Mental Health Stigma in the Military



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Preface

Despite the efforts of both the U.S. Department of Defense (DoD) and the Veterans Health Administration to enhance mental health services, many service members are not regularly seeking needed care when they have mental health symptoms or disorders. The research team hypothesized that mental health stigma may be a barrier to mental health treatment-seeking among military service members. Without appropriate treatment, these mental health symptoms or disorders can have wide-ranging and negative impacts on the quality of life and the social, emotional, and cognitive functioning of affected service members.

The RAND National Defense Research Institute (NDRI) was asked to inventory and assess stigma-reduction strategies across both the services and DoD as a whole, to identify strengths and gaps that should be addressed. Informed by this inventory and feedback from an expert panel, NDRI developed a set of recommended priorities for stigma reduction. These recommendations answered such questions as "Where are there gaps in stigma-reduction strategies?" "What stigma-reduction strategies seem particularly promising?" "Which of the current stigma-reduction strategies should be continued or enhanced?" and "Where is there duplication or overlap, or alternatively, conflicting messages among current strategies?" This report summarizes the findings of this assessment. The contents of this report will be of particular interest to policymakers in DoD, other command and line leadership, and mental health providers and other professionals.

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## **Summary**

Despite the efforts of both the U.S. Department of Defense (DoD) and the Veterans Health Administration to enhance mental health services, many service members are not regularly seeking needed care when they have mental health symptoms or disorders. Without appropriate treatment, these mental health symptoms or disorders can have wide-ranging and negative impacts on the quality of life and the social, emotional, and cognitive functioning of affected service members.

The services have been actively engaged in developing policies, programs, and campaigns designed to reduce stigma and increase service members' help-seeking behavior. However, there has been no comprehensive assessment of these efforts' effectiveness and the extent to which they align with service members' needs or evidence-based practices. To help address this gap, the Office of the Assistant Secretary of Defense for Health Affairs and the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury asked the RAND National Defense Research Institute (NDRI) to inventory and assess stigma-reduction strategies both across the services and within DoD as a whole, to identify programmatic strengths, as well as gaps that should be addressed.

## **Purpose of This Report**

The goal of this research was to assess DoD's approach to stigma reduction—how well it is working and how it might be improved. Our assessment focused on efforts that were active from January to June 2013. To accomplish this goal, we addressed the following research questions:

- 1. What does mental health stigma mean in the military context?
- 2. What is the prevalence of mental health stigma in the military, and what are its medical and societal costs?
- 3. What does the scientific evidence base show about the most-promising program and policy options for reducing stigma?

- How well do DoD's programs and policies align with what the evidence base
- 5. What priorities should DoD consider to enhance and refine stigma-reduction efforts?

To address these questions, RAND researchers used five complementary methods: (1) literature review, (2) a microsimulation modeling of costs, (3) interviews with program staff, (4) prospective policy analysis, and (5) an expert panel.

#### **Findings**

The findings from our study of mental health stigma in the military answer each of the above questions.

#### What Does Mental Health Stigma Mean in the Military Context?

To avoid the lack of conceptual clarity that accompanies literature without a clear definition of mental health stigma, our first objective was to develop a working definition of stigma and a conceptual model showing the factors that influence stigma and its possible outcomes. The purpose of the definition and conceptual model (see Figure S.1) was to guide the identification of promising intervention strategies and to provide a foundation for our assessment of DoD's current approach to reducing stigma. Though we acknowledge that there are many facets of stigma, for the purposes of this project, we define mental health stigma as a dynamic process by which a service member perceives or internalizes this brand or marked identity about himself or herself or people with mental health disorders (PWMHDs). This process happens through an interaction between a service member and the key contexts in which the service member resides.

The conceptual model operationalizes this definition of *stigma* by linking it to the key contexts that create stigma—the public context, institutional context, social context, and individual context—and the empirically and theoretically derived impacts of stigma. These include four immediate outcomes that we found to be empirically linked to stigma (coping mechanisms [e.g., hide, withdraw], interpersonal outcomes [e.g., selfesteem], attitudes toward treatment-seeking, and intentions to seek treatment) and four long-term outcomes that literature has theoretically linked to stigma (well-being, quality of life [e.g., productivity], treatment initiation, and treatment success). We were unable to empirically link these long-term outcomes directly to stigma. Despite popular opinion and a strong theoretical base that stigma deters treatment-seeking, we were unable to identify empirical literature to support this link. However, a variety of other factors (e.g., availability of providers, time off of work to seek care) may affect whether intentions to seek treatment translate into actual behavior.

Military norms and culture Public context Military context Military policies, programs, and treatment system Institutional context Family, friends, and unit Social context Service member Individual context Perceived stigma Proximal impacts Interpersonal outcomes Attitudes toward and Coping (e.g., self-esteem) intentions to seek treatment mechanisms Distal impacts Well-being Readiness Quality of life Treatment-seeking Treatment success RAND RR426-S.1

Figure S.1 Conceptual Model of Stigma Reduction in the Military

#### What Is the Prevalence of Mental Health Stigma in the Military, and What Are Its **Medical and Societal Costs?**

We examined the historical prevalence of various stigma measures among deployed Operation Iraqi Freedom (OIF) soldiers screening positive for mental health symptoms or disorders using publicly available data contained in the Army's Mental Health Advisory Team (MHAT) reports. Collectively, these data indicate possible changes in stigma over time and differences across populations. Consistent with the literature was our finding that people seeking mental health treatment reported higher perceived levels of stigma. Although we were unable to definitely conclude that declines in stigma (particularly in the public, institutional, and social contexts that are assessed by the MHAT) resulted in increased treatment-seeking, further research could help determine the impact of the declines in stigma. Additionally, several limitations preclude drawing conclusive results from the stigma data. No single measure is being used to assess stigma. Most of the military measures assess stigma in the public, institutional, or social context and do not assess stigma within the individual context. These challenges, among others, pose a major limitation for the advancement of our understanding of stigma and strategies to address it, both within and outside the military context. Notably, we are unable to link military mental health stigma to changes in treatment-seeking behaviors, and any patterns and trends in stigma found in military populations are not directly comparable to U.S. prevalence estimates. Also, little is known about the extent to which stigma prevalence varies across different military populations (e.g., officers versus enlisted personnel).

These same measurement challenges also created difficulties in estimating the costs resulting from stigma. However, given the prevalence of mental health stigma in the military, we next developed a microsimulation model to estimate the costs resulting from stigma. These costs included treatment costs, costs of lost productivity, and suicide attempts and deaths by suicide. We based our model on an existing one that estimates the costs of untreated mental health symptoms or disorders among service members deployed as part of Operation Enduring Freedom (OEF) or OIF and developed by Kilmer et al. (2011) as part of the RAND Invisible Wounds Project (Tanielian and Jaycox, 2008). To adapt the model to include mental health stigma, we reviewed the literature, conducted a series of regression analyses, and convened an expert panel. Regression analyses of longitudinal data on stigma and treatment-seeking were run because we could not find a robust empirical literature directly linking to treatmentseeking and stigma (e.g., because stigma was defined in a variety of ways, because attitudes and intentions were measured rather than actual behaviors, because stigma was captured only in a public context and not an individual one). The regression analyses revealed that stigma did not predict initiation of treatment-seeking. When we input data from the regression analyses and the literature into our microsimulation models, we found that decreasing (or completely eliminating) stigma would not increase the number of service members seeking mental health treatment (i.e., did not significantly increase the probability that a service member would initiate treatment). The lack of data and the finding that decreasing stigma would not increase treatment-seeking were consistent with our review of empirical published literature and supported by an expert panel. One expert panelist stated that it was not a surprise that "changes in knowledge and attitudes [which are two of the key outcomes targeted by stigma-reduction programs] do not result in changes in behavior." The expert referenced a large body of research on prevention programs that suggest that explicit behavioral changes need to be specified, modeled, and practiced before behavior can be expected to change. There may have been reasons that we found no evidence that stigma decreases treatmentseeking behavior, which goes against theoretical underpinnings and popular opinion. First, measures have neither fully captured the contexts that affect stigma nor appropriately differentiated between stigma directed at PWMHDs and stigma directed at the act of mental health treatment-seeking. The public, institutional, and social contexts are more fully assessed, but, because they may be filtered by the individual context, these may have the most-distal impacts on stigma. Similarly, stigma may predict other variables that more directly influence behavior. Because stigma is so distal from the

outcome, it may be difficult to empirically link. Finally, stigma may be less directly linked to the decision to seek help than to treatment success.

To understand what some of the more-proximal factors are that affect treatment-seeking, we conducted some exploratory regression analyses of other logistical, institutional, and cultural barriers to care, as well as beliefs and preferences for treatment. Our analyses suggested that other barriers to care (not stigma) may influence treatment utilization—in particular, the perception that support from family and friends provides a more helpful alternative to professional mental health treatment. Reducing this barrier by 50 percent would increase treatment costs by just under \$3 million but would result in more than \$9 million in savings in lost productivity and aggregated costs. Cost savings more than doubles if we eliminate this barrier, falling by more than \$32 million from the baseline.

# What Does the Scientific Evidence Base Show About the Most-Promising Program and Policy Options for Reducing Stigma?

Even though we were unable to find empirical evidence that stigma directly affects treatment-seeking (possibly due to limited and inconsistent measurement), the literature theorizes that stigma may indirectly affect treatment-seeking, affecting coping styles, attitudes and intentions toward help-seeking, and interpersonal outcomes, such as self-esteem. Given this finding, we identified the most-promising programmatic and policy approaches to reducing stigma. Within the military context, these involved educating key power groups and changing policy to reduce discriminatory behavior among individual service members and military leadership, who often set the climate within units and the military institution as a whole. Contact-based programs (i.e., exposing service members to a fellow service member in recovery from a mental health disorder [MHD]), education and training programs, and multimedia campaigns have been shown to reduce stigma within the public context. Cognitive techniques (e.g., psychoeducation, cognitive restructuring) to teach people strategies to better control or accept their thoughts, feelings, sensations, and memories have been shown to be effective at reducing stigma. We used this literature as a basis for comparison in our assessment of DoD programs and policies.

# How Well Do U.S. Department of Defense Programs and Policies Align with What the Evidence Base Shows?

Despite the availability of a wide range of evidence-based treatments for MHDs, the proportion of service members who seek needed treatment remains low. In response, DoD and individual branches of service have made a concerted effort to promote treatment-seeking through specific programs to reduce stigma, as well as through a widespread culture shift, in which mental health is discussed in the context of readiness and resilience and in which help-seeking is redefined as a sign of strength. In

addition, DoD is implementing a range of programs within the military and public contexts, including the following:

- efforts to make the act of seeking care less stigmatizing (e.g., by embedding behavioral health providers in brigade combat teams)
- · educating service members and military leaders to improve their mental health literacy (e.g., through trainings and media campaigns, such as the Real Warriors Campaign)
- providing opportunities for these same groups to interact with service members in recovery from MHDs.

These approaches are generally aligned with the promising approaches described in the scientific literature and may have contributed, at least in part, to the declining trends in perceived stigma among service members. Current DoD stigma-reduction efforts primarily target the public context. Strategies targeting the individual context were focused on education and training. However, we were unable to identify any systematic intervention targeted at people who are in need of care but may or may not be seeking it (e.g., psychotherapeutic approaches to stigma reduction among PWMHDs). Few strategies targeted the military or institutional context. Most of these programs were not being evaluated.

We also worked with the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) to conduct an extensive search for and a systematic assessment of existing DoD policies to identify how these policies might be contributing to or reducing mental health stigma. DCoE conducted the search for policies using a search strategy developed in partnership with the study team, and the study team conducted the systematic policy assessment. Our assessment of the policy context found that ambiguities in policy language might contribute to concerns. Despite the presence of equal-opportunity policies, wide variability and ambiguity in policies that prohibit service members with MHDs from career opportunities might inadvertently create opportunities for discrimination. These policies do not define triggers for opportunity limitations (e.g., any history of mental illness, anyone engaged in treatment) and do not acknowledge a threshold of symptomology or continuum of recovery. Additionally, conflicting language and intentions of policy highlight key tensions between the privacy of service members seeking mental health treatment and the need for commanders to assess unit fitness. These tensions will need to be addressed if DoD is to be successful in encouraging treatment-seeking among more of its service members.

We also identified policies that support universal educational stigma-reduction programs but not more-targeted programs for those in mental health treatment. This is a key gap in programs, given the higher prevalence of stigma among service members in treatment than among those not in treatment.

Finally, we identified three areas of policy that DoD should consider reviewing. First, some policies use negative terminology and reinforce stereotypes about PWMHDs. Revising this language may help to minimize the likelihood that service members would feel stigmatized as a result. Second, we identified policies that allow nonprofessionals to determine mental health fitness and that support the use of mandated mental health screening for specific individuals or groups. Although these practices may be important to protect unit fitness in the military context, these practices could put some service members at risk for stigma and discrimination. Third, mental health screening and evaluation programs may be used inappropriately, and careful consideration of the implementation of such programs is necessary to ensure that they promote positive, rather than negative, attitudes toward treatment-seeking.

# What Priorities Should the U.S. Department of Defense Consider to Enhance and Refine Stigma-Reduction Efforts?

Given these strengths and gaps in DoD's current approach to stigma reduction, we developed a set of priorities for improving DoD's approach to stigma reduction.

Table S.1
U.S. Department of Defense Priorities for Enhancing and Refining Stigma-Reduction Efforts

			Priority	
Priority Category	Description	Within Category	By Importance	By Validity
Improving stigma-reduction interventions	Explore interventions that directly increase treatment-seeking. Focusing primarily on a single barrier to care, such as stigma, may obfuscate other potential interventions to promote help-seeking. There are many potential approaches to promote help-seeking along the continuum of stress that have proven effective. In addition to targeting stigma, DoD should explore other mechanisms for increasing treatment-seeking and reducing barriers to mental health care.	1	1	1
	Consider evidence-based approaches to empowering service members who have mental health concerns to support their peers. Expert panelists suggested that promoting the empowerment of PWMHDs to provide peer support for one another is an important approach that DoD should consider to reduce stigma. Military-affiliated panelists suggested that peer-support programs were already occurring to some degree throughout DoD; however, the evidence base behind these programs was limited.	2	2	3

Table S.1—Continued

		Priority			
Priority Category	Description	Within Category	By Importance	By Validity	
	Design new or adapt existing intervention-delivery mechanisms to minimize operational barriers for service members seeking treatment. Expert panelists also discussed how service members' preference for self-management might be a key barrier to their accessing services. Improving the complement of alternative mechanisms for treatment delivery that create fewer operational impediments to service members could appeal to service members with a preference for self-management.	3	3	5	
	Embed stigma-reduction interventions in clinical treatment. Because stigma is a potential clinical risk factor, it should be assessed during routine clinical examination and monitored throughout treatment so that it can be addressed as a part of a comprehensive treatment strategy.	4	10	10	
	Implement and evaluate stigma-reduction programs that target service members who have not yet developed symptoms of mental illness. DoD should draw on the evidence base summarized in this report to identify programs that may translate effectively to the military context and adapt them for use within the military. These additional programs are intended to complement existing efforts to change the culture within the military to increase help-seeking behavior.	5	11	11	
Improving policies that contribute to stigma reduction	Provide better guidance for policies in which an MHD or treatment prohibits job opportunities or actions. A large number of the policies we reviewed prohibited specific job opportunities or actions if a service member had an MHD or sought mental health treatment. For many of these policies, the language is unclear, stating only that a service member is prohibited if he or she has a mental health issue. It is imperative that DoD provide additional guidance that clarifies what is meant by having a mental health issue and that is more attentive to the continuum of mental health.	1	6	2	

Table S.1—Continued

		Priority		
Priority Category	Description	Within Category	By Importance	By Validity
	Review the stigmatizing language identified in policies to determine whether to remove it. In 12% of policies, we identified language that was pejorative and characterized MHDs and treatment in a negative light. Editing these policies to remove this stigmatizing language may help to reduce the likelihood that this language contributes to stigma and could improve the clarity of the policies.	2	8	7
Improving research and evaluation related to stigma reduction	Continue to improve and evaluate the modifications made to existing programs that begin to address stigma and other barriers to care. DoD is already implementing modifications to existing initiatives that begin to address barriers to care and may contribute to a larger culture shift in the military. To ensure that these efforts are appropriately assessed for their effectiveness, DoD should improve evaluations of these programs to ensure that they assess behavioral impacts.	1	4	9
	Examine the dynamic nature of stigma and how it interacts with internal and external conditions over time. Much of the stigma research focuses on schizophrenia or general mental health concerns, rather than PTSD, anxiety, or depression, the disorders that may be of most interest to DoD. More research to understand how stigma differs among these disorders and whether there are differential beliefs, attitudes, or knowledge about treatment efficacy for these disorders would help DoD better target stigma-reduction efforts. Additionally, because stigma is not static, more research on how stigma manifests based on level of mental health symptomology and individual interactions with various external conditions (e.g., family members, unit commanders) is needed to improve understanding of stigma's impact and identify the optimal intervention points, especially for interventions that require multiple boosters to maintain their effectiveness.	2	5	5

Table S.1—Continued

		Priority			
Priority Category	Description	Within Category	By Importance	By Validity	
	Improve measures of prevalence to improve tracking of stigma and other barriers to care. Instituting common tracking measures would allow for research on the extent to which the institutional and public contexts affect stigma and how those effects may vary by demographics, such as rank, race, age, or gender. Understanding how stigma differentially affects specific populations, as well as identifying consistent effects across populations, will be important for developing interventions that are tailored to specific populations or applicable across the general population.	3	9	8	
	Review classified DoD and service-specific policies to determine potential implications for mental health stigma and discrimination. The priorities presented here are based on a review of policies that are accessible without clearance. A military-affiliated panelist recommended obtaining and reviewing classified policies to determine whether to develop additional policy priorities based on the implications of those policies for mental health stigma and discrimination.	4	12	14	
Overarching	Convene a task force to explore the tensions between a command's need to know a service member's mental health status and treatment history and the need for privacy. A task force of experts could play an important role in assessing what type of information mental health providers should and should not share with commanders and in developing clear communications and processes for these exceptions.	1	7	6	

NOTE: PTSD = posttraumatic stress disorder.

Experts rated the validity and importance of these priorities and agreed that the priorities shown in Table S.1 were critical for DoD. We considered a priority valid if adequate scientific evidence or professional consensus exists to support a link between the proposed priority and reducing stigma or improving service members' help-seeking. A priority was considered important if addressing or undertaking the priority has a critical influence on reducing stigma or improving service members' help-seeking and there are serious adverse consequences of not addressing or undertaking the priority. Appendix I lists the participating experts.

#### Conclusion

There is still much unknown about the influence that stigma has for PWMHDs on initiation of treatment, treatment success (e.g., retention), and, ultimately, their quality of life. These priorities represent a first step for where additional program and policy development and research and evaluation are needed to improve understanding of how best to get service members with mental illness the needed treatment as efficiently and effectively as possible. Additional research and evaluation are also needed to more fully understand barriers to care among service members and which of these barriers most affect treatment initiation, treatment success, and overall quality of life.

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### **Abbreviations**

5AFI Fifth Air Force instruction

5R0X1C1 Air Force specialty code for chaplain assistant

ADRP Army doctrine reference publication

AETC Air Education and Training Command

AFDWSUP Air Force District of Washington supplement

AFGM Air Force guidance memorandum

AFGSCGM Air Force Global Strike Command guidance memorandum

AFI Air Force instruction

AFJI Air Force joint instruction

AFMAN Air Force manual
AFPAM Air Force pamphlet

AFPD Air Force policy directive

AFR Air Force Reserve

AFRCI Air Force Reserve Command instruction

AI administrative instruction

AIEP American Indian Alaskan Native Employment Program

ANG Air National Guard

ANGDIR Air National Guard directory

ANGI Air National Guard instruction

AOF airfield operations flight

AR Army regulation

ARC Air Reserve Command

ARNG Army National Guard

ARNGUS Army National Guard of the United States

ATTP Army tactics, techniques, and procedures

BFV Bradley Fighting Vehicle

BRFSS Behavioral Risk Factor Surveillance System

BUMED U.S. Navy Bureau of Medicine and Surgery

BUMEDINST U.S. Navy Bureau of Medicine and Surgery instruction

BUMEDNOTE U.S. Navy Bureau of Medicine and Surgery note

CalMHSA California Mental Health Services Authority

CFETP career-field education and training plan

CGFAP Coast Guard Family Advocacy Program

CI confidence interval

CLFS civilian labor-force status

CNGBI Chief, National Guard Bureau instruction

CNO chief of naval operations

COMDTINST commandant instruction

CONUS continental United States

COSC Combat Operational Stress Control

CYP Child and Youth Program

DA Department of the Army

DCoE Defense Centers of Excellence for Psychological Health and

Traumatic Brain Injury

DEOC Defense Equal Opportunity Council

DLAR Defense Logistics Agency regulation

DoD U.S. Department of Defense

DoDD Department of Defense directive

DoDEA Department of Defense Education Activity

DoDI Department of Defense instruction

DoDM Department of Defense manual

DON Department of the Navy

DRC Dynamics Research Corporation

DTM directive-type memorandum

EA executive agent

EAD extended active duty

EBH Embedded Behavioral Health

EBT evidence-based treatment

EEO equal employment opportunity

EEOC Equal Employment Opportunity Commission

EO executive order

ESSP Expeditionary Site Survey Process

FAP Family Advocacy and General Counseling Programs

FM field manual

FY fiscal year

GSS General Social Survey

HBM health belief model

HHQ higher headquarters

HIPAA Health Insurance Portability and Accountability Act

HQMC Headquarters, U.S. Marine Corps

IACP International Association of Chiefs of Police

IAW in accordance with

ICV infantry carrier vehicle

IG inspector general

IHA indirect hire agreement

**IMHS** Integrated Mental Health Strategy

**INCIRLIKABSUP** Incirlik Air Base Supplement

ING Inactive Army National Guard

**IOOV** In Our Own Voice

Joint Mental Health Advisory Team 7 J-MHAT 7

LL lower limit

L&O law and order

**LPSP** Limited Privilege Suicide Prevention

MAJCOM major command

MCO Marine Corps order

**MDD** major depressive disorder

MEDCOM U.S. Army Medical Command

**MEO** Military Equal Opportunity

**MHAT** Mental Health Advisory Team

MHD mental health disorder.

MHFA Mental Health First Aid

Mil. R. Evid. Military Rule of Evidence

Military Knowledge and Training System **MKTS** 

military police MP

**MTF** medical treatment facility

NAF nonappropriated fund

NASD National Alcohol Screening Day

NATO North Atlantic Treaty Organization

Navy and Marine Corps form **NAVMC** 

NAVMED Naval Medicine

National Comorbidity Survey NCS

NCS-R National Comorbidity Survey Replication NDAA National Defense Authorization Act

NDRI RAND National Defense Research Institute

NDSD National Depression Screening Day

NEC Navy enlisted classification NGR National Guard regulation

NSDUH National Survey on Drug Use and Health

OCS operational contract support

OEF Operation Enduring Freedom

OEH occupational and environmental health

OIF Operation Iraqi Freedom

OPM Office of Personnel Management

OPNAVINST Office of the Chief of Naval Operations instruction

OR odds ratio

OSCAR Operational Stress Control and Readiness

PCS permanent change of station

PES Performance Evaluation System

PILOTS Published International Literature on Traumatic Stress

PRP Personnel Reliability Program

PSP Personnel Security Programs

PTSD posttraumatic stress disorder

PWMHD person with a mental health disorder

RP religious program specialist

SAAC Sexual Assault Advisory Council

SAMHSA Substance Abuse and Mental Health Services

Administration

SAPR Sexual Assault Prevention and Response

SBCT Stryker brigade combat team

SD standard deviation

SECNAVINST Secretary of the Navy instruction

SEP special-emphasis program

SF security force

SOF special operations forces

SOP standard operating procedure

SOS Signs of Suicide

STANAG standardization agreement

T2 National Center for Telehealth and Technology

TBI traumatic brain injury

TDRL temporary disability retired list

Tprod total productivity lost

TRiM Trauma Risk Management

TSR Traumatic Stress Response

Tsui total cost of a suicide

TsuiV total cost of suicide and value of life lost

Ttreat total treatment cost

Tx treatment UC usual care

UCLA University of California, Los Angeles

UCMJ Uniform Code of Military Justice

UL upper limit

USAFESUP U.S. Air Forces in Europe supplement

USASOC U.S. Army Special Operations Command

VA U.S. Department of Veterans Affairs

#### Introduction

# Need for an Assessment of the U.S. Department of Defense Approach to Stigma Reduction

Despite the efforts of both the U.S. Department of Defense (DoD) and the Veterans Health Administration to enhance mental health services, many service members are not regularly seeking needed care when they have mental health symptoms or disorders. Without appropriate treatment, these mental health symptoms or disorders can have wide-ranging and negative impacts on the quality of life and the social, emotional, and cognitive functioning of affected service members.

Both the DoD Task Force on Mental Health (2007) and the DoD Task Force on the Prevention of Suicide Among Members of the Armed Forces (2010) identified the stigma of mental illness as a significant issue preventing service members from seeking help for mental health symptoms or disorders. They defined the stigma of mental illness as the negative attitudes and beliefs about or associated with people labeled as mentally ill. The 2010 survey from the Army Office of the Surgeon General's Mental Health Advisory Team (Office of the Surgeon General, 2011) found that, although the prevalence of stigma among service members is decreasing, it remains high and is actually highest among people who screen positive for mental health symptoms or disorders. These advisory bodies all concluded that addressing the stigma of mental illness is critical to ensuring that service members seek needed mental health care, both to facilitate problem resolution and to prevent more-serious negative outcomes.

The services have been actively engaged in developing policies, programs, and campaigns designed to reduce stigma and increase service members' help-seeking behavior. However, there has been no comprehensive assessment of these efforts' effectiveness and the extent to which they align with service members' needs or evidence-based practices. To help address this gap, the Office of the Assistant Secretary of Defense for Health Affairs and the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury asked the RAND National Defense Research Institute (NDRI) to inventory and assess stigma-reduction strategies both across the services and within DoD as a whole, to identify strengths, as well as gaps in the strategies that should be addressed.

#### **Purpose of This Research**

The goal of this research was to assess DoD's approach to stigma reduction—how well it is working and how it might be improved. Our assessment focused on efforts that were active from January to June 2013. To accomplish this goal, we addressed the following research questions:

- 1. What does *mental health stigma* mean in the military context?
- 2. What is the prevalence of mental health stigma in the military, and what are its medical and societal costs?
- 3. What does the scientific evidence base show about the most-promising program and policy options for reducing stigma?
- 4. How well do DoD's programs and policies align with what the evidence base shows?
- 5. What priorities should DoD consider to enhance and refine stigma-reduction efforts?

#### **Methods**

To address these questions, NDRI used five complementary methods: (1) literature review, (2) microsimulation modeling of costs, (3) interviews with program staff, (4) prospective policy analysis, and (5) an expert panel. Table 1.1 shows which methods we used to address which specific aim (with the aims corresponding to the research questions above). Each method is then described briefly below and in more detail in the report appendixes.

#### **Literature Review**

We conducted a systematic literature review of theoretical works on stigma and prior studies of stigma-reduction programs. We began by reviewing the resources used in two earlier literature reviews that were related to our own study: RAND's stigma-reduction work for the California Mental Health Services Authority (Collins et al., 2012) and the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury's (DCoE's) report "Behavioral Health Stigma and Access to Care" (DCoE, 2012). We then supplemented the literature from these works by performing our own web-based search of peer-reviewed literature in content-relevant databases. These sources underwent successive rounds of screening, including a title and abstract review followed by a full-text review, to exclude irrelevant and unsuitable articles. We then coded and reviewed articles selected for inclusion, and we abstracted details relating to the focus of our study.

Table 1.1 Methods Used to Answer Each Question

	Method					
Research Question	Literature Review	Program Interview	Policy Analysis	Microsimulation	Expert Panel	
1. What does mental health stigma mean in the military context?	х				х	
2. What is the prevalence of mental health stigma in the military, and what are its medical and societal costs?	х			x		
3. What does the scientific evidence base show about the most-promising program and policy options for reducing stigma?	х				х	
4. How well do DoD's programs and policies align with what the evidence base shows?		х	Х		х	
5. What priorities should DoD consider to enhance and refine stigma-reduction efforts?	х	х	х	х	х	

#### **Microsimulation Modeling of Costs**

To calculate the costs associated with mental health stigma, we constructed a microsimulation model that assesses the societal costs within the United States of service members who do not seek appropriate mental health care because of public or selfstigma. These costs include treatment and rehabilitation costs for service members with posttraumatic stress disorder (PTSD) and depression, medical costs associated with suicide attempts and completions, value of lives lost to suicide, and lost productivity stemming from PTSD and depression. The model takes a representative cohort of service personnel and models their life courses over two years, taking into account probabilistic events that may occur as a result of a mental health disorder (MHD). We used 16 parameters to determine overall societal costs.

#### Interviews with Program Staff

Identifying programs funded by DoD that focus on stigma reduction was not a straightforward task. As a result, we used a multifaceted approach to identifying programs whose staff we sought to interview for this report. Our general approach was to identify as many potential programs as possible in order to ensure that we had not omitted any and to apply the exclusion criteria only after we had adequate information about each potential program, generally obtained through an interview with a program representative. The methods we used to identify programs were web and other media searching; scanning DoD program materials in the public domain (e.g., websites, brochures); reviewing relevant documents in the public domain; consulting with military personnel; obtaining DoD lists of programs; consulting with topic-area experts within and outside of RAND; and snowball sampling. We identified 26 potential programs, five of which met our inclusion criteria. For those meeting inclusion criteria, we then used information from the interviews to categorize these programs activities into those that address stigma in the institutional context, those that address stigma in the public context, and those that support people with mental health concerns at the individual level. A program may contribute to stigma reduction in more than one context.

#### **Prospective Policy Analysis**

We identified and analyzed policies in DoD that could either reduce or increase the stigmatization of those who experience mental health symptoms or disorders or access mental health care. This process involved three steps. First, DCoE supplied a list of 3,558 policies that could potentially have implications for mental health stigma or discrimination. To generate that list, DCoE conducted a prospective policy search using terms related to mental health (e.g., suicide-, mental, psych-, emotion, counseling) and to stigma (e.g., stigma, access, barriers, help) and then removed any counseling policies not directly related to mental health care (e.g., financial counseling). Then, we created a decision tree and used it to systematically determine whether a policy was likely to reduce stigma and discrimination, contribute to it, or not have implications. We identified 323 policies as relevant to mental health stigma (9 percent of the 3,558 identified). We then analyzed the content of these 323 policies deemed relevant to stigma and discrimination and summarized potential implications for DoD.

#### **Expert Panel**

We utilized a modified version of the RAND/University of California, Los Angeles (UCLA) Appropriateness Method (Fitch et al., 2001) to develop a list of recommended priorities. First, we convened a panel consisting of 12 experts in two key areas:

- mental health stigma
- mental health in the military (PTSD, deployment psychology).

We sent experts a summary of the findings from the report and a set of proposed priorities based on these findings. We presented proposed priorities as affirmative statements about what DoD should do to reduce mental health stigma among service members. We presented a short rationale for each priority and possible short- and long-term steps to achieve that priority. During the meeting, panelists discussed the strengths and

¹ Here we mean people with mental health disorders (PWMHDs) but also those experiencing clinical and subclinical symptoms.

weaknesses of each proposed priority, as well as brainstormed on any priorities that were missing from the list. Panelists then rated each proposed priority on its validity and its importance to DoD.

### **Organization of This Report**

Chapter Two presents our definition of *mental health stigma* in the military context, summarizing key findings about how stigma is defined in the literature (research question 1). Chapter Three describes the prevalence of stigma in the general population, as well as the military (research question 2). Chapter Four presents estimates of the medical and societal costs associated with stigma, as well as with other several common barriers to mental health care (research question 2). Chapter Five describes the most-promising program and policy options for reducing stigma (research question 3). Chapters Six and Seven present findings from our assessment of the alignment between DoD programs and policies, respectively, and the current scientific evidence base (research question 4). Recommendations of our assessment are presented in Chapter Eight (research question 5). We also provide eight appendixes: our methods for literature review, definitions of mental health stigma, prevalence of stigma in the general population, the details of our methods for our modeling approach, program descriptions and analysis, our methods for policy analysis, policies with implications for stigma, policies with negative terminology with implications for stigma, and methods used with our expert panel.

# Defining Stigma in the Military Context

This chapter describes the process that we used to derive a definition and conceptual model of mental health stigma in the military context and summarizes key theoretical approaches to understanding stigma. We derived these through the literature review and consultation with our expert panel. The purpose of the definition and conceptual model is to guide the identification of promising intervention strategies and to provide a foundation for our assessment of DoD's current approach to reducing stigma.

# Importance of a Clear Operational Definition and Conceptual Model of Stigma

The variations in definition are very important because the way in which *stigma* is defined dictates the types of stigma-reduction strategies that are pursued. For example, if *stigma* is defined as occurring within the public context, is based on the perception that someone is seeking treatment for an MHD, and reduces treatment-seeking, stigma-reduction strategies might focus on improving attitudes of units, peers, and family members toward mental health treatment. However, if *stigma* is defined as occurring in the individual context because someone fears discrimination if he or she is diagnosed with an MHD, stigma-reduction strategies may focus on educating people at risk for MHDs about privacy policies associated with being diagnosed with MHDs.

More than half of the articles we reviewed (55 percent) did not define *stigma*. Many others used imprecise definitions characterizing stigma by the context in which it occurs (e.g., institutional, public); the impacts of stigma (e.g., discrimination against people with mental health disorders [PWMHDs], decrease in treatment-seeking); and the identifying characteristics associated with stigma (e.g., diagnosis of an MHD, act of treatment-seeking). In total, we identified 98 distinct definitions of *stigma* (see Appendix B). This lack of conceptual clarity makes it difficult to understand what construct was actually being measured or discussed and consequently makes it difficult to identify how best to intervene to reduce stigma.

To avoid the lack of conceptual clarity that accompanies literature without a clear definition of *mental health stigma*, our first objective was to develop a working defini-

tion of stigma and a conceptual model showing the factors that influence stigma and its possible outcomes. The purpose of the definition and conceptual model was to guide the identification of promising intervention strategies and to provide a foundation for our assessment of DoD's current approach to reducing stigma. Although our focus was on mental health stigma in a military setting, we considered a broad range of definitions spanning beyond the military-specific or even mental health-specific context in order to develop our own definition.

# Definition of Mental Health Stigma in the Military Context

The literal definition of stigma is a "brand" or "mark of infamy" (Sadow and Ryder, 2008) associated with a specific subgroup or identity. This "marked identity" (J. Phelan and Link, 2011) indicates that one is outside of what is normal or acceptable, which, in turn, allows for a differentiation process. This differentiation or labeling process is then used to separate or isolate people with the undesirable characteristic (i.e., "'us' from 'them'" [Link and Phelan, 2001]). Through this process, a group (e.g., the general population) does more than simply identify these people as different; members of the group consider such people inferior, and this differentiation may result in discrediting or a loss of status, which "reduces the bearer from a whole and usual person to a tainted, discounted one" (Goffman, 1963).

Though we acknowledge that there are many facets of stigma, for the purposes of this project, we define mental health stigma as a dynamic process by which a service member perceives or internalizes this brand or marked identity about himself or herself or PWMHDs. This process happens through an interaction between a service member and the key contexts in which the service member resides. According to Major and O'Brien (2005), stigma is "relationship- and context-specific. . . . [I]t does not reside in the person but rather within a specific social context" (Dalky, 2012, p. 4).

# Conceptual Model of Mental Health Stigma in the Military Context

The conceptual model operationalizes this definition of stigma by linking it to the key contexts that create stigma—the public context, institutional context, social context, and individual context—and the empirically and theoretically derived impacts of stigma. These include four immediate outcomes we found to be empirically linked to stigma (coping mechanisms [e.g., hide, withdraw], interpersonal outcomes [e.g., selfesteem], attitudes toward treatment-seeking, and intentions to seek treatment) and four long-term outcomes that literature has theoretically linked to stigma (well-being, quality of life [e.g., productivity], treatment initiation, and treatment success). We were unable to empirically link these long-term outcomes directly to stigma. Despite popu-

lar opinion and a strong theoretical base that stigma deters treatment-seeking, we were unable to identify empirical literature to support this link. However, a variety of other factors (e.g., availability of providers, time off of work to seek care) may affect whether intentions to seek treatment translate into actual behavior.

Many sources delineated three key contexts that promote stigma: institutional, public, and self. According to the literature, institutional stigma has been defined as arising from the "policies of private and governmental institutions" that either intentionally or unintentionally "restrict opportunities [and] hinder the options of people with mental illness" (Corrigan and O'Shaughnessy, 2007, p. 90). Public stigma reflects the knowledge, attitudes, and beliefs about PWMHDs or about mental health treatment and the prejudicial and discriminatory behaviors described above, coming from friends, family, co-workers, the public, and even health care providers. Self-stigma was most commonly defined as the "internalization of public stigma" and was often associated with a "loss of self-esteem and self-efficacy" (Corrigan, Thompson, et al., 2003). We believe, however, that the common conceptualizations of institutional and public stigma do not actually define stigma but define instead the specific contexts in which stigma can arise. This is a subtle but very important distinction because stigma is not a characteristic or object that one has or gives; it is a process by which someone perceives or internalizes interactions with specific people in specific contexts.

Figure 2.1 (adapted from Bronfenbrenner, 1979) shows an ecological model of stigma, with the person (service member or not) at the center. The service member is surrounded directly by

- the social context, made up of key relationships someone has with others (e.g., family, friends, unit members, command leadership)
- the institutional context, which is made up of the broader policies and systems within which someone operates
- the public context, which represents the military norms and culture in which the person operates.

Together, the institutional and public contexts make up the broader military context. It is important to note that there are also national norms and an economic and cultural environment of the broader public outside of the military that may affect perceptions of stigma; however, for the purposes of this report, we focus on the contexts specified in the conceptual model.

Within the public and social contexts, several major factors may produce stigma, including the knowledge, attitudes, and beliefs that service members hold about PWMHDs and about seeking mental health treatment. These negative knowledge, attitudes, and beliefs about PWMHDs can translate into discriminatory behavior toward PWMHDs, including withholding help from PWMHDs, avoiding them entirely, segregating PWMHDs from those without, and forcing treatment or criminal

Military norms and culture Public context Military context Military policies, programs, and treatment system Institutional context Family, friends, and unit Social context Service member Individual context erceived stigma **Proximal impacts** Interpersonal outcomes Attitudes toward and Coping (e.g., self-esteem) intentions to seek treatment mechanisms Distal impacts Well-being Readiness Quality of life Treatment-seeking Treatment success RAND RR426-2.1

Figure 2.1 Conceptual Model of Stigma Reduction in the Military

justice actions on PWMHDs. However, there are limited data on the military service members' knowledge, attitudes, and beliefs toward treatment; most of the literature in this area measures perceived stigma toward people seeking treatment rather than stigma toward the treatment itself. Few studies speak directly to the extent of discriminatory

behavior directed toward PWMHDs in a military context.

The majority of literature examining contextual factors at the institutional level focuses on discrimination. Institutional discrimination toward PWMHDs manifests in a range of policies and practices. Some policies or practices may contribute to discrimination toward PWMHDs, while others may be in place to prevent or lessen discrimination. Some research suggests that the military's strict emphasis on fulfilling one's military duties may be a factor leading to stigma and discrimination toward PWMHDs (Gibbs et al., 2011; Barrett, 2011). However, the laws and policies concerning psychological disability and treatment confidentiality in the military are quite different from those in civilian environments, and research has only begun to touch on the range of policies that could contribute to the stigmatization of or discrimination against service members with mental illness.

Recent research suggests that stigma at the individual level almost fully mediates the relationship between negative attitudes, beliefs, behaviors, and policies of the public and attitudes toward and intentions to seek treatment by PWMHDs (Ludwikowski, Vogel, and Armstrong, 2009; Vogel, Shechtman, and Wade, 2010; Vogel, Wade, and Hackler, 2007; Ægisdóttir et al., 2011; Wade and Hackler, 2008). Consistent with our definition of stigma is the finding that such stigmatization at the individual level occurs when PWMHDs internalize the negative attitudes and turn stereotypes about mental illness toward themselves (K. Fung, Tsang, and Cheung, 2011; Corrigan and Watson, 2002; K. Fung, Tsang, Corrigan, et al., 2007; Livingston and Boyd, 2010; Corrigan and Rao, 2012; Corrigan, 2005). As illustrated in our conceptual model (Figure 2.1), this process is often proven or theorized to result in some negative consequences, including lower self-esteem, reduced treatment-seeking, and poor adherence to treatment (Corrigan, 2005; Vogel, Wade, and Haake, 2006; Shechtman, Vogel, and Maman, 2010; Vogel, Shechtman, and Wade, 2010; Barney, Griffiths, Jorm, et al., 2006; Evans-Lacko, Brohan, et al., 2012). For example, there is significant evidence that experiencing and internalizing negative attitudes, beliefs, behaviors, and policies directed toward PWMHDs can have negative consequences for interpersonal outcomes, and some evidence that stigma may influence this population's long-term quality-of-life outcomes, including whether treatment is effective. However, there is not compelling evidence that these same internalizations negatively affect whether service members initiate treatment-seeking, despite the fact that such a relationship is often theorized.

One theoretical approach to help explain these associations put forth by Bruce Link and his colleagues is the modified labeling theory, which emphasizes the interactions between people and their environments (Link, Cullen, Frank, et al., 1987; Link, Cullen, Struening, et al., 1989). According to this theory, negative conceptualizations of mental illness in the form of devaluation of PWMHDs develop early in life. When someone is officially labeled as having a mental illness, the societal meaning associated with a mental illness label becomes personally relevant (Kondrat and Early, 2011). As a result, labeled people come to believe that they personally will be rejected by members of society because of their labeled status and its associated meaning (Kondrat and Early, 2011).

It is important to also note that defining *stigma* as a process helps to emphasize the dynamic nature of stigma. Stigma is not a static concept that is either present or absent but a complex process that can change day-to-day and minute-to-minute based on changes in the relationships and context. The arrows in Figure 2.1 signify the dynamic interaction between the individual and the public and military contexts.

### Military Context Is Unique

The military context has some unique aspects that we should also consider when defining mental health stigma in the military. First, the military screens service members for MHDs upon entry. Therefore, the incidence of some MHDs, such as schizophrenia and bipolar disorder, are not as common among military populations as they are among civilian populations, whereas other MHDs, such as PTSD, are of great concern. Unfortunately, much of the scientific literature has focused on stigma associated with schizophrenia and depression, with little focusing on those PTSD, a primary concern in the military. Second, service members' home lives and work lives are less separate than for their counterparts in the civilian sector. Service members' health insurance provides them access to military service providers, which could help contribute to the perception that leadership will find out if a service member has an MHD. Third, the demographics of the military are unique. The military has a high number of young men. Research has shown that men perceive greater stigma associated with seeking help than women do (Vogel, Wade, and Hackler, 2007), seeking care as a last resort (Angermeyer, Matschinger, and Riedel-Heller, 1999) because they are expected to be stoic, controlled, and self-sufficient (Hammen and Peters, 1978). Finally, the norms and values of unit culture (e.g., shared mission, leave no soldier behind) are a part of the public context that is unique to the military. In the military context, then, we consider mental health stigma to be

- the experiences of service members in response to military institutional factors (i.e., DoD and service-specific policies) leading to discriminatory treatment
- the attitudes, beliefs, and behaviors of others (e.g., family, spouse, unit members) toward service members exhibiting symptoms of or diagnosed with MHDs or who seek treatment.

Again, we refer to *experiences* in a broad sense, encompassing the knowledge, attitudes, beliefs, feelings, intentions, and behaviors of those who are stigmatized.

Of particular importance to the military is the theoretical link suggesting that stigma may affect treatment-seeking and, ultimately, mental health recovery. Recent task force recommendations calling for stigma reduction in the military identify the need to reduce stigma because it serves as a key barrier to help-seeking among service members in need of mental health treatment. These task force recommendations suggest that stigma-reduction efforts are a primary strategy for DoD to increase helpseeking of service members. Improving service members' help-seeking has the longerterm goal of promoting quality of life and well-being among service members and ensuring a mission-ready force.

### Public, Institutional, and Social Contexts Are Interconnected but Not Well **Understood**

Some models of stigma, such as the one in Figure 2.1, touch on the intersecting nature of public, institutional, and social contexts with the individual experience (e.g., Link and Phelan, 2001; Corrigan, Markowitz, and Watson, 2004; Corrigan, 2004b;

Pescosolido, 2008). However, the extent to which public, institutional, and social factors affect each other and the resulting experience of stigma by the PWMHD is not known. Researchers theorize that the relationship between institutional and public factors related to stigma is bidirectional (e.g., Link and Phelan, 2001; Corrigan, Markowitz, and Watson, 2004). Institutional factors leading to discrimination likely shape public perceptions—for example, if policies and practices within the health care system frame a specific MHD as "legitimate," then it may improve the way those exhibiting symptoms of the disorder are viewed in society (Pescosolido, 2008). Conversely, members of the general public may hold stigmatizing perceptions of PWMHDs that could influence institutional policies and procedures. For example, people holding stigmatizing views of PWMHDs may vote for policies that result in discrimination, or they may hold positions of influence that allow them to shape the policies of an institution. Public factors influence stigma in the individual context because stigmatizing normative attitudes and beliefs can result in the internalization of such attitudes and beliefs by those who are in need of help (Essler, Arthur, and Stickley, 2006; Perry, 2011). It is also possible that those who have internalized negative attitudes and beliefs about PWMHDs would then go on to perpetuate the normative stigmatizing attitudes and beliefs. To our knowledge, however, little research explores the potential bidirectional relationship between public factors and individual stigma experience or institutional policies and individual stigma experiences (i.e., the arrows in Figure 2.1), suggesting that these areas are in need of future research.

# Related Terms Are Often Used Interchangeably but Are, in Fact, Distinct from Stigma

One of the key challenges we faced, when reviewing the stigma literature, was that many authors used key terms related to stigma interchangeably with stigma. This suggests that stigma is equivalent to these other concepts and dilutes our ability to conceptually understand how stigma is related. In this section, we briefly summarize how stigma is conceptually linked to stereotypes, prejudice, discrimination, and barriers to care. The purpose of this section is to illuminate how these concepts relate to one another to prevent them from their labels being inappropriately used interchangeably in future DoD literature on stigma.

### Stereotype, Prejudice, and Discrimination

Across the literature, the term *stigma* was commonly used to describe people's attitudes and behaviors with respect to stereotypes, prejudice, and discrimination. Stereotypes are "beliefs about a stigmatized group," while prejudice is defined as the "agreement with stereotypes leading to emotional responses." Discrimination is the "behavioral result of prejudice" (Corrigan, Powell, and Rüsch, 2012, p. 381). The process of moving from holding stereotypes to having an emotional response to them to acting on those responses turns thoughts and beliefs into feelings and attitudes that lead to actions. Although stigma is undoubtedly linked to this process, stereotypes, prejudice, and discrimination are not components of stigma; they are the results of it. "Stigmatizing attitudes . . . can lead to negative feelings, stereotyping and discriminatory behaviors" (Reavley and Jorm, 2011b, p. 1083). This distinction is an important one.

#### **Barriers to Care**

Although we can use the term stigma in a variety of contexts (e.g., physical disability, drug addiction, religious affiliation), we were interested specifically in understanding stigma related to mental health. Several definitions specific to mental health stigma defined stigma as a barrier to care. For example, one article defined stigma as "a barrier that discourages individuals and their families from seeking help" (Rae Olmsted et al., 2011). Though stigma may affect treatment-seeking behaviors, these behaviors should not be included in the definition of stigma; rather, they are better conceptualized as an outcome of stigma. Reducing the scope of mental health stigma to attitudes or behaviors that impede treatment-seeking disregards other important, stigma-like processes that may be equally harmful. Additionally, predefining *stigma* as a barrier to care minimizes the importance of studying the strength of the relationship between stigma and treatment-seeking because it presupposes that such a relationship exists.

# Stigma Reduction Is One Strategy Used to Promote Treatment-Seeking and Well-Being

Stigma reduction is but one of the approaches to promoting treatment-seeking and well-being among service members. Focusing on stigma only, without considering the multitude of approaches to promoting treatment-seeking and well-being, is problematic for the following reasons. First, some experts have postulated that talking about stigma actually creates more stigma. That is, to claim that there is stigma associated with mental illness is to establish and perpetuate an association between mental illness and the negative connotations of stigma. In searching for literature related to this argument, however, we were unable to find any empirical data that supported the idea that talking about stigma worsens or perpetuates it. Some leaders in mental health, however, did assert that stigma—either the concept or the word itself—was problematic.

Second, stigma is often used to cover a broad range of conditions and qualities. This can be problematic, however, in that the distinct components of stigma are rendered indistinguishable, making discourse on specific aspects of stigma and their relation to one another ambiguous (Sayce, 1998). In much of the literature we reviewed, stigma was only implicitly defined; however, it is frequently an explicit focus of studies and policy (Manzo, 2004).

Third, stigma has an individualistic focus. Most definitions of stigma focus either on the stigmatized person (e.g., as being marked or as feeling shame) or on "microlevel interpersonal interactions" (the way someone thinks about or acts toward another person). This fails to capture patterns of social and economic exclusion at the institutional level. Stigma, therefore, is not as effective of a concept when trying to collectively address organizational or societal prejudice as discrimination or oppression is (Oliver, 1990; Sayce, 1998).

