policy, peer groups, duties, or other aspects of military life and induce different rates of attrition in different services."[31]

The tension between mental health issues and a viable military career suggests another potential belief that may benefit from examination. Service members first confront this tension at accession, when officials ask them to report current or historical mental health concerns or treatment – at the risk of disqualification. This tension does not abate once accepted, as Service members "have a responsibility to maintain their health and fitness, meet individual medical readiness requirements, and report medical (including mental health) issues that may affect their readiness to deploy or fitness to continue serving."[3] These findings help to paint a fuller picture of the dilemma that Service members face when experiencing mental health symptoms; career repercussions are cited as the most powerful reason they choose not to get help. Further, these "real career implications of seeking mental health care within the military…[reflect] policies impacting career-progression and help-seeking behavior [that] have been put into place for reasons such as safety."[99]

This tension creates a readiness dilemma for the DoD above and beyond that posed by behavioral health conditions: given potential career repercussions, which reflect real mission-related safety considerations, Service members are incentivized to keep their mental health needs out of sight. To change this calculus, the DoD must do more to determine which mental health conditions are most likely to threaten readiness and what conditions may be mitigated by other factors including individual protective factors and resilience.

Stigma is another significant operative factor in the decision to seek treatment. Service members cite "public stigma, internalized self-stigma, concerns regarding peer and leader perceptions of work-related abilities, preference for self-reliance, [and] negative attitudes toward behavioral health treatment" as factors in decisions about seeking treatment.[99] Stigma must be separated from genuine safety considerations, and those safety considerations more clearly understood, to promote help-seeking behavior.

Conclusions

This report provided an overview of the accession process into the military, presenting the challenges and complexities of currently available mental health screening tools. However, through scientific research and SME consultation, the DHB identified strategies that can support DoD's mission to identify recruits most fit for military service and support Service members' mental health throughout their military career. In particular, the DHB recommends the DoD implement these efforts within the context of a fundamental shift in how recruit mental health fitness is conceptualized, pursued, and evaluated. Intentionally constructing environments that draw on individual, groups, and system-wide factors will promote mental health and a successful military career. The following section outlines the DHB's key findings and proposes specific recommendations to the DoD.

Findings and Recommendations

Finding 1: Mental health accession screening takes a "deficit-minded" approach: a recruit with a specific mental health history, condition, or diagnosis fails to meet the qualification standards that define the acceptable recruit.

Evidence suggests that the relationship between mental health conditions and military success is more complicated than this approach can accommodate.

The impact of this discrepancy is less noticeable in a robust recruiting environment. Today, however, only one in three 18-year-olds can meet the enlistment standards and fewer than one in five wants to serve.

> **Recommendation 1:** Work to redefine the current paradigm of mental health readiness, using examples from other organizations, to incorporate both individual and organizational correlates of success. Consider DoD's socio-ecological model of resilience as a starting point and develop an organizational version of Total Force Fitness to identify and track organizational variables.

Finding 2: Challenges and complexities inherent in accession screening make it difficult to identify with confidence those recruits who do not meet the standards.

There is a "wide zone of clinical uncertainty" within the recruit population. Some recruits may have a history of mental or behavioral health conditions, trauma, and/or ACEs and do well while others do poorly.

Some of these recruits enter the military on a behavioral health medical waiver and do well, while others do not. Waiver studies are not systematically conducted on all disqualifying diagnoses, but a small number of studies show that the majority of Service members who are admitted on a waiver are successful in the military.

> **Recommendation 2:** Develop a mental health research strategy that includes a set of Enterprise-wide, measurable readiness outcomes that are tracked as a function of individual and organizational mediators across a Service member's career, beginning at accession. The Department should include evaluating the reliability and validity of current disqualification criteria to determine the relationship between specific diagnoses and career outcomes and conduct waiver studies on all disqualifying diagnoses. Recommendations 5, 6.1, and 6.2 discuss additional variables for inclusion in a comprehensive research strategy.

Finding 3: Challenges and complexities beset current screening methods. Screening tools used at accession are thought to be clinically useful but are not scientifically validated. Co-located mental health expertise at Military Entrance Processing Stations (MEPS) has been shown to improve detection of applicant mental or behavioral health issues during screening.

Behavioral health providers who have military experience provide particularly effective consultation. Contextual and environmental factors affect applicant and recruit disclosure. The time at which a screening tool or test is administered during the accession process appears to be an important factor affecting predictive validity.

There is interest in finding ways to access more objective applicant data. A pilot is underway to access applicant prescription data through the Milliman company. In addition, the Military Health System (MHS) GENESIS Electronic Health Record (EHR) will integrate with MEPS in 2023, allowing fuller access to records of applicants who are also Department of Defense (DoD) beneficiaries. Data sharing efforts not currently applied to recruitment may provide additional sources of objective information about applicant health. Specifically, expansion between DoD, Veterans Affairs (VA), and private sector health facilities will provide an avenue for securing health information of non-DoD affiliated applicants more easily once applicants consent.

Recommendation 3.1: Supplement static prediction with existing opportunities for real-time observation. Utilize the first 180 days of a Service member's career for enhanced screening for pre-existing mental health disorders and common disqualifying conditions. Include embedded mental health providers in training units for closer observation during the training period.

Recommendation 3.2: Further scientific validation of screening tools, including the Omaha-5, should be done to determine the extent to which they are predictive of future mental health diagnoses and related career outcomes.

Recommendation 3.3: Create opportunities for on-site psychiatric and/or mental health staff at MEPS who can conduct applicant mental health assessments where possible, or innovative solutions to better integrate mental health providers who provide assessments in complex situations, such as a centralized mental health team accessible via telemedicine that are available to all MEPS locations.

Recommendation 3.4: Replicate the Air Force's BEST Program across the Services. DoD should conduct a second round of mental health screening during the first 72 hours of Basic Military Training (BMT) across all Services.

Recommendation 3.5: Before instituting opportunities to obtain objective information on an Enterprise scale, further evaluate the risks and benefits of allowing access to an applicant's pediatric health record data, specifically related to behavioral health conditions.

Finding 4: Current quota-based recruiting incentives impact the mental health accession process.

> **Recommendation 4:** Revise recruiting metrics and incentives to encourage retention. A pilot program of revised evaluation metrics would inform the effectiveness of this revision. For example, evaluate performance based on number of recruits retained through a period instead of the number of recruits successfully entering the U.S. Military Services. Consider innovative recruiting strategies to boost likelihood of obtaining healthy applicants.

Finding 5: No formal feedback loops currently exist between recruiters, MEPS personnel, and the Services to communicate outcomes of the recruiting, accession, and waiver processes.

> **Recommendation 5:** A feedback loop of outcome data would better inform recruiters, MEPS personnel, and waiver authorities on their methods and processes. These data should include early attrition, mental health diagnoses during the entry-level period, and deployability. Data should be obtained as part of the research strategy recommended above.

Finding 6: 17% of enlisted Active duty Service members attrit within the first three years, with approximately 64% attriting by the end of the first year and 52% within the first 70 days of service. Comprehensive data on the reasons why Service members separate from service during the entry-level period are currently unavailable.

Adjustment Disorder is the most frequent behavioral health diagnosis given to active duty Service members. However, the context(s) in which this diagnosis is given is not well understood.

> **Recommendation 6.1:** Study the reasons why people separate from service during the entry-level period and use these findings to inform enhanced mental health screening and evaluation of personal characteristics that may contribute to attrition in this period. Data should be obtained as part of the research strategy recommended above.

> **Recommendation 6.2:** Study the context in which the Adjustment Disorder diagnosis is made. If poor fit drives a significant portion of Adjustment Disorder diagnoses, consider whether it is more cost-effective and beneficial to ease the burden of separation for recruits with this diagnosis. Data should be obtained as part of the research strategy recommended above. Easing the burden of separation for DoD could entail extending the period in which entry-level separation can occur. Reducing the burden for recruits could also include instituting an “off-ramp” mechanism allowing them to leave during a certain period of time.

