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Research Report

SARAH O. MEADOWS, KIMBERLY A. HEPNER, JESSICA L. SOUSA,
RYAN HABERMAN, SHIRLEY DONG

An Analysis of the U.S. Department of Defense's Military Health Readiness Assessments

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About This Report

Congress mandates that the Department of Defense (DoD) assess and monitor the health readiness of the armed forces. Accordingly, DoD implements a suite of health assessments to monitor service members' medical readiness. One annual and four additional deployment-related health assessments screen for issues with physical and behavioral health at specified intervals throughout the deployment cycle to facilitate early intervention and medical care required to maintain force readiness. The content of many of the items in these assessments overlaps, and the required time frames for assessment completion can be very close to one another. In addition, the administration of similar assessments can involve monetary and resource costs that may not be necessary.

The Office of the Assistant Secretary of Defense for Health Affairs asked the RAND National Defense Research Institute to evaluate DoD's suite of health readiness assessments against their stated objectives and to identify potential opportunities for improvement, increased efficiencies, and cost savings. The evaluation reviewed the policies behind these assessments at DoD and service branch levels; the assessments themselves for overlaps and gaps; and U.S. guidelines for health screenings and the use of similar health assessments among high-risk civilian professions. The study team also conducted interviews to assess military stakeholders' perceptions of the health assessments and to gather their recommendations for improving efficiency and effectiveness. This report synthesizes the results of these analyses and concludes with key findings and recommendations to increase the efficiency and effectiveness of health assessments without compromising the identification of threats to individual and force readiness.

The research reported here was completed in August 2024 and underwent a security review with the sponsor and the Defense Office of Prepublication and Security Review before public release.

RAND National Security Research Division

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For more information on the RAND Personnel, Readiness, and Health Program, see www.rand.org/nsrd/prh or contact the director (contact information is provided on the webpage).

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Summary

A military force cannot be effective in combat or as an organization if its service members are not sufficiently healthy and ready to serve. The Department of Defense's (DoD) Health Readiness Support Division within the Defense Health Agency (DHA) Public Health monitors service members' health and readiness to deploy by tracking issues that could negatively affect their individual medical readiness (IMR). DoD and its service branches use a suite of health assessments to conduct this tracking: the annual Periodic Health Assessment (PHA) and several deployment-related assessments including the Pre-Deployment Health Assessment (Pre-DHA), the Post-Deployment Health Assessment (PDHA), and the Post-Deployment Reassessment (PDHRA); the Mental Health Assessment (MHA) is incorporated into each of the other assessments. These assessments are administered at regular intervals in the deployment cycle and are meant to help identify health problems early so that the service member may obtain care and avoid negative impacts to their IMR. Command leaders also use data from the assessments to measure the overall fitness to serve at the unit level.

The suite of health assessments demonstrates DoD's commitment to comprehensively monitor the health of its service members. However, over time the number of items in the assessments has grown, and the mandated time frames in which they must be conducted (relative to deployment timelines) may create unnecessary burden and cost. The Office of the Assistant Secretary of Defense for Health Affairs asked the RAND National Defense Research Institute (NDRI) to evaluate DoD's suite of health readiness assessments against their stated objectives and to identify potential opportunities for improvement, increased efficiencies, and cost savings. This report presents the key findings and recommendations from that evaluation.

Approach

To identify potential opportunities to improve the efficiency of DoD's suite of health assessments, we conducted a number of reviews, interviews, and analyses:

- a review of DoD and service branch policies behind the assessments to gain an understanding of how they were intended to be implemented and conducted and to identify areas where language in policy may lead to differences in implementation across the department
- an inventory and analysis of the content and timing of the assessments to delineate the content areas covered in them, the extent of overlap across assessments, and the potential burden for assessment respondents (service members and providers) and record reviewers
- a focused literature review of best practices in civilian health screening and prevention, per the U.S. Preventive Services Task Force (USPSTF), as well as the use of such screenings

within other high-risk professions among civilians, in order to provide reference points for comparison with the DoD suite of assessments
- a series of interviews with military leaders and providers to gather data on their perceptions of the suite of assessments, including perceived overlaps and gaps in content, processes for referral and follow-up, and recommendations for improvement.

This study was also initially intended to gather information on the costs to administer and participate in these assessments, as well as identify areas for cost savings. However, the data available to the research team made this portion of the study infeasible. We discuss ways to explore associated costs within Recommendation 2.

Key Findings

Four key findings emerged from the integrated results of the analyses described above.

Substantial Service Member Burden and Item Redundancy Exists Across Health Assessments, Particularly for Behavioral Health

The five health readiness assessments included 925 unique items that we classified into seven domains, 23 subdomains, and 107 topics. The behavioral health domain had the highest level of redundancy, both within and between assessments. That domain covered mental health concerns such as depression and posttraumatic stress disorder (PTSD), as well as negative health behaviors such as substance use. Among the three respondent types (i.e., service members, providers, and record reviewers), service members had the highest burden due to the number of items to which they are required to respond and also because of the timing of the assessments. Service members could be required to answer as many as 1,100 to 1,500 items over a 24-month period; 359 to 500 of those items are in the behavioral health domain and are related to depression and PTSD. Many interview participants expressed that the assessments are too long and entail too much redundancy. Though many viewed some redundancy as potentially valuable (e.g., for increasing the odds of identifying mental health issues and presenting an opportunity to track service members' responses over time), others emphasized that it contributed to survey fatigue for service members and providers.

Content of Health Readiness Assessments Largely Aligns with Recommended Preventive Screenings, But May Not Always Be Clearly Clinically Relevant

Of the seven USPSTF screenings that fit our criteria (preventive screenings for nonpregnant adults that use a patient-report mode), five aligned with the DoD health readiness assessments. The two USPSTF screenings not covered by the DoD assessments concerned anxiety and intimate partner violence. Our attempt to identify screenings used in a professional

civilian setting for high-risk jobs, such as line-of-duty (LOD) jobs in fire and police departments, was not fruitful at least in part because legal requirements of the Americans with Disabilities Act prohibit mandatory ongoing routine health screenings of the mental health of civilian workers. Some interview participants perceived the contents of the DoD health readiness assessments as effective for prevention and early intervention. In contrast, however, many others described aspects of the current assessment process as ineffective. Some participants suggested the assessments should be evaluated to determine their clinical relevance and alignment with existing evidence, and some expressed the view that the addition of certain items to the PHA was politically motivated.

Process Issues May Limit the Utility of Health Readiness Assessments for Their Intended Purpose of Assessing Individual Medical Readiness

Interview participants raised three main concerns related to the utility of DoD health assessments to assess IMR or serve as a prevention or early intervention tool. First, several factors related to data collection—redundancy and survey burden, the timing of some assessments, and service members' comfort level with providers completing the assessment—could influence the accuracy of service member responses and compromise data quality. Second, DoD policy guidance provides little detail about requirements for referral processes and does not proscribe specific mechanisms for tracking whether service members receive needed follow-up care. This may contribute to inconsistent tracking of referrals and follow-up, and, as suggested by some interview participants, it can leave service members responsible for following through on their own with recommended care. Third, many participants described assessments as being divorced from a service member's primary care, which can lead to missed opportunities for providers to identify critical symptoms or incorporate health assessment data into follow-up care.

Technological Challenges Reduce Efficiency, Particularly for Providers Who Complete Assessments

Interview participants, especially providers, described multiple technology-related barriers to viewing and using assessment data, tracking referrals and follow-up, and integrating the assessment data with clinical care. Some needed multiple screens or programs to view a service member's health record while completing assessments. Viewing service member assessment responses over time was cited as a challenge as well. Many participants did not know of any systems available to help manage post-assessment referrals or follow-up care. DoD and DHA require health readiness assessment data to be collected electronically, but differences in implementation across service branches can compound inefficiencies for providers. Some providers suggested that data systems should be standardized to better support completion of health readiness assessments.

Recommendations

Using the key findings from our analyses, we developed three recommendations to inform ongoing efforts by DoD to improve the efficiency and effectiveness of health readiness assessments.

Recommendation 1. Use Systematic Criteria to Evaluate the Content of Health Assessments, Especially When Adding or Removing Items

Given the differences in opinion regarding the advantages or disadvantages of redundancy across assessments, DHA should develop and apply criteria to systematically evaluate additions and deletions from health assessments. This process could begin by first identifying domains to be used in evaluating assessment content, such as clinical relevance, alignment with existing research, potential impact on IMR, validity and reliability of assessment measurement, frequency of assessment, and prevalence of the underlying condition being assessed. With criteria in place, DHA could then evaluate the pros and cons of adding or removing items, and it could consider evaluating the suite of assessments on a regular basis to ensure their relevance over time. A working group of leaders, providers, and combatant commanders could also help with the review process. Such structures currently exist within DoD (e.g., the Periodic Health Assessment Optimization Working Group), although without publicly accessible documentation of working group charters, it is unclear what process is used by them to evaluate assessment content and whether expertise outside of DoD is utilized during the assessment process.

Recommendation 2. Conduct an Evaluation of the Costs and Benefits Associated with the Suite of Health Readiness Assessments

Administration of the suite of health readiness assessments likely involves substantial costs, including the time and labor for service members, providers, and record reviewers to complete the assessments. We were not able to obtain data to evaluate these costs for this study, but the identified overlaps and redundancies in the assessments as well as the questions raised about the effectiveness of the assessments by interviewees suggest that a cost-benefit analysis of the current system is still worth pursuing. To get this analysis off the ground, DoD would need to gather several types of data that describe the cost of completion: how long it takes respondents to complete the assessments, which could be available in the electronic administration system; the cost of this time in terms of the person's pay or salary; and the number of assessments they would need to complete over a certain period of time. For the benefit part of the analysis, DoD would need to identify and then monetize the expected outcomes associated with the health readiness assessments, which could include the number of service members screening positive for a condition, the number of referrals for follow-up care (at a substance use disorder clinic or in physical therapy, for example), the number of follow-ups successfully completed from referrals, the number of service members eligible for deployable

status after resolution of an issue identified in the assessments, and an aggregate measure of unit-level personnel readiness. The final step would be for DoD to compare the costs and benefits. Such an analysis could be used to identify how changes to implementation—including adding or removing content, changing the timing of assessments, and using different types of providers—could shift the cost-benefit ratio.

Recommendation 3. Explore Opportunities for Improved Technological Efficiency in the Health Readiness Assessment Process

We did not identify any specifications in DoD policy for electronic systems beyond the basic requirement that such a system exist and that it be integrated into the Defense Medical Surveillance System (Military Health System [MHS], 2024; U.S. Department of Defense Instruction [DoDI] 6490.03, 2019). Service branches track IMR and communicate duty limitations using different electronic systems (e.g., eProfile for Army, the Limited Duty Sailor Marine Readiness Tracker for Navy and Marine Corps, and the Aeromedical Services Information Management System for Air and Space Forces). Working across these multiple systems that are not integrated with GENESIS, MHS's electronic health record, can add to the burden on providers for assessment completion. Military leaders and providers we interviewed recommended improving the technology that supports administering the health readiness assessments, as well as optimizing systems to help track and manage follow-up. DHA could explore opportunities for improved efficiency by evaluating the landscape of existing systems to pinpoint challenges and identify potential solutions. Such an evaluation might uncover ways to streamline assessment administration through skip patterns, strategies to help providers more easily flag service members for follow-up, or approaches to creating dashboards that would summarize assessment data for providers. It could also illuminate the extent of interface difficulties reported by our interview participants. With a more complete understanding of the technological challenges and opportunities, DHA could then create a plan to scale up promising strategies and other essential improvements. Implementation could also involve establishing a set of best practices to use across MHS as well as examining the potential to securely use artificial intelligence in an exploratory way within existing systems. Integration of GENESIS with the electronic assessment systems could be a laudable (if expensive) long-term goal, but there may be smaller incremental improvements that could be made that result in better care for service members.

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CHAPTER 1

Introduction

The health of service members is critical to readiness and combat effectiveness of the U.S. military. Service members must be medically ready to be considered fit for duty; if they are not medically ready, they are not deployable. Therefore, tracking issues that may degrade service members' individual medical readiness (IMR) is a major component of the Department of Defense's (DoD) overall Health Readiness Support Division within the Defense Health Agency (DHA) Public Health (Military Health System [MHS], 2023). To help with this tracking, DoD has implemented a suite of health assessments. These are the annual Periodic Health Assessment (PHA), the Pre-Deployment Health Assessment (Pre-DHA), the Post-Deployment Health Assessment (PDHA), and the Post-Deployment Reassessment (PDHRA); the Mental Health Assessment (MHA) is incorporated into each of the other assessments. This suite of health readiness assessments is designed to facilitate early identification of health problems that may negatively affect IMR in the future, as well as encourage service members to obtain any health care that may be needed to attain a fit-to-deploy status. These assessments are also used to monitor readiness at the unit levels.

While this suite of health readiness assessments is comprehensive, some of these numerous assessments may overlap, possibly leading to excess burden and cost. To inform DoD's future efforts in health readiness assessment, the Office of the Assistant Secretary of Defense for Health Affairs asked the RAND National Defense Research Institute (NDRI) to evaluate DoD's suite of health readiness assessments against their stated objectives and to identify potential opportunities for improvement, increased efficiencies, and cost savings.[1] We considered four main research questions associated with this overall study objective:

- How are health assessments designed to be implemented in terms of both DoD and service-branch policy?
- What are the included content areas, amount of content overlap across assessments, and potential burden for a deploying service member?
- How do DoD health readiness assessments compare with best practices in screening and prevention?

[1] As we discuss later in the report, we were unable to obtain direct cost data for this study. Consequently, future mentions of the objective omit mention of cost savings.

- How do DoD leaders and health care providers use and perceive the suite of health readiness assessments, where do they see overlaps and gaps in content and implementation, and what recommendations do they have for improvement?

This report presents the findings and integration of several analyses we conducted, including a policy review, a review of the content and timing of the suite of health readiness assessments, a focused literature review on best practices in health screenings, and interviews with military leaders and health care providers on their perceptions of the utility of these assessments. Based on our integration of the findings from these analyses, we developed recommendations that can inform policymaking and planning to improve the suite of health readiness assessments.

In the remainder of this chapter, we provide a brief overview of the suite of health readiness assessments, including DoD requirements for the assessments and time frames for their completion.

Overview of Health Readiness Assessments

DoD's health readiness program includes five health readiness assessments: the PHA (Defense Department Form 3024), required annually; the Pre-DHA (DD Form 2795), PDHA (DD Form 2796), and PDHRA (DD Form 2900), which are timed around a service member's deployment; and the MHA (DD Form 2978), which is incorporated into each of these other assessments as well as being used as a stand-alone assessment. This suite of assessments fulfills several congressionally mandated requirements. Section 731 of the fiscal year (FY) 2005 National Defense Authorization Act requires the Secretary of Defense to establish a comprehensive plan to improve the medical readiness of the force to include tracking of the health status of service members before, during, and after deployment overseas (Public Law 108-375, 2004). Section 738 further requires the Secretary of Defense to implement a "Medical Readiness Tracking and Health Surveillance Program" and "Force Health Protection and Readiness Program" (Public Law 108-375, 2004). These mandates are outlined in DoD policy. According to DoD Directive 6200.04, the Force Health Protection Program will

> provide health assessments and wellness interventions to all military personnel, that must include at least: a complete health assessment and wellness interventions for new Service members; routine annual health, medical and dental assessments with appropriate wellness interventions; annual assessment of individual medical readiness; pre- and post-deployment health assessments; and, separation medical assessments. (U.S. Department of Defense Directive 6200.04, 2007, p. 2)

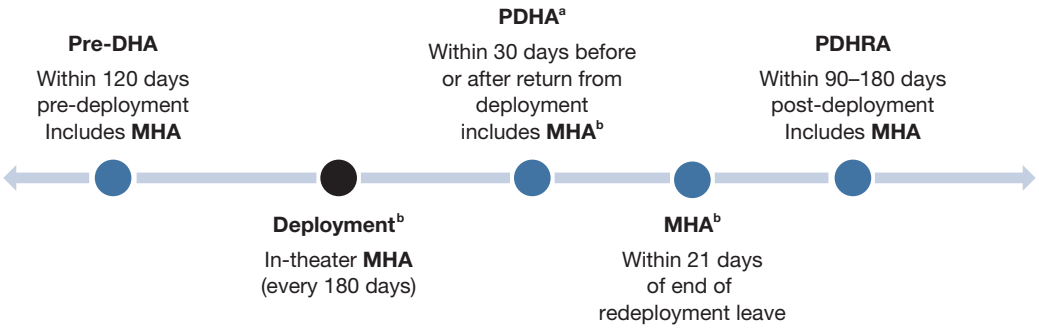
In subsequent legislation (10 U.S. Code, Section 1074f), Congress required DoD to track the medical condition of service members who deploy outside of the United States before, during, and after the deployment. The statute specifically refers to both the physical health

(e.g., traumatic brain injury [TBI]) and mental health (e.g., posttraumatic stress disorder [PTSD]) of the service member, as well as occupational and environmental exposures (e.g., burn pits) during the course of the deployment, as elements that must be addressed in the required medical examinations. Section 1074n of 10 U.S. Code also requires each service member to receive an annual person-to-person mental health assessment, and it notes that any periodic health assessment that meets the requirements laid out in Section 1074f may be used to meet the annual mental health assessment mandate. In addition, Section 1073b of 10 U.S. Code states that DoD will provide to Congress an annual report of compliance to the specific deployment-related health assessments (i.e., before and after) covering the prior calendar year.

DoD Instruction (DoDI) 6200.05 outlines the role of the Force Health Protection Quality Assurance Program in meeting the congressional reporting requirements (DoDI 6200.05, 2017). In the most recent compliance report to Congress, for calendar year 2022, completion rates for the pre-deployment assessments and two post-deployment assessments fell well below the 95 percent completion rate goal set by DoD (Pre-DHA, 71 percent; PDHA, 59 percent; PDHRA, 38 percent).

In addition, each of the health readiness assessments has a required time frame for completion (Figure 1.1). The PHA is an annual requirement for all active and reserve component service members. Within 120 days prior to a deployment, service members are required to complete a Pre-DHA. While in theater, service members must complete a stand-alone MHA for every 180 days of deployment time. Within 30 days of the end of a deployment (i.e., redeployment), service members are required to complete a PDHA, which means some may actually still be in theater when they do so. An additional stand-alone MHA is required within 21 days of the end of redeployment leave (i.e., personal or convalescence leave taken at the

FIGURE 1.1
Health Readiness Assessment Timeline



SOURCE: DHAPI 6490.03 (2019).

NOTES: Any of the assessments in the timeline below can be completed at the same time as the annual PHA (which includes the MHA) when due dates coincide.

[a] Reserve Component members complete the PDHA before they are released from active duty.

[b] Pending update to DHAPI 6490.03 (2019).

end of a deployment) (pending an update to Defense Health Agency Procedural Instruction [DHAPI] 6490.03). Finally, 90 to 180 days after return from a deployment, service members must complete a PDHRA. As stated previously, the PHA, Pre-DHA, PDHA, and PDHRA also include the MHA.

The deployment-related assessments are required for all deployments greater than 30 days outside the United States and for other deployments and military operations depending on their health risk and the decisions of the relevant combatant commander, service component commander, or commander exercising operational control (DoDI 6200.06, 2016). For individuals who deploy again before they can complete the full deployment-related health assessment cycle (i.e., the Pre-DHA, PDHA, and PDHRA), the assessment schedule is anchored to the most recent deployment for which the service member was required to complete the Pre-DHA.

Although the onus of completing these health readiness assessments is on service members themselves, each assessment has requirements for a medical or behavior health care provider who engages in a person-to-person (virtual or face-to-face) interaction with the service member in which the provider reviews responses to the assessment and makes recommendations for any needed referrals or follow-up care. In addition, the PHA requires a record reviewer tasked with examining the service member's existing medical record and checking whether the service member has any outstanding medical screening or assessment requirements.

Organization of This Report

In Chapter 2 we review the methods used to address our research questions. Chapter 3 provides the results from our policy review. Chapter 4 presents a more detailed review of the content of the suite of health readiness assessments and explores the overlap of content in terms of a series of deployment scenarios. Chapter 5 gives results from our investigation into best practices for civilian health screening and our literature review of processes, policies, and procedures used for individuals in other high-risk occupations and organizations. Chapter 6 presents results from our interviews with leaders and providers. Chapter 7 integrates and summarizes the findings across the various methods we used and makes recommendations intended to improve DoD's health readiness assessment program through increased efficiency and effectiveness.

This report has four appendices. Appendix A provides detailed results from the policy review. Appendix B provides more detailed results from the health readiness assessment review. Appendix C provides more information about our review of USPSTF recommendations related to health screenings and of processes, policies, and procedures used in high-risk civilian occupations and in organizations. Appendix D provides the interview protocols for our discussions with leaders and providers.

CHAPTER 2

Methods

In this chapter, we describe the methodological approach we used in our policy analysis, examination of the content and timing of the suite of health readiness assessments, literature review of best practices in civilian health screenings, and interviews with military leaders and health care providers regarding their perceptions of the utility of these assessments.

All study methods were approved by RAND's Institutional Review Board and determined to not constitute human subjects research. The study was also reviewed by a DHA Information Management Control Officer and Paperwork Reduction Act Liaison, who determined that no further licensing or Office of Management and Budget approval was required.

Policy Review

To understand the existing guidelines for implementation of the suite of health readiness assessments and to determine whether service-level policies align with DoD and DHA policies, we reviewed and extracted health readiness assessment and medical readiness requirements from relevant policy documents (i.e., DoDIs and DHAPIs). The documents we reviewed specified DoD and service-level requirements for the PHA, Pre-DHA, PDHA, PDHRA, and MHA, as well as for IMR. Four DoDIs and two DHAPIs documents were relevant to our analysis; however, one (DoDI 6490.12) was incorporated into and canceled by another (DoDI 6490.03). In addition, we compared those requirements with corresponding service-level guidance. We reviewed two Army documents, four Air Force documents, and eight Navy and Marine Corps documents. Table 2.1 provides an overview of service-level documents that correspond to the respective DoDI or DHAPI policies.[1]

We analyzed the differences in DoDI and DHAPI policies and service-specific policies in terms of level of specificity of language to identify possible inconsistencies and inefficiencies in how the services implement health readiness assessments. Each service policy varied to some degree from the higher level policies, which could indicate noncompliance or simply a difference in the amount of detail included. Nonetheless, any discrepancies between DoD

[1] At the time of the writing of the report, the Space Force did not have its own policy separate from that of the Department of the Air Force.

TABLE 2.1

Corresponding Department of Defense and Service-Level Policy Documents

Policy Document	DHA	Air Force	Army	Marine Corps	Navy
DoDI 6200.06 (2016)	DHAPI 6200.06 (2017)	U.S. Department of the Air Force Instruction (DAFI) 48-170 (2020)	Army Regulation (AR) 40-502 (2019)	SECNAVINST 6120.3A (Slavonic, 2019)	SECNAVINST 6120.3A (Slavonic, 2019)
DoDI 6490.03 (DoDI 2019)	DHAPI 6490.03 (2019)	DAFI 48-122 (2020)	AR 40-502 (2019)	MARADMIN 284-11 (U.S. Marine Corps, 2011), BUMEDINST 1300.6 (Gillingham, 2023), and OPNAVINST 6100.3A (Moran, 2016)	NAVADMIN 207-08 (U.S. Navy, 2008), BUMEDINST 1300.6 (Gillingham, 2023), and OPNAVINST 6100.3A (Moran, 2016)
DoDI 6490.12[a] (DoDI 2013)	—	DAFI 44-172 (2015) and DAFI 48-122 (2020)	AR 40-502 (2019)	BUMEDINST 6100.9 (Nathan, 2014)	BUMEDINST 6100.9 (Nathan, 2014)
DoDI 6025.19 (DoDI 2022)	—	DAFI 10-250 (2020) and DAFI 48-170 (2020)	AR 40-502 (2019)	SECNAVINST 6120.3A (Slavonic, 2019), ALNAV 015-23 (U.S. Navy, 2023), and BUMEDINST 6110.14A (Via, 2023)	SECNAVINST 6120.3A (Slavonic, 2019), ALNAV 015-23 (U.S. Navy, 2023), and BUMEDINST 6110.14A (Via, 2023)
DoDI 6200.06 (2016)	DHAPI 6200.06 (2017)	DAFI 48-170 (2020)	Department of the Army Pamphlet (DA PAM) 40-502 (2019)	SECNAVINST 6120.3A (Slavonic, 2019) and BUMEDINST 6110.14A (Via, 2023)	SECNAVINST 6120.3A (Slavonic, 2019) and BUMEDINST 6110.14A (Via, 2023)
DoDI 6490.03 (2019)	DHAPI 6490.03 (2017)	DAFI 48-122 (2020)	DA PAM 40-502 (2019)	MARADMIN 284-11 (U.S. Marine Corps, 2011), OPNAVINST 6100.3A (Moran, 2016), and BUMEDINST 6100.9 (Nathan, 2014)	NAVADMIN 207-08, OPNAVINST 6100.3A (Moran, 2016), and BUMEDINST 6100.9 (Nathan, 2014)

[a] Incorporated into and canceled by DoDI 6490.03.

and service-level policies could represent areas for improved consistency and alignment with policy across services.

In an Excel table, we compiled a matrix of DoDI and DHAPI requirements with each observation (or row) representing a single requirement. We then included a column for each service and identified whether the service's policy documents matched what DoDI or DHAPI required for each assessment type. In this table, we marked a service as "yes" if the policy fully incorporated DoDI or DHAPI policy, along with the corresponding reference. We marked the service column as "partial" if the service policy included some but not all of the details listed in the DoDI or DHAPI policy. We marked the service column as "no" if the service policy document did not include information related to DoDI or DHAPI requirement. Detailed results from the policy review are presented in Chapter 3 and Appendix A.

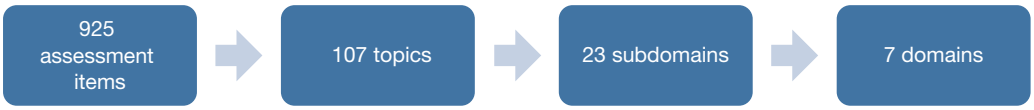
The policy review was completed between August 2023 and February 2024. Updates to relevant policies subsequent to that period are not captured in our analysis.

Health Readiness Assessment Review

The aim of the assessment review is to describe what topics are covered across the suite of health readiness assessments, identify redundancies across assessments, and document the burden of response by the type of respondent (i.e., service member, record reviewer, provider). We began at the item level and then aggregated into fewer categories—first into topics, then subdomains, and finally domains—as shown in Figure 2.1. More specifically, we first compiled all items (925 identified) from each of the five assessments (i.e., PHA, Pre-DHA, PDHA, PDHRA, and MHA) into an Excel worksheet. Initially, one member of the research team assigned each item (i.e., each assessment question) to a topic, which served as a brief descriptor of what the item assessed (e.g., alcohol use, sleep, pain). Across all the health assessments, 107 unique topics were identified. Multiple items could be included under one topic, though the topics themselves are mutually exclusive. That is, a single item could pertain to only one topic. As part of this process, the team member also identified the respondent type for each assessment item: the service member, a health care provider, or a record reviewer.

Multiple team members then reviewed each of the 107 unique topics and grouped them into 23 subdomains. For example, age, name, and gender are all topics that fell under the

FIGURE 2.1
Health Readiness Assessment Item Analysis Flowchart



NOTE: Numbers refer to totals across all health readiness assessments.

"Demographics" subdomain. Some topics fell into multiple subdomains; for example, deployability fell under the "Deployment Information," "Individual Medical Readiness," and "Treatment" subdomains.

As a final step, we then aggregated the 23 subdomains into seven overarching domains. These domains were mutually exclusive; thus, any given subdomain could be included in only one domain. Finally, we calculated the frequencies of topics, subdomains, and domains within each assessment, broken out by respondent type. Some subdomains have the same name as the domain they fall under. Results from the health readiness assessment review are presented in Chapter 4 and Appendix B.

As part of the health readiness assessment review, we also constructed a series of deployment scenarios based on different deployment-to-dwell ratios for service members (i.e., time spent in a deployment status in relation to time not spent in a deployed status) to better understand how response burden varies both across time and respondent. The various health readiness assessments were mapped onto deployment scenario configurations over a 24-month period and used either a 1:2 or a 1:3 deployment-to-dwell ratio (i.e., for every month deployed a service member is not deployed for either two or three months). For both ratios, we used deployment durations of three, six, nine, and 12 months, and we varied only the first deployment while holding subsequent deployments for the same service member constant in length. All scenarios started with an annual PHA, and the first deployment did not take place until month six, allowing for a full window of time to complete the Pre-DHA.

The health readiness assessment review was completed between August 2023 and March 2024. Any subsequent changes to assessment timing and content are not captured in our analysis.

Identification of Best Practices in Health Screening

To contextualize DoD's approach to monitoring health readiness of the force, we took two approaches to identifying best practices in health screening of the adult civilian population. The first utilized recommendations developed by the U.S. Preventive Services Task Force (USPSTF). The second explored policies and practices used by civilian occupations and organizations that expose employees to high-risk situations and environments. By comparing DoD's suite of health readiness assessments—in terms of both implementation and content—with these civilian best practices, we were able to identify potential gaps in DoD's approach to monitoring the health readiness of the force. Details about these analyses are provided in Chapter 5 and Appendix C.

U.S. Preventive Services Task Force Recommendations Review

USPSTF is an independent expert panel that reviews the evidence base for the effectiveness of preventive health services, such as routine health screenings, and develops recommendations based on those reviews (USPSTF, undated). Recommendations are assigned grades that

are tied to the task force's review of the evidence and the benefit of the screening in question. A and B grades indicate that the USPSTF recommends the screening and that there is a high certainty of substantial net benefits (for A grades) or a high-to-moderate certainty of moderate net benefits (for B grades) associated with the screening. Recommendations with these grades are suggested for use in practice by providers. C grades are assigned to recommendations in which the task force recommends that providers use a patient-by-patient approach; net benefits across the U.S. population are likely small. D grades indicate that the task force does not recommend that the screening procedure be used, as there is little evidence to support a net benefit associated with use, and potential for harm exists. Finally, I grades indicate that the current evidence base is insufficient to assess risk and benefits. Our analysis focuses on screening recommendations with a grade of A or B that apply to nonpregnant adults between the ages of 18 and 65 and that do not require additional provider interaction or a non-self-report test or procedure (e.g., a mammogram).[2]

Comparison with Similar Civilian Occupations and Organizations

We conducted a focused literature review to identify the preventive health processes, policies, and procedures used in high-risk civilian occupations and in organizations that have similar characteristics to DoD (i.e., they deploy employees to potentially dangerous environments). The key search terms can be found in Appendix Table B.2. Unfortunately, this effort did not lead to a sufficient number of relevant records to provide the information we were seeking (i.e., fewer than ten records were reviewed in their entirety after scanning titles and abstracts). The majority of the roughly 300 records were focused on entry standards (e.g., physical fitness test requirements), the association between standards or requirements (most often in terms of physical health) and job performance (again, also generally in terms of physical capabilities), or the effect of a treatment (e.g., new physical fitness program) on screening tests, standards, or performance, or they were in some other way not relevant to our task.

We then supplemented this search with a targeted review of specific police and fire department and government agency websites to identify their policies and practices with respect to periodic health readiness assessments. Specifically, we selected two large police departments and two large fire departments in metropolitan areas (New York and Los Angeles) and four government agencies: the Department of State, the U.S. Agency for International Development, the Federal Bureau of Investigation, and the Central Intelligence Agency. Two team

[2] Excluded recommendations include mammograms, cervical cancer screening, sexually transmitted infection/disease (STI/STD) screening, colon cancer screening, hepatitis screening, human immunodeficiency virus (HIV) screening, hypertension screening, lung cancer screening, diabetes screening, and bone density testing. Though we exclude them for this exercise, it is worth noting that PHA does include record reviewer items about mammograms, pap tests (i.e., cervical cancer screening), colon cancer screening, HIV screening, and blood pressure screening. It also includes a set of service member self-report items assessing risk for STI, though not actual screening for infections, as well as family history of many of these conditions that may have a hereditary component (e.g., diabetes, hypertension).

members conducted a systematic internet search starting with the agency's official employment or job website and then used key search terms (e.g., "health requirements," "health assessments," "annual physical," "annual assessment," "annual physical assessment," "annual health assessment," "physical fitness test," "physical fitness assessment," "fitness for duty"). Finally, we reviewed the Americans with Disabilities Act (ADA) to better understand any legal protections that employees may have regarding employer-mandated periodic health assessments.