Finally, stigma focuses on the recipient rather than the promoter of discrimination. Saying that a certain group carries a stigma or is stigmatized suggests that there is something wrong with the members of the group rather than with those who perpetuate prejudice and discrimination (Chamberlin, 1997). By attaching stigma to PWMHDs, we are "colluding with unfairness" by putting expectations for change on the PWMHDs and letting the rest of society "off the hook" (Sayce, 1998). Furthermore, in attributing stigma to PWMHDs, unfairness is often described as "felt" or "perceived," which belittles the presence of actual disparities in treatment. For these reasons, many critics advocate using the word discrimination rather than stigma.

Because of the multitude of factors that affect treatment-seeking and well-being, it may be important for DoD to use several complementary approaches to encourage treatment-seeking behaviors and retention in care. Additionally, by using a multitude of strategies, DoD can minimize criticisms of any one approach. Each approach should be tied to different barriers that discourage service members from obtaining and remaining in care or facilitators that encourage service members to obtain and remain in care. Table 2.1 presents six different educational approaches to promoting help-seeking, describes the stigma-reduction strategies and relevant targets for change, and provides some sample media campaign messages to help distinguish among these approaches.

Table 2.1 **Examples of Educational Approaches to Promote Treatment-Seeking and Well-Being** 

Approach	Intervention Strategy	Target for Change	Sample Media Campaign Message
Reduce stigma	Expose service members (1) to messages that combat myths and discrimination related to mental health messages of recovery and (2) to messages from others who are in recovery from MHDs.	Negative attitudes or beliefs about PWMHDs; discrimination; social isolation	(1) It is time to talk; it is time to change; let's end mental health discrimination (Time to Change, undated). Mental health symptoms or disorders do not discriminate; people do (Amnesty International, undated). Teenage depression was devastating; childish reactions made it worse (Amnesty International, undated). (2) I am glad I failed at suicide because my life is so amazing now (Safe Schools Coalition, 2013) (typically individual stories or features).
Change military norms	Promote the belief that seeking help is a sign of strength.	Norms encouraging self-reliance, emotional control, and power	Reaching out is a sign of strength; it takes courage to ask for help (Real Warriors Campaign, undated).
Change perceptions about the effectiveness of care	Promote the belief that seeking help is helpful and that service providers can help more than families and friends can.	Perceptions that friends and family are more- effective supports	You cannot fix your mental health with duct tape (SpeakUp ReachOut, 2012). People recover; treatment is effective (Substance Abuse and Mental Health Services Administration, 2013).
Improve peer supports	Educate service members and families on the symptoms of mental illness and available resources.	Social support or encouragement from social network; awareness of available resources; perceptions of need	Back each other up (Back Each Other Up, undated). Look after your mate (University of Bristol Students' Union, undated). Know the signs (Know the Signs, undated).
Reduce access barriers	Educate service members on how to access mental health care.	Logistical and administrative barriers (e.g., transportation, cost, provider availability)	If you or someone you know is in crisis, call (National Institute of Mental Health, undated) (typically messages with information about where to get help, such as crisis lines and websites, often for free).

# Prevalence of Mental Health Stigma in the Military

Given the important and unique impact that military culture may have on stigma, our intent in this chapter is to answer a set of key questions useful to DoD. These questions include "How does the prevalence of stigma in the military compare to that in the general population?" "Is stigma declining in the military?" "Is stigma more prevalent in certain branches of the military or among certain ranks of service members?" and "Are there data available that can be used for longitudinal tracking of stigma prevalence and to evaluate stigma-reduction programs?" As noted in Chapter Two, there are multiple definitions of *stigma*, which constrained us from identifying a single useful measure to serve as a point of comparison between civilian and military populations and between branches of the military. This chapter summarizes the data we were able to locate on trends in reported stigma in military populations and concludes with a brief discussion of limitations and challenges to current stigma measurement and surveillance.

# Prevalence of Stigma in the Military

Several surveys have attempted to measure the impact that stigma has on mental health treatment-seeking in the military. Although the studies are not directly comparable to the U.S. prevalence estimates or to each other given differences in measurement tools, respondent demographics, rank, service, component, and period of deployment, they do collectively provide insight into the prevalence of stigma in the military. Given that perceptions of stigma are more relevant for, and higher among, people who screen positive for MHDs or who have a possible need for services, many sources report perceptions of stigma separately for those who do and do not screen positive for MHDs.

### Joint Mental Health Advisory Team 7

The Mental Health Advisory Team (MHAT) reports provide one of the few consistent sources of publicly available information about stigma in the Army and, in some cases, the Marine Corps. However, the MHAT is applicable only to active-duty deployed soldiers and marines (in some cases) and varies in the ranks assessed (e.g., at times, assesses only E1 to E4). The most recent survey, Joint MHAT 7 (J-MHAT 7) (Office

of the Surgeon General, 2011), was conducted in 2010 in support of Operation Enduring Freedom (OEF) and was led by the Office of the Surgeon General of the Army with support from the Offices of the Surgeons General of the Navy and Air Force and the Office of the Medical Officer of the Marine Corps. The majority of J-MHAT 7 data comes from anonymous surveys collected from land combat service members assigned to maneuver unit platoons. Within every maneuver battalion in theater, three line companies are randomly selected; within those companies, three platoons are randomly selected to make up the cluster-based study sample. J-MHAT 7 presents sample-adjusted values based on male respondents and adjusted for demographic sample differences in rank and months deployed. Although the J-MHAT 7 had several objectives, one primary purpose was to assess behavioral health in land combat forces in Army and Marine Corps maneuver units. As part of that effort, soldiers and marines reported the extent to which they agreed with some factors that affected their decision to receive mental health services. We describe the results in this section, separately for the Army and Marine Corps.

#### Army

Data from E1 through E4 soldiers who had been in theater for nine months show that, of those who screen positive for MHDs, between 28.6 percent ("It would be too embarrassing") and 48.9 percent ("I would be seen as weak") report that stigma-related factors affect their decision to receive mental health services. Other factors included "it would harm my career" (29.2 percent), "my leaders would blame me for the problem" (33.9 percent), "members of my unit might have less confidence in me" (41.8 percent), and "my unit leadership might treat me differently" (46.0 percent). Among those who did not screen positive for any MHDs, the proportion endorsing these items was cut by approximately half, ranging from 13.0 percent ("my leaders would blame me for the problem") to 25.8 percent ("I would be seen as weak").

### Marine Corps

In 2010 (Office of the Surgeon General, 2011), between 19.7 percent ("my leaders would blame me for the problem") and 33.3 percent ("members of my unit might have less confidence in me") reported agreeing or strongly agreeing with such sentiments if they were to seek care for MHDs. As with the Army, the proportion endorsing each of these factors was lower among marines who did not screen positive for MHDs, ranging from 12.6 percent ("it would harm my career") to 22.8 percent ("I would be seen as weak").

We also looked at the historical prevalence of various stigma measures among deployed Operation Iraqi Freedom (OIF) soldiers screening positive for mental health symptoms or disorders (Figure 3.1). We base this figure on publicly available data contained in the Army's MHAT reports. We focused on data from OIF because only two MHAT surveys included OEF data. As such, we omitted data from the J-MHAT 7, which focused only on OEF service members. Similarly, we focused primarily on sol-

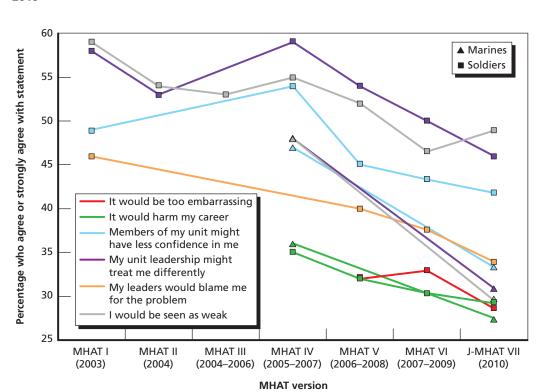


Figure 3.1 Stigma Prevalence as Reported in the Mental Health Advisory Team Surveys, 2003 Through 2010

SOURCES: Operation Iragi Freedom Mental Health Advisory Team, 2003; Operation Iragi Freedom Mental Health Advisory Team II, 2005; Mental Health Advisory Team III, 2006; Mental Health Advisory Team IV, 2006; Mental Health Advisory Team V, 2008; Mental Health Advisory Team VI, 2009; Office of the Surgeon General, 2011. RAND RR426-3.1

diers, although we included data on marines whenever available. Overall, these data illustrate decreasing trends in reported stigma among soldiers and marines. For example, within the Army, the proportion of E1 through E4 soldiers in theater for 4.5 months who reported concern that "it would harm my career" as a barrier to treatment-seeking declined by about 6 percent between 2006 and 2010. Similarly, a comparable group of E1 through E4 marines declined in reporting this by 9 percent.

These data should be interpreted with some caveats in mind. First, the stigmaspecific results presented in MHATs I through IV appear to pertain to soldiers across a range of military ranks, while the stigma-specific data in MHATs V through VII relate specifically to soldiers ranking from E1 to E4. Therefore, these two sets of results (i.e., MHATs I through IV and MHATs V through VII) may pertain to different populations and should be interpreted distinctly from one another. Second, MHATs II and III do not present data for certain measures (e.g., harm to one's career), so these data

points are missing in Figure 3.1. Third, the stigma-specific data reported in MHATs V are presented as "adjusted," but no information is offered to explain the procedures for adjustment. Therefore, it is unclear whether we can appropriately compare these data with MHAT data from other years. Fourth, it appears that the MHAT definition of mental health problems may have changed slightly over time. MHATs I and II define this category as soldiers screening positive for "depression, anxiety, or traumatic stress." MHATs III, IV, V, and VI define mental health problems as "depression, anxiety, or acute stress." Meanwhile, the J-MHAT 7 stated that it included soldiers screening positive for "any mental health problem." Fifth, the nature of certain stigma measures appears to have changed slightly over time and may not be comparable from year to year. Notably, the measure pertaining to differential treatment by members of one's unit is phrased as "my unit *membership* might treat me differently" in the MHAT V and as "my unit leadership might treat me differently" in other MHATs. Finally, stigma-specific data in MHAT VI were not reported in aggregate. Rather, it was reported among two different groups of soldiers: those in maneuver units and those in sustain and support units. To derive percentages reflective of the entire study sample, we estimated these numbers based on the sample sizes of each of the two subpopulations. However, our estimate could not account for survey respondents who may have skipped specific survey questions. Therefore, our estimates may vary slightly from the actual percentages.

### Marines Attending the Combat Operational Stress Control Program

In addition to data on the prevalence of stigma among marines in the J-MHAT 7, a 2012 study examined barriers to help-seeking behavior among 533 marines, drawn from all three communities: infantry (18 percent), logistics (38 percent), and air (44 percent) who attended the Combat Operational Stress Control (COSC) program. Respondents were largely male (92 percent), white non-Hispanic (56.3 percent) or Hispanic (23.7 percent), and 25 or older (66.4 percent). About one-third of the sample were officers (O1-O4; 34.1 percent), and about one out of ten were enlisted (E4-E6, 9.1 percent). The study was conducted "to gather data that can be applied to enhance combat stress briefings to increase help-seeking behavior by targeting the specific concerns" (Momen, Strychacz, and Viirre, 2012, p. 1144). These data can be used as a baseline to track changes over time. Marines reported on factors that affected their decision to seek help for MHDs. These included fear of their commands losing trust in them (49.8 percent), fear of being treated differently (45 percent), concern about lack of confidentiality (37 percent), and a fear of negative effects on their careers (36.5 percent).

### **Navy Quick Poll**

Navy quick polls are brief, periodically administered surveys designed to capture a snapshot, or "quick pulse" view of Navy personnel-related issues. The behavioral health quick poll has been administered annually since 2009, with the most-recent published data from 2011. The prevalence of stigma can be inferred from responses to questions

about whether sailors feel that their command and co-workers would be supportive if they sought help for stress or suicidal thoughts. In both 2009 and 2010, most sailors felt that their command and peers would be supportive if they asked for help, though those who reported "a lot" of stress were more likely to perceive negative outcomes from treatment-seeking. These outcomes included "Chain of Command would be less confident in me," "I would be embarrassed," and "People would treat me differently." Data from 2011 suggest some reductions in stigma, but the improvements were not significant. In 2011, 40 percent of officers and 38 percent of enlisted sailors believed that their commands would treat a person differently if they sought treatment, down from 45 percent and 42 percent, respectively, in 2010. There was also a small decrease among officers who believed that treatment-seeking would have a negative impact on their careers (down to 33 percent in 2011, compared with 37 percent in 2010). When asked about maintaining a security clearance after treatment-seeking, 18 percent of officers and 13 percent of enlisted reported believing that they would be able to keep their clearances, up from 14 percent and 9 percent, respectively, in 2010. Though an increase, the prevalence remains low, suggesting that this is an important barrier to care.

### 2011 Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel

The 2011 Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel (Barlas et al., 2013) includes collected data from 39,877 active-duty members of the services who were not deployed at the time of the survey:

- Army (15.2-percent response rate)
- Navy (22.3-percent response rate)
- Marine Corps (21.3-percent response rate)
- Air Force (32.9-percent response rate)
- Coast Guard (32.3-percent response rate).

Analyses were weighted to be representative of the DoD services and the Coast Guard separately.

More than one-third of respondents felt that seeking mental health treatment would harm their careers, with active-duty Navy personnel most likely to endorse this sentiment (42.1 percent). As in other studies, people who perceived a need for mental health care were more likely to believe that seeking treatment would damage their careers. Of those who perceived a need but did not seek care, 53.0 percent felt that it would damage their careers, while 40.5 percent of those who did seek care felt that it would damage their careers but sought treatment anyway. Among those who did seek care, 21.3 percent reported that treatment-seeking did have a negative effect on their careers, further reinforcing this concern. Service members in the Marine Corps (26.2 percent) and the Navy (24.3 percent) who sought treatment were more likely to report that such treatment had a negative effect on their careers.

### Hoge et al. Study of Barriers to Care Among Military Personnel Experiencing **Combat Duty**

This study examined barriers to mental health care among members of three U.S. Army combat infantry units and one Marine Corps combat infantry unit in 2003 (Hoge, Castro, et al., 2004). Though Hoge and his colleagues conducted the study more than a decade ago, the findings remain salient. Comparison of responses reported in this study and more-current studies supports the notion that there has been a reduction in stigma over time. Anonymous surveys were collected from service members either before their deployment to Iraq or three to four months after their return from combat duty in Iraq or Afghanistan. The surveys asked soldiers and marines about their use of professional mental health services and about perceived barriers to mental health treatment, including stigmatization. Like in J-MHAT 7 and other studies, people meeting screening criteria for MHDs were about twice as likely as those who did not to report concern about being stigmatized as a result of their disorder. Among those who screened positive,

- 65 percent reported that they would be seen as weak
- 63 percent believed that others would treat them differently
- 59 percent felt that members of their units would have less confidence in them
- 51 percent felt that leaders would blame them for the problem
- 50 percent felt that it would harm their careers
- 41 percent reported that seeking care would be too embarrassing.

### Survey of Individuals Previously Deployed for Operation Enduring Freedom or **Operation Iraqi Freedom**

In 2007-2008, RAND researchers conducted a large, population-based survey of service members previously deployed as part of OEF or OIF (Schell and Marshall, 2008). The survey was designed to create a broadly representative sample of the population of those who have been deployed as part of OEF or OIF and targeted 24 geographic areas of the United States that encompass the domestic military bases with the largest overall number of deployed personnel. Overall, 1,938 interviews were conducted, and results were weighted to improve the representativeness of the analytic sample and account for the nonresponse in the sampling. The sample was divided as follows: 48.9 percent Army, 18.6 percent Navy, 19.8 percent Air Force, and 12.7 percent Marine Corps.

Barriers to seeking health care for mental health concerns were assessed through a single question: "If you wanted help for an emotional or personal problem, which of the following would make it difficult?" Statements posed as potential barriers to treatment followed the question, and respondents responded "yes" or "no." Several of these

barriers were drawn from Hoge, Castro, et al. (2004) and represented institutional and cultural barriers to care. Among those who screened positive for MHDs, 43.6 percent reported that "it could harm my career" and 43.6 percent also felt that treatmentseeking could result in being "denied a security clearance in the future." Other barriers included

- "my coworkers would have less confidence in me if they found out" (38.4 percent)
- "I would think less of myself if I could not handle it on my own" (29.1 percent)
- "I do not think my treatment would be kept confidential" (29.0 percent)
- "my commander or supervisor might respect me less" (23.0 percent)
- "my commander or supervisor has asked us not to get treatment" (7.8 percent).

Table 3.1 maps similarly worded items across studies to facilitate examination of the prevalence of stigma in the military.

### **Limitations of Military Measures of Stigma**

Table 3.1 displays the types of measures currently used by the military to assess the impacts of stigma. These questions focus primarily on the institutional (e.g., concerns around security clearance), public, and social contexts (e.g., members of my unit might have less confidence in me). Fewer surveys included such questions as "I would be seen as weak," which assess self-stigma (individual context). Clearly assessing each of these unique contexts is important because research has suggested that different contexts may have different effects on stigma (e.g., Vogel, Wade, and Hackler, 2007, found that the individual context moderates the effects of the public, institutional, and social contexts). Additionally, few measures separately assess perceptions of PWMHDs and treatment for MHDs. Assessing these separately is important because research suggests that the perceptions of PWMHDs and toward seeking treatment are distinct and can have possible unique and additive effects (Tucker et al., 2013).

Given the declining trend in stigma found through the MHAT surveys, we tried to identify data that described treatment-seeking to see whether the trends in treatment-seeking increased as stigma (particularly at the public and institutional contexts) declined. However, we were unable to locate a single source with longitudinal data on treatment-seeking. We did identify a series of studies that assessed treatmentseeking behaviors in a subset of service members with a need for mental health care. These studies reported data in 2004, 2007, 2008, and 2011. In 2004, Hoge et al. found that 72.9 percent of service members in need of mental health care were not seeking care. We analyzed data collected as part of the Invisible Wounds longitudinal survey of service members in 2011 and found that 54 percent of service members in need of mental health care were not seeking care. Because the sources varied in terms of their

Table 3.1 Factors That Affect Decision to Receive Mental Health Services (%)

Factor	Marine Corps COSC Study (2012)	DoD Health Related Behaviors Survey (2011)	Navy Quick Poll (2010)	Navy Quick Poll (2011)	Hoge, Castro, et al. (2004)	Invisible Wounds of War (2008)
It would harm my career.	36.5	37.7	Officers: 37	Officers: 33	50	43.6
Members of my unit might have less confidence in me.	49.8	_	_	_	59	38.4
My unit	45	_	Officers: 45	Officers: 40	63	23.0
leadership might treat me differently.			Enlisted: 42	Enlisted: 38		
I would not be able to keep	_	_	Officers: 14	Officers: 18	_	43.6
my security clearance (quick polls) or I will not be able to obtain a security clearance in the future (Invisible Wounds).			Enlisted: 9	Enlisted: 13		
I do not think that my treatment would be kept confidential.	37	_	-	-	_	29.0

SOURCES: Momen, Strychacz, and Viirre, 2012; Barlas et al., 2013; Newell, Whittam, and Uriell, 2010, 2011; Hoge, Castro, et al., 2004; Schell and Marshall, 2008.

samples (e.g., service branch, mental health disorder, help-seeking period), we cannot definitely say that treatment-seeking behavior among service members is improving. However, further research on treatment-seeking is critical to help determine whether declines in stigma correlate with increases in treatment-seeking.

# Challenges Comparing the Prevalence of Stigma in the Military with That in the General U.S. Population

Comparing data on the prevalence of stigma in the general U.S. population to prevalence within the military poses challenges for several reasons. First, stigma is measured differently in U.S. general population studies and in military studies of stigma. Outside of the military, stigma-related measures encompass a wide array of constructs (see Tables 3.2 and 3.3). Within the military, stigma is largely conceptualized and assessed as a barrier to seeking care. Because of these differences in measurement, making direct comparisons between levels of stigma in the military and in the U.S. population is difficult. Also, national studies among the general population have largely explored stigmatizing attitudes and beliefs toward people with schizophrenia or depression. Depression is commonly studied among military populations as well. However, attitudes and beliefs toward other disorders of interest to the military community, such as anxiety and PTSD, are absent from national studies.

We also point out that the prevalence of stigma varies from country to country (Evans-Lacko, London, et al., 2012; Pescosolido, 2013; Pescosolido, Medina, et al., 2013). Given the amount of U.S. military activity that takes place in countries outside of the United States, it is possible that cultural norms within those countries could affect the well-being of service members deployed to those areas. To our knowledge,

Table 3.2 Studies on Service Members Who Need Mental Health Treatment but Do Not Seek It

Source	Sample	MHD	Percentage with Clinically Significan Symptoms but Not Seeking Help	
Hoge, Castro, et al., 2004	Members of four U.S. combat infantry units (three Army units and one Marine Corps unit)	Major depression, generalized anxiety, or PTSD	72.9	Past year (postdeployment)
Milliken, Auchterlonie, and Hoge, 2007	U.S. soldiers returning from Iraq who completed both a postdeployment health assessment and a postdeployment health reassessment	People referred to mental health treatment (disorders not specified)	45.2	90 days
Invisible Wounds (Schell and Marshall, 2008; Tanielian and Jaycox, 2008)	Representative of deployed forces	PTSD or depression	47.3	Past year
Invisible Wounds (unpublished results from 2011) (see Chapter Four)	Guard and Reserve members in Western Pennsylvania who had been deployed since 2003	Major depression, PTSD, alcohol problems, or suicidal ideation	54.0	Past year

Surveys Assessing Mental Health Stigma

Study	Year	Selected Stigma Items Measured in the Study
U.S. population		
NSDUH	Annually since 1990	Reasons for not seeking mental health treatment, including opinions of neighbors; fear, shame, or embarrassment; effect on job
BRFSS	2007, 2009	Beliefs about caring and sympathy toward people with mental illness; treatment efficacy
GSS		Social distance, perceived dangerousness, treatment endorsement, treatment efficacy ^a
NCS	1990–1992	Treatment-seeking intentions, comfort with talking to a professional, embarrassment about seeking help
NCS-R	2001–2003	Treatment-seeking intentions, comfort with talking to a professional, embarrassment about seeking help
Military populations		
Marine Corps COSC study	2011, 2012	Concerns about career, concerns about treatment confidentiality, concerns about losing unit confidence, concerns about being treated differently by leadership
DoD Health Related Behaviors Survey	2011	Concerns about career
Navy quick poll	2010, 2011	Concerns about career, concerns about losing security clearance, concerns about losing leader confidence
Hoge, Castro, et al., study	2004	Concerns about career, concerns about losing unit confidence, concerns about being treated differently by leadership
Invisible Wounds (Schell and Marshall, 2008; Tanielian and Jaycox, 2008)	2008	Concerns about career, concerns about treatment confidentiality, concerns about losing security clearance, concerns about losing unit confidence, concerns about being treated differently by leadership

SOURCES: Substance Abuse and Mental Health Services Administration (SAMHSA), 2012; Centers for Disease Control and Prevention et al., 2012; Pescosolido, Martin, et al., 2010; Schnittker, 2008; Kessler, 2002; National Comorbidity Survey, undated.

NOTE: NSDUH = National Survey on Drug Use and Health. BRFSS = Behavioral Risk Factor Surveillance System. GSS = General Social Survey. NCS = National Comorbidity Survey. NCS-R = NCS Replication.

no research has explored the interplay between U.S. and military norms about mental health and the norms in countries where service members are deployed. Information about stigma trends in the U.S. general population is available in Appendix C.

^a These stigma items were in reference to a character depicted as having an MHD in a vignette read by respondents.

#### Conclusion

Collectively, these data indicate possible changes in stigma over time and differences across populations. Consistent with the literature, we also found that people seeking mental health treatment reported higher perceived levels of stigma. Although we were unable to definitely conclude that declines in stigma (particularly in the public, institutional, and social context, which are assessed by the MHAT) resulted in increased treatment-seeking, further research is needed to determine the impact of the declines in stigma. Additionally, some limitations preclude drawing conclusive results from the stigma data. As demonstrated by the research summarized in this chapter, no single measure is being used to assess stigma, which likely stems from the multitude of ways stigma has been defined in the mental health literature (see Chapter Two). Most of the military measures assess stigma in the public, institutional, or social context but not within the individual context. Assessing stigma within the individual context is important because it moderates the impacts of the other contexts. Despite the availability of published measures, researchers continue to capture the construct of stigma by pulling out items from existing indexes or scales and creating new items (see, e.g., Tables 3.1 and 3.2). In this light, stigma is not being measured by a single, comparable scale or index but by a series of different single-item questions that are grouped together. Further discrepancies exist in the labels of these groupings, with some researchers referring to the items as stigma while others use different constructs (e.g., cultural barriers to care). Finally, some of the research on stigma prevalence among different populations (e.g., military officers versus enlisted personnel) reports findings that are not statistically significant or for which the significance of differences is unknown.

These challenges pose a major limitation for the advancement of our understanding of stigma and strategies to address it, both within and outside the military context. Notably, any patterns and trends in stigma found in military populations are not directly comparable to those in U.S. prevalence estimates. Among military service members, stigma appears to be declining (according to, for example, MHAT and Navy quick poll data). However, because of the limitations discussed, data on this topic are difficult to interpret. In addition, the extent to which factors at the institutional, public, or individual level contribute to these changes is unknown. Also, little is known about the extent to which stigma prevalence various across different military populations. For example, there is some indication that stigma may vary between officers versus enlisted personnel (see, for example, Navy quick poll data), but these data do not appear to be statistically significant. In the 2011 Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel (Barlas et al., 2013), higher levels of stigma prevalence have been noted among certain branches of service (i.e., active-duty Navy and Marine Corps), but only for specific measures of perceived harm to one's career. Amid these inconclusive results, we note one reasonably consistent finding: People screening positive for MHDs tend to report greater concern about being stigmatized because of their disorders than people without MHDs.

# Societal Costs of Mental Health Stigma in the Military

Given the prevalence of mental health stigma in the military, what are its medical and societal costs? In this chapter, we present a microsimulation model developed to estimate the costs resulting from mental health stigma. We based our model on an existing one that estimates the costs of untreated mental health symptoms or disorders among service members deployed as part of OEF or OIF and developed by Kilmer et al. (2011) as part of the RAND Invisible Wounds project (Tanielian and Jaycox, 2008). To adapt the model to include mental health stigma, we started by reviewing scientific literature to get an estimated value for how stigma may affect the probability of treatment-seeking. As mentioned previously, there was limited empirical literature that assessed direct impacts of stigma on actual help-seeking behaviors—most literature focused on how stigma affects knowledge, attitudes, and intentions to seek treatment. The literature we did identify had conflicting findings about stigma's impact on treatment-seeking. Some studies showed that stigma increased the probability of treatment-seeking; others showed that it decreased the probability of treatmentseeking; and most showed that it had no impact on treatment-seeking. We input the range of values from the literature review into the model, but there was no significant impact on medical and societal costs.

To augment the literature, we conducted a series of regression analyses using longitudinal data from service members collected as part of the RAND Invisible Wounds project (Tanielian and Jaycox, 2008). Our regression showed that stigma did not have a significant impact on probability to seek treatment and therefore would have no significant impact on medical and societal costs.

There may have been some reasons for this finding, which, as mentioned previously, goes against theoretical underpinnings and popular opinion. First, measures have neither fully captured the contexts that affect stigma nor appropriately differenti-

¹ Microsimulation models are event-driven simulations that generate individual life histories that can vary by individual socioeconomic and health-related individual characteristics. Such models are appropriate when needing to capture the complex set of behavioral responses that exist for unique individuals. An advantage of the microsimulation approach is that it can treat MHDs as recurring conditions, allowing for both remission and relapse over time.

ated between stigma directed at PWMHDs and stigma directed at the act of mental health treatment-seeking. In particular, the individual context is the least fully assessed by current military measures of stigma despite research that suggests that it may moderate the affects of the public, institutional, and social contexts. The public, institutional, and social contexts are more fully assessed, but, because they may be moderated by the individual context, they may have the most-distal impacts on stigma. Similarly, stigma may predict other variables that more directly influence behavior. Research has suggested, for example, that greater stigma is linked with more negative attitudes about therapy, which, in turn, leads to decreased intention to seek therapy (e.g., Vogel, Wade, and Hackler, 2007). Intentions then theoretically lead to behavior (e.g., Ajzen et al., 1980; Ajzen, 1991). Because stigma is so distal from the outcome, it may be difficult to empirically link. Finally, stigma may be less directly linked to the decision to seek help than to treatment success. Research suggests that stigma may contribute to decreased compliance with therapeutic interventions (K. Fung, Tsang, Corrigan, Lam, et al., 2007; Sirey, Bruce, Alexopoulos, Perlick, Friedman, et al., 2001); missed appointments (Vega, Rodriguez, and Ang, 2010); early termination of treatment (Sirey, Bruce, Alexopoulos, Perlick, Friedman, et al., 2001); and decreased intention to return for subsequent sessions (Wade, Post, et al., 2011). For example, Wade, Post, et al. (2011) found that self-stigma decreased after an initial session of group therapy but that it still predicted participants' willingness to come back for a second session (i.e., those who were higher on self-stigma scales reported less willingness to return). As previously mentioned, the limited empirical literature in this area challenged our ability to include these long-term outcomes in our model. To truly assess the impacts of stigma, improved research is needed that fully explore the empirical links among the public, institutional, social, and individual contexts and with stigma and to fully explore the full range of potential impacts (e.g., treatment success).

To understand what some of the more-proximal factors are that affect treatmentseeking, we conducted some exploratory regression analyses of other logistical, institutional, and cultural barriers to care, as well as beliefs and preferences for treatment. We found that the perception that friends and family are more helpful than mental health professionals was found to significantly decrease the probability of treatment-seeking. We plugged this into the microsimulation model to examine how reducing this barrier to care by 50 percent and 100 percent affects societal and medical costs. We then convened an expert panel to review and provide feedback on our approach to adapting the model. We describe each of these steps in more detail in this chapter.

# Literature Review to Estimate Stigma's Impact on Treatment-Seeking

To estimate stigma's effect on medical and societal costs, we needed to run the model representing a world in which stigma was absent and then assessing the difference

between this ideal condition and the actual conditions modeled in the simulation. We intended to use evidence-based estimates from peer-reviewed scientific literature to assess the added costs introduced by stigma, so we conducted a literature review to derive these estimates. Appendix D presents a list of the literature we reviewed and a summary of findings.

Although one would expect that greater perceptions of stigma would be clearly associated with lower probabilities of treatment-seeking propensity, the findings in the literature have been mixed. Some studies have suggested that stigma reduces the likelihood that someone will initiate mental health treatment (e.g., Pietrzak et al., 2009; Barney, Griffiths, et al., 2006). However, the majority of studies support a finding that, although stigma is widely reported as a barrier to care, there is no significant evidence that it affects actual mental health care utilization (e.g., Clement, Schauman, et al., 2014; Gould, Adler, et al., 2010; Schomerus and Angermeyer, 2008; S. Brown, 2010; Vogel, Wade, and Hackler, 2007). We were unable to find robust empirical published literature on the direct impact of stigma on mental health treatment-seeking. For a summary of the literature that prior studies cited as empirical evidence or that we identified in our literature review as possibly containing empirical evidence between stigma and treatment-seeking, see Table 4.1. Therefore, we derived an estimate using data from a RAND military survey conducted as part of the Invisible Wounds project that included questions on mental health utilization, as well as stigma and other barriers to care (Schell and Marshall, 2008).

# Regression Analyses to Estimate Stigma's Impact on Treatment-Seeking

RAND researchers conducted a longitudinal large population-based survey on service members previously deployed as part of OEF or OIF (Schell and Marshall, 2008). This survey offers the ability to assess the extent to which specific barriers to care are associated with subsequent mental health treatment in a sample of previously deployed U.S. service members who have been identified as having a need for mental health treatment. To identify the possible effect of mental health stigma on service utilization, we constructed a logistic regression model in which a range of factors assessed at baseline predicted minimally adequate care at follow-up (18 months after baseline). The final analytic sample included 279 active-duty service members who had a need for treatment at follow-up. The analytic strategy was to combine the barriers that were thought to be directly assessing the stigma of mental health symptoms or disorders or treatment into a measure of stigma. Five items were identified as relatively direct measures of a concern that other people might evaluate or treat one poorly because of their stereotypes or prejudice against those with mental health symptoms or disorders (see Table 4.2), which is consistent with our definition of stigma (Chapter Two). Other bar-

Table 4.1
Studies Identified as Most Likely to Have Empirical Evidence of the Association Between Stigma and Treatment-Seeking Behavior

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	What Was the Sample Size of the Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on		Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Aromaa et al., 2011a	Civilian Finnish community	Cross-sectional		39.6% of respondents with major depression had used health services because of mental health symptoms or disorders in the past year, 25% with primary care health center, 18% with outpatient specialist mental health care, and 10% with private practitioner	OR	<i>P</i> -value	The ORs of desire for social distance (0.81***) and antidepressant attitudes (0.63***) are significantly different from 1. The study assesses attitudes only and does not assess treatment-seeking behavior.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Barney, Griffiths, Jorm, et al., 2006	Civilian Australian community	Cross-sectional	1,312	Yes, but only for the respondents (i.e., not adjusted to the population level). This ranges from psychiatrists (34%) to general practitioners (73%).	OR	<i>P</i> -value	The OR of perceived stigma (1.28**) is significantly different from 1, indicating an impact of stigma on intentions to seek treatment. The study did not assess treatment-seeking behavior.
C. Brown et al., 2010	Civilian black and white U.S. adults	Cross-sectional	449	Although 50% of the sample showed symptoms of depression, only about 20% were currently being treated for depression.	Correlation matrix	<i>P</i> -value	Neither internalized nor public stigmas were significantly associated with intention to seek treatment for depression or current treatment for depression.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall e Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Diala et al., 2000	Civilian U.S. community	Cross-sectional	5,877	No prevalence values reported	OR	<i>P-</i> value	The OR of embarrassment if friends knew (0.3**) and comfort with seeking care (0.1** for those with depression; 0.2** for entire sample) are significantly different from 1. The study does not assess treatment-seeking behavior.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on		Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Downs and Eisenberg, 2012	Civilian students at U.S. universities	Cross-sectional	Of the respondents with SI, 51% received treatment in the past year, including therapy (40.9%) and medication (35.8%). Of the same sample, 31.6% were currently receiving treatment, including therapy (19.1%) and medication (24.1%).	OR	<i>P</i> -value and 95% CI	ORs are 1.190** for perceived stigma and 0.725** for personal stigma. The study found that stigma was correlated with treatment; however, because the study was cross-sectional, we were unable to establish a causal link between stigma and treatment-seeking behavior.

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Eaton et al., 2008	General population of U.S. military spouses	Cross-sectional	940	Of the spouses who screened positive for an MHD, 68% received mental health care (41% specialty mental health care, 19% from primary care physician, 8% pastoral counseling), compared with 22% for those who screened negative.	N/A	N/A	N/A (The study measured the prevalence of perceived barriers to care for spouses who screened positive for an MHD but did not assess treatment-seeking behavior.)

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	What Was the Sample Size of the Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How is the Confidence Level Reported?	Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Edlund et al., 2008	U.S. veterans with depression	Longitudinal	395	All veterans in the sample were currently receiving treatment for a chronic health condition, so the sample was not representative of the general population.	OR	<i>P</i> -value and 95% CI	OR is 1.15** for a summary measure of (a) perceived need for depression treatment; (b) believing that treatment for depression will be helpful; and (c) treatment barriers. This summary significantly predicted whether a veteran would initiate and adhere to the use of an antidepressant. However, the subscales were not significant independent predictors.

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Eisenberg, Downs, Golberstein, and Zivin, 2009	Civilian students at U.S. universities	Cross-sectional	5,555	No prevalence values were reported.	OR	<i>P</i> -value and 95% CI	The OR of personal stigma predicting receiving nonclinical support (0.80**) and use of medication (0.57**) and therapy (0.57**) are significantly different from 1, indicating an association between personal stigma and treatment-seeking.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on Stigma Level Reported?	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Eisenberg, Downs, Golberstein, and Zivin, 2009, continued						Perceived public stigma was not associated with a lower likelihood of receiving nonclinical support, therapy, or medication. Stigma did not have a significant association with willingness to discuss problem with academic staff. Because the study was cross-sectional, we were unable to establish a causal relationship between stigma and treatment-seeking.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Givens et al., 2007	Civilian black and white U.S. adults	Cross-sectional	490	Of the respondents, one-third had a history of depression, of whom 90% had prior treatment with either prescription medication or counseling.	Adjusted OR	<i>P</i> -value and 95% CI	Stigma was not associated with acceptability of prescription medication, but two stigma items were associated with intentions to use mental health counseling: feeling ashamed (adjusted OR = 0.43*) and discomfort telling family and friends (adjusted OR = 0.42*). The study did not assess treatment-seeking behavior.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Golberstein, Eisenberg, and Gollust, 2009	Civilian students at U.S. universities	Cross-sectional	2,782	Of the respondents who screened positive for depression or anxiety, 65% perceived a need for help, of whom 52% utilized mental health treatment.	OR	<i>P-</i> value	The OR of perceived stigma's association with perceiving a need for help (0.86**) was significant only for those age 18–22 but not for older students or overall. Perceived stigma was not associated with treatment-seeking behavior.
Gorman et al., 2011	U.S. National Guard members and their significant others	Cross-sectional	332 National Guard members and 212 significant others	Of the respondents screening positive for an MHD, 53% utilized services (50% of guard members, 61% of significant others).	N/A	N/A	N/A (The study compared stigma for people with mental health diagnoses and those without but did not measure the association between stigma and treatment-seeking behavior.)

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on		Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Gould, Adler, et al., 2010	U.S., UK, Australian, New Zealand, and Canadian armed forces	Cross-sectional	12,469	No prevalence values were reported.	N/A	N/A	N/A (The study compared perceived barriers for people with MHDs and those without but did not measure the association between stigma and treatment-seeking behavior.)

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	What Was the Sample Size of the Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on Stigma Level Reported?	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Hoerster et al., 2012	U.S. veterans of Iraq and Afghanistan with symptoms of depression, PTSD, or alcohol misuse	Cross-sectional	305	37% of respondents (all of whom had symptoms of depression, PTSD, or alcohol misuse) reported at least one stigma-related barrier. Both PTSD-symptom severity and depression-symptom severity were significantly reduced in patients who received "adequate" mental health treatment (at least nine visits).	N/A	<i>P</i> -value	In bivariate tests, respondents with at least nine health care visits (the cutoff used for "adequate care") had significantly higher endorsement of stigma-related barriers (mean ± SD of 3.0 ± 1.1 versus 2.6 ± 1.1). When more variables were entered into the model, endorsement of stigma-related barriers was not associated with receiving adequate mental health care.

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on		Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Hoge, Castro, et al., 2004	U.S. combat infantry units	Cross-sectional	6,201	Of the respondents screening positive for an MHD, only 38–45% expressed an interest in receiving help, and 23–40% reported having received professional treatment.	N/A	N/A	N/A (The study did compare stigma for people with mental health diagnoses and those without but did not measure utilization.)
lversen et al., 2011	UK military personnel	Cross-sectional	821	No prevalence values were reported.	N/A	N/A	N/A (The study compared stigma for people with mental health diagnoses and those without but did not measure the association between stigma and treatment-seeking behavior.)

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	What Was the Sample Size of the Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Kessler, Berglund, et al., 2001	U.S. general population	Cross-sectional	7,	Of the respondents who met the criteria for serious MHDs, 46.2% received professional treatment in the past year, compared with 18.3% of those with other MHDs.	N/A	N/A	N/A (Although this study did not measure the association of stigma with utilization, it did report prevalence of reasons for not seeking care. One of the least common reasons was "concerned about what others might think.")
Kim, Thomas, et al., 2010	U.S. active-duty and National Guard soldiers	Cross-sectional	,	Of the respondents reporting mental health symptoms or disorders, 13% of activeduty and 17–27% of National Guard soldiers used some type of professional mental health care.	N/A	N/A	N/A (The study measured the prevalence of stigma for soldiers who screened positive for a mental health symptom or disorder but not the association between stigma and treatment-seeking behavior.)

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	What Was the Sample Size of the Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Link, Struening, Rahav, et al., 1997	Civilian U.S. men with MHDs and substance abuse	Longitudinal	84	No prevalence values were reported.	N/A	N/A	N/A (The study measured the prevalence of stigma for men with MHDs and substance abuse, but all of the respondents were undergoing treatment, so the association between stigma and treatment-seeking behavior was not measured.)
Markowitz, 1998	Civilian U.S. PWMHDs	Longitudinal	610	No prevalence values were reported.	N/A	N/A	N/A (The study measured the prevalence of stigma for PWMHDs but not the association between stigma and treatment-seeking behavior.)

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Perlick et al., 2001	Civilian U.S. people diagnosed with bipolar affective disorder	Cross-sectional	264	No prevalence values were reported.	N/A	N/A	N/A (The study did measure stigma for people with bipolar but did not measure utilization.)
Pietrzak et al., 2009	U.S. veterans of OEF and OIF	Cross-sectional	272	26% of respondents had treatment in past 6 months, and PTSD was positively associated with counseling (OR = 0.83).	N/A	N/A	N/A (The study measured the association of negative beliefs with utilization and with perceived stigma but did not report the association between stigma and treatment-seeking behavior.)

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on		Within the Reported CIs, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Sansone and Sansone, 2013	U.S. military parents of children with psychiatric illness	Cross-sectional	67	No prevalence values were reported.	Correlation	<i>P-</i> value	Although this study did not suggest that stigma affects utilization, it did show a significant relationship between illness severity (as measured by frequency of treatment utilization) of the children and career stigma of the parents.

Table 4.1—Continued

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?	What Was the Sample Size of the Study?	Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on	How Is the Confidence Level Reported?	Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Schomerus and Angermeyer, 2008	Civilian Germans with untreated depression	Cross-sectional	25	28% of respondents (with depression) had used mental health services in the past.	N/A	N/A	N/A (The study found a significant association between personal stigma and lower perceived need for professional help; $\beta$ = -0.59). However, the study did not assess the association between stigma and treatment-seeking behaviors.)

Study	Population	Was the Survey a Longitudinal or Cross-Sectional Study?		Does the Study Report How Many Respondents Are Receiving Treatment for Their MHDs? Is This Adjusted to Reflect Overall Prevalence in the Population?	How Are the Results Showing the Dependency of Treatment Propensity on		Within the Reported Cls, Does the Study Show That Stigma Has a Significant Impact in Reducing the Treatment Probability?
Stone, 1998	Members of the U.S. Air Force	Cross-sectional	391	21% of entire sample had voluntarily used mental health services (did not report for those with MHDs specifically).	N/A	<i>P</i> -value	No significant differences were found between voluntary help-seekers and non-help-seekers or between forced help-seekers or help-contemplators and the rest of the sample in their appraisal of stigma or intentions to seek treatment. The study did not assess treatment-seeking behavior.

NOTE: OR = odds ratio. CI = confidence interval.

Table 4.2 Barrier-to-Care Items in the Invisible Wounds Survey

Domain	Item
Stigma	My friends and family would respect me less. My spouse or partner would not want me to get treatment. My co-workers would have less confidence in me if they found out. My commander or supervisor has asked us not to get treatment. My commander or supervisor might respect me less.
Other barriers to care	It could harm my career. I do not think my treatment would be kept confidential. I would not know where to get help or whom to see. It would be difficult to arrange transportation to treatment. It would be difficult to schedule an appointment. Mental health care would cost too much money. Even good mental health care is not very effective. The medications that might help have too many side effects. It would be difficult to get child care or time off of work. My family or friends would be more helpful than a mental health professional. Religious counseling would be more helpful than mental health treatment. I could lose medical or disability benefits. I could be denied a security clearance in the future. I have received treatment before and it did not work.

SOURCE: Schell and Marshall, 2008.

riers to treatment assessed at baseline were also included in the model as covariates (see Table 4.2). In order to maximize the power to detect an effect of stigma, the model was pruned using a parsimony criterion (Akaike's information criterion; see Akaike, 1987).

Consistent with our review of the empirical published literature is the finding that stigma did not significantly predict subsequent treatment utilization at the p < 0.05level. Before inserting stigma into the model, analysis of the data found that the yearly probability of treatment initiation by service members with a probable need for mental health treatment is 26.8 percent. The regression model shows that, if we were to completely eliminate the effect of stigma, the yearly probability of seeking treatment would still remain 26.8 percent and, with a 95-percent CI of the effect of stigma, we can be relatively confident that the true effect would result in rates of utilization between 21.5 percent and 32.9 percent.

We also conducted sensitivity tests in which the effect of stigma was estimated with and without two other barriers to care in the model that may be partially affected by concerns about stigma (e.g., it could harm my career, I do not think that my treatment would be kept confidential). We found that decreasing stigma would not increase the number of service members seeking mental health treatment. The sensitivity analyses also found that stigma did not significantly predict subsequent treatment utilization at the p < 0.05 level, regardless of whether we include as covariates the two barriers that may be indirect measures of stigma. In all cases, the effect size of stigma as a predictor of mental health treatment is descriptively small.

## **Exploratory Analyses Examining Other Barriers to Care**

However, the data did suggest that utilization depends mostly on age, branch component, PTSD status, and two other barriers to care:

- I could lose medical or disability benefits.
- My family or friends would be more helpful than a mental health professional.

However, the first of these barriers was reported as a barrier only among those not in treatment; no one in treatment endorsed this barrier. Therefore, we were not able to estimate an OR for this first barrier, the fear that medical or disability benefits would be lost if a service member seeks treatment. However, we proceeded in constructing a regression model that predicts utilization based on the second barrier—namely, that support from family and friends provides a more helpful alternative to professional mental health treatment. The OR for this barrier was significantly less than 1, showing a statistically significant effect of this barrier on treatment utilization; people who believed that mental health professionals were not particularly helpful were much less likely to subsequently seek mental health care. Using the treatment probabilities from the microsimulation model (described in detail in Appendix D), our findings suggested that the number of service members seeking mental health treatment would increase approximately 7 percent if this barrier could be eliminated. We then presented these findings to an expert panel.

## **Expert Panel to Vet Model Assumptions and Parameters**

In September 2013, we convened a panel of ten experts whom we asked to provide feedback on

- model assumptions and parameters, particularly for those parameters that have the greatest impact on cost outcomes
- our approach to quantifying the effect of stigma on mental health treatment uti-
- · our analysis of other barriers to care that may affect mental health treatment utilization.

In summary, the expert panel indicated agreement with the model assumptions and parameters and made some recommendations about how model findings should be presented, which we have implemented in this report. A summary of the expert panel discussion is contained in Appendix I.

## **Modeling Societal and Medical Costs**

Following recommendations made by the expert panel, we first modeled medical and societal costs for the hypothetical case in which PWMHDs do not enter treatment. We then modeled baseline costs, which represent suicide and cost outcomes without stigma or any other barriers to care removed. Finally, we modeled costs with a single barrier to care (perception that friends and family are more helpful than a mental health professional) reduced by 50 percent and by 100 percent. More information on the microsimulation model, methods used to adapt the model (literature review and regression analyses), and the findings from the model runs are included in Appendix D.

As the probability that a service member will seek treatment increases (going down the rows in Tables 4.3 and 4.4), total treatment costs increase. The elimination of the barrier "I think my friends and family are more helpful than a mental health professional" does not produce a dramatic increase in treatment costs. Reducing this barrier by 50 percent would increase treatment costs by just under \$3 million. However, looking at total productivity lost and aggregated cost, we see cost savings. Reducing this barrier by 50 percent would result in more than \$9 million in savings in lost productivity and aggregated costs. Not surprisingly, the cost savings are even greater if this barrier is completely eliminated (100-percent reduction). In this case, the aggregated cost would fall by more than \$32 million from the baseline. Notice that, if we eliminate this barrier, cost savings are more than double those produced by only 50-percent reduction (Table 4.3). This is determined by both larger cost savings in total productivity and a smaller number of suicide attempts and, although a marginal reduction, a smaller number of deaths by suicide (Table 4.4).

Table 4.3 Total Aggregate Costs for Each Simulation (in millions of dollars)

Simulation	Total Treatment Cost	Total Productivity Lost	Total Cost of Suicide	Total Cost of Suicide and Value of Life Lost	Aggregated Cost
No treatment	0	741.69	2.55	313.47	1,055.16
Baseline treatment	21.65	650.98	2.26	277.64	950.28
50% reduction in barrier	24.42	641.39	2.23	275.23	941.04
100% reduction in barrier	27.32	624.71	2.18	265.9	917.94

NOTE: The barrier to care referred to in the table is the perception that friends and family are more helpful than a mental health professional.

Simulation	Number of Suicide Attempts	Number of Deaths by Suicide		
No treatment	482	37		
Baseline treatment	425	33		
50% reduction in barrier	420	33		
100% reduction in barrier	410	32		

Table 4.4 Aggregate Suicide Attempts and Deaths by Suicide for Each Simulation

NOTE: The barrier to care referred to in the table is the perception that friends and family are more helpful than a mental health professional.

#### Conclusion

Our regression analyses showed that stigma did not have a significant impact on probability to seek treatment and therefore would have no significant impact on medical and societal costs (i.e., when entered into the microsimulation model, had no effect on initiation of treatment-seeking). We discussed that there may have been some reasons for this finding, which goes against theoretical underpinnings and popular opinion. These include limitations in the way in which stigma is measured. Measures have neither fully captured the contexts that affect stigma nor appropriately differentiated between stigma directed at PWMHDs and stigma directed at the act of mental health treatment-seeking. The public, institutional, and social contexts—which are more fully assessed—may have the most-distal impacts on stigma because they are moderated by the individual context. Similarly, stigma may predict other variables that more directly influence behavior. Because stigma is so distal from the outcome, it may be difficult to empirically link. Finally, stigma may be less directly linked to the decision to seek help than to treatment success.