Finding 7: The scientific literature overwhelmingly demonstrates that lethal means restriction is the most effective method to prevent suicide in both civilian and military populations. The Israeli Defense Force's (IDF) Suicide Prevention Program provides evidence of the effectiveness of firearm restrictions in the prevention of suicide by military personnel. The majority of Service member suicides are carried out using a personally-owned firearm. Very little data are available on risk factors related to personal firearm ownership or safety practices.

Commanders are able to restrict personal firearms to a certain extent by requesting a Service member surrender their personal firearm or restricting them from leaving post during a mental health crisis and can initiate a command-directed behavioral health evaluation to assess the Service member's current risk level.

Recommendation 7.1: Address access to firearms as a manageable health risk factor equivalent to tobacco, automobile use, and alcohol use.

Recommendation 7.2: Add firearm ownership and safety questions to the annual Periodic Health Assessment.

Recommendation 7.3: Consider registration of personal firearms of military personnel to provide additional information about possible lethal means restriction.

Recommendation 7.4: Maximize the ability and training of Commanders to intervene to separate lethal means from suicidal Service members.

Recommendation 7.5: Implement a consistent approach across the DoD to train and support Commanders' ability to restrict personal firearms when there is concern that a Service member is a threat to themselves or others.

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Appendix B: Terms of Reference

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND READINESS

JUL 29 2019

MEMORANDUM FOR PRESIDENT, DEFENSE HEALTH BOARD

SUBJECT: Request for Defense Health Board Review, Examination of Mental Health Accession Screening: Predictive Value of Current Measures and Processes

Pursuant to the attached Terms of Reference (TOR) on Examination of Mental Health Accession Screening: Predictive Value of Current Measures and Processes, I direct that the Defense Health Board ("the Board") provide recommendations to the DoD in order to improve mental health accession measures/processes. Specifically, the Board should address and develop findings and recommendations on the policies and practices in place to:

- Determine factors, to include historical or current diagnoses or symptoms, that predispose or protect a person to/from poor outcomes under stress of military service;
- Evaluate the predictive validity and effectiveness of psychiatric/psychological assessments and applicability to accession screening;
- Identify stressors and risks inherent in military service that can both positively and negatively influence Service member mental health morbidity; and
- Optimize ways to support recruits' mental fitness.

The TOR for this review provides a detailed description and scope of the tasking. The point of contact for this action is CAPT Gregory Gorman. He may be reached at (703) 275-6060, or gregory.h.gorman.mil@mail.mil. Thank you for your support and commitment to optimizing the health and force-readiness of the military.

James Stewart
Assistant Secretary of Defense for Manpower and Reserve Affairs, Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Attachment:
As stated

Defense Health Board
Examination of Mental Health Accession Screening:
Predictive Value of Current Measures and Processes
TERMS OF REFERENCE

These terms of reference (TOR) establish the objectives for the Defense Health Board ("the Board") independent review, through the Neurological/Behavioral Health Subcommittee, of the personnel policies and practices related to existed prior to service (EPTS) discharges and to separations due to mental health morbidity among Active Duty Service members in the first 6 months of service.

Mission Statement: The mission of the Board is to provide independent advice and recommendations to maximize the safety and quality of, as well as access to, health care for members of the Armed Forces and other Department of Defense (DoD) health care beneficiaries.

Issue Statement: Military accession standards are established to optimize the ability of recruits to serve successfully as outlined in Department of Defense Instruction (DoDI) 6130.03, "Medical Standards for Appointment, Enlistment, or Induction in the Military Services."[3] Accession mental health screening has been a recurring topic of interest among DoD leadership and Congress. A significant number of individuals are separated from service in the first 180 days after accession due to pre-existing disqualifying conditions which were either non-disclosed or not detected through current screening practices. Additionally, increased illness later in service may be tied to pre-accession risk factors.

Most recently, section 593 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), required the Secretary of Defense to:

> Submit to the Committees on Armed Services of the Senate and the House of Representatives a report on the feasibility of conducting, before the accession or enlistment of an individual into the Armed Forces, a mental health screening to bring mental health screenings to parity with physical screenings of prospective members.[2, p.3]

The resulting report, *Report on Preliminary Mental Health Screenings for Individuals Becoming Members of the Armed Forces*, recommended that post-traumatic stress disorder (PTSD) screening questions be updated to align with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, but did not recommend any substantive changes to existing screening protocol. It noted that accession screening includes both mental and physical conditions, current and historical, in compliance with DoDI 6130.03. The burden of adding new measures of psychological or neuropsychological function to the existing assessment was predicted to outweigh the benefit. However, the topic of mental health accession screening continues to be of interest and significance given increasing rates of post-traumatic stress and suicide in the Armed Forces despite increasing investments in behavioral health. Of note, research suggests a 71 percent higher suicide rate in the military population compared to the civilian population.[4] The inherent challenges and risks of military life can strain the resources of the healthiest Service member and present a significant source of occupational morbidity for others. Occupational morbidity can become apparent relatively early in one's career. Limited research indicates that

the three-year cumulative incidence (2003 – 2006) of mental health diagnoses increased progressively during the first six months of service (2.6 percent at 4 weeks, 4.0 percent at 8 weeks, and 7.7 percent by six months) and that Service members with any mental diagnosis during this period of initial eligibility were 77 percent less likely to deploy or complete 48 months of service and had a 69 percent increase in the baseline attrition rate.[5,6] These findings are consistent with prior military research showing that mental health conditions are significantly associated with disability, medical discharge, and health care utilization. More significantly, first term enlisted males have been found to have the highest suicide rate.[2]

Accession standards are designed to select recruits who are most likely to meet military requirements and obligations. However, accession standards also serve potential recruits by screening out those for whom the challenges of military life are more likely to lead to poor outcomes. Risk factors inform these decisions to some extent. For example, certain factors may predispose a person to PTSD, including but not limited to a history of childhood abuse, existing mental health difficulties, problems with substance use, and the type and frequency of the trauma.[7] Risk factors for suicide have also been identified; these include but are not limited to family history of maltreatment, clinical depression, substance use, personal loss, and access to lethal means.[8]

Making accession decisions on the basis of psychiatric/mental health screening may be more complex than it is for physical disorders. In the absence of a formal diagnosis, determination may be based on self-reporting as opposed to discrete physical and laboratory findings. Even when a potential recruit presents with a diagnosis, it can be difficult to predict the nature or degree of impact on his/her ability to meet military requirements or the likelihood that he/she could experience a poor outcome. An assessment of protective factors/resilience can add additional and important information. Finally, the fact that the structure of military life can improve the functioning of some recruits with risk factors for poor outcomes complicates the decision making process with respect to accession.

Objectives and Scope: Given the complexity of mental health screening and its role in the accession process and potentially to future Service member health and well-being, the Defense Health Board's Neurological/Behavioral Health Subcommittee should evaluate existing accession measures/processes within the context of current research on risk and protective factors, including the predictive value of these factors, to make recommendations for improvement. Specifically, the Defense Health Board's Neurological/Behavioral Subcommittee should:

- Review the most current research findings regarding factors that predispose or protect a person to/from poor outcomes under stress, such as PTSD and suicide, including the most current DoD Clinical Guidelines regarding suicide prevention.
- Review the most current research findings on the ability to predict future functioning based on historical or current diagnoses or symptoms and on factors that may promote resilience. Include work done by the Defense Science Board and both the Navy and the independent investigation of the Washington Navy Yard shooting.