Leader and Provider Interviews

We conducted semistructured qualitative interviews with stakeholders in DoD and the service branches who use data from the health readiness assessments. The interviews focused on stakeholders' perceived value of the assessments, how they used the data generated by each assessment, and their recommendations for improvement. Interviews were conducted with 18 stakeholders in DoD leadership roles and 18 providers with an oversight or clinical role in assessing service members.

Eligible interviewees were members of the United States Military (i.e., Army, Navy, Air or Space Force, or Marine Corps) who were either active component, reserve component (i.e., National Guard or reserves), or a government/DoD civilian. Contract staff were not eligible to participate in the study.

Leaders

In consultation with the study sponsor, we identified potential interviewees across Health Affairs, DHA, and the service branches who had a health care oversight/leadership role relevant to the health readiness assessments. We then contacted the leaders directly to invite them to participate in the study.

Providers

In collaboration with the study sponsor, we determined that providers would be selected from military treatment facilities (MTFs) from across the service branches, particularly those associated with installations determined to have a high operational tempo (i.e., a high number of deploying service members were located at these installations). In collaboration with the sponsor, we identified nine MTFs from which to select medical and behavioral health providers to interview.

These MTFs were tasked through DHA to identify a point of contact to assist with identifying provider interviewees. Each point of contact was asked to identify and provide contact information for three providers (two medical and one behavioral health provider) with either a dedicated role or active involvement in conducting the health readiness assessments. Table 2.2 lists the criteria for provider types, which were determined from the available provider type options from the health care provider portions of the health readiness assessments.

TABLE 2.2
Eligible Provider Types

Medical Provider	Behavioral Health Provider
Physician (MD, DO)	Psychiatrist (MD)
Physician Assistant (PA)	Clinical Psychologist
Nurse Practitioner (NP)	Other licensed mental health professional
Advance Practice Nurse (Clinical Nurse Specialist)	
Independent Duty Corpsman	
Independent Duty Health Services Technician	
Independent Duty Medical Technician	

Interview Guides

We developed two separate interview guides for leaders and providers. Table 2.3 lists our interview domains and topics; complete interview guides are provided in Appendix D. Interview questions were developed for the topics under our domains of interest, including experience with and perceptions of each assessment, perceived overlaps and gaps in the assessments, overall view of the assessment process, provider processing of assessments, and recommendations for improvement. Note that leaders were not asked about logistical aspects of referrals and tracking follow-up care after completed assessments, as these are topics better understood by providers. Similarly, providers were not asked about their perceptions of the overall health readiness assessment program, given that they have limited visibility across an entire service branch or the entire DoD.

Data Collection

Interviews were conducted remotely via phone or secure video conferencing using Microsoft Teams from November 2023 to March 2024. Each interview lasted approximately 60 minutes, and interviewees provided verbal consent to participate. Participants were informed that participation was optional, that the interview would not be recorded but would use the transcription feature in Teams, and that quotations would not be linked to their name, position, or MTF, if applicable. Because participants completed interviews during working hours, they did not receive an incentive for participating in the study.

During interviews, one research team member conducted the interview while another took transcript-style notes using a standardized note-taking template. After each interview, the note-taker cleaned the notes to remove any identifying information and ensure accuracy, relying on the transcription when necessary. Quotation marks were used to indicate verbatim statements, and brackets were used to enclose nonverbatim statements. After cleaning the interview notes, the note-taker passed the notes to the team member who conducted the

TABLE 2.3
Interview Domains

Interview Domain	Leader Interview Topics	Provider Interview Topics
Experience with and perceptions of each assessment	• Use of assessments • Perceived utility of assessments • Perception of timing of assessments	• Use of assessments • Perceived utility of assessments • Perception of timing of assessments
Overlaps and gaps	• Perception of redundancy across assessments • Perception of what could be removed from or added to assessments	• Perception of redundancy across assessments • Perception of what could be removed from or added to assessments
Overall view of health readiness assessments	• Perception of effectiveness of assessment process	Not applicable
Provider processing of assessments	Not applicable	• Process after service member is flagged for further care • Tracking of service members after referral • Perception of effectiveness of assessment process
Recommendations	• Recommendations for improvement	• Recommendations for improvement

interview for a final accuracy review. All transcripts and notes were stored on RAND file systems accessible only to team members.

Qualitative Data Analysis

We used a combination of inductive (bottom-up, through coding and review of data) and deductive (top-down, structured by interview domains) analysis to code and analyze data. Our coding team consisted of three individuals: two primary coders and one analysis lead who moderated weekly discussions on the analysis process and served as a secondary coder. We employed the rigorous and accelerated data reduction (RADaR) technique to organize, reduce, and analyze interview responses (Watkins, 2017). The RADaR technique is an iterative, individual, and team-based process to produce a more concise tabular presentation of textual data from which qualitative findings can be extracted and incorporated into project deliverables. This process is characterized by iteratively reviewing textual data in a tabular format (i.e., organized in rows and columns) and analyzing data, applying codes to them, and removing data not relevant to an overarching research question. We conducted data processing (i.e., data review, data reduction, and coding) in two successive stages and produced three unique data tables. We followed an approach to coding that was loosely based on grounded theory, in which codes are developed and refined in an iterative process according to the patterns and themes that emerge from the data (Charmaz, 2014).

To begin, we prepared a Phase 1 data table comprised of all textual data from finalized interview transcripts. In accordance with the RADaR technique, this table contained raw uncoded data formatted into rows and columns. To prepare the table, one of the primary coders manually copied the data from each of the participants' responses and pasted it into the corresponding cell of an Excel spreadsheet. The spreadsheet was structured by individual interview questions; each response was given one row. Columns denoted the participant ID, interview domain, question, and response. In preparation for iterative data reduction and coding, coders met to review the overarching study objective and research questions (see Chapter 1) and to develop one overarching question to guide their decisions about which data to remove—namely, What are the potential opportunities for improvement and increased efficiency across DoD's suite of health readiness assessments?

In preparation for the first round of data processing, after the Phase 1 data table was complete, this table was duplicated and renamed to create a Phase 2 data table template (i.e., to retain the original Phase 1 data table for reference). As a part of this process, we added columns for documenting the first round of data processing and analysis: notes, codes, and exemplar quotations. The notes column was used by coders to indicate observations about areas of commonality and difference across transcripts. The codes column was used to record focused codes pertaining to concepts of relevance to the research question. Coders used blue font and bolded text to highlight exemplar quotations, flagging rows with exemplar quotations in the 'Quotes' column. Coders then began rereading the textual data and removing material that was determined not to be relevant to the primary research question (e.g., individual sentences, paragraphs, or entire rows of data). Throughout this process, coders applied one or more initial codes to each row of data. Consistent with grounded theory, these initial codes were provisional and mapped closely to the content of participant responses (Charmaz, 2014).

In a slight departure from the steps described in the RADaR method, coders conducted multiple rounds of data processing on a subset of transcripts during the first round of analysis and coding (i.e., within the Phase 2 data table). The purpose of this was to practice iterative removal of textual data that was not relevant to the research question and to reach agreement between coders on decisionmaking. During this training period, the secondary coder reviewed deletions and code assignments made by each of the primary coders, and the coding team met regularly to discuss the reasoning they used in reducing and coding the data. Another goal of this step was to further refine the codes to eliminate redundancy and clarify code definitions.

A list of codes used by both primary coders was compiled into an Excel sheet and categorized into parent and child codes, to be referenced and adjusted during the data reduction steps of the RADaR technique. Parent codes mapped loosely to interview domains and included the following: workflow/review process, usefulness of assessments and/or items, challenges/barriers, and recommendations. After approximately 50 percent of all transcripts were processed at least three times by one coder, the coding team met to reach agreement on the codes to be included in a structured codebook. To expedite the refinement of child codes, the coding team met with the larger study team to develop a list of intermediate codes

(e.g., implementation, referral/follow-up, patient-provider relationship, resource issue) that could be used to explicate meaning and synthesize emerging concepts across parent and child codes. Finally, to facilitate our assessment of thematic content in later stages of analysis, we assigned descriptors to each interview:

- interview type (leader, provider)
- service branch
- military status (military, DoD civilian)
- role/title
- organization (leaders only) or provider type (providers only)
- experience with each assessment.

Once the process of codebook development and refinement was complete, coders continued with the first round of data processing on the remaining transcripts in the Phase 2 data table. Coders continued to modify code labels and definitions during this stage as additional transcripts were reviewed and processed. Once all transcripts had been reviewed, reduced, and coded at least once by at least one coder, the Phase 2 data table was complete.

In the second complete round of data processing, the Phase 2 data table was duplicated and renamed to create a template for the Phase 3 data table. At this point, coders switched assignments to ensure that a second coder reviewed, reduced, and coded every transcript. As with previous rounds of data processing, coders made notes about observed areas of similarity and difference and added additional codes (or refined versions of codes entered by the previous coder) to the "Codes" column if needed. Coders continued to meet on a weekly basis to discuss decisions to remove data and to reach a consensus on the application of codes. Once this stage was complete, all transcripts had been reduced through at least two rounds of deletions; and all transcripts had been reviewed by at least two coders to apply parent, child, and intermediate codes.

Although several interview questions for leaders and providers differed, participants of both types tended to comment on their overall perspectives and experiences with health readiness assessments. We therefore synthesized findings across all participants rather than dividing them by interview type. We provide detail on participant characteristics (e.g., interview type, service branch) only where necessary for clarification or context. We describe the prevalence of themes using consistent language to indicate the approximate percentage of different interviewees who discussed a concept. We use *few* or *a few* to refer to concepts discussed by one, two, or three participants (i.e., fewer than 10 percent); *some* for content discussed by approximately 10 to 40 percent of participants; and *many* to refer to themes discussed by more than 40 percent.

Training and Quality Assurance

The lead analyst trained both primary coders in the RADaR technique. In a departure from the RADaR method, we conducted an extensive training period over the course of one month

with 16 transcripts (eight providers, eight leaders). Working within the Phase 2 data table, one coder completed multiple rounds of data reduction and coding on each transcript. The purpose of this training period was to build coder familiarity with standards for data reduction and to reach a consensus on code definitions. The lead analyst reviewed each coder's data reductions and codes; and all met weekly as a team to discuss the process of data reductions, identifying discrepancies, and refining codes/themes. After this training period was complete, each of the remaining 20 transcripts was analyzed and coded by one coder (i.e., with one round of data reduction and coding per transcript) in order to finish Phase 2. In preparing the Phase 3 data table, each of the transcripts was then analyzed and coded by a second coder. In total, all 36 transcripts were independently analyzed and coded by two separate coders, and a subset (20 percent) was reviewed by a third coder (the lead analyst) for quality assurance. Throughout the training period and processing of double-coded transcripts, coders merged decisions about data reductions, codes, and themes and created an integrated data table.

CHAPTER 3

Policy Review

In this chapter we present the results of our policy review, which focused on assessing (1) what guidelines exist for implementation of the suite of health readiness assessments and (2) whether service-level policies align with DoD and DHA policies, with a focus on the level of detail contained in each. Our analysis sought to do several things. First, we wanted to identify exactly what relevant policy documents, including both DoDIs and DHAPIs, instruct the services to do. Second, we wanted to understand where service-level policy documents might differ from the higher-level DoD policies. Third, where we did find differences, we wanted to better understand the context for those differences. Areas where policies do not align might represent areas for improved consistency and increased efficiency across DoD.

Note that this policy review can tell us only how health readiness assessments are *intended* to be implemented, not how they are *actually* implemented. Also note that any pending changes to these policies at the time of writing the report are not reflected in our analysis, as these documents were not in the public domain. We provide a brief overview of the results of the policy analysis here and provide some examples of where DoD- and service-level policy do not align. Complete, detailed results are presented in Appendix A.

In the rest of this chapter, we use the language used in each policy to describe the actor (i.e., who is responsible for implanting guidance), but note that this language is inconsistent across policies. Some refer to DoD components, which includes the services, whereas others refer to services or service branches, and yet others refer to the active (or active-duty) or reserve component.

Department of Defense and Defense Health Agency Policy Guidance

The purpose of DoDI 6200.06 (2016) is to establish DoD policy requirements, oversight, and development of the annual PHA. This DoDI aims to standardize the PHA as a tool used by each military service to assess the IMR status of service members. It outlines specific requirements that DoD services, combatant commands, installations, units, commanders, service members, and other entities within DoD have regarding the PHA process. The corresponding

implementation guidance is DHAPI 6200.06, which lists procedures for annual PHAs in active duty and reserve components of DoD.[1]

DoDI 6490.03 (2019) outlines the deployment health activities required for all service members. It directs DoD components, including the service branches, to conduct health assessments before, during, and after joint and service-specific deployments to assess and manage health risks. DHAPI 6490.03 is the corresponding implementation guidance that directs DoD components to execute and monitor all deployment health activities across a deployment cycle.

DoDI 6490.12 (2013) was incorporated into and canceled by DoDI 6490.03 but was still relevant to our study because service documents still refer to some of its material in their policies. This DoDI provided guidance on the implementation of a person-to-person mental health assessment associated with deployments. As stated in the DoDI, the purpose of this deployment-related mental health assessment is "to identify mental health conditions including post-traumatic stress disorder, suicidal tendencies, and other behavioral health conditions that require referral for additional care and treatment in order to ensure individual and unit readiness" (DoDI 6490.12, 2013, p. 5). This policy was incorporated into the Deployment Health DoDI 6490.03.

DoDI 6025.19 (2022) directs DoD components to assess all service members for IMR at least annually.

Service-Level Policy Guidance

Table 3.1 is a high-level summary of whether and how the services' policy documents align with the level of detail found in DoDI or DHAPI guidance. In large part, we found that service-level documents conform with DoD and DHA policies, but in some instances they

TABLE 3.1
Summary of Specificity of Service-Level Policy Language Alignment with Department of Defense Policy Language

Does Service-Level Policy Align with Level of Specificity of DoD Policy?	Air Force	Army	Marine Corps	Navy
Yes, full alignment	98	84	104	104
No, does not align	6	13	2	2
Partially aligns (level of specificity differs)	10	17	8	8
Total	114	114	114	114

NOTE: Among all DoDI and DHAPI documents we reviewed, we identified 114 distinct requirements for which services have a responsibility.

[1] "Active duty and reserve component" is the language used in the DHAPI.

do not contain the same level of specificity. On the surface, this may make it appear as if the service does not comply with DoD and DHA policies. In reality, however, this inconsistency is due in part to differences in how services write their policy documents and likely does not reflect actual differences in implementation (although a policy assessment alone cannot determine whether there are actual discrepancies in implementation).

Department of Defense Instruction 6200.06 and Defense Health Agency Procedural Instruction 6200.06

We found a few notable differences when comparing these policies with service-level policy language. One difference related to where and how assessments are conducted. DoDI 6200.6 directs components, including the military services, to conduct a person-to-person mental health assessment between the service member and a health care provider, though the interaction need not be in person (i.e., it can be virtual). Army policy is unclear as to whether the MHA is person-to-person. The DoDI also directs the components to have each service member complete a comprehensive, web-based annual PHA. As with the MHA, Army policy is unclear as to whether this is web based. Rather, it notes that the service member completes a portion of the PHA prior to their PHA appointment. Clarifying the DoDI requirement in Army policy could reduce any ambiguity in how assessments are intended to be implemented and reduce the likelihood of inconsistency and inefficiency across the services.

We also noted that both the DoDI and the DHAPI direct service branches to utilize the International Classification of Diseases (ICD-10) for their PHA systems of record. However, in every service-level document, it is unclear whether they use the ICD-10 in their systems of record. This is likely an instance where service-level documents do not provide the degree of detail outlined in the DoDI or the DHAPI, but in practice follow suit, as use of ICD-10 is the current standard across DoD and civilian health care systems.

Department of Defense Instruction 6490.03 and Defense Health Agency Procedural Instruction 6490.03

We identified some instances in which language in DoDI 6490.03 and the corresponding DHAPI did not appear to align with service-specific policies. These policies dictate when a DoD component should conduct a medical assessment before, during, and after a deployment. They note that services should conduct the full range of assessments for deployments outside the continental United States (OCONUS) that are greater than 30 days. While it is not a service requirement to do so, the Air Force is the only service that indicates their own requirements for OCONUS deployments that are less than 30 days. All service-level policies are also unclear on the definition of a deployment. That is, if a service member deploys OCONUS on temporary duty for greater than 30 days, but is not tied to a named operation, it is unclear whether this is noted as a deployment that would require the full range of health assessments. This is another area where increased precision in policy language could reduce ambiguity and the likelihood of inconsistency—and inefficiency—across the services.

Department of Defense Instruction 6490.12

We identified two minor discrepancies between this DoDI and service-level policy. First, DoDI 6490.12 notes that health care providers will notify a service member's commander of any concerns that meet the criteria for disclosure in DoDI 6490.08. Navy policy documents do not indicate whether this occurs. Moreover, all service-level documents lack specifics on how this is implemented. They do not discuss whether providers email or call a commander or what the specific process is to notify a commander of such concerns. Second, DoDI 6490.08 also notes that mental health assessments tied to deployments follow a three-stage process, outlined in Table 3.2. All service policies are unclear whether they follow a three-stage process for the deployment MHA.[2] However, because this DoDI has been superseded, the three-stage process may no longer be a requirement.

TABLE 3.2
Mental Health Assessment Requirements

Stage	Requirement
1	"Stage 1 involves the completion of a self-report survey which includes initial screening questions that are completed by all deploying Service members. This stage is designed to detect potential problem areas and define high-risk groups."
2	"In Stage 2, all deploying Service members complete additional questionnaires if the Stage 1 screening for either PTSD or depression is positive. This stage is designed to 'drill down' to PTSD and depression criteria, measure symptom severity, and help providers identify concerns for further evaluation or treatment."
3	"Stage 3 is the person-to-person provider interview during which the provider reviews and clarifies responses, identifies areas of concern, conducts Brief Intervention for Risky Drinking (if applicable), and provides referrals for further evaluation or treatment as indicated. It is during this stage that the provider also assesses for risk of suicide or violence toward others."

SOURCE: U.S. Department of Defense Instruction 6490.12 p. 6 (2013).

Department of Defense Instruction 6025.19

Our review of DoDI 6025.19 identified three differences in language used in service-level policy. First, the DoDI provides detailed descriptions for whether a service member is considered fully medically ready, partially medically ready, or not medically ready. Not all services utilize this same readiness category system in their specific policies. The DoDI also directs components to assess and document service members' medical readiness at each primary care visit to an MTF. All services note this in their relevant policies except for the Army.

Second, DoD policy also directs that at each PHA, a service member should understand their requirement to report significant health information to their chain of command and facilitate disclosure of significant health information by any non-DoD health care provider to

[2] Later in the report we refer to the deployment MHA as the in-theater MHA as per the revised DHAPI 6490.03 (refer to Chapter 4).

an MHS health care provider. In the former case, Air Force policy does not mention whether an airman or guardian should understand their individual responsibility to report significant health information for each PHA. Navy policy does not mention disclosing information from a non-DoD health care provider.

Finally, the policy also directs DoD components to provide quarterly reports to the DHA IMR program manager summarizing the IMR status of all service members in the active and reserve components. Only the Navy indicates this requirement in its service-level policies; however, this is not necessarily indicative of noncompliance in practice.

Summary

In this chapter, we have briefly reviewed the results of our policy review, which focused on the guidelines in place for service-level implementation of the suite of health readiness assessments, with an emphasis on whether the specificity of language used in DoD policy is mirrored in service-level policy. This exercise was intended to help us understand where opportunities for inconsistencies and ambiguity in implementation may exist and thus where areas for increased consistency and efficiency may be found. In general, we found that the level of specificity in service-level policies largely mirrors that found in DoD policy. Rarely do service policies simply not address a requirement found in DoD policy. These findings suggest that changes in policy are likely not a viable target for increasing efficiency in the implementation of health readiness assessments. Nonetheless, reduced ambiguity—in the form of increased clarity in policy language—may still be desired, especially in the services. Reduced ambiguity can help to clarify the appropriate mode for assessments, when a deployment-related assessment is triggered, processes related to command notification, definitions of medical readiness levels, and service member requirements related to self-reporting significant health events within the context of health readiness assessments.

CHAPTER 4

Health Assessments Content Review

In this chapter, we provide a more detailed review of the content of DoD's suite of health readiness assessments. As previously discussed, the assessments include the annual PHA; the Pre-DHA completed within 120 days of a deployment; the PDHA completed within 30 days before or after return from a deployment; the PDHRA completed between 90 and 180 days after return from a deployment; and the MHA, which is included in the PHA, Pre-DHA, PDHA, and PDHRA. The MHA is also required every 180 days in theater and within 21 days of the end of redeployment leave.

We begin with a description of the domains, subdomains, and topics covered in each assessment, including individual item counts by each category as well as by respondent type (i.e., service member, provider, and record reviewer). This is followed by a mapping exercise in which we compare item counts and respondent burden across a set of eight different deployment scenarios with varying deployment-to-dwell ratios.

Content of Health Readiness Assessments

Table 4.1 provides the individual item count associated with each of the health readiness assessments. In our analysis, each individual item, or question, in an assessment was counted. That is, for composite measures, scales, or screeners (e.g., Columbia-Suicide Severity Rating

TABLE 4.1
Item Count by Assessment Type

Assessment	Item Count	Percentage of Total
PHA	361	39.0
Pre-DHA	108	11.7
PDHA	196	21.2
PDHRA	157	17.0
MHA	103	11.1
TOTAL	**925**	**100**

NOTE: Items in the MHA also appear in the PHA, Pre-DHA, PDHA, and PDHRA.

Scale [C-SSRS]), each item within the measure, scale, or screener was counted separately. The total item count across all assessments was 925, with the largest share of those items occurring in the PHA (39.0 percent), followed by the PDHA (21.2 percent), the PDHRA (17.0 percent), the Pre-DHA (11.7 percent), and the MHA (11.1 percent). It is important to note that there is some degree of overlap, as the MHA items are repeated in the PHA, the Pre-DHA, the PDHA, and the PDHRA.

We assigned each of the 925 total items to a unique topic. These topics were then grouped into subdomains, which were then grouped into domains. This aggregation is shown in Figure 4.1. Table 4.2 lists all topics that fell into each subdomain (grouped by domain).

Domain-Level Results

Table 4.3 shows the coverage of each domain across the health readiness assessments. Both the PHA and the Pre-DHA contained items that fell into each of the seven content domains. Both the PDHA and the PDHRA contained items in all but the IMR and sexual and reproductive health domains. MHA content was focused on the behavioral health, demographic and background information, deployment information, and treatment domains.

Subdomain-Level Results

Table 4.4 provides item counts by domain, subdomain, and respondent. Not surprisingly, service members have the largest burden across all assessments and are required to respond to over half of the items (576 individual items; 62 percent). The items are clustered mainly in two domains: behavioral (237 items; 41 percent) and physical (151 items; 26 percent). Within these two domains, most items fall into the following subdomains: behavioral health (e.g., depression, PTSD, alcohol use) and physical health (e.g., the Physical Health Questionnaire 15 [PHQ-15], a somatic symptom severity measure).[1] The remaining service member items fall into the following domains: background and demographics (69; 12 percent), deployment information (59; 10 percent), treatment (25; 4 percent), sexual and reproductive health (20; 3 percent), and IMR (15; 3 percent).

Providers complete 298 items, the majority of which are in the behavioral health domain (142; 48 percent), followed by the demographics and background information domain (56; 19 percent) and the deployment information domain (42; 14 percent). The remaining provider items fall into the following domains: treatment (41; 14 percent), physical health (14; 5 percent), and IMR (3; less than 1 percent), as shown in Table 4.1. No provider items are included in the sexual and reproductive health domain. Within the behavioral health domain, most items fall into the behavioral health subdomain (e.g., suicide and other violence/harm risk, stressors, depression, PTSD, alcohol use).

[1] Behavioral health is both a domain and subdomain, as is physical health.

FIGURE 4.1

Domain and Subdomains Identified in the Assessment Item Analysis

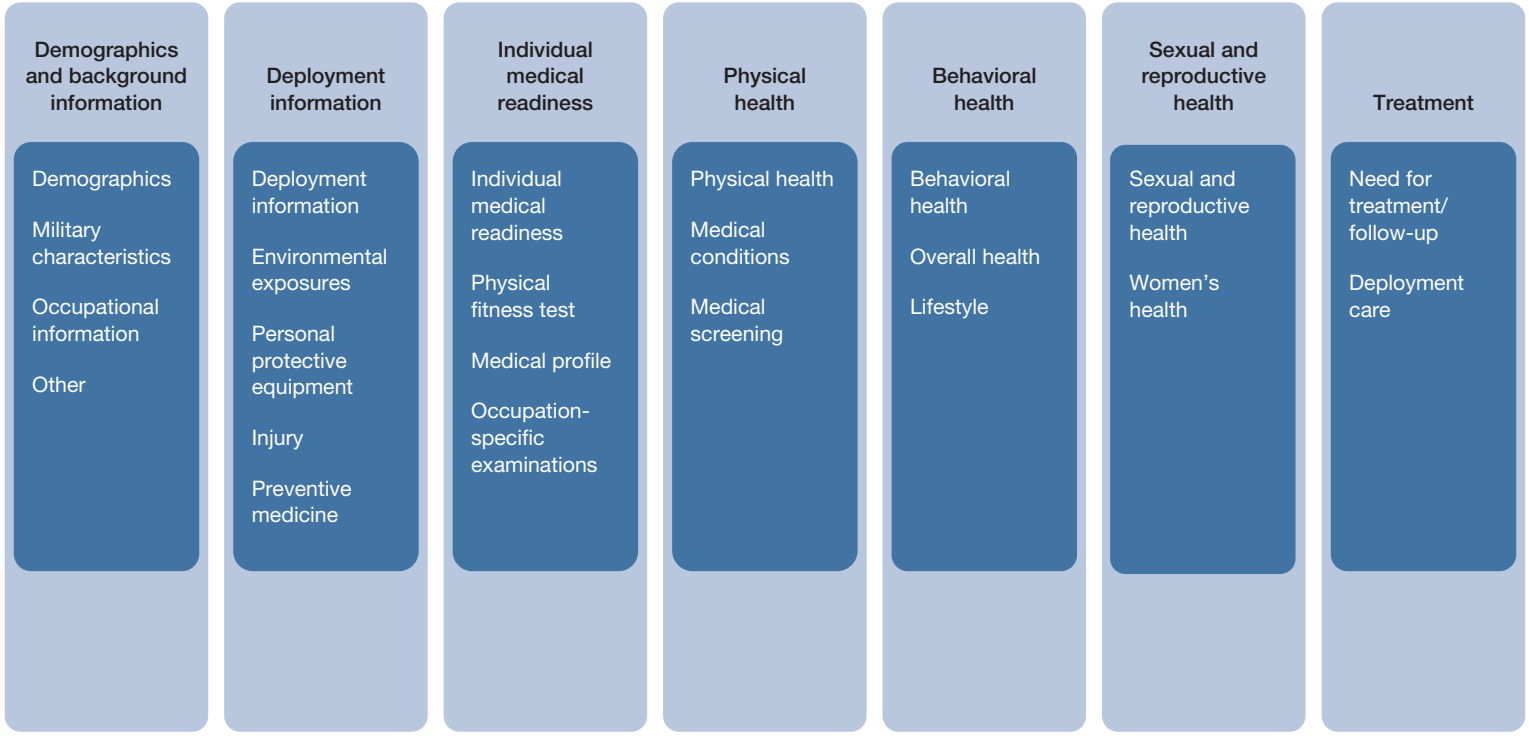


TABLE 4.2

List of Assessment Item Topics by Domain and Subdomain

Demographics and Background
Demographics: age, birth date, gender, name, provider type, Social Security number (SSN)
Military characteristics: component, Department of Defense identification (DoD-ID), duty station/location, facility, first PHA, pay grade, provider messaging system, purpose, service branch, status, unit identification code, unit name
Occupational information: enrollment in surveillance/health program, military job duties, military occupational code, physical exam requirement
Other: address, comments, contact information, current assessment, date of assessment, date of review, previous assessment, reporting requirement, separation/retirement, service member declined assessment, signature
Deployment Information
Deployment information: combat exposure, date of deployment, deployability, deployment injury, next deployment, overdue assessments, previous assessment, previous deployment, provider referral, treatment
Environmental exposures: airborne, chemical agents, depleted uranium, exposure, provider referral, rabies
Personal protective equipment (PPE): devices
Injury: blast/explosion, fragment/bullet wound, other injury, TBI
Preventive medicine: immunizations, malaria
Individual Medical Readiness
IMR: corrective lenses, dental assessment, deployability, IMR stats, medical equipment
Physical fitness test: waiver
Medical profile: disability, health insurance, limited duty due to health condition, physical/mental health limitations
Occupation-specific examinations: previous assessment
Physical Health
Physical health: cholesterol, deployment injury, family history, height, limited duty due to health condition, medications, noise/hearing problems, pain, provider referral, symptom checklist, weight
Medical conditions: allergies, health condition since last assessment, medical equipment, surgery, treatment
Medical screening: allergies, blood pressure, cholesterol, colon cancer screening, immunizations, limited duty due to health conditions, medications, sickle cell trait, surgery, treatment
Behavioral Health
Behavioral health: alcohol use, depression, gambling, medications, provider referral, PTSD, sleep, stressors, suicide risk, tobacco use, received treatment for a behavioral health concern, violence/harm risk

Table 4.2—Continued

Behavioral Health—continued
Overall health: overall health concerns, physical/mental limitations, self-rated health
Lifestyle: food/beverage consumption, physical activity, supplements, vitamins
Sexual and Reproductive Health
Sexual/reproductive health: contraception, medical readiness and laboratory studies, pregnancy, sexually transmitted infection/disease (STI/STD)
Women's health: cervix operation, gestational diabetes, health records, hysterectomy, mammogram, menopause, menstrual cycle, pap test, urinary tract infection (UTI)
Treatment
Need for treatment/follow-up: comments, deployability, LOD care, provider referral, self-referral
Deployment care: Received treatment before or upon return from deployment

NOTE: Bold text indicates domain. Italic text indicates subdomain. Normal text indicates topic.

TABLE 4.3
Domains Covered by Each Health Assessment

Assessment	Demographics and Background Information	Deployment Information	Individual Medical Readiness	Physical Health	Behavioral Health	Sexual and Reproductive Health	Treatment
PHA	X	X	X	X	X	X	X
Pre-DHA	X	X	X	X	X	X	X
PDHA	X	X		X	X		X
PDHRA	X	X		X	X		X
MHA	X	X			X		X

Record reviewers complete 51 items, with most falling into the physical health domain (19; 37 percent); and the remaining items in demographics and background (12; 24 percent), sexual and reproductive health (11; 22 percent), IMR (5; less than 1 percent), deployment information (2; less than 1 percent), and treatment (2; less than 1 percent). No record reviewer items are in the behavioral health domain. Most items in the physical health domain are in the medical screening subdomain. These items include questions to document the dates of the service member's most recent preventive screenings (e.g., blood pressure, cholesterol, colon cancer [if applicable]), recent medical procedures or treatments (e.g., surgeries), immunization status, and duty status restrictions or medical profiles. Note that addressing many of these items requires the record reviewer to access the service member's electronic health record, which may reside in a different information technology system from the one used to complete a health readiness assessment.

TABLE 4.4

Item Count by Domain, Subdomain, and Respondent

Behavioral Health Domain				
	Behavioral Health	Lifestyle	Overall Health	Total
Service member	208	22	7	237
Health care provider	123	0	19	142
Record reviewer	0	0	0	0
Total	331	22	26	379

Demographics and Background Information Domain					
	Demographics	Military Characteristics	Occupational Information	Other	Total
Service member	18	28	4	19	69
Health care provider	12	16	0	28	56
Record reviewer	2	4	0	6	12
Total	32	48	4	53	137

Deployment Information Domain						
	Deployment Information	Environmental Exposures	Injury	Personal Protective Equipment	Preventive Medicine	Total
Service member	27	14	9	3	6	59
Health care provider	25	12	1	0	4	42
Record reviewer	2	0	0	0	0	2
Total	54	26	10	3	10	103

Individual Medical Readiness Domain					
	IMR	Medical Profile	Occupational-Specific Examinations	Physical Fitness Test	Total
Service member	2	11	0	2	15
Health care provider	3	0	0	0	3

Table 4.4—Continued

Individual Medical Readiness Domain					
	IMR	Medical Profile	Occupational-Specific Examinations	Physical Fitness Test	Total
Record reviewer	2	1	2	0	5
Total	7	12	2	2	23

Physical Health Domain				
	Medical Conditions	Medical Screening	Physical Health	Total
Service member	37	0	114	151
Health care provider	0	0	14	14
Record reviewer	0	16	3	19
Total	37	16	131	184

Sexual and Reproductive Health Domain			
	Sexual/Reproductive Health	Women's Health	Total
Service member	11	9	20
Health care provider	0	0	0
Record reviewer	7	4	11
Total	18	13	31

Treatment Domain			
	Deployment Care	Need for Treatment/Follow-Up	Total
Service member	5	20	25
Health care provider	0	41	41
Record reviewer	0	2	2
Total	5	63	68

SOURCES: Compiled from PHA, Pre-DHA, PDHA, PDHRA, and MHA.