To understand what some of the more-proximal factors are that affect treatmentseeking, we conducted some exploratory regression analyses of other logistical, institutional, and cultural barriers to care, as well as beliefs and preferences for treatment. Our analyses suggested that other barriers to care (not stigma) may influence treatment utilization—in particular, the perception that support from family and friends provides a more helpful alternative to professional mental health treatment. Reducing this barrier by 50 percent would increase treatment costs by just under \$3 million but would result in more than \$9 million in savings in lost productivity and aggregated costs. Cost savings more than double if we eliminate this barrier, falling by more than \$32 million from the baseline.

**CHAPTER FIVE** 

# Promising Programmatic and Policy Approaches to Reducing Stigma

Given the conceptual model described in Chapter Two, what are the most-promising programmatic and policy approaches to reducing stigma? This chapter presents a review of the literature on evidence-based programs and policies to reduce stigma. We review the factors associated with mental health stigma that can be changed through intervention. To help distinguish factors, we organize them by each of the four key contexts that might be targeted through intervention (i.e., public, institutional, social, and individual) as specified in the conceptual model in Chapter Two. Within each context, we first review the literature, paying particular attention to the strength of evidence for each factor. Then we describe implications for the intervention strategies in the military context.

## Intervening in the Public and Social Contexts

We group together the literature on interventions for the public and social contexts because these interventions are largely overlapping in the literature and vary only based on the population to which the interventions are delivered. For interventions in the public context, these are delivered to broad populations or a group (e.g., an entire installation), whereas interventions in the social context are targeted at friends, family, and unit members. A large majority of the articles we identified on stigma-reduction interventions targeting the public and social contexts were published post-2000, suggesting that the literature on effective stigma-reduction interventions is a growing area. About one-quarter of the articles we reviewed described a stigma-reduction intervention that was tested and found to be effective in reducing stigma (n = 62) or review articles summarizing effective stigma interventions (n = 6).

The literature on stigma-reduction interventions varies from large-scale randomized controlled trials to small-scale pre/post-test designs; however, the majority of the literature is made up of studies that assessed intervention effectiveness through a pre/post approach with limited or no longer-term follow-up and that did not use a control or comparison group. To assess the quality of the literature, we abstracted information about the methodology used in these studies to determine

- whether intervention participants had been randomly assigned to the intervention
- whether there was a control or comparison group
- the type and timing of data collected (cross-sectional versus longitudinal)
- the type of data analyses used to determine intervention effectiveness (e.g., descriptive, bivariate, multivariate).

Only 19 articles used random assignment to establish an intervention group and control group, which is considered to be the least biased way to test an intervention. Among those that used random assignment, about half (n = 10) collected longitudinal data across more than two time points (e.g., pre-intervention, postintervention, six months postintervention) ranging from one week postintervention to six months postintervention. Collecting data longitudinally is critical for stigma-reduction efforts because many of the studies we reviewed found that stigma-reduction interventions had short-term effects that did not last over time (K. Anderson and Austin, 2012; Castro, Adler, et al., 2012; Rusch, Kanter, Angelone, et al., 2008; Jorm, Kitchener, Fischer, et al., 2010; Corrigan, Larson, et al., 2007; Adler et al., 2011). Among those that both used random assignment and collected longitudinal data, about half (n = 6)used multivariate analyses to detect significant differences between their intervention and control groups.

#### **Public and Social Context Interventions Tested in Civilian Populations**

From this literature base, we were able to identify a limited number of well-established interventions tested in civilian populations, each of which we describe in more detail below. We describe interventions that had more than one article published demonstrating their effectiveness or interventions that used random assignment in their testing and collected longitudinal data to demonstrate whether the intervention had lasting impact on participants. We found that interventions ranged widely in terms of the target audience from the public to more-specific populations, such as pharmacy or medical students. We identified no effective interventions focusing on friends, families, or co-workers.

#### Contact with Individuals with Mental Illness

The National Alliance on Mental Illness developed the In Our Own Voice (IOOV) program, which features two people with mental illness interacting with participants for 90 minutes to share their initial experiences with mental illness and how they came to terms with it, effective treatments and daily coping mechanisms, and their successes, hopes, and dreams. The in-person interaction is accompanied by standardized videos or PowerPoint presentations that share more educational information. Several studies of IOOV have been conducted, primarily with undergraduate psychology students. Wood and Wahl (2006) initially tested the effectiveness of this intervention and found

significant decreases in social distance and significant increases in knowledge and attitude scores from pre-test to posttest among the intervention group. Scores did not change significantly for those in the control group. Mann and Himelein (2008) replicated those results. Pittman, Noh, and Coleman (2010) tested the intervention with social work students and found similar impacts on stigma. Rusch, Kanter, Angelone, et al. (2008) followed with a more focused study using a sample of 43 undergraduate psychology students and found that IOOV was more effective than psychoeducation at reducing stigma; however, the impact was short term. IOOV was also tested with medical residents and found to increase their perception that mental health treatment is worthwhile (Schmetzer and Lafuze, 2008).

Using a sample of 200 undergraduate psychology students, Corrigan, Rafacz, Hautamaki, et al. (2010) compared three variations on IOOV to determine relative effectiveness of each:

- the full 90-minute interaction
- an abbreviated 30-minute interaction that features only one speaker and does not use the videos
- an education-only component that does not include any interaction with anyone with mental illness.

Participants in the 90- and 30-minute conditions recalled more positive than negative statements about a person with a mental illness than did participants in the education-only condition, and there were no significant differences between the 30and 90-minute conditions, suggesting that a more streamlined version of this intervention may be as effective as a longer version.

#### Training on How to Help Someone in Emotional Distress

Mental Health First Aid (MHFA) is a nine-hour training to teach participants how to help someone who may be exhibiting suicidal thoughts or behaviors, an acute stress reaction, panic attacks, or acute psychotic behaviors. Several studies (Kitchener and Jorm, 2002, 2004, 2006) found that MHFA decreased social distance, improved perceptions of mental health treatment as effective, increased confidence in providing help to someone with a mental health symptom or disorder, and increased the actual amount of help provided to others. O'Reilly et al. (2011) tested MHFA with pharmacy students and found similar results. Additionally, after the training, student participants were significantly more confident in their ability to provide pharmaceutical services to consumers with mental illness. When they tailored the training to a specific MHD (schizophrenia or depression), Jorm, Kitchener, Fischer, et al. (2010) found variations in effectiveness of MHFA:

- · Beliefs about the effectiveness of depression treatment improved for all participants regardless of whether they received information in a paper manual or through e-learning and continued to remain improved six months after the intervention.
- Beliefs about the effectiveness of schizophrenia treatment improved only for those who received the information through e-learning and was short term (i.e., was not detectable at the six-month follow-up).

#### **Multimedia Campaigns**

Changing Minds was a media campaign in England implemented between 1998 and 2003 using websites, campaign videos in cinemas, leaflets for the public and health care professionals, and reading materials for young people for use in school. Mehta et al. (2009) found that Changing Minds was effective in initially decreasing some negative attitudes toward people with mental illness (e.g., mental illness is a lack of self-discipline and willpower), particularly among people who knew someone with a mental illness (Crisp et al., 2005), but that the impact diminished over time and, in fact, rates of stigma in 2003 were higher than in 1998.

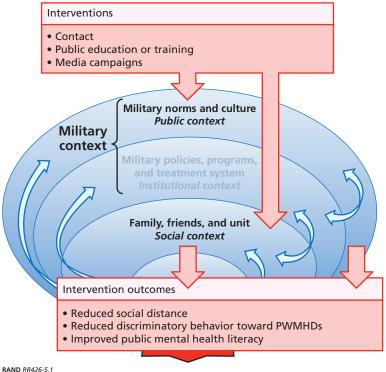
Changing Minds was one of three components in England's overall stigmareduction strategy, Time to Change. Time to Change also includes mass physical exercise events and an online resource on mental health and employment. An assessment conducted immediately after the campaign launched found that fewer people said that they had often or very often worried that others would view them unfavorably because they use mental health services (Schneider, Beeley, and Repper, 2011). Although not a direct measure of stigma, Henderson, Evans-Lacko, et al. (2012) assessed whether people with mental illness experienced more or less discrimination in a range of 21 life behaviors (e.g., from their employers, neighbors, landlords). Twelve months after the campaign launched, respondents reported significantly less discriminatory behavior in about one-third of the life behaviors—specifically, they reported fewer instances of being shunned and fewer instances of being discriminated against because of their mental illness by friends, family, social acquaintances, and employers (Henderson, Evans-Lacko, et al., 2012).

Figure 5.1 shows the conceptual model introduced in Chapter Four with the public-level intervention targets described above. The lines in the model leading from public interventions to treatment-seeking behavior are dashed to indicate that we were not able to locate any empirical evidence that these interventions would increase treatment-seeking, although theoretical models suggest that these factors may be important.

#### **Public and Social Context Interventions Tested in Military Populations**

We were unable to locate a robust literature base specifically testing mental health stigma-reduction interventions in the military context. However, we did identify five





studies focusing specifically on two types of interventions: Battlemind and Trauma Risk Management (TRiM).1 Both of these interventions intend to train the general population of military service members on how to identify and help a person in emotional distress.

Battlemind encourages early identification of PWMHDs by providing education on resiliency and suicide prevention and offering specific interventions, such as suicide incident-response teams during each deployment phase (i.e., predeployment, deployment, redeployment, reintegration). Adler et al. (2011) compared the effects of the Battlemind debriefing with the effects of a standard stress-education course and found that, for participants with high levels of combat exposure, large-group Battlemind training led to lower stigma levels than stress education did (Adler et al., 2011). Similarly, Castro, Adler, et al. (2012) reported that soldiers' changes in attitudes about the stigma of seeking mental health care were found immediately posttraining, but these changes did not carry over at follow-up, suggesting that the training's impact may be

The Battlemind intervention has been integrated in Comprehensive Soldier Fitness. However, we refer to Battlemind throughout the report because that is the name of the intervention used in published literature.

short term. A descriptive study (Warner, Appenzeller, Parker, et al., 2011) looked more broadly at the Battlemind program's impact on deaths by suicide among active-duty Army soldiers who had deployed. Among soldiers who received Battlemind training, the authors found an annual suicide rate of 16 in 100,000, compared with a theater rate of 24 in 100,000 (Warner, Appenzeller, Parker, et al., 2011). Because of the challenges in studying suicide trends (see Ramchand et al., 2011), it is not clear whether this is a significant decrease in deaths by suicide, so it is difficult to determine the effectiveness of the Battlemind program. There has been no research assessing whether Battlemind influences actual treatment-seeking behavior or adherence to treatment.

TRiM is a 2.5-day training in which mental health practitioners in the UK Royal Navy who have been designated as TRiM practitioners teach nonmedical personnel to offer basic skills in psychological first aid and how to identify people at risk of psychological injury to facilitate early referral. A 2007 study found that TRiM improved participants' attitudes to stress and PTSD, general mental health, and the likelihood that participants would seek help from TRiM practitioners (Gould, Greenberg, and Hetherton, 2007). However, a later randomized controlled trial that used morerigorous research methods and compared TRiM with usual care found no significant differences in terms of stigma or psychological health (Greenberg, Langston, Everitt, et al., 2010). Although the Gould et al. study showed that participants reported that they would be more likely to seek help from TRiM practitioners, there is no research showing whether TRiM influences whether service members actually seek treatment or adhere to their treatment regimes.

## Intervening in the Institutional Context

Little research tests interventions at the institutional level. However, numerous researchers have theorized or discussed possible intervention targets. Some researchers have suggested that individual factors are not sufficient targets when seeking to change institutional policies or practices (Hill, 1988; Pincus and Ehrlich, 1999). Although educating key power groups could, in theory, be impactful, changing policy or legislation to modify or counter the stigma or discrimination toward PWMHDs is often viewed as a more appropriate solution (Corrigan, 2005).

Corrigan (2004b) has proposed a "target-specific" stigma change model that focuses on the ability of people in power (via their institutional or organizational positions) to influence stigma and discrimination toward PWMHDs. People in power include employers, health care providers, policymakers, landlords, criminal justice professionals, and representatives of the media. Examples of possible intervention strategies include changing law to affect behavior in the workplace and educating people in power within institutional settings in order to counter negative beliefs about mentally ill people—for example, beliefs that they are not capable of working (Corrigan, 2004b).

Likewise, Link and Phelan (2001) suggest that targeting beliefs, attitudes, and behaviors of specific people (e.g., employers), alone, is insufficient. They further emphasize the need to change the structural conditions leading to stigma. Stigma-reduction efforts, they argue, must change the "fundamental causes" of stigma—i.e., the attitudes and beliefs of people in power or the societal structures that enable these people to impose their attitudes and beliefs onto others. Arboleda-Flórez and Stuart (2012) offer "legislative reform" as a strategy to prohibit discrimination against PWMHDs and ensure appropriate employment, education, and housing. Moreover, Pescosolido (2008) presents a theoretical model encapsulating a range of micro-, macro-, and mesolevel characteristics that may lead to stigmatization or discrimination, including that which occurs within systems of health care.

In the U.S. military context, Kelley et al. (2014) found that perceived organizational support (i.e., the belief that one's organization values his or her contributions and cares about his or her well-being) may be able to lessen stigma among soldiers returning from combat. Perceived organizational support may also be a protective factor for soldiers. Barnes et al. (2013) found that higher levels of perceived organizational support predicted lower levels of PTSD before, during, and after deployment among service members on a peacekeeping mission. Some researchers have also noted the opportunity for stigma intervention in theater by deploying mental health providers with military units and enabling them to become credible "known entities" among the command and particularly command leadership (Hoyt, 2006). Although this strategy is seeking primarily to decrease barriers to care, this may also affect potentially stigmatizing beliefs, attitudes, and behaviors at the military unit level and is one of the strategies of the Navy's Operational Stress Control and Readiness program (Hoyt, 2006). In addition, government policies concerning the disclosure of treatment information may be another target for stigma intervention. As mentioned previously in this report, the government modified its security-clearance application (required for many military occupations) in 2008 amid research highlighting the salience of career concerns among military service members (Schell and Marshall, 2008). This change enabled service members not to disclose the receipt of mental health counseling for combat-caused disorders or for family problems. To our knowledge, neither the stigma nor discrimination outcomes of either policy change have been measured.

Figure 5.2 shows the conceptual model introduced in Chapter Four with the institutional-level intervention targets described above.

## Intervening with People with Mental Health Concerns

To date, the focus of stigma reduction has been on reducing public stigma using the approaches described above. There has been comparatively little research examining the effectiveness of intervention strategies designed to reduce or eliminate self-stigma

Interventions • Policy change Education or training of military leaders Military context Military policies, programs, and treatment system Institutional context Intervention outcomes Reduced discriminatory behavior toward PWMHDs Improved mental health literacy of military leaders Perceived stigma RAND RR426-5.2

Figure 5.2 Interventions in the Institutional Context That May Affect Stigma

(Dickstein et al., 2010; Mittal et al., 2012). Of 14 published studies to date (Luoma et al., 2008; Link, Struening, et al., 2002; McCay et al., 2007; Shin and Lukens, 2002; Alvidrez et al., 2009; Hammer and Vogel, 2010; Griffiths et al., 2004; MacInnes and Lewis, 2008; Knight, Wykes, and Hayward, 2006; Aho-Mustonen et al., 2011; K. Fung, Tsang, and Cheung, 2011; Lucksted et al., 2011; Wade, Post, et al., 2011; Adler et al., 2009), most utilized cognitive techniques (e.g., psychoeducation, cognitive restructuring) to teach people strategies to better control their thoughts, feelings, sensations, and memories. However, some included elements of acceptance and commitment therapy, which focuses on teaching people to notice, accept, and embrace their thoughts, feelings, and memories, rather than actively work to control them. A limited number included more-complex or multimodal interventions, including group discussion, social skills training, goal attainment, and problem-solving skills, in addition to the more-traditional psychoeducation and cognitive behavioral therapy and exercises (K. Fung, Tsang, and Cheung, 2011; Lucksted et al., 2011; Mittal et al., 2012).

Eight of the 14 studies (57 percent) (Luoma et al., 2008; Shin and Lukens, 2002; Hammer and Vogel, 2010; Griffiths et al., 2004; MacInnes and Lewis, 2008; Lucksted et al., 2011; Wade, Post, et al., 2011; Adler et al., 2009) demonstrated significant reductions in self-stigma among those who participated in the intervention. Interventions to reduce self-stigma may be less effective for people with schizophrenia or a psychotic disorder, however; only two of seven studies (28 percent) targeting these populations demonstrated a reduction in self-stigma. Though these types of therapies and interven-

tions hold promise for reducing self-stigma, particularly among people with less severe MHDs, the vast majority of these studies were exploratory in nature with small sample sizes, did not include a comparison group, and did not follow anyone over time to assess whether any observed reductions in self-stigma were maintained postintervention (Dickstein et al., 2010; Mittal et al., 2012). More work is needed to identify the most-effective strategies for reducing self-stigma among PWMHDs.

Figure 5.3 shows the conceptual model introduced in Chapter Four with the individual-level intervention targets described above. The intervention targets currently described in the literature primarily support the development of cognitive coping skills. There is, however, limited evidence that these interventions affect someone's initiation of mental health treatment or retention or adherence to a treatment regime.

### **Summary of Possible Interventions**

Collectively, interventions designed to date have attempted to change and improve the public's knowledge about MHDs and mental health treatment (e.g., mental health literacy) and minimize negative attitudes and behaviors, such as social distancing. Other

**Public context** Military policies, programs, Interventions Psychotherapeutic approach **Education or training Service** member Individual context Perceived stigma Intervention outcomes Improved coping skills and interpersonal outcomes (e.g., self-esteem) Improved attitudes toward and intentions to seek treatment

Figure 5.3 Individual-Level Interventions That May Affect Stigma

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interventions have focused more on helping PWMHDs cope with difficult public and institutional contexts and increase someone's likelihood of help-seeking.

Although such strategies may be promising, more research is needed to fully vet the above approaches and build a consistent evidence base among military-connected individuals. It is also important to note that effectiveness across interventions varied based on type of intervention strategy and by type of MHD (e.g., schizophrenia versus PTSD), and several of the interventions discussed had only short-term impacts.

According to our conceptual model, individual interventions to build cognitive coping skills in PWMHDs may be the most direct way to reduce the negative impacts of stigma. However, building the public and PWMHDs' mental health literacy, increasing positive attitudes and reducing negative attitudes toward PWMHDs and mental health treatment, improving self-efficacy and skills to intervene with someone in emotional distress, and decreasing social distancing may help reduce the negative influences of the public context. Within the institutional context, reviewing policies and practices to ensure that they protect PWMHDs from discrimination and are not likely to inadvertently result in discriminatory treatment of PWMHDs may also help reduce stigma.

If the primary goal is to increase the likelihood that someone initiates treatment, stigma-reduction interventions may not be the only choice. Numerous barriers to treatment-seeking have been identified in the literature, many of which pose a more significant barrier than stigma. Although stigma-reduction efforts may increase treatment-seeking, a multipronged approach to removing barriers may be warranted.

#### **Public and Social Contexts**

Contact-based programs, such as the National Alliance on Mental Illness' IOOV program, that bring together people in recovery from MHDs and their peers without MHDs aim to improve knowledge about MHDs and mental health treatment, also called mental health literacy, and decrease discriminatory behaviors and social distance between PWMHDs and their peers. Similarly, education and training programs intend to teach participants how to help someone in emotional distress and consequently reduce social distance and improve attitudes toward mental health treatment. These programs also target self-efficacy to provide help to someone with an MHD and encourage individual help-seeking behaviors. Multimedia campaigns primarily intend to improve attitudes toward PWMHDs. Again, we were not able to locate any empirical evidence that these interventions would increase treatment-seeking; however, theoretical models suggest that these factors may be important.

#### **Military Context**

There is little research to guide the selection of intervention targets. Perceived organizational support (i.e., belief that one's organization values his or her contributions and cares about his or her well-being) may be able to lessen stigma among soldiers return-

ing from combat and could serve as a protective factor for soldiers (Kelley et al., 2014; Barnes et al., 2013). Researchers have also suggested that educating key power groups and changing policy or legislation to modify or counter the stigma or discrimination toward PWMHDs could, in theory, be impactful by reducing discriminatory behavior toward PWMHDs and improving the mental health literacy of military leaders who often set the climate within units and the military institution as a whole (Corrigan, 2005). Although we were not able to locate any empirical evidence that these changes affect stigma, theoretical models suggest that these changes may be important.

#### **People with Mental Health Disorders**

Cognitive techniques (e.g., psychoeducation, cognitive restructuring) to teach people strategies to better control or accept their thoughts, feelings, sensations, and memories have been shown to be effective at reducing stigma. Evidence supports that these techniques aid in the development of cognitive coping skills. There is, however, limited evidence that these interventions affect someone's likelihood of initiating or remaining in mental health treatment. It is also important to note that effectiveness across interventions varied based on type of intervention strategy and by type of MHD (e.g., schizophrenia versus PTSD), and several of the interventions discussed demonstrated only short-term impacts, or evaluators measured impacts only over the short term.

In summary, our literature review revealed that individual interventions to build cognitive coping skills in PWMHDs may be the most direct way to reduce the negative impacts of stigma. However, building the public mental health literacy, improving positive attitudes and reducing negative attitudes toward PWMHDs and mental health treatment, improving self-efficacy and skills to intervene with someone in emotional distress, and decreasing social distancing may help reduce the negative influences of the public context. Within the institutional context, reviewing policies and practices to ensure that they protect PWMHDs from discrimination and are not likely to inadvertently result in discriminatory treatment of PWMHDs may also help reduce stigma.

# U.S. Department of Defense Programs to Reduce Mental Health Stigma

Despite the availability of a wide range of evidence-based treatments for MHDs, the proportion of service members who seek needed treatment remains low. In response, DoD and individual branches of service have made a concerted effort to promote treatment-seeking through specific programs to reduce stigma, as well as through a widespread culture shift in which mental health is discussed in the context of readiness and resilience and in which help-seeking is redefined as a sign of strength. These approaches are generally aligned with the promising approaches described in Chapter Five and may have contributed, at least in part, to the declining trends in perceived stigma described in Chapter Three. This chapter provides an overview of this culture shift, highlights the success of this approach for reducing public stigma, and describes programs that have activities designed to more specifically address mental health stigma. It concludes with a discussion of approaches that may help augment stigma-reduction efforts in the military and potential lessons learned from civilian approaches.

## The Primary Approach Is a Universal Culture Shift to Promote Mental Health and Treatment-Seeking

In August 2011, DoD mandated that all services "foster a culture of support in the provision of mental healthcare and voluntarily sought substance abuse education to military personnel in order to dispel the stigma of seeking mental healthcare and/ or substance misuse education services" (DoD Instruction [DoDI] 6490.08, 2011, p. 209). Individual services recognize psychological health as an essential component to total force fitness and readiness and have acted on the sentiments in this command notification "by encouraging prevention, early intervention, and help-seeking behaviors" (Nathan, 2012, p. 10). For example, Army Regulation (AR) 600-63 mandates that leaders receive training on how to create an "atmosphere within their commands that reduces stigma and encourages help-seeking behavior" (pp. 64–65). Structural and logistical barriers to receiving mental health care have also been addressed through policies requiring after-duty hours for mental health care, adaptations to psychological health support across traditional and nontraditional health care systems, and imple-

mentation of campaigns aimed at destigmatizing behavior seeking. Chapter Seven contains a more detailed discussion of military policies related to stigma reduction.

Within the military, the culture shift around the acceptability of MHDs and support for mental health treatment-seeking is apparent in some contexts, which is to be commended given that such mandates have been in existence for a relatively short period of time. In addition to the DoD-wide and service-specific policies described above, service members and, in many cases, military leadership are coming forward to tell their stories in different venues and as features of specific programs and media campaigns in the hopes that other service members may relate and see the benefits of mental health treatment. Such efforts also help to dispel the myth that seeking treatment will harm one's military career. This culture shift is also apparent in the large number of programs that educate participants on mental health, review signs and symptoms of MHDs, share mental health resources (e.g., where can one go for help), or encourage treatment-seeking more generally. Examples of these programs include Comprehensive Soldier and Family Fitness, the COSC programs of the Marine Corps and Navy, and the Yellow Ribbon program. These programs collectively contribute to a necessary shift in perceptions about the value of mental health treatment and a reduction in public stigma.

This collective culture shift across DoD programs and policies is a critically important component of a comprehensive strategy to share key messages about mental health, reduce stigma, and increase treatment-seeking. Studies have demonstrated, for example, that culture shapes someone's willingness to seek treatment, as well as his or her feelings of self-worth (Pescosolido, 2013). It has also been argued that more targeted programs designed to promote treatment-seeking among those in need of services, or programs designed to combat stigma among those currently in treatment, may be less successful and positive outcomes may not be sustained if someone seeking treatment consistently receives negative or counterproductive messages from the community (Pescosolido, 2013). Though it is difficult to attribute the decline in public stigma over time to a single program or effort, evidence supporting the effectiveness of this culture shift overall to reduce public stigma can be found in the MHAT data (see Chapter Three), in which opinions about the negative implications of treatmentseeking have generally declined over time.

Though we acknowledge the critical importance of this culture shift and of the wide range of programs and activities that contribute to it to reduce public stigma, identifying every program that referenced mental health or promoted treatmentseeking for inclusion in this report was beyond the scope of this project. Given that the culture shift is occurring and appears to be relatively successful at reducing public stigma, it became apparent that a closer look at some of the more-targeted stigmareduction programs was warranted and may be beneficial to DoD. It is worth noting that, though public stigma has declined overall over time, the perceived negative implications of treatment-seeking remain about twice as high for people who screen positive

for MHDs (e.g., who would benefit from treatment) than for those who did not screen positive. Findings such as these suggest the need for more targeted interventions and programs that not only promote treatment-seeking but also reduce self-stigma and encourage continued engagement with treatment once initiated. Without such supports, people who seek services may find it difficult to stay in treatment.

In Figure 6.1, we adapt the Combat Operational Stress Continuum to help conceptualize the portfolio of DoD programs that address stigma and the approaches used to support a culture shift (discussed above) to promote treatment-seeking. The left side of the blue bar represents the programs that take a broader approach, reaching a much larger population but having less of an emphasis on stigma-reduction strategies specifically. Programs and policies on this end of the continuum are important for spreading messages about mental health and the value of treatment-seeking and contribute to the culture shift described above.

Toward the right side of the blue bar are programs that more specifically target stigma, including self-stigma among those currently in treatment. These programs are important because they not only may help to promote treatment-seeking among those with highest need but also can help people cope with any public or self-stigma received because of treatment-seeking, resulting in a higher likelihood that someone will stay in treatment. Targeted programs, however, are not limited to people with mental health concerns but may include, for example, programs to improve knowledge and reduce stigmatizing attitudes and behaviors among service members who come in contact with or oversee PWMHDs. In general, these programs have a smaller reach and place a greater emphasis on stigma reduction than education about mental health and available resources more broadly. Programs falling in the middle of the bar take a more

Figure 6.1 Approaches to Address Stigma, Promote Treatment-Seeking, and Encourage Continued **Engagement with Treatment Once Initiated** 

Ready (Green)		Reacting (Yellow)	Injured (Orange)	)	III (Red)		
<ul> <li>Optimal functioning</li> <li>Adaptive coping</li> <li>Well trained and prepared</li> <li>Fit, tough, and focused</li> <li>Behaving ethically</li> <li>Cohesive units, ready families</li> </ul>	or imp	r transient distress airment is or irritable ed self-control ocus	More severe or prodistress or impair     Leaves lasting ev     Loss of control or values     Persistent shame or blame	rment idence r moral	Persistent and disabling distress or loss of function  Diagnosable clinical disorder  Symptoms and disability persist over many weeks Symptoms and disability get worse over time		
Emphasis on stigma Population reached Universal Indicated Targeted							

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indicated approach, in which the target audience may include people who have mental health concerns but have yet to seek treatment.1

## More-Indicated or Targeted Military Stigma-Reduction Programs Are Also Being Implemented

We sought to identify and interview representatives from all DoD-sponsored programs that directly supported stigma reduction in the military. Appendix E describes detailed methods used in our approach, as well as program summaries for all included programs.

#### Identifying and Interviewing Representatives from Stigma-Reduction Programs

RAND staff identified 26 programs and conducted 30- to 60-minute interviews with each program to gain a deeper understanding of their activities in stigma reduction to determine whether they met our inclusion criteria:

- The program actively focuses on stigma reduction.
- The program focuses on mental health and not treatment for drug or alcohol problems.
- The activity is sponsored or funded by DoD.
- The activity has a target audience that includes, at a minimum, active-duty, National Guard, or Reserve Component service members or their family mem-
- The activity conducts its efforts either in theater or out of theater and was in operation at some point between January 2013 and July 2013.

Telephone interviews were conducted between January 2012 and July 2013 and covered the following topics:

- background of program (mission and goals, population served, length of time in existence, funding source, staffing model and program leadership)
- program alignment with theoretical model or definition of stigma
- · detailed discussions of components or activities of program designed to address stigma (e.g., how does activity affect stigma, mode of delivery, dose or intensity of activity)
- current enrollment of program, capacity
- program evaluation, evidence of effectiveness.

The mission of indicated programs is to identify individuals who are exhibiting early warning signs or symptoms of MHDs and to target them with special programs (Institute of Medicine, 1994).

Of 26 programs, five met our inclusion criteria. Table D.2 in Appendix D provides a summary of which programs we excluded and the rationale for exclusion:

- Five were excluded because they were not or are no longer DoD-funded.
- Three were excluded because they were no longer in existence or were no longer stand-alone programs (e.g., subsumed by another program).
- One program was excluded because it focused exclusively on alcohol treatment.²
- Nine programs were excluded because they did not or do not directly or primarily target stigma reduction. For these programs, the only activities related to stigma were encouraging treatment as part of broader training, developing communication plans with the goal of normalizing treatment-seeking, describing the availability of mental health services, and promising privacy to service members. For two reasons, we decided to exclude these programs from further review and focus instead on programs that directly and actively addressed stigma:
  - Because these types of activities are implemented across a range of programs, activities, and policies to promote a culture shift around treatment-seeking, it is very difficult to ensure a complete census of all relevant efforts. Identification of every program that mentioned mental health in some capacity was beyond the scope of our project.
  - A recognition remains, as evidenced by the J-MHAT 7 and other data, that these more universal approaches will create some incremental change and that more-targeted programs may be warranted to reach those who are in need of treatment and less likely to respond to more universal approaches.

Because mental health stigma may emerge and present differently in different settings, maintaining the relationship- and context-specific understanding of stigma is critical to our analysis. To ensure that we attend to context, we describe our findings, highlighting program activities that contribute to stigma reduction in the broader military context (i.e., institutional context), the public context (including social networks), and the context of working directly with PWMHDs.

### U.S. Department of Defense Programs and Policies Target the Military Treatment System

See Chapter Eight for an analysis of DoD-wide and service-specific policies that may contribute to or help reduce mental health stigma. However, we highlight one program that targets the military treatment system. The Embedded Behavioral Health (EBH) program employs 13 behavioral health and support personnel per brigade combat team, effectively changing the support structure of the team. The program establishes working relationships between behavioral health providers and key battalion personnel. As

² For the purposes of this report, we focused only on mental health, not substance abuse.

a result, program staff can observe trends in attitudes toward behavioral health within a given unit and can prompt an intervention if prejudicial attitudes or discriminatory behaviors are found to exist. Given that this program results in a change to the staffing and support structure of a brigade combat team, it is included within the military context. Of note, the program has other activities that contribute to stigma reduction in the public context, described in the next section.

## U.S. Department of Defense Programs Target Military Norms, Culture, and Social

We identified five programs that specifically target the knowledge, attitudes, and beliefs that service members, social networks (e.g., family and friends), and providers hold about service members with MHDs and about seeking mental health treatment. Prejudicial negative knowledge, attitudes, and beliefs about PWMHDs can translate into discriminatory behavior, including withholding help from PWMHDs, avoiding them entirely, segregating PWMHDs from those without, and forcing criminal justice actions against them.

EBH, mentioned in the previous section, includes activities that encourage soldiers to talk with peers about behavioral health issues and actively prompts commanders to be proponents of behavioral health and treatment-seeking.

Breaking the Stigma is a U.S. Army Special Operations Command (USASOC) command-driven stigma-reduction training program that aims to build resiliency and optimize performance by reinforcing the importance of maintaining psychological fitness and seeking mental health care when needed. The training is built around a 24-minute video in which a series of senior-ranking and respected special operations forces (SOF) personnel share their stories of dealing with combat- and deploymentrelated issues and the consequences (to their units, careers, and families) of seeking or not seeking help. The training consists of viewing the video, a presentation by two of the video participants, an overview of available resources, a briefing from unit providers, and a briefing from commanders (who share their own connections and experiences).

The Military Pathways program seeks to promote the improvement of mental health though a range of activities. The program offers a web portal that includes selfdirected online mental health screenings, a learning section, a military mental health blog, and a postassessment resource and referral section. The program also conducts an educational program called Signs of Suicide (SOS) for military middle and high school children attending school within the Department of Defense Education Activity (DoDEA) system. Military Pathways also disseminates some educational and promotional materials at a range of events and national screening days. In addition to these activities, the program has some activities more targeted toward people in need of mental health services (a description of these activities is included in the next section).

Afterdeployment.org delivers web-based applications to the military community targeting psychological health and traumatic brain injury (TBI). At the time of this writing (September 2013), stigma was a separate topic page on its website where a reader could find an interactive resource booklet that addresses myths about MHDs and treatment, gives suggestions for changing misconceptions and provides information on how to overcome prejudicial attitudes in oneself and others. Afterdeployment. org also contains eight videos of people sharing their personal stories about their experiences with about toward help-seeking. Program staff reported plans to fold stigma into some clinical topics on the website so that it has a more pervasive presence, rather than isolating it to a single topic page on the website.

The Real Warriors Campaign is a multimedia public awareness campaign designed to encourage help-seeking behavior among service members, veterans, and military families. The campaign's core messages are specifically designed to address the barriers and motivators to seeking care for psychological health concerns that exist within the military community. The core messages let service members, veterans, and their families know the following key things:

- Reaching out for help is a sign of strength that benefits the individual, his or her family, and the entire military community.
- It is possible to seek care for psychological health concerns and maintain a successful military or civilian career.
- Warriors are not alone in coping with psychological health concerns, and every service member, veteran, and his or her family members should feel comfortable reaching out to his or her unit, chain of command, fellow warriors, and community resources for support.
- Experiencing psychological stress as a result of deployment is common, and successful care and positive outcomes are greatly assisted by early intervention.

The campaign features video profiles of real service members of varying ranks, services, and components candidly sharing their stories of coping with and successfully seeking care for psychological health concerns. It also features perspectives from leaders, peers, and family members. The Real Warriors Campaign targets the public context through its outreach efforts and dissemination (e.g., social and traditional media with board audience reach leaders, families, providers, and the public at large).

## U.S. Department of Defense Programs Target People with Mental Health Disorders

The five programs mentioned above that address public context also address the individual context to some extent. Resources, videos, and other educational efforts that may be useful for shaping the attitudes and perceptions of mental health and treatment-seeking of the public in general may also be helpful in shaping similar attitudes and perceptions among people with mental health concerns. Though programs may address both public and individual contexts, some activities, such as online videos of success stories, and key messages around seeking help as a sign of strength that are

offered by the Real Warriors Campaign are designed to more directly address stigma at the individual level.

Military Pathways, for example, offers Video Doctor, an interactive video program designed to walk users through stages of change to assist people in seeking treatment or in caring for themselves. Military Pathways also includes a video, "A Different Kind of Courage," in conjunction with a two-workbook curriculum. The video features current and former service members and spouses who share their personal stories of seeking treatment for mental health issues.

In addition to the online videos described earlier, Afterdeployment.org offers a self-administered assessment to identify one's perceived comfort level with seeking treatment and, as mentioned above, has an interactive resource booklet that includes information on how to overcome perceptions of stigma.

#### Most Stigma Programs Are Department-Wide

Though the culture shift around perceptions of mental health and acceptability of treatment-seeking is occurring DoD-wide, it is also likely that there will be some service variability in their relative emphases on stigma reduction and their support of more-targeted stigma-reduction programs specifically. Of the five programs identified, three are DoD-wide: Military Pathways, Afterdeployment.org, and the Real Warriors Campaign. The remaining two, Breaking the Stigma and EBH, are Army programs. We did not identify targeted stigma-reduction programs within the Navy, Marine Corps, or Air Force, though we do acknowledge the importance of more-widespread education and messaging around mental health and treatment-seeking and the support of people seeking mental health care.

#### Few Stigma-Reduction Programs Are Being Evaluated

The programs above represent an important step forward in an overall stigma-reduction strategy for DoD. This portfolio of programs could be further strengthened, however, by further building the evidence base for their effectiveness—in both reach and impact. We found, for example, that the evaluations conducted on many of these programs lacked the rigor, comprehensiveness, or specificity needed to determine whether these programs are effective. Although each of the five programs collects data on metrics, these metrics are largely process measures, such as website metrics and satisfaction surveys. These are helpful in ensuring that the programs are being used and resonate with the target audience, but they do not provide information on whether the program is effective in reducing stigma or increasing treatment-seeking among those in need of services. Strengthening the evidence base for these programs will provide helpful information about which of these programs should be scaled up or implemented in other locations.

## Suggestions to Augment the U.S. Department of Defense's Approach to Reducing Mental Health Stigma

Though the activities and programs identified above likely contribute to stigma reduction in the military, there are still program areas that DoD may consider augmenting to improve its approach to reducing mental health stigma. To identify these gaps, we compared the programs used by DoD and the portfolio of evidence-based programs we identified as part of our literature review in Chapter Five. Appendix E contains a detailed description of our literature review findings on evidence-based stigmareduction programs.

#### Lessons Learned from Effective Civilian Programs May Help Improve the U.S. Department of Defense Programs Targeting Military Norms, Culture, and Social Context

Though all five programs addressed stigma reduction in the public context, lessons can be learned from approaches in the civilian population to strengthen such efforts. Perhaps one of the best-studied and best-regarded stigma-reduction programs in the civilian context is IOOV, developed by the National Alliance on Mental Illness. Program features include two PWMHDs interacting with participants for 90 minutes to share their initial experiences with MHDs and how they came to terms with those conditions, effective treatments and daily coping mechanisms, and their successes, hopes, and dreams. The in-person interaction is accompanied by standardized videos or PowerPoint presentations that share more educational information. Although there are numerous examples across DoD of people coming forward to tell their stories either in person or in video format (e.g., Afterdeployment.org, Real Warriors Campaign), these videos or encounters are often brief, lasting only a few minutes. A unique aspect of IOOV, and perhaps why it is effective, is that the two people telling their stories are with the participants for 90 minutes and provide the education themselves such that, by the end of the program, participants' perceptions of PWMHDs have changed as they realize that people with mental health concerns are not stereotypically violent, childish, or unpredictable but are people who are of value to society. Although people repeatedly hear messaging about the value of a resilient and ready service member to the military, the implication is that, if a service member is not ready, he or she is of less value to the organization. Messaging is less clear around what value a PWMHD is to the military. Existing programs may benefit from strengthening messaging around success stories of people currently in treatment to help debunk some of the morecommon myths around mental health recovery.

In addition to efforts that are designed to educate the public generally, other stigma-reduction programs have focused on training people to help someone in emotional distress. MHFA is a nine-hour training to teach participants how to help someone who may be exhibiting suicidal thoughts or behaviors, an acute stress reaction, panic attacks, or acute psychotic behaviors. Several studies (Kitchener and Jorm, 2002, 2004, 2006) found that MHFA decreased social distance, improved perceptions of the effectiveness of mental health treatment, increased confidence in providing help to someone with a mental health symptom or disorder, and increased the actual amount of help provided to others. The Royal Navy adapted MHFA to create TRiM, though findings to date have been mixed. As of October 2013, a study was in progress to test the effectiveness of MHFA among U.S. military populations. Though findings have not yet been released, if effective, such programs may provide a fresh perspective on stigma-reduction strategies.

Finally, there may be ways to strengthen the military's antistigma campaign, the Real Warriors Campaign, by drawing on examples from other campaigns that have sought to reduce stigma. Time to Change, for example, was a large social marketing campaign that occurred in England between 2009 and 2011. The campaign deployed messages intended to combat myths about PWMHDs, change attitudes toward PWMHDs, and change behavior toward PWMHDs. Messages were disseminated through many channels, including radio and television ads, websites, online videos, and posters. The campaign is regarded as successful because it resulted in positive shifts in attitudes toward PWMHDs and intentions to be more socially inclusive of PWMHDs across the general population of England (Evans-Lacko, Henderson, and Thornicroft, 2013). Knowledge about mental health and reported social interaction with PWMHDs did not change in the general population. PWMHDs in England reported experiencing less discrimination during the campaign time period (Corker et al., 2013). The Real Warriors Campaign and other stigma-reduction campaigns may be strengthened by adapting messages shown to be successful in other contexts.

## Programs Targeting the Individual Context May Help Broaden the U.S. Department of Defense's Current Approach

To date, there has been comparatively little research examining the effectiveness of intervention strategies designed to reduce or eliminate self-stigma (Dickstein et al., 2010; Mittal et al., 2012). Although reducing self-stigma may be relevant for initiation of treatment, it is also important to encourage continued engagement in care once the person has reached out. Most civilian approaches to overcoming self-stigma for people engaged in care have included cognitive techniques (e.g., psychoeducation, cognitive restructuring) to teach participants strategies to better control their thoughts, feelings, sensations, and memories. Some included elements of acceptance and commitment therapy focus on teaching participants to notice, accept, and embrace their thoughts, feelings, and memories rather than actively work to control them. A limited number of interventions include more-complex or multimodal interventions, including group discussion, social skills training, goal attainment, and problem-solving skills, in addition to the more-traditional psychoeducation and cognitive behavioral therapy and exercises (K. Fung, Tsang, and Cheung, 2011; Lucksted et al., 2011; Mittal et al.,

2012). However, new models for intervention are emerging (e.g., prototype/willingness model by Hammer and Vogel, 2013) that try to change willingness to seek care (a spontaneous decision) in addition to the attitudes and norms that predict intentions to seek care. Although military mental health providers may be providing one or more of these cognitive techniques or approaches to their patients to support their recovery, there is not a standardized program or intervention to address these concerns. Though this may not be a central component of an overall DoD strategy to stigma reduction, it is an important one if the ultimate goal is not just initiation of treatment but successful resolution of the MHD and return to duty.

#### Conclusion

It is clear that a concerted effort is being made within DoD to reduce stigma around mental health with the goal of increasing treatment-seeking among those who would benefit. In recent years, there has been a culture shift in which mental health is discussed more openly, people are coming forward to tell their personal stories of mental health and the benefits of treatment, and a vast array of programs provide high-level education about mental health and discuss the availability of treatment. In addition, we identified five programs that include more-targeted activities designed to reduce stigma in the broader military and public contexts and with PWMHDs. This complement of activities generally aligns with promising practices described in Chapter Five and may have contributed in part to the declines in perceived stigma described in Chapter Three. Though these programs fill important needs, gaps remain in terms of evaluation and establishment of program effectiveness. Although there are models of stigma-reduction programs in the civilian population that could be drawn on to either supplement or bolster existing programs, it is clear from the paucity of research and lack of effective programs that there is no "magic bullet" and that a multipronged strategy is needed. Despite some examples, there is not a lot in the civilian context on which to build. However, DoD may wish to explore ways in which programs or component pieces of those programs may be adopted or adapted to a military setting to augment their ongoing efforts as the military improves efficiencies across medical commands.

# U.S. Department of Defense Policies Related to Stigma

In this chapter, we aim to explore the DoD policy landscape as it pertains to mental health stigma. To identify the institutional policies that might either contribute to or reduce stigma toward service members with mental health challenges or toward those seeking treatment, we conducted a systematic assessment of policies in DoD and the services using a prospective policy-analysis methodology. We first describe the methods of the analysis, followed by a discussion of an important policy tension that emerged from our analysis—the tension between the need for commanders to assess the fitness of service members under their command and the need for privacy among service members with MHDs. Then, we present a summary of the methods and a summary of the institutional policies, highlighting our key findings. Detailed methods of the policy identification and review process are available in Appendix F. A full list of DoD and service-specific policies related to stigma appears in Appendix G.

# **Approach to Prospective Policy Analysis**

To assist DoD in its mission of reducing mental health stigma and promoting treatment-seeking for service members who need it, we opted to take an evidence-informed approach to analyzing DoD policies related to mental health stigma (Lavis et al., 2009); see Figure 7.1. To develop a list of recommended policy priorities, our approach focuses on using evidence from two sources: (1) our systematic assessment of policies (outlined in this chapter) and (2) the literature review exploring stigma, stigma-reduction strategies, and the relationship between stigma and treatment-seeking. Experts in mental health stigma and military mental health then reviewed and rated this list of recommended priorities. Experts rated them on their importance to DoD and their validity (i.e., whether there was evidence to suggest that, if implemented, the action prioritized would reduce mental health stigma). Appendix I contains detailed description of the expert panel methods and describes the expertise of each panel member, as well as the final ratings of each priority. The final priority policy recommendations and the short-and long-term steps to achieve these priorities are described in more detail in Chapter

Systematic assessment of DoD and service-Literature review specific policies Recommended policy priorities Expert ratings of policy priorities Final policy priorities

Figure 7.1 **Evidence-Informed Policy-Analysis Process** 

RAND RR426-7.1

Eight. We hope that these policy priorities are useful in helping DoD to make wellinformed policy decisions.

#### **Literature Review**

Although programs targeting individuals can be one effective strategy for reducing stigma and discrimination (see Chapter Six), our literature review revealed that policy change is a tool for countering stigma toward PWMHDs (Corrigan, 2005). Changing policies is one way to change the structural conditions that can lead to stigma and discrimination within institutions (Link and Phelan, 2001).

#### Systematic Assessment of Policies

In order to determine which DoD policies might be relevant to mental health stigma, we began with a list of DoD policies provided by DCoE. These policies were determined to be potentially relevant to stigma because they contained words related to stigma or mental health (see Appendix G for the full list). We then reviewed each policy to determine whether it was actually relevant to mental health (e.g., some policies contained the term discrimination but about discriminating between stimuli on a test, not about discrimination because of mental health). If the policy was relevant to mental health, we did a more thorough content analysis of the policy to identify key policy issues that could have an impact on stigma by either contributing to or reducing stigma. Content from each policy was assigned to the following ten categories, if applicable, which were generated based on our literature review:

- Six categories focused on policies that may reduce military mental health stigma.
  - mandating a stigma-reduction intervention, such as education, training, or a media campaign (see the literature review for a description of stigma-reduction interventions)

- mandating that mental health providers utilize a psychotherapeutic approach (e.g., cognitive restructuring) for all service members seeking treatment to improve their ability to cope with stigma
- ascribing consequences for behavior that is prejudicial or discriminatory against PWMHDs. These could include personnel actions or legal sanctions.
- mandating that service members with MHDs be treated no differently from those without MHDs. Some examples of this would be policies that mandate that service members with MHDs are to stay with their units and are not prohibited from deploying.
- making the process for accessing mental health care less stigmatizing. This could include offering confidential care or placing mental health providers in less distinct locations.
- protecting the privacy or confidentiality of service members' mental health information.
- Four categories focused on policies that may contribute to military mental health stigma.
  - using **terminology** that is outside the range of standard psychiatric or psychological practice and may be considered to negatively portray PWMHDs (e.g., "bizarre," "temper tantrums," or "childish outbursts")
  - prohibiting certain actions of PWMHDs (e.g., exclusion from certain roles or specialties) or implying incompetence of PWMHDs
  - mandating or implying a lack of privacy or confidentiality of one's mental health information
  - involving non-mental health professionals in determining mental fitness or interpreting the implications of mental health symptoms or disorders.

We also identified a set of policies related to mental health screening in which implications for stigma were unclear. Mandatory screening can be beneficial if it can promote early intervention for those who may display symptoms. However, if screening or evaluation is perceived as a punishment or means for retaliation, then it could be perceived as stigmatizing and may result in negative mental health outcomes.

Policies could have provisions that fell across multiple categories and provisions that both contribute to and reduce stigma. In total, we identified 323 unique policies with implications for stigma. It is important to note that none of the DoD policies mentioned in this chapter has been evaluated to determine its impact on stigma, and it was outside the scope of this study to conduct comprehensive outcome evaluations for each policy.

One hundred twenty unique policies could reduce stigma. The numbers of policies in Table 7.1 do not sum to 120 because some policies had multiple implications for stigma reduction (i.e., one policy could have some aspects that could reduce stigma but also have aspects that contribute to it).

Table 7.1
Number of Policies That May Reduce Stigma

Policy Owner	Mandates Stigma- Reduction Intervention		c Prejudice or			
DoD	2	0	3	8	11	12
Army	5	0	2	11	10	7
Navy	1	0	2	3	3	4
BUMED	0	0	1	1	1	3
Marine Corps	2	0	0	9	4	0
Air Force	3	0	0	4	4	13
National Guard	0	0	0	0	2	0
Total	13	0	8	36	35	39

NOTE: The numbers of policies that may contribute to or reduce stigma are not discrete. Some policies may include provisions that could both contribute to and reduce stigma. BUMED = U.S. Navy Bureau of Medicine and Surgery.