- Review findings on predictive validity of psychiatric/psychological screenings within the context of data on predictive validity of physical screenings.
- Review existing mental health and neuropsychological assessments and evaluation strategies to assess effectiveness and applicability to use in the pre-accession period.
- Describe how the stressors, risks, and structure inherent in military service can both positively and negatively influence Service member mental health morbidity.
- Consider alternative ways to assess future mental fitness among recruits (e.g. an increased post-accession period subject to EPTS discharges during which fitness can be assessed) and alternative means of supporting recruits (e.g., Israeli Defense Force's Suicide Prevention Program).[9]

Methodology:

1. The Neurological/Behavioral Health Subcommittee assessment will be conducted in compliance with the Federal Advisory Committee Act, DoDI 5105.04, and the Board's Charter.
2. The Neurological/Behavioral Health Subcommittee should focus on improving the policies and practices currently in place to determine poor outcomes, including suicidal behavior, during a Service member's 180-day EPTS period.
3. The Neurological/Behavioral Health Subcommittee may conduct interviews and site visits as appropriate.
4. The Neurological/Behavioral Health Subcommittee may seek input from other sources with pertinent knowledge or experience.
5. In accordance with Deputy Secretary of Defense memorandum, "Advisory Committee Management," dated November 26, 2018, and DoDI 5105.04, the Neurological/Behavioral Health Subcommittee shall receive full and timely cooperation of each office of the Secretary of Defense and DoD Component Head in providing analyses, briefings, and other DoD information or data necessary for the fulfillment of its responsibilities as provided for by this TOR.

Deliverables:

The Neurological/Behavioral Health Subcommittee will complete its work within 1 year of receiving the tasking and report to the Board in a public forum for a full and thorough deliberation. The Board will, in accordance with its Charter, report to the Assistant Secretary of Defense for Health Affairs, who has been delegated the authority to evaluate the independent advice and recommendations received from the Board and, in consultation with the Under Secretary of Defense for Personnel and Readiness, identify actions or policy adjustments to be made by DoD in response. The Neurological/Behavioral Health Subcommittee will provide progress updates at each Board meeting while working the tasking.

Required Support:

1. The Defense Health Board Support Division will provide any necessary research, analytical, administrative, and logistical support for the Neurological/Behavioral Health Subcommittee.
2. Funding for this review is included in the division's operating budget.

References:

1. Cardona, Robert Andrew, and Elspeth Cameron Ritchie. "U.S. Military Enlisted Accession Mental Health Screening: History and Current Practice." *Military Medicine* 172, no. 1 (2007): 31-35. doi:10.7205/milmed.172.1.31.
2. Report to House Committee on the Armed Services, 2017: Report on Preliminary Mental Health Screenings for Individuals Becoming Members of the Armed Forces. Records of the United States House of Representatives, National Archives, Washington, DC.
3. DoDI 6130.03, Medical Standards for Appointment, Enlistment, or Induction in the Military Services. 2018.
4. Personal Communication, CAPT Mike Colston. Reference not yet public.
5. Niebuhr, David W., Marlene E. Gubata, Alexis A. Oetting, Natalya S. Weber, Xiaoshu Feng, and David N. Cowan. "Personality Assessment Questionnaire as a Pre-accession Screen for Risk of Mental Disorders and Early Attrition in U. S. Army Recruits." *Psychological Services* 10, no. 4 (2013): 378-85. doi:10.1037/a0032783.
6. Ireland, Robert R., Amii M. Kress, and Lucinda Z. Frost. "Association Between Mental Health Conditions Diagnosed During Initial Eligibility for Military Health Care Benefits and Subsequent Deployment, Attrition, and Death by Suicide Among Active Duty Service Members." *Military Medicine* 177, no. 10 (2012): 1149-156. doi:10.7205/milmed-d-12-00051.
7. Shalev, Arieh, Israel Liberzon, and Charles Marmar. "Post-Traumatic Stress Disorder." *New England Journal of Medicine* 376, no. 25 (2017): 2459-2469. doi:10.1056/NEJMra1612499
8. Steele, Ian H., Natasha Thrower, Paul Noroian, and Fabian M. Saleh. "Understanding Suicide Across the Lifespan: A United States Perspective of Suicide Risk Factors, Assessment & Management." *Journal of Forensic Sciences* 63, no. 1 (2017): 162-71. doi:10.1111/1556-4029.13519.
9. Shelef, Leah, Lucian Laur, Gil Raviv, and Eyal Fruchter. "A Military Suicide Prevention Program in the Israeli Defense Force: A Review of an Important Military Medical Procedure." *Disaster and Military Medicine* 1, no. 1 (2015). doi:10.1186/s40696-015-0007-y.

Appendix C: Crosswalk TOR Objectives and Recommendations

TOR Objectives	Report Recommendations
• Review the most current research findings regarding factors that predispose or protect a person to/from poor outcomes under stress, such as PTSD and suicide, including the most current DoD Clinical Guidelines regarding suicide prevention.	1, 5, 7.1, 7.2, 7.3, 7.4
• Review the most current research findings on the ability to predict future functioning based on historical or current diagnoses or symptoms and on factors that may promote resilience. Include work done by the Defense Science Board and both the Navy and the independent investigation of the Washington Navy Yard shooting.	6.1
• Review findings on predictive validity of psychiatric/psychological screenings within the context of data on predictive validity of physical screenings.	3.2
• Review existing mental health and neuropsychological assessments and evaluation strategies to assess effectiveness and applicability to use in the pre-accession period.	2, 3.3, 3.4, 4
• Describe how the stressors, risks, and structure inherent in military service can both positively and negatively influence Service member mental health morbidity.	6.2
• Consider alternative ways to assess future mental fitness among recruits (e.g. an increased post-accession period subject to EPTS discharges during which fitness can be assessed) and alternative means of supporting recruits (e.g., Israeli Defense Force's Suicide Prevention Program).	3.1, 3.5, 7.5

Appendix D: Methods

Directed by the TOR, the DHB Support Division team performed a comprehensive search and review of mental health screenings during the accession process. First, the search focused on policy that guides standardized practice during accession. The DHB Support Division team reviewed scientific systematic reviews of military and civilian research on mental health screening tools. The team identified the initial pool of subject experts from published work relevant to the TOR's tasking and objectives. These experts from psychiatry, psychology, and public health (from academia, private industry, government, and the military) briefed to the Subcommittee on the mental health screening, resilience and suicide prevention programs within the Services, and Artificial Intelligence applications for mental health screening and military recruitment strategies. During these briefings, the Subcommittee members engaged with the experts asking clarifying questions to understand better how the military identifies mental health conditions and programs that support mental health resilience while revisiting the objectives of the TOR's tasking. Subcommittee members also learned about the challenges surrounding current screening methods and limitations to mental health screening. Through multiple meetings and iterative review of scientific literature, subject matter expert briefings, and key discussions, the Subcommittee members discussed the current accession process, the key indicators that affect readiness in the military, the best ways to support Service members throughout their careers, and areas for future research concerning mental health. From these Subcommittee discussions, the DHB Support Division team used data condensation methods (e.g., categorizing, theming, indexing) to provide background for the Subcommittee to draft its findings and recommendations. The Subcommittee Chair briefed the findings and recommendations to the DHB in an open forum, with discussion by DHB members and opportunity for input by the public.

Appendix E: DoD Policy Regarding Mental Health Accesion Screening

DoD Policy	Description
DoDI 6130.03	Title: "Medical Standards for Appointment, Enlistment, or Induction into the Military Services" DoDI 6130.03 provides a common set of medical standards to ensure applicants to the armed forces are: 1. Free of contagious diseases that may endanger the health of other personnel; 2. Free of medical conditions or physical defects that may reasonably be expected to require excessive time lost from duty for necessary treatment or hospitalization, or may result in separation from the Military Service for medical unfitness; 3. Medically capable of satisfactorily completing required training and initial period of contracted service; 4. Medically adaptable to the military environment without geographical area limitations; 5. Medically capable of performing duties without aggravating existing physical defects or medical conditions.
DoDI 6130.03	Sec 5.28 – LEARNING, PSYCHIATRIC, AND BEHAVIORAL DISORDERS a. Attention Deficit Hyperactivity Disorder, if with: (1) A recommended or prescribed Individualized Education Program, 504 Plan, or work accommodations after the 14th birthday; (2) A history of comorbid mental disorders; (3) Prescribed medication in the previous 24 months; or (4) Documentation of adverse academic, occupational, or work performance. b. History of learning disorders after the 14th birthday, including but not limited to dyslexia if any of the following apply: (1) With a recommended or prescribed Individualized Education Program, 504 Plan, or work accommodations after the 14th birthday; (2) With a history of comorbid mental disorders; or (3) With documentation of adverse academic, occupational, or work performance. c. Autism spectrum disorders. d. History of disorders with psychotic features such as schizophrenic disorders, delusional disorders, or other unspecified psychoses or mood disorders with psychotic features. e. History of bipolar and related disorders (formerly identified as mood disorders not otherwise specified) including but not limited to cyclothymic disorders and affective psychoses. f. Depressive disorder if: (1) Outpatient care including counseling required for longer than 12 cumulative months; (2) Symptoms or treatment within the last 36 months; (3) The applicant required any inpatient treatment in a hospital or residential facility; (4) Any recurrence; or (5) Any suicidality (in accordance with Paragraph 5.28.m.). g. History of a single adjustment disorder if treated or symptomatic within the previous six months, or any history of chronic (lasting longer than six months) or recurrent episodes of adjustment disorders. h. History of disruptive, impulse control and conduct disorder to include but not limited to oppositional defiant and other behavior disorders.