Topic-Level Results

Given the level of detail, results for the topic-level analysis are presented in tabular form in Appendix B. We highlight a few key findings here. First, for service members, behavioral health items—especially alcohol use, depression, PTSD, and stressors—are repeated across all assessments, with PTSD having the largest share of individual items. Physical health items are split primarily between the PHA and the two post-deployment assessments (i.e., the PDHA and PDHRA). The PHA includes a lengthy family history section, an overview of any changes to the service member's physical health since the prior PHA, and a list of conditions that may have led to the service member being on a medical profile for limited duty. The two post-deployment assessments both include a lengthy symptom checklist that covers everything from back pain to trouble sleeping.

Second, for providers who complete the assessments, items are consistently spread across all the health readiness assessments. Behavioral health items are dominated by suicide risk screening; these items are only asked by the provider (i.e., service members do not complete any suicide or self-harm items on the self-report section of the assessments). Not surprisingly, most of the provider items are related to indicators of various referrals for the service member to receive further treatment, and these referral items are also spread across all the health readiness assessments.

Third, although record reviewers have fewer items than either service members or providers who complete the health assessment, as noted earlier, their tasks often require using data from a service member's electronic health record. For instance, they may need to confirm the service member's vaccination history, review any medications the service member may be taking, document any significant care the service member may have had outside MHS, and generally look over the responses to the health assessment items and the patient's record to see if there are any obvious anomalies.

Validated Measures

We identified that some topics were assessed using existing, validated measures. Validated measures are existing standardized measures that have been evaluated according to on specific criteria (e.g., reliability, validity). The seven validated measures are provided in Table 4.5. The Alcohol Use Disorders Identification Test—Concise (AUDIT-C) includes three items assessing unhealthy alcohol use and appears in all five assessments (Bush et al., 1998). All of the assessments include the Posttraumatic Stress Disorder Checklist—Civilian Version (PCL-C) (Weathers et al., 1993). The PCL-C is a 17-item older version of the PCL-5 (Weathers et al., 2013), which was published in 2013 and updated the measure to align with the latest diagnostic criteria. The eight-item version of the Patient Health Questionnaire (PHQ-8)[2] assesses depression symptoms in all five assessments. However, in all assessments, the PHQ-2 screener is used, and only service members who meet a symptom threshold are asked the remaining PHQ-8 items (Kroenke, Spitzer, and Williams, 2003). The CSSR-S consists of eight

[2] The PHQ-8 is a derivative of the PHQ-9 but does not include the item about suicide ideation.

TABLE 4.5
Validated Measures Included in Health Assessments

Topic	Scale
Unhealthy alcohol use	AUDIT-C
PTSD	PCL-C
Depression	PHQ-8 and PHQ-2
Suicide severity	C-SSRS
Somatic symptom severity	PHQ-15
Problematic gambling	Brief Biosocial Gambling Screen
TBI	Brief Traumatic Brain Injury Scale

items[3] and appears in the PHA, the PDHA, and the MHA (Posner et al., 2011). The Pre-DHA and the PDHRA also include a measure of suicide risk, but they do not use the C-SSRS. It is important to note that the suicide risk items are not in the service member self-report section. Rather, they are items that providers ask service members during the person-to-person portion of each assessment. The PHQ for somatic symptoms (PHQ-15) is 15 items and appears in the PDHA and PDHRA; it does not appear in the PHA, the MHA, or the Pre-DHA (Kroenke, Spitzer, and Williams, 2002). The Brief Biosocial Gambling Screen is three items and appears only in the PHA (Gebauer, LaBrie, and Shaffer, 2010). The Brief Traumatic Brain Injury Scale is a modified combination of 14 items that appear only in the PDHA (Schwab et al., 2006).[4]

Notably absent from the assessments is a standardized measure for anxiety. The seven-item generalized anxiety disorder measure (GAD-7) and the two-item generalized anxiety disorder screener (GAD-2) are validated measures that are used frequently in clinical practice (Kroenke et al., 2007; Spitzer et al., 2006). In the next chapter, we review how the items and validated measures included in the health assessments align with recommended preventive screenings.

Mapping Health Readiness Assessments to Deployment Scenarios

To better understand health readiness assessments requirements over time, we created two sets of scenario configurations based on deployments over a 24-month period and mapped out each health readiness assessment accordingly. In the first set of configurations, we focus on a 1:2 deployment-to-dwell ratio (Figure 4.2); in the second set, we focus on a 1:3 deployment-to-dwell ratio (Figure 4.3). In both, we use deployment durations of three, six, nine, and 12 months, varying only the first deployment while holding subsequent deployments

[3] Note that the original CSSR-S is only six items, two of which are double-barreled (i.e., contain two questions in one).

[4] The original Brief Traumatic Brain Injury Scale is three items with subcomponents. The items and subcomponents are distributed differently in the PDHA version.

FIGURE 4.2

Health Readiness Assessment Completion Scenario Based on 1:2 Deployments-to-Dwell Ratio Within a 24-Month Period

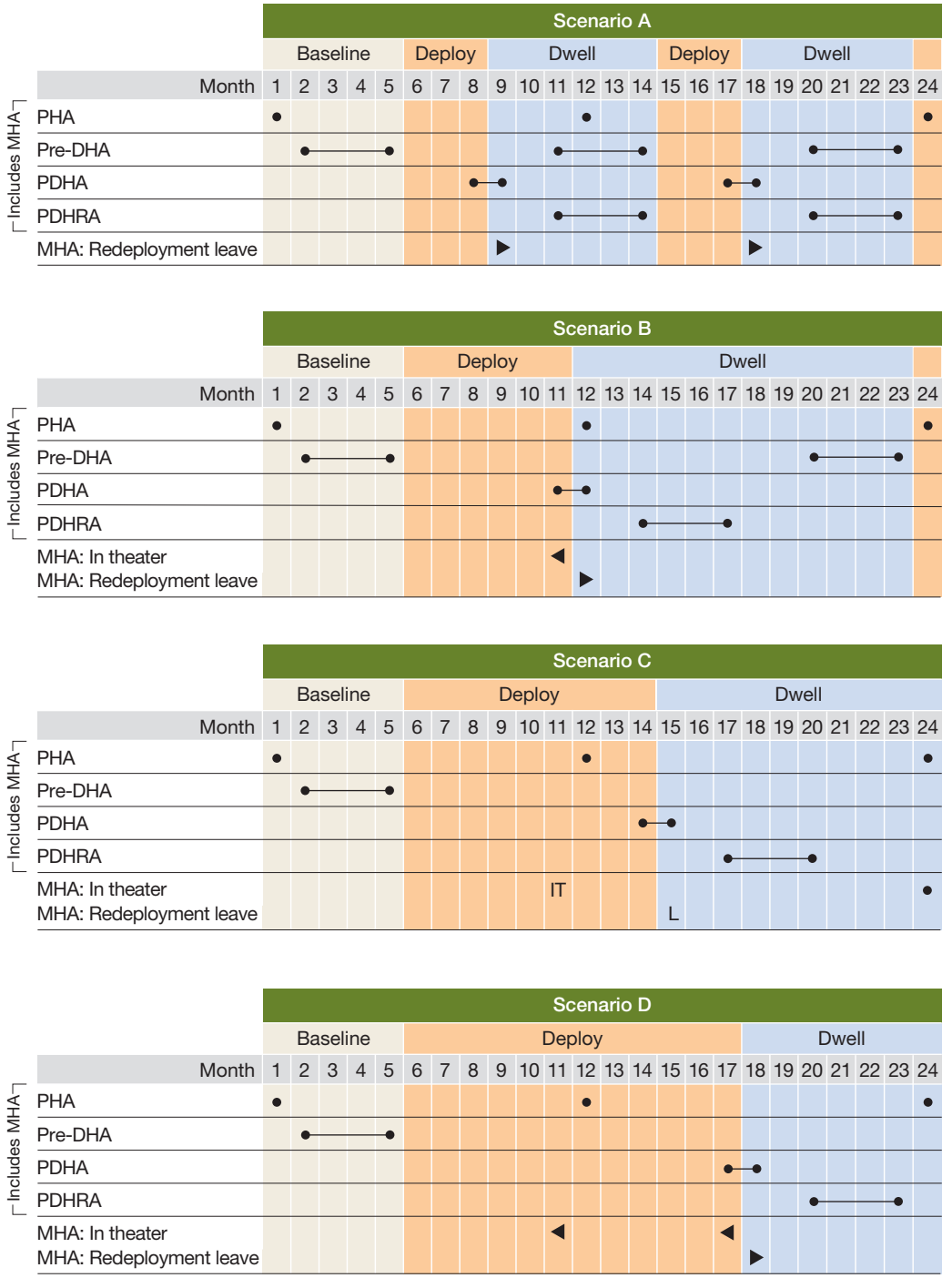
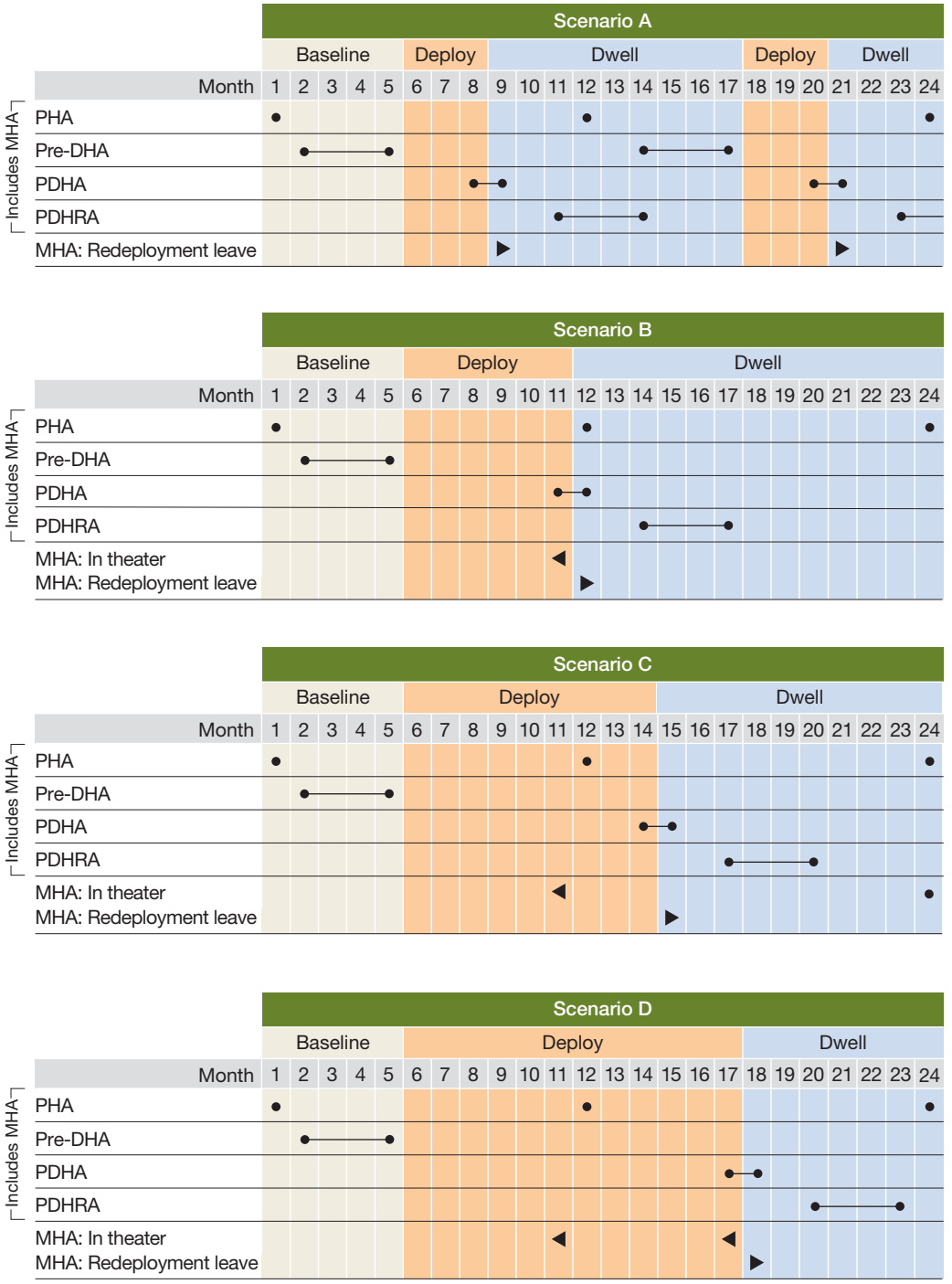


FIGURE 4.3

Health Readiness Assessment Completion Scenario Based on 1:3 Deployments-to-Dwell Ratio Within a 24-Month Period



constant in length. We also assume that the scenario starts with an annual PHA and that the first deployment does not take place until month six, allowing for a full window of time to complete the Pre-DHA.

Guided by DHAPI 6490.03, each assessment is mapped onto a service member's time in deployment. Each assessment is shown at the time it is designed to be conducted, which depends on an initial or annual evaluation and the service member's time in deployment. The policy guidance specifies that the following assessments be completed within a given time period: the Pre-DHA within 120 days of pre-deployment, the PDHA within 30 days before or after return from deployment, and the PDHRA within 90–180 days post-deployment. Recent updates to DHAPI 6490.03 require an MHA every 180 days in theater and within 21 days of the end of redeployment leave. For ease of interpretation, we assume the redeployment leave MHA occurs in the first month (i.e., 30 days) after a deployment. These time periods are illustrated in Figures 4.2 and 4.3 as an open window of time (with a line representing the span of time) designated to complete the assessments.

We acknowledge that deployment-to-dwell ratios may vary by need (i.e., special waivers granted for shorter than 1:1 ratios) and that multiple deployments within a given period may be different (i.e., three months deployed, nine months dwell, followed by six months deployed, 18 months dwell). We also acknowledge that some service branches and MTFs may have other standard practices for completing assessments not depicted here, such as completing the MHA concurrently with other assessments. These configurations are intended to serve as a foundation illustrating the length of time that lapses and potentially overlaps between various assessments.

We note overlap in assessments across these scenarios, especially the possibility for redundancy in completing the MHA. In Figure 4.2, which depicts a 1:2 deployment-to-dwell ratio, we find the following:

- For a three-month deployment (Scenario A), an annual PHA can occur adjacent to or overlapping with a Pre-DHA, both of which include an MHA. Similarly, a PDHA (with MHA) can overlap with a redeployment leave MHA. It is also possible for a PDHRA to overlap with both an annual PHA and a Pre-DHA, all three of which contain an MHA.
- With a six-month deployment (Scenario B), some of the overlap across assessments disappears (Scenario B). However, it is still possible for an annual PHA to occur adjacent to a Pre-DHA, both of which contain an MHA. In longer deployments, the in-theater MHA, redeployment leave MHA, and PDHA (with MHA) may all be required within a two-month period.
- In the nine-month deployment scenario (Scenario C), annual PHA and Pre-DHA adjacency may still exist. The in-theater MHA may also be adjacent to the annual PHA, depending on the service member and when the PHA is due. Overlap between the PDHA (with MHA) and the redeployment leave MHA is still a possibility, and in this scenario, the PDHRA (with MHA) may also be completed as soon as two months later.
- The overlap seen in the nine-month scenario is still present in the 12-month scenario (Scenario D).

In Figure 4.3, which depicts a 1:3 deployment-to-dwell ratio, we find the following:

- In Scenario A, a three-month deployment, we again see the possibility of an adjacent PHA (with MHA) and Pre-DHA (with MHA) and possible overlap between the PDHA (with MHA) and redeployment leave MHA. The most notable difference between the 1:2 and 1:3 ratio scenarios is that the timing between assessments is extended.
- In the six-month deployment scenario (Scenario B), we see even less overlap between the post-deployment assessments. Although an in-theater MHA, redeployment leave MHA, and PDHA (with MHA) can all be required within a two-month period, the lengthy dwell period of 18 months lessens the chances of assessment overlap.
- As the length of deployment increases in Scenario C (nine months) and Scenario D (12 months), the time between assessments increases even more, although adjacent assessments are possible (e.g., an annual PHA and Pre-DHA; an in-theater MHA and annual PHA; an in-theater MHA, PDHA with MHA, and redeployment leave MHA).

This exercise leads us to conclude that shorter deployments are more likely to be associated with overlap between assessments and that a longer deployment-to-dwell ratio has marginal impact on this overlap (i.e., by reducing the likelihood of it). The content contained in the MHA is most likely to be repeated in a short period of time. In the shortest deployment scenario (three months), with no waivers or allowable concurrent completions, a service member is required to answer the MHA items 12 times in a 24-month period. In the next section we focus on this overlap in assessment content at the individual item level.

Item Counts Associated with Deployment Assessment Scenarios

Using the scenarios depicted in Figure 4.2 and 4.3, we calculated the number of individual assessment items that an individual service member would complete in the 24-month period shown.[5] The same caveats noted earlier apply (i.e., under some circumstances, assessments required within a certain period of time could be combined or conducted concurrently). To analyze the maximum amount of redundancy and overlap in assessment content, we have opted to present the upper bound of service member burden.

Table 4.6 shows the number of items a service member would complete over the 24-month period. In all scenarios, the total number of items across all assessments is over 1,000. The deployment-to-dwell ratio does not dramatically change the item count.

[5] For this analysis, we focus only on service members, but note that the burden on providers (and record reviewers) would necessarily follow a similar pattern. Although providers are responsible for fewer items in the health assessments, their burden is multiplicatively greater, given that any single provider could be responsible for more than one service member.

TABLE 4.6

Domain Item Count by Deployment Scenario and Assessment Type

	Behavioral Health	Demographics and Background Information	Deployment Information	Individual Medical Readiness	Physical Health	Sexual and Reproductive Health	Treatment	Total
Scenario A (1:2, 1:3)[a]								
PHA	228/228	75/75	45/45	42/42	258/258	57/57	21/21	**726/726**
Pre-DHA	120/80	30/20	18/12	3/2	6/4	3/2	3/2	**183/122**
PDHA	84/84	24/24	52/52	0/0	64/64	0/0	14/14	**238/238**
PDHRA	80/80	22/22	20/20	0/0	62/62	0/0	12/12	**196/196**
MHA	78/78	22/22	4/4	0/0	0/0	0/0	8/8	**112/112**
Total	**590/550**	**173/163**	**139/133**	**45/44**	**390/388**	**60/59**	**58/57**	**1,455/1,394**
Scenario B (1:2, 1:3)[b]								
PHA	228/228	75/75	45/45	42/42	258/258	57/57	21/21	**726/726**
Pre-DHA	80/40	20/10	12/6	2/1	4/2	2/1	2/1	**122/61**
PDHA	42/42	12/12	26/26	0/0	32/32	0/0	7/7	**119/119**
PDHRA	40/40	11/11	10/10	0/0	31/31	0/0	6/6	**98/98**
MHA	78/78	22/22	4/4	0/0	0/0	0/0	8/8	**112/112**
Total	**468/428**	**140/130**	**97/91**	**44/43**	**325/323**	**59/58**	**44/43**	**1,177/1,116**
Scenario C (1:2, 1:3)[c]								
PHA	228/228	75/75	45/45	42/42	258/258	57/57	21/21	**726/726**
Pre-DHA	40/40	10/10	6/6	1/1	2/2	1/1	1/1	**61/61**

Table 4.6—Continued

	Behavioral Health	Demographics and Background Information	Deployment Information	Individual Medical Readiness	Physical Health	Sexual and Reproductive Health	Treatment	Total
PDHA	42/42	12/12	26/26	0/0	32/32	0/0	7/7	**119/119**
PDHRA	40/40	11/11	10/10	0/0	31/31	0/0	6/6	**98/98**
MHA	78/78	22/22	4/4	0/0	0/0	0/0	8/8	**112/112**
Total	**428/428**	**130/130**	**91/91**	**43/43**	**323/323**	**58/58**	**43/43**	**1,116/1,116**
Scenario D (1:2, 1:3)[d]								
PHA	228/228	75/75	45/45	42/42	258/258	57/57	21/21	**726/726**
Pre-DHA	40/40	10/10	6/6	1/1	2/2	1/1	1/1	**61/61**
PDHA	42/42	12/12	26/26	0/0	32/32	0/0	7/7	**119/119**
PDHRA	40/40	11/11	10/10	0/0	31/31	0/0	6/6	**98/98**
MHA	117/117	33/33	6/6	0/0	0/0	0/0	12/12	**168/168**
Total	**467/467**	**141/141**	**93/93**	**43/43**	**323/323**	**58/58**	**47/47**	**1,172/1,172**

NOTE:
1:2 and 1:3 are deployment-to-dwell ratios.
[a] 1:2 = 3-month deployment + 6-month dwell + 3-month deployment + 6-month dwell; 1:3 = 3-month deployment + 9-month dwell + 3-month deployment + 9-month dwell
[b] 1:2) = 6-month deployment + 12-month dwell + 6-month deployment + 12-month dwel; 1:3 = 6-month deployment + 18-month dwell + 6-month deployment + 18-month dwell
[c] 1:2 = 9-month deployment + 18-month dwell; 1:3 = 9-month deployment + 27-month dwell
[d] 1:2 = 12-month deployment + 24-month dwell; 1:3 = 12-month deployment + 36-month dwell

Deployment length does have some impact and is associated mostly with a reduction in behavioral health, demographics and background information, deployment information, and physical health domain items. Logically, fewer deployments mean fewer deployment-related health assessments (i.e., Pre-DHA, PDHA, PDHRA), and many of the items in these domains are repeated on these assessments. Scenarios C and D, which have a nine- and 12-month deployment period, respectively, have identical item number profiles, regardless of the deployment-to-dwell ratio.

Because most items fall in the behavioral health domain, we next pivot to the topics that comprise this domain. As noted, there is very little difference between the 1:2 and 1:3 deployment-to-dwell ratios, so we present only the results for the 1:2 ratio in Figure 4.2. Depending on the scenario, service members are asked between 351 and 507 items related to their behavioral health (as a subdomain within the larger behavioral health domain), with the bulk of those items about PTSD and depression. Far fewer items are related to alcohol and tobacco use or self-reported need for treatment.

Summary

This chapter presents results from our assessment review, focusing on the content of the PHA, Pre-DHA, PDHA, PDHRA, and embedded MHAs. In total, we identified 925 unique items across these assessments and assigned them to seven domains, 23 subdomains, and 107 topics. Most of these items are self-reported by service members, followed by items specifically for providers and record reviewers. Behavioral health—especially alcohol use, depression, PTSD, and stressors—and physical health are the largest domains in terms of item counts, and these items are often repeated across assessments. We found that seven topics relied on existing validated measures, and these were most often related to behavioral health concerns.

To better understand how respondent burden varies over time for service members, we constructed a set of deployment scenarios based on different deployment-to-dwell ratios and deployment lengths over a 24-month period. By mapping the timing of the different health readiness assessments over these scenarios, we found several adjacent and overlapping requirements. At the upper bound, service members are required to answer between 1,100 and 1,500 items, with little variation by deployment ratios or length. Depending on the scenario, service members can expect to answer 351 to 507 items related to their behavioral health over the 24-month period, with the bulk of those items about PTSD and depression.

TABLE 4.7

Behavioral Health Subdomain Assessment Item Count by Deployment Scenario, Assessment Type, and Topic

	Alcohol Use	Depression	Gambling	Medications	PTSD	Sleep	Stressors	Tobacco	Treatment	Total
Scenario A[a]										
PHA	9	27	12	3	69	6	3	21	6	**156**
Pre-DHA	9	27	0	3	66	0	3	3	6	**117**
PDHA	6	18	0	2	46	0	2	2	4	**80**
PDHRA	6	18	0	2	44	0	2	0	4	**76**
MHA	6	18	0	2	46	0	2	0	4	**78**
Total	**36**	**108**	**12**	**12**	**271**	**6**	**12**	**26**	**24**	**507**
Scenario B[b]										
PHA	9	27	12	3	69	6	3	21	6	**156**
Pre-DHA	6	18	0	2	44	0	2	2	4	**78**
PDHA	3	9	0	1	23	0	1	1	2	**40**
PDHRA	3	9	0	1	22	0	1	0	2	**38**
MHA	6	18	0	2	46	0	2	0	4	**78**
Total	**27**	**81**	**12**	**9**	**204**	**6**	**9**	**24**	**18**	**390**
Scenario C[c]										
PHA	9	27	12	3	69	6	3	21	6	**156**
Pre-DHA	3	9	0	1	22	0	1	1	2	**39**
PDHA	3	9	0	1	23	0	1	1	2	**40**

Table 4.7—Continued

	Alcohol Use	Depression	Gambling	Medications	PTSD	Sleep	Stressors	Tobacco	Treatment	Total
PDHRA	3	9	0	1	22	0	1	0	2	**38**
MHA	6	18	0	2	46	0	2	0	4	**78**
Total	**24**	**72**	**12**	**8**	**182**	**6**	**8**	**23**	**16**	**351**
Scenario D[d]										
PHA	9	27	12	3	69	6	3	21	6	**156**
Pre-DHA	3	9	0	1	22	0	1	1	2	**39**
PDHA	3	9	0	1	23	0	1	1	2	**40**
PDHRA	3	9	0	1	22	0	1	0	2	**38**
MHA	9	27	0	3	69	0	3	0	6	**117**
Total	**27**	**81**	**12**	**9**	**205**	**6**	**9**	**23**	**18**	**390**

NOTE:
1:2 is the deployment-to-dwell ratio; 1:3 ratio results are not shown. Provider referral, suicide risk, and violence/harm risk are excluded as topics because none contain items asked of service members.
[a] Scenario A = 3-month deployment + 6-month dwell + 3-month deployment + 6-month dwell
[b] Scenario B = 6-month deployment + 12-month dwell + 6-month deployment + 12-month dwell
[c] Scenario C = 9-month deployment + 18-month dwell
[d] Scenario D = 12-month deployment + 24-month dwell

CHAPTER 5

Recommended Screening in the General Population and High-Risk Professions and Organizations

In this chapter, we provide the results of two analyses: a review of health screenings for adults recommended by USPSTF and a targeted review of the publicly available documentation of health screening processes, policies, and procedures for individuals in high-risk occupations (e.g., police, fire, first responders) and those who work for organizations that have risk profiles similar to those of DoD (e.g., those that deploy individuals to potentially dangerous or hostile locations). For each of these analyses, we compare the content of DoD's health readiness assessments with the best practices for health screening among civilians. We caution that the two comparison groups—the entire adult U.S. population and civilians who work in other occupations or organizations that pose above-average risk to workers—are not perfect proxies for service members. Nonetheless, they represent the closest thing to best practices that are available.

Recommended Health Screening for U.S. Adults

We reviewed USPSTF recommendations designated as A or B, indicating that the current evidence base provides a high level of certainty for a substantial population-level benefit if the screenings are implemented. We included recommendations that applied to nonpregnant adults between the ages of 18 and 65 and did not require additional provider interaction or a non-self-report test or procedure (e.g., a mammogram). Of the 54 A and B recommendations, only seven met these criteria (Table 5.1). The full set of A and B recommendations with inclusion and exclusion criteria are provided in Appendix Table C.1. Six of the seven recommendations are related to behavioral health conditions (e.g., substance use, mental health). The sole physical health recommendation, related to breast cancer screening, refers to a verbal screening script (e.g., a family history screening [National Cancer Institute, undated]), not a physical screening (i.e., a mammogram).

TABLE 5.1

U.S. Preventive Services Task Force A- and B-Rated Recommendations Identified as Best Practice for the Military Population

Topic	Grade
Anxiety disorders in adults: screening: adults 64 years or younger, including pregnant and postpartum persons	B
BRCA-related cancer: risk assessment, genetic counseling, and genetic testing: Women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer or an ancestry associated with brca1/2 gene mutation	B
Depression and suicide risk in adults: screening: adults, including pregnant and postpartum persons, and older adults (65 years or older)	B
Intimate partner violence, elder abuse, and abuse of vulnerable adults: screening: women of reproductive age	B
Tobacco smoking cessation in adults, including pregnant persons: interventions: nonpregnant adults	A
Unhealthy alcohol use in adolescents and adults: screening and behavioral counseling interventions: adults 18 years or older, including pregnant women	B
Unhealthy drug use: screening: adults age 18 years or older	B

NOTE: An A grade indicates that USPSTF recommends the service and that there is high certainty that the net benefit is substantial, while a B grade indicates that USPSTF recommends the service and there is high certainty that the net benefit is moderate or that there is moderate certainty that the net benefit is moderate to substantial.

Comparison of Health Assessments with Recommended Screenings

Next, we examined how DoD's current suite of health readiness assessments align with these seven recommended screenings. When we compared these seven recommendations with the content of the five health readiness assessments, we found that five of them appear in at least one assessment, most often in the PHA (Table 5.2). This is perhaps not surprising, as the PHA is most similar to the annual physical heath examination that many civilians receive. The deployment-related assessments focus on behavioral health screenings. All five health assessments screen for depression (using the PHQ-8 for depression), suicide risk (using the C-SSRS or a provider-initiated suicide risk screening tool for suicide),[1] unhealthy alcohol use (using the AUDIT-C), and other substance use. Note that the assessment of other substance use combines an indirect method of asking if the service member had received treatment for substance use in the past year or indicated that substance use was a stressor, a generic provider risk assessment based on responses provided by the service member, and an indication of whether the provider recommends a referral for substance use treatment. The PHA, Pre-DHA, and PDHA screen for use of various forms of tobacco. Notably, none of the health

[1] We were unable to align this screening with any existing, validated measure.

TABLE 5.2
Comparison of U.S. Preventive Services Task Force A- and B-Rated Recommendations with Department of Defense Health Readiness Assessments

Topic	PHA	Pre-DHA	PDHA	PDHRA	MHA
Breast cancer risk	Family history of breast, ovarian, and "other" types of cancer	Not included	Not included	Not included	Not included
Depression and suicide risk	PHQ-8 and provider-led C-SSRS	PHQ-8 and provider suicide risk evaluation	PHQ-8 and provider-led C-SSRS	PHQ-8 and provider suicide risk evaluation	PHQ-8 and provider-led C-SSRS
Anxiety	Not included	Not included	Not included	Not included	Not included
Intimate partner violence	Not included	Not included	Not included	Not included	Not included
Tobacco use	History of use, current use (type and amount), interest in quitting	Current use (frequency)	Use (frequency during deployment)	Not included	Not included
Unhealthy alcohol use	AUDIT-C	AUDIT-C	AUDIT-C	AUDIT-C	AUDIT-C
Drug/ substance use	Service members (SMs) asked if substance use has been a major stressor in the past month and whether they sought treatment for substance use in past year. Provider asked to conduct a generic risk assessment (including substance use); provider can recommend referral for substance use treatment.	SMs asked if they sought treatment for substance use in past year. Provider asked to conduct a generic risk assessment (including substance use); provider can recommend referral for substance use treatment.	Same as PHA	Same as Pre-DHA	Same as PHA

assessments screens for anxiety. Intimate partner violence is similarly not addressed. Family history screening for breast cancer risk is assessed only in the PHA.

Screening Processes, Policies, and Procedures for Individuals in High-Risk Occupations and Organizations

Our review of screening processes, policies, and procedures for individuals in high-risk occupations and organizations was designed to provide a comparison point for DoD's health readiness assessment program. All the organizations we examined, including fire and police

departments in large metropolitan areas as well as government agencies in which some positions require deployments or other duty in potential hazardous situation, have initial physical fitness requirements for entry, which are generally addressed during the application phase of employment. Additional entry screenings may include medical evaluations (e.g., hearing or vision screenings, review of medical records, physical examination). Almost all the organizations and agencies listed some set of limiting conditions (e.g., substance use). Periodic screenings, typically for physical fitness or drug use, were routinely outlined in public documentation about longer-term employment conditions.