Two hundred three policies may contribute to stigma. Table 7.2 illustrates the number of policies that could potentially increase the stigmatization of PWMHDs,

Table 7.2
Number of Policies That May Contribute to Stigma

Policy Owner	Uses Negative Terminology	Prohibits Actions or Implies Incompetence	Limits Privacy	Has Non–Mental Health Professionals Determine Fitness
DoD	1	21	14	1
Army	4	28	7	10
Navy	0	4	10	8
BUMED	0	1	2	2
Marine Corps	1	23	0	4
Air Force	8	29	16	5
National Guard	0	3	5	1
Total	14	109	54	32

NOTE: The numbers of policies that may contribute to or reduce stigma are not discrete. Some policies may include provisions that could both contribute to and reduce stigma.

based on our policy assessment. It is important to note that the numbers of policies in the table do not sum to 203 because some policies had multiple implications for stigma.

#### Key Findings from the Content Analysis of U.S. Department of Defense Policies

We conducted a detailed content analysis of DoD policies in each of the ten categories in order to summarize similarities and differences across policies that represent trends in DoD policies or areas with clear disagreement or ambiguities. Informed by that content analysis, we identified six key findings:

- Key tensions exist between the privacy of service members seeking mental health treatment and the need for commanders to assess unit fitness.
- Despite the presence of equal-opportunity policies, wide variability and ambiguity in policies that prohibit service members with MHDs from career opportunities may inadvertently create opportunities for discrimination.
- · Policies support universal educational stigma-reduction programs but not moretargeted programs for those in (or in need of) mental health treatment.
- Some policies could potentially reinforce stereotypes through the use of negative terminology.
- Other policies may expose service members to stigma or discrimination because they allow non-mental health professionals to determine mental health fitness.
- · Mental health screening is beneficial for early intervention but, if used improperly, may be stigmatizing and have negative effects on mental health (e.g., reduce self-esteem).

In the rest of this section, we discuss each of these findings in detail, referencing specific policies as examples.

#### Key Tensions Exist Between the Privacy of Service Members Seeking Mental Health Treatment and the Need for Commanders to Assess Unit Fitness

Our analysis identified a key policy tension between the need for commanders to assess the fitness of service members under their command and the need for privacy among service members with MHDs. The nature of the military requires commanders to be aware of factors that affect the ability of service members under their command to execute their required duties. However, one key strategy for reducing stigma as a barrier to care is to allow those with MHDs to seek care privately, under the premise that seeking care in private reduces the likelihood of being exposed to others' stigmatizing attitudes and behavior. Several DoD policies, detailed in this section, illustrate this tension between protecting privacy and keeping commanders appropriately informed.

Military Rule of Evidence (Mil. R. Evid.) 513 details psychotherapist/patient privilege in the military court system. The rule states,

A patient has a privilege to refuse to disclose and to prevent any other person from disclosing a confidential communication made between the patient and a psychotherapist or an assistant to the psychotherapist, in a case arising under the UCMJ [Uniform Code of Military Justice], if such communication was made for the purpose of facilitating diagnosis or treatment of the patient's mental or emotional condition.

However, the following exceptions to this privilege exist (Mil. R. Evid. 513):

1. when the patient is dead; 2. when the communication is evidence of child abuse or of neglect, or in a proceeding in which one spouse is charged with a crime against a child of either spouse; 3. when federal law, state law, or service regulation imposes a duty to report information contained in a communication; 4. when a psychotherapist or assistant to a psychotherapist believes that a patient's mental or emotional condition makes the patient a danger to any person, including the patient; 5. if the communication clearly contemplated the future commission of a fraud or crime or if the services of the psychotherapist are sought or obtained to enable or aid anyone to commit or plan to commit what the patient knew or reasonably should have known to be a crime or fraud; 6. when necessary to ensure the safety and security of military personnel, military dependents, military property, classified information, or the accomplishment of a military mission; 7. when an accused offers statements or other evidence concerning his [or her] mental condition in defense, extenuation, or mitigation, under circumstances not covered by [Rule of Courts-Martial] 706 or Mil. R. Evid. 302. In such situations, the military judge may, upon motion, order disclosure of any statement made by the accused to a psychotherapist as may be necessary in the interests of justice; or 8. when admission or disclosure of a communication is constitutionally required.

Note that this policy applies only to service members who have been court-martialed.

Although most states specify that mental health professionals have a "duty to warn" or "duty to report" if a client or patient poses an imminent danger to him- or herself or others (i.e., exception 4), exception 6 is unique to the military context and provides a broader set of circumstances in which psychotherapist/patient privilege does not hold. Mil. R. Evid. 513 allows for some confidentiality of patients' interactions with their psychotherapists but provides an exception for when the patient disclosed information that could harm military resources or missions.

Mental health professional/patient privilege is further discussed in Air Force Instruction (AFI) 44-109 ("Mental Health, Confidentiality, and Military Law"), which explicitly acknowledges that the policy is intended to balance "the commander's need to know the mental well being of members of his/her command with the mental health patient's need for confidentiality and privacy." This policy reiterates Mil. R. Evid. 513 for cases initiated under the UCMJ but goes further in specifying the Air Force Limited Privilege Suicide Prevention (LPSP) program. The objective of the LPSP program

is to "identify and treat those Air Force members who, because of the stress of impending disciplinary action under the Uniform Code of Military Justice (UCMJ), pose a genuine risk of suicide" (AFI 44-109). Under the program, any official involved in the impending disciplinary action who has a "good faith belief" that the service member in question is at risk of attempting suicide can notify the service member's commander that the service member "be referred for a mental health evaluation and possible placement in the LPSP Program." If a mental health professional conducts an evaluation and believes that there is a suicide risk, the service member is placed in the program and receives "limited protection" (that is, limited ability to invoke the privilege in military court) until a mental health professional believes that there is no longer a continuing risk of suicide. Limited protection refers to "information revealed in, or generated by [the service member's] clinical relationship with [mental health professionals]. Such information may not be used in the existing or any future UCMJ action or when weighing characterization of service in a separation." The parties to whom mental professionals can disclose case-file information for a service member in the LPSP program are the following (AFI 44-109):

Other medical personnel directly engaged in evaluating and treating program participants. This would include [mental health] professional staff at other facilities to which the member may be referred.

VA [U.S. Department of Veterans Affairs] treatment personnel when members are transferred directly to a VA facility.

The confinement facility commander when members are transferred to a confinement facility as a result of an ongoing court-martial.

Other authorized personnel with a need to know in the official performance of their duties. . . . However, if the disclosure is for the purpose of a criminal investigation or proceeding under the UCMJ, the privilege in Military Rule of Evidence 513 . . . will preclude disclosure unless an exception applies. [Mental health] professionals should consult with the staff judge advocate before any release made under this provision.

The policy also refers to a later section indicating when a mental health professional is required to contact the service member's commander. These circumstances are the following (AFI 44-109):

In the [mental health professional's] opinion, the member is a danger to self or others, or poses a threat to security.

The member is admitted to or discharged from a mental health unit or ward, or when a member is referred for admission to a medical unit by [a mental health

professional] for a mental health related concern (e.g., detoxification, treatment of a self-inflicted injury, assessment of neurological impairment, etc.);

In the [mental health professional's] opinion, the member's mental status has deteriorated to the degree that it may significantly affect work or family functioning. (NOTE: "Significantly affect" is defined as posing a risk to self, others, property, security, or the accomplishment of the military mission.)

The [mental health professional] suspects the existence of family maltreatment, substance abuse, or other child abuse. (Notification to [the] Family Advocacy [Program] is also required IAW [in accordance with] AFI 40-301, Family Advocacy)

As with Mil. R. Evid. 513, this policy aims to balance the service member's need for confidentiality with the military's need to mitigate effects of the service member's MHD on military readiness.

DoDI 6490.08 ("Command Notification Requirements to Dispel Stigma in Providing Mental Health Care to Service Members") aims to dispel stigma through the protection of the privacy of those seeking mental health care by requiring that care not be reported to a service member's commander unless a specific duty-to-report event occurs. Although this protects privacy, it also indicates that there are indeed circumstances in which service members' mental health status and treatment-seeking are not kept private. These circumstances are as follows (DoDI 6490.08):

Harm to Self. The provider believes there is a serious risk of self-harm by the Service member either as a result of the condition itself or medical treatment of the condition.

Harm to Others. The provider believes there is a serious risk of harm to others either as a result of the condition itself or medical treatment of the condition. This includes any disclosures concerning child abuse or domestic violence consistent with DoD Instruction 6400.06. . . .

Harm to Mission. The provider believes there is a serious risk of harm to a specific military operational mission. Such serious risk may include disorders that significantly impact impulsivity, insight, reliability, and judgment.

Special Personnel. The Service member is in the Personnel Reliability Program as described in DoD Instruction 5210.42 . . . or is in a position that has been preidentified by Service regulation or the command as having mission responsibilities of such potential sensitivity or urgency that normal notification standards would significantly risk mission accomplishment.

Inpatient Care. The Service member is admitted or discharged from any inpatient mental health or substance abuse treatment facility as these are considered critical points in treatment and support nationally recognized patient safety standards.

Acute Medical Conditions Interfering With Duty. The Service member is experiencing an acute mental health condition or is engaged in an acute medical treatment regimen that impairs the Service member's ability to perform assigned duties.

Substance Abuse Treatment Program. The Service member has entered into, or is being discharged from, a formal outpatient or inpatient treatment program consistent with DoD Instruction 1010.6 . . . for the treatment of substance abuse or dependence.

These conditions overlap with those in Mil. R. Evid. 513, and, in these cases, DoDI 6490.08 indicates that the provider is to disclose the minimum amount of necessary information to the commander.

In addition to limited privilege, some services offer special privacy protections after a disaster or other traumatic event. DoDI 6200.03 (Public Health Emergency Management Within the Department of Defense) outlines the procedures for a disaster mental health response team to address the psychological aspects of a public health incident. This policy states that the help and resources provided by this team are not to be documented in medical or mental health records. As a result, mental health may be perceived as easier to access at a time (i.e., during a disaster) when people may be in need. Similarly, the support services offered by Air Force Traumatic Stress Response (TSR) teams to service members (AFI 44-153, Traumatic Stress Response) are not documented in medical or mental health records, protecting the privacy of airmen seeking prevention or early intervention services after a traumatic event. TSR teams offer education, screening, and referrals for treatment to airmen after a traumatic event occurs. They do not provide treatment.

In nonmedical settings, DoDI 6490.06 ("Counseling Services for DoD Military, Guard and Reserve, Certain Affiliated Personnel, and Their Family Members") protects the confidentiality of those seeking nonmedical counseling through Military OneSource or Military Family Life Consultants unless a need-to-disclose situation arises (e.g., indicating intent to harm self or others).

Despite Equal-Opportunity Policies, Wide Variability and Ambiguity in Policies That Prohibit Opportunities May Inadvertently Create Opportunities for Discrimination

Most of these are policies we identified that mandate equal treatment for people with mental health challenges present or reference equal-opportunity statements. DoD Directive (DoDD) 1350.2 (Department of Defense Military Equal Opportunity [MEO] *Program*) states that DoD policy is to

ensure that all on-base activities and, to the extent of the ability of the Department of Defense, any off-base activities available to military personnel are open to all military personnel and their family members regardless of race, color, religion, age, physical or *mental disability*, sex, or national origin. (emphasis added)

Thus, this and other policies explicitly name service members and their family members who have MHDs as a protected group.

Despite the emphasis on equal opportunity, we identified 97 policies that prohibited the actions of PWMHDs or seeking treatment. For most of these policies, action was prohibited in the form of restricting service members with MHDs from serving in certain positions. The nature of the positions with mental health restrictions varies greatly. For example, someone with a history of mental health symptoms or disorders may be disqualified from positions as a chaplain assistant (AFI 52-102V2, "Chaplain Assistant Professional Development"), nuclear weapon personnel (AR 50-5, *Nuclear Surety*), drill sergeant (AR 614-200, *Enlisted Assignments and Utilization Management*), or postal clerk (Marine Corps Order [MCO] 1200.17D, *Military Occupational Specialties Manual*, parts 1, 2, and 4), to name a few. Although some of these limitations may be reasonable (e.g., if the position is one in which the consequences of not performing it properly could result in direct harm to others), other limitations may unnecessarily eliminate service members with past mental health symptoms or disorders who have recovered and could competently fulfill their duties in the position.

Another policy, DoDI 6130.03 (Medical Standards for Appointment, Enlistment, or Induction in the Military Services) contains a list of mental and behavioral health disorders that preclude joining the military. The list contains a large number of disorders, including psychotic disorders, bipolar, major depression with care for more than two years, adjustment disorder, history or disturbance of conduct, impulse control, other behavior and personality disorders, eating disorders, suicidal behavior, psychiatric hospitalization, PTSD, obsessive-compulsive disorder, and anxiety disorder. The implication is that people with any of these disorders (regardless of treatment or recovery status) are not able to fulfill the duties required of them in the military. This may be true for some people, but, for others, those who have experienced MHDs and recovered from them, the assumption of incompetence or inability to fulfill military duties may be incorrect. Revising these policies may help signal the commitment of DoD and each service to reducing the stigmatization of PWMHDs and may implicitly signal that such stigmatization is not acceptable.

Wide variability and ambiguity in the discussion of MHDs complicate the issue of restricting someone with an MHD or a history of MHDs from serving in the military or fulfilling certain roles. *Having an MHD* could refer to having received a diagnosis of the disorder in the past, currently having a diagnosis, or currently having the diagnosis and managing it adequately with treatment. Because interpretation of what *having an MHD* means can affect the jobs and roles service members may hold, clear

guidance on what constitutes having a mental health symptom or disorder needs to be provided. Understanding what is meant by saying that a service member has an MHD and where he or she is in the recovery process is relevant to determining how policies apply to these people. Although many of these policies may be appropriate, others may be unnecessarily restrictive and eliminate opportunities for service members with mental health challenges. Many of these policies would benefit from clarifying language around exactly what mental health experience (e.g., current diagnosis managed with treatment, former diagnosis) precludes a service member from filling a role.

### Policies Support Universal Educational Stigma-Reduction Programs but Not More-Targeted Programs for Those in Mental Health Treatment

We identified 13 policies that enacted a formal program that may support stigma reduction, most typically as part of a broader educational program about suicide, mental health, or redeployment. The policies did not describe stigma-reduction messaging in great detail, and further evaluation of each stigma-reduction program would be necessary to determine its effectiveness. For example, AFI 90-505 (Suicide Prevention Program) includes a suggested suicide prevention training curriculum that addresses stigma through the presentation of information about common concerns (e.g., treatment-seeking affecting ability to gain security clearances, confidentiality of treatment) and career effects of help-seeking. In another example, AR 600-63 (Army Health Promotion) describes leadership training required of all Army leaders. This training covers such topics as

current Army policy toward suicide prevention, suicide-risk identification, and early intervention with at-risk personnel. This includes how to refer subordinates to the appropriate helping agency, and how to create an atmosphere within their commands that reduces stigma and encourages help-seeking behavior.

We were unable to identify any policies that explicitly discussed the use of psychotherapeutic approaches to aid service members in coping with the experience of stigma. It is possible that military behavioral health personnel use this technique as part of their treatment strategies. However, none of the policies that we reviewed explicitly documented it. Careful consideration of how policies may protect these people or allow them to cope with stigmatizing and discriminatory behavior from others would help bridge a gap in the current landscape of policies addressing stigma. This is especially important given the findings described in Chapter Two, that perceptions of stigma were twice as high among those seeking treatment for MHDs as among those not seeking treatment.

We were also unable to identify policies that supported the adaptation or use of documented, efficacious stigma-reduction programs designed for the general population. However, DoD is currently pilot-testing MHFA in a military context.

#### Some Policies Reinforce Stereotypes Through the Use of Negative Terminology

Fourteen policies were identified that could potentially reinforce negative stereotypes about PWMHDs. These policies used negative terminology to refer to PWMHDs, their capabilities, or actions (see Appendix H for these policies). Referrals to PWMHDs as being unsuitable or including MHDs in a list of characteristics that make people a risk for dangerous or violent behavior promote stereotypes of PWMHDs being unable to recover, unable to execute their duties, or being dangerous. Other language also implies childishness, using such phrases as "acting out" or having "temper tantrums." In addition to the 14 policies identified, many more policies contained terminology that is standard within the legal or medical context (e.g., "mental incompetence," "mental defects") but that can be in conflict with a focus on stigma reduction because they promote negative attitudes and beliefs about PWMHDs.

#### Policies Allow Nonprofessionals to Determine Mental Health Fitness, Which Could Promote Stigma

We identified 32 policies that allow people who are not mental health professionals to determine mental fitness or interpret the implications of mental health symptoms or disorders. Having people without adequate or appropriate mental health training make determinations about mental health status allows for the possibility that someone's lack of knowledge or potentially stigmatizing attitudes can result in discrimination toward the person experiencing mental health challenges. For example, consider Army Tactics, Techniques, and Procedures (ATTP) 3-21.9 (SBCT [Stryker Brigade Combat Team] Infantry Rifle Platoon and Squad). This policy states that "platoon and squad leaders are active participants in the areas of hygiene, sanitation, counseling, and the treatment of stress and combat and operational stress reactions" (emphasis added). Including treatment in the platoon and squad leader's role could potentially lead to negative outcomes for soldiers. Leaders who have inaccurate knowledge or who hold stigmatizing attitudes toward PWMHDs could negatively affect the lives of soldiers experiencing mental health symptoms.

#### Policies That Support the Use of Mandated Mental Health Screening for Specific Individuals or Groups May Have Implications for Stigma

We identified 33 policies related to mental health screening that neither clearly contributed to nor clearly promoted stigma. Mental health screening can be a positive step to early intervention, identifying service members in distress or at risk of experiencing MHDs and referring them to appropriate resources. However, inappropriate use of mental health screening or evaluation (e.g., as a punishment or means of retaliation, by non-mental health professionals) could lead to negative attitudes toward early intervention and treatment and, in the case of screening that utilizes self-reports of symptoms, efforts by service members to avoid screening positive for MHDs. Some policies indicate that inappropriate use of screening may occur. For example, BUMED Instruction 5041.6 ("Navy Medicine Hotline Program") details a hotline and protocols

for reporting retaliatory mental health evaluations (e.g., ordered for a service member as a punishment). We also note that screening could result in stigmatization if it is carried out in such a way that some groups of service members are referred for screening more than others, implicitly creating a distinction between the groups based on actual or perceived potential for MHDs. Because inappropriate use could outweigh the positive benefits of screening, careful consideration of implementation of screening policies (e.g., providing safeguards, such as BUMED Instruction 5041.6, thoughtfully selecting time points for screening) is necessary.

#### Conclusion

In summary, we were unable to identify any tracking or measurement of institutional context, so it is difficult to know the impacts of the policies we describe above. However, survey items that assess concerns that seeking mental health treatment may negatively affect military careers, a highly endorsed concern in the military, may provide useful context for interpreting the impact of these institutional factors. Our review of the policy context found that ambiguities in policy language might contribute to concerns. Despite the presence of equal-opportunity policies, wide variability and ambiguity in policies that block service members with MHDs from career opportunities may inadvertently create opportunities for discrimination. These policies do not define triggers for opportunity limitations (e.g., any history of an MHD, anyone engaged in treatment) and do not acknowledge a threshold of symptomology or continuum of recovery. Additionally, conflicting language and intentions of policy highlight key tensions between the privacy of service members seeking mental health treatment and the need for commanders to assess unit fitness. These tensions will need to be addressed if DoD is to be successful in encouraging treatment-seeking among more of its service members.

We also identified policies that support universal educational stigma-reduction programs but not more-targeted programs for those in mental health treatment. This is a key gap in programs, given the higher prevalence of stigma among service members in treatment than among those not in treatment.

Finally, we identified three areas of policy that DoD should consider reviewing. First, some policies used negative terminology and reinforced stereotypes about PWMHDs. Revising this language may help to minimize the likelihood that service members would feel stigmatized as a result. Second, we identified policies that allow nonprofessionals to determine mental health fitness and that support the use of mandated mental health screening for specific individuals or groups. Although these practices may be important to protect unit fitness in the military context, these practices may put some service members at risk for stigma and discrimination. Third, mental health screening and evaluation programs may be used inappropriately, and careful consideration of the implementation of such programs is necessary to ensure that these programs promote positive, rather than negative, attitudes toward treatment-seeking.

# **Key Findings and Priorities for Improving the U.S. Department of Defense's Approach to Stigma Reduction**

In this chapter, we summarize key study findings, outline priorities for improving DoD's approach to stigma reduction, and include both short-term (in the next one to two years) and long-term (in the next three to five years) steps DoD can take to achieve these priorities. These priorities are ranked according to the findings described in this report and have been further refined and vetted through an expert panel. Appendix I contains more details on the expert-panel process used to finalize these priorities. In this chapter, we organize priorities into three categories: enhancing or improving stigma-reduction intervention, policies, and research and evaluation related to mental health stigma in the military. In addition, there is a single overarching priority. For each priority, we describe the rationale for inclusion, relevant expert comments, and where the priority ranked in comparison with others. The experts rated 14 priorities. They agreed that 13 of the priorities were critical to include in the report; we describe these in this chapter.

# **Key Findings from the Report**

DoD's current approach to reducing stigma appears to have reduced reports of perceived stigma, as described in Chapter Three. However, there are several areas in which program, policy, and research can be improved to enhance the effectiveness of DoD's approach. Our analysis revealed several key findings that helped to frame the need for the priorities described in this section.

The difficulty linking stigma to mental health treatment-seeking in both Chapters Three and Four suggests the need for improvements in research and evaluation of stigma and stigma-reduction initiatives.

The assessment of stigma-reduction programs found that DoD should continue its comprehensive approach to stigma reduction that blends a culture shift with several stigma-reduction programs. Lessons learned from effective civilian programs may help improve the DoD programs targeting military norms, culture, and social context. These include the use of more contact-based intervention, educational efforts targeting people in distress, and effective messaging. Programs targeting the individual context

may help broaden DoD's current approach. These include programs for those in need of mental health treatment and those currently receiving treatment. Finally, more evaluation of stigma-reduction programs is needed.

The policy analysis revealed six findings. First, key tensions exist between the privacy of service members seeking mental health treatment and the need for commanders to assess unit fitness. Second, despite the presence of equal-opportunity policies, wide variability and ambiguity in policies that block service members with MHDs from career opportunities may inadvertently create opportunities for discrimination. Third, policies support universal educational stigma-reduction programs but not more-targeted programs for those in or in need of mental health treatment. Fourth, some policies could potentially reinforce stereotypes through the use of negative terminology. Fifth, other policies may expose service members to stigma or discrimination because they allow non-mental health professionals to determine mental health fitness. Finally, mental health screening is beneficial for early intervention but, if used improperly, may be stigmatizing and have negative effects on mental health (e.g., reduce self-esteem).

These findings and the feedback of the expert panel guided the development of the 13 priorities described in the remainder of this chapter.

#### **Priorities to Improve Stigma-Reduction Interventions**

#### 1. Explore Interventions That Directly Increase Treatment-Seeking

Focusing primarily on a single barrier to care, such as stigma, may obfuscate other potential interventions to promote help-seeking. As mentioned previously, there are many potential approaches to promote help-seeking along the continuum of stress that have proven effective. In addition to targeting stigma, DoD should explore other mechanisms for increasing treatment-seeking and reducing barriers to mental health care. Research has specifically supported interventions in four areas: changing perceptions about the effectiveness of care, reducing access barriers, changing masculine norms, and increasing peer support. No one factor appears to be the key target for interventions focused on barriers to mental health care. Instead, several possible intervention targets—over and above those focused on stigma—appear promising for reducing barriers to care and ultimately increasing treatment-seeking. DoD should explore in depth the evidence pertaining to these four different types of barriers to mental health treatment and consider developing or bolstering effective interventions in these areas. Expert panelists also suggested that DoD explore stigma-reduction interventions at the unit and family levels, citing that the unit and family are critical influences over whether a service member in need accesses care. Panelists also stressed the need for these interventions to be sensitive to culture, defined broadly (e.g., military and racial/ ethnic culture). Expert panelists rated this priority at the top for both importance and validity.

- Short-term steps: Comprehensively review and assess the research pertaining to five types of barriers to mental health care: mental health literacy, beliefs about treatment effectiveness, access barriers, masculine norms, and peer support. The assessment should examine both the impact of these barriers and how these barriers vary by racial/ethnic group, rank, gender, and other factors.
- Long-term steps: Develop, validate, and implement interventions that have proven effective and show promise for reducing barriers to mental health care among military populations.

### 2. Consider Evidence-Based Approaches to Empowering Service Members with **Mental Health Concerns to Support Their Peers**

Expert panelists suggested that promoting the empowerment of PWMHDs to provide peer support for one another is an important approach that DoD should consider to reduce stigma. Military-affiliated panelists suggested that peer-support programs were already going on to some degree throughout DoD; however, the evidence base behind these programs was limited. One panelist referred to the empowerment focus of the gay rights movement (e.g., gay pride, proud to come out as gay) and suggested that a similar movement among PWMHDs would help to generate momentum to address the negative perceptions that promote stigma. This was the second-highest-rated priority in terms of importance and the third-highest in terms of validity.

- Short-term steps: Identify evidence-based approaches to peer support.
- Long-term steps: Implement and evaluate the effectiveness of peer-support programs (both existing and new).

# 3. Design New or Adapt Existing Intervention-Delivery Mechanisms to Minimize **Operational Barriers for Service Members Seeking Treatment**

Expert panelists also discussed how service members' preferences for self-management may be a key barrier to their accessing services. Improving the complement of alternative mechanisms for treatment delivery that create fewer operational impediments to service members could appeal to service members with a preference for self-management. For example, offering Internet-based treatment or brief sessions would help decrease disruption to service members' workdays while still allowing service members to seek the help they need to ensure that they can meet the demands of their role. Research is needed on the effectiveness of these alternative mechanisms to ensure that they deliver treatment with effectiveness equivalent to more-traditional treatment delivery mechanisms (e.g., one-on-one sessions with a counselor). Experts rated this priority as thirdmost important and fifth-most valid (out of 14 total priorities).

• Short-term steps: Generate a list of possible delivery mechanisms and get line leadership and service member feedback to identify the most promising.

• Long-term steps: Evaluate effectiveness of the promising delivery mechanisms, in terms of both getting service members to use the mechanisms and the effectiveness of the intervention delivered through the mechanisms.

#### 4. Embed Stigma-Reduction Interventions in Clinical Treatment

Stigma is a potential clinical risk factor, and research has suggested that it may delay treatment-seeking, worsen treatment outcomes, reduce treatment compliance, and increase the risk of relapse (Shrivastava et al., 2013). These types of negative treatment outcomes can perpetuate poor functioning and further isolate service members who have accessed mental health services. In order to address this potential clinical risk factor, stigma should be assessed during routine clinical examination and monitored throughout treatment so that it can be addressed as a part of a comprehensive treatment strategy. Evaluations to validate existing clinical antistigma interventions for a military population and innovative antistigma interventions, relevant for a military clinical population, are needed to improve outcomes of service members in treatment. Experts ranked this priority as tenth out of 14 in terms of both importance and validity.

- Short-term steps: Assess for stigma during initial clinical examinations and regularly during treatment.
- Long-term steps: Validate existing clinical antistigma interventions for military populations or develop new and innovative antistigma interventions that can be used for a military clinical population during treatment.

#### 5. Implement and Evaluate Stigma-Reduction Programs That Target Service Members Who Have Not Yet Developed Symptoms of a Mental Health Disorder

Our literature review identified some evidence-based programs, such as MHFA (the SAMHSA-adapted version), that target stigma reduction among people who may be at high risk for developing MHDs. DoD should draw on this evidence base to identify programs that may translate effectively to the military context and adapt them for use within the military. In particular, the expert panel suggested as potential priorities programs that seek to address stigma at the unit level or change the culture of the small unit. These additional programs are intended to complement existing efforts to change the culture within the military to increase help-seeking behavior. Experts ranked this priority as 11th out of 14 in terms of both importance and validity.

- Short-term steps: Adapt evidence-based stigma-reduction programs for people at high risk for mental health conditions for the military context.
- Long-term steps: Implement and evaluate the effectiveness of these programs.

# **Priorities to Improve Policies That Contribute to Stigma Reduction**

# 1. Provide Better Guidance for Policies in Which a Mental Health Condition or **Treatment Prohibits Job Opportunities or Actions**

A large number of the policies we reviewed prohibited specific job opportunities or actions if a service member had an MHD or sought mental health treatment. For many of these policies, the language is unclear, stating only that a service member is prohibited if he or she has a mental health issue. For example, to qualify as an Army recruiter, a candidate must have "no record of emotional or mental instability" (see AR 601-1). It is unclear whether a service member responding well to treatment for an MHD (e.g., being successfully managed with medication) would be prohibited from this opportunity. It is also not clear whether there are certain mental health conditions that merit different considerations (e.g., depression may occur only once in a lifetime, whereas schizophrenia is a more persistent MHD). Given the large number of actions prohibited in these policies, it is imperative that DoD provide additional guidance that clarifies what is meant by potentially ambiguous phrases, such as "have no history of a psychiatric disorder, alcoholism or drug abuse unless a medical evaluation determines the condition no longer exists" (MCO 1200.17D). For example, does having no history of a psychiatric disorder mean no diagnosis at any point in a service member's life? Does psychiatric disorder encompass any mental health diagnosis (e.g., depression, PTSD, schizophrenia)? Can a condition "no longer exist" if no symptoms are displayed while someone is undergoing treatment? Or does the phrase refer to experiencing no symptoms without being in treatment? Clarifying such phrases is more attentive to the continuum of mental health. This guidance would also allow DoD to further define which job categories and duties require certain levels of mental health functioning. Experts ranked this priority sixth-most important and second-most valid.

- Short-term steps: Create guidance to support leaders' decisions related to mental health exclusions for each of the policies that prohibit job opportunities or actions.
- Long-term steps: Monitor enforcement of that guidance.

#### 2. Review the Stigmatizing Language Identified in Policies to Determine Whether It Should Be Removed

In 12 percent of the policies we examined, we identified language that characterized mental health issues in a negative light. Editing these policies to remove this stigmatizing language may help to reduce the likelihood that this language contributes to stigma, and it would improve the clarity of the policies. For example, one DoD policy (DoD Manual [DoDM] 5105.21-V1) indicates that anyone with a certain type of security clearance must report to authorities if he or she becomes aware of "any information that could reflect on their trustworthiness or on that of [others]." The subsequent list of information that might fall into this category includes "apparent mental or emotional problems." This language is stigmatizing in that it implies that mental or

emotional health symptoms or disorders render someone untrustworthy. Expert panelists noted that changing stigmatizing language in policy is not a sufficient condition for reducing stigma because it may not necessarily translate to changes in behavior. Although this and other policy changes may be important, expert panelists recommended that policy actions be accompanied by a more multifaceted approach, including program development and research and evaluation. This priority was ranked by experts as eighth-most important and seventh-most valid.

- Short-term steps: Revise policies to remove stigmatizing language.
- Long-term steps: Create guidance to avoid potentially stigmatizing language in future policies.

#### 3. Offer Incentives for Positive Behaviors That Promote Mental Well-Being

In addition to identifying consequences for prejudicial or discriminatory behaviors toward service members with MHDs, experts emphasized the importance of recognizing and rewarding behaviors that promote mental well-being and are supportive of service members with MHDs. DoD could define these positive and affirming behaviors related to mental health (e.g., positive coping) and help-seeking (e.g., helping a fellow service member access care) and assign merit (e.g., via an award or consideration during promotion decisions) to the process of performing these behaviors. One expert suggested that focusing on the top performers (e.g., 10 to 15 percent "best" service members) in modeling these positive behaviors might help create momentum needed for a wide-scale adoption of positive and affirming behaviors that promote mental wellbeing. This priority was one of the lowest ranked by experts, ranking second to last in terms of both importance and validity.

- Short-term steps: Identify behaviors that promote mental well-being and create a supportive environment for help-seeking. Identify the incentives that are most compelling to service members.
- · Long-term steps: Begin offering incentives and evaluate their impact on helpseeking and on stigma.

#### Priorities to Improve Research and Evaluation Related to Stigma Reduction

# 1. Continue to Improve and Evaluate the Modifications Made to Existing Programs That Begin to Address Stigma and Other Barriers to Care

DoD is already implementing some modifications to existing initiatives that begin to address barriers to care and may contribute to a larger culture shift in the military. To ensure that these efforts are appropriately assessed for their effectiveness, DoD should improve evaluations of these programs to ensure that they measure behavioral impacts.

Including measures of behavior, such as changes in the initiation of treatment or treatment adherence or, in the case of the public, actual social distancing and discriminatory behavior, rather than changes in knowledge, attitudes, beliefs, or intentions, is likely to yield more-compelling evidence to support the effectiveness of interventions. Evaluations should also assess both the cumulative impacts of multilevel initiatives that promote help-seeking and the contribution that each specific intervention makes. Given the range of context factors at the public and institutional levels that may influence stigma specifically and help-seeking more broadly, as well as the variation in effectiveness of interventions by specific MHD, it is likely that population-level stigma-reduction interventions will need to occur at multiple levels (e.g., public, institutional, and individual). Although research assessing the effectiveness of these multilevel interventions presents a complex challenge, future studies should be sure to consider both the cumulative effects of interventions at all levels and the specific impacts of each intervention. Experts ranked this priority as fourth-most important and ninth-most valid.

- Short-term steps: Develop guidance for behavioral impact measures that can be
  used for evaluation of programs that address stigma and other barriers to care,
  as well as programs that promote help-seeking or a shift in military culture more
  broadly and improve the number of programs using these measures.
- Long-term steps: Ensure that all applicable programs are using behavioral impact measures to assess effectiveness.

# 2. Examine the Dynamic Nature of Stigma and How It Interacts with Internal and External Conditions over Time

Much of the stigma research focuses on schizophrenia or general mental health concerns, rather than PTSD, anxiety, or depression—the disorders that may be of most interest to DoD. More research to understand how stigma differs between these disorders and whether there are differential beliefs, attitudes, or knowledge about treatment efficacy for these disorders would help DoD better target stigma-reduction efforts. Additionally, because stigma is not static, more research on how stigma manifests based on level of mental health symptomology and individual interactions with various external conditions (e.g., family members, unit commanders) is needed to improve understanding of the impact of stigma and identify the optimal intervention points, especially for interventions that require multiple boosters to maintain their effectiveness. Though an intervention may result in immediate change, its effectiveness diminishes significantly if those changes are not maintained over time. Studies should therefore follow participants for several months or years to examine the true impact of the intervention. Experts ranked this priority as the fifth-most important and the fifth-most valid.

- Short-term steps: Commission a longitudinal research study to assess the dynamic nature of stigma. Ensure that evaluation studies track impacts over time.
- · Long-term steps: Implement longitudinal research and evaluation studies and adapt policies and programs based on findings.

#### 3. Improve Measures of Prevalence to Improve Tracking of Stigma and Other **Barriers to Care**

Instituting common tracking measures would allow for research on the extent to which the institutional and public contexts affect stigma and how those effects may vary by demographics, such as rank, race, age, or gender. Much of the research we reviewed considered stigma discretely within a specific context or for a specific relationship. Understanding how stigma differentially affects specific populations, as well as identifying consistent effects across populations, will be important for developing interventions tailored to specific populations or applicable across the general population. Because stigma is not static, stigma should be tracked regularly to better understand the varied internal and external factors that affect its manifestation. Currently, tracking efforts happen annually or less often (e.g., behavioral health poll, MHAT, status-offorces surveys) and do not include family units. Understanding how families (spouses, children, significant others) affect stigma is also an important aspect of tracking that should be considered for future measurement efforts. Experts ranked this priority as the ninth-most important and the eighth-most valid.

- Short-term steps: Develop common measures for tracking stigma and other barriers to care that can be implemented regularly without testing biases and that include measures related to familial and significant relationships (e.g., spouse, children).
- Long-term steps: Regularly implement a set of common measures of stigma and other barriers to care force-wide and analyze the data to understand how stigma varies by contextual and demographic differences.

#### 4. Review Classified Department-Wide and Service-Specific Policies to Determine Potential Implications for Mental Health Stigma and Discrimination

We base the priorities presented here on a review of policies that are accessible without clearance. A military-affiliated panelist recommended obtaining and reviewing classified policies to determine whether additional policy priorities should be developed based on the implications of those policies for mental health stigma and discrimination. This priority was among the lowest ranked by experts, ranking 12th-most important and least valid.

• Short-term steps: Work with DoD to identify potentially relevant classified policies.

• Long-term steps: Conduct analysis of these policies and identify any new policy priorities.

# **Overarching Priority**

The priority described in this section cuts across programs, policies, and research and evaluation so did not fit in any one of the preceding priority categories. Therefore, we have created a separate section for this overarching priority. Overarching does not mean "most important," as evidenced by the expert ratings.

#### 1. Convene a Task Force to Explore the Tensions Between a Command's Need to Know a Service Member's Mental Health Status and Treatment History and the Service Member's Need for Privacy

In the civilian sector, the Americans with Disabilities Act (Pub. L. 101-336, 1990) and the Health Insurance Portability and Accountability Act (HIPAA) (Pub. L. 104-191, 1996) protect the confidentiality and rights of PWMHDs. The former legislation, however, does not apply in the military context, wherein exists a unique set of demands not commonly encountered in civilian environments. The latter policy contains exemptions when applied in a military context. Specifically, HIPAA exemptions are made in the following situations (Pub. L. 104-191, 1996):

To determine a Service member's fitness to perform any particular mission, assignment, order or duty, including compliance with any actions required as a precondition to performance of such mission, assignment, order or duty; To assess medical readiness and fitness for deployability (e.g., immunization status, temporary or permanent profile status, Medical Evaluation Board (MEB)/Physical Evaluation Board (PEB) related data, allergies, blood type, flight status); To initiate Line of Duty (LOD) determinations and to assist investigating officers in accordance with (IAW) AR 600-8-4 (Line of Duty Policy, Procedures, and Investigations); To carry out Soldier Readiness Program and mobilization processing requirements IAW AR 600-8-101 (Personnel Processing [In-, Out-, Soldier Readiness, Mobilization, and Deployment Processing]); To monitor the Army Weight Control Program; To provide initial and follow-up reports IAW AR 608-18 (The Army Family Advocacy Program).

Provisions also allow mental health care providers to give commanders minimum necessary details about the condition or care of soldiers in their command under certain circumstances, including the following:

To avert a serious and imminent threat to health or safety of a person, such as suicide, homicide or other violent action; To warn commanders of medications that could impair the ability to perform assigned duties (e.g., drowsiness, altered alertness, slowed cognition); To warn commanders of conditions that can impair the Soldier's performance of duty; To recommend a command-referral to a substance abuse treatment program. (Headquarters, Department of the Army, 2012a, pp. 64-65)

A department-level task force of experts could play an important role in assessing what type of information should and should not be shared in each of the above circumstances and in developing clear communications and processes for these exceptions. For example, the Air Force has a policy allowing service members limited privilege with a mental health professional for short-term care (that is, the short-term care does not become part of the medical record). The task force could review this policy to determine whether it should extend to additional service branches. Experts rated this priority as the seventh-most important and the sixth-most valid.

- Short-term steps: Convene the task force.
- Long-term steps: Implement policy and procedural changes recommended by the task force, and monitor enforcement and impact of these changes.

Examining how other professions with similar unique demands (e.g., police, intelligence community) approach privacy policies related to mental health care may provide some insights and lessons learned that would be useful to DoD. Although the law enforcement context varies from the military context, it bears some similarities in that it is a profession involving service to one's community, the use of force or firearms in the line of duty, the ability to operate successfully in emotionally charged situations, and an increased risk of trauma exposure. In law enforcement, as in DoD, a balance must be struck between protecting the confidentiality of personnel seeking help and having sufficient information about personnel psychological health status to determine whether personnel can adequately fulfill their duties. The International Association of Chiefs of Police (IACP), in conjunction with the U.S. Department of Justice's Bureau of Justice Assistance, established the IACP National Law Enforcement Policy Center, through which it develops model law enforcement policies on a wide range of difficult issues. Subject-matter experts create these model policies, incorporating both research findings and field experience. The models provide a valuable resource for law enforcement agencies that are developing or updating their own policies (IACP, undated [b]). We identified two IACP model policies and accompanying policy papers on the topics of providing mental health services to law enforcement employees and for procedures for personnel support after a shooting event.

#### Conclusion

There is still much unknown about the influence that stigma has for PWMHDs on initiation of treatment, treatment success (e.g., retention), and, ultimately, quality of life. These priorities represent a first step for where additional program and policy development and additional research and evaluation are needed to improve understanding of how best to get service members with MHDs the needed treatment as efficiently and effectively as possible. Additional research and evaluation are needed to more fully understand barriers to care among service members and which of these barriers most affect treatment initiation, treatment success, and overall quality of life.

#### **Methods for Literature Review**

We conducted a systematic literature review of theoretical works on stigma and prior studies of stigma-reduction programs. We began by reviewing the resources used in two earlier literature reviews related to our own, RAND's stigma-reduction work for the California Mental Health Services Authority (CalMHSA) (Collins et al., 2012) and the DCoE report "Behavioral Health Stigma and Access to Care" (DCoE, 2012). We then supplemented the literature from these works by performing our own web-based search of peer-reviewed literature in content-relevant databases. These sources underwent successive rounds of screening, including a title and abstract review followed by a full-text review, to exclude irrelevant and unsuitable articles. We then reviewed and coded articles selected for inclusion, and we abstracted details relating to the focus of our study.

# **Identifying Articles for Review**

#### Literature Search

To identify relevant sources, we conducted a literature search in two parts. Part 1 consisted of combining the references used in two prior literature reviews, one review for CalMHSA and another in the DCoE report on behavioral health stigma and access to care. This step facilitated the literature search by allowing us to quickly identify relevant works and narrow the focus of our subsequent searches. Part 2 was a more comprehensive literature search on mental health stigma in 11 databases that focused on substantive areas pertaining to health (psychology and medicine), defense, and the social sciences broadly:

- PsycINFO (psychology)
- PubMed (medicine)
- MEDLINE (medicine)
- CINAHL (health care)
- EconLit (economics)
- Social Sciences Abstracts (social sciences)

- ProQuest Military Collection (defense)
- Sociological Abstracts (ProQuest) (social sciences)
- Social Services Abstracts (ProQuest) (social services)
- Published International Literature on Traumatic Stress (PILOTS) (mental health)
- Web of Science (general).

Our search consisted of four queries, each aimed at answering different questions related to our study (see Table A.1). We first identified the study questions that the literature review was intended to answer (based on the overall study aims), then consulted with a librarian to identify appropriate search strategies for each study question. We conducted a search in each of the aforementioned databases for each of the four study questions, to enhance the breadth of results. We restricted our search to articles written in English and published in peer-reviewed journals. Studies were limited to those involving human subjects. Additionally, we narrowed our search dates to the past 11 years (since 2002) if military-specific terms were searched and to the past two years (since 2011) for non-military-specific searches. We searched general literature since 2011 to pick up any new articles published since the CalMHSA and DCoE literature searches. Because the military-specific literature was of most interest to the current project and CalMHSA did not specifically cull any military-specific literature, we expanded the dates of that search to begin in 2002. In general,

- query 1 searches looked for articles related to the concepts of "mental health," "stigma," and either "discrimination" or "treatment seeking"
- query 2 looked for articles related to the concepts of "mental health," "stigma," "program," and "evaluation"
- query 3 was a military-specific search that looked for articles related to the concepts of "mental health," "stigma," and "cost"
- query 4 was a military-specific search that looked for articles related to the concepts of "mental health," "stigma," and "careers."

We chose specific keywords following consultation with the study team and with a librarian. Table A.1 presents details of the search strategies for all searches conducted. We identified additional articles by reviewing the references in articles identified for inclusion in the review.

# Title, Abstract, and Full-Text Review

After combining all search results, we removed duplicates between databases and then between queries. Additionally, we removed any sources that we had already collected via the CalMHSA and DCoE reports (part 1 of our literature review). To help ensure that all sources identified in the literature searches were relevant, we reviewed the arti-

Table A.1 **Specific Searches** 

Query	<b>Related Study Question</b>	Search Terms	Search Limits
1	What is stigma? What conceptual or theoretical models exist? How has it been defined? How is stigma encompassing of or related to barriers of care, discrimination, psychological resilience, career trajectories, and other factors?	Concept 1: ("mental health" or "mental illness" or "behavioral health" or "mental disorder" or "psychiatric disorder") and Concept 2: (stigma* or self-stigma*) and Concept 3: (literac* or "barriers to care" or resilienc* or "help seeking" or "help-seeking" or "treatment seeking" or "care utilization" or "treatment utilization" or discriminat* or stereotyp* or career*)	January 2011– November 2012
2	What interventions that target mutable factors are most effective in reducing stigma in a military context?	Concept 1: ("mental health" or "mental illness" or "behavioral health" or "mental disorder" or "psychiatric disorder") and Concept 2: (stigma* or self-stigma* or discrimin* or prejud* or stereotyp*) and Concept 3: (educate or education or program* or intervention* or prevent* or treatment or treatments or campaign* or policy or policies) and Concept 4: (evaluat* or assess* or measur*)	January 2011– November 2012
3	What are the economic implications or societal costs of stigma?	Concept 1: ("mental health" or "mental illness" or "behavioral health" or "mental disorder" or "psychiatric disorder") and Concept 2: (stigma* or self-stigma* or discrimin* or prejud* or stereotyp*) and Concept 3: (econom* or cost*) and Concept 4: (military or "armed services" or "armed forces" or army or navy or marines or "air force" or "coast guard" or "national guard" or soldier or soldiers or servicemen or servicewomen or serviceman or servicewoman or airman or sailor or marine or guardsman or guardsmen or warrior or warriors or combatant or combatants or veteran or veterans or "department of defense" or reservist*)	January 2002– November 2012

Table A.1—Continued

Query	Related Study Question	Search Terms	Search Limits
4	What impact does seeking mental health treatment have on military careers?	Concept 1: ("mental health" or "mental illness" or "behavioral health" or "mental disorder" or "psychiatric disorder") and Concept 2: (impact* or effect* or hurt* or harm* or detriment*) and Concept 3: (career* or employ* or job* or promotion*) and Concept 4: (military or "armed services" or "armed forces" or army or navy or marines or "air force" or "coast guard" or "national guard" or soldier or soldiers or servicemen or servicewomen or serviceman or servicewomen or marine or guardsman or guardsmen or warrior or warriors or combatant or combatants or veterans or "department of defense" or reservist*)	January 2002– November 2012

NOTE: Each query was searched in each of the following: PsycINFO, PubMed, MEDLINE, CINAHL, EconLit, Social Sciences Abstracts, ProQuest Military Collection, Sociological Abstracts, Social Services Abstracts, PILOTS, and Web of Science.

Table A.2 **Web-Based Search-Result Tallies** 

Database	Query 1	Query 2	Query 3	Query 4
PsycINFO	319	591	26	314
PubMed	210	280	15	102
MEDLINE	218	251	16	103
CINAHL	81	83	3	43
EconLit	2	9	3	0
Social Sciences Abstracts	40	65	2	19
ProQuest Military Collection	21	57	253	398
Sociological Abstracts	143	67	2	9
Social Services Abstracts	37	53	1	4
PILOTS	39	39	9	56
Web of Science	311	331	11	97
Total results	1,421	1,826	341	1,145
Number of duplicates	692	847	48	295
Nonrelevant records	278	546	242	582
Total unique results	451	433	51	268

cle titles and abstracts to remove articles that were clearly irrelevant to the current project. We then removed articles from consideration as appropriate and obtained others for full-text review. We subjected all articles identified for full-text review to the inclusion and exclusion criteria, as detailed in Table A.3. We then coded articles that met the inclusion criteria according to the process outlined in the next section.

# **Articles Identified During the Literature Search**

Combining the literature from the CalMHSA (125 articles) and DCoE (99 articles) stigma reports and removing duplicates yielded 214 unique sources, and combining the four queries of the web-based search yielded 1,025 unique results. In total, 1,209 unique sources were identified. We excluded 886 articles during our title and abstract review and obtained full-text versions of the remaining 323 articles. We excluded another 71 articles during the full-text review. The primary reason for exclusion during the full-text review was that the article fell outside the scope of our research (e.g., an article on mental health care that mentions stigma in passing but did not directly discuss it). An additional 78 articles were found during the full-text review in the references of other articles reviewed and were added for inclusion. This resulted in 330 articles included in our review. Figure A.1 is a flow chart depicting the identification and exclusion of references. The reference list at the end of this report includes all the articles reviewed.

Table A.3
Inclusion and Exclusion Criteria

Criterion Type	Considerations
Inclusion	Content: Articles that provided a theoretical model or framework for stigma Articles that described the evaluation of a program whose primary goal is to reduce or prevent mental health stigma Articles that reported prevalence rates of stigma Articles that discussed the effects of stigma on treatment-seeking and utilization Articles that reported the associated costs of stigma, both financial and social Articles that reported the effects of stigma on careers and promotions
	General: Articles that employed a range of experimental strategies Articles written outside the United States Both civilian- and military-specific sources
Exclusion	Articles published in a language other than English Editorials, letters, and commentaries Dissertation papers and master's theses

Sources identified in Sources identified web-based search through other means (n = 78)Sources Total Sources identified Sources unique selected for from prior selected sources full-text literature for inclusion identified review reviews (n = 330)(n = 1,209)(n = 323)(n = 214)Excluded during title **Excluded during** and abstract review full-text review (n = 886)(n = 71)

Figure A.1 Flow Chart for Literature Search

RAND RR426-A.1

# **Abstracting Consistent Information from Each Source**

#### **Article Coding and Data Abstraction**

We reviewed each article for the following types of information, where relevant:

- general information: the citation information for the article, approach (e.g., experimental, review, meta-analysis), and population described in the article (e.g., military or nonmilitary)
- theoretical description
  - the article's definition of *stigma* and any theoretical model of stigma provided
  - descriptions of how knowledge, attitudes, and behaviors related to stigma
  - whether stigma was described at the individual, public, or organizational level
  - the relationship of stigma to treatment-seeking
- prevalence data: statistics on the prevalence of stigma, including the population, methods, and measure used to assess prevalence
- effects of stigma
  - on treatment: treatment type, treatment population, treatment effects, and effect size

- on costs: any costs associated with stigma reported in the article and how these costs were defined and modeled
- on careers: observed effects of stigma on careers reported in the article, the specific population described, and how these career effects were defined and modeled
- evaluations: for those articles describing interventions, a description of the stigmareduction intervention, the MHD targeted by the intervention, the specific intervention population, outcomes tested in the evaluation, and findings of effectiveness reported in the article
- empirical study design (if applicable): elements of the study design, including whether the study was cross-sectional or longitudinal, frequency of follow-up, use of a comparison group, random assignment to study group, measures used, and method of data collection.