	i. Any personality disorder including unspecified personality disorder or maladaptive personality traits demon strated by: (1) Repeated inability to maintain reasonable adjustment in school, with employers or fellow workers, other social groups, or psychological testing revealing that the degree of immaturity, instability, of personality inadequacy, impulsiveness, or dependency may reasonably be expected to interfere with their adjustment to the Military Services; (2) Recurrent encounters with law enforcement agencies (excluding minor traffic violations) or antisocial behaviors are tangible evidence of impaired capacity to adapt to military service; or (3) Any behavioral health issues that have led to incarceration for any period. j. Encopresis after 13th birthday. k. History of any feeding or eating disorder. l. Any current communication disorder that significantly interferes with producing speech or repeating commands. m. Suicidality, including suicidal ideation with a plan, suicidal gesture(s), or attempt(s). n. History of self-mutilation. o. History of obsessive-compulsive disorder. p. History of post-traumatic stress disorder. q. History of anxiety disorders if: (1) Outpatient care, including counseling, was required for longer than 12 cumulative months. (2) Symptomatic or treatment within the last 36 months. (3) The applicant required any inpatient treatment in a hospital or residential facility. (4) Any recurrence. (5) Any suicidality (in accordance with Paragraph 5.28.m.). r. History of dissociative disorders. s. History of somatic symptoms and related disorders. t. History of paraphilic disorders. u. Any history of substance-related and addictive disorders (except using caffeine or tobacco). v. History of other mental disorders that may reasonably be expected to interfere with or prevent satisfactory performance of military duty. w. Prior psychiatric hospitalization for any cause.

Appendix F: Types of Discharges from the U.S. Military

Administrative Discharges[19]

Honorable (HD)	"The honorable characterization is appropriate when the quality of the enlisted Service member's service generally has met the standards of acceptable conduct and performance of duty for military personnel, or is otherwise so meritorious that any other characterization would be clearly inappropriate."[19]
General (GD)	"If an enlisted Service member's service has been honest and faithful, it is appropriate to characterize that service as general (under honorable conditions). Characterization of service as general (under honorable conditions) is warranted when the positive aspects of the enlisted Service member's conduct or performance of duty outweigh negative aspects of the enlisted Service member's conduct or performance of duty as documented in their service record."[19]
Under Other Than Honorable Conditions (OTH)	"a. When the reason for separation is based on a pattern of behavior that constitutes a significant departure from the conduct expected of enlisted Service members of the Military Services. b. When the reason for separation is based on one or more acts or omissions that constitute a significant departure from the conduct expected of enlisted Service members of the Military Services"[19]

Punitive Discharges[100]

Bad Conduct Discharge	A Bad Conduct Discharge comes as the result of a court-martial and bars the Service member from receiving most military benefits. It may come with a prison sentence depending on the specific conduct of the convicted individual. This type of discharge is a barrier to future military service.
Dishonorable Discharge	This is the most severe of all punitive discharges that a court-martial can impose. A Dishonorable Discharge bars the Service member from receiving all military benefits and future military service. A Dishonorable Discharge is given for the most severe crimes such as desertion, murder, fraud, and other crimes performed in uniform.

Other

Entry-Level	"A separation will be described as an entry-level separation if separation processing is initiated while an enlisted Service member is in entry-level status."[19] Depending on the branch of Service, this action is referred to as either "Entry-Level Discharge" or "Entry-Level Separation." An Entry-Level Separation is not characterized as a "good" or "bad" discharge, the recruit is not considered a veteran, and those receiving Entry Level Separations are not eligible for benefits. The Secretary concerned may characterize the discharge of an entry-level Service member as Honorable or Other Than Honorable on a case-by-case basis.

Appendix G: MEPS Mental Health Screening Forms and Tools

ACCESSIONS MEDICAL PRESCREEN REPORT

OMB No. 0704-0413
OMB approval expires Oct 31, 2017

The public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Washington Headquarters Services, Executive Services Directorate, Directives Division, 4800 Mark Center Drive, Alexandria, VA 22350-3100 (0704-0413). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

PRIVACY ACT STATEMENT

AUTHORITY: 10 U.S.C. 504, 505, 507, 532, 978, 1201, 1202, and 4346; and E.O. 9397 (SSN).
PRINCIPAL PURPOSE(S): To obtain medical data for determination of medical fitness for enlistment, induction, appointment and retention for applicants and members of the Armed Forces. The information will also be used for medical boards and separation of Service members from the Armed Forces.
ROUTINE USE(S): DoD Blanket Routine Uses found at http://dpcld.defense.gov/Privacy/SORNsIndex/BlanketRoutineUses.aspx apply to the use of this data.
DISCLOSURE: Voluntary, however, failure by an applicant to provide the information may result in delay or possible rejection of the individual's application to enter the Armed Forces. For an Armed Forces member, failure to provide the information may result in the individual being placed in a non-deployable status.

WARNING: The information you have given constitutes an official statement. Federal law provides severe penalties (up to 5 years confinement or $10,000 fine, or both), to anyone making a false statement. If you are selected for enlistment, commission or entrance into a commissioning program based on a false statement, you may be subject to prosecution under the Uniform Code of Military Justice or to administrative separation proceedings for discharge, and could receive a less than honorable discharge."

SECTION I - APPLICANT

1. LAST NAME - FIRST NAME - MIDDLE INITIAL (SUFFIX)	2. AGE	3. DATE OF BIRTH *(YYYYMMDD)*	4. SOCIAL SECURITY NUMBER

5. HEIGHT *(inches)*	6. WEIGHT *(lbs.)*	7. MAX WEIGHT *(lbs.)*	8. SERVICE AND COMPONENT *(X as applicable)*			9. DATE *(YYYYMMDD)*
			☐ Army	☐ USMC	☐ Regular	
			☐ Navy	☐ USCG	☐ Reserve Component	
			☐ USAF	☐ Other: _____	☐ National Guard	

10. PURPOSE OF EXAMINATION *(X as applicable)*		11. POSITION *(If a current Federal Employee)* *(Job Title, Grade, Component)*	12. USUAL OCCUPATION
☐ Enlistment	☐ U.S. Service Academy		
☐ Commission	☐ ROTC Scholarship		
☐ Retention	☐ Other *(Specify)* _____		

SECTION II - MEDICAL HISTORY. Initial each item "Yes" or "No". All "Yes" items must be fully explained in Section III (Pages 4 and 5).