Initial screening for mental or psychological health were mentioned by some of the organizations and agencies, typically police departments or agencies that have "special agent" positions (e.g., FBI, Customs and Border Patrol), in which job holders may routinely access firearms. Noticeably absent from our search, however, were mandatory routine mental or psychological health screenings after initial employment. Medical screenings, including mental health screenings, generally cannot be mandated by employers per ADA. An exception exists if employers have objective evidence suggesting that an employee is unable to do his or her job or poses a safety risk because of a condition that may be identified by such a screening (U.S. Equal Employment Opportunity Commission, 1997). These medical screenings are sometimes referred to as "fitness-for-duty evaluations." Employers may also require a medical screening if an employee has requested a workplace accommodation. Thus, it is not surprising that we did not find evidence of routine required mental or psychological health screenings for the organizations and agencies we included in our search.

Based on our review of publicly available information about individuals who occupy similar occupations in similar organizations and agencies, we find it difficult to assess how DoD's process of health readiness assessment compares, as there is little ongoing screening taking place in the civilian arena. Certainly, DoD has physical fitness requirements, for service and service members are required to complete annual fitness tests. These, however, are not part of the routine health readiness assessments that are part of our study. Given DoD's unique position as an employer and service members' unique experiences in the military, it is perhaps not surprising that a specialized process for routinely assessing health readiness, and in particular, mental health, is in place.

Summary

This chapter presents results from our analysis of recommended health screenings for U.S. adults and health screening processes, policies, and procedures for individuals in high-risk occupations and organizations. Our goal was to compare these practices with DoD's health readiness program. We identified seven USPSTF recommendations applicable to the service member population; five of them are addressed in the current suite of health readiness assessments. The majority are related to behavioral health concerns (e.g., depression and suicide risk, unhealthy alcohol use).

Routine and periodic (e.g., annual) physical fitness assessments are commonly implemented by major fire and police departments and government agencies with similar risk exposure profiles as service members. However, we found little information on routine medical screenings, to include mental and psychological health assessments, for individuals in these high-risk occupations and organizations. This is likely due to ADA's legal requirements, which prevent medical or mental health screenings unless there is evidence suggesting that an employee is unable to do his or her job or poses a safety risk because of a condition that may be identified by such a screening.

CHAPTER 6

Leader and Provider Perspectives

In this chapter, we report findings from our qualitative interviews with stakeholders, including those in DoD leadership roles who use data from health readiness assessments (i.e., leaders) and MTF providers with an oversight or clinical role in assessing service members (i.e., providers). First, we describe the characteristics of interview participants. Next, we present leader and provider perspectives on the suite of health readiness assessments, including potential opportunities for improvement and increased efficiency. We discuss participant perspectives on the process for conducting assessments, the relative timing of assessments, the utility and redundancy of the assessment content, and the referral and follow-up process.

Participant Characteristics

In consultation with the study sponsor, we identified 25 leaders across DoD and conducted interviews with 18 of them. Of the invitees who did not participate, one designated another person, one did not respond, one was ineligible, and four were not contacted because we had reached our target sample size. Table 6.1 displays participant characteristics. Participating leaders held positions in Health Affairs, DHA, the Joint Chiefs, and the service branches.

TABLE 6.1
Interview Participant Characteristics

	Leaders (*N* = 18)	Providers (*N* = 18)	Total (*N* = 36)
Participant Characteristics	*n*	*N*	*N*
Service Branch			
Air Force	5	6	11
Army	6	5	11
Marine Corps	2	0	2
Navy	3	7	10
N/A	2	0	2

Table 6.1—Continued

Participant Characteristics	Leaders (*N* = 18) *n*	Providers (*N* = 18) *N*	Total (*N* = 36) *N*
Military Status			
Uniformed: active component	13	13	26
Uniformed: Guard and Reserve	3	0	3
DoD government civilian	2	5	7
Organization			
Health affairs	3	N/A[a]	3
DHA	1	N/A	1
Joint chiefs	1	N/A	1
N/A (service branch only)	13	N/A	13
Provider Type			
Physician	N/A	5	5
Physician assistant	N/A	4	4
Nurse practitioner	N/A	3	3
Advanced practice nurse	N/A	1	1
Clinical psychologist	N/A	3	3
Clinical social workers	N/A	2	2

[a] N/A = not applicable.

With our points of contact at each MTF, we identified 25 providers for recruitment and conducted interviews with 18 of them. Of the invitees who did not participate, one was not eligible and six were not invited to participate because we had reached our target sample size.

Across both leaders and providers, the majority were active component members of the Air Force, Army, and Navy.

Participant Perspectives on Health Assessments

In this section, we summarize themes related to leader and provider perspectives on the overall process of conducting health readiness assessments, the relative timing and content (i.e., utility and redundancy) of the assessments, and the referral and follow-up process.

Process for Conducting Health Readiness Assessments

Leaders and providers had various perspectives on the perceived effectiveness of the process of conducting health readiness assessments. They also commented on challenges they encountered in conducting the assessments or offered recommendations for improvements.

Perceived Effectiveness of the Process for Conducting Health Readiness Assessments

Some leaders and providers had mixed perceptions of the effectiveness of the current process for conducting assessments. These participants reported both that the process was effective for assessing some aspects of readiness or prevention and that there were other aspects of the process that were not effective or that should be improved. For example, a provider who felt the assessments had value for assessing readiness remarked about the PHA, "I think there's some depth we're missing in those [questions], and we need to take better time in that assessment and ask hard questions." Another leader observed, "I would say that the Pre-DHA is a reasonably good way of assessing readiness. . . . I don't think necessarily the PDHA and PDHRA necessarily are . . . [and] the big one I really call into question is the PHA. I'm just not sure really how much that impacts readiness."

A few of the participants who viewed the process favorably also discussed the importance of conducting the assessments as recommended, without rushing or diverging from established processes. Said one provider, "When [the process is] performed correctly, it absolutely is very effective. . . . When we do the quick hurry, sweep through things because it's a virtual appointment . . . it loses some of its efficacy." A few also identified specific recommendations for improvement. A leader remarked, "I think our move to get closer to more combat-related or functional assessments on particular career groups, I think that is where we could double down. We could be a bit more precise."

At the same time, many participants reported that the current process for conducting these assessments was not effective for assessing readiness or risk or for supporting prevention. These individuals did not identify aspects of the process that were effective. For example, one leader remarked, "The whole system's garbage and I don't know how much of [the assessment data] I can trust. . . . My expectation is not that any of these assessments are going to catch anything at the higher level. . . . I have no confidence any of these data are appropriately validated." Similarly, a leader explained,

> When you fill out the PHA and the MHA, it's just sort of covering . . . making sure there's not any undetected risk on the mental health side. I don't think it holistically looks at [service] members' overall health and medical readiness. It checks the boxes, but I don't think it really identifies risk factors or making sure folks get the screening they need to.

Other participants suggested that the health assessment process was ineffective for prevention. Said one provider, "I honestly don't see a huge preventive value. I see a value in capturing things that might not go noticed because of high operational tempo and the difficulty of patients even getting seen." Another provider remarked, "I think there are a lot of gaps. I think that when you're talking about patients and trying to promote healthy behaviors, there's a lot of qualitative things that happen within the context of the exam room that just are not captured." A leader suggested that there were missed opportunities in the assessment process for supporting prevention and remarked that "these assessments are really meant to drive at prevention to allow human performance to rise. We need a system that emphasizes that." In

addition, some participants felt the process was ineffective due to a lack of rapport between the provider and service member or a lack of integration with clinical care. Said one leader, "I think that [the current assessment process is] not effective because it's transparent, done by somebody you don't know and you don't trust. There's no relationship there. . . . There needs to be more of a warmth to it, but I don't know how you do that." A few participants stated that low compliance rates with assessments negatively affected the overall process.

In contrast, a few participants reported that the current process was generally effective, particularly for informing determinations about readiness to deploy. These individuals did not identify aspects of the process that were ineffective or needed improvement. For example, one provider remarked that "every data point helps." Similarly, a leader stated, "There may be better tools out there. . . . But I've felt that I successfully used that suite of tools to get after medical readiness."

Challenges in Conducting Health Readiness Assessments

Leaders and providers identified multiple challenges in the process for conducting health readiness assessments.

Lack of Trust in the Provider-Patient Relationship

Many participants described the limitations of self-report, acknowledging that a lack of trust or rapport could make it difficult to ensure that service members felt comfortable answering assessment questions honestly. Currently, health assessments may be conducted by any medical provider, including a service member's primary care manager. However, participants explained that due to the nature of pre-deployment assessments and other deployment-related factors, the individual conducting assessments was typically not an individual's primary care manager but rather a medical provider with whom they were unfamiliar and who was unfamiliar with the service member's medical history. Participants suggested that as a result, service members may be more reluctant to share sensitive health information with them. They noted this was particularly the case for mental health issues, since service members may be unwilling to discuss their mental health status with an unfamiliar provider due to stigma or other concerns. One leader explained, "I don't think too many folks are wanting to answer those [mental health] questions anyways. And then if you are going to answer those honestly, I just don't think it's to a stranger." Participants also noted that good rapport between the service member and provider could also help connect individuals with needed follow-up care and promote IMR.

Technological Barriers to Conducting Assessments

Some participants reported that technology barriers interfered with administering the assessments and that it was difficult and time-consuming for providers to review assessment data. Said one leader, "There's not a lot of interface. So, when you're in GENESIS [the electronic health record for MHS] and you're doing one of [the assessments], you're trying to be really diligent about the charting portion of it. But sometimes you don't have all of the responses in there. . . . It's not all in that one system." Participants also reported that the assessment processes, and thus their respective electronic systems, varied by service branch. A provider

summarized the challenge associated with completing PHAs for service members from different service branches:

> The Navy does a better job of letting me see some of the stuff [from the PHA]. But the Army doesn't do as well on the PHA. . . . It's the way they set it up. Air Force gives better feedback [about the PHA to providers]. . . . The Army just glosses over it. . . . There's three different programs [for the PHA]. There's one for Army, one for Navy and Marines, one for Air Force. So, I do PHAs in three different environments.

For their part, several leaders described the challenge of using the various electronic assessment systems to track compliance, noting that they were unable to view aggregate assessment data. Because they used assessment data primarily to track compliance and consider potential changes to the assessment process as a whole, some leaders did not have strong opinions about any one assessment being the most or least useful. One leader explained that the assessments were "probably most useful to the commanders . . . [for] helping them understand the health and wellness of their unit. And . . . [for] helping [individual service members] get connected to services." This leader added, "I don't know if there's any more valuable or less valuable [assessment] to me at a headquarters [standpoint]."

While providers did not view assessment data in aggregate, they remarked that it was challenging to view assessment data across multiple time points, which made it difficult to assess service members relative to their baseline. Other providers described the tedium of reviewing assessment data, with some reporting that the amount of time it took for them to review the data thoroughly was simply prohibitive.

In addition, some participants reported that technological barriers prevented service members or providers from completing assessments. For example, they pointed to difficulties completing deployment-related assessments on a ship or in a location without laptops. As one participant explained, "We have some really small ships. . . . There's not always connectivity, so there's a lot of times when they have to use paper. If you're in the field with the Marines . . . if you're in [certain] locations, you do the best with what you have." Others remarked that the common access card requirement can be prevent completing assessments. As one provider explained, "In the Air Force, every airman will do their PHA in [the Aerospace Services Information Management System]. So, you have to have a common access card, and then there are some situations where people don't even have their own computer. They may have to share a computer with a whole bunch of other folks within the unit." Another provider acknowledged that they sometimes were forced to reschedule an assessment due to the electronic system being "down" or unavailable.

Resource Limitations Faced in Conducting Assessments

Participants also acknowledged significant resource limitations with respect to perceived staffing and funding for health assessments. Some reported that the programs and systems for these health assessments were not well resourced, acknowledging this problem as an inherent constraint on the process of conducting assessments. Regarding the usefulness of the PHA, one leader said that "it's the only thing keeping the Army leaders from mandating an

every-year face-to-face evaluation with a behavioral health provider. Which we can't afford clinically, right? We are so short providers." Others observed that processes for conducting readiness assessments drew resources away from clinical care. One provider explained, "If [completing the PHA] falls onto the primary care provider, it takes [away] a lot of access to care from regular appointments." Similarly, another provider remarked, "I think when you separate the PHAs [from primary care] . . . there's so many administrative parts to the PHA . . . [it's] daunting. We're given a limited amount of time and the primary care providers are overwhelmed and overburdened." Reflecting on clinical staff required for the administration of the PHA and MHA, at least one participant emphasized the competing clinical resources required:[1]

> I like that they're both separated. I know we don't have enough mental health specialists to do these screenings, so it falls on the primary care. But if we could get the mental health folks to go over the mental health portion of [the assessments], I would think that would speed up the process because then there wouldn't be an extra step of me putting the referral in.

Variation in the Implementation of Assessments

Leaders and providers also described inconsistent or variable implementation of assessments and follow-up. In part, this variation reflected differences in processes (e.g., across service branch or clinic), particularly with respect to how referrals were handled. However, some participants also discussed provider-level differences in the administration of assessments. Said one provider, "With the PHA, if the provider and the command staff were diligent in reviewing the medical record, then you would be able to catch a lot of the intent [of the PHA]. But if [the provider] were just not doing the due diligence, and they're just click, click, click, then a lot of things would be missed." Participants also described variation in referral and follow-up processes. They observed differences across providers, clinics, commands, and service branches. For example, one provider remarked on differences between the processes followed by providers in readiness clinics (which are dedicated to conducting health readiness assessments and ensuring readiness to deploy) and those followed by providers based in primary care, with differences in the processes for referral and follow-up being particularly notable. A few participants discussed how the use of different electronic systems for different service branches contributed to inconsistencies in implementation. Some described variation as necessary, while others framed it as problematic and potentially interfering with the effectiveness of assessment processes.

Recommendations to Improve Processes for Conducting Health Readiness Assessments

Leaders and providers offered different recommendations to improve existing processes for conducting health readiness assessments. Among these, they suggested leveraging technology and involving primary care managers or other individuals in conducting assessments.

[1] According to DHAPI 6490.03, primary care providers are not authorized to administer the MHA unless they have completed DoD Mental Health Assessment Health Care Personnel Training.

Leveraging Technology to Improve the Assessment Process

Many participants cited technology as a promising solution to the challenges they perceived in conducting assessments and suggested technological improvements that could make the assessment process easier and more efficient. Some participants suggested building branching logic or piping (i.e., automatically displaying data from a previous survey question) into assessments to reduce the number of unnecessary questions asked. Said one provider, "There has to be a way of auto-populating the administrative piece [for these assessments]." Another leader simply suggested allowing for "the information from one [assessment] to be already captured in another [assessment]." Second, participants suggested programming "smart" alerts to draw attention to responses requiring follow-up on the part of the provider or building in automatic processes to ensure follow-up in a timely manner. For example, in referring to all of the assessments, one provider remarked,

> I wish, in a perfect world . . . when you click the little yes/no radio buttons or fill in some of the dialog boxes, I wish that translated into action with a TCON [teleconference] to the nurse directly from the program [system in which assessment is being completed by the provider] itself, rather than me having to go to GENESIS. I would love to be able to put in referrals, order meds, make their next follow-up appointment.

In addition, participants suggested integrating the different assessment systems with one another and with the electronic health system. These participants emphasized the potential efficiencies that could be achieved by standardizing the different assessment systems across service branches or by establishing one uniform assessment platform. This would make it less challenging and time-consuming for providers to administer the assessments. For example, in offering recommendations to improve the processes involved in conducting readiness assessments, one provider asked, "Can you have one platform where this [assessment data] is fully integrated within the medical record?" Another provider expressed interest in having a button available within the health readiness assessment platform that "kind of automatically connects to the MHS GENESIS" when utilized by the provider. Similarly, one leader remarked,

> Imagine if this [assessment process] was an app, or it was digitized in a way that was standardized across the services. . . . A lot of this [assessment process and data] resides on the readiness platform, so it's three different systems. It's kind of difficult and clunky to monitor from the headquarters standpoint. So . . . wouldn't it be great if it [the assessment process] was digitized and that information could be blinded and sent to a unit commander or medical providers?

This recommendation to integrate different assessment systems into one standardized platform linked with the electronic health system was offered as a method of achieving multiple different aims. Some participants suggested that the change would support a more comprehensive evaluation of the service member's data in relation to their baseline health or functioning and other factors (e.g., family history, recent health care encounters).

Involving Primary Care Managers, Embedded Providers, or Others in Conducting Assessments

Some leaders and providers recommended changing the assessment process to ensure that the person administering the assessments was someone with whom the service member had an established relationship characterized by trust and good rapport. For example, a few individuals recommended that having one's primary care manager conduct health assessments may be the best option for supporting readiness and prevention, as well as for ensuring the quality of assessment data. They explained that primary care managers generally know the full individual and family medical history of the service members on their panel and are more likely to have established trust and rapport. For these reasons, service members could be more likely to discuss sensitive mental and physical health concerns with them. With respect to the PHA in particular, one provider explained that "the knowledge and familiarity and relationship was a key factor in being able to be effective at understanding what they might need for their wellness, which is what the PHA is supposed to be oriented to." Similarly, a leader remarked,

> If there is any one [recommendation] it is . . . that the PHA needs to be done within a medical team if not an individual provider. I think deployment assessments are [harder to have done in primary care]. You're dealing with so many people that there's no way you can do that other than a specialized clinic. PDHA though, that might be an opportunity to bring that in [to primary care] just because that's done more on an individual basis.

A few participants noted that embedded mental health providers (i.e., already within service members' units) could conduct health assessments. They suggested that these individuals may be more likely to have an existing relationship with the service member and one that promotes candor in assessment responses. As one provider explained, "I think it's more helpful and meaningful if you actually have an embedded medical asset who's doing the assessment and knows the service member and is able to get a sense of how genuine the person's responses are." Similarly, a leader suggested that unit-embedded providers who deployed alongside service members in their unit were well positioned to conduct assessments, remarking that they "go downrange with you and ask questions downrange, and then they come home with you. Check in on you. Then you know that they care about you as a person. They're not checking a box." Another solution proposed by a few participants was for service members' direct, unit-level leadership to conduct assessments. The premise behind this recommendation was that those working most closely with a service member on a day-to-day basis may have already built a strong rapport with them. These participants suggested that the individual conducting the assessment could be a service member's first sergeant (or equivalent in other services outside the Army) or supervisor who may be able to gather a better sense of an individual's mental and overall health. To illustrate this point, one leader explained:

> Do we make commanders [perform assessments]? Do we make first sergeants do this? Do we make supervisors do this? It just seems like it's gotta be somebody that [service members] trust, that they know was asking because they care, and they wanna help, and they don't wanna burden them or punish them in any way.

Relative Timing of Assessments

Leaders and providers commented on the relative timing of the overall suite of health assessments and its impact on assessments' effectiveness and efficiency. Participants also offered comments about the timing of specific assessments.

Overall Perceptions of the Relative Timing of Assessments

Leaders and providers discussed the relative timing of assessments, with some reporting that the timing was generally useful and served as a series of informative checkpoints during a service member's deployment timeline. For example, a leader remarked, "I would say each one of these assessments are spread across a very critical point in timeline for each and every individual service member." However, others expressed frustration with the frequency of assessments and were concerned that the timing contributed to both fatigue and inaccuracies in responses:

> I do get concerned about burden to the medical system and how frequently these have to be administered. . . . At what point does survey fatigue set in and you just start pencil-whipping and denying everything? After you've been administered [the assessments] five to six times per service member, are you getting accurate results that are actually meaningful?

Some participants recommended flexibility in the timing of the assessments to reduce repetition or fatigue among both providers and service members. One suggestion was to consolidate two assessments that fall in the same time frame such that "[service members] wouldn't have to answer [the same assessment questions] again. [They] would just answer the remaining questions that didn't correlate [across the two assessments]."[2] Another suggestion entailed forgoing a deployment-related assessment altogether, depending on when the annual PHA is completed: "If the PHA includes the MHA, a decision needs to be made, how close do the due dates of these respective assessments [need to be before the completion of one assessment] . . . negates the need for the other [deployment-related assessment]?" A few participants even suggested removing all deployment-related assessments, incorporating deployment-related questions into the PHA, and then requiring only the PHA.

Relative Timing of Specific Assessments

Some themes emerged with respect to the timing of the deployment-related assessments. None was related to the timing of the annual PHA.

Timing of the Pre-Deployment Health Assessment

Some participants reinforced the importance of the Pre-DHA in identifying health issues before service members deploy and were satisfied with its timing. For example, one provider

[2] According to DHAPI 6490.03, assessments may be combined or conducted concurrently when timelines coincide. However, this participant's suggestion indicates that this option is not necessarily being used in practice.

remarked, "I think that the utility of the 120 days prior to deployment is helpful. That gives enough time to have some data points if we want to prevent that individual from readiness recommendation, and/or provides enough time to submit a waiver upon need." Others remarked that the pre-DHA was important for establishing a baseline for determining whether health issues captured on future post-deployment assessments were associated with a deployment.

However, there was concern among some participants that in some situations, issues were not caught or addressed prior to deployment. One leader explained that on the one hand, "there is a weird window having it out 120 days [pre-deployment] that would mean you could do it way in advance and then things could change." On the other hand, "Sometimes we can get people fixed before they leave but far too many times I've seen these [Pre-DHAs] done right before going out the door and there is little time to react."

To address the longer time lag, some participants suggested moving the window in which the Pre-DHA can be completed "closer to deployment, to when folks are leaving." They explained that this change would increase the accuracy of the Pre-DHA and also help to ensure that no new health issues emerged between its administration and a service member's deployment. A few participants acknowledged that if the window is shortened, there also needed to be consideration of "a no later than 30 days prior to deployment [requirement]" to "give you enough time if you need a medical waiver or for people to get screened or get symptoms stable."

Timing of the In-Theater Mental Health Assessment

Although the MHA is incorporated in all other assessments, it also acts as a stand-alone assessment every 180 days in theater and within 21 days of the end of redeployment leave. Interviews revealed doubts among some participants about the effectiveness of the in-theater MHA in particular, given its timing. A few expressed concern that the requirement to complete the MHA during deployment may yield inaccurate conclusions about service members' baseline mental health. These providers explained that it is expected that service members will "have some anxiety and some depressive-type symptoms during deployment" and that "some of the symptoms are not going to be considered any kind of pathology or indicator until post-theater." At least one participant was concerned that completing the in-theater MHA would be an additional burden for deployed medical staff, which could negatively affect their ability to provide care:

> We want them [providers] being available . . . to people who present [with mental health issues during a deployment]. . . . The overall monitoring and ensuring that these [in-theater MHAs] get done, and having the timeline for people to take care of them is actually much more cumbersome for the medical staff that are trying to complete it. . . . It's just another requirement, not necessarily something that's helpful while we're in the middle of deployment.

Similarly, another participant mentioned potential reluctance from commands to administer the in-theater MHA, "because commands do not want to find problems in their formations downrange. That's going to cost them soldiers. . . . It has such a huge mission impact."

A few participants did not take issue with administering the MHA during deployment, but they did recommend moving up its administration to occur within the first 90 days in-theater. One provider commented, "I wouldn't wait six months to ask somebody how they're doing with their MHA. . . . I think maybe three months is a better opportunity." This view aligned with a few other participants' perspectives on the overall usefulness of the MHA and the importance of taking any opportunity to talk with service members about their mental health.

Timing of the Post-Deployment Assessments

Leaders and providers had many observations about the post-deployment assessments (the PDHA and PDHRA), with some participants noting challenges or disadvantages related to the timing of these assessments.

Some participants felt that the PDHA was the least useful assessment, because service members' responses on the assessment may not accurately reflect their health due to its timing at the end of a deployment. These individuals explained that, particularly with large deployment cycles, "People are more concerned about getting back to life." Participants felt that symptoms were underreported or that there was an incentive to rush through the completion of the PDHA because service members are eager to return home and transition back to a non-deployed setting.

Some participants recommended that the timing of the PDHA be changed, suggesting it should be completed before redeployment (i.e., prior to returning home from a deployment). For example, one leader remarked:

> I would always try to encourage that to be done right before return [from deployment] because when you get off that plane and you're at [Soldier Readiness Processing], everybody's just saying, "Yep, fine, fine, fine [in their PDHA responses]." Because these are the questions that are in between us and going home early that day. So, there's a huge incentive, I think, to not be fully truthful.

A few participants pointed out the importance of completing the PDHA before redeployment for reserve component service members.[3] One participant observed, "I would prefer . . . to try to do that before somebody's released from active duty. Because if you send a reserve component service member home . . . access to care, continuity of care, consistency of care, becomes an issue." There was also concern that the PDHA was not being completed once service members redeployed. In contrast, other participants recommended that the PDHA be pushed later, explaining that "symptoms might not necessarily arise within those 30 days [before or after return from deployment]" and "there's that little honeymoon period that tends to happen after deployment." Other suggestions for timing included moving the administration of the PDHA to 90 days post-deployment.

[3] According to DHAPI 6490.03, the PDHA is to be completed for reserve component service members before they are released from active duty.

A few participants explained that the PDHRA resolved some of their concerns about symptom identification in the PDHA:

> That's the time when the soldier gets back from the deployment and is at a state when PTSD can set in. Things that happened downrange can start to surface and we're now trying to get back in the swing of things at their job and they're starting to feel depressed. They're starting to feel aches and pains that occurred while they were deployed.

In contrast, some participants felt that the PDHRA is made redundant by the PDHA. One provider remarked, "We're going to catch whatever needs taken care of on the PDHA, and I don't see much benefit in seeing them later [for the PDHRA] and saying the same things all over again and no change."

In addition, some participants reported a recurrence of low compliance with the PDHRA due to the assessment's timing. For example, service members may experience a quick turnaround upon redeployment for another deployment. As a result, the PDHRA for the previous deployment and the Pre-DHA for the upcoming deployment might fall in the same time frame. One provider said:

> My experience with people that are flagging for their PDHRA but then getting ready to deploy, I have them do their Pre-DHA and I treat it as such. Because it's not going to change my treatment of them if I find they're triggering for a mental health referral or a life coach event that needs to take place, then I get them plugged in for that [regardless of whether service members are due for the PDHRA].

Another reason given for low compliance is that reserve component service members are not on active duty during the window of PDHRA administration. One leader remarked, "There's struggles within the reserve component when people are not on orders, and you don't have them as a captive population where you can walk over and directly task them." In addition, if the PDHA is never completed, the PDHRA requirement may not be prompted.

Utility and Redundancy of Assessment Content

Leaders and providers commented on the overall utility and redundancy of the assessments and on the content of specific assessments.

Overall Perceptions of Utility and Redundancy

Leaders and providers had contrasting views on the overall usefulness of the content of health readiness assessments, particularly in the context of redundancy. This redundancy could be a perceived overlap in content within and across the assessments or the repetition of these assessments over time. Many participants reported that redundancy in questions or topics across assessments was generally useful, and they provided multiple explanations for this. First, they pointed to the potential for redundancy to support improved tracking of symptoms or conditions over time. A provider remarked, "I'm a psychologist, so yeah, I like

redundancy. I like checks on validity. . . . If you get asked the same depressive symptoms and the endorsements are drastically different [at different time points], then there is something going on there." Another provider observed, "You might have somebody who feels they're okay on one day and then because of whatever circumstances, they're no longer okay [on a different day]." Second, some participants reported that asking the same question at different times seemed to improve the likelihood that a condition would eventually be identified and addressed. For example, one provider suggested that service members may answer the questions about alcohol differently when asked the same questions over time.

However, many participants described the assessments as being too redundant, with too many questions or too much overlap. Some of these participants also described the advantages of redundancy (e.g., for improving the likelihood of an issue being identified), while holding an unfavorable view of the duplicative nature of the assessments. For example, they described aspects of redundancy that were useful in some ways but contributed to assessment fatigue for both providers and service members. Other participants only cited the disadvantages of redundancy. One provider observed, "Sometimes more is not better, because . . . there's a saying in medicine—alarm fatigue." One leader simply said, "I think sometimes less is more. . . . Just ask the questions once and have that face-to-face or over-the-phone discussion a little less frequently."

Participants explained that assessment fatigue for service members generally increased with deployment frequency. Said one leader, "There's a lot of different questions that are asked and that are added through time with both the PHA and the deployment-related health assessments. So, it seems like we're asking the same questions potentially five or six times a year, depending on how much you deploy." Another leader observed, "You can end up doing this as a patient seven-ish times or so in the span of a calendar year." Some participants observed that the redundancy within and across assessments resulted in too much unused data. A provider remarked, "I see this information lands in a cul-de-sac—it doesn't go anywhere. It comes in and just sits somewhere." A leader said, "There is so much data, I don't know if anyone is doing anything meaningful with it at this point. . . . When you have so much data, what do you do with it [as a provider] in a limited encounter?"

Perhaps unsurprisingly, given disparate views on the usefulness of redundancy, participants were divided with respect to their opinions on what to do (if anything) to improve the usefulness of assessment content. Some participants suggested evaluating the content of the assessments to ensure their effectiveness, clinical relevance, or alignment with scientific evidence. For example, participants observed that, depending on the service member, some data are neither clinically relevant nor actionable. They suggested that items generating data of this type should be evaluated for removal. One leader explained, "It seems like all these questions are aimed at research that someone presents at a conference, but does it affect the life of [the] service member? . . . It becomes a good research tool, but as far as health care, I question the value."

Recommendations that assessments be evaluated for their clinical relevance or degree of alignment with scientific evidence ranged from those related to the individual question level (e.g., "We ought to just really do a deep-dive and look at every question, and really scrutinize

whether it's really critical and whether there should be alternatives") to the broader assessment level (e.g., "I'd like to know the science that allowed us to get to this [assessment]. . . . What does the research show, so that we're making decisions based on scientific evidence? . . . What's the science that shows that this tool actually is getting after the problem, assisting with the problem?"). At least one participant recommended, "If [a topic] meets the requirements for a [USPSTF] Class A recommendation, I as a provider should not be able to go forward on the PHA unless I've addressed that topic."

A few even remarked that evaluating the effectiveness and clinical relevance of questions on the assessments should be undertaken at regular intervals. One participant asked:

> Have we looked at the opportunity to go back and ask [if questions or topics could be removed from the assessments] in a very formal way? That every ten years, or five years, to go back and say, we need to show what this [assessment] data is producing as far as actionable results. And if it isn't, why are we asking it?

Further, some participants expressed that the wording of questions can be unclear and suggested allowing service members to expand on their answers through a free text field or using open-ended questions. This change would allow for greater personalization of the assessments, in addition to helping providers distinguish between acute and non-acute issues:

> Patients might click, they have changes in their vision, which could be a really bad acute complaint that we need to get this person seen right away. Or it can be, I'm over 45 years old, and I've noticed over the last ten years I have to put readers on when I look at a menu. So, wanting the patients to have some more free text input would almost be useful to help with triaging some of their complaints.

Even though participants expressed concern about the length and redundant nature of the assessment questions, some felt that no topics should be removed because "more information is better . . . even if it appears that it's over-asking." Some endorsed the comprehensiveness of the assessments, stating, "I haven't seen compelling evidence that we're missing something." In contrast, others identified some content areas or questions that they felt were missing from the assessments. For example, some participants suggested that family readiness should be assessed as part of service member readiness, since conflicts or concerns in the family of the service member may affect mental health both during and after deployments. Two participants suggested adding questions to assess for secondary gain or malingering to identify when service members might be purposely exaggerating symptoms, while one participant suggested adding questions on unit cohesion.

Content of Specific Assessments

In the sections that follow, we summarize some of the themes that emerged with respect to the content of specific assessments, particularly with respect to redundancy and the utility of assessments.

Content of the Periodic Health Assessment

Consistent with broader themes about the need to reassess the content of health assessments to ensure their utility and effectiveness, some participants remarked that the topics and items of the PHA in particular should be reevaluated. They explained that the assessment takes a long time to complete and that it is not clear that all items are important for readiness assessment or prevention. One leader observed that the PHA "has become something monstrous that is quite frankly a check-the-box for most people." Another leader remarked, "There's a lot of reasons why things have been added to the PHA . . . over time. But are they helpful?" A few participants stated that there was no clinical evidence to support the PHA, and some stated that they felt the addition of new content areas or questions was often politically motivated. For example, one leader stated, "I don't need some of the questions on here that are political in nature and that have been driven by politics, and I think that decreases the validity and sincerity of these exams."