Further detail on each of these abstracted pieces of information is available in the data abstraction form, shown in Table A.4.

Table A.4 **Data Abstraction Form** 

Element Abstracted from Each Article	Brief Description of the Element		
General information			
Coder	Initials of the reviewer		
Citation	Reference information for the article reviewed		
Article approach	A classification of the article type (e.g., experimental, quasi-experimental, review, synthesis, meta-analysis)		
Population described	A classification of the population described in the article (e.g., Army, Navy, Marine Corps, Guard, Reserve, international military, veteran, not military)		
Theoretical description			
Definition	The verbatim definition of stigma provided in the article		
Description of model	A summary of the theoretical model of stigma, if included		
Component			
Knowledge and beliefs	A description of the knowledge or beliefs associated with stigma, if included		
Attitudes	A description of the attitudes associated with stigma, if included		
Behaviors	A description of the behaviors associated with stigma, if included		

# Table A.4—Continued

Element Abstracted from Each Article	Brief Description of the Element
Level	
Individual level	Whether or not individual or self-stigma was described in the article
Public level	Whether or not public stigma was described in the article
Organizational level	Whether or not organizational or structural stigma was described in the article
Relationship to treatment- seeking	A description of the relationship of stigma to the construct of treatment-seeking, if available
Prevalence data	
Prevalence reported	A stigma prevalence rate or percentage given in the article
Prevalence population	A description of the population included in the prevalence statistic (e.g., age group, military or nonmilitary, location, sex, race)
Citation	(If prevalence is cited) a full reference of the original source of the statistic
Measure	(If prevalence is primary) a description of the measure used to determine prevalence
Sample size	(If prevalence is primary) the size of the sample used to determine prevalence $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($
Covariates	(If prevalence is primary) a description of any covariates reported
Effect of stigma	
On treatment	
Treatment type	A classification of the type of treatment reported (e.g., individual therapy, group therapy, drug use)
Treatment population	A description of the population described (e.g., age group, military or nonmilitary, location, sex, race)
Treatment effects	A description of the treatment effects reported
Effect size	The effect size reported for treatment effects
Standard deviation	Standard deviation
Model	The type of model used (e.g., one or two step, specific subpopulation)
On costs	
Model	The type of model used to determine costs
Findings	A description of the reported costs associated with stigma

Table A.4—Continued

Element Abstracted from Each Article	Brief Description of the Element
On careers	
Definition	A description of how career effects were defined in the article
Population	A description of the population described (e.g., age group, military or nonmilitary, location, sex, race)
Findings	A description of the career effects reported
Model	The type of model used (e.g., one or two step, specific subpopulation)
Program evaluation	
MHD targeted	A classification of the MHD targeted by the intervention or program (e.g., general, depression, anxiety, PTSD, schizophrenia, other)
Intervention description	A one- to two-sentence overview of the program or intervention
Intervention population	A description of the population targeted by the program (e.g., age group, military or nonmilitary, location, sex, race)
Outcomes tested	A description of the outcomes tested in the program evaluation
Findings	A brief summary of the findings for each outcome tested
Empirical study design	
Random assignment	Whether or not participants were randomly assigned to a program or intervention
Measure timing	A description of the timing of measure assessment relative to the program (e.g., pre/post assessment, post-only)
Measure frequency	A description of the frequency of measure assessment (e.g., longitudinal, cross-sectional)
Control group	Whether a control or comparison group was included in the study
Data-collection method	A classification of the method used to collect data for the study (e.g., interview, focus group, survey, observational)
Analysis type	A description of the type of statistical analysis conducted (e.g., qualitative synthesis, descriptive analysis, bivariate analysis, multivariate analysis)

Our goal in creating our abstraction form was to provide a standardized way to review our sources and extract relevant details to help inform our study. Because our literature review encompassed many different types of sources (e.g., reviews, studies), many fields or even entire sections were often not applicable to the article at hand. For example, an experimental study evaluating a stigma-reduction program may not describe the effects or costs of stigma, report prevalence data, or provide a theoretical model but would provide information that was abstracted for the "Program evaluation" and "Empirical study design" sections. Alternatively, a purely theoretical article may provide a detailed model of stigma without describing a scientific study, making the "Empirical study design" section irrelevant.

### **Procedure for Coding Articles**

Coders received initial instruction on the use of the data-abstraction form and the content to be included. We distributed the articles among the team members for independent coding. The team regularly reviewed questions about coding to ensure reliability and consistency among members. Once we had coded all the articles, we reviewed all the data-abstraction forms for completeness and clarity and then compiled them into a single form for analysis.

# **Definitions of Mental Health Stigma**

The tables in this appendix provide verbatim definitions from the literature of various kinds of stigma (mental health stigma in Table B.1, institutional and structural stigma in Table B.2, individual and self-stigma in Table B.3, and public stigma in Table B.4) and indicate certain areas of commonality that we found:

- stigma as label, mark, attribute, or identity
- stigma as otherness, separation, or differentiation
- stigma as a loss of status or being disgraced, discredited, or dehumanized
- stigma as a stereotype or belief
- stigma as prejudice or attitude
- stigma as discrimination or behavior
- stigma as a barrier to care.

Table B.1
Definitions of *Mental Health Stigma* 

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Arboleda- Flórez and Stuart, 2012	"Stigma has been defined as a feeling of being negatively differentiated owing to a particular condition, group membership, or state in life. The process of stigmatization occurs when there is a power differential, as only powerful groups can create social inequities."	х	х					
Beltran et al., 2007	"Attitudes towards people with mental illness within the general population are generally negative. This negative attitude is manifested in bias, distrust, stereotyping, fear, embarrassment, anger and/or avoidance."		Х		X	Х		
Britt, Wright, and Moore, 2012	"Stigma refers to service members believing that seeking treatment would be embarrassing, cause harm to their career, and/or cause their fellow unit members to have less confidence in them."			х				х
K. Brown and Bradley, 2002	"A mark of disgrace or reproach. Stigma is not simply the use of negative labels or wrong words; it is disrespectful to the individual who has mental illness. It further discourages the individual from seeking the help needed for fear of discrimination. Furthermore, stigma encourages fear, mistrust and violence against people with mental illness."	х						x
S. Brown et al., 2010	"Negative attitudes and beliefs [held by the general public] towards individuals with mental illness."				х	x		
Byrne, 1999 ^d	"A mark of disgrace or discredit that sets a person aside from others."	х	х	Х				

Definitions of Mental Health Stigma

Table B.1—Continued

Source	Definition	Labela	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Corrigan, 2011	"The prejudice and discrimination that affect people with mental illness when appreciable segments of the general population endorse negative stereotypes about psychiatric disorders."				Х	Х	х	
Corrigan, 2012b	"Stigma has been described in terms of prejudice (agreement with stereotypic beliefs leading to hostile emotional responses, such as fear and anger) and discrimination (the behavioral consequence of prejudice, which leads to social distance and the loss of opportunity, such as a good job or nice place to live)."		x		х	х	x	
Corrigan and Penn, 1999 ^e	"Stigmas are negative and erroneous attitudes about these persons [with mental illness]. Stigma is another term for prejudice or negative stereotyping. In terms of mental illness, stigmas represent invalidating and poorly justified knowledge structures that lead to discrimination."				х	х	х	
Corrigan, Powell, and Rüsch, 2012	"Stigma has been defined as stereotypes (beliefs about a stigmatized group), prejudice (agreement with stereotypes leading to emotional responses), and discrimination (the behavioral result of prejudice)."				X	X	х	
Corrigan, Rafacz, and Rüsch, 2011	"Comprising stereotypes, prejudice, and discrimination."				Х	Х	х	
Corrigan, Roe, and Tsang, 2011	"Prejudice and discrimination with which the public has branded people labeled with mental illness."	х				х	х	

Table B.1—Continued

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Crocker, Major, and Steele, 1998 ^f	"Stigma occurs when a person possesses or is believed to possess some attribute or characteristic that conveys a social identity that is devalued in a particular context."	х		х				
Dalky, 2012	"People who are stigmatized have (or are believed to have) an attribute that marks them as different and causes them to be denigrated Stigma is believed to be relationship- and context-specific It does not reside in the person but rather within a specific social context."	х		х				
Eisenberg, Downs, and Golberstein, 2012	"Mental illness stigma refers to negative stereotypes and prejudices about people with mental illness, and is a widespread phenomenor with damaging social, psychological, and economic consequences."	1			х	X		
Essler, Arthur, and Stickley, 2006	"Stigma is the way certain attributes are socially agreed as worthy of devaluation and social avoidance [It is caused by] an automatic urge to discriminate against others to increase their own self-esteem [as] people inevitably focus upon the weaknesses of others to make themselves feel better."	X	х	х				
Farina and Feliner, 1973	"Along with being held in low esteem, someone who is known to have been mentally ill is, as a result, perceived as being more inadequate and incompetent in [his or her] behavior than a control person."	•		х				
Goffman, 1963 ^g	"Stigma is a relationship between an attribute and a stereotype."	x			х			

Definitions of Mental Health Stigma

Table B.1—Continued

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Goffman, 1963 ^h	"An attribute that is deeply discrediting and that reduces the bearer from a whole and usual person to a tainted, discounted one."	х		Х				
Hayward and Bright, 1997 ⁱ	"The negative effects of a label placed on any group."	х						
Idemudia and Matamela, 2012	"An attribute or quality that significantly discredits an individual in the eyes of others, who is seen by them as having an illness that is socially unacceptable, therefore he or she must be isolated or ostracized."		Х	х				
Jones, 1984 ^j	"Stigma takes place when the mark (condition considered deviant by society) links the person via attributional processes to undesirable characteristics that discredit him or her in the eyes of others [There are] six dimensions of stigma: concealability, course, disruptiveness, aesthetics, origin, peril."	х		X				
Kim et al., 2011	"Stigma is operationalized by way of public beliefs, prejudices, and stereotypes that, when internalized, may damage self-esteem and impede treatment seeking."	х	х		х	х		х

Table B.1—Continued

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Link and Phelan, 2001 ^k	"In our conceptualization, stigma exists when the following interrelated components converge. In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics to negative stereotypes. In the third, labeled persons are placed in distinct categories to as to accomplish some degree of separation of 'us' from 'them'. In the fourth, labeled persons experience status loss and discrimination that lead to unequal outcomes. Finally, stigmatization is entirely contingent on access to social, economic, and political power that allows the identification of differentness, the constructions of stereotypes, the separation of labeled persons into distinct categories, and the full execution of disapproval, rejection, exclusion and discrimination. Thus, we apply the term stigma when elements of labeling, stereotyping, separation, status loss, and discrimination co-occur in a power situation that allows the components of stigma to unfold."	x	X	X	X	X	X	
Magaña et al., 2007	"A source of shame that is cast onto individuals with mental illness by society."			х				
Masuda, Anderson, and Edmonds, 2012	1 1 1 3					х		х
Masuda and Latzman, 2011	"Mental health stigma can be roughly defined as a multidimensional process of objectifying and dehumanizing a person because of being labeled as 'having a mental disorder'."	Х		х				

Definitions of Mental Health Stigma

Table B.1—Continued

Source	Definition	Labela	Otherness ^b	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Morrison, Becker, and Bourgeois, 1979	"Public fear and subsequent rejection of people with mental illness."		х					
Naylor et al., 2009	"Negative attitudes towards mental health difficulties among peers."					х		
Perry, 2011	"Labeled individuals are subjected to differential treatment by others. As they attempt to cope with discrimination and loss of status associated with their new identity, people with mental illness engage in strategies such as secrecy and withdrawal that exacerbate their social isolation."	x	х	x	х		X	
Pescosolido, 2008	"A mark separating individuals from one another based on a socially conferred judgment that some persons or groups are tainted and 'less than.' Stigma often leads to negative beliefs (stereotypes) the endorsement of those stereotypes (prejudice) and a desire to avoid or exclude persons who hold stigmatized statuses."	х	х		х	х		
J. Phelan and Link, 2004	"Negative perceptions of people with mental illness."					х		
S. Phelan et al., 2011	"Stigma refers to the marked identity of people with traits that are different than what is considered normal or ideal and encompasses beliefs and attitudes (prejudice) as well as behavior (enacted stigma or discrimination) toward the person with the stigmatized trait."	х	х		х	х	х	
Pope, 2011	"Stigma is defined as a mark of disgrace or infamy; a stain or mark of reproach."	х						

Table B.1—Continued

Source	Definition	Labela	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Price, 2011	"Stigma is generally thought of as a stereotype that is attached to people who have a characteristic or identity, such as a mental health disorder, that is thought to be flawed or undesirable. Stigmatization is thought to occur when this characteristic is so negatively regarded that alienation is the inevitable result."	х	х		х			
Rae Olmsted et al., 2011	"A barrier that discourages individuals and their families from seeking help, or an issue that may cause shame or discredit; an enduring condition, status, or attribute that is negatively valued by a society and whose possession consequently discredits and disadvantages an individual."	x		х		x		x
Reavley and Jorm, 2011b	"Stigmatizing attitudes towards people with mental disorders are common in adolescents and can lead to negative feelings, stereotyping and discriminatory behaviors."				х	х	Х	
Rosen et al., 2011	"Mental health stigma [is] a potentially negatively predisposing attitude."					х		
Rukavina et al., 2012	"Negative portrayals of people with mental illness and the public's negative attitudes."					х		
Sadow and Ryder, 2008	"A brand, a mark of infamy."	х						
Sansone et al., 2008	"In the context of mental illness, the word stigma refers to the negative value judgment associated with having a psychiatric disorder."					x		
Schneider, Beeley, and Repper, 2011	"The subjective state of being embarrassed about a mental health problem or feeling discriminated against on account of it."						х	

Definitions of Mental Health Stigma

Table B.1—Continued

Source	Definition	Labela	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Schomerus and Angermeyer, 2008	"Stigmatisation of those with mental illness has been conceptualised as a process ultimately resulting in status loss and discrimination."			х			х	
Skopp et al., 2012	"Social-cognitive processes [that] motivate people to avoid label of mental illness that results when people are associated with mental health care."	х						х
Spagnolo, Murphy, and Librera, 2008	"Stigma is experienced both externally and internally. The external effects of stigma refer primarily to discrimination against people with mental illnesses with regard to housing, work, and social interactions."						х	
Stromwall, Holley, and Bashor, 2011	"Negative implicit or explicit attitudes about people perceived to have a mental illness, and discrimination to overt behaviors (e.g., failure to hire) theorized to result from stigmatizing attitudes."	х		Х		х	х	
Stuart, 2004	"In modern times, stigma is understood as an invisible mark that signifies social disapproval and rejection Stigma is deeply discrediting and isolating, and it causes feelings of guilt, shame, inferiority and a wish for concealment Stigma has been variously understood as a consequence of the visible signs or symptoms of a disorder; a result of having received a psychiatric label, regardless of whether visible signs or symptoms are present; or as a consequence of having received psychiatric treatment, particularly if the locus of care was a psychiatric hospital or if treatment was legally mandated."	X	X	x				

Table B.1—Continued

Source	Definition	Label ^a	Othernessb		Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Stull, 2012	"Stigma is a complex construct that involves many factors, including attributes, stereotypes, prejudice, and discrimination."	х	х	Х	х	х	Х	
Sudom, Zamorski, and Garber, 2012	"Being discriminated against unfairly."						Х	
Wahl, 1999	"Negative responses to people who have been identified as having a mental illness, limiting opportunities and undermining self-esteem."	х					х	
Wahl, 2012	"The prejudice and discrimination faced by people when others learn that they have been diagnosed with, and/or treated for, a mental disorder."					х	х	

^a Label, mark, attribute, or identity.

^b Otherness, separation, or differentiation.

^c Loss of status or being disgraced, discredited, or dehumanized.

^d Also cited by MacInnes and Lewis, 2008; Yau, Pun, and Tang, 2011.

^e Also cited by Greene-Shortridge, Britt, and Castro, 2007.

^f Also cited by Corrigan and Shapiro, 2010.

^g Also cited by Dalky, 2012; Link, Yang, et al., 2004.

^h Also cited by Arboleda-Flórez and Stuart, 2012; Corrigan and Shapiro, 2010; Gould, Greenberg, and Hetherton, 2007; Heijnders and Van Der Meij, 2006; Kassam, Glozier, et al., 2011; Kassam, Williams, and Patten, 2012; Lakeman et al., 2012; Quinn et al., 2011; Sadow and Ryder, 2008; Stromwall, Holley, and Bashor, 2011; Stull, 2012; Thoits, 2011.

ⁱ Also cited by MacInnes and Lewis, 2008.

^j Also cited by Kim et al., 2011; Link, Yang, et al., 2004.

^k Also cited by Barke, Nyarko, and Klecha, 2011; Corrigan and Shapiro, 2010; Dalky, 2012; Hackler, 2011; Heijnders and Van Der Meij, 2006; Kumar, 2011; Link, Yang, et al., 2004; Phelan, 2005.

Table B.2
Definitions of *Institutional Stigma* and *Structural Stigma* 

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Corrigan and O'Shaughnessy, 2007 ^d	"Structural stigma [is] policies of private and governmental institutions that intentionally restrict opportunities of people with mental illness, and the policies of institutions that yield unintended consequences that hinder the options of people with mental illness."						х	
Laraway, 2007	"Structural Stigma [is] institutional policies or practices that unnecessarily restrict opportunities because of psychological health issues."						x	

^a Label, mark, attribute, or identity.

^b Otherness, separation, or differentiation.

^c Loss of status or being disgraced, discredited, or dehumanized.

^d Also cited by Wright, Jorm, and Mackinnon, 2011.

Table B.3
Definitions of *Individual Stigma* and *Self-Stigma* 

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Ægisdóttir et al., 2011	"Self-stigma is the internalization of the negative stereotyped messages that are given persons who seek such [mental health] services."				х			х
Boardman et al., 2011	"Self stigma [is the state in which] stigmatised individuals internalise their negative identity and thus come to 'self-stigmatise', incorporating stigmatised views in their self-perception."	х			х			
Brohan et al., 2011	"Self-stigma is a personal response to perceived mental illness stigma. It can be considered a transformative process wherein a person loses his or her previously held or desired identities, e.g., as a parent employee, friend, partner etc. to adopt a stigmatised and devalued view of themselves."	х		х				
Corrigan, Markowitz, et al., 2003 ^d	"Self-stigma [is] defined as the loss of self- esteem and self-efficacy experienced by some people with mental illness, resulting in part from the internalization of public stigma."			х				
Corrigan, Morris, et al., 2012	"Self-stigma [is] the harm that occurs when the person internalizes the prejudice."				х	х		
Corrigan and O'Shaughnessy, 2007	"Self stigma [is] the prejudice individuals turn against themselves because they are members of a stigmatized group."	. X				х		
Corrigan and Rüsch, 2002	"Self-stigma [is] the reactions which individuals turn against themselves because they are members of a stigmatized group."	х						
Corrigan and Wassel, 2008	"Self-stigma is internalization of public stigma."	х						

Definitions of Mental Health Stigma

Table B.3—Continued

Source	Definition	Labela	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Dalky, 2012	"'Self-stigma' or 'stigma perception,' is the extent to which an individual believes others stigmatize him or her because of mental illness."				Х			
Dickstein et al., 2010	"Self-stigma refers to the internalization of [these] negative beliefs."				х			
Evans-Lacko, Brohan, et al., 2012	"Self-stigma [is] a process in which a person with a mental illness applies and internalizes stigmatizing attitudes and beliefs held by the public [and is linked to] lower self-efficacy, less treatment seeking, and higher rates of hospitalizations."			X	х	х		х
K. Fung, Tsang, and Cheung, 2011	"Self-stigmatization is regarded as the self- discredit of individuals via the internalization of negative stereotypes towards themselves and/or their social group."			х	х			
Kranke, Floersch, et al., 2011	"Self stigma pertains to the individual with mental illness internalizing rejection from society, and often leads to lower self-esteem and shame."		X	х				
Laraway, 2007 ^e	"Self-Stigma [is] an individuals' perception of themselves."				х			
Lucksted et al., 2011	"Self-stigma [is the process in which] a person internalizes stigmatizing societal messages about mental illness. Self-stigma can lead to depression, demoralization, poorer illness management, social avoidance, and obstruct the pursuit and achievement of recovery goals."		х		х			
MacInnes and Lewis, 2008	"Self-stigma [is] the reactions of stigmatized individuals towards themselves."					х		

Table B.3—Continued

Source	Definition	Label ^a	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Mittal et al., 2012	"Self-stigma is defined as the perception of oneself as inadequate or weak if one were to seek professional help [and the] shame, evaluative thoughts, and fear of enacted stigma that results from individuals' identification with a stigmatized group that serves as a barrier to the pursuit of valued life goals."	х		x	х			х
Momen, Strychacz, and Viirre, 2012	"Self-stigma reflects an individual's internalization of the cultural beliefs about mental illness which leads to feelings of shame and inadequacy."				х	х		
Muñoz et al., 2011	"Self-stigma or internalized stigma [is] the stigma endorsed by the people with a mental illness about themselves just for having their mental illness."				х			
Parle, 2012	"Self-stigma or internalised stigma is the process in which people with mental health problems turn the stereotypes about mental illness adopted by the public, towards themselves. They assume they will be rejected socially and so believe they are not valued."		х	Х	х			
Price, 2011	"Internalized stigma describes the individual's view of self due to the experience of mental illness."				х			
Wade, Post, et al., 2011	"Self-stigma is the fear of losing self-respect or self-esteem as a result of seeking help [and] a person's negative perceptions of him- or herself as a result of having a mental illness."			х	х			х

Definitions of Mental Health Stigma

Table B.3—Continued

Source	Definition	Label ^a Otherness		Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Wright, Jorm, and Mackinnon, 2011	"Self-stigma—the stigmatizing views individuals have in regard to themselves."		х			

^a Label, mark, attribute, or identity.

^b Otherness, separation, or differentiation.

^c Loss of status or being disgraced, discredited, or dehumanized.

^d Also cited by Ben-Zeev et al., 2012; Greene-Shortridge, Britt, and Castro, 2007; Reavley and Jorm, 2011b.

^e Also cited by Yap, Wright, and Jorm, 2011.

Table B.4 Definitions of *Public Stigma* 

Source	Definition	Label ^a	Otherness ^b	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Ægisdóttir et al., 2011	"Public stigma refers to the negative social labels attached to persons who seek mental health services."	х						х
Ben-Zeev et al., 2012	"Public stigma is the phenomenon of the social groups endorsing stereotypes about, and subsequently acting against, individuals who report mental distress and seek treatment."				x		х	x
Chan, Mak, and Law, 2009	"Public stigma refers to general public's endorsement of a set of prejudicial attitudes, negative emotional responses, discriminatory behaviors, and biased social structures towards members of a subgroup."					х	х	
Corrigan, 2004a	"Public stigma [is the] ways in which the public reacts to a group based on stigma about that group."						Х	
Corrigan, Markowitz, et al., 2003	"Three components of public stigma: stereotypes, prejudice and discrimination. Stereotypes are collectively held beliefs about the members of social groups—efficient means of categorizing information allowing people to quickly generate impressions and expectations of individuals who belong to a group. People who are prejudiced endorse these negative stereotypes. Discrimination is a behavioral response based on prejudice towards a minority group that may result in harm towards the members of that group (e.g., coercion in terms of mandatory treatment or segregation or unwillingness to help/active avoidance, social distancing). Stigma also stems from perceptions of cause and controllability (attribution theory)."	X	X		X	X	X	

Definitions of Mental Health Stigma

Table B.4—Continued

Source	Definition	Labela	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Corrigan, Kerr, and Knudsen, 2005	"Public stigma is the phenomenon of large social groups endorsing stereotypes about and acting against a stigmatized group: in this case, people with mental illness."				х		Х	
Corrigan, Rafacz, et al., 2010	"Public stigma is the prejudice and discrimination that occur when the general population endorses the stigma."					х	Х	
Corrigan and Rao, 2012	"Public stigma refers to the negative attitudes held by members of the public about people with devalued characteristics."	х		Х		х		
Corrigan and Wassel, 2008	"Public stigma represents what the public does to people who are marked with a mental illness."	х					Х	
Dalky, 2012	"Public stigma encompasses reactions of the general public toward a group based on individual stigma directed toward that group."		х				х	
Dickstein et al., 2010	"Public stigma entails invalidating and unjustified beliefs (i.e., prejudices and endorsed stereotypes) about others."			Х	х	х		
Greene- Shortridge, Britt, and Castro, 2007	"Public stigma is the reaction of the general public toward people with mental illness [and is] composed of stereotypes, prejudice, and discrimination."				х	Х	Х	
Kranke, Floersch, et al., 2011	"Public stigma pertains to negative social behaviors, reactions, and beliefs directed toward people with mental illness."				Х	Х	х	
Laraway, 2007	"Public Stigma [is] public (mis)perceptions of individuals with mental illnesses."				х			

Table B.4—Continued

Source	Definition	Labela	Othernessb	Loss of Status ^C	Stereotype or Belief	Prejudice or Attitude	Discrimination or Behavior	Barrier to Care
Momen, Strychacz, and Viirre, 2012	"Public stigma relates to beliefs held by the general public about the attributes of those with mental illness that can consequently lead to prejudice and discrimination."	х			х	Х	Х	
Muñoz et al., 2011	"Social or public stigma [is] the stigmatizing attitudes about mental illness endorsed by the general population."					х		
Price, 2011	"Public stigma stems from society's negative beliefs and attitudes about mental illness and results in stereotyping and prejudice against those with psychiatric disorders."				X	Х		
Rüsch, Angermeyer, and Corrigan, 2005	"Public stigma consists of these three elements—stereotypes, prejudice and discrimination—in the context of power differences and leads to reactions of the general public towards the stigmatised group."				X	Х	х	
Wade, Post, et al., 2011	"Public stigma [is] the general public's negative reactions to those with a mental illness that can lead to avoidance, discrimination, and/or stereotyping."		х		x	х	х	

^a Label, mark, attribute, or identity.

^b Otherness, separation, or differentiation.

^c Loss of status or being disgraced, discredited, or dehumanized.

# Prevalence of Stigma in the General U.S. Population

The stigmatization of PWMHDs and treatment seeking is a concern both in and out of the military. Several studies have assessed the prevalence of mental health stigma at the level of the U.S. general population. These studies have used a variety of items to measure stigma (see Table C.1).

#### **Social Distance**

A recent review (Parcesepe and Cabassa, 2012) of national stigma studies found that members of the general population vary in their desire for social distance from PWMHDs. Social distance is measured by asking respondents how they would feel about engaging in multiple social relationships varying in intimacy with people with MHD. In the 2006 GSS, respondents read a vignette depicting a person with either schizophrenia or depression. Respondents then answered the social distance questions, in response to one of the characters in the vignette. Figure C.1 shows that, in general,

Table C.1
Surveys Assessing Mental Health Stigma in the U.S. Population

Study	Year	Selected Stigma Items Measured in the Study
NSDUH	Annually since 1990	Reasons for not seeking mental health treatment, including opinions of neighbors; fear, shame, or embarrassment; effect on job
BRFSS	2007, 2009	Beliefs about caring and sympathy toward people with mental illness; treatment efficacy
GSS	1996, 1998, 2002, 2006	Social distance, perceived dangerousness, treatment endorsement, treatment efficacy $\!\!\!^{a}$
NCS	1990–1992	Treatment-seeking intentions; comfort with talking to a professional; embarrassment about seeking help
NCS-R	2001–2003	Treatment-seeking intentions; comfort with talking to a professional; embarrassment about seeking help

^a These stigma items were in reference to a character depicted as having an MHD in a vignette read by respondents.

100 90 ■ Vignette character with depression Percentage of respondents Vignette character with schizophrenia 80 70 60 50 40 30 20 10 0 Marry into Work closely Spend an Be friends Move next family with evening with door to socializing with Unwilling to...

Figure C.1 Desired Social Distance from People with Schizophrenia or Depression

SOURCE: Davis and Smith, 2006. Figure adapted from Collins et al., 2012. RAND RR426-C.1

respondents desired greater social distance from people with schizophrenia, relative to people with depression (Pescosolido et al., 2010; Schnittker, 2008). In addition, willingness to engage in social relationships varied based on the intimacy of the possible relationship. In general, respondents were least willing to have someone with an MHD marry into their family or to have to work closely with him/her. Respondents were slightly more willing to spend an evening socializing with, be friends with, or move next door to a person with an MHD.

## Stigmatizing Attitudes and Beliefs About People with Mental Health **Disorders**

A prevalent belief about people with MHD is that they are more dangerous than the rest of the population (Parcesepe and Cabassa, 2012). The 2006 GSS included measures of the perceived dangerousness of PWMHDs. This item referenced a vignette character described as having either depression or schizophrenia. Thirty-three percent of respondents believed that people with depression were likely to be dangerous, and 63 percent believed the same about people with schizophrenia (Pescosolido, Martin, et al., 2010; Schnittker, 2008).

The BRFSS included an item measuring attitudes of the public toward PWMHDs. This item assessed level of agreement with the statement "people are generally caring and sympathetic toward people with mental illness." Across 35 U.S. states, the per-

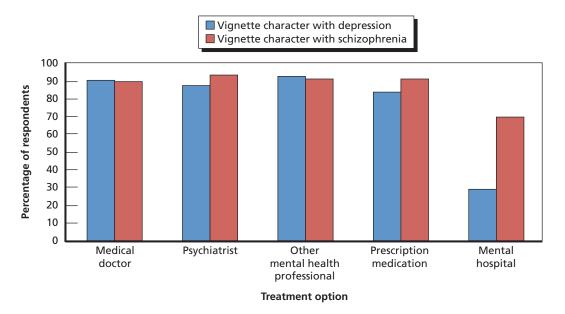
centage of respondents agreeing with this item varied from 35 percent to 67 percent, depending on the state (Centers for Disease Control and Prevention et al., 2012).

## **Beliefs About Treatment-Seeking**

The 2006 GSS included several measures of beliefs about treatment-seeking. Respondents were asked what treatments they would recommend for vignette characters with schizophrenia or depression, as well as their perceptions of the efficacy of treatment, in general, for the characters with schizophrenia or depression. A very high proportion of respondents believed that treatment would be effective for both depression and schizophrenia (96 percent and 98 percent of respondents, respectively). Respondents frequently endorsed going to a medical doctor, psychiatrist, or other mental health professional as treatment options, along with taking a prescription medication (see Figure C.2). Smaller numbers endorsed checking into a mental hospital as a treatment option.

In addition to the GSS data, the BRFSS measured level of agreement with the statement "treatment can help people with mental illness leave normal lives." More than 80 percent of U.S. adult respondents agreed with this statement, with levels of agreement varying across the 35 U.S. states sampled (Centers for Disease Control and

Figure C.2 **Endorsement of Treatment-Seeking for People with Depression or Schizophrenia** 



SOURCE: Davis and Smith, 2006. Figure adapted from Collins et al., 2012. RAND RR426-C.2

Prevention et al., 2012). The NCS-R asked what percentage of people who see a professional for serious emotional problems are helped. A large proportion of the sample thought that the majority of people would be helped by treatment. Of the sample, 45.6 percent indicated that 50 to 74 percent would be helped, and 26.3 percent thought that 75 to 100 percent would be helped.

The NCS-R also assessed respondents' willingness to seek treatment if needed and their level of comfort with doing so (Mojtabai, 2007). Of NCS-R respondents, 83.1 percent said that they probably or definitely would go for professional help for a serious emotional problem. However, only 78.5 percent of respondents said that they would be comfortable talking to a professional about personal problems. Twenty-eight percent of respondents indicated that they would feel embarrassed if friends knew about their getting professional help, and 7.5 percent said that they would be very embarrassed. These responses support the idea that stigma is perceived as a barrier to needed treatment, as do data from the 2010 NSDUH (SAMHSA, 2012). In NSDUH, approximately 10 percent of respondents reported not seeking needed mental health treatment because they did not want others to find out or because neighbors or other members of the community would have a negative opinion. About 8 percent feared negative repercussions for their jobs or being committed or having to take medicine.

# **Detailed Methods for the Modeling Approach**

We examined the societal costs of stigma on service members. To calculate the costs associated with mental health stigma, we construct a microsimulation model that assesses the societal costs within the United States of service members who do not seek appropriate mental health care because of public or self-stigma. These costs include treatment and rehabilitation costs for service members with PTSD and depression, medical costs associated with suicide attempts and completions, value of lives lost to suicide, and lost productivity stemming from PTSD and depression.

This appendix describes the regression analyses we used to derive key estimates for barriers to care used in the model, as well as the model's guiding assumptions and parameters and sensitivity analyses we conducted to determine the impact that each parameter has on cost outcomes.

## **Model Description**

Microsimulation models are event-driven simulations that generate individual life histories that can vary by socioeconomic and health-related characteristics. Such models are appropriate when needing to capture the complex set of behavioral responses that exist for unique individuals. An advantage of the microsimulation approach is that it can treat MHDs as recurring conditions, allowing for both remission and relapse over time. The microsimulation model that we use for this task is a revised version of the one published by Kilmer et al. (2011) that was developed as part of the RAND Invisible Wounds project (Tanielian and Jaycox, 2008).

In this section, we provide a brief summary of the model framework (details can be found in Kilmer et al., 2011). The model takes a representative cohort of service personnel and models their life course over two years, taking into account probabilistic events that may occur as a result of an MHD. Health events include entering treatment for an MHD, remission, relapse, suicide attempts, and death by suicide. Other events included in the model are labor-market outcomes, such as retention within DoD, career progression within the military conditional on retention, employment in the civilian sector, and civilian earnings. Individuals in our model can take four

MHD states: namely no MHD, PTSD, major depressive disorder (MDD), or comorbid PTSD/MDD. People who are in any one of the latter three states have MHDs and can be in any of the following three treatment states: no treatment (no Tx), usual care (UC), or evidence-based treatment (EBT). Therefore, there are ten population groups (i.e.,  $1 + 3 \times 3$ ) (see Table D.1). Someone's labor-market outcomes and his or her suicide-related probability depend on his or her specific population group. Change in someone's population group affects costs.

#### **Cost Outcomes**

We consider the following set of costs for each population group:

- total treatment cost (Ttreat): This is defined by the sum of the treatment costs over all PWMHDs' related treatment costs over the two-year period.
- total productivity lost (Tprod): Someone's productivity loss is defined by the differences between his or her MHD-free wage and his or her actual wage over the two-year period. If he or she remains MHD-free, his or her productivity loss is zero. The total productivity loss is found by summing the productivity losses over all people in our population cohort.
- total cost of a suicide (Tsui): This is defined by the total medical cost of fatal and nonfatal suicide events.
- total cost of suicide and value of life lost (TsuiV): This is defined by the sum of Tsui and the total cost or potency of life lost due death by suicide.

We also considered an aggregate cost by summing Ttreat, Tprod, and TsuiV.

The first step in the model is to initialize the population cohort. The original model used data of troops deployed as part of OEF or OIF on June 30, 2008. We have updated this data set to include all military members (active and reserve from all service branches) deployed in June 2012. The number of records in this data set is N = 183,527. These data contained information on service members' military status (active or reserve), branch, rank, time in service, sex, and age. There was missing data for the following variables; rank (n = 3, 0.002 percent), age (n = 86, 0.05 percent), and

Table D.1 Population Groups in the Microsimulation Model

Tuestanish			MHD	
Treatment Status	No MHD	MDD	PTSD	Comorbid PTSD/MDD
No Tx	No MHD and therefore no Tx	MDD and no Tx	PTSD and no Tx	PTSD/MDD and no Tx
UCC	N/A	MDD and on UC	PTSD and on UC	PTSD/MDD and on UC
EBT	N/A	MDD and on EBT	PTSD and on EBT	PTSD/MDD and on EBT

NOTE: N/A = not applicable.

time in service (n = 3,500, 2 percent). Hot-deck imputation was done to impute data for these missing observations. Out of this total number of records, n = 45,500 people are randomly selected and assigned an age, race/ethnicity, education based on the 2004 Congressional Budget Office report Education Attainment and Compensation of Enlisted Personnel, and civilian labor force status based on the 2012 Current Population Survey (Bureau of Labor Statistics, undated). Of these 45,500 records, a population of 40,686 troops (representing 22 percent of the 183,527) is assigned to develop MDD, PTSD, or both during the two years post-return. The remaining 4,814 troops (45,500 – 40,686) serve as the control group for the productivity calculations. Of the 40,686 people who develop MHDs, 68 percent are assigned PTSD. Two-thirds of these people are set to develop PTSD during the two-year period, and the remaining one-third are instead initialized to start with PTSD at the beginning of the simulation run. Half of those who have or who develop PTSD also have or develop comorbid MDD. The remaining individuals (i.e., 33 percent of 40,686 individuals) begin the simulation with MDD. The final step of the initialization process removes people from our sample population because of attrition from military service. This is done by applying a removal probability that depends on MHD status assigned to the person and comes from Hoge, Castro, et al. (2004).

## Time Steps in the Model

We iterate the model in time steps representing one-quarter of a year. There are thus eight time steps considered in the model. In each time step, the model performs six steps:

- The first step updates the population group for each individual. At the beginning of the quarter, each PWMHD may initiate treatment. This occurs with a probability given by the parameter treatment probability. Someone who initiates treatment may go into either UC or EBT. The probability that the person enters EBT is controlled by the parameter EBT Probability. The model assumes that (i) a person cannot switch between EBT and UC; (ii) the success rate of treatment (i.e., the remission rate) depends on the MHD and on the treatment type received by the person; and (iii) any beneficial effects of treatment (i.e., remissions) are not seen until the beginning of the next quarter. If treatment is successful, then the person is remitted and enters the no-MHD state. However, someone who has received treatment and who was remitted at some previous time step may relapse back to his or her previous MHD state. If instead treatment is not successful, the person is assumed to have an 80-percent chance of continuing the same course of treatment in the next quarter.
- The second step in the model deals with suicide events. People who have PTSD or MDD may attempt suicide. The annual suicide attempt probabilities are taken from Gibbons et al. (2007). These probabilities depend on the person's

age group (0.01114 for those younger than 26, 0.00539 for those 26 to 45, and 0.00226 for those over 45) but not on his or her treatment status.

If someone attempts suicide, he or she will die from that attempt with a probability that depends on the military status: The probability is 8.4 percent if he or she is still actively serving in the military and 4.0 percent if he or she is a civilian (U.S. Army, 2007; Goldsmith et al., 2002).

- The third step updates the labor status. Someone in the model can either stay as actively serving in the military or leave the military and enter one of three civilian labor-force status (CLFS) groups: full, part, or unemployed. The probabilities that determine which are based on a distribution of veterans in the 2012 Current Population Survey. The CLFS can change only when someone experiences a change in mental health status.
- Wages are updated depending on military status. Military pay for full-time and reservists are pulled from the official 2012 military pay tables. These depend on rank and years of service. Civilian wages depend on the CLFS, demographic variables, and MHD status. For someone with a mental health condition, wages are decreased based on rates reported in Savoca and Rosenheck (2000).
- The fifth step deals with active-duty transitions. Someone may leave full-time active duty at the end of the quarter. The probabilities for this transition come from Hoge, Castro, et al. (2004) and vary depending on mental health status and length of time since returning home. Service members may also leave active duty at the end of the quarter because of attrition. Depending on rank and branch, some service members who leave active duty enter the reserves.
- The final step deals with promotions. The promotion probabilities come from the Defense Manpower Requirements Report (Office of the Under Secretary of Defense for Personnel and Readiness, 2012) and vary depending on rank and on branch. Individuals can be promoted only once during the two-year period that the model simulates.

#### **Model Parameters**

There are 16 key model parameters, which we list in this section. Baseline values are given in parentheses:

- treatment probability: the probability per quarter that a PWMHD initiates treatment (7.5 percent)
- PTSD probability: the proportion of veterans with MHDs who have PTSD or PTSD together with MDD (68 percent)
- EBT probability: the proportion of people who have an MHD and are initiating treatment who access EBT (30 percent)
- civilian PTSD wages: the decrement factor in wages received by a civilian affected by PTSD (15.75 percent)

- military PTSD wages: the decrement factor in wages received by an active service member affected by PTSD (7.88 percent)
- civilian MDD wages: the decrement factor in wages received by a civilian affected by MDD (45.23 percent)
- military MDD wages: the decrement factor in wages received by an active service member by MDD (22.62 percent)
- PTSD relapse: the probability per quarter that someone who was previously affected by PTSD will relapse (55 percent)
- MDD relapse: the probability per quarter that someone who was previously affected by MDD will relapse (54 percent)
- civilian suicide attempt: the probability that a suicide attempt by a civilian results in death (4.00 percent)
- military suicide attempt: the probability that a suicide attempt by a service member results in death (8.60 percent)
- remission PTSD UC: the probability per quarter that someone affected by PTSD and treated by UC is remitted (30 percent)
- remission PTSD EBT: the probability per quarter that someone affected by PTSD and treated by EBT is remitted (30 percent)
- remission MDD UC: the probability per quarter that someone affected by MDD and treated by UC is remitted (40 percent)
- remission MDD EBT: the probability per quarter that someone affected by MDD and treated by EBT is remitted (48 percent)
- suicide attempt age: a multiplicative factor that scales the suicide attempt rates based on age (1.00).

### **Sensitivity Analysis**

Many of the parameters used in the model are the same as those used in the original version of the model by Kilmer et al. (2011). However, the model now uses an updated data set that includes military members (active and reserve, all four branches) deployed in June 2012 and updated wage data from the Defense Manpower Requirements Report for 2012 (Office of the Under Secretary of Defense for Personnel and Readiness, 2012). We updated all costs in the model to 2012 dollars using the consumer price index calculator. We have also updated the parameter value for treatment probability based on prevalence of treatment-seeking found in the regression analyses of the Invisible Wounds service member survey. Here, yearly prevalence at baseline was 26.8 percent. This corresponds to a quarterly treatment probability of 7.5 percent found by using the mathematical expression

$$q = (1-p)^{\frac{1}{4}}$$
,

relating the quarterly treatment probability q to the yearly treatment probability p. Updating the values for other model parameters, such as suicide rates and EBT Probability, proved to be a much harder task. One of the main aims of our meeting with the expert panel was to discuss the model parameter values used. To aid the discussion, we decided to run a sensitivity analysis on the model parameters to determine which parameters have the greatest impact on costs.

We carried out our sensitivity analysis as follows. For each of the 16 parameters, we ran our simulation model by first setting its value to a lower-bound value and then to an upper-bound value. We instead fixed the values of all other model parameters to their baseline values. Consequently, we ran a set of 32 simulation runs, a pair of runs for each model parameter. For most model parameters, we set the lower and upper values, respectively, to 90 percent and 110 percent of their baseline value. For other parameters, such as treatment probability, we set the lower and upper bounds as given by their 95-percent CIs. For each of our 32 simulation runs, we recorded the costs per observation (i.e., per number of PWMHDs). For a given pair of simulation runs, associated with a given parameter, we reordered the variation in the cost outputs. Large variations in the cost outputs gave an indication that the uncertainty in the parameter value has a big influence on costs. We were thus able to rank the importance of each parameter based on its impact on costs. Table D.2 summarizes our findings.

Treatment probability with the four remission probabilities has the largest influence on Ttreat. However, other important parameters that have a large impact on costs include the parameter suicide attempt age that controls and modulates the probabilities of suicide attempts by age group given by Gibbons et al. (2007). Another important parameter is probability of EBT, which controls the proportion of individuals who begin treatment who go into EBT as opposed to UC.

Table D.2 Parameters Ranked According to Their Impact on Costs

	Five Most-Impactful Parameters						
Cost	1	2	3	4	5		
Tprod	Civilian MDD wages	Military MDD wages	Military PTSD wages	Treatment probability	Remission PTSD UC		
Ttreat	Remission PTSD UC	Remission MDD EBT	Remission PTSD EBT	Remission MDD UC	Treatment probability		
Tsui	Suicide attempt age	Treatment probability	Remission PTSD UC	Probability of EBT	PTSD probability		
TsuiV	Treatment probability	Remission PTSD EBT	Suicide attempt age	PTSD probability	Remission PTSD UC		
Aggregated cost	Treatment probability	Remission PTSD UC	Probability of EBT	Suicide attempt age	Civilian MDD wages		

## **Estimating the Effects of Stigma on Medical and Societal Costs**

Our specific research task was to use the microsimulation model to estimate the medical and societal costs resulting from the mental health stigma. As we describe in Chapter Four, we intended to use evidence-based estimates to assess the added costs introduced by stigma. We approached this by running the model representing a world in which stigma was absent and then assessing the difference between this ideal condition and the actual conditions modeled in the simulation. This cost can be estimated by changing the relationship that links the magnitude of stigma to a service member's probability of seeking treatment. Thus, the parameter treatment probability depends on a measure of the level of stigma. Presumably, the baseline value used for treatment probability includes the effects of stigma in the status quo. In order to obtain the added costs introduced by stigma, we would need to run the model using a different value of treatment probability representing a world in which stigma was absent.

#### **Literature Review**

We conducted an extensive literature search that specifically focused on the association between mental health care utilization and stigma. Our literature search has focused on various settings, including military and nonmilitary, as well as U.S. and non-U.S. settings. Published studies used surveys to measure level of stigma. As described in Chapter Three, these surveys assessed public and personal stigma, opinions about MHDs, and attitudes toward counseling using a variety of question types and response options (e.g., "members of my unit might have less confidence in me," "my unit bosses might treat me differently").

Although one might expect that perceptions of greater levels of stigma would be clearly associated with lower probabilities of treatment-seeking propensity, the findings in the literature have been mixed. Some studies have suggested that stigma reduces the likelihood that someone will initiate mental health treatment. For example, Hoge, Castro, et al. (2004) focused on U.S. veterans returning from Iraq and Afghanistan and found that the perception of stigma is an important barrier to care especially among those suffering from MHDs. PWMHDs were found to be twice as likely to report concern about possible stigmatization than those with no MHDs. In this study, approximately 40 percent of PWMHDs reported that seeking treatment would be too embarrassing. Although this study is important because it shows that stigma is prevalent, particularly among those with MHDs, it did not measure a direct association between stigma and treatment utilization.

Pietrzak et al. (2009) conducted a study of the perceived stigma and barriers to mental health care utilization among U.S. veterans. They found a statistically significant, although weak, correlation between negative beliefs about mental health care and stigma and between negative beliefs and the likelihood of utilization of mental health counseling and medication services but did not assess the correlation between stigma and utilization. A much stronger relationship between stigma and likelihood of treatment-seeking was found in an Australian study (Barney, Griffiths, Jorm, et al., 2006). This study found that a person's internalization of stigma about help-seeking for depression reduces the likelihood of help-seeking from any professional source. Out of all the studies we explored, this study provides the strongest association between stigma and mental health care utilization.

Other studies suggest that stigma does not have any impact on mental health care utilization. Gould et al. (2010) recently found that service members who say that stigma would be a barrier to care are no more or less likely than other service members to be interested in care or to actually seek care. Other recent civilian research has also showed little association or, in some cases, no association of stigma with help-seeking (Schomerus and Angermeyer, 2008). Most studies on nonmilitary U.S. populations also found no significant relationship between perceived stigma and actual mental health treatment-seeking (S. Brown, 2010; Vogel, Wade, Wester, et al., 2007).

In summary, the majority of the studies support the finding that, although stigma is widely reported as a barrier to care, there is no evidence that it affects actual mental health care utilization. We were unable to find robust empirical published literature on the direct impact of stigma on mental health treatment-seeking. Therefore, we decided to derive an estimate using data from a RAND military survey that included questions on mental health utilization, as well as stigma and other barriers to care.

## RAND Military Survey on Stigma and Other Barriers to Care

As part of the Invisible Wounds study, RAND researchers conducted a large population-based survey on people previously deployed as part of OEF or OIF (Schell and Marshall, 2008). This study offered the ability to assess the extent to which specific barriers to care are associated with subsequent mental health treatment in a sample of previously deployed U.S. service members who had been identified as having a need for mental health treatment. The researchers conducted baseline interviews between August 2007 and January 2008. A total of N = 2,120 respondents completed the interview.1 To assess barriers to seeking health care for mental health concerns, respondents were asked, "If you wanted help for an emotional or personal problem, which of the following would make it difficult?" This question was followed by statements posed as potential barriers to treatment. Respondents endorsed each statement that they thought would make it difficult to get treatment by responding "yes." Potential barriers to care were drawn from three separate instruments: the NCS-R (see, e.g., Kessler, Chiu, et al., 2005); the Hoge, Castro, et al. (2004) study of barriers to care in the military; and our own instrument, which was developed for use among people with a range of traumatic experiences (e.g., Wong, Marshall, et al., 2006). From across

This includes almost 200 individuals who were counted as nonrespondents in the original report (Schell and Marshall, 2008) but who completed the survey after analyses for the report were undertaken.

these instruments, we selected distinct barriers, maintaining all of the factors found by Hoge, Castro, et al. (2004) to be highly endorsed in a military sample.