CURRENTLY HAVE OR ANY HISTORY OF:	YES	NO
EYES		
1. Double vision		
2. Detached retina or surgery to repair a detached retina		
3. Cataracts or surgery for cataracts		
4. Eye surgery to improve vision (RK, PRK, LASIK, etc.)		
5. Night blindness		
6. Glaucoma		
7. Strabismus or "lazy eye" or any surgery to correct these		
8. Any other eye condition, injury or surgery		
VISION		
9. Worn/wear contact lenses or glasses (Bring your contact lens kit and solution so you can remove contacts during vision testing, or for best results remove 72 hours prior. Bring your eyeglasses no matter how old they are.)		
10. Loss of vision in either eye		
11. Color vision deficiency or color blindness		
EARS		
12. Perforated ear drum or tubes in ear drum(s)		
13. Ear surgery, to include mastoidectomy or repair of perforated ear drum		
14. Loss of balance or vertigo		
HEARING		
15. Hearing loss or wear a hearing aid		
NOSE, SINUSES, MOUTH, AND LARYNX		
16. Ear, nose, or throat trouble including tonsillectomy		
17. Chronic sinus infections or recurrent nose bleeds		
18. Absence of, or disturbance of sense of smell		
19. Any surgery of your face, mandible or jaw		
DENTAL		
20. Do you wear dental braces or plan to wear braces? (If so, your orthodontist must submit a letter stating that active orthodontic treatment will be completed prior to active duty date: release form/ sample format can be found in the Recruiter's Medical Guide.)		
21. Tooth or gum problems (other than cavities)		

CURRENTLY HAVE OR ANY HISTORY OF:	YES	NO
LUNGS, CHEST WALL, PLEURA, AND MEDIASTINUM		
22. Asthma		
23. Wheezing		
24. Shortness of breath		
25. Bronchitis		
26. Other breathing problems worsened by exercise, weather, pollens, etc.		
27. Used inhaler(s) or steroids for breathing problem(s)		
28. Chronic cough or frequent coughing at night		
29. Collapsed lung or other lung condition		
30. History of chest, chest wall, or breast surgery		
HEART		
31. Heart murmur, valve problem or mitral valve prolapse		
32. Palpitation, pounding heart or abnormal heartbeat		
33. Heart surgery		
34. Pain or pressure in the chest		
35. An abnormal electrocardiogram (EKG)		
36. Any other heart problems		
ABDOMINAL ORGANS AND GASTROINTESTINAL SYSTEM		
37. Stomach, esophageal or intestinal ulcer		
38. Difficulty swallowing		
39. Frequent indigestion or heartburn		
40. Gall bladder trouble or gallstones		
41. Jaundice (except neonatal) or hepatitis (liver disease)		
42. Rupture/hernia		
43. Surgery to remove or repair a portion of the intestine or spleen (other than the appendix)		
44. Chronic or recurrent intestinal problem of the small or large bowel such as Irritable Bowel Syndrome, Crohn's disease, Ulcerative Colitis, or Celiac disease		
45. Rectal disease, hemorrhoids, or blood from the rectum		
46. Hemorrhoid surgery		
47. Bariatric surgery (weight loss surgery)		

LAST NAME - FIRST NAME - MIDDLE INITIAL (SUFFIX)	SOCIAL SECURITY NUMBER *(Last 4)*

SECTION II - MEDICAL HISTORY *(Continued)*. Initial each item "Yes" or "No". All "Yes" items must be fully explained in Section III.

CURRENTLY HAVE OR ANY HISTORY OF:	YES	NO
FEMALES ONLY:		
48. A change of menstrual pattern (other than pregnancy)		
49. Pregnancy, abortion or miscarriage		
50. Any abnormal PAP smear(s)		
51. Date of last PAP smear *(YYYYMMDD)*		
52. Diagnosed with endometriosis or ovarian cysts		
53. Evaluation, treatment or surgery for any other gynecological (female) disorder		
54. Sexually transmitted disease (syphilis, gonorrhea, chlamydia, genital warts, herpes, etc.)		
55. First day of last menstrual period *(YYYYMMDD)*		
MALES ONLY:		
56. Missing a testicle, testicular implant, or undescended testicle		
57. Variocele, hydrocele, or any scrotal mass, swelling or pain		
58. Prostate problems		
59. Sexually transmitted disease (syphilis, gonorrhea, chlamydia, genital warts, herpes, etc.)		
URINARY SYSTEM		
60. Missing a kidney		
61. Kidney stone, infection or disease		
62. Kidney or urinary tract surgery of any kind		
63. Blood or protein in urine		
64. Painful or difficult urination		
65. Bedwetting or treatment for bedwetting (after childhood)		
66. Hernia		
SPINE AND SACROILIAC JOINTS		
67. Recurrent back pain or back problem		
68. Herniated disk		
69. Recurrent neck pain		
70. Back or neck surgery		
71. Abnormal curvature of your spine (any part)		
UPPER EXTREMITIES		
72. Painful shoulder, elbow, wrist, hand or fingers		
73. Dislocated shoulder, elbow, wrist, hand or fingers		
LOWER EXTREMITIES		
74. Foot trouble (e.g., pain, corns, bunions, warts, ingrown toenails, etc.)		
75. Knee trouble (e.g., locking, giving out, or ligament injury, etc.)		
76. Painful hip, knee, ankle, foot or toes		
77. Dislocated hip, knee, ankle, foot or toes		
MISCELLANEOUS CONDITIONS OF THE EXTREMITIES		
78. Bone, joint, or other orthopedic deformity		
79. Loss of finger or toe, or extra finger or toe		
80. Loss of the ability to fully flex (bend) or fully extend a finger, toe, or other joint		
81. Impaired use of arms, hands, legs, or feet (any reason)		
82. Arthritis, rheumatism, or bursitis		
83. Any swollen joint(s)		
84. Surgery on any joint/bone (including arthroscopy)		
85. Plate(s), screw(s), rod(s) or pin(s) in any bone		
86. Pain or swelling at the site of an old fracture		
87. Any need to use corrective devices such as prosthetic devices, knee brace(s), back support(s), lifts or orthotics		
88. Any other orthopedic, muscle, or sports injury problems		
VASCULAR		
89. High or low blood pressure		
90. Raynaud's phenomenon or disease		
91. Deep Vein Thrombosis (blood clot; leg or elsewhere)		
92. Pulmonary embolism (blood clot in lung)		

CURRENTLY HAVE OR ANY HISTORY OF:	YES	NO
SKIN AND CELLULAR		
93. Acne or psoriasis		
94. Eczema		
95. Atopic dermatitis		
96. Large or painful scars		
97. Any other skin problems		
BLOOD AND BLOOD FORMING TISSUES		
98. Anemia		
99. Blood clots requiring blood thinner medicine		
100. Absence or removal of the spleen		
101. Prolonged bleeding (after an injury or tooth extraction)		
102. Any other blood or circulation problems		
SYSTEMIC		
103. Adverse reaction to medication (describe reaction in Section III)		
104. Adverse reaction to serum, insect stings, or tree nuts		
105. Allergy to common foods (milk, eggs, fish, meat, etc.)		
106. Allergy to wool, latex, or other material		
107. Tuberculosis or lived with someone who had tuberculosis		
108. Positive test for tuberculosis (PPD or blood test)		
109. Malaria		
110. Disorder(s) of your immune system (including HIV)		
111. Car, train, sea, or air sickness		
ENDOCRINE AND METABOLIC		
112. Thyroid trouble or goiter		
113. High or low blood sugar		
114. Diabetes or told that you should be tested for diabetes		
NEUROLOGIC		
115. Cerebrovascular incident (stroke)		
116. Frequent or severe headaches, including migraines		
117. Taking medication to prevent headaches		
118. Lost time from work or school due to frequent or severe headaches		
119. A skull fracture		
120. A head injury, memory loss, or amnesia		
121. A period of unconsciousness or concussion		
122. Loss of memory or amnesia, or neurological symptoms		
123. Paralysis		
124. Meningitis, encephalitis, or other neurological problems		
125. Seizures, convulsions, epilepsy or fits		
126. Dizziness or fainting spells		
127. Any other neurologic problems		
SLEEP DISORDERS		
128. Sleepwalking or narcolepsy		
129. Frequent trouble sleeping		
130. Sleep apnea or severe snoring		
LEARNING, PSYCHIATRIC, AND BEHAVIORAL		
131. Evaluated or treated for Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD)		
132. Taken (or taking) medication, drugs, or any substance to improve attention, behavior, or physical performance		
133. Diagnosed with a learning disorder, to include dyslexia		
134. Received counseling of any type		
135. Seen a psychiatrist, psychologist, social worker, counselor or other professional for any reason (inpatient or out-patient) including counseling or treatment for school, adjustment, family, marriage, divorce, depression, anxiety, or treatment of alcohol, drug or substance abuse (Applicant or recruiter will request sealed medical supporting documents from health care providers marked "CONFIDENTIAL: MEPS MEDICAL DEPARTMENT" and submit directly to MEPS medical personnel.)		