Providers disliked the fact that the PHA seemed designed to serve as a stand-in for primary care or preventive medicine. Said one provider, "There's a certain amount of choreography and artistry in medicine that's just lost when you're going by these checklist-type things." A few providers remarked that they could be trusted to talk with their patients about pre-exposure prophylaxis for HIV prevention when appropriate without being prompted by a health assessment. Others cited the PHA as a source of redundancy across the suite of assessments. For example, one provider explained, "Having a PDHRA from 90 to 180 days [post-deployment] I think is a little excessive, because you're gonna capture that [information] in the PHA. And . . . depending on [the service member's] deployment, that PHA is probably coming sooner than that PDHRA or . . . might bump up right next to it."

Despite these challenges, some participants described the PHA as a very useful assessment. Leaders and providers appreciated the fact that the PHA was the one assessment that was conducted at regular intervals for all service members. As one leader put it, "The PHA is most useful because everyone has to do it." Others explained that PHA data could be useful in providing a baseline against which data from the other assessments could be tracked. Additional praises included the comprehensiveness of the PHA and its importance for providing guidance and facilitating preventive care.

Some participants offered observations or suggestions about specific content covered in the PHA. The most common of these concerned gambling items, which were perceived as being unhelpful and burdensome. Said one leader, "I personally don't think we should assess for gambling. . . . There's political reasons that that was added and I don't know that that's clinically relevant [given] the low incidence rate [of gambling in service members]." Family history questions were another topic that participants specifically referred to, but participants were divided on the usefulness of these questions. A few suggested that family history questions were not always useful. One provider remarked, "That's already on the patient's chart when they come see us. . . . It's not like I necessarily need that family history to determine readiness." A leader observed that "it's redundant." However, at least one provider endorsed the opposing viewpoint, stating that the family history questions on the PHA were important for addressing risk factors.

Content of the Pre-Deployment Health Assessment

Relative to the other assessments, there were few remarks about the Pre-DHA. Some participants described the Pre-DHA as useful. First, they noted that the Pre-DHA was important "to ensure that you have the baseline of where the service member is and make sure there's any issues identified before they go downrange," particularly because issues downrange cause "more than problems to the individual getting care. It puts people at risk, changes the decision-making matrix for commanders in the field." Second, participants emphasized that the Pre-DHA is important for actioning purposes prior to deployment (e.g., to determine whether a service member is able to deploy). One participant remarked that "sometimes we will capture things [on the Pre-DHA] that we might not have known were going on, that we absolutely want and need to know before we let someone deploy." Third, participants explained that having an accurate Pre-DHA was important for providing a baseline for determining whether health issues captured in the PDHA were related to military service:

> The accuracy of Pre-DHA is exceptionally important because if we didn't do the Pre-DHA and somebody did a PDHA and triggered an issue . . . did they have the issue before the military duty or during the military duty or both? So if you don't do the Pre-DHA, it really decreases the validity and needed existence of all of the [other deployment-related assessments].

There were no specific themes that emerged with respect to specific content changes on the Pre-DHA. However, a few participants expressed concern that the Pre-DHA did not always yield "early warning indicators about whether someone's truly gonna be ready [to deploy] or not." A few participants suggested that readiness determinations should be tailored to specific missions or occupational requirements or that assessments should link to what units require for deployability and readiness. For example, one leader suggested, "If [a service member] can go to work, if they can deploy, if they're gonna be shipped out, if they're gonna be ready, if it's not gonna impact . . . their readiness to fight, then maybe [questions not relevant to a command's definition of readiness are] not as important to have in these assessments."

Mental Health Assessment

Leader and provider remarks about the content of the MHA were less common than remarks about the timing of its administration. Because the MHA was typically administered by a provider who had never previously met the service member, participants felt that a lack of rapport and trust contributed to low data quality, which negatively affected the usefulness of this assessment. Said one leader, "Honestly I think the MHA is historically the least useful [assessment] because most of the time people will not answer those honestly." Some providers expressed frustration with the wording of suicide and violence risk items and the requirement that they be asked verbatim face-to-face, commenting that the questions were "too casual," "overdone," and "disconnected to how things are in the real world, in the real exam room." Suggestions included condensing the questions on these topics to reduce their repetition or having the option to forgo them if the service member is judged to be low risk.

A few participants specifically commented on the usefulness of service members reporting issues with sleep and requested greater emphasis on the topic. Said one provider, "A lot of our service members struggle with insomnia . . . but sleep is one [topic] that I don't really see in any other place outside of behavioral health." A leader observed, "It seems like every single mental health provider that I bring into theater . . . they seem to all feel that sleep is the biggest issue that you want to tackle in terms of getting after any mental health problems or decreasing the number of evacuations." To further improve the utility of the MHA, one provider suggested adding questions about access to lethal means, remarking, "I think that's something of very real concern, especially given the rates of suicide within the DoD. . . . I would absolutely include questions about firearm ownership, how [firearms are] stored, . . . [and storage of medications that are lethal at high doses]." Another participant suggested adding questions to address anxiety, explaining that "we ask [about] PTSD, which is related to part of anxiety, but [the assessment] misses a whole group of anxiety disorders."

Content of the Post-Deployment Assessments

Leader and provider remarks about the content of post-deployment assessments were relatively few. Some participants reported that these assessments were important for identifying "potential exposures that service members have had during deployment," explaining that the post-deployment assessments were valuable "not just for the mental health and PTSD aspects, but the exposure aspect."

Some participants offered several suggestions related to the content of post-deployment assessments. For example, one provider suggested revising the PDHRA to add a question about reintegration back into civilian life that would address potential interpersonal conflicts and mental health concerns that may arise for service members with their families. In another example, one leader recommended adding questions about exposure to blast overpressure, due to advancements in the development of high-powered weapons and their potential to cause injury when utilized. These recommendations should be interpreted with the caveat that many participants felt that the assessments were already too lengthy and burdensome.

Referral and Follow-Up Process

Participants described the process they followed when a service member was flagged for needing further care or referral on the basis of an assessment. They also identified the associated challenges or barriers and offered recommendations for improvement.

Current Referral Tracking and Follow-Up Process

Providers generally described that once service members were flagged as having a health issue requiring follow-up, they were referred to their primary care managers or to behavioral health specialists for mental health issues. However, many participants described the current referral and referral follow-up process as being ad hoc in nature or reported that referral follow-up was not tracked. For example, a few participants described this as being the case for health issues that do not directly contribute to non-deployable status but nonetheless

required follow-up. One provider noted, "There's probably a lot of folks that will get referrals, but then they won't end up following through with the referrals, particularly for things that are maybe more of a discretionary nature." This participant added that there is no "red flag" that pops up in the electronic health record to track whether someone followed up on a referral. Other participants noted that they were aware of cases in which referrals had been lost in the process due to a lack of consistent referral tracking. That is, an individual was flagged for follow-up care but did not receive it due to procedural issues. One provider noted, "There [isn't a] person who's designated to track the utilization of referrals."

Some participants noted that referrals and health care follow-ups are the responsibility of the individual service member. One provider suggested that, as medical providers, all they could do was advise an individual to seek care, stating, "We tell them to follow up with the primary care manager so it's the service member's responsibility to follow up. I mean, all of their health care is their responsibility, so it falls back on the service member to do the right thing. All we can do is advise them." Another provider stated, "It's really up to the service members and their own self responsibility to take care of themselves. So, there's no closed loop. I think as adults and responsible service members, they should have a duty to take care of themselves."

In contrast, some participants indicated that the referral process *was* tracked, either through MHS GENESIS or by using another method. One provider described their clinic's referral process as "very streamlined within GENESIS," indicating that their case manager used a "referral box" (e.g., within the electronic health record) to review referrals "on a daily basis." This provider stated, "I'm not sure if [this referral process is] informed by [policy], but it's standardized." Another provider explained they used Excel for tracking referrals. Similarly, a leader remarked that there were certain items of the Pre-DHA that were routinely tracked by their deployment-related health assessment program office using an Excel spreadsheet, explaining that "there's certain questions on there that are red flags or if somebody needs to be seen by mental health [providers] soon—those are specifically taken out and we do that on a monthly basis." In addition, some participants noted that the referred provider used assessment data to evaluate service members and inform follow-up care. Explained one provider, "A lot of times I use it from a purely clinical standpoint to cross reference and ascertain certain timelines and symptom onset."

Challenges Associated with Referrals and Follow-Up

Leaders and providers identified multiple challenges or barriers to tracking referrals and connecting service members with needed follow-up care.

Technological Barriers to Referral Tracking and Follow-Up

Participants described the challenge of using different electronic systems to view assessment data, noting that it could be difficult to identify responses to assessment data that should warrant a referral or follow-up. They described navigating through multiple screens or encountering other technical difficulties as they were reviewing assessment data. Given

these complexities, participants expressed concern that it could be easy to miss issues that should be further evaluated. One leader explained, "Every time we review [the assessments], we have to go line-by-line and look at every [question/answer]. Otherwise we're gonna miss [issues that should be flagged for further follow-up]." Similarly, a provider remarked that in completing the PHA, "You're floating between two to three programs, and if you're not savvy in [information technology], you're just going to click away and [miss service members' health issues] in the process." Another provider observed that the electronic system used by the Air Force applied an algorithm to detect responses to mental health–related questions that could require urgent follow-up by a provider but that such responses might not be flagged in the same way in other systems: "To me, that is a problem, if there isn't some sort of algorithm so we can catch people with potentially problematic things." A few participants emphasized that it is important not to have too many "false alarms" (i.e., prompting providers to follow up quickly in response to symptoms that should not require immediate action), which could result in alert fatigue.

Other participants noted that technology challenges or the lack of integration between the assessment systems and the electronic health record made it challenging to track pending referrals or to ensure referral follow-up. This concern was noticeably more common among providers than among leaders. Said one provider, "I don't believe [service members] are [tracked]. It's sort of the reason that I specifically send a message . . . to my nurses, . . . to help keep track of [the referral] and make sure those people [who need referrals] don't get lost." Another provider explained, "If their [follow-up] care is completed, we don't track that. There's no closed loop per se." A third provider remarked, "Zero [referrals] are tracked. [There is] zero follow-up, unless the provider is a superman or superwoman and someone who can track things in an Excel spreadsheet on their own? No." Another provider suggested that the electronic system can make it difficult to quickly identify responses that could require follow-up, remarking, "You have to click for the deployer's response. So sometimes if you don't click in there, you don't get to see their full response. And sometimes . . . [the service member will] click certain things that don't necessarily pop up as a flag . . . [which] makes it a little less user-friendly."

Lack of Clinical Integration as a Barrier to Referral Tracking and Follow-Up

Some participants also reported that assessments were not integrated with the service member's regular health care or that the PHA was separated from primary care. As a result, ensuring follow-up on referrals was challenging. One leader explained, "The system is inherently so separate that it is creating an artificial sense that we're taking care of our service members. There's the normal health system and the assessment health system, and they often don't interact." In referring to the PHA, one provider described a disconnect between the assessment process and primary care, remarking, "It doesn't help my medical staff from a strictly medical, non-military standpoint of identifying someone who needs medical care or screening . . . [and] it's not like my patients were flagged in the [electronic medical record] because they said something on the PHA."

Some participants described a disconnect between military and civilian providers when service members were referred to receive follow-up care in the private sector. They explained that referrals for private-sector care were more challenging to track or reported difficulty obtaining records from private-sector providers to verify whether issues identified in the assessment had been resolved. One provider remarked, "Our manager will request those off-base records, or I'll ask the patient, 'Can you have your provider fax those records to us?' to make sure they're still connected to services, but that's the only way we can really track it, is almost by self-report." A few providers mentioned that the care that service members received in the private sector could sometimes undermine their readiness or deployability. For example, one provider explained, "When people are getting care in the community, the standard of care—or what, the meds, the surgeries, all those things offered to civilians—[it] may not be the right option or what would be the most expedient or even an allowed option for an active duty member."

Impact of Resource Limitations on Referral and Follow-Up

Participants also noted that resource limitations with respect to staffing and funding for military health generally made it difficult to track referrals and facilitate follow-up. One provider underscored the lack of support for clinics and providers to follow up on flagged health concerns:

> If we're going to ask the patient [if they want to schedule a follow-up appointment], we need to give the clinics the resources to be able to reach out and follow up on those. And especially in the virtual PHA world, for already overworked primary care providers when they're reviewing those five or six PHA questionnaires, at the end of the day they just don't have the resources or time to truly follow up on those positive responses.

Another provider observed that "our biggest challenge, honestly, is that we cannot support the number of referrals that we get. And so the vast majority, . . . the huge majority of referrals . . . go out to the network [of civilian providers]."

Recommended Improvements to the Referral and Follow-Up Process

Leaders and providers offered a few different recommendations to improve referral tracking and follow-up, including leveraging technology and integrating assessments with clinical care.

Leverage Technology to Improve Referral Tracking and Follow-Up

To facilitate tracking of referrals and to help ensure follow-up, participants suggested that the data from different assessments be integrated in a dashboard or other format to facilitate comparison over time (i.e., multiple administrations of the same assessment) and across the different assessments. For example, one leader suggested that it would be useful "if there was the ability to have the data in the dashboard that's accessible, and also a written report or summary or running report that provides the [summarizing] information [from each of the assessments]." Another leader remarked, "I'd be intrigued to know if [artificial intelligence/

machine learning] can help with reducing the amount of data and processing those data, and make this into something that actually does help [service members] and brings [their issues that should be flagged] up front."

Some participants suggested that integrating the different assessment systems with MHS GENESIS would make it possible to track referrals to ensure prompt follow-up, and some believed that it would facilitate better communication and coordination between providers who treat service members and those who conduct assessments. One provider suggested that the PHA for service members on their panel should be tagged to their username. This way, the provider would be able to access information about pending referrals and required follow-up for patients on their panel. The provider explained if such a list were to appear as a pop-up on their screen, "[If] somehow I could access that, like it popped up on the front page of the PHA, that would be ideal, but it's not realistic for a provider or clinic to take an extra step [to track those patients]."

Integrate Assessments with Clinical Care

Some participants recommended improving the process for connecting service members with care. For example, they advised automating the referral and follow-up process. One suggested creating "some type of tracker that if a patient says, 'Yeah I want an appointment with a provider,' that we're guaranteeing somebody reaches out to them and offers them that appointment." Others suggested establishing processes for ensuring communication between the provider completing the assessment and receiving the referral: "You wanna make sure the teams that are conducting these assessments are in touch with the [clinics on the receiving end of the referral] if they are placing a referral, so [there is] that constant communication flow . . . to better understand what's a good referral, what's not." A few participants noted that if assessments are done by a primary care manager or embedded unit health care provider, it is "more patient-friendly. . . . [The patients] get the follow-up care they need from the same provider who is checking these boxes for these forms that we're required to do."

Some participants recommended tracking the status of follow-up on referrals. For example, one provider said, "I think we need to do a better job honing it in and understanding, saying, okay you referred this person for six different things, where are they, did they get their referrals? If they didn't, maybe why not?" At the same time, participants acknowledged that some mechanism to facilitate tracking of referral follow-up would be needed because putting the onus on providers to track individual referrals would contribute to burden and take time away from their already limited availability.

Summary

Our interviews with leaders and providers yielded valuable insights with respect to the suite of assessments, including strengths, challenges, and potential opportunities for increased effectiveness and efficiency.

Overall Leader and Provider Perspectives

In discussing the process for conducting the assessments, leaders and providers differed in their perceptions of its overall effectiveness. Many felt that the current process was ineffective, some had mixed views (i.e., describing aspects of the process that were effective and others that were ineffective), and some held only favorable views about its effectiveness. Participants identified process barriers, including a lack of trust or rapport between service members and the providers administering assessments, technology barriers to conducting assessments and tracking compliance, and resource limitations (e.g., having too few providers). Many recommended leveraging technology to reduce burdens and increase data quality, and others suggested changing the process to ensure that the individual administering the assessments was someone familiar to the service member.

Many participants reported that the relative timing of assessments was generally useful. However, some participants suggested allowing for some flexibility in timing to reduce repetition or survey fatigue. Others recommended changes in the timing of specific assessments to better detect health issues and generate more reliable data.

With respect to the content of assessments, many participants perceived an overlap in questions or topics within and across the assessments or described a redundancy resulting from the repeated administration of the assessments over time. While many participants reported that this redundancy was useful (e.g., for tracking change over time or increasing the likelihood that an issue would be addressed), many described the assessments as being too redundant and burdensome (e.g., resulting in survey fatigue and low data quality due to compliance issues). Some participants offered suggestions to combine, forgo, or remove certain assessments due to their length and repetition.

In describing the process for referral tracking and follow-up, many participants noted that the referral process was ad hoc and that referrals were generally not tracked. They cited a number of related challenges, including technology barriers, a lack of integration of assessments with clinical care, and limited resources. Many participants recommended leveraging technology to improve the referral process, and some suggested improving the processes for connecting service members with needed follow-up care.

Participant Perspectives on Individual Assessments

In this section, we briefly summarize themes for each of the specific assessments.

Periodic Health Assessment

The PHA was generally seen as useful, given its comprehensiveness and annual schedule for all service members. However, participants doubted whether all questions and topics were evidence based, and some participants remarked that a few additions to the PHA in the past were politically motivated. Some expressed concern about the separation between the PHA and primary care, feeling this affected its utility for prevention and its accuracy (i.e., because providers with knowledge of the service member's family and individual medical history

were seen as being better positioned to efficiently assess readiness) and had implications for follow-up on identified symptoms or health conditions. Some participants recommended evaluating the PHA content for its clinical relevance and alignment with the scientific evidence base.

Pre-Deployment Health Assessment

The Pre-DHA was generally seen as being useful for assessing deployability and flagging readiness issues, as well as for documenting the service member's baseline health and well-being for later documentation of duty-limiting medical conditions associated with deployment. Some participants pointed to timing issues related to the Pre-DHA happening too far ahead of deployment and therefore not catching health issues that may arise between the assessment and leaving for deployment. At the same time, they stated that if the Pre-DHA were conducted too close to deployment (e.g., less than 30 days), there would not be enough time to address flagged medical issues affecting deployability. Some participants suggested changing the timing of the Pre-DHA closer to deployment to ensure that any issues arising in the time prior to a deployment would be caught.

Mental Health Assessment

A few participants asserted that service members could never be asked too much about their mental health, suggesting that a great number of opportunities for identifying mental health issues was generally a good thing. In addition, a few participants commented on specific content areas within the MHA, suggesting, for example, that the importance of questions about sleep be emphasized or recommending adding a question about access to lethal means. However, some participants saw the MHA as the least useful of the assessments and remarked on the importance of trust and rapport between the provider and service member for ensuring the accuracy of data, particularly in light of mental health stigma. Participants also expressed concern about the timing of the in-theater MHA, suggesting that it should occur earlier (to ensure issues were identified promptly) or observing that many deployments may not be long enough to warrant the administration of such a resource-intensive assessment. Others reported having insufficient staffing for the administration of the in-theater MHA, which is time intensive.

Post-Deployment Assessments

Some participants said that the post-deployment health assessments (PDHA, PDHRA) were important for identifying exposure risks, which is critical both for mitigating harm and for documenting duty-limiting medical conditions associated with deployment. In addition, some participants said the PDHRA was useful for catching health issues that had not yet manifested at the time the PDHA was completed. However, participants expressed concerns about the timing of one or both of these assessments. In fact, some participants felt that the PDHA was the least useful of the assessments, due to poor data quality resulting from the timing of its administration (on return from deployment, as service members are reintegrating and "more

concerned about getting back to life."). Some participants suggested that the PDHRA was redundant (e.g., too similar to the PDHA), and some mentioned that compliance could be an issue (e.g., if the PDHA is not done after return from deployment, the PDHRA may not get done). To address these concerns, some participants suggested that the timing of the PDHA should be changed (e.g., done in-theater or pushed later) to improve compliance and reduce data quality issues associated with service members rushing to complete it immediately on return from deployment.

CHAPTER 7

Summary and Recommendations

In this report, we evaluated DoD's suite of health readiness assessments against their stated objectives and identified potential opportunities for improvement, increased efficiencies, and cost savings. This chapter describes the strengths and limitations of our approach, highlights key findings, and provides recommendations that can inform policymaking and planning to improve the suite of health readiness assessments.

Strengths and Limitations

This study has several strengths. We integrated findings from a number of methodological approaches to conduct a comprehensive initial assessment of the suite of health readiness assessments. In addition to a review of policies guiding the health assessment program, we conducted a detailed analysis of the assessments, including item content, timing, overlap, and alignment with recommended preventive screenings. Further, we integrated perspectives on the health assessments from a range of stakeholders, including leaders across Health Affairs, DHA, and the service branches as well as providers who process and use information from the assessments. These interviews were useful in characterizing perspectives on the utility of the information and processes involved.

We also note some limitations. While we aimed to include information on costs associated with the suite of health assessments, we were unable to find these data at a level of detail needed for analysis. Given the scope of the health assessments, in terms of their length and frequency, as well as the number of individuals involved in completing and processing the assessments, understanding the costs in both man-hours and allotted program budget is an important consideration in evaluating the overall value of the health readiness assessment program. Further, this study did not include an analysis of the health assessment data or attempt to link these data with military health care data. Thus, we were not able to conduct analyses to characterize the effectiveness of the health assessments in identifying potential health and behavioral health concerns and determining whether positive screens resulted in referrals or follow-up visits. Analyses of both cost and effectiveness will be important to pursue in a future study; we discuss more on potential cost and effectiveness analyses in the Recommendations section. It should also be noted that we conducted a limited number of interviews with a wide range of participants in varying roles. Thus, we may not have achieved

"saturation" at the conclusion of our interviews; additional interviews may have yielded further unique information.

Key Findings

After integrating results across the various components of the study, four key findings emerged related to the content of and process for implementing DoD's suite of health readiness assessments.

Substantial Service Member Burden and Item Redundancy Exists Across Health Assessments, Particularly for Behavioral Health

Our analysis of the health assessments and our interview findings revealed areas of overlap and redundancy across the five health readiness assessments. Our analysis of assessment content—925 unique items, 107 topics, 23 subdomains, and seven domains—revealed that service members had the highest item response burden on each assessment relative to providers and record reviewers. Redundancy within and between assessments was greatest in the behavioral health domain, which included both mental health concerns such as depression and PTSD, and negative health behaviors such as alcohol and tobacco use. By mapping the timing of assessments onto hypothetical deployment scenarios, we found that, at the upper bound, a service member might be required to answer between 1,100 and 1,500 items over a 24-month period. This did not change much across different scenarios with different deployment-to-dwell ratios and deployment lengths. Depending on the scenario, service members are expected to complete between 359 and 500 items related to their behavioral health in this time frame, with the bulk of those items concerning PTSD and depression.

Although many interview participants indicated a belief that this redundancy serves a valuable purpose, others noted that it contributes to survey fatigue in both service members, who must complete the assessments, and providers, who must review them. Many participants stated that assessments are too long with too much redundancy. Proponents of redundancy across assessments mentioned that, particularly for items related to mental health, repeated assessments increase the odds of identifying new or emerging conditions or issues that require follow-up treatment, especially if they are longitudinal and can be tracked with the same service member over time.

Content of Health Readiness Assessments Largely Aligns with Recommended Preventive Screenings, but May Not Always Be Clearly Clinically Relevant

Our review of USPSTF-recommended preventive screenings for nonpregnant adults, with a focus on screenings that could be completed by patient report (rather than using a medical test or procedure), identified seven screenings. DoD's health readiness assessments largely aligned with five of seven of these recommended screenings. Screening for anxiety and inti-

mate partner violence are recommended but are not included in any of the DoD assessments. Finding parallel health screening practices among civilian comparators—individuals who work in or for other high-risk occupations and organizations—proved difficult. Entry-level standards for recruits (mostly for physical and medical fitness) are common, but routine ongoing screenings for other aspects of health (including behavioral health) are not. This is likely a result of ADA's legal requirements that prevent routine medical or behavioral health screening, except under very specific circumstances. ADA requirements apply to fire and police departments and other government agencies that employ civilians; thus, it may not be realistic to compare the content (or process) of health screenings for service members with any civilian professions, as the military is such a unique employer.

Some participants viewed the current assessment content as effective for prevention and early intervention. However, many participants described aspects of the current process as ineffective. Others expressed a desire for assessment content to be explicitly evaluated with respect to its effectiveness for prevention and early intervention. In our review of assessment content, we found that some topics were evaluated using validated measures, but other topics were not. Similarly, some interview participants suggested that assessment content should be evaluated to ensure its clinical relevance and alignment with existing evidence. These participants expressed the view that political motivations, rather than clinical relevance, drove the addition of items to assessments, notably to the PHA (e.g., the inclusion of a gambling screening measure). Part of their concern related to the increased burden to respond to these additional items even though they pertain to only a small number of service members.

Process Issues May Limit the Utility of Health Readiness Assessments for Their Intended Purpose of Assessing Individual Medical Readiness

Interview participants raised several issues related to the process of implementing health readiness assessments that, in their view, limit its utility for assessing IMR and especially for addressing prevention and early intervention. First, aspects of data collection have implications for data quality. In particular, the validity of service member responses is related to redundancy and survey burden, the timing of deployment-connected assessments (especially those that occur just as a service member is ready to redeploy and return home), and the comfort level with and trust of the provider completing the assessment. All these factors can lead to service members satisficing in survey responses and being incentivized not to be completely truthful in responses, while prompting providers to take a "check-the-box" approach and rush through assessments.

Second, how data from assessments are used is another area of concern, particularly when it comes to referral tracking and follow-up care. Overall, many participants reported that the process for referrals and follow-up care after an assessment is inconsistent, often ad hoc, and not systematically tracked. Some stated that the onus of following through with referrals and recommended care is often solely on the service member. We did hear about some

examples in which the referral process and receipt of follow-up care work well, but these cases appeared to be one-off situations and relied on either the use of integrated electronic tracking systems or dedicated staff to do monitoring, both of which require resources that may not be available. Policy guidance provided in DHAPI 6200.06 and DHAPI 6490.03 regarding the requirements for the PHA (e.g., "Further follow-up and/or completion of medical recommendations will be completed per service-specific guidance") and the deployment-related assessments (e.g., "After the interview, the provider completes the provider section, documenting any concerns and recommending referrals as necessary") provide little detail about the referral process and notably do not necessitate tracking whether service members followed through with referrals. This may contribute to inconsistent implementation of follow-up care across the services and among different clinics.

Third, a disconnect between primary care and health assessments can hinder prevention and early intervention efforts. Many participants noted that the provider who completes a health assessment is often not the service member's primary care manger. This could affect data quality if service members are uncomfortable with the provider. In addition, there is a real risk of the primary care manager being unable to integrate health assessment data into the routine clinical care they provide to service members. Similarly, there is a risk of the health assessment provider not fully understanding the service member's health history, which could lead to missing critical symptoms or conditions and affect referrals and follow-up care.

Technological Challenges Reduce Efficiency, Particularly for Providers Who Complete Assessments

Data from interviews, especially from providers, suggested that one key area for improving efficiency is related to technology. We heard about technological barriers related to seeing and using assessment data as part of completing assessments, monitoring and tracking of both compliance and follow-up, and integrating assessment data with clinical care. Some providers indicated that they routinely needed to use multiple programs and screens simultaneously to review health records and complete assessments. Others mentioned difficulty in viewing service member responses over time. Many interview participants indicated that they were unaware of any systematic tracking system for referrals and follow-up care after assessments are completed.

Technology was one of the topics in which interview participants offered the most recommendations. The specific recommendations varied, but all were designed to improve the efficiency of the provider portion of the assessment process, either in data collection or in acting on assessment data. Although DoD and DHA policy do require each of the services to collect health readiness data electronically, they are somewhat agnostic as to how that is done and what systems are to be used, which, in turn, results in differences across the services. Some providers who noted these differences in interviews went so far as to suggest data system standardization for the purposes of completing health readiness assessments.

Recommendations

In this section, we provide recommendations to inform ongoing efforts by DoD to improve the efficiency and effectiveness of health readiness assessments. These recommendations were developed on the basis of the integrated findings from our policy review; our analysis of assessment content and timing; a review of current health screening processes, policies, and procedures in similar high-risk occupations and organizations; and interviews with military leaders and health care providers.

Recommendation 1. Use Systematic Criteria to Evaluate the Content of Health Assessments, Especially When Adding or Removing Items

The suite of health readiness assessments is designed to assess and support service member IMR. However, the relative importance of assessment items may change over time with differing levels of risk (e.g., of direct combat exposure) and austerity (e.g., availability of health care) of deployed environments. Furthermore, our analysis of assessment content revealed overlap and redundancy across the suite of assessments, particularly regarding behavioral health. Although interviews with leaders and providers revealed perceived advantages and disadvantages of redundancy, many participants felt it contributed to survey fatigue and cited negative implications for overall efficiency or perceived data quality. In the absence of a systematic framework for revising the assessments, it could be difficult to know which items to add or remove as the needs of the force change or as new recommendations are made to change the content.

To address these concerns, DHA should develop and apply systematic criteria to evaluate the proposed addition and removal of items on health assessments. The goal of this would be to ensure the utility and effectiveness of each item while maximizing efficiency by ensuring that no unnecessary items are included. DHA could begin by identifying the most important domains to use to evaluate each item (or group of items, in the case of validated measures). Table 7.1 proposes six domains for consideration.

These domains and the possible considerations for each represent a synthesis of the findings of this study. However, the list is not an exhaustive one, and DHA may modify the domains and considerations according to its objectives. Further, the proposed domains for evaluating the assessment content need not be weighted equally; some domains or considerations could be of greater importance than others. In addition, it could be useful to explore defining characteristics of a deployment as a criterion for a pre-deployment health assessment or administering assessment items in modules rather than as full-length, stand-alone assessments. For example, deployments to a European ally for a cyber specialist may look completely different from a deployment to an active combat zone in the Middle East. Differentiating the deployment types based on typical and differential experiences may improve the efficiency of routine assessments.

Once these criteria are developed, they can be used to systematically evaluate both the relative benefit of the addition of new items and the potential impact of trimming existing

TABLE 7.1
Proposed Domains to Evaluate Assessment Content

Proposed Domain	Possible Considerations
Clinical relevance	How will the data be used clinically? How will the data be integrated with clinical care provided to the service member outside the context of health readiness assessments?
Alignment with existing research	Does this item or topic align with existing evidence on screening for prevention and early identification (e.g., recommendations from the USPSTF)?
Potential impact on IMR	How serious is the symptom/condition/exposure? What are the potential adverse outcomes (e.g., medical evacuation, morbidity, mortality)? What proportion of the disease burden is potentially preventable? Does existing research suggest that the topic is directly associated with individual medical readiness?
Validity and reliability	How feasible is it to assess the health concern? Is there a validated measure that can be used for (or adapted to) the military context?
Frequency of assessment	How often should this item or topic be assessed (e.g., annually, pre-/post-deployment)? What evidence is available on the appropriate timing?
Prevalence	How prevalent is this symptom or condition, or what is the likelihood of this exposure? Are changes in prevalence occurring or expected to occur over time?

NOTE: The order of the proposed domains is based on the relative prominence of concepts in the authors' analysis and synthesis of study data.

items. DHA could then apply the criteria to an existing item that is well established as being of maximum utility and importance. This process could be completed for other content to establish a profile of existing items and topic areas. If items of low utility are identified, DHA should consider the possible implications of removing them. Furthermore, in the future, newly proposed items could be compared with existing items within the suite of assessments to evaluate the feasibility and importance of their inclusion. DHA may also consider evaluating the assessments on a recurring basis (e.g., every two to three years) to ensure their continued relevance. As a part of this process, DHA could also seek to engage subject matter experts on the items or topics being considered for addition or removal. For example, it might convene or leverage an existing working group of leaders, providers, and combatant commanders through an internal review process.

DoD already has a number of existing working groups in place, including the PHA Optimization Working Group, the IMR Working Group, and the Deployment Readiness Health Assessment Working Group, in which these systematic evaluations of content can occur. Although each of these working groups has a charter, because these documents are not in the public domain, we were unable to assess the specific process or criteria that are currently being used to evaluate assessment content, including additions or subtractions of topics or items. Nonetheless, we suggest that DoD ensure that decisions about content use a clearly articulated, systematic approach to examining and editing assessment content. Note also that

membership in these working groups appears to consist of only DoD-affiliated individuals. Adding outside subject matter experts, when appropriate, could also assist with evaluations of content, using the approach outlined in Table 7.1.

By establishing these criteria, DHA will be positioned to evaluate the current assessment content to ensure its relevance and utility relative to the goals of the assessments. As the needs for force readiness change over time, or as new policies that impact the stated purpose or scope of assessments are developed, the relative importance of different domains might shift. Continued process improvements over time might also help to inform the refinement of these domains. However, the domains proposed in this report can serve as a starting point for DHA to establish a structured and transparent process for maintaining the suite of assessments. This will be particularly important as new topic areas or items are proposed, or as other topic areas with higher burden or lower perceived utility are identified.