The researchers then followed up with respondents approximately 18 months after baseline (N = 1,010). The majority of attrition was due to service members who had relocated since baseline and who lacked valid phone number information. They conducted all of the analyses using both poststratification weights and attrition weights. The poststratification weights matched the baseline sample to the characteristics of the previously deployed force on branch of services and, within each branch of service, on age, gender, rank, marital status, component (active versus reserve), and current duty status. Attrition weights resulted in a follow-up sample that matched the full baseline sample on all demographic, military, and mental health variables, including service utilization and probable mental health diagnoses. The current analyses were restricted to those who were service members at follow-up, excluding those who had retired or separated from service. Finally, analyses were restricted to people who had a probable need for treatment at follow-up. This included anyone who experienced any one of the following:

- sought treatment in the past year
- thought that they should have gotten treatment but did not
- had a moderate level of PTSD symptoms in the past month but may not have a current diagnosis
- had a moderate level of depression symptoms in the past month but may not have a current diagnosis.

The final analytic sample included 279 active-duty service members who had a need for treatment at follow-up.

As part of this follow-up interview, the researchers assessed participants' mental health service utilization over the prior 12 months. This included the number and length of visits both to mental health specialty providers and to other medical providers for mental health symptoms or disorders. They assessed prescriptions for psychotropic drugs, as well as the duration of and adherence to pharmacotherapy. For the purposes of the current analyses, they used these mental health treatment items to derive a measure of minimally adequate care over the prior 12 months, using a definition adapted from P. Wang et al. (2005). This determination is designed to assess whether the participant has been engaged in at least a low level of mental health treatment during those 12 months (for precise definition, see Schell and Marshall, 2008). Similar to what the researchers found at baseline (Schell and Marshall, 2008), 27 percent of those service

² All analyses were replicated on the broader sample that includes people who have left the military. None of the conclusions or costs estimates differs substantively in this broader sample. However, the current service member subsample is being presented because it better represents the effects of stigma in the military.

members who had a need for treatment at follow-up received minimally adequate care during the prior 12 months.

### RAND Regression Model: Stigma

To identify the possible effect of mental health stigma on service utilization, we constructed a logistic regression model in which a range of factors assessed at baseline predicted minimally adequate care at follow-up. These predictors included baseline mental health symptoms, mental health service utilization before baseline, age, gender, rank, branch of service, and component of service. In addition to these covariates, we included as predictors several variables related to endorsed barriers to mental health care from the baseline survey.

The analytic strategy was to combine the measures that were thought to be directly assessing the stigma of mental health symptoms or disorders or treatment into a measure of stigma. We identified five items as relatively direct measures of a concern that other people might evaluate or treat the respondent poorly because of their stereotypes or prejudice against those with mental health symptoms or disorders. We considered the following five barriers to be indicators of stigma:

- My friends and family would respect me less.
- My spouse or partner would not want me to get treatment.
- My co-workers would have less confidence in me if they found out.
- My commander or supervisor has asked us not to get treatment.
- My commander or supervisor might respect me less.

The number of these five items endorsed as a barrier to care was our measure for mental health stigma in the model predicting mental health treatment at followup. This count was standardized such that the mean score in our population was 1. Because the OR from the logistic regression model reflects a unit change of 1 in the predictor, this standardized measure reflects the odds of treatment, comparing the current level of stigma with one in which stigma was completely eliminated.

The other barriers to treatment assessed at baseline were also included in the model as covariates. We entered each individual barrier item as a separate predictor. These included the following:

- It could harm my career.
- I do not think my treatment would be kept confidential.
- I would not know where to get help or whom to see.
- It would be difficult to arrange transportation to treatment.
- It would be difficult to schedule an appointment.
- Mental health care would cost too much money.
- Even good mental health care is not very effective.
- The medications that might help have too many side effects.

- It would be difficult to get child care or time off of work.
- My family or friends would be more helpful than a mental health professional.
- Religious counseling would be more helpful than mental health treatment.
- I could lose contact or custody of my children.
- I could lose medical or disability benefits.
- I could be denied a security clearance in the future.
- I have received treatment before and it did not work.

In order to maximize the power to detect an effect of stigma, the model was pruned using a parsimony criterion. Specifically, covariates (i.e., predictors of treatment utilization other than stigma) were dropped from the model when doing so resulted in a more parsimonious model as judged by the Akaike information criterion (Akaike, 1987). This is a relatively conservative approach to model pruning that is approximately equivalent to removing unnecessary covariates sequentially until all remaining covariates are significant at the p < 0.20 level. The final (pruned) regression model includes stigma, age, officer status, branch or component, baseline PTSD symptoms, and the barriers listed below:

- I would think less of myself if I could not handle it on my own.
- I do not think my treatment would be kept confidential.
- It could harm my career.
- I could lose medical or disability benefits.
- My family or friends would be more helpful than a mental health professional.

Finally, we were worried that several of the barriers that were included as covariates may themselves be partially affected by concerns about stigma. In particular, "It could harm my career" could reflect a mix of stigma-related harms, as well as harms from military policies that are not themselves stigma (e.g., it could affect a security clearance or prevent someone from deploying with his or her unit). Similarly, "I do not think my treatment would be kept confidential" might indirectly reflect fears about stigma that would be the result of disclosure of treatment. To the extent that stigma causes these two barrier items, it may be inappropriate to include them as covariates in the model. Specifically, including them as covariates might result in a downward bias on the size of our estimate of stigma's effect on treatment utilization. To assess for this possibility, we conduct sensitivity tests in which the effect of stigma were estimated with and without those items in the model. Analysis of the data found that the yearly probability of treatment initiation by service members with a probable need for mental health treatment is 26.8 percent. Table D.3 shows the regression model result. Consistent with our review of the empirical published literature is our finding that stigma did not significantly predict subsequent treatment utilization.

Table D.3 **Stigma Regression Model** 

OR for Stigma	95% LL	95% UL
0.997	0.745	1.334

NOTE: LL = lower limit. UL = upper limit.

The regression model shows that, if we were to completely eliminate the effect of stigma, the yearly probability of seeking treatment would still remain 26.8 percent and that, with a 95-percent CI of the effect of stigma, we can be relatively confident that the true effect would result in rates of utilization between 21.5 percent and 32.9 percent. Table D.4 summarizes the results.

Some of the barriers used as covariates within the model may themselves be the causal effect of stigma. We therefore decided to rerun the model excluding particular barriers to see how this affected the estimate. For the first modification, we estimated the effect of stigma while not controlling for "I do not think my treatment would be kept confidential" (modification 1). Results are shown in Table D.5.

For the second modification, we estimated the effect of stigma while not controlling for either "I do not think my treatment would be kept confidential" or "It could harm my career" (modification 2). Table D.6 shows the results.

In summary, the effect of eliminating stigma in predicting mental health treatment utilization was never statistically significant at the p < 0.05 level, regardless of

Table D.4 **Estimate of Yearly Mental Health Treatment Utilization After Removing** the Effect of Stigma

P₀: Original Prevalence (%)	O: Original Odds	P _A : Adjusted Previous Estimate (%)	95% LL (%)	95% UL (%)
26.8	0.366	26.8	32.9	21.5

Table D.5 Results of the Regression Model with Modification 1

P _o : Original Prevalence (%)	O: Original Odds	P _A : Adjusted Previous Estimate (%)	95% LL (%)	95% UL (%)
26.8	0.366	27.7	34.0	22.2

Results of the Regression Model with Modification 2

P₀: Original Prevalence (%)	O: Original Odds	P _A : Adjusted Previous Estimate (%)	95% LL (%)	95% UL (%)
26.8	0.366	30.5	36.3	25.2

whether we include as covariates the two barriers that may be indirect measures of stigma. In all cases, the effect size of stigma as a predictor of mental health treatment is descriptively small.

### RAND Regression Model: Other Barriers to Care

Stigma, as defined in this study, was not found to affect treatment utilization. However, the data showed that utilization depends mostly on age, branch component, PTSD status, and two other barriers to care:

- I could lose medical or disability benefits.
- My family or friends would be more helpful than a mental health professional.

However, the first of these barriers was reported as a barrier only by those not in treatment; no one in treatment endorsed this barrier. Therefore, we were not able to estimate an OR for this first barrier, the fear that medical or disability benefits will be lost if one seeks treatment. However, we proceeded in constructing a regression model that predicts utilization based on the second barrier—namely, that support from family and friends provides a more helpful alternative to professional mental health treatment. Results of the regression model are shown in Table D.7. The OR for this barrier was significantly less than 1, showing a statistically significant effect of this barrier on treatment utilization; people who believed that mental health professionals were not particularly helpful were much less likely to subsequently seek mental health care.

Because 30 percent of our population sample reported believing that family or friends are more helpful than seeking professional mental health treatment, we used the estimate given in Table D.7 to predict utilization if the endorsement of this barrier could be brought down to 15 percent and 0 percent. Table D.8 shows results, which suggest an increase in mental health treatment of approximately 7 percent if this barrier could be eliminated.

Table D.7 Odds Ratio for the Barrier "My Family and Friends Would Be More Helpful Than a Mental Health Professional"

OR	95% LL	95% UL
0.295	0.121	0.718

Table D.8 Change in Treatment Utilization Based on a Reduction and Elimination of the Barrier "My Family and Friends Would Be More Helpful Than a Mental Health Professional"

Percentage Endorsing the Barrier (%)	P₀: Original Prevalence (%)	P _A : Adjusted Previous Estimate (%)	95% LL (%)	95% UL (%)
15	26.8	30.5	33.4	27.8
0	26.8	34.5	40.8	28.8

### **Expert Panel to Vet Model Assumptions and Parameters**

In September 2013, we convened a panel of ten experts who were asked to provide feedback on

- · model assumptions and parameters, particularly for those parameters that have the greatest impact on cost outcomes
- our approach to quantifying the effect of stigma on mental health treatment utilization
- · our analysis of other barriers to care that may affect mental health treatment utilization.

This section summarizes the five issues we addressed and the feedback from experts.

### **Probability of Entering Evidence-Based Treatment**

We asked expert panelists for feedback on an updated estimate for EBT probability and for feedback on the CI used for this parameter. We focused on this parameter because EBT probability has a strong impact on the aggregated cost and Tsui. In relation to the first two questions regarding parameter values used and their CIs, the expert panel did not have strong opinions opposing our parameter choices or the results of the sensitivity analysis. The experts viewed the choice of 30 percent for the EBT probability as reasonable. Following our meeting, Deniz Fikretoglu stated that, for the case of the Canadian Forces, "The concern has been that EBT may not be used as often or as effectively as we would like: Whether it's better than 30 percent or not would be just guesswork." This general view seemed to be shared by other experts in our panel and indeed in the previous expert panel that initially approved of the parameter values to be used in the model published by Kilmer et al. (2011). This indicates that our variability of ±10 percent in the CI seems to be a conservative choice.

### **Suicide Attempts**

We also asked expert panelists for feedback on an updated estimate of suicide attempts among military service members and feedback on the CIs we used (i.e., ±10 percent). Our sensitivity analysis also showed that the parameter value for Suicide Attempt Age is also very important in determining Tsui and aggregated cost. This is because the potency of life lost due to death by suicide is very high and this affects our outcome for the TsuiV, as well as the aggregated cost. Consequently, varying the probabilities that affect suicide attempt rates and deaths by suicide has a big impact on costs. The expert panel did not have any objections or concerns that we were using the same rates assumed by the previous version of the model based on Gibbons et al. (2007) findings. The expert panel did not know of any new studies or data source that we could use to extract suicide attempt rates in the military for PWMHDs and broken down by age group. An uncertainty CI of ±10 percent over the rates reported by Gibbons et al. also did not find any particular objections.

#### **Remission Rates**

The model relies on four remission probabilities (i.e., remission PTSD UC, remission PTSD EBT, remission MDD UC, and remission MDD EBT), each of which has a significant impact on costs (in particular, Ttreat). We asked experts for feedback on updated remission rates and on the CIs used to generate those remission rates. We used the same baseline values for the remission probabilities as in the original model (Kilmer et al., 2011). The treatment success probabilities in the original model were based on remission rates reported in existing literature (Dimidjian et al., 2006; Keller et al., 2000; Kessler, Sonnega, et al., 1995; Kocsis et al., 1988; Ludman et al., 2007; Schnurr et al., 2007). The expert panel did not object to the baseline values used or the CI range assumed.

### Stigma and Other Barriers to Care

As described previously, we found that changing the levels of stigma has little or no effect on the parameter treatment probability. Additionally, because we found that mental health stigma is not a significant barrier to treatment utilization, we decided to use RAND military survey data to identify other, more-significant barriers. We found that the perception that support from family and friends is more effective than professional mental health treatment is a significant barrier to care. We asked experts for feedback on these findings and for recommendations for any other studies that quantify the effects of stigma or other barriers to care on mental health utilization. The expert panel agreed with our findings from the literature search and from the analysis on the RAND military survey data that stigma does not influence utilization. However, the expert panel pointed out that we had focused only on the hypothesis that stigma of having an MHD affects the probability of seeking treatment. The expert panel suggested that stigma could influence other probabilities and processes not reflected in the

microsimulation model. Most importantly, it was argued that stigma could influence suicide attempt rates. The expert panel was not able to provide references on where such a link was found or by how much. Carole Roan Gresenz noted that the model assumes no effect of treatment on suicide rates. That is indeed true: All people in the model belonging to the same age group who currently have MHDs are assumed to have the same probability of a suicide attempt regardless of their treatment status or history. Therefore, there is no direct influence of treatment on suicide rates per individual. However, at the aggregate level, treatment does reduce the number of PWMHDs, which then indirectly affects the aggregated number of suicide attempts.

In summary, the expert panel indicated agreement with the model assumptions and parameters and made some recommendations about how model findings should be presented, which we have implemented in the next section.

### **Microsimulation Model Results**

Following recommendations made by the expert panel, we first present model runs for the hypothetical case in which PWMHDs do not enter treatment. We then present model runs showing the model baseline, which represents suicide and cost outcomes without stigma or any other barriers to care removed. Finally, we present findings from the model run with stigma and with the barrier to care described above (i.e., perception that friends and family are more helpful than a mental health professional).

### Simulation 1: No Service Members Receive the Needed Treatment

We model the hypothetical case in which PWMHDs do not enter treatment by setting the value of the probability of treatment to 0. We ran 100 independent model realizations, each using the same set of parameter values but with a different random seed. Therefore, each realization resulted in different dynamics due to chance effects only. Table D.9 shows the mean values over all 100 realizations of the total number of people who begin with or who develop MHDs during the two-year period. There are three rows in this table, each showing a population with one of the three MHD states who are not in treatment. We show also the mean number of suicide attempts and the mean number of deaths by suicide. Values given within the parentheses show the standard deviation obtained over our 100 realizations.

Table D.10 shows the total costs associated with each population group. It gives all costs in millions of dollars except for Tsui, which is given in thousands of dollars. Tsui includes all medical and procedural costs of a suicide attempt but excludes the value of life loss from death by suicide. However, we show the costs associated with suicides that include the value of life lost (TsuiV), and we give this in millions of dollars.

(4)

20.0			
Group	Observations	Number of Suicide Attempts	Number of Deaths by Suicide
PTSD, no Tx	13,835 (83)	141 (12)	11 (3)
PTSD/MDD, no Tx	13,820 (82)	141 (13)	11 (3)
MDD, no Tx	13,022	200	15

(16)

Table D.9 Suicide Attempts and Deaths by Suicide When the Probability of Treatment Is Zero

NOTE: Numbers in parentheses are standard deviations (SDs).

(33)

Table D.10 Mean Cost Output When the Probability of Treatment Is Zero

Group	Ttreat (\$)	Tprod (\$ millions)	Tsui (\$ thousands)	TsuiV (\$ millions)	Aggregated Cost (\$ millions)
PTSD, no Tx	0	111.97 (12.24)	744.36 (63.95)	93.90 (27.71)	204.87 (31.62)
PTSD/MDD, no Tx	0	263.69 (11.62)	745.75 (70.03)	92.10 (25.79)	355.78 (28.65)
MDD, no Tx	0	367.03 (10.62)	1,057.90 (85.76)	127.47 (34.71)	494.50 (36,35)

NOTE: Numbers in parentheses are SDs.

### Simulation 2: Baseline Model Without Stigma or Other Barriers to Care

Tables D.11 and D.12 provide the corresponding tables for the probability of treatment set to its baseline value of 7.5 percent per quarter. All nine rows appear here for each of the MHD states and treatment states. According to our literature search and our regression analysis of the RAND military survey, stigma was found not to have a statistically significant effect on treatment utilization. Therefore, Tables D.11 and D.12 for the baseline case are unchanged by modifying the stigma level in our microsimulation model. Stochastic variability, driven by chance effects and shown by the SDs within the parentheses in the tables, dominates the variability that is observed if the probability of treatment is varied within the 95-percent CI bounds shown in Table D.6.

### Simulation 3: Model with Stigma

Analysis of the regression data found that the yearly probability of treatment initiation by service members with MHDs is 26.8 percent. From this, we extracted that the quarterly probability of treatment initiation (i.e., the value of the treatment-probability parameter) would be 7.5 percent. The regression model shows that, if we were to com-

Table D.11	
Suicide Attempts and Deaths by Suicide at	Baseline

Group	Observations	Number of Suicide Attempts	Number of Deaths by Suicide
PTSD, no Tx	9,305 (69)	88 (10)	9 (3)
PTSD, UC	3,162	28	1
	(101)	(6)	(1)
PTSD, EBT	1,363	12	0
	(101)	(3)	(1)
PTSD/MDD, no Tx	9,310	88	8
	(78)	(9)	(3)
PTSD/MDD, UC	3,163	29	1
	(109)	(6)	(1)
PTSD/MDD, EBT	1,358	11	0
	(98)	(4)	(1)
MDD, no Tx	6,976	110	12
	(55)	(11)	(3)
MDD, UC	4,219	42	1
	(126)	(7)	(1)
MDD, EBT	1,821	17	1
	(119)	(4)	(1)

NOTE: Numbers in parentheses are the SDs resulting from stochastic fluctuations.

pletely eliminate the effect of stigma, the yearly probability of seeking treatment would still remain 26.8 percent and that, with a 95-percent CI of the effect of stigma, we can be relatively confident that the true effect would result in rates of utilization between 21.5 percent and 32.9 percent. The medical and societal costs would therefore not change from the baseline costs, reported above. Therefore, we do not report these.

### Simulation 4: Model with a Barrier to Care

Tables D.13 through D.16 present our results when exploring a reduction in the barrier to care relating to "my family and friends would be more helpful than a mental health professional." In Tables D.13 and D.14, we show results for the case in which the number of respondents who endorse this barrier is reduced by 50 percent and the probability of treatment increases to 30.5 percent. We ran 100 realizations of the model with this value for the probability of treatment. We further ran 100 realizations of the model with the probability of treatment set at the lower- and upper-bound values of the 95-percent CI, as given in Table D.10. This produced a range of outputs in observations, number of suicides attempted and deaths by suicide, and in costs. In the tables, we report the mean value given over the 100 realizations when the probability of treatment was set at 30.5 percent. In the parentheses, we report either (1) the SD due to the

Table	D.12		
Cost	Output	at	<b>Baseline</b>

Group	Ttreat	Tprod	Tsui	TsuiV	Aggregated Cost
	(\$ millions)	(\$ millions)	(\$ thousands)	(\$ millions)	(\$ millions)
PTSD, no Tx	0	66.56	460.15	70.43	136.99
	(0)	(7.71)	(54.14)	(27.18)	(27.5)
PTSD, UC	2.74	24.21	150.52	9.02	35.97
	(0.1)	(3.48)	(30.47)	(8.34)	(9.42)
PTSD, EBT	4.42	9.49	62.86	3.57	17.48
	(0.35)	(1.86)	(17.66)	(5.68)	(5.99)
PTSD/MDD, no Tx	0	160.76	460.64	67.71	228.47
	(0)	(6.65)	(48.26)	(22.47)	(23.73)
PTSD/MDD, UC	2.74	55.32	155.99	8.87	66.94
	(0.1)	(3.55)	(30.63)	(7.57)	(7.3)
PTSD/MDD, EBT	6.02	22.3	61.55	3.41	31.72
	(0.45)	(2.27)	(20.4)	(5.03)	(5.78)
MDD, no Tx	0	196.13	579.86	98.18	294.31
	(0)	(4.81)	(59.41)	(25.54)	(25.74)
MDD, UC	2.65	82.38	230.63	11.62	96.65
	(0.08)	(4.33)	(36.73)	(10.07)	(10.73)
MDD, EBT	3.09	33.82	93.65	4.84	41.75
	(0.2)	(2.94)	(22.27)	(6.05)	(6.77)

NOTE: Numbers in parentheses are the SDs resulting from stochastic fluctuations.

variability associated with stochastic chance-driven effects or (2) the range in values produced when the parameter value for the probability of treatment varies between its lower- and upper-bound values. We choose to report the bigger variability between the two.

Tables D.15 and D.16 show results for the case in which the number of respondents who endorse the friends-and-family barrier is reduced by 100 percent and the probability of treatment increases to 34.5 percent, as shown in Table D.10. Similarly to how we reported in the previous tables, we present the results over 100 independent realizations and varied the probability of treatment between the lower and upper bounds of the 95-percent CI given in Table D.10. We thus report in the parentheses the bigger of the two variabilities—namely, the stochastic variability and the variability resulting from a parameter-value change in the probability of treatment.

# **Summary of Medical and Societal Costs**

Not surprisingly, as the probability of treatment increases (going down the rows in the tables in the previous section), total treatment costs increase. The elimination

Table D.13
Suicide Attempts and Deaths by Suicide When the Barrier of Friends and Family
Is Reduced by 50 Percent

Group	Observations	Number of Suicide Attempts	Number of Deaths by Suicide
PTSD, no Tx	8,746	81	8
	(8,316–9,168)	(78–88)	(3)
PTSD, UC	3,546	32	1
	(3,258–3,856)	(5)	(1)
PTSD, EBT	1,536	13	0
	(1,408–1,672)	(4)	(1)
PTSD/MDD, no Tx	8,747	82	8
	(8,301–9,158)	(9)	(3)
PTSD/MDD, UC	3,548	32	1
	(3,263–3,850)	(5)	(1)
PTSD/MDD, EBT	1,533	13	1
	(1,407–1,664)	(4)	(1)
MDD, no Tx	6,286	99	11
	(5,766–6,792)	(91–108)	(3)
MDD, UC	4,707	48	2
	(4,351–5,067)	(44–52)	(1)
MDD, EBT	2,028	20	1
	(1,873–2,186)	(4)	(1)

NOTE: There are two sources of variability. The first is given by the regression model and provides a CI for the probability-of-treatment parameter. To explore this variability, we ran the microsimulation twice. The first run used the lower bound value for the probability-of-treatment parameter, and the second used the upper bound value for the treatment parameter.

In addition to this variability, there is stochastic variability. This is noise-induced or chance-driven variability. So, for each of the two runs, we ran 100 replications using the same settings and initial conditions. Although the settings are the same, each of these realizations can produce slightly different results because of chance. So what we report is the sum of the effects of these two variabilities that gives the widest range (i.e., difference) between the two.

In this table, the numbers in parentheses show the large value between (1) the range produced by varying the probability of treatment within the 95-percent CIs given by the regression model and (2) the SD resulting from stochastic fluctuations.

of the friends-and-family barrier does not produce a dramatic increase in treatment costs. Reducing this barrier by 50 percent would increase treatment costs by just under \$3 million. However, looking at Tprod and aggregated cost, we see that this may be a cost-effective intervention. Reducing this barrier by 50 percent would result in more than \$9 million in savings in lost productivity and aggregated cost. Not surprisingly, the benefit and cost-effectiveness is even greater if this barrier is completely eliminated (100-percent reduction). In this case, the aggregated cost would fall by more than

Group	Ttreat	Tprod	Tsui	TsuiV	Aggregated Cost
	(\$ millions)	(\$ millions)	(\$ thousands)	(\$ millions)	(\$ millions)
PTSD, no Tx	0	61.31	422.52	68.85	130.16
	(0)	(7.98)	(407.34–459.52)	(23.3)	(25)
PTSD, UC	3.09	26.96	175.22	11.91	41.97
	(2.83–3.36)	(24.68–28.75)	(26.54)	(9.48)	(10.47)
PTSD, EBT	4.98	10.98	71.73	4.14	20.1
	(4.54–5.44)	(2.42)	(22.32)	(5.46)	(6.26)
PTSD/MDD, no Tx	0	148.78	431.48	62.95	211.73
	(0)	(139.86–157.7)	(46.58)	(22.98)	(201.51–226.01)
PTSD/MDD, UC	3.09	61.76	172.93	10.29	75.15
	(2.83–3.37)	(57.26–66.72)	(26.94)	(9.25)	(71.59–82.66)
PTSD/MDD, EBT	6.84	25.15	71.15	4.32	36.31
	(6.26–7.45)	(23.32–26.89)	(19.94)	(6.07)	(6.73)
MDD, no Tx	0	177.64	517.47	91.18	268.82
	(0)	(162.88–190.98)	(478.57–566.94)	(27.26)	(251.18–289.96)
MDD, UC	2.98	91.44	257.7	16.05	110.46
	(2.74–3.23)	(85.22–98.69)	(237.27–281.31)	(11.37)	(100.92–118.91)
MDD, EBT	3.45	37.37	107.94	5.52	46.34
	(3.18–3.73)	(34.74–40.26)	(23.87)	(6.91)	(42.04–51.06)

Table D.14 Cost Output When the Barrier of Friends and Family Is Reduced by 50 Percent

NOTE: Like in Table D.13, numbers in parentheses are the large value between (1) the range produced by varying the probability of treatment within the 95-percent CIs given by the regression model and (2) the SD resulting from stochastic fluctuations.

\$32 million from the baseline. Notice that, if we eliminate this barrier, cost savings are more than double those produced by a 50-percent reduction (Table D.17). This is determined by both a larger cost saving in total productivity and a smaller number of suicide attempts and, although a marginal reduction, also a smaller number in deaths by suicide (Table D.18).

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MDD, EBT

Group	Observations	Number of Suicide Attempts	Number of Deaths by Suicide
PTSD, no Tx	8,144	74	8
	(7,269–9,013)	(65–84)	(3)
PTSD, UC	3,964	35	1
	(3,371–4,586)	(31–40)	(1)
PTSD, EBT	1,716	14	1
	(1,451–1,972)	(4)	(1)
PTSD/MDD, no Tx	8,160	76	7
	(7,267–8,997)	(65–85)	(3)
PTSD/MDD, UC	3,964	35	1
	(3,376–4,587)	(30–40)	(1)
PTSD/MDD, EBT	1,707	15	1
	(1,453–1,978)	(4)	(1)
MDD, no Tx	5,580	87	10
	(4,563–6,606)	(74–104)	(3)
MDD, UC	5,193	53	2
	(4,479–5,902)	(46–58)	(2)

Table D.15 Suicide Attempts and Deaths by Suicide When the Barrier of Friends and Family Is Reduced by 100 Percent

NOTE: Numbers in parentheses are the large value between (1) the range produced by varying the probability of treatment within the 95-percent CIs given by the regression model and (2) the SD resulting from stochastic fluctuations.

21

(18-24)

1

(1)

2,249

(1,932-2,554)

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Table D.16		
Cost Output When the Barrier	of Friends and Family Is Reduce	d by 100 Percent

Group	Ttreat	Tprod	Tsui	TsuiV	Aggregated Cost
	(\$ millions)	(\$ millions)	(\$ thousands)	(\$ millions)	(\$ millions)
PTSD, no Tx	0	55.18	387.47	65.76	120.95
	(0)	(47.52–64.26)	(340.57–441.35)	(22.6)	(102.47–134.51)
PTSD, UC	3.47	28.84	189.29	11.94	44.25
	(2.93–4.05)	(25.68–32.74)	(165.34–215.63)	(9.86)	(39.31–52.09)
PTSD, EBT	5.6	11.82	77.18	4.58	22
	(4.7–6.47)	(10.11–13.12)	(22.82)	(5.48)	(18.55–26.77)
PTSD/MDD, no Tx	0	135.8	395.85	61.13	196.93
	(0)	(116.88–155.54)	(342.64–445.35)	(22.28)	(174.55–223.84)
PTSD/MDD, UC	3.47	67.82	188.83	12.17	83.46
	(2.94–4.06)	(58.88–76.56)	(160.62–214.66)	(8.96)	(73.23–92.58)
PTSD/MDD, EBT	7.61	27.6	79.59	4.56	39.78
	(6.46–8.93)	(23.82–31.44)	(20.74)	(5.8)	(35.23–45.92)
MDD, no Tx	0	156.32	457.98	82.1	238.42
	(0)	(128.23–186.9)	(383.04–545.42)	(23.38)	(204.5–279.13)
MDD, UC	3.31	100.22	286.36	16.5	120.03
	(2.82–3.82)	(87.81–111.75)	(247.22–315.6)	(13.49)	(104.42–133.92)
MDD, EBT	3.85	41.11	115.11	7.16	52.12
	(3.28–4.41)	(36.11–45.91)	(98.91–129.03)	(7.8)	(46.12–58.9)

NOTE: Numbers in parentheses are the large value between (1) the range produced by varying the probability of treatment within the 95-percent CIs given by the regression model and (2) the SD resulting from stochastic fluctuations.

Table D.17 **Total Aggregate Costs for Each Simulation (in millions of dollars)** 

		-1			
Simulation	Ttreat	Tprod	Tsui	TsuiV	Aggregated Cost
No Tx	0	741.69	2.55	313.47	1,055.16
Baseline treatment	21.65	650.98	2.26	277.64	950.28
50% reduction in friends-and- family barrier	24.42	641.39	2.23	275.23	941.04
100% reduction in friends-and- family barrier	27.32	624.71	2.18	265.9	917.94

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Simulation	Number of Suicide Attempts	Number of Deaths by Suicide
No treatment	482	37
Baseline treatment	425	33
50% reduction in friends-and- family barrier	420	33
100% reduction in friends-and- family barrier	410	32

Table D.18 Aggregate Suicide Attempts and Deaths by Suicide for Each Simulation

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# **Program Descriptions and Analysis**

Identifying programs funded by DoD that focus on stigma reduction was not a straightforward task. As a result, we used a multifaceted approach to identifying programs for inclusion in this report. Our general approach was to identify as many potential programs as possible in order to ensure that we did not omit any and to apply the exclusion criteria (see next section) only after we had adequate information about each potential program, generally obtained through an interview with a program representative. The methods we used to identify programs were web and other media searching, scanning program materials, reviewing relevant documents that were available to the general public, consulting with military personnel, obtaining DoD lists of programs, consulting with topic-area experts within and outside of RAND, and snowball sampling.

# **Initial Program Identification**

We identified 26 potential programs, five of which met our inclusion criteria and are included in this report. Determinations about inclusion and rationale for exclusion, as well as detailed descriptions of each program, are included at the end of this appendix. Our criteria for inclusion were as follows:

- The activity focuses on stigma reduction. As mentioned in Chapter Six, programs that create a culture of help-seeking by universally discussing mental health concerns and encouraging treatment-seeking certainly contribute to stigma-reduction efforts in the military. However, it is difficult to quantify these efforts because service members are being educated about mental health concerns and encouraged to seek help as needed from a vast array of DoD programs and services. Our decision to exclude these programs as out of scope is not meant to suggest that these efforts are not important or not effective. Rather, we are taking these efforts as a given and focusing our resources on better understanding programs that have taken a more specific or targeted approach to stigma reduction.
- The program was focused on mental health and not treatment for drug or alcohol problems.

- The activity is sponsored or funded by DoD, including through
  - any DoD office, activity, agency, service, or command
  - the VA/DoD Joint Incentive Fund
  - any DoD memorandum of understanding or memorandum of agreement
  - funding by one of the branches of service.
- The activity has a target audience that includes, at a minimum, active-duty, National Guard, or Reserve component service members or their family mem-
- The activity conducts its efforts either in theater or out of theater and was in operation at some point between January 2013 and July 2013.

# **Recruiting Program Representatives for Interviews**

RAND staff made at least four attempts via phone or email to contact staff responsible for each potential program. For a small number of programs whose staff did not respond (n = 3), we were able to develop descriptions of the programs from publicly available documentation (primarily via the Internet) and make a determination of inclusion.

### **Program Interviews**

We conducted 30- to 60-minute interviews with someone from each potential program that appeared to meet our inclusion criteria; some were subsequently excluded because of the information obtained during the interview. We conducted interviews between January 2012 and July 2013, and the information included in the program descriptions was correct as of the date of the interview. As an extra assurance, we sent a report including the program description prepared by RAND staff to each interviewee, who was asked to review the report and ensure its accuracy. RAND staff have not independently verified information reported to us by the program representatives.

The topics addressed during the interviews are as follows:

- branch of service and installations served
- organization responsible for administering the program
- start and end dates of the program in its current form
- mission, goal, or objectives of the program
- alignment with a specific theoretical model or definition of stigma
- stigma-reduction activities or services provided by the program (e.g., objectives, audience, mode, frequency, timing in relation to deployment)
- target for stigma reduction (individual or self, public, institution or organization)
- evidence base for the content of the program
- program funding and staffing.

### **Determination of Program Inclusion or Exclusion**

We reviewed the activities and mission or goal of all programs to first determine whether the program met our inclusion criteria. Table E.1 lists all programs from which we sought information, whether the program was included in this report, and, if not, reason for its exclusion. For those meeting inclusion criteria, we used information from the interviews to categorize these programs into activities that address stigma in the institutional context, those that address it in the public context, and that that support

Table E.1 **Programs Contacted and Decisions About Inclusion** 

Program	Included or Excluded and Justification
Afterdeployment.org	Included
Ask, Care, Escort	Excluded: does not directly or primarily target stigma; focuses on culture shift
Army confidential alcohol treatment and education pilot	Excluded: focuses on alcohol and drugs
Army Suicide Prevention Program	Excluded: does not directly or primarily target stigma; focuses on culture shift
America's Heroes at Work	Excluded: not DoD funded
Battlemind	Excluded: no longer a stand-alone program; now part of Comprehensive Soldier and Family Fitness
Breaking the Stigma	Included
Buddy to Buddy	Excluded: not DoD funded
Comprehensive Soldier and Family Fitness	Excluded: does not directly or primarily target stigma; focuses on culture shift
ЕВН	Included
Healing Heroes	Excluded: no longer in existence
Marine Corps COSC	Excluded: does not directly or primarily target stigma; focuses on culture shift
Marine Corps Suicide Prevention Program	Excluded: does not directly or primarily target stigma; focuses on culture shift
Military and Family Life Counseling	Excluded: does not directly or primarily target stigma; focuses on culture shift
Military OneSource	Excluded: does not directly or primarily target stigma; focuses on culture shift
Military Pathways	Included
Navy Operational Stress Control	Excluded: does not directly or primarily target stigma; focuses on culture shift

Table E.1—Continued

Program	Included or Excluded and Justification
OSCAR	Excluded: does not directly or primarily target stigma; focuses on culture shift
PTSD Awareness Day	Excluded: not DoD funded
Real Warriors Campaign	Included
Soldier Evaluation for Life Fitness	Excluded: no longer in existence
Stigma Reduction Communication Campaign Research—Army	Excluded: not yet in operation
Suicide Awareness Voices of Education	Excluded: not DoD funded
Theater of War	Excluded: not DoD funded
Virtual Behavioral Telehealth and Technology at Tripler	Excluded: does not directly or primarily target stigma; focuses on culture shift
Yellow Ribbon	Excluded: does not directly or primarily target stigma; focuses on culture shift

NOTE: OSCAR = Operational Stress Control and Readiness.

people with mental health concerns. A program may contribute to stigma reduction in more than one context.

# **Descriptions of Programs Included**

Program descriptions of those included in our analysis are listed in Tables E.2 through E.6.

Table E.2 Afterdeployment.org

#### Aspect Description

#### Program description

Brief description of program and objectives

Afterdeployment.org delivers web-based applications to the military community targeting psychological health and TBI. The website's focus is directed at PTSD and other mental health conditions commonly experienced by service members and their families following a deployment. The intent is to provide content via an array of multimedia-based approaches to reach the needs and learning preferences of the widest audience. The site now also provides resources and tools that providers can use to assist in their clinical practices with service members.

The website includes information, exercises, and self-quided solutions on 20 topic areas, including stigma, posttraumatic stress, depression, anger, sleep, relationships, substance abuse, physical injury, work adjustment, life stress, health and wellness, families with children, spirituality, mild TBI, tobacco use, anxiety, military sexual trauma, and resilience.

Target population or branch of service

Service members, veterans, family, and providers; DoD-wide, although, for stigma, the focus is on the individual.

Target outcomes

For stigma, the objective is to change attitudes toward treatment-seeking and treatment-seeking behaviors.

#### Approach to stigma reduction

#### Definition of stigma (or model)

The definition of stigma used was developed in consultation with several leading stigma researchers and extends beyond help-seeking to include self, family or peer, and institutional stigma. Materials also note, "The modern concept of stigma has four necessary parts:

- 1. Labeling someone with a condition (e.g., saying someone is 'depressed')
- 2. Stereotyping people with that condition (e.g., thinking that every depressed person is 'weak')
- 3. Creating a division—a superior 'us' group and a devalued 'them' group resulting in loss of status in the community
- 4. Discriminating against someone on the basis of their label."

#### Target for stigma reduction

Increase awareness of one's own attitude toward mental health treatmentseeking by, for instance, addressing common myths.

Stigma-reduction activities

Stigma is an important concern when considering the effectiveness of approaches to and recommendations for treatment for other psychological health-related topics addressed by the website. In the future, stigma will be folded into clinical topics on the website so that it has a more pervasive presence. For instance, a service member may use the website to assess sleep difficulties and receive the recommendation to seek further assistance but choose not to because of his or her misconceptions regarding stigma. Rather than maintaining a separate topic page on the website regarding stigma going forward, the redesigned website will address stigma within the sleep topic area itself. Within the current topic module, there is a self-administered assessment to identify the perceived comfort level for seeking treatment. It also contains eight videos of individuals sharing their personal stories about stigma toward help-seeking and links to additional resources. An interactive resource booklet addresses stigma myths, gives suggestions for changing stigma misconceptions, and provides information on how to overcome stigma in oneself and others. A link is provided to allow interested visitors to enroll in an ongoing research project with T2's research group to further validate the stigma assessment that appears on Afterdeployment.org.

Aspect	Description
Status of implementation	on and evaluation
Setting	Web-based program
Implementation history	The website was started in 2008 and, as of March 2013, had been recently revised.
Evaluation design and outcomes	The stigma assessment used in Afterdeployment.org was developed and validated by T2 researchers. Currently, the website provides an opportunity for users to enroll in an ongoing study to further validate the assessment for a wider population.
Managing office	T2 at DCoE
Funder	DCoE
Published information or	http://afterdeployment.t2.health.mil/

SOURCE: Interviews with program representatives.

NOTE: T2 = National Center for Telehealth and Technology.

Table E.3 **Breaking the Stigma** 

website

Aspect	Description
Program description	· · · · · · · · · · · · · · · · · · ·
Brief description of program and objectives	Breaking the Stigma is a USASOC training program that aims to build resiliency and optimize performance by reinforcing the importance of maintaining psychological fitness and seeking behavioral health care when needed. The training is built around a 24-minute video in which a series of senior-ranking, respected, and proven SOF operators share their stories of dealing with combat- and deployment-related issues and the consequences (to their units, careers, and families) of seeking or not seeking help. The training consists of viewing the video, a presentation by two of the video participants, an overview of available resources, a briefing from unit providers, and a briefing from commanders (who share their own connections and experiences). Rather than being a remedial medical program targeting high-risk individuals, Breaking the Stigma is designed to be a command-driven stigma-reduction effort in which leaders emphasize the importance of treatment-seeking to achieving peak performance and resiliency.
Target population or branch of service	Breaking the Stigma focuses on reaching the soldiers and leaders in the SOF community.
Target outcomes	Increased behavioral health care utilization; decreased critical-incident reports (e.g., violence, accidents, injuries); increased normalization and encouragement of treatment-seeking; increased awareness of the costs and benefits to self and unit of seeking help

Aspect	Description
Approach to stigma redu	ction
Definition of stigma (or model)	No specific definition is used. Stigma is identified as a barrier to treatment-seeking. Additionally, stigma is associated with the negative perceptions about engaging in a particular type of activity or behavior.
Target for stigma reduction	Stigma-reduction targets include dispelling myths related to negative consequences of seeking treatment, embedding providers within units to facilitate rapport and build trust, and emphasizing psychological performance as a component of peak performance and true leadership.
Stigma-reduction activities	Stigma-reduction activities include presenting the Breaking the Stigma training to units and connecting soldiers and leaders with resources and materials (website, video, and downloadable guides).
Status of implementation	and evaluation
Setting	Primarily, Breaking the Stigma is presented to SOF units as a training, but resources are also available on its website, including a link to the video on YouTube.
Implementation history	In April 2012, LTG John F. Mulholland, USASOC commanding general, began to focus on addressing stigma, enjoining commanders to address myths and set an example of supporting help-seeking behavior. The Breaking the Stigma video was created later that year and was incorporated into a training tasker. By December 2012, the training was being presented to SOF units. In April 2013, the video was posted to YouTube and has promoted widespread circulation.
Evaluation design and outcomes	Breaking the Stigma is tracking YouTube hits, monitoring the percentage of help-seeking people who are referencing the video and training as a reason for seeking care, monitoring data reported from U.S. Army Public Health Command on the number of new cases of certain mental health conditions (higher rates may be an indication of higher utilization), and tracking critical-incident reports (e.g., violence, accidents, injuries).
Managing office	USASOC
Funder	Internally funded by USASOC

SOURCE: Interviews with program representatives.

Published

information or website

NOTE: A tasker is a formal request from one military division or department to another to perform a specific task.

http://www.soc.mil/Stigma/Index.html

Table E.4 **Embedded Behavioral Health** 

Aspect	Description
Program description	
Brief description of program and objectives	The EBH program is an early intervention and treatment program that provides multidisciplinary behavioral health care to soldiers in close proximity to their unit areas and in close coordination with unit leaders. In doing so, the program streamlines the number of behavioral health providers involved in the treatment process and enables strong relationships to form between operational leaders and behavioral health providers.
Target population or branch of service	Army-wide
Target outcomes	The target outcomes are (1) early behavioral health identification and intervention, (2) increased soldier readiness (pre-, during, and postdeployment), (3) enhanced continuity of behavioral health care, (4) enhanced quality of behavioral health care, and (5) erosion of the stigma commonly associated with behavioral health care in the military setting.

#### Approach to stigma reduction

Definition of stigma (or model)

No specific definition is used. The program utilizes a public health

(preventive) approach to behavioral health.

Target for stigma reduction

Stigma-reduction targets include (1) unit and peer climate regarding behavioral health issues and treatment-seeking and (2) leadership support

for behavioral health issues and treatment-seeking.

Stigma-reduction activities

The program establishes working relationships between behavioral health providers and key battalion personnel. Behavioral health providers meet with battalion commanders at least twice a month and work more frequently with company commanders and first sergeants. Program staff can therefore observe trends in attitudes toward behavioral health within a given unit and can prompt an intervention if stigmatizing attitudes or behaviors are found to exist.

Through its primary activities, the program also incidentally targets stigma as a barrier to care by encouraging soldiers to talk with their peers about behavioral health issues. Similarly, the program prompts commanders to become proponents of behavioral health.

#### Status of implementation and evaluation

Setting Army installations

Implementation history

The program began in January 2009 at Fort Carson in response to a series of homicides allegedly perpetrated by soldiers from units at Fort Carson. In July 2009, a report titled Investigation of Homicides at Fort Carson, Colorado, November 2008-May 2009 (U.S. Army Center for Health Promotion and Preventive Medicine, 2009) was issued. In response to issues highlighted in the report, the program was expanded. It became an Army-wide program in

The program staffs 13 behavioral health and support personnel per brigade combat team. Teams typically consist of one psychiatrist or psychiatric nurse practitioner, three social workers, three psychologists, two psychiatric assistants, one licensed practical nurse, one case manager, and two administrative staff members. One or two behavioral health officers, who belong to the brigade rather than medical team, work with the team when

the unit is not deployed.

#### Aspect Description Evaluation efforts include the following: Evaluation design and outcomes leader surveys, which are conducted among leadership at various levels within six months of implementation and 90 days before deployment. The surveys solicit general feedback on the program. soldier satisfaction surveys, which solicit general feedback on the program Army Public Health Command assessments (published in April 2010 and September 2011), which outline some outcomes, including soldier satisfaction; trust of behavioral health providers; unit leader satisfaction with behavioral health; improvement of behavioral health on post; providers' timeliness, knowledge of soldiers' behavioral health history, and respect for soldiers; and location hours and convenience data on the number of soldiers sent off post for individual therapy, psychotropic medication, medical management, or inpatient hospitalization. Managing office MEDCOM/Behavioral Health System of Clinical Care **Funder** MEDCOM public health funds Published None information or website

SOURCE: Interviews with program representatives. NOTE: MEDCOM = U.S. Army Medical Command.

Table E.5
Military Pathways

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Aspect	Description
Program description	
Brief description of program and objectives	The mission of Military Pathways (in conjunction with its parent program, Screening for Mental Health) is to promote the improvement of mental health by providing service members and their families with education, screening, and treatment resources; reduce stigma and empower participants to take the first step in addressing mental health concerns for themselves or a loved one; and educate military families and service members about treatment services available to them.  Program activities include the following:  • online mental health screenings for depression, alcoholism, generalized anxiety disorder, bipolar disorder, PTSD, and adolescent depression. The web portal also includes a learning section, a military mental health blog, and a postassessment resource and referral section.  • Video Doctor, an interactive video program designed to walk users through stages of change to assist them in seeking treatment or in caring for themselves  • educational and promotional materials that are disseminated at a range of events, including the NASD, PTSD Screening Day, and NDSD  • SOS, an educational program for military middle and high school children (within the DoDEA system)

centers.

a family resilience program, which disseminates educational and promotional materials to family readiness groups and family readiness

Aspect	Description
Target population or branch of service	Active-duty, Reserve, National Guard, veterans, and their families
Target outcomes	Target outcomes include (1) increases in the utilization of mental health screening tools and referral resources, (2) increases in help-seeking or self-care behaviors, and, ultimately, (3) improvements in mental health.

### Approach to stigma reduction

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Definition of stigma (or model)	No specific definition is used. The program utilizes Prochaska and DiClemente's transtheoretical model of behavior change (2005) as the basis for the program.
Target for stigma reduction	Stigma-reduction targets include (1) individual knowledge, attitudes, and beliefs about mental health, treatment-seeking, and recovery and (2) self-efficacy as it relates to treatment-seeking.
Stigma-reduction activities	The program offers a video, "A Different Kind of Courage," in conjunction with a two-workbook curriculum. The video features current and former service members and spouses who share their personal stories of seeking treatment for mental health issues. The video can be accessed on the Military Pathways website. More generally, the program strives to normalize treatment-seeking through its range of educational activities.

### Status of implementation and evaluation

Funder

Setting	Online and in person at events on military installations
Implementation history	In 2006, Screening for Mental Health was approached by the Deputy Assistant Secretary of Defense for Force Health Protection and Readiness to provide a mental health education program that reduces stigma, educates service members and military families about mental health and alcohol problems, and encourages appropriate help-seeking and treatment. Military Pathways has been offered in both English and Spanish to better address the cultural diversity of service members and families affected by deployment. The program's mental health self-assessments are currently administered to roughly 300,000 participants per year.
Evaluation design and outcomes	<ul> <li>Various evaluation methods (both internal and external) have been used to ensure the success of the program:         <ul> <li>Internal: Weekly, monthly, and quarterly progress reports are provided to T2. These reports include data on numbers of screening, kit production, and quantity and quality of promotional material. In addition, online surveys that measure customer satisfaction are available, as are processes and tools that track customer comments and suggestions. Focus groups and personal interviews have been implemented to ensure cultural appropriateness of the interventions.</li> <li>External: Two program evaluation projects have been conducted:</li></ul></li></ul>
Managing office	Screening for Mental Health (via government contract)

Government contract

Aspect	Description
Published information or website	http://www.militarymentalhealth.org/

SOURCE: Interviews with program representatives.

NOTE: NASD = National Alcohol Screening Day. NDSD = National Depression Screening Day.

Aspect	Description		
Program description			
Brief description of program and objectives	The Real Warriors Campaign is a multimedia public awareness campaign designed to encourage help-seeking behavior among service members, veterans, and military families coping with invisible wounds. Sponsored by DCoE, the campaign is an integral part of DoD's overall effort to encourage warriors and their families to seek appropriate care and support for psychological health concerns. The campaign is designed to do the following  • Create awareness about the resources available for psychological health care and support among service members, their families, their commanders, and the public at large.  • Create understanding regarding the challenges service members may feel prevent them from seeking care or support for psychological health concerns.  • Create awareness about the concepts of resilience and early intervention, as well as the roles they play in successful care, recovery, and rein tegration for returning service members and overall force readiness.		
Target population or branch of service	The Real Warriors Campaign provides information that is tailored to meet the needs of the military community, including the following:  • active-duty military  • members of the National Guard and reserve  • families  • veterans  • health care professionals.		
Target outcomes	Increase the likelihood that a service member or veteran experiencing an		

invisible wound will reach out for appropriate psychological health care or support.

#### Aspect Description

#### Approach to stigma reduction

Definition of stigma (or model)

According to the J-MHAT 7 survey in 2011 and previous Army MHAT surveys, warriors are concerned that seeking care could negatively affect their military careers; make them look weak to their peers and commands; or cause them to lose their security clearances. The Real Warriors Campaign is an integral part of DoD's overall efforts to encourage help-seeking behavior for invisible wounds and combat the stigma associated with seeking care that was identified by the DoD Task Force on Mental Health in its 2007 report. The campaign's framework is based on the health belief model (HBM), a social marketing theory that uses the desire to avoid negative health consequences as a motivator for behavior change and the belief in positive outcomes as a reinforcing principle.