LAST NAME - FIRST NAME - MIDDLE INITIAL (SUFFIX)	SOCIAL SECURITY NUMBER *(Last 4)*

SECTION II - MEDICAL HISTORY *(Continued)*. Initial each item "Yes" or "No". All "Yes" items must be fully explained in Section III.

CURRENTLY HAVE OR ANY HISTORY OF:	YES	NO
LEARNING, PSYCHIATRIC, AND BEHAVIORAL *(Continued)*		
136. Been expelled or suspended from school		
137. Been kicked out or removed from your home		
138. Been arrested or other encounters with law enforcement		
139. Been evaluated or treated, either with medication or counseling, for a mental condition, depression or excessive worry		
140. Nervous trouble of any sort (anxiety or panic attacks)		
141. Anorexia, bulimia, or other eating disorder		
142. Habitual stammering or stuttering		
143. Have you ever purposely cut or harmed yourself		
144. Have you ever attempted or considered suicide		
145. Used illegal drugs or abused prescription drugs		
146. Have you been evaluated, treated, or hospitalized for substance abuse, addiction or dependence (including illegal drugs, prescription medications or other substances)		
147. Have you been evaluated, treated, or hospitalized for alcohol abuse, dependence, or addiction		
148. Post-traumatic Stress Disorder or excessive stress requiring counseling and/or medication following a traumatic experience		
149. Any other learning, psychiatric, or behavioral problems		
TUMORS AND MALIGNANCIES		
150. Tumor, growth, cyst, or cancer of any type		
MISCELLANEOUS		
151. Cold injury, frostbite or cold intolerance		
152. Heat injury, heat stroke or heat intolerance		
SUPPLEMENTAL QUESTIONS		
153. Are you taking any medications, to include over the counter medications (OTCs), vitamin, herbal, or nutritional supplements (If "yes", list all in Section III.)		

CURRENTLY HAVE OR ANY HISTORY OF:	YES	NO
SUPPLEMENTAL QUESTIONS *(Continued)*		
154. Any recent unexplained gain or loss of weight		
155. Artificial or replacement body part (eye, bone, palate, hip, knee, joint, leg, arm, etc.)		
156. Have you ever had any illness or injury other than those already noted? (If "yes", specify when, where and give details in Section III.)		
157. Have you ever been treated in an Emergency Room? (If "yes", explain in Section III.)		
158. Have you ever been a patient in any type of hospital (including being kept overnight)? (If "yes", specify when, where, why, and name of doctor and complete address of hospital in Section III.)		
159. Have you ever had, or have you been advised to have any operations or surgery? (If "yes", describe and give age at which occurred in Section III.)		
160. Have you ever been rejected for military Service for any reason? (If "yes", give date and reason in Section III.)		
161. Have you ever been discharged from the military Service for any reason? (If "yes", give date, reason, and type of discharge, whether honorable, other than honorable, for unfitness or unsuitability in Section III.)		
162. Have you ever been refused employment or been unable to hold a job or stay in school because of any of the following: (If "yes", answer a - d below and give reasons in Section III.)		
a. Sensitivity to chemicals, dust, sunlight, etc.		
b. Inability to perform certain motions		
c. Inability to stand, sit, kneel, lie down, etc.		
d. Other medical reasons		
163. Applied for and/or received disability evaluation and/or compensation for an injury or other medical conditions (If "yes", provide details in Section III.)		
164. Have you ever been denied life insurance? (If "yes", provide reason(s) in Section III.)		

SECTION III - APPLICANT COMMENTS. Explain all "Yes" answers to questions 1 - 164 above. Begin with the Item Number. Describe answer(s) fully: provide date(s) of problem(s)/condition(s); provide names of Health Care Providers (HCPs), Clinic(s) and/or Hospital(s) along with the City and State; explain what was done (e.g., evaluation and/or treatment); and describe your current medical status. Attach additional sheet(s) if necessary and sign and date each additional page. Obtain and attach copies of applicable medical evaluation and treatment records.

LAST NAME - FIRST NAME - MIDDLE INITIAL (SUFFIX)	SOCIAL SECURITY NUMBER *(Last 4)*

SECTION III - APPLICANT COMMENTS *(Continued)*.

SECTION IV - HEALTH CARE PROVIDER/INSURANCE CARRIER CONTACT INFORMATION:
Current Primary Care Physician(s)/Practitioner(s) and/or Clinic(s) where care is received and Current/Previous Insurance Carrier(s) information. Attach additional sheets if necessary.

1. CURRENT PRIMARY CARE PHYSICIAN(S)/PRACTITIONER(S) AND/OR CLINIC(S)

a. NAME(S)	b. ADDRESS *(Include ZIP Code)*	c. TELEPHONE *(Include Area Code)*

2. PREVIOUS PRIMARY CARE PHYSICIAN(S)/PRACTITIONER(S) AND/OR CLINIC(S)

a. NAME(S)	b. ADDRESS *(Include ZIP Code)*	c. TELEPHONE *(Include Area Code)*

3. CURRENT INSURANCE AND/OR PHARMACY BENEFIT MANAGER(S)

a. NAME(S)	b. ADDRESS *(Include ZIP Code)*	c. TELEPHONE *(Include Area Code)*

4. PREVIOUS INSURANCE AND/OR PHARMACY BENEFIT MANAGER(S)

a. NAME(S)	b. ADDRESS *(Include ZIP Code)*	c. TELEPHONE *(Include Area Code)*

LAST NAME - FIRST NAME - MIDDLE INITIAL (SUFFIX)	SOCIAL SECURITY NUMBER *(Last 4)*

SECTION V - APPLICANT VALIDATION, AUTHORIZATION AND SIGNATURE

STOP AND READ: THE FOLLOWING STATEMENTS APPLY TO SIGNATURES IN SECTION V (BELOW)

- **I (we) , the undersigned:**
- Certify the information on this form is true and complete to the best of my knowledge and belief, and no person has advised me to conceal or falsify any information about my physical and mental history.
- Authorize and understand that a physical examination is part of the accession evaluation, may require several visits to the Military Entrance Processing Station (MEPS), and that I will have blood work and/or other medical tests, procedures and/or specialty consultations performed as part of my processing. I understand that the results of the examination, tests, and consults will be reviewed and considered as part of my application file and are not performed as part of an individual healthcare treatment plan. The MEPS medical staff are not my healthcare providers. If I do not receive notice of an abnormal test or consult, I am not to assume that the results are normal. Furthermore, if any test or consult results are abnormal, I am responsible for obtaining those results from the MEPS and for any necessary follow-up evaluations and/or treatment. If I am notified to return to the MEPS to discuss medical results, it is my responsibility to take quick action to return to the MEPS to speak with the Chief Medical Officer (CMO). Any concerns that I have about my health and healthcare are my responsibility to address with my personal healthcare provider(s).
- Understand that I must provide required documentation regarding my health history which, upon my accession, will become part of my Service member lifecycle medical treatment record.
- Authorize the Department of Defense (DoD) to request holders of medical/behavioral health data (including but not limited to healthcare providers, clinics, hospitals, insurance companies, pharmacy benefit managers, pharmacies, health information exchanges, and federal and state agencies) to release to the DoD medical authority a complete transcript of my health data for purposes of processing my application for Military Service. I also authorize holders of my health data to report to the DoD whether any data they hold or have held about me has been amended or restricted. I agree that all personal information or data disclosed by myself or others on my behalf with my consent during this process may be further disseminated as needed during the accession process and that my medical information is no longer protected by federal Health Insurance Portability and Accountability Act (HIPAA) Privacy Rules.
- Authorize release of records and information relating to grades, performance, individual education plans, and disciplinary proceedings. Under the Family Educational Rights and Privacy Act (FERPA) USMEPCOM is authorized to receive all my education/disciplinary records for evaluation of my acceptability for Service in the Armed Forces.
- Understand that I have the right to refuse to sign this authorization but also understand that failure to do so may cause me to be found disqualified for further processing.
- Understand this authorization will expire two years from the date of the signature below or sooner if written request is received by USMEPCOM Staff Judge Advocate's Office. I have the right to revoke this authorization in writing, except to the extent that the DoD has acted in reliance on this information.