Recommendation 2. Conduct an Evaluation of the Costs and Benefits Associated with the Suite of Health Readiness Assessments

DoD's suite of health readiness assessments is designed to assess the medical readiness of the force. At the forefront of that assessment process is service member IMR, including prevention and early intervention for deployment-limiting conditions. Though we were unable to obtain detailed data on how much this process costs, we can infer a substantial overall cost to the health readiness assessment program, given the content, overlap, and timing of assessments, as well as labor costs associated with the time that service members, record reviewers, and providers spend completing assessments. Many interview participants also indicated that the health readiness assessment program can be very resource intensive and noted that additional improvements in processes may be resource constrained. Given that interview participants reported mixed perspectives on the effectiveness of the assessment process, particularly with respect to IMR (including prevention and early intervention), there is a need to better understand what benefits DoD is getting for its investment.

Although compliance is routinely tracked, we are not aware of any attempts to assess the effectiveness of the portfolio of assessments in its entirety. We are aware of one study that examined the effectiveness of the in-theater MHA among soldiers deployed to U.S. Central Command between October 2022 and October 2023 (Perez et al., 2024). The authors concluded that less than 2 percent of screened soldiers were referred for psychiatric services. They also noted several issues that limit the usefulness of the in-theater MHA, including response bias and underreporting, the time-consuming nature of the in-theater MHA, time gaps between service member self-report and provider review, and lack of training among providers who complete the assessment. Ultimately, the authors assert that there is not enough evidence to conclude that the in-theater MHA affects force readiness (Perez et al., 2024).

To address unanswered questions about costs and possible benefits derived from the suite of health readiness assessments, DoD could conduct a cost-benefit analysis. Some key pieces of

data, especially those related to cost, are needed to carry this out. For example, the information used to calculate the cost-per-completion of each assessment, for both the service member and the provider, is not currently available. To make this calculation, one would need the time it takes each respondent to complete their sections of each type of assessment (which should be available electronically, based on completion time by respondent), the cost of the individual completing the assessment (e.g., pay or salary based on service member rank or provider type) per unit of time, and the number of assessments that are completed by service members and providers of different types on a given time scale (e.g., each fiscal or calendar year). Once these pieces of information are available, they can be combined to calculate the cost per completion associated with each type of assessment by service member rank and provider type.

Independently, a cost analysis could be useful for DoD to simply better understand where and how resources are being used. However, the cost calculations just described will provide only the cost side of a cost-benefit analysis. Defining the benefits associated with health readiness assessments will require monetizing a predefined set of expected outcomes associated with them.[1] Such an evaluation was outside the scope of the current study, but future research could address whether the completion of health readiness assessments is associated with specific outcomes. There are many different outcomes that the DoD might consider, including the number of service members who screen positive for a symptom or condition, the number of referrals for different types of follow-up care (e.g., behavioral health treatment, substance use disorder clinic, physical therapy), the number of referrals resulting in successful follow-up treatment, the number of service members returned to deployable status after an issue was identified in an assessment, or some other readiness metric at the aggregate level (e.g., unit-level personnel readiness).

Regardless of what outcomes are selected, a final step is needed to compare identified costs with identified benefits, and those benefits will also need to be monetized. If we use the number of referrals as a benefit, we need to then assign a cost to hypothetical lost productivity (or readiness) among service members who had an issue or concern that would not have been captured had they not completed the assessment. That is, based on the known number of referrals, what would it have cost DoD to replace those service members if their known issue had never been addressed?[2] Such a calculation requires many assumptions, but these can all

[1] Though slightly different, an effectiveness evaluation could also help DoD to better understand if the suite of health readiness assessments is achieving its stated objectives. One of the key differences between a cost-benefit and cost-effectiveness evaluation is that, in a cost-benefit analysis, benefits must be monetized. In a cost-effectiveness evaluation, outcomes remain in their original unit of measurement (e.g., number of positive screens, number of referrals) and require subjective decisions about how much an outcome is worth (e.g., is $5,000 too much to "pay" for a positive screen versus $5,000 to "pay" for a referral?). Cost-effectiveness evaluations also tend to focus on a particular outcome, or compare outcomes, whereas a cost-benefit analysis would examine the universe of outcomes. Despite these differences, an independent effectiveness analysis could help answer questions about what outcomes are associated with a health readiness assessment.

[2] The assumption, of course, is that referrals lead to both a successful treatment of whatever issue led to the referral in the first place and a return to full duty and deployability status.

be stated (and manipulated) to provide a range of estimates of monetized benefits. A cost-benefit ratio would then compare the cost of completion associated with each assessment to the cost of associated benefits. This strategy might also be used to facilitate a comparison of different staffing models for certain assessments. For example, DoD might evaluate the cost-benefit ratio of engaging the service member's primary care manager versus an unfamiliar provider to conduct the PHA, to determine whether the rate of successful follow-up is better among service members who are assessed by their primary care manager.

By conducting a cost-benefit analysis, DoD will be better positioned to make improvements to both process and content of the assessments in the future. Further, this analysis could be used to make changes to the implementation of the assessments to ensure maximum efficiency and effectiveness. If desired, the approach could also be modified to conduct a cost-benefit analysis of individual items or assessments. If items or topics were revealed to have a higher cost and lower effectiveness, they could be removed or replaced with something of greater relative benefit.

Recommendation 3. Explore Opportunities for Improved Technological Efficiency in the Health Readiness Assessment Process

Health readiness assessments are typically administered electronically, and service branches track IMR and communicate duty limitations using different electronic systems (e.g., eProfile for Army, the Limited Duty Sailor Marine Readiness Tracker for Navy and Marine Corps, and the Aeromedical Services Information Management System for Air and Space Forces). Our policy review revealed that service members must complete a web-based PHA (DoDI 6200.06, 2016) and that deployment health assessments should be electronically recorded (DoDI 6490.03, 2019). Our analysis of assessment content demonstrated a number of items across the suite of assessments that must be completed by a record reviewer who has access to the service member's electronic medical record. However, we did not identify any specifications in DoD policy for electronic systems beyond the basic requirement that such a system exists and that it be integrated into the Defense Medical Surveillance System (MHS, 2024; DoDI 6490.03, 2019). In interviews, leaders and providers reported technology challenges associated with the administration of assessments (e.g., providers having to use different electronic systems to review data and conduct assessments; technical barriers that prevented service members from completing the assessments). Participants also reported technology barriers to tracking issues requiring follow-up (e.g., due to lack of integration of electronic assessment systems with MHS GENESIS). Many participants recommended leveraging technology to improve the assessment and follow-up process.

In recognition of these challenges, DHA could explore opportunities for optimizing existing technology systems. First, the electronic systems for conducting assessments and follow-up should be evaluated to determine the scope and extent of existing challenges and to identify any promising strategies. Where identified, promising strategies should be evaluated for their potential to be scaled. For example, such an evaluation could reveal whether there are existing strategies for facilitating the assessment process, such as through

built-in skip patterns or other ways to make it easier for providers to identify symptoms or responses that require follow-up. This could include programming specific alerts or flags or by displaying a dashboard with a summary of assessment data. It might also help to reveal detail with respect to difficulties providers reported in interfacing between the assessment systems and the electronic health record. The evaluation could also help DHA to better understand the landscape of what is happening with respect to technological solutions for ensuring follow-up. For example, are there examples of strategies for using the existing technology to interface between the assessment systems and MHS GENESIS or for tracking referrals?

Second, once DHA has a better understanding of the existing challenges and potential solutions on both the front and back end of existing systems, a plan could be developed for scaling promising strategies and implementing other necessary improvements. As a part of this, DHA might consider incorporating best practices for usability or examining the potential to securely leverage artificial intelligence in an exploratory way. Ultimately, moving toward the integration of existing electronic assessment systems with MHS GENESIS may lead to better care for service members. However, such a change would be costly and resource intensive, and it could take time to implement. Taking incremental steps, on the other hand, could help to build momentum and support for such changes through accumulated improvements. Optimized electronic systems and improved integration across the systems and the electronic health record could also help to achieve efficiencies, both in the administration of assessments and in the tracking and resolution of issues requiring follow-up.

APPENDIX A

Detailed Comparison of Policy Guidance

Table 3.1 provides a high-level summary of whether and how the services' policy documents aligned with the level of detail found in DoDI or DHAPI guidance. In this appendix, we present detailed results from this review (Chapter 3). In Table A.1, each row corresponds to a specific requirement identified in DoD policy (including DoDI 6200.06, 6490.12, and 6025.19 and DHAPI 6200.06 and 6490.03), as outlined in the "requirement" column. The final four columns in the table indicate whether service in the Department of the Air Force (DAF), the Department of the Army (DoA), the Marine Corps (which falls under the Department of the Navy [DON]), and DON itself, respectively, addresses the requirement in their own policy document(s). Responses in the corresponding row-column cell can be "yes," "no," or "partial." For cells denoted as "partial," a brief description is provided explaining why. Typically, this explanation details how the language in the service-level policies does not completely match that of the relevant DoD policy.

TABLE A.1

Service-Level Policy Language Specificity Alignment with Department of Defense Policy Language

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6200.06	This issuance applies to the Office of the Secretary of Defense (OSD), the Military Departments (including the Coast Guard at all times, including when it is a Service in the Department of Homeland Security by agreement with that Department), the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	It is DoD policy that the DoD will establish a PHA program forming the foundation for all military health assessments. This program includes the development and oversight of a single PHA tool and other deployment-related health assessment tools, when allowed by law, for use by all Military Services. The PHA program will be standardized across the Military Services. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Assess the medical readiness of service members. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Assess currency of IMR requirements, in accordance with DoD Instruction (DoDI) 6025.19 (IMR Program). (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Identify if service members are within the time frame for completion of required deployment-related health assessments, in accordance with DoDIs 6490.03 (Deployment Health) and 6490.12 (MHA). (p. 3)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6200.06	Include a person-to-person MHA with a health care provider trained to perform mental health assessments, in accordance with Section 1074n of Title 10, United States Code. Licensed mental health professionals may conduct this assessment in accordance with DoDI 6490.12 (MHA). (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Identify if service members require separation histories and physical examinations. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Provide a standardized PHA tool based on prevention and evidence-based medical recommendations provided by the U.S. Preventive Services Task Force. All the Military Services and their components will use this PHA tool. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Monitor health of the force and identify duty-limiting and deployment-limiting conditions, in accordance with DoDIs 1332.18 (Disability Evaluation System) and 6490.07 (Deployment-Limiting Medical Conditions). (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Provide preventive health screening and determine if further health evaluation is indicated for service members. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6200.06	Include a face-to-face encounter with a trained health care provider if clinically indicated in any part of the process, or requested by the service member. (p. 3)	Yes	Partial: Army doctrine does not specify the face-to-face portion, but it could be implied via visit.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6200.06	Use standardized medical coding, in accordance with the current International Statistical Classification of Diseases and Related Health Problems (also commonly referred to as International Classification of Diseases). (p. 4)	No: Air Force doctrine does not indicate mention of ICD codes.	Partial: Army doctrine has no language specifically about the International Statistical Classification code system.	Partial: Navy doctrine does not indicate the ICD system.	Partial: Navy doctrine does not indicate the ICD system.
DoDI	6200.06	Develop service-specific implementation guidance consistent with the Defense Health Agency procedural instructions for their respective departments, and assure compliance with this issuance. (p. 6)	Yes	Yes	Yes	Yes
DoDI	6200.06	Provide unit commanders with access to service members' PHA self-assessment completion rates as an integral part of the IMR program. (p. 6)	Yes	Yes	Yes	Yes
DoDI	6200.06	Provide personnel, training, and support to implement requirements of this issuance. (p. 6)	Yes	No: Army doctrine does not have language regarding this requirement.	Yes	Yes
DoDI	6200.06	Ensure active component and selected reserve service members complete an annual PHA self-assessment. Ensure service members not required to complete an annual PHA self-assessment (e.g., certain members of the Ready Reserve) are screened in accordance with section 10206 of Title 10, United States Code. (p. 6)	Yes	Yes	Yes	Yes
DoDI	6200.06	Assessing IMR status. (p. 7)	Yes	Yes	Yes	Yes
DoDI	6200.06	Identifying and documenting potential duty-limiting or deployment-limiting conditions. (p. 7)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6200.06	Providing age- and gender-specific, evidence-based preventive health information and recommendations to service members. (p. 7)	Yes	No: Army doctrine does not have language regarding this requirement.	Yes	Yes
DoDI	6200.06	Completing annual person-to-person MHAs and deployment-related health assessments, as appropriate. (p. 7)	Yes	Yes	Yes	Yes
DoDI	6200.06	Service members are required to complete a PHA every 12 months. (p. 7)	Yes	Yes	Yes	Yes
DoDI	6200.06	The PHA is recorded as overdue if it is not completed within 90 days after the due date. (p. 7)	Partial: Air Force doctrine does not indicate overdue status but does list due dates for service members.	Yes	Yes	Yes
DoDI	6200.06	Health care personnel trained to perform the record review process will review service members' responses and PHA record review section questions. (p. 7)	Yes	Yes	Yes	Yes
DoDI	6200.06	A trained health care provider's signature completes the PHA. (p. 7)	Yes	Yes	Yes	Yes
DoDI	6200.06	Service members will complete a comprehensive, web-based, annual PHA within the timeline prescribed by Title 10, United States Code. (p. 7)	Yes	Partial: DA PAM 40-502 does not note in-person or person-to-person venues.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6200.06	At any time during the PHA process, a face-to-face visit with a health care provider or other appropriate individual may be indicated and scheduled. (p. 7)	Yes	Partial: It is not stated in DA PAM 40-502, but it seems inferred that this occurs in person with an appointment at an MTF.	Yes	Yes
DoDI	6200.06	Trained health care personnel will review the service member's self-assessment, available health records, and other information from medical encounters since at least the service member's last PHA. (p. 7)	Partial: Air Force doctrine does not indicate a review of records since last PHA but does list some technician requirements that may address this.	Yes	Yes	Yes
DoDI	6200.06	A person-to-person mental health assessment between the service member and a health care provider trained to perform MHAs is required. Trained health care personnel may determine if the service member requires further evaluation or health education and contact the service member. (pp. 7–8)	Yes	Partial: There is no mention of the person-to-person portion of this requirement.	Yes	Yes
DoDI	6200.06	In accordance with the Defense Health Agency PHA procedural instruction, health care providers who have received PHA program-specific training will: (1) Conduct the person-to-person MHA if not previously completed within the current calendar year. (2) Assess and document significant findings. (3) Document dispositions of the PHA in the appropriate medical system of record. (p. 8)	Yes	Partial: The latter two requirements are not mentioned in Army doctrine.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6200.06	The PHA is considered current for reporting purposes when health care providers have completed all of the following: (1) Reviewed records and self-assessments. (2) Conducted a person-to-person MHA. (3) Identified, reviewed, and initiated appropriate actions of all items requiring evaluation or health education. (4) Provided recommended clinical preventive education and information to the service member and documented recommended referrals and other recommendations. (5) Recorded the PHA completion date in the service-specific medical readiness system of record. Completion of the PHA does not constitute fulfillment of all IMR requirements. (6) Sent to and archived in the approved medical record data collected from the PHA, in accordance with DoDI 6040.45 (DoD Health Record Life Cycle Management). (p. 8)	Partial: This is documented at greater specificity in other corresponding Air Force doctrine, but not at the same level as DODI 6200.06.	Yes	Yes	Yes
DoDI	6490.03	DoD Components will conduct deployment health activities before, during, and after joint and service-specific deployments to assess and manage health risks. The DoD implements deployment health activities in order to deliver a medically ready force and protect the health of that force through IMR occupational and environmental health practices, health assessments, and health surveillance in accordance with DoDIs 6025.19, 6055.05, 6200.06, and 6490.07 and DoDD [Department of Defense Directive] 6490.02E. Deployment health activities will anticipate, recognize, monitor, evaluate, record, report, communicate, control, and mitigate health threats, to include their immediate and long-term effects. (p. 3)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6490.03	Deployments that last longer than 30 days outside the United States require the full range of deployment health activities described in Section 3 of this issuance and the Defense Health Agency deployment health procedural instruction. (p. 3)	Yes	Yes	Yes	Yes
DoDI	6490.03	Deployments of shorter duration outside of the United States, and operations within the United States require the minimum deployment health activities described in applicable procedures published by the Defense Health Agency, plus any additional deployment health activities per the decision of the commander exercising operational control, as indicated by identified health risks. (pp. 3–4)	Yes	No: Army doctrine does not indicate necessary requirements for shorter deployments.	Partial: Navy doctrine does not require the minimum deployment health activities prescribed by DHA for shorter deployments.	Partial: Navy doctrine does not require the minimum deployment health activities prescribed by DHA for shorter deployments.
DoDI	6490.03	DoD deployment health activities will be monitored, recorded, and used to promote IMR and protect the health of all deploying U.S. military and DoD civilian personnel. (p. 4)	Yes	Yes	Yes	Yes
DoDI	6490.03	Deployment health activities and the associated data and information will be coordinated and shared throughout the DoD (except where limited by law, policy, or security classification), in accordance with DoDI 8320.02. (p. 4)	Yes	Yes	Yes	Yes
DoDI	6490.03	For deploying contract personnel, all pre-, during-, and post-deployment medical assessments, examinations, treatments, and preventive measures are the responsibility of the contractor unless otherwise stated in the contract, except that the government will provide theater-specific immunizations and medications not available to the general public in accordance with Title 48, Code of Federal Regulations (CFR), and Subparts 207.503, 252.225-7040 of the Defense Federal Acquisition Regulation Supplement. (p. 4)	Yes	No: Army doctrine does not indicate requirements for deploying contract personnel.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6490.03	DoD Components will conduct deployment health activities before, during, and after deployment as described in this issuance and deployment health procedural instructions published by the Defense Health Agency. (p. 14)	Yes	Yes	Yes	Yes
DoDI	6490.03	3.2. CONDUCTING DEPLOYMENT HEALTH ACTIVITIES. DoD Components will conduct deployment health activities as described in this section. Deployment health activities are required based on duration or location of the deployment or at the discretion of the combatant commander, service component commander, or commander exercising operational control based on health risk assessments: a. For deployments greater than 30 days outside the United States, conduct the full range of deployment health activities described in Paragraph 3.3., and applicable procedures published by the Defense Health Agency. (p. 14)	Yes	Yes	Yes	Yes
DoDI	6490.03	b. For deployments of 30 days or fewer outside of the United States, and operations within the United States (e.g., emergency response), conduct the minimum deployment health activities described in applicable procedures published by the Defense Health Agency; and any additional, risk-based, deployment health activities directed by the combatant commander, service component commander, or commander exercising operational control. (p. 14)	Yes	Yes	Partial: Navy doctrine does not require the minimum deployment health activities prescribed by DHA for deployments of 30 days or fewer.	Partial: Navy doctrine does not require the minimum deployment health activities prescribed by DHA for deployments of 30 days or fewer.