The HBM is built on four constructs:

- perceived susceptibility: a person's assessment of his or her risk of getting the condition
- perceived severity: a person's assessment of the seriousness of the condition and its potential consequences
- perceived barriers: a person's assessment of the influences that facilitate or discourage adoption of the promoted behavior
- perceived benefits: a person's assessment of the positive consequences of adopting the behavior.

The prediction of the model is the likelihood of the person concerned to undertake a recommended health action or, in this case, the likelihood that a service member or veteran will seek help for psychological health concerns.

Target for stigma reduction

The campaign is designed to do the following:

- Create awareness about the resources available for psychological health care and support among service members, their families, their commanders, and the public at large.
- Create understanding regarding the challenges service members may feel prevent them from seeking care or support for psychological health concerns.
- Create awareness of the concepts of resilience and early intervention, as well as the roles they play in successful care, recovery, and reintegration for returning service members and overall force readiness.

The campaign uses a targeted messaging strategy and a variety of communication tactics to encourage help-seeking behavior for invisible wounds among service members, veterans, and military families. The campaign's core messages are specifically designed to address the psychosocial barriers and motivators to care for psychological health concerns that exist within the military community.

#### Aspect Description

#### Stigma-reduction activities

The campaign's core messages are specifically designed to address the barriers and motivators to seeking care for psychological health concerns that exist within the military community. The core messages let service members, veterans, and their families know the following:

- Reaching out for help is a sign of strength that benefits the person, his or her family, and the entire military community.
- It is possible to seek care for psychological health concerns and maintain a successful military or civilian career.
- Warriors are not alone in coping with psychological health concerns, and every service member, veteran, and his or her family members should feel comfortable reaching out to their units, chains of command, fellow warriors, and community resources for support.
- Experiencing psychological stress as a result of deployment is common, and successful care and positive outcomes are greatly assisted by early intervention.

To disseminate these key messages, the campaign uses multiple communication channels, including traditional and social media, outreach and partnership activities, conferences and events, multimedia, and web. All campaign messages, imagery, and resources are tailored to each branch and target audience (primary audience: active-duty service members, members of the National Guard and Reserve, veterans; secondary audience: families; tertiary audience: health care providers) to provide the most-relevant information and resources to each audience.

The campaign features video profiles of real service members of varying ranks and services candidly sharing their stories of coping with and successfully seeking care for psychological health concerns. The videos were developed as a result of primary research and literature and studies on stigma, mental health, and health behavior change indicating that service members wanted to see people like them who have coped with and successfully sought care for psychological health concerns. These video profiles let warriors know that experiencing psychological stress as a result of deployment is common and that reaching out for help is a sign of strength. In addition to video profiles and public service announcements, the campaign uses service- and audience-specific posters, brochures, articles, and podcasts so that service members can see and hear from their fellow warriors who are coping with psychological health concerns and can access the mostrelevant resources. The campaign also has message boards and social media channels, including Facebook and Twitter, that visitors can use to connect with one another directly to share their own experiences of coping with invisible wounds, as well as the tools and resources that helped them heal.

#### Status of implementation and evaluation

### Setting

The touchstone of the campaign is its website, which includes more than 115 articles that provide audiences with practical tools, tips, and resources for coping with invisible wounds and building resilience; a live chat feature that offers 24/7 access to trained resource consultants at the DCoE Outreach Center; and video profiles of real service members of varying ranks and services who candidly share their stories of coping with and successfully seeking care for psychological health concerns.

To disseminate its key messages, the campaign uses multiple communication channels, including traditional and social media, outreach and partnership activities, conferences and events, multimedia, and web.

#### Aspect Description

#### Implementation history

The Real Warriors Campaign was developed in response to the 2007 DoD Task Force on Mental Health recommendation 5.1.1.1, which stated that DoD "should implement an anti-stigma public education campaign using evidence based techniques to provide factual information about mental disorders." The goals and objectives of the campaign are further supported by numerous studies and reports, including those from J-MHAT 7, the U.S. Army, and the 2010 report of the DoD Task Force on the Prevention of Suicide by Members of the Armed Forces, which indicate that stigma remains a critical barrier to service members accessing needed psychological health care or support. For example, among recommendations from the 2010 DoD Task Force on the Prevention of Suicide by Members of the Armed Forces was an instruction to "develop messages focusing on help seeking behaviors, positive leadership, command involvement and promoting the well-being, connectedness and psychological well-being . . . of service members."

Additionally, one of the primary goals of the VA/DoD IMHS is to "advance [psychological health] care through community partnership, education, and successful public communication."

The Real Warriors Campaign was developed in direct response to Public Law 109-163, the NDAA for FY 2006, § 723, which called for the Secretary of Defense to "establish within the DoD a task force to examine matters" relating to mental health and the Armed Forces."

The campaign also responds to DoD Directive 6200.04, "Force Health Protection (FHP)," which mandates that all service members be physically and mentally fit to carry out their missions (FY 2003-2004). Furthermore, the commanders, supervisors, and individual service members, and the Military Health System shall promote, improve, conserve, and restore physical and mental well-being of members of the armed forces across the full range of military activities and operations.

Subsequent mandates further support the campaign's continued execution, including the following:

- Public Law 110-417, the NDAA for FY 2009, § 733, called for a DoD task force on the prevention of suicide by members of the armed forces from which targeted recommendation 16 supports the development of an "aggressive Stigma Reduction Campaign Plan and communications effort, and implement policies to root out stigma and discrimination. Follow scientifically-based health communications principles in these campaigns.'
- Joint Strategic Plan Objective 2.2.B to "improve access to and reduce the stigma associated with seeking mental health care" (U.S. Department of Veterans Affairs and U.S. Department of Defense Joint Executive Council, 2011) and Strategic Action 19 of the VA/DoD IMHS. IMHS 19 calls for a communication strategy that increases awareness and use of mental health services by service members, veterans, and their families through consistent and targeted messaging across both departments. The effort will also focus on communications to reduce the stigma of seeking care for mental health conditions and the benefits of doing so.

#### Aspect Description

# Evaluation design and outcomes

To continue to identify best practices, chronicle campaign achievements, and make necessary course corrections, the campaign team conducts weekly, monthly, and quarterly reviews and process evaluations of campaign activities.

Additionally, the Real Warriors Campaign has conducted usability tests and heuristic evaluations of its website and certain interactive and mobile elements to assess design elements and information flow and make adjustments as needed to enhance user experiences with campaign online elements and incorporate visual cues to action to further motivate users to access available psychological health care tools and resources. Extensive market research, including focus groups, key-informant interviews, a review of literature, and situational analysis that served as a basis for developing campaign messages and tactics that would effectively reach audiences and stakeholders were conducted prior to the launch of the campaign. In the spring of 2012, the Real Warriors Campaign team conducted updated market research to build on its formative research. Updated market research promotes greater understanding of commonly perceived barriers to care and patterns among military personal regarding help-seeking behavior

As of June 2013, the campaign was also in the process of executing two concurrent tasks (focus groups and an extended outcome survey of the issues service members and veterans feel are important, specifically as they relate to help-seeking behavior for psychological health concerns). Findings from these tasks will be used to make strategic recommendations to adjust campaign strategies, as well as provide insight into any shifts in knowledge, attitudes, beliefs, or opinions applicable to the campaign, with the intent to drive down the stigma associated with seeking psychological health care, encourage help-seeking behavior, and promote psychological resilience among warriors and their families.

and helps refinement of stigma-reduction approaches that promote the effective use of psychological health resources to guide future campaign

Managing office

DCoE

outreach.

Funder

DCoE

Published information or website

http://www.realwarriors.net

SOURCE: Interviews with program representatives.

NOTE: NDAA = National Defense Authorization Act. FY = fiscal year. IMHS = Integrated Mental Health Strategy.

# **Policy-Analysis Methods**

We identified and analyzed policies in DoD that could contribute to the stigmatization of those who access mental health care. This process involved three steps. First, DCoE supplied lists of policies that could potentially have implications for mental health stigma or discrimination. Then, we created a decision tree and used it to systematically determine whether each policy was likely to reduce stigma and discrimination, contribute to it, or have no implications. We then analyzed the content of each policy deemed relevant to stigma and discrimination and summarized the implications. Each step is detailed in this appendix.

## **Obtaining Policies and Determining Mental Health Relevance**

To begin identifying policies that might have implications for stigmatization of those accessing mental health care, DCoE's subcontractor, Dynamics Research Corporation (DRC), conducted a search of policies of the following organizations: Air Force, Army, Coast Guard, DoD, Marine Corps, National Guard (Air and Army), Navy, and BUMED. DRC searched these policies for the following terms related to mental health or stigma:

- suicid-
- mental-
- psych-
- emotion
- counseling
- behavior
- stigma
- access
- barriers
- to care
- help-

- · discriminat- (searched only if the policy contained at least one of the first six search terms)
- prejud- (searched only if the policy contained at least one of the first six search terms)
- stereotyp- (searched only if the policy contained at least one of the first six search terms).

DRC then purged policies that did not contain at least one search term from above, then provided spreadsheets, one for each organization, containing the following information about each of the remaining policies:

- service
- date of issuance
- DoDI or policy number
- DoDI or policy name
- a short description of the policy
- results of searches for each of the terms listed above
- the web address for accessing the policy online
- any additional notes on the policy.

Data on the number of policies DRC searched, the number of policies containing the search terms (i.e., hits), and the number of policies containing the search terms but that were not accessible or searchable are contained in Table F.1.

# Identifying Policies That Could Reduce or Contribute to Stigma

Although the identification of policies based on mental health-related and stigmarelated search terms was a useful first step in identifying potential stigma-related policies, not all policies were directly related to mental health or stigma. For example, a policy containing *mental* might not be related to mental health but rather contain such words as environmental or fundamental. In order to further narrow the scope of the policies to only those that have implications for the stigmatization of service members with mental health challenges or seeking mental health care, we conducted a secondary review of the policies.

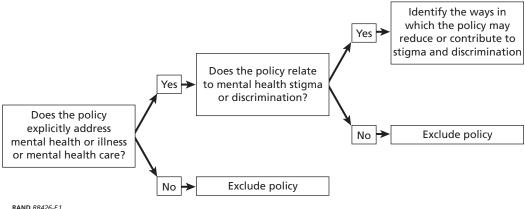
We created a two-step decision tree to guide our review (see Figure F.1). In the first step, a member of our team reviewed the policy to determine whether it explicitly addressed mental health or illness or mental health care. Policies that did not were excluded from review. Policies identified as mental health-relevant were also condensed as much as possible, combining policies that were revised versions of previous policies or that represented different chapters of the same manual.

Table F.1
<b>Summary of Dynamics Research Corporation Policy Search Results</b>

Service	Policies Searched	Hits	Policies That Were Inaccessible or Not Searchable
Air Force	4,603	1,336	379
Army	2,533	1,002	429
National Guard	281	49	80
Navy	1,368	273	23
BUMED	360	93	244
Coast Guard	611	202	12
Marine Corps	1,096	267	279
DoD	1,372	336	112
Total	12,224	3,558 (29% of total searched)	1,558 (13% of total searched)

SOURCE: DCoE.

Figure F.1 **Policy-Analysis Decision Tree** 



In the second step, the remaining policies were coded for ways in which they might reduce or contribute to mental health stigma or discrimination. The items in this list were developed from our literature review and conceptual model for stigma (Chapter Two) and were added to during the course of our policy review. A policy could reduce mental health stigma or discrimination if any of these is true about it:

- It mandates a stigma-reduction intervention, such as education or training or a media campaign (see the literature review for a description of stigma-reduction interventions).
- It mandates that a mental health professional provide *cognitive restructuring* to all service members seeking treatment to improve their ability to cope with stigma.
- It ascribes consequences for behavior that is prejudicial or discriminatory against PWMHDs. These could include personnel actions or legal sanctions.
- It mandates that service members with mental illness be treated no differently from those without mental illness. Some examples of this would be policies that mandate that service members with mental illness stay with their units and are not prohibited from deploying.
- It makes the process of accessing mental health care less stigmatizing than it otherwise would be. This could include offering confidential care or placing mental health providers in less distinct locations.
- It protects the privacy or confidentiality of a service member's mental health information.

A policy could contribute to mental health stigma or discrimination if any of these is true of it:

- It uses terminology that is outside the range of standard psychiatric or psychological practice and may be considered to negatively portray PWMHDs (e.g., "bizarre," "defective," "temper tantrum," "childish outbursts").
- It implies *incompetence* in PWMHDs.
- It *prohibits certain actions* of PWMHDs (e.g., use of firearms, promotion).
- It mandates or implies a lack of privacy or confidentiality of one's mental health information.
- It involves non-mental health professionals in determining mental fitness or interpreting the implications of mental health symptoms or disorders.
- It separates those who are at risk for MHDs from those who are not (e.g., mandates mental health screening for specific groups).

Policies that did not relate to stigma or discrimination were excluded from review. See Table F.2 for the number of policies falling into each category.

Table F.2 Number of Policies That May Contribute to or Reduce Stigma

Organization	Relevant Policies	Policies That May Contribute to Stigma	Policies That May Reduce Stigma
Air Force	88	46	19
Army	104	46	24
National Guard	13	10	2
Navy	54	24	10
BUMED	17	6	5
Coast Guard	48	17	22
Marine Corps	54	32	14
DoD	66	28	25
Total	444	209 (47% of all relevant policies)	121 (27% of all relevant policies)

NOTE: The number of policies that may contribute to or reduce stigma are not discrete. Some policies may include provisions that could both contribute to and reduce stigma.

## **Policies with Implications for Stigma**

This appendix contains the DoD and service-specific policies we identified as having potential implications for stigma.

Table G.1
U.S. Department of Defense Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AI 8	Updates established [policy], guidance, and procedures for taking disciplinary and adverse actions	х	
AI 9	Provides procedures for processing complaints of discrimination in employment on the basis of race, color, religion, sex, age, national origin, physical and/or mental disability, and/or retaliation		X
AI 31	Assigns responsibilities and procedures for developing, implementing, and [evaluating] EEO, [affirmative employment program], and Diversity Programs		Х
AR 12-15/ OPNAVINST 4950.1H/AFR 50- 29/MCO 4950.2	This joint regulation is a consolidation of several regulations that cover the education and training of foreign personnel. It prescribes policies, responsibilities, procedures, and administration for the education and training of foreign military trainees by the Departments of the Army, Navy, and Air Force as authorized by U.S. security assistance legislation.	x	
AR 190-5/OPNAV 11200.5D/ AFI 31-218(I)/ MCO 5110.1D/ DLAR 5720	[C]overs motor vehicle traffic supervision. It outlines policy on vehicle registration; implements the 0.08 blood alcohol content as the standard for adverse administrative actions prescribed in this regulation; permits involuntary extraction of blood under revised Military Rules of Evidence in cases [in which] intoxicated driving is suspected; provides policy on towing, storing, and impounding vehicles; adopts the National Highway Traffic Safety Administration technical standards for breathalyzer equipment; establishes traffic points for seat belt and child restraint device violations; and requires that new safety requirements be included in the installation traffic code.	x	

Table G.1—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AR 190-8/ OPNAVINST 3461.6/AFJI 31- 304/MCO 3461.1	This regulation implements [DoDD 2310.1] and establishes policies and planning guidance for the treatment, care, accountability, legal status, and administrative procedures for Enemy Prisoners of War, Civilian Internees, Retained Persons, and Other Detainees. This regulation is a consolidation of [AR 190-8] and [AR] 190-57 and incorporates [SECNAVINST] 3461.3 and [AFJI] 31-304 Policy and procedures established herein apply to the services and their capabilities to the extent that they are resourced and organized for enemy prisoner of war operations.	х	
AR 601-270/ OPNAVINST 1100.4C CH-2/ AFI 36-2003_IP/ MCO 1100.75F/ COMDTINST M1100.2E	This regulation covers military entrance processing station operational policies, programs, and procedures. It implements [DoDD 1145.2] governing personnel enlisting in the military and the processing of Selective Service registrants.		х
DoD 5200.2-R	Acceptance and retention of DoD military, civilian, consultant and contractor personnel and of granting such persons access to classified information or assignment to a sensitive position	X	
DoD 5210.42-R	[Implements] the PRP to select and maintain only the most reliable people to perform duties associated with nuclear weapons	х	
DoD 5400.11-R	Uniform procedures for implementation of the DoD Privacy Program	х	
DoD 6025.13-R	Various components [making up DoD's] efforts to ensure that beneficiaries receive [good] care	Х	
DoD 6025.18-R	Uses and disclosures of protected health information. $\hdots$	Х	х
DoD 6055.05-M	[Identifies] the known health risks associated with specific jobs, processes, and exposures	Х	
DoDD 1020.1	This Directive implements [references] to prohibit discrimination based on handicap in programs and activities receiving Federal financial assistance disbursed by [DoD] and in programs and activities conducted by [DoD].		x

Table G.1—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
DoDD 1350.2	This Directive: 1.1. Reissues [an earlier directive].  1.2. Regulates the Department of Defense MEO Program and assigns responsibilities for ensuring DoD-wide compliance with the broad program objectives outlined in [other references]. 1.3. Provides for education and training in [equal opportunity] and human relations. 1.4. Prescribes the functions of the [DEOC] and [the Defense Equal Opportunity Management Institute]. 1.5. Establishes Department- wide standards for discrimination complaint processing and resolution as set forth in the DEOC Task Force on Discrimination and Sexual Harassment Report [1995]. The recommendations contained in the DEOC Task Force Report are set out in [a later section in this directive]; implementation of this Directive shall be consistent with [other sections in this directive]. 1.6. Provides standard terms and definitions pertaining to the MEO program.		x
DoDD 1440.1	This Directive: 1.1. Implements [other references] by establishing the Civilian [EEO] Program, to include affirmative action programs, consistent with guidance from [EEOC, OPM], and the DoD Human Goals Charter 1.2. Consolidates in a single document provisions of [other references] and, therefore, cancels these references. 1.3. Authorize, as an integral part of the Civilian EEO Program, the establishment of [SEPs] entitled the [Federal Women's Program], the [Hispanic Employment Program], and the [Program for People with Disabilities], the Asian/Pacific Islander Employment Program , the [AIEP], and the [Black Employment Program]. 1.4. Establishes the [DEOC], the Civilian EEO Review Board, and SEP Boards. 1.5. Authorizes the issuance of DoD Instructions and Manuals to implement this Directive and guidance from standard-setting Agencies such as EEOC and OPM, consistent with DoD 5025.1-M		X
DoDD 5200.2	1.1. Reissues [an earlier directive] to update the policy and responsibilities for the DoD Personnel Security Program under [other references]. 1.2. Continues to authorize the publication of DoD 5200.2-R in accordance with DoD 5025.1-M		x
DoDD 5220.6	This Directive reissues [an earlier directive] to update policy, responsibilities, and procedures of the Defense Industrial Personnel Security Clearance Review Program implementing enclosure 1.	х	

Table G.1—Continued

		Has Content	
Document Number	Description	That May Contribute to Stigma	Has Content That May Reduce Stigma
DoD GEN-36A/ DA Pam 600- 2(Rev. 1988)/ NAVEDTRA 46905-A/Navy Stock No. 0503- LP-001-1760/ AFP 190-13(Rev. 1988)/NAVMC 2563(Rev. 1988)	[Book on serving as an officer in the U.S. armed forces]	X	
DoDI 1300.18	Assigns responsibilities and establishes uniform personnel policies and procedures for reporting, recording, notifying, and assisting the [next of kin] whenever DoD casualties are sustained	х	
DoDI 1325.07	Implements policy, assigns responsibilities, and prescribes procedures to carry out the administration and operation of military correctional programs and facilities and the administration and operation of military clemency and parole programs	х	
DoDI 1342.12	Implements policy, assigns responsibilities, and prescribes procedures under 20 U.S.C. Chapter 33 [Education of Individuals with Disabilities]	х	
DoDI 1400.25- V810	This Volume of this Instruction implements DoD policy, prescribes procedures, and delegates authority on implementing the DoD injury compensation program under the "Federal Employees' Compensation Act" (FECA), section 8101 of title 5, United States Code (U.S.C.) which provides benefits to civilian employees of the Federal Government for disability due to personal injury, disease, or death arising from or within the scope of their employment.		X
DoDI 2310.4	Implements policy, assigns responsibilities, and prescribes procedures for repatriating U.S. military personnel, DoD civilian employees, and DoD contractor employees who have been [prisoners of war], held hostage by terrorists (inside or outside [CONUS], detained in peacetime by a hostile foreign government evading enemy capture, or were otherwise missing under hostile conditions		х
DoDI 3020.41	Establishes policy, assigns responsibilities, and provides procedures for OCS, including OCS program management, contract support integration, and integration of defense contractor personnel into contingency operations outside the United States	х	
DoDI 3025.19	Establishes policy, assigns responsibilities, and provides procedures for employment of DoD capabilities and information sharing in support of the [U.S. Secret Service]	х	

Table G.1—Continued

Document Number	Description	Has Content That May Contribute to Stigma	<b>Has Content</b>
DoDI 5154.30	Implements policy, assigns responsibilities, and prescribes procedures for the administration and management of [the Armed Forces Institute of Pathology]		Х
DoDI 5210.65	Reissues policy and responsibilities for the management of the DoD Chemical Agent Security Program	х	
DoDI 5210.87	Implements policy, assigns responsibilities, and prescribes procedures for the screening, nomination, selection, approval and continued evaluation of DoD military and civilian personnel and contractor employees assigned to, or utilized in, [presidential support activities]	х	
DoDI 5210.89	Establishes minimum standards for securing and safeguarding [biological select agents or toxins] in [DoD] custody or possession	х	
DoDI 5525.14	Establishes policy, assigns responsibilities, and prescribes procedures for DoD [law enforcement officers flying armed] aboard commercial aircraft	х	
DoDI 6000.14	Establishes policy, assigns responsibilities, and provides procedures for implementation of the Consumer Bill of Rights and Responsibilities		х
DoDI 6040.45	Establishes policy and assigns responsibilities for [service treatment record] and [nonservice treatment record] life cycle management	х	х
DoDI 6060.2	Updates policy, responsibilities, and procedures for [child-development programs] for eligible minor children of DoD military and civilian personnel		х
DoDI 6060.4	Implements policy, assigns responsibilities, and prescribes procedures for youth programs (YPs) for children and youth, kindergarten through grade 12, of DoD military members, civilian employees, and other eligible patrons of [morale, welfare, and recreation] programs		х
DoDI 6130.03	a. Reissues [DoDD] 6130.3 as a [DoDI] in accordance with the authority in DoDD 5124.02 to establish policy, assign responsibilities, and prescribe procedures for physical and medical standards for appointment, enlistment, or induction in the Military Services. b. Establishes medical standards, which, if not met, are grounds for rejection for military service. Other standards may be prescribed for a mobilization for a national emergency. c. Incorporates and cancels DoDI 6130.4	х	

Table G.1—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
DoDI 6200.03	Ensures mission assurance and readiness by protecting installations, facilities, personnel, and other assets in managing the impact of public health emergencies caused by all-hazards incidents		х
DoDI 6400.06	Establishes, implements, and updates domestic abuse policies; identifies and assigns responsibilities for preventing and responding to domestic abuse		х
DoDI 6490.03	Assigns responsibilities for deployment health activities		х
DoDI 6490.04	Implements DoD policy; assigns responsibility; and prescribes procedures for the referral, evaluation, treatment and administrative management of service members who may require mental health evaluation, psychiatric hospitalization and/or assessment of risk for potentially dangerous behavior	х	X
DoDI 6490.05	Establishes policy and assigns responsibilities for developing [COSC] programs within the Military Departments, the Combatant Commands, and joint service operations		x
DoDI 6490.06	Establishes and implements counseling policies and identifies and assigns responsibilities for providing counseling support	х	х
DoDI 6490.07	Establishes policy, assigns responsibilities, and provides procedures for ensuring that service members and DoD civilian employees, including Coast Guard service members and civilian employees at all times, including when the Coast Guard is a service in the Department of Homeland Security deployed and deploying on contingency deployments are medically able to accomplish their duties in deployed environments	x	
DoDI 6490.08	Establishes policy, assigns responsibilities, and prescribes procedures for health care providers for determining command notification requirements as applied to: (1) service members' involvement in mental health care and (2) service members voluntarily seeking drug and alcohol abuse education (as distinguished from substance abuse treatment), requiring DoD personnel to receive education pertaining to drug and alcohol abuse	х	х
DoDI 6490.09	Establishes policy, assigns responsibilities, and prescribes procedures to ensure visible leadership and advocacy for the psychological health and mental health disease and injury protection of the Military Service members		x

Table G.1—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content
DoDI 6490.10	Establishes policy for the Military Departments, assigns responsibilities, and prescribes guidelines for establishment of Military Department policy and procedures to ensure continuity of behavioral health care at the losing and gaining installations when service members transition from one health care provider to another when transferring to a new duty station or transitioning out of the service	х	x
DoDI 6495.02	Implements policy, assigns responsibilities, provides guidance and procedures, and establishes the [SAAC] for the DoD [SAPR] Program		X
DoDM 5105.21- V3	Assigns responsibilities and prescribes procedures for the implementation of [the Director of Central Intelligence] and Director of National Intelligence	х	
DoDM 7730.47- M-V1	Assign[s] responsibilities and prescribe procedures for managing the [Defense Incident-Based Reporting System]	х	
DTM-11-011	Establishes the policy for person-to-person mental health assessments for each Service member deployed in connection with a contingency operation in accordance with section 1074m of title 10, United States Code	х	x
DTM-11-015	In accordance with the authority in [DoDD 5124.02], establishes policy, assigns responsibilities, and prescribes procedures for the [Integrated Disability Evaluation System], which is superseding the legacy [Disability Evaluation System].	х	
Manual for Courts-Martial	The Manual for Courts-Martial , United States (2012 Edition) updates the [manual] (2008 Edition). It is a complete reprinting and incorporates the [Manual for Courts-Martial] (2008 Edition), including all amendments to the Rules for Courts-Martial, Military Rules of Evidence (Mil. R. Evid.), and Punitive Articles made by the President in [EOs] from 1984 to present, and specifically including EO 13468 (24 July 2008); EO 13552 (31 August 2010); and EO 13593 (13 December 2011). See [appendix].	x	x

NOTE: AI = administrative instruction. EEO = equal employment opportunity. OPNAVINST = Office of the Chief of Naval Operations instruction. AFR = Air Force Reserve. DLAR = Defense Logistics Agency regulation. AFJI = Air Force joint instruction. SECNAVINST = Secretary of the Navy instruction. COMDTINST = commandant instruction. PRP = Personnel Reliability Program. DEOC = Defense Equal Opportunity Council. EEOC = Equal Employment Opportunity Commission. OPM = Office of Personnel Management. SEP = special-emphasis program. AIEP = American Indian/Alaskan Native Employment Program. NAVEDTRA = Naval Education and Training. NAVMC = Navy and Marine Corps form. DA = Department of the Army. CONUS= continental United States. OCS = operational contract support. SAAC = Sexual Assault Advisory Council. SAPR = Sexual Assault Prevention and Response. DTM = directive-type memorandum. EO = executive order.

Table G.2 Army Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
ADRP 6-22	ADRP 6-22 establishes and describes the leader attributes and core leader competencies that facilitate focused feedback, education, training, and development across all leadership levels.	х	х
AR 1-75	This regulation implements [DoDD] 5132.3 and supplements DOD 5105.38-M. This revision updates the regulation due to legislative changes to the Foreign Assistance Act of 1961, the Arms Export Control Act, and internal DOD policy. The revision also incorporates changes involving the activities supporting security assistance organizations. This regulation assigns responsibilities and provides guidance for assignment of personnel to security assistance organizations; morale, welfare, and recreational activities of security assistance organization personnel; development of the security assistance organization budget and fiscal procedures; preparation of Joint Tables of Allowances; and settlement of Foreign Military Sales claims of foreign governments against security assistance organization personnel.	X	
AR 20-1	This regulation prescribes the responsibility and policy for the selection and duties of [IGs] throughout the Army. It describes [IG] functions, including teaching and training, inspections, assistance, and investigations. Although the [fundamental IG] role and functions have not changed, this revision incorporates numerous policy and mandated procedural changes affecting [IG] activities. This regulation implements DODD 5505.6.		X
AR 25-6	This regulation implements [DoDD] 4650.2, establishes policy and management responsibilities for the Army Military Affiliate Radio System, and incorporates policy on amateur radio operations. It describes a program sponsored by the DOD and supported by the Department of the Army in which military installations, military units, clubs, and volunteer-licensed amateur radio operators and stations provide emergency communications for emergency management agencies on a local, national, and international basis as an adjunct to existing Department of the Army communications.		x
AR 25-55	This regulation updates the Freedom of Information Act Program in accordance with the Freedom of Information Reform Act of 1986. The Reform Act required agency promulgation of regulations specifying a uniform schedule of fees and guidelines for determining waiver or reduction of such fees.		x

Table G.2—Continued

Document Number	Description	Has Content That May Has Content Contribute to That May Stigma Reduce Stigma
AR 40-3	This regulation addresses specific programs (Aviation Medicine, Army Blood, Army Transplant and Organ/ Tissue Donation) as well as auditory evaluations, hearing aids, oral health services, veterinary medical care, and orthopedic footwear. It provides operational policy for nutrition care management, pharmacy management, and medical laboratory management. It sets policy and procedures for implementing advance directives, do-not-resuscitate, and withhold/withdraw orders; medical libraries; psychological test materials; emergency medical services; and air ambulances. Pertinent Federal statutes, regulations, and other standards governing these programs/services are cited throughout.	x
AR 40-8	This regulation provides implementation guidance for NATO STANAG 3474 AMD (edition 4).	x
AR 40-66	This regulation prescribes policies for preparing and using medical reports and records in accordance with [NATO STANAGs] 2348 ED.3(1) and 2132ED.2 and American–British–Canadian–Australian Quadripartite Standardization Agreement 470 ED.1.	х
AR 40-400	This consolidated regulation prescribes policies and mandated tasks governing the management and administration of patients. It includes [DoD] and statutory policies regarding medical care entitlements and managed care practices.	x
AR 40-501	This publication implements DODD 6130.3 and [DoDI] 6130.4. It provides information on medical fitness standards for induction, enlistment, appointment, retention, and related policies and procedures.	х
AR 50-1	This regulation prescribes policies, procedures, and responsibilities for the Army Biological Surety Program in accordance with DODD 5210.88.	x
AR 50-5	This regulation prescribes policies, procedures, and responsibilities for the Army Nuclear Surety Program and implements DOD Directive 5210.42, <i>Nuclear Weapons [PRP]</i> .	х
AR 135-178	This regulation implements DODI 1332.14 and DODI 1332.30. It establishes policies, standards, and procedures governing the administrative separation of certain enlisted Soldiers of the [ARNG] and the United States Army Reserve.	х

Table G.2—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AR 165-1	This regulation prescribes policies on Total Army religious support activities, religious ministries, Chaplain and Chaplain Assistant personnel, Chaplain recruitment, the Chaplain Candidate Program, policy development, mobilization and readiness, training, moral leadership, management of information, logistics, and resources.		x
AR 190-30	This regulation establishes policies and procedures for selection of [MP] investigators and Department of the Army civilian detectives and investigators, issuance and control of [MP] investigators' credentials, operational procedures, types and categories of offenses investigated by [MP] investigators, investigator reports and case folders, and the uniform for [MP] investigators.	x	
AR 190-47	This regulation covers policies governing the Army Corrections System and implements [DoDD] 1325.4.	Х	x
AR 190-58	This regulation establishes Army policy on personal security.	Х	
AR 195-3	This revision covers acceptance, accreditation, withdrawal of acceptance/accreditation, and warrant officer application criteria for criminal investigative personnel.	х	
AR 195-5	This regulation establishes [policies] and procedures on criminal investigation evidence procedures, including the collection, accounting, preservation, and disposition of evidence. It also delineates responsibility between [MP] and the U.S. Army Criminal Investigation Command as they apply to evidence procedures.	х	
AR 210-25	This regulation incorporates existing direction and guidance from the Secretary of the Army for the general governance and operating policies of the United States Military Academy	х	
AR 210-26	This regulation incorporates existing direction and guidance from the Secretary of the Army for the general governance and operating policies of the United States Military Academy.	х	
AR 210-35	This regulation provides guidance for establishing and managing civilian inmate labor programs on Army installations. It provides guidance on establishing prison camps on Army installations. It addresses recordkeeping and reporting incidents related to the Civilian Inmate Labor Program and/or prison camp administration.	x	

Table G.2—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AR 215-1	This regulation implements [DoD] and congressional policies. It contains administration, operation, and management policies governing the Army's morale, welfare, and recreation programs and general policies on [NAF] instrumentalities.	х	.ceace sagma
AR 215-3	This regulation provides uniform policies governing personnel management and administration for non-appropriated fund instrumentalities (NAFI) employees of the Department of the Army (DA).		х
AR 350-1	This regulation consolidates policy and guidance for Army training and leader development and supports a full-spectrum, force protection, expeditionary Army.	х	
AR 350-51	This new regulation prescribes eligibility requirements and procedures for processing applications of Active Army personnel for Officer Candidate School and for Army Band Officer Candidate School.	Х	
AR 360-1	This major revision provides guidelines for command and public information, including information released to the media, and community relations programs intended for internal and external audiences with interest in the U.S. Army. This revision also defines the staff relationship of the public affairs officer; [and] identifies public affairs as an inherently governmental function		х
AR 380-67	This regulation implements the DOD and Department of the Army Personnel Security Program and takes precedence over all other departmental issuances affecting these programs.	Х	х
AR 600-8-19	This regulation prescribes policies and procedures governing promotion and reduction of Army enlisted personnel.	х	
AR 600-8-22	This regulation provides Department of the Army policy, criteria, and administrative instructions concerning individual military decorations, Good Conduct Medal, service medals and ribbons, combat and special skill badges and tabs, unit decorations, and trophies, and similar devices awarded in recognition of accomplishments.	x	
AR 600-20	It prescribes the policy and responsibility of command, which includes well-being of the force, military and personal discipline and conduct, the Army Equal Opportunity Program, Prevention of Sexual Harassment, and the Army Sexual Assault Prevention and Response Program.	X	х
AR 600-63	This publication prescribes policy and sets forth responsibilities for all aspects of the Army Health Promotion Program.		х

Table G.2—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content
AR 601-10	This regulation covers the management and mobilization of retired Soldiers of the Army during war, national emergency, or when otherwise authorized by law.	x	
AR 601-210	This regulation governs eligibility criteria, policies, and procedures for enlistment and processing of persons into the Regular Army, the Army Reserve, and [ARNG] for enlistment on or after the effective date of this regulation.	х	
AR 601-280	This regulation prescribes the criteria for the Army Retention Program. For those soldiers serving in the active Army, it outlines procedures for immediate reenlistment or extension of enlistment.	х	
AR 608-75	This regulation outlines the policies and procedures for the Exceptional Family Member Program. It implements DODD 1342.17 and portions [of] DODD 1020.1. It also implements DODI 1315.19 and DODI 1342.12.		х
AR 614-30	This publication complies with and implements [DoD] policies in DODD 1315.7 and DODI 1315.18.	х	
AR 614-200	This regulation provides guidance on the selection of enlisted Soldiers for assignment, utilization, reclassification, detail, transfer, and training as implemented by DODI 1315.18.	х	
AR 621-202	This regulation establishes a reference for educational incentives and entitlements authorized by public law. It provides Army-unique policies, responsibilities, and procedures governing these educational benefits for Soldiers and former Soldiers of the Active Army.		х
AR 623-3	This regulation prescribes the policy and tasks for the Army's Evaluation Reporting System, including officer, noncommissioned officer, and academic evaluation reports focused on the assessment of performance and potential. It includes policy statements, operating tasks, and rules in support of operating tasks. It has been revised to update policy on the use of new grade plate officer evaluation forms, integration of a rater's profile for rated officers in the grades of O-5 and below, strengthening of rating chain accountability, integration of Army leadership doctrine on officer evaluation reports, use of the officer evaluation support form, and requirements for counseling and assessing rated Soldiers on fostering a climate of dignity and respect and adhering to the Sexual Harassment/Assault Response and Prevention Program.	x	x

Table G.2—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AR 633-30	This is a change to AR 633-30, 6 November 1964. This change implements policies and procedures required by [DoDD] 1325.4, the decision of the U.S. Court of Military Appeals in the case of <i>U.S. v. Allen</i> , 17 MJ 126 (CMA 1984) and the Manual for Courts-Martial, United States, 1984.	х	
AR 635-200	This regulation implements DODI 1332.14 and DODI 1332.30. Statutory authority for this regulation is established under Sections 1169, 12313(a), and 12681, Title 10, United States Code.	х	х
AR 690-600	This regulation establishes policies and mandated procedures for counseling, filing, processing, investigating, settling, deciding, and taking action on equal employment opportunity discrimination complaints.		х
ATTP 3-21.9	ATTP 3-21.9 describes how the [SBCT] Infantry rifle platoons and squads fight. ATTP 3-21.9 discusses how they operate as Infantry, mounted in their Stryker [ICVs], with the ICV in support, and as part of the Stryker rifle company. The content includes principles, tactics, techniques, procedures, terms, and symbols that apply to small-unit operations. ATTP 3-21.9 is intentionally designed as a companion manual to FM 3-21.8.	х	
ATTP 3-21.71	This manual provides a doctrinal framework for the Bradley Fighting Vehicle (BFV) equipped Infantry rifle platoon and squads. It addresses the BFV and all variations, rifle platoon and squad combat and noncombat operations, across the spectrum of conflict.		х
ATTP 3-39.10	[This] is aligned with [FM] 3-39 and the [MP] Corps Regiment's keystone operational doctrine. It provides guidance for commanders and staffs on [MP L&O] operations. L&O operations support all elements of full spectrum operations (offensive, defensive, and stability or civil support operations).		х
ATTP 4-02	As the Army's capstone medical doctrine statement, this publication identifies medical functions and procedures that are essential for operations covered in other Army Medical Department (AMEDD) proponent manuals. This publication depicts Army Health System operations from the point of injury, illness, or wounding through successive roles of care within the theater and evacuation to the [CONUS] support base.	х	
FM 3-19.4	This field manual addresses [MP] maneuver and mobility support (MMS), area security (AS), internment and resettlement (I/R), [L&O], and police intelligence operations (PIO) across the full spectrum of Army operations.	Х	

Table G.2—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
FM 3-34.468	This manual is a guide for engineer personnel responsible for planning, designing, and conducting blasting operations in pits and quarries. This manual should be used in conjunction with current Army blasting doctrine.	х	
FM 3-50.1	[This] is the Army's doctrinal publication for personnel recovery. It presents doctrinal guidance and direction for Army personnel recovery operations and is the foundation for developing tactics and techniques, handbooks, and unit standard operating procedures.	х	x
FM 4-02.6	This field manual provides information on the employment, functions, and operations of divisional and nondivisional medical companies of Army of Excellence (AOE) and Army XXI divisions to include separate brigades, the [SBCT], and the armored cavalry regiment. It is intended to serve as doctrine and a primary reference publication for medical planners and the medical commander and his [or her] staff.	х	
FM 4-02.51	This publication outlines the functions and operations of each [COSC] element within an area of operations (AO). This field manual establishes Army doctrine and provides guidance for conducting COSC support for combat, stability, and reconstruction operations from brigade to theater level.		x
FM 4-25.11 C1	This publication outlines both self-aid and aid to other service members (buddy aid). More importantly, it emphasizes prompt and effective action in sustaining life and preventing or minimizing further suffering and disability.	x	x
FM 6-22	FM 6-22 is the Army's keystone field manual on leadership. It established leadership doctrine and fundamental principles for all officers, noncommissioned officers and Army civilians across all components.	х	х
FM 6-22.5	The focus of this publication is to inform leaders and Soldiers of the stressors of combat (offense and defense), stability, and civil support operations and to provide information on [COSC]. It provides guidance on how to prevent, reduce, identify, and manage combat and operational stress reactions (COSRs) in the Soldier's own unit to the maximum extent possible.	х	x

NOTE: ADRP = Army doctrine reference publication. IG = inspector general. NATO = North Atlantic Treaty Organization. STANAG = standardization agreement. ARNG = Army National Guard. MP = military police. NAF = nonappropriated fund. ICV = infantry carrier vehicle. FM = field manual. L&O = law and order.

Table G.3 Navy and U.S. Navy Bureau of Medicine and Surgery Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
Navy policies			
OPNAVINST 1220.1D	Purpose: To provide guidance for removing or changing Navy Enlisted Classification (NEC) Codes used to designate enlisted personnel trained as nuclear propulsion plant operators.	х	
OPNAVINST 1300.14D	Purpose: To publish revised Navy policy and guidance for determining suitability of Navy servicemembers and family members for overseas or remote duty assignments per [references] and implemented by [references]. This instruction is a complete revision and should be reviewed in its entirety.	х	
OPNAVINST 1500.75B	Purpose: This instruction establishes policy and procedures to abate or minimize mishaps during high-risk training. Due to recent changes to the Navy's training organization, this instruction has been extensively revised and should be read in its entirety.	х	
OPNAVINST 1700.9E	Purpose: This instruction implements policy, assigns responsibilities, incorporates changes in organizational responsibility, and prescribes procedures under [references] for the operation of Child and Youth Programs (CYPs) on naval installations and in government housing to ensure a healthy, safe environment, and promote quality programs	х	х
OPNAVINST 1720.4A	Purpose: To provide policy, procedures and assign responsibilities for the Navy's Suicide Prevention Program per [references].		х
OPNAVINST 1754.7	Purpose: To establish policy, responsibilities, and authority to implement and execute a dynamic Returning Warrior Workshop (RWW) program, in accordance with [the] authority and requirements of [references].		х
OPNAVINST 3591.1F	Purpose: To establish Navy policy and prescribe minimum requirements for individual small arms training and qualification per [references]. This instruction is a complete revision and shall be reviewed in its entirety.	х	
OPNAVINST 3710.7U	Purpose: To issue policy and procedural guidance applicable to a broad spectrum of users and complements individual Naval Air Training and Operating Procedures Standardizations (NATOPS) manuals. This is a complete revision and should be reviewed in its entirety.	х	

Table G.3—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
OPNAVINST 3750.6R	Purpose: To add the use of [Office of the Chief of Naval Operations] 3750/16 to the list of mandated forms and to update information in [two chapters].		х
OPNAVINST 5500.11F	Purpose: To prescribe regulations, procedures, and criteria governing issuance of authorizations to enter certain defense areas, the entry of which is prohibited except as authorized by the Secretary of the Navy (SECNAV)	х	
OPNAVINST 5510.60M	Purpose: To update security policy and procedural guidance for the protection of classified information and materials in the custody of the Chief of Naval Operations (CNO), the Office of the Chief of Naval Operations (OPNAV) staff or other Metro Washington, DC, [DON] offices for which the CNO has cognizance for security	х	
OPNAVINST 5530.16A	Purpose: To prescribe policies, procedures, and responsibilities for the Navy Biological Surety Program per [references].	х	
OPNAVINST 6100.2A	Purpose: To update the comprehensive Navy Health and Wellness Promotion Program that improves and sustains military readiness by focusing on health, fitness, and quality of life for Sailors, [DoD] personnel, and other beneficiaries as required by [references]	х	
OPNAVINST 6420.1A	Purpose: To provide physical requirements for non- submarine personnel embarked on submarines, including non-submarine military personnel, civilians, governmental and contractor employees, and military dependents.	х	
SECNAV M-5510.30	This manual establishes specific policy set forth in SECNAVINST 5510.30B, "Department of Navy (DON) Personnel Security Program (PSP) Instruction." It is intended to provide maximum uniformity and effectiveness in the application of PSP policies throughout DON.	х	
SECNAVINST 1640.9c	Purpose: To issue standardized policies and procedures for the operation of Navy and Marine Corps confinement facilities. This instruction is a complete revision and should be reviewed in its entirety.		х
SECNAVINST 1730.9	Purpose: This instruction provides policy on confidential communications to Navy chaplains. The unconstrained ability to discuss personal matters in complete privacy encourages full and complete disclosure by personnel and family members seeking chaplain assistance		х

Table G.3—Continued

Document Number	Description	Has Content That May Has Content Contribute to That May Stigma Reduce Stigma
SECNAVINST 1850.4E	Purpose: To revise and simplify policies and procedures for evaluation of physical fitness for duty and disposition of physical disability in the [DON] in compliance with Chapter 61 and Section 1554 of [Title 10, U.S. Code] and with [DODD 1332.18, DoDI 1332.38, DoDI 1332.39, and SECNAVINST 5300.30C]. This instruction is a complete revision and should be reviewed in its entirety.	X
SECNAVINST 1920.6C CH-4	Purpose: To transmit changes per the repeal of section 654 of title 10, United States Code, "Don't Ask, Don't Tell." A complete revision to this instruction will be issued at a later date.	х
SECNAVINST 5312.12	Purpose: To assign responsibility and prescribe procedures for implementation of [reference]. This instruction is a complete revision and should be reviewed in its entirety.	х
SECNAVINST 5510.35B	Purpose: a. To establish and maintain the [DON] Nuclear Weapons [PRP] per [DoDI 5210.42, DoD 5210.42-R, and SECNAVINST 8120.1].	х
SECNAVINST 5815.3J	Purpose: To publish regulations consistent with [references] for implementation of systems of clemency, parole, retention and enlistment of selected court-martialed offenders who were subject to the authority of the Secretary of the Navy at the time of their offense.	х
SECNAVINST 6320.24A	Purpose: To issue [DON] policy, assign responsibility, and prescribe procedures per [reference] for the referral, evaluation, treatment and administrative management of services members who are directed by their commands for mental health evaluation and/or assessment of risk for potentially dangerous behavior.	х
BUMED policies		
Chief, BUMED, 2008	This change completely revises Chapter 6, Dental Corps. This revision takes into account the changes in authority and responsibilities of BUMED (Echelon II) post integration of the Dental Division as well as the latest clinical guidelines driven by recent instructions.	х
Chief, BUMED, 2012	Purposes of medical examinations [and] Interpretation and application of physical standards	X
BUMEDINST 1755.1	This instruction supplements [reference] by assigning responsibilities and providing guidance and procedures specific to the provision of early intervention services (EIS) by Navy educational and developmental intervention services (EDIS) programs.	х

Table G.3—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
BUMEDINST 5041.6	To implement the provisions of [references] throughout Budget Submitting Office (BSO)-18 and clarify responsibilities for the operation of the Navy Medicine (NAVMED) Hotline Program. [Enclosure] is a list of references used in this interaction.	Х	х
BUMEDINST 6300.17	To establish guidance in the delivery of case management (CM) services within Navy Medicine		Х
BUMEDINST 6400.3A	To identify a class of specialized psychological materials, and provide policy in the use, security, and supervision of psychological testing procedures in medical treatment facilities and other medical and operational platforms		х
BUMEDINST 6520.2	To provide policy guidance for the evaluation and disposition of patients presenting with suicidal ideation or behavior	х	
BUMEDNOTE 6100	To provide preliminary implementation guidance for the newly required NAVMED 6100/8, <i>Mental Health Assessment</i> , to be completed by specified deployers in four time frames and to announce the additional training requirement for providers who conduct the assessment	х	

NOTE: CYP = Child and Youth Program. DON = Department of the Navy. BUMEDINST = BUMED instruction. BUMEDNOTE = BUMED note.