1. APPLICANT

a. SIGNATURE	b. DATE SIGNED *(YYYYMMDD)*

2. PARENT OR GUARDIAN SIGNATURE IS MANDATORY FOR MINOR APPLICANT, SIGNATURE IS OPTIONAL IF APPLICANT IS OF AGE

a. NAME *(Last, First, Middle Initial)*	b. SIGNATURE	c. DATE SIGNED *(YYYYMMDD)*

3. RECRUITING REPRESENTATIVE: *(If a representative was used)*
I certify all information is complete and true to the best of my knowledge.

a. NAME *(Last, First, Middle Initial)*	b. RECRUITER IDENTIFICATION NUMBER	c. SIGNATURE	d. DATE SIGNED *(YYYYMMDD)*

LAST NAME - FIRST NAME - MIDDLE INITIAL (SUFFIX)	SOCIAL SECURITY NUMBER *(Last 4)*

SECTION VI - MEDICAL PROVIDER'S SUMMARY AND DESCRIPTION OF PERTINENT INFORMATION:
Review and comment on all medical records, electronically provided medical history information, and other electronic data available in the Department of Defense Accessions Processing System. Medical providers may also develop any additional medical history deemed important and record significant findings here or by interview and document them on DD Form 2808, "Report of Medical Examination".
Attach additional sheet(s) if necessary.

COMMENTS:

SECTION VII - MEDICAL PROVIDER'S PRESCREEN DETERMINATION BASED ON AVAILABLE INFORMATION:

1.a. DATE *(YYYYMMDD)*	b. MEDICAL PROCESSING STATUS						c. IF NOT WITHIN STANDARDS:				d. PROVIDER INITIALS
	PA	PRW	PH	RJ	METR	PNJ	ICD	CONDITION	PULHES	SMWRA INPUT	

KEY:
PA = Processing Authorized; PRW = Processing Requested by SMWRA; PH = Processing Hold; RJ = Return Justified; METR = Medical Evaluation and/or Treatment Records; PNJ = Processing Not Justified; ICD = International Classification of Disease Code; PULHES = P (Physical Capacity), U (Upper Extremities), L (Lower Extremities), H (Hearing), E (Eyes), S (Psychiatric); SMWRA = Service Medical Waiver Review Authority.

2. *FOR MEPS USE ONLY:

ON EXAM:	a. PSN COMP	b. PSN INCOM	c. NPS	d. *AE	e. *RE	f. *ME	g. *OE	h. DATE *(YYYYMMDD)*	i. PROVIDER INITIALS

KEY:
PSN = Prescreen; COMP = Complete; INCOM = Incomplete; NPS = Not Prescreened; AE = Applicant Error; RE = Recruiter Error; ME = MEPS Error; OE = Other Source of Error.

3. AUTHORIZING MEDICAL PROVIDER			4. NUMBER OF ADDITIONAL SHEETS SUBMITTED
a. NAME *(Last, First, Middle Initial)*	b. SIGNATURE	c. DATE SIGNED *(YYYYMMDD)*	

DD FORM 2807-2, MAR 2015

SUPPLEMENTAL HEALTH SCREENING QUESTIONNAIRE

(For use of this form, see USMEPCOM Regulation 40-1)

PRIVACY ACT STATEMENT

Authority: Title 10, United States Code (USC), Sections 504, 505, 507, 532, 978, 1201, 1202, and 4346; Executive Orders 9397 and 13478 (SSN)

Principal purpose: To obtain medical data for determination of medical fitness for enlistment, induction, appointment and retention for applicants and members of the Armed Forces. The information will also be used for medical boards and separation of Service members from the Armed Forces.

Routine uses: None. The Department of Defense "Blanket Routine Uses" set forth at the beginning of the Army's compilations of system of records notices applies to this system.

Disclosure: Voluntary; however, failure by an applicant to provide the information may result in delay or possible rejection of the individual's application to enter the Armed Forces. For an Armed Forces member, failure to provide the information may result in the individual being placed in a non-deployable status.

1. Last Name - First Name - Middle Name (Suffix)			2. Social Security Number	3. Date of Birth *(YYYYMMDD)*
4. Date of Exam *(YYYYMMDD)*	5. MEPS	6. Sex	7a. Service ☐ ARMY ☐ AIR FORCE ☐ MARINE CORPS ☐ NAVY ☐ COAST GUARD	7b. Component ☐ ACTIVE DUTY ☐ NATIONAL GUARD ☐ RESERVE

8. Screening Questions Part 1 - Place a mark (X) in the column that corresponds to your answer to each of the following questions. All "YES" answers must be fully explained on page 2 of this form. Note: An answer is required for every question.

YES	NO	
☐	☐	a. Were you **ever** depressed or down, most of the day, nearly every day for 2 weeks?
☐	☐	b. For the **past 2 weeks,** were you depressed or down, most of the day, nearly every day?
☐	☐	c. Were you **ever** much less interested in most things or much less able to enjoy the things you used to enjoy most of the time, for 2 weeks?
☐	☐	d. In the **past 2 weeks,** were you much less interested in most things or much less able to enjoy the things you used to enjoy, most of the the time?
☐	☐	e. Have you ever deliberatly cut, burned, or injured yourself?
☐	☐	f. Have you ever considered or attempted suicide?
☐	☐	g. Have you ever been arrested?
☐	☐	h. Have you ever been suspended from school?
☐	☐	i. Have you ever been fired from your job?
☐	☐	j. Have you ever been kicked out of your home?
☐	☐	k. Have you had three or more traffic violations?
☐	☐	l. Have you ever had trouble sleeping nearly every night (difficulty falling asleep, waking up in the middle of the night, early morning waking or sleeping excessively) for a period of 2 weeks or longer?

9. Screening Questions Part 2 - Place a mark (X) in the box that corresponds to your answer to each of the following questions.

a. How often do you have a drink containing alcohol?
☐ Never ☐ Monthly or less ☐ Two to four times a month ☐ Two or three times per week ☐ Four or more times a week

b. How many drinks containing alcohol do you have on a typical day?
☐ Never ☐ 1 or 2 ☐ 3 to 6 ☐ 7 to 9 ☐ 10 or more

c. How often do you have six or more drinks on one occasion?
☐ Never ☐ Less than monthly ☐ Monthly ☐ Two or three times per week ☐ Four or more times a week

I certify that all the information provided on this form is complete and true to the best of my knowledge.

10. Signature of Applicant	11. Date Signed *(YYYYMMDD)*

USMEPCOM FORM 40-1-15-E, OCT 2019

Appendix H: Meetings and Presentations

September 20, 2019: Neurological/Behavioral Health Subcommittee Meeting
Falls Church, VA

The Subcommittee met in person and received briefings from military and civilian SMEs on mental health screenings.

The SMEs who briefed at the meeting:

- Dr. Paul Ciminera, Health Service Policy and Oversight, OASD(HA)
- Dr. Mark Haigney, Department of Medicine, USUHS
- Dr. Jessica LaCroix, Department of Medical and Clinical Psychology, USUHS
- COL Brigilda Teneza, Medical Plans and Policy Directorate, USMEPCOM
- LTC Peggy Urbano, Accessions Policy Directorate, OUSD(P&R)
- Dr. Adam Walsh, Research and Program Evaluation, DSPO
- Dr. Natalya Weber, Walter Reed Army Institute of Research (WRAIR), AMSARA

November 4, 2019: Defense Health Board Meeting
Tacoma, WA

The Board met in person and received briefings from a Service member at Joint Base Lewis McChord (JBLM) on topics related to the current taskings. In particular, LTC Kevin Goke, Department of Behavioral Health, Madigan Army Medical Center, briefed on JBLM Behavioral Health Resources. Dr. Lazarus provided an overview of the tasking to the DHB.