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6490.03	Identifying and addressing deployment-limiting medical conditions in accordance with DoDI 6490.07 and the October 7, 2013 Assistant Secretary of Defense for Health Affairs Memorandum. (p. 15)	Yes	Yes	Yes	Yes
DoDI	6490.03	Enabling medical evaluations and health assessments, with appropriate medical follow-up of illnesses, injuries, mental health and dental care encounters; and Occupational and Environmental Health and Chemical, Biological, Radiological, and Nuclear agent exposures, documented in the DoD health record in accordance with DoDI 6040.45, and the recording of health assessments in the Defense Medical Surveillance System. (p. 15)	Yes	Yes	Yes	Yes
DoDI	6490.03	Conducting deployment-related health assessments. Health assessments for service members and DoD civilians are conducted when required according to Paragraph 1.2.b., at specific intervals throughout the deployment cycle. Assessments may be combined or conducted concurrently to streamline administration when established requirements are met, pursuant to DoDIs 6200.06 and 6490.13 and this issuance, as described in the companion Defense Health Agency procedural instruction for deployment health. (1) For service members, health assessments related to deployment include the Pre-DHA (DD Form 2795), PDHA (DD Form 2796), PDHRA (DD Form 2900), and Deployment MHA (DD Form 2978). DD Forms 2796, 2900, and 2978 apply if a Pre-DHA was required during the pre-deployment phase and the service member completed the deployment or per the instructions of the commander exercising operational control, based on health risk during deployment. Service members may complete health assessments related to deployment as part of the Annual PHA (DD Form 3024) when established requirements are met.	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		(2) For DoD civilians, health assessments related to deployment include the Pre-DHA (DD Form 2795), PDHA (DD Form 2796), and PDHRA (DD Form 2900). DD Forms 2796 and 2900 apply if a Pre-DHA was required during the pre-deployment phase and the individual completed the deployment or per the instructions of the commander exercising operational control, based on health risk during deployment. DoD civilians will complete deployment-related health assessments at the redeployment site or MTF designated by their DoD Component. (3) Health assessments for military working animals are conducted and entered into the DoD veterinary health record. (p. 16)				
DoDI	6490.03	Ensuring information containing individual location data, personally identifiable information, and individually identifiable health information is collected, recorded, distributed (including to the VA, as appropriate), and archived before, during, and after all deployments. (p. 16)	Yes	Partial: It is unclear if this is shared with the VA during the deployment process. But information is shared with the VA throughout the Separation Health and Physical Evaluation process.	Yes	Yes
DoDI	6490.12	DoDI 6490.03 (Reference (h)) prescribes the circumstances under which pre- and post-deployment health assessments are required for service members who deploy. All deploying service members who are required to complete deployment health assessments in accordance with Reference (h) will be required to complete a person-to-person pre-deployment MHA and three post-deployment MHAs. In situations where Pre-DHAs are not required by Reference (h), but	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		commanders require PDHAs because a service member was exposed to operational risk factors during the course of the deployment, post-deployment MHAs will also be required. (p. 5)				
DoDI	6490.12	Leadership responsibilities to ensure compliance, types of providers (in addition to licensed mental health professionals) who can conduct person-to-person assessments, and the instructions and exemptions for a comprehensive deployment health program are delineated in Reference (h). (p. 5)	Yes	No: There is no specific mention of this requirement in Army doctrine.	Yes	Yes
DoDI	6490.12	The purpose of the deployment MHA is to identify mental health conditions including PTSD, suicidal tendencies, and other behavioral health conditions that require referral for additional care and treatment in order to ensure individual and unit readiness. . . . These assessments must: (1) Include a person-to-person dialogue (e.g., face-to-face, by telephone, or video teleconference) and must be conducted in a private setting to foster trust and openness in discussing sensitive health concerns. (2) Be conducted within the time frames cited in the policy section of this instruction, and at least 90 days apart. (p. 5)	Yes	No: There is no specific mention of this requirement in Army doctrine.	Yes	Yes
DoDI	6490.12	Currently administered PHAs and other person-to-person assessments (e.g., the PDHRA) will meet the time requirements for deployment MHAs only if they use all the psychological and social questions included in the deployment health assessment forms (DD Form 2795, Pre-DHA and the DD Form 2900, PDHRA), and if they are conducted in a manner specified in paragraph 1c of this enclosure. (p. 5)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6490.12	If an individual begins preparing to deploy again before completing any of the three required post-deployment MHAs and, as part of that process, completes a pre-deployment MHA, the individual's deployment MHA cycle will then reset, and the requirement to complete the post deployment MHA will be considered satisfied. (pp. 5–6)	Yes	Yes	Yes	Yes
DoDI	6490.12	These deployment MHAs are conducted by either an independently licensed mental health professional or a trained and certified health care provider (specifically a physician, physician assistant, nurse practitioner, advanced practice nurse, independent duty corpsman, special forces medical sergeant, independent duty medical technician, or independent health services technician). Deployment MHAs may also be conducted by a mental health technician provided: (1) That technician has completed the training and certification requirements described in Section 3 of this enclosure. (2) An independently licensed mental health provider, physician, nurse practitioner, or physician assistant is available to supervise and countersign each assessment before a disposition is made. (p. 6)	Yes	Yes	Yes	Yes
DoDI	6490.12	The deployment MHA follows a three-stage process . . . : (1) Stage 1 involves the completion of a self-report survey that includes initial screening questions that are completed by all deploying service members. This stage is designed to detect potential problem areas and define high-risk groups.	Partial: Air Force doctrine does not indicate the three-stage process, but it does address several related requirements.	No: There is no specific mention of this requirement in Army doctrine.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		(2) In Stage 2, all deploying service members complete additional questionnaires if the Stage 1 screening for either PTSD or depression is positive. This stage is designed to "drill down" to PTSD and depression criteria, measure symptom severity, and help providers identify concerns for further evaluation or treatment.				
DoDI	6490.12	(3) Stage 3 is the person-to-person provider interview during which the provider reviews and clarifies responses, identifies areas of concern, conducts Brief Intervention for Risky Drinking (if applicable), and provides referrals for further evaluation or treatment as indicated. It is during this stage that the provider also assesses for risk of suicide or violence toward others. (p. 6)	No: This is not indicated in relevant Air Force doctrine.	No: There is no specific mention of this requirement in Army doctrine.	Yes	Yes
DoDI	6490.12	The deployment MHA must include a review of the available health records of the service member that are related to each previous deployment. (p. 6)	Yes	No: There is no specific mention of this requirement in Army doctrine.	Yes	Yes
DoDI	6490.12	Results from these deployment MHAs must be recorded in the service member's medical record, when available, for life cycle management consistent with DoDI 6040.45 (Reference (i)) to assist with health surveillance of the deploying force and to allow MHA data to be shared with providers from the VA, consistent with applicable information sharing protocols. Before each deployment MHA is conducted, the provider must ensure that the service member is notified of the sharing of information with the VA in accordance with Reference (b). (p. 7)	Yes	No: There is no specific mention of this requirement in Army doctrine.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6490.12	Health care providers will notify the service member's commander of any concerns that meet the criteria for disclosure based on DoDI 6490.08 (Reference (j)), including but not limited to risk of harm to self, risk of harm to others, and risk of harm to the mission. (p. 7)	Yes	Yes	Yes	Yes
DoDI	6025.19	The military departments assess all service members for medical readiness at least annually, as described in Section 3. (p. 4)	Yes	Yes	Yes	Yes
DoDI	6025.19	IMR is a military service, command, and individual service member responsibility. Service members in the active component and Selected Reserve, as a condition of continued participation in military service, have a responsibility to maintain their health and fitness; meet IMR requirements; and report medical issues (including physical, dental, and mental/behavioral health) that may affect their readiness to deploy, ability to perform their assigned mission, or fitness for retention in military service to their chain of command. (p. 4)	Partial: Air Force doctrine does not indicate SM responsibility.	Yes	Yes	Yes
DoDI	6025.19	(1) Fully Medically Ready. Service members are considered Fully Medically Ready when they are current in the DoD PHA and dental readiness assessment, [...], have received all required immunizations based on assignment location, have received all required readiness laboratory studies, are current with all individual medical equipment, and are categorized as "deployable" or "deployable with limitations" in accordance with DoDI 1332.45. Service members who are categorized as "deployable with limitations" have conditions requiring additional medical screening or require a medical waiver to deploy.	Yes	Partial: The Army uses different codes besides "Fully Medically Ready" and "Partially Medically Ready" in favor of other codes used and reported to commanders in the system.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		(2) Partially Medically Ready. service members are considered Partially Medically Ready when they are overdue for a DoD PHA and/or dental readiness assessment . . . . and/or are lacking one or more of the following: required immunizations, medical readiness laboratory studies, or individual medical equipment. This category is the main focus of a commander's required actions and includes IMR deficits that must be rectified by the service member immediately upon identification to guarantee that these service members remain or become Fully Medically Ready. (3) Not Medically Ready. Service members are considered Not Medically Ready when they have a deployment-limiting medical condition which is categorized as "temporary non-deployable" or "permanent non-deployable" for medical reasons in accordance with DoDI 1332.45 and/or if they require urgent or emergency dental treatment. (p. 8)				
DoDI	6025.19	Service members will be assessed based upon established, defined, and measurable medical readiness elements. The IMR elements are: a. DoD PHA. b. Deployment-limiting medical condition status. c. Dental readiness. d. Immunization status. e. Medical readiness laboratory studies. f. Individual medical equipment. (p. 10)	Yes	Yes	Yes	Yes
DoDI	6025.19	The DoD PHA occurs annually in accordance with DoDI 6200.06 and Defense Health Agency Procedural Instruction 6200.06. (p. 10)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6025.19	The DoD PHA remains current for 12 months after the last completion date and is overdue if it is not completed within 90 days after the due date. This grace period allows for unplanned periods of leave, temporary duty, deployments, or other unplanned periods of non-availability. Service members who are overdue for the DoD PHA are considered Partially Medically Ready and are required to complete their annual DoD PHA immediately to become Fully Medically Ready (if no other IMR deficits exist). (p. 10)	Partial: Air Force doctrine indicates 15 months versus 12 months noted in DODI 6025.19.	Yes	Yes	Yes
DoDI	6025.19	The DoD PHA is considered complete for reporting purposes when Department of Defense Form 3024, "Annual PHA," available on the DoD Forms Management Website, is completed as described in DoDI 6200.06, including recording of the completion date in the service-specific IMR electronic tracking system. (p. 10)	Partial: Air Force doctrine does not reference completion via forms management website.	Yes	Yes	Yes
DoDI	6025.19	Ensure, in coordination with the Defense Health Agency, that the medical readiness of individual service members, in the active component, reserve component, or assigned to a Defense Agency or DoD Field Activity, is assessed and documented during each health assessment and primary care visit in an MTF or dental treatment facility. Additionally, access to IMR services will be measured to validate support to the total force. (p. 14)	Yes	Yes	Yes	Yes
DoDI	6025.19	Track the key IMR elements, identified in Section 3, across their respective military services and provide operational commanders, military departments, and service headquarters the ability to continuously monitor their military personnel for medical readiness and deployability; ensure that commanders and supervisors	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		will have access to IMR data to identify individual and cohort availability for contingency sourcing and are responsible for verifying assigned personnel to accomplish IMR requirements. (p. 14)				
DoDI	6025.19	Ensure that metrics and goals are followed and met as established in this issuance. Service-specific metrics may be developed above those described here to enhance internal management and assessment of medical readiness status. (p. 14)	Yes	Yes	Yes	Yes
DoDI	6025.19	Verify that with each DoD PHA, the service member understands the requirement to report significant health information to their chain of command and facilitate disclosure of significant health information by any non-DoD health care provider to an MHS DoD health care provider, and ensure compliance with such. All service members will disclose to their MHS DoD health care provider and to their command all medical encounters (including encounters for physical, dental, and mental/behavioral health) with a non-DoD health care provider that would directly impact the service member's IMR status and will provide releases of information as necessary to facilitate receipt of medical documents from such encounters for entry into their military medical record. (p. 14)	No: Air Force doctrine does not indicate verification that service member understands requirements.	Yes	No: Navy doctrine does not address disclosing information by non-DoD providers.	No: Navy doctrine does not address disclosing information by non-DoD providers.
DoDI	6025.19	Provide quarterly reports to the Defense Health Agency IMR Program Manager summarizing the IMR status of all service members of the active components and reserve components.. (p. 14)	No: Air Force doctrine does not indicate quarterly reports.	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DoDI	6025.19	Assess, at least annually, each service member's medical readiness by applying the standards in Volume 2 of DoDI 6130.03. (p. 15)	Yes	Yes	Partial: Navy doctrine does not address applying the standards in Volume 2 of DoDI 6130.03.	Partial: Navy doctrine does not address applying the standards in Volume 2 of DoDI 6130.03.
DHAPI	6200.06	This DHA-PI applies to OSD, the military departments (including the Coast Guard at all times, including when it is a service in the Department of Homeland Security by agreement with that Department), the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the DoD, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this DHA-PI as the "DoD Components"). (p. 1)	Yes	Yes	Yes	Yes
DHAPI	6200.06	It is Defense Health Agency instruction, pursuant to References (d) through (w), that the PHA will be the primary health assessment screening tool for the annual evaluation of the medical readiness of applicable service members. (p. 1)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Assess currency of IMR requirements in accordance with Reference (h). (p. 6)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Monitor health of the force, identify duty limiting and deployment limiting conditions in accordance with References (h) through (j), provide preventive health screening and education, and determine if further screening or evaluation is indicated. (p. 6)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6200.06	Identify required Deployment-Related Health Assessments if service member is within the time frame for completion in accordance with References (k) and (l). (p. 6)	No: This is not documented in relevant Air Force doctrine.	Yes	Yes	Yes
DHAPI	6200.06	Include a person-to-person MHA with a health care provider trained to perform MHAs as outlined in Reference (d). (p. 6)	Yes	Partial: Army doctrine is unclear as to whether the MHA portion is in person.	Yes	Yes
DHAPI	6200.06	Include a face-to-face encounter with a trained health care provider if clinically indicated in any part of the process, requested by the service member, or as directed by individual services. (p. 6)	Yes	Partial: In doctrine it may be inferred that there be an in-person appointment for the PHA, but it is not specified in DA PAM 40-502.	Yes	Yes
DHAPI	6200.06	The annual PHA is composed of three progressive processes used to assess the health status of all SMs. Reference (f) will be used to complete the three PHA processes. Those processes are: (1) SM's PHA self-assessment. (2) Medical record review. (3) Review by a health care provider to include a person-to-person Mental Health Assessment (MHA). (p. 6)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6200.06	The annual person-to-person MHA, according to Reference (d), will be a part of the PHA requirement and must be conducted person-to-person with the SM by either a health care provider or licensed mental health professional, each with required MHA-specific training as specified in Reference (l). This will also satisfy the deployer-required MHAs if completed in the appropriate time frame. The purpose of the MHA is to identify mental health concerns requiring referral for further evaluation and care. Use of telehealth is acceptable to meet this requirement. (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	The PHA process will enable completion of Deployment-Related Health Assessments due at the time of the PHA as outlined in References (d), (g), (j), (k), and (l). The PHA process will also provide data utilized by the Disability Evaluation System process as outlined in Reference (i). (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	PHA encounters will be coded within designated service electronic health records in accordance with current standards from Reference (t). (p. 7)	Partial: Air Force doctrine does not address complying with current standards from ICD-10 (from Reference [t]).	Partial: Army doctrine does not address complying with current standards from ICD-10 (from Reference [t]).	Partial: Navy doctrine does not address complying with current standards from ICD-10 (from Reference [t]).	Partial: Navy doctrine does not address complying with current standards from ICD-10 (from Reference [t]).
DHAPI	6200.06	The PHA will be documented in the current designated electronic health record per service-specific guidance. (p. 7)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6200.06	The PHA is considered complete when the health care provider certifies that all required PHA components have been completed and reviewed in accordance with Reference (d). The electronic DD Form provides a summary of the SM PHA self-assessment, medical record review, and person-to-person MHA. (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Further follow-up and/or completion of medical recommendations will be completed per service-specific guidance. (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	The SM will be required to complete the PHA annually. Completion of the SM self-assessment should only be accomplished utilizing Reference (f) on the service-specific electronic solution of record. (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	The PHA self-assessment consists of questions to assess a SM's medical readiness status based on DoD IMR requirements, SM's deployment and health history, population health measures, and the U.S. Preventive Services Task Force's (USPSTF) recommended Clinical Preventive Services. (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	In accordance with Reference (h), the SM is responsible to report health issues (including mental health) that may affect medical readiness to deploy or fitness to continue serving in an active status (active, Guard, and reserve components). (p. 7)	Yes	Yes	Yes	Yes
DHAPI	6200.06	The electronic PHA self-assessment provides targeted health education to the SM based on their individual responses. (pp. 7–8)	No: Air Force doctrine does not specifically address the self-assessment portion.	Partial: Army doctrine does not address providing targeted health education.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6200.06	The record review is completed by health care personnel trained on the PHA Record Review process. This step includes review of the SM's paper medical record (if required and available), electronic health record (if required and available), IMR status, past and present limited duty/permanent/temporary profiles, VA disability rating (if applicable and available), care provided outside of the MHS (if required and available), and the SM's PHA self-assessment responses since the last PHA as required in Reference (f). The purpose of this review is to complete the Record Review portion of Reference (f) with the following information: a. Key clinical information such as most recent blood pressure, height/weight, cholesterol tests, and medical care received since the last PHA. b. Any allergies and current active medications, as well as identification of discrepancies (if any) with SM's responses on the PHA self-assessment. c. Family history (and follow service-specific guidance regarding updating SM's Adult Prevention and Chronic Care Flowsheet, Reference (v)). d. Any limited duty and temporary/permanent profiles, as well as available VA/workman's compensation information for reserve component personnel. e. Any outstanding IMR and deployment-related health assessment requirements, such as immunizations or labs. f. Identification of any special duty physical exams, medical surveillance, and occupational health surveillance requirements. (p. 8)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6200.06	The health care provider completes applicable clinical-service portions of the PHA and updates the electronic health record and applicable readiness system, as required by service guidance. (p. 8)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Review and evaluate SMs' responses on the PHA self-assessment, as well as information provided by the Record Reviewer. (p. 8)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Review medical records created and care received outside the MHS since the last PHA, available data from ordered laboratory tests, Clinical Preventive Services screenings or referrals, and SM limited duty or temporary/permanent profiles. (p. 8)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Conduct person-to-person encounters (if/when required), recommend referral(s), and/or follow-up care as necessary per service/component guidelines, and make recommendations if evaluation for limited duty or profile is warranted. (p. 8)	Yes	Yes	Yes	Yes
DHAPI	6200.06	Conduct a face-to-face encounter if clinically indicated in any part of the process, or requested by the SM. (p. 9)	Yes	Partial: In Army doctrine, it is unclear if face-to-face, but this may be inferred by "appointment" language.	Yes	Yes
DHAPI	6200.06	Ensure all required elements of the PHA (including the MHA) are complete and applicable dispositions have been documented in the appropriate medical system of record per service guidance. Health care providers with specific PHA and MHA training can accomplish both the MHA and PHA. (p. 9)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6490.03	This DHA-PI applies to: a. The OSD, the military departments (including the Coast Guard at all times, including when it is a Service in the Department of Homeland Security by agreement with that Department), the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the "DoD Components"). b. Service members who are deploying, deployed, and returned-from-deployment (redeployed), as well as DoD civilian employees and DoD contractor personnel deploying with U.S. forces consistent with DoD policy (References (c) and (n) through (s)), and applicable DoD Component guidance. DoD contractor personnel deploying with U.S. forces are included to the extent provided in the applicable contracts and pursuant to References (c), (n), (t), (u), and any applicable DoD Component policy. Reserve component members include Army and Air National Guard members, consistent with the polices of the Adjutants General of the States, Territories, or the Commanding General of the District of Columbia, who are deploying, deployed, and returned from deployed, in a duty status pursuant to section 502(f) of Reference (m).	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		c. Shipboard operations when identified health risks indicate actions are necessary beyond the scope of shipboard occupational health programs, per the decision of the commander exercising operational control. Otherwise, shipboard operations that are not anticipated to involve operations ashore will report individual daily deployment locations but are exempt from other requirements of this issuance. d. Deployments to enduring locations within operational areas, when identified health risks indicate actions are necessary beyond the scope of occupational and environmental health programs pursuant to References (c) and (v) through (x)), and other deployment health activities described in this DHA-PI, per the decision of the commander exercising operational control. (pp. 1–2).				
DHAPI	6490.03	The DoD Components will conduct key deployment health activities as described in Reference (c) and this DHA-PI. The DoD implements deployment health activities in order to deliver a medically ready force and protect the health of that force through IMR occupational and environmental health practices, health assessments, and health surveillance in accordance with References (q), (s), (v), (aa) and (ab). Deployment health activities will anticipate, recognize, monitor, evaluate, record, report, communicate, control, and mitigate health threats, to include their immediate and long-term effects. Measures outlined in this DHA-PI will be implemented to provide the necessary level of health protection before, during, and after deployment. DoD deployment health activities promote medical readiness and preserve the health of deploying service members, DoD civilian employees, and military working animals throughout the spectrum of military operations. (p. 2)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6490.03	Deployments lasting longer than 30 days outside the United States require the full range of deployment health activities described in this DHA-PI. Deployments of shorter duration outside of the United States, and operations of any duration within the United States, require the minimum deployment health activities described in this DHA-PI, plus any additional deployment health activities per the decision of the commander exercising operational control, as indicated by identified health risks. (p. 2)	Yes	Yes	Partial: Navy doctrine does not require the minimum deployment health activities described in this DHA-PI for shorter deployments.	Partial: Navy doctrine does not require the minimum deployment health activities described in this DHA-PI for shorter deployments.
DHAPI	6490.03	DoD deployment health activities will be monitored, recorded, and used to promote IMR and protect the health of all deploying U.S. military and DoD civilian employees. (p. 2)	Yes	Yes	Yes	Yes
DHAPI	6490.03	DoD deployment health activities, data, and information are coordinated and shared with relevant DoD component personnel accountability program activities described in References (ac) and (ad), with environment, safety, and occupational health program activities described in References (ae) and (af), and health surveillance activities described in Reference (q). (p. 3)	Yes	Yes	Yes	Yes
DHAPI	6490.03	Deployment-related health assessments are conducted, when required, at specific intervals throughout the deployment cycle. This includes the DD Form 2795, Pre-DHA), DD Form 2796, PDHA, DD Form 2900, PDHRA, and DD Form 2978, Deployment MHA. These assessments may be combined, conducted concurrently, or completed as part of the Annual PHA when established requirements are met. (p. 17)	Yes	No: These requirements are all listed on pp. 57–58 except for DD FORM 2978 at the 180+ post-deployment time frame.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6490.03	Pre-deployment health activities are based on DoD policies, DoD component policies, and the decision of the commander exercising operational control, informed by the health risk assessments for the area of operations and for the specific deployment location. a. Minimum pre-deployment health activities, required for all deployments, include: . . . (7) Identify and Prepare Deploying Individuals. Each DoD component that deploys personnel ensures their deploying personnel are identified and medically ready, in accordance with References (c), (o), (s), (t), (aa), (ao) and this DHA-PI. Ensure contractors identify and provide contractor personnel who are medically, dentally, and psychologically fit, and if applicable, professionally tested and certified for deployment in accordance with References (t) and (u) and applicable contracts. (p. 18)	Yes	Yes	Yes	Yes
DHAPI	6490.03	The following additional pre-deployment health activities are required for deployments of greater than 30 days outside the United States. For deployments of 30 days or less outside the United States and operations of any duration within the United States, additional health activities are based on health risk and the decisions of the combatant commander, service component commander, or commander exercising operational control. (1) Identify and address deployment-limiting medical conditions, including mental disorders and psychotropic medications; and process any waiver requests, in accordance with References (s) and (ao) and guidance of the applicable combatant commander or other DoD Component.	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		(2) Pre-DHA. DoD components ensure their personnel complete the DD Form 2795 within 120 days before the estimated deployment date (see Appendix 5). [...] (8) Deployment Health Record. The DD Form 2766, Adult Preventive and Chronic Care Flowsheet, for each deploying individual must reflect: [...] (e) Pre-DHA. Completed DD Form 2795 in accordance with Reference (s); (f) Medical Summary. A medical summary sheet identifying past and current medical conditions and screening tests (e.g., deployment-limiting medical conditions in accordance with Reference (s)), erythrocyte glucose-6-phosphate dehydrogenase deficiency screening in accordance with Reference (bh)). (pp. 22–23)				
DHAPI	6490.03	The following additional post-deployment health activities are required for deployments of greater than 30 days outside the United States. For deployments of 30 days or less outside the United States and military operations of any duration within the United States, additional health activities are based on health risk and the decisions of the combatant commander, service component commander, or commander exercising operational control. (1) PDHAs and MHAs. These assessments must be completed, as described in Appendix 5, at specified time frames. (a) PDHA. Supporting DoD Components ensure that the DD Form 2796 is completed within 30 days before or after return from deployment.	Yes	No: DD FORM 2978 is not listed in the DA PAM, nor is there language specifying an assessment 181+ days after deployment.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		(b) PDHRA. Supporting DoD Components will ensure that the DD Form 2900 is completed within 90 and 180 days after return from deployment. (c) Deployment MHAs. The DD Form 2978 is required for service members 181 days to 18 months and 18 to 30 months after return from deployment. Completing the Annual PHA during these time frames fulfills the requirement. These additional post-deployment MHAs are not required for DoD civilians. (d) When individuals deploy again prior to completing the cycle of deployment-related health assessments, the assessment schedule will be reset, as described in Appendix 5. (p. 32)				
DHAPI	6490.03	PURPOSE Deployment-related health assessments are screenings conducted at specific intervals throughout the deployment cycle to identify health concerns and facilitate appropriate evaluation, care, and education. They include the DD Form 2795, Pre-DHA, DD Form 2796, PDHA, DD Form 2900, PDHRA, and DD Form 2978, Deployment MHA. This appendix provides instructions for implementing deployment health assessments and deployment MHAs in accordance with Reference (c). (p. 59)	Yes	Yes	Yes	Yes
DHAPI	6490.03	REQUIREMENTS AND TIMELINE These assessments are required for all deployments greater than 30 days outside the United States, and for other deployments and military operations based on health risk and the decisions of the combatant commander, service component, or commander exercising operational control. DD Forms 2796 (PDHA), 2900 (PDHRA), and 2978 (Deployment MHA) apply if the DD Form 2795 (Pre-DHA)	Yes	Yes	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		was required during the pre-deployment phase and the service member completed the deployment. At any point in the deployment cycle, when a deployment-related health assessment becomes a requirement, all ensuing assessments are also required, per the schedule below. After the individual's discharge or release from the Armed Forces, deployment-related health assessments are not required, including deployment MHAs, pursuant to Section 701 of Reference (cf). When timelines coincide, assessments may be combined or conducted concurrently for ease of administration. Service members may complete deployment-related health assessments as part of the Annual PHA when established requirements are met. DoD civilians complete these assessments at the MTF or location designated by their DoD component or agency. (p. 59)				
DHAPI	6490.03	The DD Form 2795 (Pre-DHA) is completed within 120 days before the estimated deployment date. The DD 2978 (Deployment MHA) required for service members during the same time frame is incorporated into DD Form 2795 in order to streamline administration. (p. 59)	Yes	Yes	Yes	Yes
DHAPI	6490.03	The DD Form 2796 (PDHA) is completed as close to the date of return from deployment as possible, but not earlier than 30 days before the estimated return from deployment date and not later than 30 days after the return from deployment, and for reserve component members, before they are released from active duty. Service members who respond affirmatively to the TBI risk assessment questions on the PDHA will be referred for further clinical evaluation that may include the administration of a post-injury neurocognitive assessment and will be tracked as appropriate (References (be) and (cg)). Individuals with affirmative responses to the TBI risk assessment questions on the PDHA will be tracked and followed up consistent with References (r) and (cg). (p. 59)	Partial: Air Force doctrine does not specify TBI follow-up.	Partial: Army doctrine does not specify TBI follow-up.	Partial: Navy doctrine does not specify TBI follow-up.	Partial: Navy doctrine does not specify TBI follow-up.

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6490.03	The DD Form 2900 (PDHRA) is completed within 90 and 180 days after return from deployment. For reserve component members, sources for referrals are: DoD MTF, VA medical facility, and lastly, TRICARE authorized provider (network or non-network). For reserve component members already receiving care for a for a referral issue, the referral shall be to the same location. The DD Form 2978 (Deployment MHA) required for service members during the same time frame, is incorporated into DD Form 2900 to streamline administration. (pp. 59–60)	Yes	Yes	Yes	Yes
DHAPI	6490.03	Additional DD Forms 2978 (Deployment MHA) are completed by service members within 181 days and 18 months (181–545 days), and 19 and 30 months (546–910 days) after return from deployment. These assessments are not required for civilians. The DD Form 2978 is incorporated into DD Form 3024, Annual PHA, to streamline administration; therefore, service members who complete the Annual PHA during the appropriate time frame fulfill this requirement. (p. 60)	Yes	No: This form is not mentioned in policy, nor is there language about post-deployment assessments after 181 days.	Yes	Yes
DHAPI	6490.03	SETTING THE ASSESSMENT CYCLE FOR A SUBSEQUENT DEPLOYMENT For individuals who deploy again prior to completing the deployment-related health assessment cycle, the assessment schedule will be set to the most recent deployment for which the DD Form 2795 (Pre-DHA) was required. (p. 60)	Yes	Yes	Yes	Yes
DHAPI	6490.03	COMPLETION, SUBMISSION, AND NOTIFICATION REQUIREMENTS Each health assessment is divided into a deployer and a provider section. The deployer completes the deployer	Yes	Partial: Army doctrine does not specify sections of the actual form.	Yes	Yes

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
		portion of the form, then meets with a health care provider, who is authorized to administer these assessments, for an interview. (p. 60)				
DHAPI	6490.03	The interview must be face-to-face for the DD Form 2795 (Pre-DHA) and the DD Form 2796 (PDHA) and person-to-person (e.g., face-to-face, by telephone) for the DD Forms 2900 (PDHRA) and 2978 (Deployment MHA). (p. 60)	Yes	Yes	Yes	Yes
DHAPI	6490.03	The interview must be conducted in a private setting and include a review of available health records. (p. 60)	Yes	Partial: Army doctrine does not state verbatim with regard to a private setting.	No: Navy doctrine does not mention this requirement.	No: Navy doctrine does not mention this requirement.
DHAPI	6490.03	After the interview, the provider completes the provider section, documenting any concerns and recommending referrals as necessary. (p. 60)	Yes	Yes	Yes	Yes
DHAPI	6490.03	The health care provider will notify the service member's commander of any concerns that meet the criteria for disclosure based on Reference (ch), including but not limited to risk of harm to self, risk of harm to others, and risk of harm to the mission. (p. 61)	Partial: Air Force doctrine does indicate the process for notifying SM's commander.	Partial: Army doctrine does not specify the process for commander notification.	Yes Partial: Commanders are required to coordinate with providers, but policy does not specifically require providers to share information with commanders.	Partial: Commanders are required to coordinate with providers, but policy does not specifically require providers to share information with commanders.

Table A.1—Continued

Type	Document Number	Requirement	Does DAF Policy Address the Requirement?	Does DoA Policy Address the Requirement?	Does Marine Corps Policy Address the Requirement?	Does DON Policy Address the Requirement?
DHAPI	6490.03	HEALTH CARE PROVIDERS AUTHORIZED TO ADMINISTER DEPLOYMENT-RELATED HEALTH ASSESSMENTS a. Authorized health care providers include: physician, physician assistant, nurse practitioner, advanced practice nurse, independent duty corpsman, special forces medical sergeant, independent duty health services technician, or independent duty medical technician. Independently licensed mental health providers are authorized to complete DD Form 2978 (Deployment MHA). b. Health care providers who review DD Forms 2795 (Pre-DHA), 2900 (PDHA) and 2978 are required to have a certificate documenting completion of DoD MHA Health Care Personnel Training (available through Joint Knowledge Online). Independently licensed mental health providers may complete Deployment MHAs and are not required to complete the additional training. c. Deployment MHAs may also be conducted by a mental health technician provided: (1) That technician has completed the training and certification requirements described above. (2) An independently licensed mental health provider, or a physician, nurse practitioner, or physician assistant (who has completed the training and certification requirements described above) is available to supervise and countersign each assessment before a disposition is made. (p. 61)	Yes	Yes	Yes	Yes

NOTES: DAF = Department of the Air Force (includes both Air Force and Space Force); DoA = Department of the Army; DON = Department of the Navy (includes both the Navy and the Marine Corps).

APPENDIX B

Health Readiness Assessment Review Detailed Results

Chapter 4 provided an overview of the results from the health readiness assessment analysis at the topic level. This appendix provides more detailed results from that analysis in tabular form. Tables B.1 through B.7 show the frequency of items answered by the service member by topic and subdomain, by assessment, and for each of the seven highest level domains (i.e., Behavioral Health, Demographic and Background Information, Deployment Information, Individual Medical Readiness, Physical Health, Sexual and Reproductive Health, and Treatment). Tables B.8 through B.14 give similar information for items answered by providers. As the items targeting record reviewers are very infrequent, we show them in Figure B.1 in the form **domain**, *subdomain*: topic (count of assessment items) The final table, B.15, provides item counts for the 1:2 deployment-to-dwell ratio deployment scenarios by subdomain and assessment type.

TABLE B.1

Service Member Behavioral Health Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Behavioral Health Subdomain											
	Alcohol Use	Depression	Gambling	Medications	Provider Referral	PTSD	Sleep	Stressors	Suicide Risk	Tobacco	Treatment	Violence or Harm Risk
PHA	3	9	4	1	0	23	2	1	0	7	2	0
Pre-DHA	3	9	0	1	0	22	0	1	0	1	2	0
PDHA	3	9	0	1	0	23	0	1	0	1	2	0
PDHRA	3	9	0	1	0	22	0	1	0	0	2	0
MHA	3	9	0	1	0	23	0	1	0	0	2	0
Total	15	45	4	5	0	113	2	5	0	9	10	0

	Lifestyle Subdomain			Overall Health Subdomain			
	Food and Beverage Consumption	Physical Activity	Supplements and Vitamins	Overall Health Concerns	Physical or Mental Health Limitations	Self-Rated Health	TOTAL
PHA	8	2	12	0	1	1	76
Pre-DHA	0	0	0	0	0	1	40
PDHA	0	0	0	0	0	2	42
PDHRA	0	0	0	0	0	2	40
MHA	0	0	0	0	0	0	39
TOTAL	8	2	12	0	1	6	237

TABLE B.2

Service Member Demographics and Background Information Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Demographics Subdomain						Military Characteristics Subdomain				
	Age	Birthdate	Gender	Name	Provider Type	SSN	Component	DoD-ID	Duty Station or Location	Facility	First PHA
PHA	1	1	1	1	0	0	1	1	1	0	1
Pre-DHA	0	1	1	1	0	1	1	0	0	0	**0**
PDHA	0	1	1	1	0	0	1	1	1	0	**0**
PDHRA	0	1	1	1	0	1	1	0	0	0	**0**
MHA	0	1	1	1	0	0	1	1	0	0	**0**
TOTAL	1	5	5	5	0	2	5	3	2	0	1

	Military Characteristics Subdomain—Continued						
	Pay Grade	Provider Messaging System	Purpose	Service Branch	Status	Unit ID Code	Unit Name
PHA	1	1	0	1	1	1	1
Pre-DHA	1	0	0	1	0	0	0
PDHA	1	0	0	1	0	0	1
PDHRA	1	0	0	1	0	0	1
MHA	1	0	1	1	0	0	0
TOTAL	5	1	1	5	1	1	3

	Occupational Information Subdomain			
	Enrollment in Surveillance or Health Program	Military Job Duties	Military Occupational Code	Physical Exam Requirement
PHA	1	1	1	1
Pre-DHA	0	0	0	0

Table B.2—Continued

	Occupational Information Subdomain			
	Enrollment in Surveillance or Health Program	Military Job Duties	Military Occupational Code	Physical Exam Requirement
PDHA	0	0	0	0
PDHRA	0	0	0	0
MHA	0	0	0	0
TOTAL	1	1	1	1

	Other Subdomain						
	Address	Comments	Contact Information	Current Assessment	Date of Assessment	Date of Review	Previous Assessment
PHA	1	0	3	0	1	0	0
Pre-DHA	0	0	2	0	1	0	0
PDHA	0	0	2	0	1	0	0
PDHRA	0	0	2	0	1	0	0
MHA	0	0	2	0	1	0	0
TOTAL	1	0	11	0	5	0	0

	Other Subdomain—Continued				
	Reporting Requirements	Separation and Retirement	Service Member Declined Assessment	Signature	TOTAL
PHA	1	1	0	0	25
Pre-DHA	0	0	0	0	10
PDHA	0	0	0	0	12
PDHRA	0	0	0	0	11
MHA	0	0	0	0	11
TOTAL	1	1	0	0	69

TABLE B.3

Service Member Deployment Information Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Deployment Information Subdomain									
	Combat Exposure	Date of Deployment	Deployability	Deployment Injury	Next Deployment	Overdue Assessments	Previous Assessment	Previous Deployment	Provider Referral	Treatment
PHA	0	0	0	0	1	0	0	3	0	0
Pre-DHA	0	0	0	0	3	0	0	2	0	0
PDHA	3	2	0	2	0	0	0	1	0	0
PDHRA	3	0	0	3	0	0	0	2	0	0
MHA	0	0	0	0	0	0	0	2	0	0
TOTAL	6	2	0	5	4	0	0	10	0	0

	Environmental Exposures Subdomain					
	Airborne	Chemical Agents	Depleted Uranium	Exposure	Provider Referral	Rabies
PHA	4	0	0	0	0	0
Pre-DHA	0	0	0	0	0	0
PDHA	4	1	1	1	0	1
PDHRA	0	0	0	1	0	1
MHA	0	0	0	0	0	0
TOTAL	8	1	1	2	0	2

Table B.3—Continued

	Injury Subdomain					PPE Subdomain	Preventive Medicine Subdomain		
	Blast or Explosion	Fragment or Bullet Wound	Other Injury	TBI	Vehicle Crash	Devices	Immunizations	Malaria	TOTAL
PHA	0	0	0	0	0	3	4	0	15
Pre-DHA	0	0	0	1	0	0	0	0	6
PDHA	1	1	1	4	1	0	0	2	26
PDHRA	0	0	0	0	0	0	0	0	10
MHA	0	0	0	0	0	0	0	0	2
TOTAL	1	1	1	5	1	3	4	2	59

TABLE B.4

Service Member Individual Medical Readiness Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Individual Medical Readiness Subdomain				
	Corrective Lenses	Dental Assessment	Deployability	IMR Status	Medical Equipment
PHA	2	0	0	0	0
Pre-DHA	0	0	0	0	0
PDHA	0	0	0	0	0
PDHRA	0	0	0	0	0
MHA	0	0	0	0	0
TOTAL	2	0	0	0	0

	Medical Profile Subdomain			
	Disability	Health Insurance	Limited Duty due to Health Condition	Physical or Mental Health Limitations
PHA	4	1	4	1
Pre-DHA	0	0	1	0
PDHA	0	0	0	0
PDHRA	0	0	0	0
MHA	0	0	0	0
TOTAL	4	1	5	1

	Occupation-Specific Examinations Subdomain	Physical Fitness Test Subdomain	
	Previous Assessment	Waiver	TOTAL
PHA	0	2	14
Pre-DHA	0	0	1
PDHA	0	0	0
PDHRA	0	0	0
MHA	0	0	0
TOTAL	0	2	15

TABLE B.5

Service Member Physical Health Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Medical Conditions Subdomain				
	Allergies	Health Condition Since Last Assessment	Medical Equipment	Surgery	Treatment
PHA	3	26	2	4	2
Pre-DHA	0	0	0	0	0
PDHA	0	0	0	0	0
PDHRA	0	0	0	0	0
MHA	0	0	0	0	0
TOTAL	3	26	2	4	2

	Medical Screening Subdomain									
	Allergies	Blood Pressure	Cholesterol	Colon Cancer Screening	Immunizations	Limited Duty due to Health Condition	Medications	Sickle Cell Trait	Surgery	Treatment
PHA	0	0	0	0	0	0	0	0	0	0
Pre-DHA	0	0	0	0	0	0	0	0	0	0
PDHA	0	0	0	0	0	0	0	0	0	0
PDHRA	0	0	0	0	0	0	0	0	0	0
MHA	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0

Table B.5—Continued

	Physical Health Subdomain					
	Cholesterol	Deployment Injury	Family History	Height	Limited Duty due to Health Condition	Medications
PHA	1	2	16	0	26	1
Pre-DHA	0	0	0	0	0	0
PDHA	0	0	0	0	1	0
PDHRA	0	0	0	0	1	0
MHA	0	0	0	0	0	0
TOTAL	1	2	16	0	28	1

	Physical Health Subdomain—Continued					
	Noise or Hearing Problems	Pain	Provider Referral	Symptom Checklist	Weight	TOTAL
PHA	0	2	0	0	1	86
Pre-DHA	2	0	0	0	0	2
PDHA	0	0	0	31	0	32
PDHRA	0	0	0	30	0	31
MHA	0	0	0	0	0	0
TOTAL	2	2	0	61	1	151

TABLE B.6

Service Member Sexual and Reproductive Health Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Sexual/Reproductive Health Subdomain			
	Contraception	Medical Readiness and Laboratory Studies	Pregnancy	STI/STD
PHA	4	0	3	3
Pre-DHA	0	0	1	0
PDHA	0	0	0	0
PDHRA	0	0	0	0
MHA	0	0	0	0
TOTAL	4	0	4	3

	Women's Health Subdomain									
	Cervix Operation	Gestational Diabetes	Health Records	Hysterectomy	Mammogram	Menopause	Menstrual Cycle	Pap Test	UTI	TOTAL
PHA	1	1	0	1	1	1	1	2	1	19
Pre-DHA	0	0	0	0	0	0	0	0	0	1
PDHA	0	0	0	0	0	0	0	0	0	0
PDHRA	0	0	0	0	0	0	0	0	0	0
MHA	0	0	0	0	0	0	0	0	0	0
TOTAL	1	1	0	1	1	1	1	2	1	20

TABLE B.7

Service Member Treatment Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Need for Treatment/Follow-Up Subdomain					Deployment Care Subdomain	
	Comments	Deployability	LOD Care	Provider Referral	Self-Referral	Treatment	TOTAL
PHA	0	0	1	0	6	0	7
Pre-DHA	0	0	0	0	1	0	1
PDHA	0	0	0	0	4	3	7
PDHRA	0	0	0	0	4	2	6
MHA	0	0	0	0	4	0	4
TOTAL	0	0	1	0	19	5	25

TABLE B.8

Health Care Provider Behavioral Health Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Behavioral Health Subdomain											
	Alcohol Use	Depression	Gambling	Medications	Provider Referral	PTSD	Sleep	Stressors	Suicide Risk	Tobacco Use	Treatment	Violence or Harm Risk
PHA	2	2	0	0	4	2	0	2	10	0	0	3
Pre-DHA	2	2	0	0	4	2	0	2	9	0	0	3
PDHA	2	2	0	0	4	2	0	2	10	0	0	3
PDHRA	2	2	0	0	4	2	0	2	9	0	0	3
MHA	2	2	0	0	4	2	0	2	10	0	0	3
TOTAL	10	10	0	0	20	10	0	10	48	0	0	15

	Lifestyle Subdomain			Overall Health Subdomain			
	Food and Beverage Consumption	Physical Activity	Supplements and Vitamins	Overall Health Concerns	Physical or Mental Health Limitations	Self-Rated Health	TOTAL
PHA	0	0	0	2	0	0	27
Pre-DHA	0	0	0	7	0	0	31
PDHA	0	0	0	4	0	0	29
PDHRA	0	0	0	4	0	0	28
MHA	0	0	0	2	0	0	27
TOTAL	0	0	0	19	0	0	142

TABLE B.9

Health Care Provider Demographics and Background Information Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Demographics Subdomain						Military Characteristics Subdomain				
	Age	Birth Date	Gender	Name	Provider Type	SSN	Component	DoD-ID	Duty Station or Location	Facility	First PHA
PHA	0	0	0	2	2	0	0	0	0	2	0
Pre-DHA	0	0	0	1	1	0	0	0	0	0	0
PDHA	0	0	0	1	1	0	1	0	0	1	0
PDHRA	0	0	0	1	1	0	0	0	0	0	0
MHA	0	0	0	1	1	0	0	0	0	1	0
TOTAL	0	0	0	6	6	0	1	0	0	4	0

	Military Characteristics Subdomain—Continued						
	Pay Grade	Provider Messaging System	Purpose	Service Branch	Status	Unit ID Code	Unit Name
PHA	0	0	0	2	2	0	2
Pre-DHA	0	0	0	0	0	0	0
PDHA	0	0	0	1	0	0	1
PDHRA	0	0	0	0	0	0	0
MHA	0	0	0	1	1	0	1
TOTAL	0	0	0	4	3	0	4

	Occupational Information Subdomain			
	Enrollment in Surveillance or Health Program	Military Job Duties	Military Occupational Code	Physical Exam Requirement
PHA	0	0	0	0
Pre-DHA	0	0	0	0
PDHA	0	0	0	0

Table B.9—Continued

	Occupational Information Subdomain			
	Enrollment in Surveillance or Health Program	Military Job Duties	Military Occupational Code	Physical Exam Requirement
PDHRA	0	0	0	0
MHA	0	0	0	0
TOTAL	0	0	0	0

	Other Subdomain						
	Address	Comments	Contact Information	Current Assessment	Date of Assessment	Date of Review	Previous Assessment
PHA	2	2	4	1	0	2	0
Pre-DHA	0	0	0	0	1	0	0
PDHA	1	0	2	0	0	0	0
PDHRA	0	0	0	0	1	0	0
MHA	1	0	2	0	0	0	0
TOTAL	4	2	8	1	2	2	0