Table G.4 Marine Corps Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
MCO 1001R.1K	The [reserve component] is an integral part of the Total Force Marine Corps and provides augmentation and reinforcement in times of war or national emergency. This Order establishes the policies and responsibilities for the administration and personnel management of the Marine Corps Reserve as outlined in [references].	х	
MCO 1040.31	This Order revises the policies, procedures, and standards for the operation of the Marine Corps Enlisted Retention and Career Development Program.	х	
MCO 1200.17D	The publication of this Order synchronizes the Marine Corps Human Resources Development Process.	х	
MCO 1306.16E	To provide current policy and procedures concerning conscientious objection applicable to all Marines	х	

Table G.4—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
MCO 1326.7E	To establish assignment criteria and issue instructions relative to the selection and screening process for personnel assigned to duty with [Marine Helicopter Squadron 1]	х	
MCO 1553.2B	Establish management policies and procedures for the establishment and operations of Marine Corps Formal Learning Centers	х	
MCO 1560R.30B	To publish implementing guidance for [Montgomery GI Bill—Reserve] education benefits authorized by [statute]		х
MCO 1720.2	To provide policy and procedural guidance for the Marine Corps Suicide Prevention Program	х	
MCO 1730.6E	This Order implements [SECNAVINST 1730.7D]. This is a complete revision and should be reviewed in its entirety.		х
MCO 1754.11	To provide policy and procedural guidance for the effective execution and use of the [FAP] in order to support the commander's responsibility to prevent and respond to child abuse and domestic abuse, and support and treat eligible beneficiaries with counseling services in accordance with the references	х	
MCO 3000.19A	This Order establishes Service policy and tasks that support [references] and outlines procedures to conduct Marine Corps Reserve Component (Re) activation, integration, and deactivation as described in [references]. This Order is designed to support contingency planning, crisis action planning, and sustained operations leading to rapid augmentation and/or reinforcement of the [active component] of the U.S. Marine Corps. As such, this Order is directive in nature.		x
MCO 3120.11	Individual service parachuting programs are guided by policy directing their conduct and administration by [DoD EAs] in accordance with [references]. [DoDD 5100.1] assigns the U.S. Army as the EA for all airborne matters common to both the Army and the Marine Corps. This Order establishes policy and procedural guidance for the administration of Marine Corps parachuting programs and takes precedence where Marine Corps equipment and doctrine are not supported by EA policy, procedure and/or doctrine. All Marine Corps parachuting programs will be administered in compliance with this Order.	x	

Table G.4—Continued

Document Number	Description	Has Content That May Has Content Contribute to That May Stigma Reduce Stigma
MCO 3150.4	[DoD EAs] establish policy that guides the conduct and administration of individual Service diving programs, per [references]. [DoDI 3224.04] assigns the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict, Department of the Navy as the DOD Diving Proponent.	х
MCO 5100.29B	Force preservation is a vital element of our combat readiness; death, serious injury, and the loss of materiel assets due to mishaps directly and negatively impacts the warfighting capability of the entire Marine Corps. Engaged leadership at all levels is the key to ensuring a command climate that demands the preservation of Marine Corps assets through risk management. This Order and [Marine Corps Safety Program] establishes the minimum requirements of the Marine Corps Safety Program based on the references and policies required by resources listed in [the enclosure].	х
MCO 5300.17	To provide policy and procedural guidance to commanders, substance abuse personnel, and Marines in order to effectively utilize and execute the Marine Corps Substance Abuse Program, per [references]. This Order provides both policy and guidance to commanders so that they may improve their capability to treat and prevent alcohol and drug abuse problems that detract from unit performance and mission readiness.	х
MCO 5530.16	To promulgate policy and guidance for the establishment, management, training, and employment of a Security Augmentation Force at all Marine Corps installations per [references]	х
MCO 5580.2B	This Order is a complete revision of the last Marine Corps [law enforcement manual] and should be reviewed in its entirety. It provides updated policy that commanding officers, provost marshals and police chiefs require, and establishes guidelines and procedures for MPs, police officers and security personnel in the performance of their duties per [references].	х
MCO 8400.6	To establish standard licensing procedures for qualifying, testing, and licensing ordnance vehicle operators. Ordnance vehicles are defined as any wheeled or tracked vehicle configured to conduct a combat mission or support an ordnance/maintenance operation. Implementation of the provisions contained herein will enhance selection and certification of qualified ordnance vehicle operators, an essential element for safe and efficient operations. A listing of ordnance vehicles requiring licensed operators is provided in [earlier versions of the order].	х

Table G.4—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
MCO 12410.24	To establish the framework for [civilian leadership development] for the U.S. Marine Corps		х
MCO 12630.3	To provide policy and procedures on implementing [Family and Medical Leave Act of 1993 (Pub. L. 103-3)] for civilian employee of [HQMC]; Headquarters Battalion, Henderson Hall; Marine Barracks, 8th and I Streets, Washington, DC; and the Marine Corps Institute		х
MCO 12713.8	To implement the [Handicapped Individuals Program]	х	х
MCO 12771.2	To establish the administrative grievance procedure for civilian employees at [HQMC] and serviced activities	х	Х
MCO P1100.72C	This manual establishes the criteria for enlistment, procedures governing the processing of applicants and summarizes recruiting support programs to be used in accomplishing the enlisted recruiting mission.	х	
MCO P1300.8R	To implement DoD policy and provide definitive guidance on the assignment and [PCS] of Marines	х	
MCO P1326.6D	To establish criteria and instructions relative to selecting, screening and preparing enlisted Marines for assignment to Special Duties (Drill Instructor, Recruiting, Marine Security Guard, Marine Corps Security Forces) and Independent Duties	х	
MCO P1400.32D	To publish regulations and policies concerning enlisted promotions	х	Х
MCO P1610.7F	The recent addition of the Marine Corps Combat Fitness Test and modification to the Body Fat Percentage reporting criteria necessitate changes to the [PES]		X
MCO P3500.44A	To establish training standards, regulations and policies regarding the training of Navy Chaplains and [RPs] assigned to the Marine Corps. Per Volume II of the Manual of Navy Enlisted Manpower and Personnel Classifications [NAVPERS 18068F], this order identifies core entry-level training requirements to award RPs with the NEC 2401.		X
MCO P3500.75	Per the references, this manual establishes training standards, regulations and policies regarding the training of assigned Navy personnel in Health Services. This order identifies core-entry level training requirements to award Hospital men with [NECs] 8404, 8427, and 8403 and Dental Technicians with the NEC 8707.	х	

Table G.4—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
MCO P3550.10	In order to achieve the highest levels of readiness, organizations must maintain rigorous and realistic training programs based on approved training standards. Training resources must enhance safe and challenging live-fire training, enabling Marine units to train as they fight.	х	
MCO P12000.11A	To transmit new page inserts into the Manual		х
NAVMC 2660	To promulgate NAVMC 2660, <i>Discussion Leaders'</i> Course	х	
NAVMC 2768	This handbook is designed to heighten the awareness of commanders and functional managers to the potential for fraud and waste within their activities.	х	
NAVMC 3500.18B (PRELIM) Part 1	Contains non-[military occupational specialty-]specific individual events for all Marines that are introduced during the [entry-level training] pipeline.	х	
NAVMC 3500.59A Part 2	Same as NAVMC 3500.59A Part 1.		Х
NAVMC DIR 1500.58	This Directive elaborates upon procedures and methods and provides guidance for implementing the [Marine Corps Mentoring Program].	x	х

NOTE: HQMC = Headquarters, U.S. Marine Corps. PCS = permanent change of station. PES = Performance Evaluation System. RP = religious program specialist.

Table G.5 Air Force Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
5AFI 36-102	This instruction implements AFPD 36-1, General Civilian Personnel Provisions and Authorities. It provides managers and supervisors with instructions for administration of [master labor contract] and [IHA] employees.	х	
AETC Instruction 36-2205, Vols. 2, 3, 5, 6, 8, and 12	This instruction implements AFPD 36-26, <i>Total Force Development</i> , establishes policy for student administration, conduct and documentation, and provides management guidelines for all AETC fighter pilot training programs.	х	

Table G.5—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AFGM 48-04	This memorandum replaces previous guidance in AFI48-120_AFGM3 issued 8 March 2011, which instituted Congressionally mandated mental health assessments (referred to in AFI48-120_AFGM3 as Deployment Resiliency Assessments) for members of the Armed Forces deployed in connection with a contingency operation		х
AFGSCGM 10-02	This is an [AFGSCGM] immediately implementing policy for [AFMAN 10-3902], the management of the [PRP].	х	
AFI 10-203	This instruction implements AFPD 10-2, Readiness, October 30, 2006; Title 10, United States Code Sections 136(d) and 671. This Instruction describes how to communicate to commanders['] individual member restrictions due to medical reasons. The application of restrictions is a commander's program with medical recommendations. It also describes the disposition and management of members who have duty limitations and reporting requirements. It interfaces with AFPD 44-1, Medical Operations, AFPD 48-1, Aerospace Medical Program.		X
AFI 10-403	This instruction implements AFPD 10-4, Operations Planning: Air and Space Expeditionary Force (AEF) and AFI 10-401, Air Force Operations Planning and Execution. It provides the basic requirements for Air Force deployment planning and execution at all levels of command to support contingency and exercise deployment operations. This instruction applies to all [MAJCOMs, ANG, field operating agencies, direct reporting units], and Air Force civilian personnel.		х
AFI 11-402	It sets the procedures for initiating aviation/parachutist service, awarding Air Force aeronautical ratings and aviation badges, and gives guidance that applies to administering initiation and termination of aviation/parachutist service and award of ratings/badges.	х	
AFI 13-204V3_ AFSOCSUP_I	It sets policy and describes unit, [MAJCOM] and [Air Force] roles for managing airfield operations at [Air Force] locations.	х	
AFI 31-204_ USAFESUP_ INCIRLIKABSUP_I	This instruction implements [AFPD] 31-2, Law Enforcement. It assigns responsibilities and establishes procedures for motor vehicle traffic supervision on Air Force installations in [CONUS] and overseas ([outside CONUS]) areas.	X	
AFI 31-205	It describes how to administer corrections, rehabilitation and parole and clemency programs; how to secure confinement/corrections facilities; and how to control and transfer military inmates.	х	

Table G.5—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AFI 31-206	This instruction implements AFPD 31-2, <i>Air Provost Operations</i> . It provides guidance on general [special forces] duties and law enforcement operations.	х	
AFI 31-207	Gives war and peacetime requirements for arming [Air Force] personnel and the use of deadly force	х	х
AFI 31-501	This instruction implements [AFPD] 31-5, <i>Personnel Security Program Policy</i> . It provides guidance for personnel security investigations and clearance needs.	х	
AFI 31-501_ AFGM1.1	By Order of the Secretary of the Air Force, effective as of the date of this Memorandum, [Air Force] Guidance Memorandum 1 dated 24 Aug 2011 to immediately change AFI 31-501 is reissued.	х	
AFI 32-3001_ AFDWSUP_I	[I]dentifies Air Force [explosive ordnance disposal] program requirements	х	
AFI 36-704	This instruction implements AFPD 36-7, <i>Employee and Labor-Management Relations</i> . It provides instructions for maintaining discipline and for taking disciplinary and adverse actions against certain civilian employees paid with appropriated funds only.	х	х
AFI 36-2002	This instruction implements [AFPD] 36-20, Accession of Air Force Military Personnel. It tells how to enlist qualified individuals into the Regular Air Force and the [delayed-entry program] and how to: access [ARC] members onto specified [EAD] tours; access ARC members who apply for [regular Air Force] enlistment while on EAD; and reenlist officers with a statutory entitlement. Reenlist airmen removed from [TDRL].	x	
AFI 36-2110_ AFDWSUP_I	[E]stablishes criteria for assignment of military personnel to satisfy operational, rotational, and training (including formal education and professional military education/development) requirements include [temporary duty] and [PCS]	х	
AFI 36-2113	This instruction sets the policy for management of first sergeants and implements AFPD 36-21, <i>Utilization and Classification of Air Force Military Personnel</i> . The procedures implemented in this instruction are not [a] basis for change in numbers or type and kind of manpower requirements or authorizations. It applies to all Air Force personnel.	x	
AFI 36-2501_ AFGM1	By Order of the Secretary of the Air Force, this [Air Force] Guidance Memorandum immediately changes AFI 36-2501, Officer Promotions and Selective Continuation. Compliance with this publication is mandatory. To the extent its directions are inconsistent with other Air Force publications, the information herein prevails, in accordance with AFI 33-360, Publications and Forms Management.	х	

Table G.5—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AFI 36-2706	This instruction implements [AFPD] 36-27, Equal Opportunity, 22 May 2009. It prohibits unlawful discrimination and harassment, and reprisal. It establishes the requirements for the Air Force [MEO] Program and the Civilian [EEO] Program. This publication applies to all military and civilian Air Force personnel, including [Air Force Reserve Command] Units.		х
AFI 36-2910	This publication sets guidelines for Line of Duty and Misconduct Determinations It applies to all active duty members as well as members and units of the [ARC]—the [ANG] and the [Air Force] Reserve It implements [AFPD] 36-29, Military Standards.	х	х
AFI 36-3002	This instruction implements [AFPD] 36-30, <i>Military Entitlements</i> , and [DoDI] 1300.18, <i>Personnel Casualty Matters, Policies, and Procedures</i> . It describes procedures for the Casualty Services Program for all levels of command and all Air Force organizations.	х	
AFI 36-3206	This [AFI] explains how to discharge active duty Air Force officers for substandard performance of duty, misconduct, moral or professional dereliction, homosexual conduct, or in the interest of national security. It prescribes procedures for disposing of cases involving officers and for processing cases approved under AFI 31-501, Personnel Security Program Management.	x	
AFI 36-3208	This instruction states how [the Air Force] administratively separate[s] enlisted members for all reasons except physical disability or court-martial. It contains standards and procedures for implementing Air Force Policy Directive (AFPD) 36-32, <i>Military Retirements and Separations</i> , concerning voluntary and involuntary separations.	x	
AFI 36-3209	This instruction applies to all officer and enlisted members not serving on active duty with the Regular Air Force. Chapter 5 applies to members assigned to the Retired Reserve not receiving retired pay. Recalled members are subject to this instruction if they are removed from retired status and returned to an active status. This instruction implements AFPD 36-32, Military Retirements and Separations, 28 May 1993, and establishes procedures for administrative separation or discharge of [ANG] and Air Force Reserve members under those conditions and reasons outlined herein.	x	

Table G.5—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AFI 36-3212	This instruction describes how to retire or discharge Air Force members who are unfit to do their military duties because of physical disability. It outlines procedures for examining, and discharging or retiring members from the [TDRL]. It also provides disposition instructions for unfit members who remain on active duty in [limited assignment status]. Chapter 8 applies to certain [ANG] and United States Air Force Reserve members not on [EAD].	х	
AFI 36-6001	This instruction implements [AFPD] 36-60, 28 March 2008, Sexual Assault Prevention and Response (SAPR) Program, and [DoDI] 6495.02, 23 June 2006, Sexual Assault Prevention and Response (SAPR) Program Procedures. It assigns responsibility for the prevention of and response to sexual assault and establishes command relationships, authorities and responsibilities in support of the policy.	х	х
AFI40-301_ USAFASUP_I	[D]escribes the responsibilities of [FAP] agencies, FAP staff, and other [Air Force] personnel who are instrumental to the implementation and operation of the Air Force FAP.	Х	
AFI 40-402_ USAFASUP_I	[P]rovides guidance and procedures for conducting research investigation at [MTFs, clinical investigation facilities], and other medical support centers and for using human subjects in [research, development, test, and evaluation] conducted or funded by the Air Force	х	
AFI 40-404	How the program is managed, responsibilities, information processing procedures, data processing, and data analysis	x	х
AFI 41-210	[H]ow to manage TRICARE Operations and Patient Administration functions including determining eligibility for care, protecting medical information, managing health records, the preparation and disposition of medical documentation and managing other administrative activities to support patients	х	X
AFI 41-307	[I]mplements nursing considerations and standards of care in the [aeromedical evacuation] system	х	х
AFI 44-109	[D]escribes rights for members who are directed by their commanders to undergo a mental health evaluation	х	х
AFI 44-153	[G]uidance for [TSR] teams at all active duty Air Force installations, integrating resources and efforts of the [AFR] and [ANG]	х	
AFI 44-165	[D]efines the ASF mission and scope of care; [explains] how to manage and transport patients; and specifies support responsibilities of the [MTF]	х	

Table G.5—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AFI 44-172	[G]uidance for the operation of the [mental health] services and the assessment and treatment of [Air Force] personnel and beneficiaries with [mental health] problems	х	
AFI 48-123	It establishes procedures, requirements, recording and medical standards for medical examinations given by the Air Force. It prescribes procedures and references the authority for retiring, discharging, or retaining members who, because of physical disability, are unfit to perform their duties	х	
AFI 51-102V2	[D]irects the structure and programs for Chaplain Assistant professional development and describes the process for vectoring and accessing Chaplain Assistants	x	
AFI 51-201_ AMCSUP_I	This instruction implements the [UCMJ], the Manual for Courts-Martial , United States, 2005. It provides guidance and procedures for administering military justice. Users of this instruction must familiarize themselves with the UCMJ, [Manual for Courts-Martial], and applicable [DoD] Directives.	х	
AFI 90-505	[R]equirements to conduct education and training to prevent acts of harm to self and raise awareness to prevent suicide and suicidal behavior in Air Force communities		Х
AFMAN 31- 201V4	This manual implements AFPD 31-2, <i>Air Provost Operations</i> . This Manual sets forth guidance regarding [SF] standards and procedures of Air Force civilian and military personnel, including the Air Force Reserve and [ANG] serving in SF roles.	х	
AFMAN 48-146	[G]uidance on overall [OEH] program management and incorporates [risk management] principles into the OEH program	х	х
AFPAM 36-2241	This pamphlet implements AFPD 36-22, Air Force Military Training, and AFI 36-2642, Professional Advancement and Continuous Education. Information in this guide is taken primarily from Air Force publications and based on knowledge requirements from the [MKTS] as determined by the MKTS Advisory Council of the [Chief Master Sergeant of the Air Force] and [MAJCOM command chief master sergeants].		х
AFPAM 44-160	[E]ducation, preventative services, stress management	х	Х
AFRCI 36-2001	The purpose of this instruction is to provide necessary procedural guidance for Air Force Reserve Recruiting personnel to recruit qualified persons to meet [AFR] manning requirements without regard to race, color, religion, sex, or national origin.	х	

Table G.5—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
CFETP 3S1X1	This [CFETP] is a comprehensive education and training document that identifies life-cycle education/ training requirements, training support resources, and minimum core task requirements for this specialty		Х
CFETP 4C0X1	This CFETP provides the information necessary for [Air Force career-field managers, MAJCOM functional managers], commanders, training managers, supervisors and trainers, to plan, develop, manage, and conduct an effective career field training program.	х	
CFETP 5R0X1C1	[Chaplain assistant CFETP]	х	
PACAFDIR 90- 254	This Directory implements AFPD 90-2, Inspector General—The Inspection System, and AFI 90-201, Inspector General Activities. Attachment 1 of this directory is a Corrections Program [mission performance checklist] and supports guidance in AFI 31-205, Air Force Corrections System.	х	

NOTE: 5AFI = Fifth Air Force instruction. AFPD = Air Force policy directive. IHA = indirect hire agreement. AETC = Air Education and Training Command. AFGM = Air Force guidance memorandum. AFGSCGM = Air Force Global Strike Command guidance memorandum. AFMAN = Air Force manual. MAJCOM = major command. ANG = Air National Guard. USAFESUP = U.S. Air Forces in Europe supplement. ÍNCIRLIKABSUP = Incirlik Air Base supplement. AFDWSUP = Air Force District of Washington supplement. ARC = Air Reserve Component. EAD = extended active duty. TDRL = temporary disability retired list. FAP = Family Advocacy and General Counseling Programs. ASF = aeromedical staging facility. MTF = medical treatment facility. SF = security force. OEH = occupational and environmental health. AFPAM = Air Force pamphlet. MKTS = Military Knowledge and Testing System. AFRCI = Air Force Reserve Command instruction. CFETP = career-field education and training plan. PACAFDIR = Pacific Air Forces directory.

Table G.6 National Guard Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
AFI10-404_ ANGSUP_I	The [ESSP] is a subset of the overall expeditionary site planning process and serves as the foundation for Air Force expeditionary operations. This AFI is the governing document for ESSP and provides detailed information for use by planners at the strategic, operational, and tactical levels.		х
AFI 13-204, Vol. 3, ANG Supplement	This instruction implements AFPD 13-2, Air Traffic Control, Airspace, Airfield, and Range Management It directs the administration of facilities, the use of equipment, the operations, and the training of airfield operations. It outlines duties and responsibilities of AOF members assigned to the unit level.	х	

Table G.6—Continued

Document Number	Description	Has Content That May Has Content Contribute to That May Stigma Reduce Stigma
ANGDIR 90- 266	This new directory implements [AFPD] 90-2, Inspector General—The Inspection System, and is applicable to all [ANG] Security Forces Squadrons. Units may supplement this directory to add internal compliance items. This directory may be used in whole or in part by [HHQ] during visits or exercises. [HHQ/IG] will use this directory in whole or in part during evaluations and exercises.	х
ANGI 36- 2001	DoDI 1215.13 policy requires establishment of training programs that provide a minimum number of [inactive-duty training periods], and [active-duty training] required for attaining the prescribed unit readiness status and maintaining individual proficiency. Due to the high visibility of the training program, state headquarters, commanders and unit training managers must ensure [that] proper internal controls, resource management, and documentation prescribed by this instruction [are] accomplished.	х
ANGI 36- 2002	This instruction prescribes the eligibility requirements and procedures for enlisting and reenlisting in the [ANG] and as a Reserve of the Air Force.	х
CNGBI 1800.01	This instruction outlines the requirement to assess, on an individual basis, whether a particular child or youth with a special need may participate in the National Guard [CYP] with or without reasonable accommodation.	х
NGR 385-10	This regulation explains the need for safety in the ARNG; outlines responsibilities; and provides policy for the development, implementation, and management of the ARNG Safety Program.	х
NGR 500-3/ ANGI 10- 2503	This regulation instruction prescribes policies, procedures, and responsibilities governing the employment of National Guard [weapons-of-mass-destruction civil support teams] in support of the National Guard homeland security, homeland defense, contingency operations, special events, incident of national significance, and [defense support of civil authorities] mission.	
NGR 500-4/ ANGI 10- 2504	This regulation/instruction prescribes policies, procedures, and responsibilities governing the deployment and employment of National Guard [Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive] Enhanced Response Force Packages in support of the National Guard Homeland Security mission.	х
NGR 600-200	This regulation prescribes the criteria, policies, processes, procedures and responsibilities to classify; assign; utilize; transfer within and between states; provides Special Duty Assignment Pay; separate, and appoint to and from Command Sergeant Major, [ARNG] and [ARNGUS] enlisted Soldiers.	х

Table G.6—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
NGR 614-1	This regulation prescribes rules for use of the ING, enlistment into the ING as part of the [Recruit Force Pool], transfer between active status and the ING, accounting for personnel in the ING, restrictions on Soldiers while assigned to the ING, reporting, annual muster requirements, entitlements, [and] responsibilities, and describes the effect of a mobilization, call or order to active duty on Soldiers in the ING.	х	
TPR 630	This regulation prescribes the Human Resources Absence and Leave Program for National Guard technicians and replaces the leave regulations that were used to supplement the Federal Personnel Manual.		x

NOTE: ESSP = Expeditionary Site Survey Process. HHQ = higher headquarters. ANGI = ANG instruction. CNGBI = Chief, National Guard Bureau instruction. NGR = National Guard regulation. ARNGUS = ARNG of the United States. ING = Inactive Army National Guard. AOF = airfield operations flight.

Table G.7 Coast Guard Policies That May Either Contribute to or Reduce Stigma

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
COMDTINST 1730.4C	To promulgate policy, assign responsibilities and implement this Instruction for religious ministries within the Coast Guard.		х
COMDTINST 1734.1A	To provide policy and procedures, and assign responsibilities for the Coast Guard's Suicide Prevention Program.	х	x
COMDTINST 1740.7B	This Instruction establishes the Coast Guard's [employee assistance program] and prescribes associated policy, procedures and responsibilities.		x
COMDTINST 1750.7C	The [CGFAP] was developed and implemented in 1982 as the result of a congressional mandate to reduce and prevent family violence through the case management process. The CGFAP shall intervene in all suspicions, suspected and reported incidents of family violence within the Coast Guard and establish family violence preventive resources and services. The CGFAP's intent is to prevent and reduce the incidence of family violence and create an environment of intolerance for such behavior. Education and proper intervention and rehabilitation services result in prevention of the escalation of violence, serious injury and homicide. Successful resolution of family violence cases results in the retention of productive Coast Guard members and successful accomplishment of the Coast Guard mission.	x	

Table G.7—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
COMDTINST 1754.3A	To update guidance for providing services intended to minimize the potential for psychological injury to employees, Coast Guard members, and their family members who have been involved in or affected by a critical incident. [Critical-incident stress management] includes pre-incident training, critical-incident interventions, and post-incident follow-up.	х	
COMDTINST 1754.7A	The purpose of this instruction is to provide policy and guidance concerning the Coast Guard Special Needs Program.		х
COMDTINST 1755.1	This instruction promulgates applicable DoD/[DoD Dependents Schools] directives pertaining to minor dependents' schooling in overseas areas.		х
COMDTINST 5230.60B	[T]his Instruction establishes U.S. Coast Guard policy, procedures, roles, and responsibilities for implementing the 1998 amendments to Section 508 of the Rehabilitation Act Section 508 requires Federal departments and agencies that develop, procure, maintain, or use [electronic and information technology] to ensure that Federal employees and members of the public with disabilities have access to and use of information and data, comparable to that of Federal employees and members of the public without disabilities. Moreover, the [Coast Guard] desires to meet the demands of citizen-centric electronic government, attract and retain the best talent, and maintain a productive workforce. To accomplish that goal [the Coast Guard] must create an environment that enables the abilities of persons with disabilities.		X
COMDTINST 6400.1B	This Instruction establishes policy, procedure and standards for Student Externship Programs in Coast Guard health care facilities.	;	х
COMDTINST 12300.9	This Instruction establishes a Coast Guard program under which Headquarters Program Managers may compete for centrally funded billets allocated for a 2 to 3-year period to develop candidates to meet future workforce needs.		х
COMDTINST 12335.4A	This Instruction establishes the Coast Guard's policy for merit promotion and the approved plan for merit promotion for Coast Guard–wide use.		х
COMDTINST 16798.2	This Instruction establishes the air crew qualification and promulgates the qualification requirements, training syllabus, and instructor guide for the Auxiliary air crew program.	х	
COMDTINST M1000.3	This Manual establishes Coast Guard policy and procedures concerning the accessions, evaluations, personnel boards, and promotions for the Coast Guard officer corps.	х	х

Table G.7—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
COMDTINST M1000.4	This Manual establishes Coast Guard policy and procedures concerning separations and retirements for all military personnel.	х	х
COMDTINST M1000.8	This Manual establishes Coast Guard policy and procedures concerning military personnel assignments and authorized absences.	х	
COMDTINST M1600.2	This Manual establishes Coast Guard policy and procedures concerning the Code of Conduct, Civil arrest and convictions, absentee and deserters, dissident and protest activities, and military corrections/confinement for all personnel.		х
COMDTINST M1700.1	This Manual establishes Coast Guard policy on civil matters and dependent welfare and special benefits for military personnel.	х	
COMDTINST M1754.10D	This instruction establishes policy and prescribes procedures for the Coast Guard SAPR Program. The ultimate purpose of this program is to eliminate sexual assault within the Coast Guard by providing a culture of prevention, education and training, response capability, victim support, reporting procedures, and accountability that enhances the safety and well-being of all its members.	х	х
COMDTINST M3150.1C	This Manual establishes policy and procedures for the administration, application and execution of diving operations within the Coast Guard.	х	
COMDTINST M3710.1F	This manual promulgates a revision of the Coast Guard Air Operations Manual. It prescribes policy, standards, instructions and capabilities pertinent to all phases of Coast Guard flight operations and is intended for use by operational commanders, unit commanding officers, aircrews tasked with air operations, as well as customers of Coast Guard aviation	х	
COMDTINST M5100.47	The purpose of this Manual is to promulgate safety and environmental health policies, standards and guidelines and define safety and environmental health responsibilities.	х	
COMDTINST M5110.1B	This Notice promulgates Change One to [the postal manual].	х	

Table G.7—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
COMDTINST M5350.4C	This Manual provides policy and guidance for Coast Guard [MEO] and Civilian [EEO] Programs. It outlines responsibilities and procedures aimed at equipping Coast Guard employees with confidential access to timely and expert advice on EEO/[MEO] matters, and provides tools that will assist unit leaders in building a model EEO workplace. The model EEO program prescribed by the [EEOC] ensures that all employees and applicants for employment enjoy equality of opportunity in the Coast Guard workplace regardless of race, sex, national origin, color, religion, disability or reprisal for engaging in prior protected activity. It is the policy of the Coast Guard to extend to members of the military workforce as much as is practical, the same protections afforded the civilian workforce.		x
COMDTINST M5400.17	To issue the [organization manual] and [SOPs] for Coast Guard [port security units].		x
COMDTINST M5810.1E	This Manual prescribes the Judge Advocate General of the Coast Guard policies, regulations, and procedures applicable to the administration of military justice in the Coast Guard pursuant to, and in support of [the UCMJ and the Manual for Courts-Martial].		x
COMDTINST M5830.1A	This manual establishes procedures for the appointment, conduct and review of Administrative Investigations.	Х	x
COMDTINST M6000.1E	This Manual establishes policies, procedures, and health care standards for all active duty and reserve Coast Guard members and other Service Members assigned to duty with the Coast Guard.	x	Х
COMDTINST M6410.3A	This Manual establishes policy, assigns responsibilities, and provides guidelines regarding the Coast Guard Aviation Medicine Program.	х	
COMDTINST M12271.1A	The purpose of this Notice is to provide changes to the subject Manual. The contents are intended for all units with [NAF] employees.		Х
COMDTINST M12750.4	This Manual provides guidance and procedures for the processing of disciplinary, performance, and adverse actions to correct situations of unacceptable employee conduct and performance. It also provides advice and guidance for the processing of adverse action appeals and administrative grievances. All actions covered by this Manual shall be processed in accordance with applicable laws, controlling rules and regulations, and the guidance and procedures set forth in this Manual.		х

Table G.7—Continued

Document Number	Description	Has Content That May Contribute to Stigma	Has Content That May Reduce Stigma
COMDTINST M12792.3A	This Manual defines the health care services and occupational health program that is available to civilian personnel as required under [references]. In accordance with [federal statute], civilian employees paid from [NAF] are eligible for the same level and availability of care as [Coast Guard] "appropriated funds" personnel, subject to the regulations of the [OPM]. Civilian employees of other Federal agencies and contractor employees (e.g., security guards) are not covered by the provisions of this Instruction unless an exception is specifically identified in this Instruction.	х	
COMDTINST M16000.10A	This Manual established policies and procedures for the activities associated with the investigation of marine casualties, investigation into recreational boating deaths, detecting violations of criminal and other statutes for law enforcement purposes, taking remedial law enforcement action such as civil penalties and suspension and revocation, investigating pollution, and enforcing international treaties.	х	
COMDTINST M16790.1G	This Manual establishes policies and procedures for all Coast Guard members who are involved with the administration of the Coast Guard Auxiliary, including Auxiliarists, military, and civilian personnel.	х	х

NOTE: CGFAP = Coast Guard Family Advocacy Program. SOP = standard operating procedure.

#### APPENDIX H

# Policies That Contain Negative Terminology with Implications for Stigma

Table H.1
Policies That Contain Negative Terminology with Implications for Stigma

Organization	Document Number	Date of Issuance	Document Title	Implications for Stigma
Air Force	AFI 31-205	August 31, 2010	The Air Force Corrections System	"The following characteristics have been found less desirable in successfully completing the Return to Duty Program: patterns of poor judgment, patterns of impulsivity, history of violent behavior or serious psychological problems (bipolar disorder, recurrent major depression, any psychotic disorder, diagnosed personality disorder), untreated sexual offense, conflict avoidance and lack of initiative." Embedding MHDs in the list of undesirable characteristics communicates that an MHD renders someone as undesirable as someone who has a history of violence or sexual offense.
Air Force	AFI 36-2002	April 7, 1999	Regular Air Force and Special Category Accessions	When listing ineligibility criteria, uses the following language: "Has questionable moral character, history of antisocial behavior (including psychosis), frequent difficulties with law enforcement agencies, transsexualism and other gender identity disorders, exhibitionism transvestitism voyeurism, and other paraphilias." By linking DSM-recognized MHDs with "questionable moral character" and "frequent difficulties with law enforcement agencies," promotes a negative connotation of all.
Air Force	AFI 40-402, U.S. Air Force Academy Supplement	February 14, 2011	Protection of Human Subjects in Biomedical and Behavioral Research	When defining <i>institutionalized mentally infirm person</i> , the definition includes reference to "the mentally ill, the retarded, the emotionally disturbed, the psychotic, or the senile." This language identifies people by their disorders rather than specifying them as PWMHDs or other disorders (e.g., person with psychosis versus "the psychotic").
Air Force	AFI 44-172	March 14, 2011	Mental Health	Policy includes the text "Those with a potential personality disorder or other unsuitable condition will be referred" The term <i>unsuitable</i> has a negative connotation for PWMHDs.
Air Force	AFI 48-123	July 19, 2012	Medical Examinations and Standards	PWMHDs may be rendered "unsuitable." The term <i>unsuitable</i> has a negative connotation for PWMHDs.

Table H.1—Continued

Organization	Document Number	Date of Issuance	Document Title	Implications for Stigma
Air Force	AFI31-207_ AFDWSUP_I	May 18, 2012	Arming and Use of Force by Air Force Personnel	The policy includes a list of "personality and behavioral factors that may affect suitability to bear firearms" that includes descriptions of behaviors (some of which may be mental health symptoms) that use language with negative connotations (e.g., "Temper Tantrums. Childish outbursts of anger, sulking, or pouting over minor disappointments"; irritability, also described as being "overly sensitive/defensive," "arrogant/argumentative," and "insubordinate/hostile"; and "desperate acting out/getting attention"). This language can affirm negative stereotypes about PWMHDs being childish.
Air Force	AFMAN 31- 201V4	November 17, 2011	High-Risk Response	When describing hostage and nonhostage crisis situations, nonhostage situations are described with the following language: "Subjects often act in an emotional, senseless, and self-destructive manner and have no clear goals. Unable to control their emotions in response to life's many stressors, they are motivated by anger, rage, frustration, hurt, confusion, or depression, and often exhibit purposeless, self-defeating behavior. They have no substantive or escape demands or totally unrealistic demands that they have no reasonable expectation of fulfilling. Disgruntled employees, jilted lovers, rejected spouses, aggrieved individuals, idealistic fanatics, individuals with mental illness, and others with unfulfilled aspirations who feel they have been wronged by others or events fall into this broad category. Non-Hostage situations often result in Domestic Violence, Workplace Violence, or an Active Shooter scenario." This description uses value-laden language and, by using the terms depression and mental illness, associates various MHDs with violence and unpredictability.
Air Force	AFRCI 36- 2001	June 1, 2009	Air Force Reserve Recruiting Procedures	When listing ineligibility criteria, uses the following language: "Questionable moral character, history of antisocial behavior, alcoholism, frequent difficulties with law enforcement agencies, history of psychotic disorders, transsexualism and other gender identity disorders, exhibitionism, transvestitism, voyeurism and other paraphilias." By linking DSM-recognized MHDs with "questionable moral character" and "frequent difficulties with law enforcement agencies," promotes a negative connotation of all.
Army	AR 190-58	March 22, 1989	Personal Security	Includes text stating that Special Response Teams may respond to situations involving "barricaded criminals and mentally disturbed persons with or without hostages, sniper incidents, threatened suicides, combatting terrorism operations, drug raids, warrant apprehension of dangerous individuals, and protective service missions." The term mentally disturbed is used to refer to PWMHDs and associates them with violence and dangerousness.

Table H.1—Continued

Organization	Document Number	Date of Issuance	Document Title	Implications for Stigma
Army	AR 623-3	June 5, 2012	Evaluation Reporting System	"Behavioral health issues include a variety of <i>unusual or inappropriate</i> behaviors that may be associated with post-traumatic stress disorder, mild traumatic brain injuries, combat stress or other stress, and/or suicidal thoughts or tendencies." MHDs are described in a value-laden manner (i.e., <i>unusual</i> , <i>inappropriate</i> ).
Army	AR 635-200	June 6, 2005 (rapid action revision September 6, 2011)	Active Duty Enlisted Administrative Separations	Uses the phrase "mentally defective, deranged, or abnormal." Although "mentally defective" has a specific meaning in a legal context, "deranged" and "abnormal" do not.
Army	ATTP 3-39.10	June 20, 2011	Law and Order Operations	Policy includes the text: "Criminals, persons with psychological issues, insurgent elements, and many other categories of undesirable personnel may attempt to gain employment within the police force." The placement of the phrase "persons with psychological issues" amid the list reinforces a stereotype that people with mental health symptoms or disorders are untrustworthy or dangerous.
Marine Corps	NAVMC DIR 1500.58	February 13, 2006	Marine Corps Mentoring Program (MCMP) Guidebook	Includes the phrase "no one trusts or respects a leader who is not in emotional control at all times." Stating that a service member will not be trusted or respected if not in emotional control at all times may implicitly communicate that hiding emotional problems or symptoms of MHDs is necessary to avoid negative judgment from peers.
USD(P&R)	DoDI 1342.12	April 11, 2005	Provision of Early Intervention and Special Education Services to Eligible DoD Dependents	This policy uses the phrase "children who are schizophrenic," which uses mental health status as a descriptor for the children. Using alternative phrasing, such as "children with schizophrenia," would more clearly promote the idea that schizophrenia is a medical diagnosis.

NOTE: DSM = Diagnostic and Statistical Manual of Mental Disorders. Emphasis added in some cases.

APPENDIX I

# Methods Used to Conduct the Expert Panel to Refine and Vet Priorities for Mental Health Stigma Reduction in the U.S. Department of Defense

This appendix describes how we convened the expert panel and who the expert panelists were, as well the process used by the expert panelists to develop the final set of recommended priorities included in this report. The final list of priorities is shown as Table I.1 of this appendix.

## **Expert Panel Methods**

Experts participated in a modified Delphi process to develop a set of recommended priorities for mental health stigma reduction in DoD.

#### **Convening the Expert Panel**

We convened a panel consisting of 12 experts in two key areas:

- mental health stigma
- mental health in the military (PTSD, deployment psychology).

The experts who served on the panel in each of these areas are presented in the rest of this section.

#### Area 1: Experts on Mental Health Stigma

**Rebecca L. Collins**, Ph.D., heads the Health Promotion and Disease Prevention program in RAND Health. She currently leads an evaluation of California statewide efforts to reduce mental health stigma and discrimination. Collins' other research focuses on media's effects on adolescent development, and she leads an ongoing national longitudinal study testing associations between television viewing and adolescent sexual attitudes and behavior.

**Patrick Corrigan**, Psy.D., is a distinguished professor and associate dean for research in the Institute of Psychology at the Illinois Institute of Technology. He has been principal investigator of federally funded studies on rehabilitation, the stigma of

mental illness, and consumer-operated services and has contributed to the development and evaluation of antistigma programs in DoD and the VA.

Tracy Stecker, Ph.D., is an assistant professor at the Dartmouth Psychiatric Research Center at Dartmouth Medical School's Department of Community and Family Medicine. Stecker researches help-seeking behaviors in individuals with mental illness and has focused on the treatment of service members returning from the Iraq and Afghanistan wars with PTSD and substance abuse issues.

Bernice A. Pescosolido, Ph.D., is a distinguished professor of sociology at Indiana University and the director of the Indiana Consortium for Mental Health Services Research. Pescosolido's research focuses on social issues in health, illness, and healing, and she has been principal investigator for several major National Institutes of Healthfunded studies on stigma.

David L. Vogel, Ph.D., is a professor in the Department of Psychology at Iowa State University. His research has focused on the role of stereotypes on people's interactions, measuring the stereotypes of stigmatized groups and their effects on relationships, help-seeking, and counselor training.

Nathaniel G. Wade, Ph.D., is a professor in the Department of Psychology and the director of Network Community Counseling Services at Iowa State University. His research interests include the psychology of forgiveness and religion, as well as counseling process and outcome.

# Area 2: Experts on Mental Health in the Military (PTSD, deployment psychology)

**Thomas Britt**, Ph.D., is a professor of social and organizational psychology at Clemson University. Britt's research focuses on military psychology, including investigating how barriers to care (such as stigma) influence mental health seeking among military personnel and what factors promote resilience among service members returning from deployments.

Kristie Gore, Ph.D., is a senior behavioral social scientist at the RAND Corporation and the associate director for military health in the Forces and Resources Policy Center in the RAND National Security Research Division. Her research focuses on the evaluation of treatment strategies, care-seeking behavior, and care models, and she was recently involved in a large-scale Army effort to treat PTSD and depression in service members seeking primary care.

Charles W. Hoge, M.D., colonel, U.S. Army (retired), led the U.S. military's research program on the mental health effects of the Iraq and Afghanistan wars at the Walter Reed Army Institute of Research. A national expert, Hoge is frequently cited and called upon to provide testimony for his expertise in war-related mental health issues, including PTSD and TBI.

Nancy Skopp, Ph.D., is a research psychologist and program manager in the Research, Outcomes, Surveillance, and Evaluation Division of T2. Her research

focuses on suicidal behavior among service members and veterans and technologybased psychological health interventions for military personnel.

Christopher Warner, M.D., lieutenant colonel, U.S. Army, is the Army Surgeon General's psychiatric consultant and deputy commander for clinical services, U.S. Army Medical Department Activity-Alaska. He has published several studies that focus on the psychological effects of deployments and on the effectiveness of mental health screening.

John Roberts served in the U.S. Marine Corps from 1982 to 1996 and is currently the warrior relations executive vice president at the Wounded Warrior Project, an organization that helps meet the needs of service members with physical and mental injuries and raises public awareness about the needs of these warriors.

# Developing a List of Priorities for Mental Health Stigma Reduction in the U.S. Department of Defense

We utilized a modified version of the RAND/UCLA Appropriateness Method (Fitch et al., 2001) to develop a list of recommended priorities. First, we sent experts a summary of the findings from the report and a set of proposed priorities, based on these findings. We presented proposed priorities as affirmative statements about what DoD should do to reduce mental health stigma among service members. We presented a short rationale for each priority and possible short- and long-term steps to achieve that priority. During the meeting, panelists discussed the strengths and weaknesses of each proposed priority and brainstormed on any priorities that were missing from the list. Panelists then rated each proposed priority on its validity and its importance to DoD. We used a nine-point Likert scale for each rating.

We defined a priority to be valid if the following was true:

• Adequate scientific evidence or professional consensus exists to support a link between the proposed priority and reducing stigma or improving service members' help-seeking.

We defined a priority to be *important* if both of the following were true:

- Addressing or undertaking the priority has a critical influence on reducing stigma or improving service members' help-seeking.
- There are serious adverse consequences from not addressing or undertaking the priority.

Expert-panel members were also given the opportunity to provide comments on each of the proposed priorities to help clarify how items should be modified or improved and to propose new priorities. After the panel had completed all ratings and

submitted comments, the ratings were calculated, and we assembled the final list of priorities. An item was included in the final list of priorities if it received no more than one rating below a 6 (out of a possible 9) on both validity and importance.

Table I.1 shows the final list of priorities. The list contains 13 of the priorities the RAND team originally proposed, nine of which we have edited for clarity, and four new priorities proposed by experts.

Table I.1 **Expert Ratings of Stigma-Reduction Priorities** 

Prio	ity	Importance	Validity	
Inter	vention			
1	Explore interventions that directly increase treatment-seeking.	8.3, 6-9	7.4, 3–9	
2	Consider evidence-based approaches to empowering service members with MHDs to support their peers.	7.8, 4–9	6.8, 4–9	
3	Design new or adapt existing intervention-delivery mechanisms to minimize operational barriers for service members seeking treatment.	7.6, 5–9	6.7, 4–9	
4	Embed stigma-reduction interventions in clinical treatment.	6.4, 2–9	6.2, 2–9	
5	Implement and evaluate stigma-reduction programs that target service members who have not yet developed symptoms of MHDs.	6.4, 2–9	5.9, 2–9	
Polic	у			
1	Provide better guidance for policies in which an MHD or treatment prohibits job opportunities or actions.	7.1, 1–9	6.9, 3–9	
2	Review the stigmatizing language identified in policies to determine whether it should be removed.	6.8, 5–9	6.4, 5–9	
3	Offer incentives for positive mental health behaviors.	6.1, 1–9	5.3, 1–8	
Rese	arch and evaluation			
1	Improve measures of prevalence to improve tracking of stigma and other barriers to care.	6.6, 2–9	6.3, 2–9	
2	Continue to improve and evaluate the modifications made to existing programs that begin to address stigma and other barriers to care.	7.4, 5–9	6.3, 4–9	
3	Examine the dynamic nature of stigma and how it interacts with interna and external conditions over time.	l 7.4, 2–9	6.6, 2–9	
4	Review classified DoD and service-specific policies to determine potential implications for mental health stigma and discrimination.	6.4, 1–9	5.2, 1–9	
Over	arching (i.e., cuts across programs, policies, and research)			
1	Convene a task force to explore the tensions between a command's need to know a service member's mental health status and treatment history and the service member's need for privacy	6.7, 1–9	6.4, 3–9	
	history and the service member's need for privacy			

NOTE: The first value in each importance or validity cell is the mean value assigned by members of the expert panel. The range in each cell is the range of values assigned by the members.

We found that the expert ratings of the proposed priorities varied widely, as evidenced by the ranges in the table above. Expert ratings most strongly converged on ratings regarding intervention priority 1 (explore interventions that directly increase treatment-seeking). Experts' ratings of importance for this priority ranged from 6 to 9. The validity of this priority was rated 6 or above except for two expert ratings. The mean scores for this priority were the highest of all priorities in both importance and validity. Experts also strongly agreed on the importance of intervention priorities 2 and 3 and research and evaluation priority 3; all but one rating of importance was below 6 for these priorities. Additionally, only two experts rated the importance of overarching priority 1, policy priority 1, and research and evaluation priority 2 lower than 6. Intervention priority 5, policy priority 3, and research and evaluation priority 4 average ratings were below 6 for importance or validity or both. The validity of research and evaluation priority 4 had disagreement among experts: Six out of ten rankings fell below 6. Research and evaluation priority 4 also had the lowest mean rating for validity of any other priority. Overall, the mean validity ratings were lower than importance ratings for the majority of priorities. The range of validity ratings was 5.2 to 7.4, compared with 4.4 to 8.3 for importance. Intervention priority 1 and policy priority 3 were the only validity ratings that received less two or less rankings below 6.

The mean rankings for an additional policy priority suggested disagreement among experts. This priority (which did not make the final list above) received four rankings below 4 on validity and four rankings below 3 on importance. Because of this significant disagreement, this policy priority was not included in the list of final priorities, but we describe it next.

## **Excluded Policy Priority: Develop a Policy That Dictates Consequences for Service** Members Who Display Prejudice or Acts of Discrimination Against Other Service Members Based on Mental Health Status

We were unable to locate any policies that specified consequences for service members who discriminate against or harass other service members who have mental health conditions. In order to deter prejudice and discrimination, DoD should institute a DoD-wide policy that specifies clear consequences for prejudicial or discriminatory behaviors. This policy could be modeled after a similar policy instituted by the Coast Guard (COMDTNOTE 12271). This policy states that "making disparaging references, expressing a stereotyped view, or associating undesirable characteristics with a person's . . . disability" is an offense that results in punishment varying from a ten-day suspension to removal.

- Short-term steps: Institute a policy that specifies consequences for prejudicial or discriminatory behaviors related to mental health status.
- Long-term steps: Monitor enforcement of the policy.

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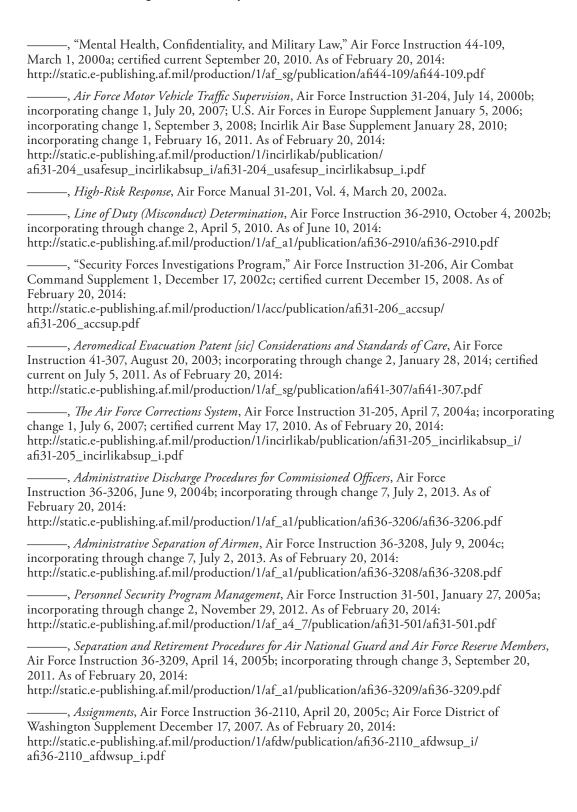
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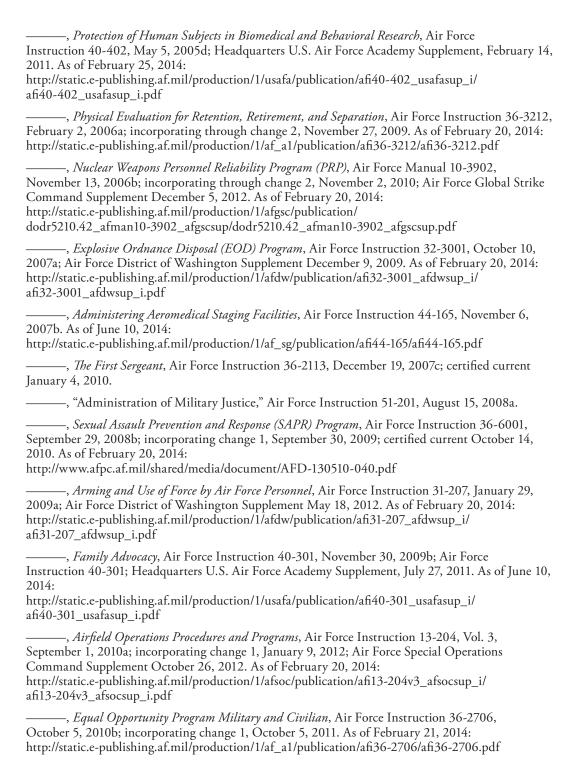
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Despite the efforts of both the U.S. Department of Defense (DoD) and the Veterans Health Administration to enhance mental health services, many service members are not regularly seeking needed care when they have mental health problems. Without appropriate treatment, these mental health problems can have wide-ranging and negative impacts on the quality of life and the social, emotional, and cognitive functioning of affected service members. The services have been actively engaged in developing policies, programs, and campaigns designed to reduce stigma and increase service members' help-seeking behavior. However, there has been no comprehensive assessment of these efforts' effectiveness and the extent to which they align with service members' needs or evidence-based practices. The goal of this research was to assess DoD's approach to stigma reduction—how well it is working and how it might be improved. To address these questions, RAND researchers used five complementary methods: (1) literature review, (2) a microsimulation modeling of costs, (3) interviews with program staff, (4) prospective policy analysis, and (5) an expert panel. The priorities outlined in this report identify ways in which program and policy development and research and evaluation can improve understanding of how best to efficiently and effectively provide needed treatment to service members with mental illness.



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