November 12, 2019: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received a briefing from Dr. John Oldham, Department of Psychiatry, Baylor College of Medicine, on personality disorder screenings. The members also discussed the report development progress.

December 9, 2019: Site visit to the Baltimore MEPS

DHB Staff members visited a local Military Entrance Processing Station (MEPS) station to learn more about the accession process.

The SMEs at the MEPS:

- LTC John Balman, Accession Policy, USMEPCOM
- Dr. Ashley Blackledge, Medical, Baltimore MEPS
- COL Arthur Cajigal, Accession Policy, USMEPCOM
- 1SG Jerry Delancey, Enlisted Advising, Baltimore MEPS
- Dr. Guy Jackson, Medical, Baltimore MEPS
- LTC Bratcha Kellum, USMEPCOM and Baltimore MEPS, United States Army

December 10, 2019: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received a briefing from Dr. Diane Williams, Principal Investigator, Naval Health Research Center, on accessing Service members with mental health conditions and their outcomes.

December 13, 2019: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received a briefing from military and civilian SMEs on medical processing and waivers, and mental health accession.
The SMEs who briefed at the meeting:

- Col Maria Angles, Accession Medical Waiver Division, United States Air Force
- CAPT Alaric Franzos, U.S. Navy Bureau of Medicine and Surgery, United States Marine Corps
- CDR Jason Gordon, Service Medical Waiver Review Authority, United States Navy
- Ms. Stephanie Miller, Accessions Policy Directorate, OUSD P&R
- LTC (P) Katrina Walters, United States Recruiting Command, United States Army

January 14, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received a briefing from Dr. Howard Garb, Chief Psychology Research Service, Joint Base San Antonio-Lackland, TX and Maj Jeremy Pallas, Headquarters Air Education and Training Command, Randolph Air Force Base, Texas, on sustainability screening during basic training.

February 10, 2020: Defense Health Board Meeting
Falls Church, VA

The Board met in person and received briefings from Foreign Service Liaisons on topics related to the current tasking. The liaisons were COL Chris Wright, United Kingdom; LCol Andrew Currie, Canada; COL Kai Schlolaut, Germany; COL Raphael Grippi, France; LTC Shoko Edogawa; Japan, who briefed on women's and mental health. Dr. Lazarus provided an update of the tasking to the DHB.

March 10, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and discussed sections of the report. There were no briefings at this meeting.

April 14, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received briefings from military and civilian SMEs on mental health and family well-being programs within the difference Services.

The SMEs who briefed at the meeting:

- Mr. Dan Cardwell, Air Force Resilience, United States Air Force
- CAPT T.J. Dixon, Behavior Development & Performance, United States Navy
- MSG Kevin Edmondson, Ready and Resilient, United States Army
- CDR Melissa D. Hiller-Lauby, Performance Psychology, Medical Service Corps, United States Navy
- Dr. Melissa Lynes, Air Force Resilience, United States Air Force
- Ms. Sandra Morrison, Marine and Family Programs, United States Marine Corps
- Mr. Tomomi Owens, Marine and Family Programs, United States Marine Corps
- CAPT James Reeves, M33 Primary Care/Mental Health, United States Navy
- Maj Jordan Simonson, Air Force Suicide Prevention, United States Air Force
- Col Scott Sonnek, Air Force Medical Readiness Agency, United States Air Force
- COL Matthew Weber, Ready and Resilient, United States Army

May 12, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received a briefing from military and civilian SMEs on suicide prevention of Service Members.

The SMEs who briefed at the meeting:

- Ms. Ruth Cassidy, Suicide Prevention Program, United States Navy
- LCDR Stephanie Long, Medical Service Corps, United States Navy
- Ms. Carolyn Massiah, Army Resilience Directorate, United States Army
- Ms. Sandra Morrison, Marine and Family Programs, United States Marine Corps
- Dr. Laura Neely, Defense Suicide Prevention Office, DoD
- Mr. Tomomi Owens, Marine and Family Programs, United States Marine Corps
- Maj Jordan Simonson, Air Force Suicide Prevention, United States Air Force
- Dr. Adam Walsh, Defense Suicide Prevention Office, DoD
- COL Matthew Weber, Ready and Resilient, United States Army

May 18, 2020: Defense Health Board Video Teleconference

The Subcommittee Chair provided a tasking update brief to DHB members. The DHB members discussed the report development progress.

May 26, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and discussed sections of the report. There were no briefings at this meeting.

May 26, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and discussed sections of the report. There were no briefings at this meeting.

June 9, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and received a diverse set of briefings from military and civilian SMEs. The topics included health outcome mapping and Service Member suicide prevention.

The SMEs who briefed at the meeting:

- Dr. Charles Baschnagel, Advanced Analytics, Booz Allen Hamilton®
- Col Caesar Junker, Human Performance Mission, United States Air Force Medical Corps

June 25-26, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and discussed sections of the report. There were no briefings at this meeting.

July 14, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and discussed the report. There were no briefings at this meeting.

July 28, 2020: Neurological/Behavioral Health Subcommittee Video Teleconference

The Subcommittee met virtually and discussed the report. There were no briefings at this meeting.

August 7, 2020: Defense Health Board Meeting

The Subcommittee Chair provided a decision brief to the DHB members. The DHB members voted to approve the report and its findings and recommendations.

Appendix I: List of Acronyms

ACEs: Adverse Childhood Experiences

AD: Army Directive

ADHD: Attention Deficit Hyperactivity Disorder

AFI: Air Force Instruction

AMSWG: Accessions Medical Standards Working Group

AMSARA: Accessions Medical Standards Analysis and Research Activity

AR: Army Regulation

ASVAB: Armed Services Vocation Aptitude Battery

BAS: Behavioral Analysis Service

BEST: Behavioral Evaluation and Screening of Trainees

BH: Behavioral Health

BMT: Basic Military Training

CMO: Chief Medical Officer

DD Form: Department of Defense Form

DHB: The Defense Health Board

DoD: Department of Defense

DoDI: Department of Defense Instruction

DoDMERB: Department of Defense Medical Examination Review Board

DoDSER: DoD Suicide Event Report

DSPO: Defense Suicide Prevention Office

ECG: Electrocardiogram

EHR: Electronic Health Record

EPTS: Existing Prior to Service

FY: Fiscal Year

GD: General Discharge

HD: Honorable Discharge

IAW: In Accordance With

JAMA: Journal of the American Medical Association

LBQ: Lackland Behavioral Health Questionnaire

LDES: Legacy Disability Evaluation System

LOD: Line of Duty

MDR: Military Health System Data Repository

MEB: Medical Evaluation Board

MEDPERS: Medical and Personnel Executive Steering Committee

MEPS: Medical Entrance Processing Station

MHS: Military Health System

NAVADMIN: Naval Administrative Message

NBH: Neurological/Behavioral Health

NHRC: Naval Health Research Center

OTH: Other Than Honorable

PDHA: Post-Deployment Health Assessment

PDQ: Permanently Disqualified

PTSD: Post Traumatic Stress Disorder

ROTC: Reserve Officers' Training Corps

SCD: Sudden Cardiac Death

SHSQ: Supplemental Health Screening Questionnaire

SLRRT: Soldier-Leader Risk Reduction Tool

SMEs: Subject Matter Experts

SMWRA: Service Medical Waiver Review Authority

STARRS: Army Study to Assess Risk and Resilience in Service members

TAPAS: Tailored Adaptive Personality Assessment Systems

TIS: Time in Service

TOR: Terms of Reference

U.S.: United States

USAF: United States Air Force

USC: United States Code

USMEPCOM: United States Military Entrance Processing Command

VA: Veterans' Affairs

DEFENSE
HEALTH BOARD