	Other Subdomain—Continued				
	Reporting Requirements	Separation and Retirement	Service Member Declined Assessment	Signature	TOTAL
PHA	0	0	1	2	26
Pre-DHA	0	0	1	0	4
PDHA	0	0	1	1	11
PDHRA	0	0	1	0	4
MHA	0	0	1	1	11
TOTAL	0	0	5	4	56

TABLE B.10

Health Care Provider Deployment Information Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Deployment Information Subdomain									
	Combat Exposure	Date of Deployment	Deployability	Deployment Injury	Next Deployment	Overdue Assessments	Previous Assessment	Previous Deployment	Provider Referral	Treatment
PHA	0	0	0	0	0	0	0	1	0	0
Pre-DHA	0	0	2	0	1	0	1	0	0	0
PDHA	3	1	0	1	0	0	0	0	1	4
PDHRA	3	0	0	1	0	0	0	1	1	3
MHA	0	0	0	0	0	0	0	1	0	0
TOTAL	6	1	2	2	1	0	1	3	2	7

	Environmental Exposures Subdomain					
	Airborne	Chemical Agents	Depleted Uranium	Exposure	Provider Referral	Rabies
PHA	0	0	0	0	0	0
Pre-DHA	0	0	0	0	0	0
PDHA	0	0	1	2	3	1
PDHRA	0	0	0	2	2	1
MHA	0	0	0	0	0	0
TOTAL	0	0	1	4	5	2

Table B.10—Continued

	Injury Subdomain					PPE Subdomain	Preventive Medicine Subdomain		
	Blast or Explosion	Fragment or Bullet Wound	Other Injury	TBI	Vehicle Crash	Devices	Immunizations	Malaria	TOTAL
PHA	0	0	0	0	0	0	0	0	1
Pre-DHA	0	0	0	0	0	0	0	0	4
PDHA	0	0	0	1	0	0	0	4	22
PDHRA	0	0	0	0	0	0	0	0	14
MHA	0	0	0	0	0	0	0	0	1
TOTAL	0	0	0	1	0	0	0	4	42

TABLE B.11

Health Care Provider Individual Medical Readiness Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Individual Medical Readiness Subdomain				
	Corrective Lenses	Dental Assessment	Deployability	IMR Status	Medical Equipment
PHA	0	0	1	2	0
Pre-DHA	0	0	0	0	0
PDHA	0	0	0	0	0
PDHRA	0	0	0	0	0
MHA	0	0	0	0	0
TOTAL	0	0	1	2	0

	Medical Profile Subdomain			
	Disability	Health Insurance	Limited Duty due to Health Condition	Physical or Mental Health Limitations
PHA	0	0	0	0
Pre-DHA	0	0	0	0
PDHA	0	0	0	0
PDHRA	0	0	0	0
MHA	0	0	0	0
TOTAL	0	0	0	0

	Occupation-Specific Examinations Subdomain	Physical Fitness Test Subdomain	
	Previous Assessment	Waiver	TOTAL
PHA	0	0	3
Pre-DHA	0	0	0
PDHA	0	0	0
PDHRA	0	0	0
MHA	0	0	0
TOTAL	0	0	3

TABLE B.12

Health Care Provider Physical Health Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Medical Conditions Subdomain				
	Allergies	Health Condition Since Last Assessment	Medical Equipment	Surgery	Treatment
PHA	0	0	0	0	0
Pre-DHA	0	0	0	0	0
PDHA	0	0	0	0	0
PDHRA	0	0	0	0	0
MHA	0	0	0	0	0
TOTAL	0	0	0	0	0

	Medical Screening Subdomain									
	Allergies	Blood Pressure	Cholesterol	Colon Cancer	Immunizations	Limited Duty Due to Health Condition	Medications	Sickle Cell Trait	Surgery	Treatment
PHA	0	0	0	0	0	0	0	0	0	0
Pre-DHA	0	0	0	0	0	0	0	0	0	0
PDHA	0	0	0	0	0	0	0	0	0	0
PDHRA	0	0	0	0	0	0	0	0	0	0
MHA	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0

Table B.12—Continued

	Physical Health Subdomain					
	Cholesterol	Deployment Injury	Family History	Height	Limited Duty due to Health Condition	Medications
PHA	0	0	0	0	0	0
Pre-DHA	0	0	0	0	0	0
PDHA	0	1	0	0	0	0
PDHRA	0	0	0	0	0	0
MHA	0	0	0	0	0	0
TOTAL	0	1	0	0	0	0

	Physical Health Subdomain—Continued					
	Noise or Hearing Problems	Pain	Provider Referral	Symptom Checklist	Weight	TOTAL
PHA	0	0	0	0	0	0
Pre-DHA	1	0	1	0	0	2
PDHA	0	0	2	4	0	7
PDHRA	0	0	1	4	0	5
MHA	0	0	0	0	0	0
TOTAL	1	0	4	8	0	14

TABLE B.13

Health Care Provider Sexual and Reproductive Health Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Sexual/Reproductive Health Subdomain			
	Contraception	Medical Readiness and Laboratory Studies	Pregnancy	STI/STD
PHA	0	0	0	0
Pre-DHA	0	0	0	0
PDHA	0	0	0	0
PDHRA	0	0	0	0
MHA	0	0	0	0
TOTAL	0	0	0	0

	Women's Health Subdomain									
	Cervix Operation	Gestational Diabetes	Health Records	Hysterectomy	Mammogram	Menopause	Menstrual Cycle	Pap Test	UTI	TOTAL
PHA	0	0	0	0	0	0	0	0	0	0
Pre-DHA	0	0	0	0	0	0	0	0	0	0
PDHA	0	0	0	0	0	0	0	0	0	0
PDHRA	0	0	0	0	0	0	0	0	0	0
MHA	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0

TABLE B.14

Health Care Provider Treatment Domain: Assessment Item Frequency at the Topic Level, by Assessment

	Need for Treatment/Follow-Up Subdomain					Deployment Care Subdomain	
	Comments	Deployability	LOD Care	Provider Referral	Self-Referral	Treatment	TOTAL
PHA	0	0	0	7	4	0	11
Pre-DHA	0	2	0	4	0	0	6
PDHA	0	0	0	4	4	0	8
PDHRA	0	0	0	4	4	0	8
MHA	0	0	0	4	4	0	8
TOTAL	0	2	0	23	16	0	41

FIGURE B.1

Readiness Assessment Items Applicable to Record Reviewers

Demographics and Background Information:

- *Demographics:* Name (1), provider type (1)
- *Military characteristics:* Facility (1), service branch (1), status (1), unit name (1)
- *Other:* Address (1), contact information (2), date of review (1), previous assessment (1), signature (1)

Deployment Information:

- *Deployment information:* Overdue assessments (1), previous assessment (1)

Individual Medical Readiness:

- *Individual medical readiness:* Dental assessment (1), medical equipment (1)
- *Medical profile:* Disability (1)
- *Occupation-specific examinations:* Previous assessment (2)

Physical Health:

- *Medical screening:* Allergies (1), blood pressure (2), cholesterol (1), colon cancer screening (1), immunizations (2), limited duty due to health condition (2), medications (2), sickle cell trait (1), surgery (1), treatment (3)
- *Physical health:* Family history (1), height (1), weight (1)

Sexual and Reproductive Health:

- *Sexual/reproductive health:* Medical readiness and laboratory studies (4), pregnancy (1), STI/STD (2)
- *Women's health:* Health records (2), mammogram (1), Pap test (1)

Treatment:

- *Need for treatment/follow-up:* Comments (1), provider referral (1)

NOTE: Items are organized by domain (in bold), subdomain (in italics), and topic (normal text). Numbers in parentheses refer to the count of assessment items.

TABLE B.15

Subdomain Assessment Item Count by Deployment Scenario, by Assessment Type

	Behavioral Health	Demographics	Deployment Care	Deployment Information	Environmental Exposures	Individual Medical Readiness	Injury	Lifestyle	Medical Conditions	Medical Profile	Military Characteristics	Need for Treatment/Follow-Up	Occupational Information	Other	Overall Health	Personal Protective Equipment	Physical Fitness Test	Physical Health	Preventive Medicine	Sexual/Reproductive Health	Women's Health	Total
Scenario A[a]																						
PHA	156	12	0	12	12	6	0	66	111	30	30	21	12	21	6	9	6	147	12	30	27	726
Pre-DHA	117	12	0	15	0	0	3	0	0	3	9	3	0	9	3	0	0	6	0	3	0	183
PDHA	80	6	6	16	16	0	16	0	0	0	12	8	0	6	4	0	0	64	4	0	0	238
PDHRA	76	8	4	16	4	0	0	0	0	0	8	8	0	6	4	0	0	62	0	0	0	196
MHA	78	6	0	4	0	0	0	0	0	0	10	8	0	6	0	0	0	0	0	0	0	112
Total	507	44	10	63	32	6	19	66	111	33	69	48	12	48	17	9	6	279	16	33	27	1,455
Scenario B[b]																						
PHA	156	12	0	12	12	6	0	66	111	30	30	21	12	21	6	9	6	147	12	30	27	726
Pre-DHA	78	8	0	10	0	0	2	0	0	2	6	2	0	6	2	0	0	4	0	2	0	122
PDHA	40	3	3	8	8	0	8	0	0	0	6	4	0	3	2	0	0	32	2	0	0	119
PDHRA	38	4	2	8	2	0	0	0	0	0	4	4	0	3	2	0	0	31	0	0	0	98
MHA	78	6	0	4	0	0	0	0	0	0	10	8	0	6	0	0	0	0	0	0	0	112
Total	390	33	5	42	22	6	10	66	111	32	56	39	12	39	12	9	6	214	14	32	27	1,177

Table B.15—Continued

	Behavioral Health	Demographics	Deployment Care	Deployment Information	Environmental Exposures	Individual Medical Readiness	Injury	Lifestyle	Medical Conditions	Medical Profile	Miliary Characteristics	Need for Treatment/Follow-Up	Occupational Information	Other	Overall Health	Personal Protective Equipment	Physical Fitness Test	Physical Health	Preventive Medicine	Sexual/Reproductive Health	Women's Health	Total
Scenario C[c]																						
PHA	156	12	0	12	12	6	0	66	111	30	30	21	12	21	6	9	6	147	12	30	27	726
Pre-DHA	39	4	0	5	0	0	1	0	0	1	3	1	0	3	1	0	0	2	0	1	0	61
PDHA	40	3	3	8	8	0	8	0	0	0	6	4	0	3	2	0	0	32	2	0	0	119
PDHRA	38	4	2	8	2	0	0	0	0	0	4	4	0	3	2	0	0	31	0	0	0	98
MHA	78	6	0	4	0	0	0	0	0	0	10	8	0	6	0	0	0	0	0	0	0	112
Total	351	29	5	37	22	6	9	66	111	31	53	38	12	36	11	9	6	212	14	31	27	1,116
Scenario D[d]																						
PHA	156	12	0	12	12	6	0	66	111	30	30	21	12	21	6	9	6	147	12	30	27	726
Pre-DHA	39	4	0	5	0	0	1	0	0	1	3	1	0	3	1	0	0	2	0	1	0	61
PDHA	40	3	3	8	8	0	8	0	0	0	6	4	0	3	2	0	0	32	2	0	0	119
PDHRA	38	4	2	8	2	0	0	0	0	0	4	4	0	3	2	0	0	31	0	0	0	98
MHA	117	9	0	6	0	0	0	0	0	0	15	12	0	9	0	0	0	0	0	0	0	168
Total	390	32	5	39	22	6	9	66	111	31	58	42	12	39	11	9	6	212	14	31	27	1,172

NOTE: 1:2 is the deployment-to-dwell ratio. Two subdomains—medical screening and occupation-specific examinations—are excluded because service members have no items in these areas.

[a]Scenario A: 3-month deployment + 6-month dwell + 3-month deployment + 6-month dwell

[b]Scenario B: 6-month deployment + 12-month dwell + 6-month deployment + 12-month dwell

[c]Scenario C: 9-month deployment + 18-month dwell

[d]Scenario D: 12-month deployment + 24-month dwell

APPENDIX C

U.S. Prevention Services Task Force Recommendations List and Focused Literature Review Details

In this appendix, we provide additional technical details concerning our review of USPSTF recommendations and our literature review search strategy.

U.S. Prevention Services Task Force Recommendations

Table 5.1 included the seven recommendations that met our inclusion criteria among the 54 A and B recommendations provided by the USPSTF (2024). Table C.1 provides each USPSTF A and B recommendation, whether it was included or excluded based on our criteria, and the exclusion reason(s).

TABLE C.1
U.S. Prevention Services Task Force A- and B-Rated Recommendations, by Inclusion and Exclusion Status

			Exclusion Reason			
Topic[a]	Grade	Include/ Exclude	Age > 65	Age < 18	Pregnancy Related	Follow-Up Procedure/ Treatment Required
Abdominal Aortic Aneurysm: Screening: men aged 65 to 75 years who have ever smoked	B	Exclude	X			X
Anxiety Disorders in Adults: Screening: adults 64 years or younger, including pregnant and postpartum persons	B	Include				
Anxiety in Children and Adolescents: Screening: children and adolescents aged 8 to 18 years	B	Exclude		X		

Table C.1—Continued

Topic[a]	Grade	Include/ Exclude	Exclusion Reason			
			Age > 65	Age < 18	Pregnancy Related	Follow-Up Procedure/ Treatment Required
Aspirin Use to Prevent Preeclampsia and Related Morbidity and Mortality: Preventive Medication: pregnant persons at high risk for preeclampsia	B	Exclude			X	X
Asymptomatic Bacteriuria in Adults: Screening: pregnant persons	B	Exclude			X	X
BRCA-Related Cancer: Risk Assessment, Genetic Counseling, and Genetic Testing: women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer or an ancestry associated with brca1/2 gene mutation	B	Include				
Breast Cancer: Medication Use to Reduce Risk: women at increased risk for breast cancer aged 35 years or older	B	Exclude				X
Breast Cancer: Screening: women aged 50 to 74 years	B	Exclude				X
Breastfeeding: Primary Care Interventions: pregnant women, new mothers, and their children	B	Exclude			X	X
Cervical Cancer: Screening: women aged 21 to 65 years	A	Exclude				X
Chlamydia and Gonorrhea: Screening: sexually active women, including pregnant persons	B	Exclude				X
Colorectal Cancer: Screening: adults aged 45 to 49 years	B	Exclude				X
Colorectal Cancer: Screening: adults aged 50 to 75 years	A	Exclude				X
Depression and Suicide Risk in Adults: Screening: adults, including pregnant and postpartum persons, and older adults (65 years or older)	B	Include				
Depression and Suicide Risk in Children and Adolescents: Screening: adolescents aged 12 to 18 years	B	Exclude		X		
Falls Prevention in Community-Dwelling Older Adults: Interventions: adults 65 years or older	B	Exclude	X			X

Table C.1—Continued

Topic[a]	Grade	Include/ Exclude	Exclusion Reason			
			Age > 65	Age < 18	Pregnancy Related	Follow-Up Procedure/ Treatment Required
Folic Acid Supplementation to Prevent Neural Tube Defects: Preventive Medication: persons who plan to or could become pregnant	A	Exclude			X	X
Gestational Diabetes: Screening: asymptomatic pregnant persons at 24 weeks of gestation or after	B	Exclude			X	X
Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults with Cardiovascular Risk Factors: Behavioral Counseling Interventions: adults with cardiovascular disease risk factors	B	Exclude				X
Healthy Weight and Weight Gain In Pregnancy: Behavioral Counseling Interventions: pregnant persons	B	Exclude			X	X
Hepatitis B Virus Infection in Adolescents and Adults: Screening: adolescents and adults at increased risk for infection	B	Exclude				X
Hepatitis B Virus Infection in Pregnant Women: Screening: pregnant women	A	Exclude			X	X
Hepatitis C Virus Infection in Adolescents and Adults: Screening: adults aged 18 to 79 years	B	Exclude				X
Human Immunodeficiency Virus Infection: Screening: adolescents and adults aged 15 to 65 years	A	Exclude				X
Human Immunodeficiency Virus Infection: Screening: pregnant persons	A	Exclude			X	X
Hypertension in Adults: Screening: adults 18 years or older without known hypertension	A	Exclude				X
Hypertensive Disorders of Pregnancy: Screening: asymptomatic pregnant persons	B	Exclude			X	X
Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: Screening: women of reproductive age	B	Include				

Table C.1—Continued

Topic[a]	Grade	Include/ Exclude	Exclusion Reason			
			Age > 65	Age < 18	Pregnancy Related	Follow-Up Procedure/ Treatment Required
Latent Tuberculosis Infection in Adults: Screening: asymptomatic adults at increased risk of latent tuberculosis infection	B	Exclude				X
Lung Cancer: Screening: adults aged 50 to 80 years who have a 20-pack/year smoking history and currently smoke or have quit within the past 15 years	B	Exclude				X
Obesity in Children and Adolescents: Screening: children and adolescents 6 years and older	B	Exclude		X		X
Ocular Prophylaxis for Gonococcal Ophthalmia Neonatorum: Preventive Medication: newborns	A	Exclude		X		X
Osteoporosis to Prevent Fractures: Screening: postmenopausal women younger than 65 years at increased risk of osteoporosis	B	Exclude				X
Osteoporosis to Prevent Fractures: Screening: women 65 years and older	B	Exclude	X			X
Perinatal Depression: Preventive Interventions: pregnant and postpartum persons	B	Exclude			X	X
Prediabetes and Type 2 Diabetes: Screening: asymptomatic adults aged 35 to 70 years who have overweight or obesity	B	Exclude				X
Prevention of Acquisition of Human Immunodeficiency Virus: Preexposure Prophylaxis: adolescents and adults at increased risk of Human Immunodeficiency Virus	A	Exclude				X
Prevention of Dental Caries in Children Younger Than 5 Years: Screening and Interventions: children younger than 5 years	B	Exclude		X		X
Prevention of Dental Caries in Children Younger Than 5 Years: Screening and Interventions: children younger than 5 years	B	Exclude		X		X

Table C.1—Continued

Topic[a]	Grade	Include/ Exclude	Exclusion Reason			
			Age > 65	Age < 18	Pregnancy Related	Follow-Up Procedure/ Treatment Required
Rhesus Factor Disorder Incompatibility: Screening: pregnant women, during the first pregnancy-related care visit	A	Exclude			X	X
Rhesus Factor Disorder Incompatibility: Screening: unsensitized rh(d)-negative pregnant women	B	Exclude			X	X
Sexually Transmitted Infections: Behavioral Counseling: sexually active adolescents and adults at increased risk	B	Exclude				X
Skin Cancer Prevention: Behavioral Counseling: young adults, adolescents, children, and parents of young children	B	Exclude				X
Statin Use for the Primary Prevention of Cardiovascular Disease in Adults: Preventive Medication: adults aged 40 to 75 years who have 1 or more cardiovascular risk factors and an estimated 10-year cardiovascular disease risk of 10% or greater	B	Exclude				X
Syphilis Infection in Nonpregnant Adolescents and Adults: Screening: asymptomatic, nonpregnant adolescents and adults who are at increased risk for syphilis infection	A	Exclude				X
Syphilis Infection in Pregnant Women: Screening: pregnant women	A	Exclude			X	X
Tobacco Smoking Cessation in Adults, Including Pregnant Persons: Interventions: nonpregnant adults	A	Include				
Tobacco Smoking Cessation in Adults, Including Pregnant Persons: Interventions: pregnant persons	A	Exclude			X	
Tobacco Use in Children and Adolescents: Primary Care Interventions: school-aged children and adolescents who have not started to use tobacco	B	Exclude		X		

Table C.1—Continued

Topic[a]	Grade	Include/ Exclude	Exclusion Reason			
			Age > 65	Age < 18	Pregnancy Related	Follow-Up Procedure/ Treatment Required
Unhealthy Alcohol Use in Adolescents and Adults: Screening and Behavioral Counseling Interventions: adults 18 years or older, including pregnant women	B	Include				
Unhealthy Drug Use: Screening: adults age 18 years or older	B	Include				
Vision in Children Ages 6 Months to 5 Years: Screening: children aged 3 to 5 years	B	Exclude		X		X
Weight Loss to Prevent Obesity-Related Morbidity and Mortality in Adults: Behavioral Interventions: adults	B	Exclude				X

NOTE: An A grade indicates that USPSTF recommends the service and that there is high certainty that the net benefit is substantial, while a B grade indicates that USPSTF recommends the service and that there is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.

[a] The topic column is taken verbatim from the USPSTF website (2024).

Literature Search Strategy

The literature review was limited to English-language documents published in the United States between 2014 and March 2024. Peer-reviewed literature, grey literature, and government publications were all included. Specific databases include PubMed, Web of Science Core Collection, Academic Search Complete (EBSCOhost), Military & Government Collection (EBSCOhost), and APA PsycINFO (EBSCOhost). The Defense Technical Information Center (DTIC) was also included. Search keywords are listed in Table C.2. The final search used an "AND" operator between (1) and (2) population (law enforcement, first responders, and government agencies), (3) fitness for duty and readiness, and (4) assessment and screening. Exclusion criteria are not listed here. Ultimately, this search proved not useful for our task.

TABLE C.2

Literature Review Search Keywords

Category	Search Terms
Law enforcement and first responders	"law enforcement*"[ti] OR police*[ti] OR firefighter*[ti] OR "fire fighter*"[ti] OR firefighting[tiab] OR "fire fighting"[tiab] OR "fire station*"[tiab] OR "fire department"[tiab] OR "emergency responder*"[ti] OR "emergency medical technician*"[ti] OR EMT[ti] OR EMTs[ti] OR paramedic*[ti] OR ambulance[ti] OR "ambulance personnel"[tiab] OR "state patrol"[tiab:~1] OR "highway patrol*"[tiab] OR "patrol officer"[tiab:~1] OR "border patrol"[tiab] OR "special weapons and tactics"[tiab] OR "SWAT team"[tiab:~2] OR "first responder*"[ti] OR "rescue personnel"[ti] OR "rescue worker*"[ti] OR "public safety personnel"[tiab] OR "emergency medical services personnel"[tiab:~1] OR "EMS personnel"[tiab:~1] OR "EMS professional*"[tiab] OR "Emergency Responders"[MAJR] OR "Emergency Medical Technicians"[MAJR] OR "Firefighters"[MAJR] OR "Paramedics"[MAJR] OR "Police"[MAJR] OR "Law Enforcement"[MAJR]
US government agencies	((worker*[tiab] OR employee*[tiab] OR personnel*[tiab] OR workplace[tiab] OR job[tiab] OR staff[tiab] OR agent*[tiab] OR professional*[tiab] OR vocational OR occupational[tiab]) AND ("Department of Homeland Security"[tiab] OR "Agency for International Development"[tiab] OR USAID[tiab] OR "National Security Agency"[tiab] OR NSA[tiab] OR "Coast Guard"[tiab] OR "Department of Energy"[tiab] OR "United States Customs Border Protection"[tiab:~1] OR "US Customs Border Protection"[tiab:~1] OR "U.S. Customs Border Protection"[tiab:~1] OR "Department of State"[tiab] OR "Office of the Director of National Intelligence"[tiab] OR ODNI[tiab] OR "Central Intelligence Agency"[tiab] OR CIA[tiab] OR "Federal Bureau Investigation"[tiab:~1] OR FBI[tiab] OR "United States Department of Homeland Security"[MAJR] OR "United States Agency for International Development"[MAJR]))
Fitness for duty and readiness	readiness[tiab] OR "fitness duty"[tiab:~1] OR "fit duty"[tiab:~1] OR "fitness work"[tiab:~1] OR "physical fitness"[tiab] OR "work capacity"[tiab] OR "work ability"[tiab] OR "ready duty"[tiab:~2] OR "return duty"[tiab:~2] OR "active duty"[tiab] OR "limited duty"[tiab] OR "modified duty"[tiab] OR "restricted duty"[tiab] OR "missed duty"[tiab:~1] OR "lost duty"[tiab] OR "return to work"[tiab] OR "duty trauma"[tiab:~1] OR "medical leave"[tiab] OR "sick leave"[tiab] OR "leave of absence"[tiab] OR "mental health"[ti] OR "psychological functioning"[tiab] OR "psychological function"[tiab] OR "Work Capacity Evaluation"[MAJR] OR "Physical Functional Performance"[MAJR] OR "Occupational Stress"[MAJR]
Assessment and screening	assessment*[tiab] OR assessing[tiab] OR screening*[tiab] OR "health surveillance"[tiab] OR evaluation*[tiab] OR evaluating[tiab] OR FFD[tiab] OR FFDs[tiab] OR monitoring[tiab] OR appraisal*[tiab] OR "fitness measure*"[tiab] OR "fitness test*"[tiab] OR "exercise test"[tiab] OR "risk assessment*"[tiab] OR "health questionnaire*"[tiab] OR "stress detect*"[tiab] OR testing[tiab] OR qualification*[tiab] OR disqualif*[tiab] OR "early intervention*"[tiab] OR "employment standards"[tiab] OR policy[tiab] OR policies[tiab] OR "psychological test*"[tiab] OR "psychological exam*"[tiab] OR "Employee Performance Appraisal"[MAJR] OR "Psychological Tests"[Mesh:NoExp]

NOTE: This example is specific to the search using the PubMed database.

APPENDIX D

Interview Guides

This appendix provides the interview guides used for leader and provider interviews, respectively.

Leader Interview Guide

Background

[INTERVIEWER: Complete these items before the interview begins. If needed, clarify with the respondent.]

Interview type?

- ☐ Provider *[INTERVIEWER: If not leader, please use the provider interview guide.]*
- ☐ Leadership

What military service branch is the interviewee affiliated with?

- ☐ Air Force
- ☐ Army
- ☐ Marine Corps
- ☐ Navy
- ☐ Space Force
- ☐ Not applicable

What is the interviewee's current status?

- ☐ Uniformed: Active Component
- ☐ Uniformed: Reserve/Guard
- ☐ DoD government civilian
- ☐ Contractor *(NOTE: Contractors are ineligible for the study. Please thank them for their time and do not interview.)*

What is the interviewee's role/title?

_____

Experience with and Perceptions of Each Assessment

1. In the next few questions, we will go through each of the current readiness assessments. For each assessment, please let me know whether you use each assessment. Examples of use could include completing each assessment in a provider role or using the data in any other way. During this interview, please focus on your leadership role rather than any personal experiences you may have completing these assessments about yourself.

Use data	Do not use data	
☐	☐	PHA
☐	☐	Pre-DHA
☐	☐	PDHA
☐	☐	PDHRA
☐	☐	MHA

2. Please tell me how you use information from each assessment. *[INTERVIEWER: Ask for each assessment endorsed as "use data" in Q1.]*

2a. You mentioned not using *[INTERVIEWER: Insert assessments endorsed as "do not use data" in Q1].* Please tell me why you do not use data from these assessments.

3. Among these assessments, is there an assessment that you find the most useful? Why? Is there an assessment that you find the least useful? Why?

4. *[INTERVIEWER: Provide an overview of the timing of each assessment using visual aid.]* What are your thoughts on the relative timing of these health assessments for the purposes of determining and monitoring individual medical readiness?

Overlap and Gaps

5. Now we would like to understand your perspective about the various topics covered across the different assessments. Some topics are covered in multiple assessments. Do you find this redundancy to be useful or not? How so?

6. Do you believe that any specific questions or topics could be removed? Which ones and why?

7. Do you believe that any specific questions or topics should be added? Which ones and why?

Overall View of Health Readiness Assessments

8. Do you believe the current process is an effective approach to assessing individual or unit level medical readiness? Why or why not?

Recommendations

9. Finally, what improvements, if any, could be made to these routine readiness assessments? This might include suggestions about the content of the assessments themselves or the timing and processes involved.

Provider Interview Guide

Background

[INTERVIEWER: Complete these items before the interview begins. If needed, clarify with the respondent.]

Interview type?

- ☐ Provider
- ☐ Leadership *[INTERVIEWER: If not provider, please use the leadership interview guide.]*

What military service branch is the interviewee affiliated with?

- ☐ Air Force
- ☐ Army
- ☐ Marine Corps
- ☐ Navy
- ☐ Space Force
- ☐ Not applicable

What is the interviewee's current status?

- ☐ Uniformed: Active Component
- ☐ Uniformed: Reserve/Guard
- ☐ DoD government civilian
- ☐ Contractor (*NOTE: Contractors are ineligible for the study. Please thank them for their time and do not interview.*)

What is the interviewee's role/title?

_____

Provider type: _____

Experience with and Perceptions of Each Assessment

1. In the next few questions, we will go through each of the current readiness assessments. For each assessment, please let me know whether you use each assessment. Examples of use could include completing each assessment in a provider role or using the data in any other way. During this interview, please focus on your role as a provider rather than any personal experiences you may have completing these assessments about yourself.

Use data	Do not use data	
☐	☐	PHA
☐	☐	Pre-DHA
☐	☐	PDHA
☐	☐	PDHRA
☐	☐	MHA

2. Please tell me how you use information from each assessment. *[INTERVIEWER: Ask for each assessment endorsed as "use data" in Q1.]*

2a. You mentioned not using *[INTERVIEWER: Insert assessments endorsed as "do not use data" in Q1].* Please tell me why you do not use data from these assessments.

3. Among these assessments, is there an assessment that you find the most useful? Why? Is there an assessment that you find the least useful? Why?

4. *[INTERVIEWER: Provide an overview of the timing of each assessment using visual aid.]* What are your thoughts on the relative timing of these health assessments for the purposes of determining and monitoring individual medical readiness?

Overlap and Gaps

5. Now we would like to understand your perspective about the various topics covered across the different assessments. Some topics are covered in multiple assessments. Do you find this redundancy to be useful or not? How so?

6. Do you believe that any specific questions or topics could be removed? Which ones and why?

7. Do you believe that any specific questions or topics should be added? Which ones and why?

Provider Processing of Assessments

8. The next few questions are about the process after a service member completes an assessment. Once a service member has been flagged for needing further care or referral based on responses to a health readiness assessment, what happens next? Is this a standard process or does it vary by assessment?

9. How are service members tracked once they are referred for further care based on their responses? Is there any guidance or policy that informs your approach to follow-up? This could be at the local (e.g., installation/MTF), service, Defense Health Agency, or DoD level.

10. Do you believe the process of health assessment and referral is an effective approach to prevention and early intervention? Why or why not?

Recommendations

11. Finally, what improvements, if any, could be made to these routine readiness assessments? This might include suggestions about the content of the assessments themselves or the timing and processes involved.

Abbreviations

ADA	Americans with Disabilities Act
ALNAV	All Navy
AR	Army Regulation
AUDIT-C	Alcohol Use Disorders Identification Test—Concise
BRCA	BReast CAncer Gene
BUMEDINST	Navy Bureau of Medicine and Surgery Instruction
CSSR-S	Columbia Suicide Severity Rating Scale
DAF	U.S. Department of the Air Force
DAFI	U.S. Department of the Air Force Instruction
DA PAM	Department of the Army Pamphlet
DD	Defense Department
DHA	Defense Health Agency
DHAPI	Defense Health Agency Procedural Instruction
DoA	Department of the Army
DoD	U.S. Department of Defense
DoDI	U.S. Department of Defense Instruction
DoD-ID	U.S Department of Defense Identification
DON	U.S. Department of the Navy
FY	fiscal year
GAD	generalized anxiety disorder
HIV	human immunodeficiency virus
ICD-10	International Classification of Diseases, tenth revision
IMR	individual medical readiness
LOD	line of duty
MARADMIN	Marine Administrative Message
MHA	Mental Health Assessment
MHS	Military Health System
MTF	military treatment facility
NAVADMIN	Naval Administrative Command
NDRI	National Defense Research Institute
OCONUS	outside the continental United States
OPNAVINST	Office of the Chief of Naval Operations Instruction
OSD	Office of the Secretary of Defense
PCL	Posttraumatic Stress Disorder Checklist

PCL-C	Posttraumatic Stress Disorder Checklist—Civilian Version
PDHA	Post-Deployment Health Assessment
PDHRA	Post-Deployment Health Reassessment
PHA	Periodic Health Assessment
PHQ	Patient Health Questionnaire
PHQ-15	Patient Health Questionnaire for somatic symptoms
PPE	personal protective equipment
Pre-DHA	Pre-Deployment Health Assessment
PTSD	posttraumatic stress disorder
RADaR	Rigorous and accelerated data reduction
SECNAVINST	Secretary of the Navy Instruction
SM	service member
SSN	Social Security number
STD	sexually transmitted disease
STI	sexually transmitted infection
TBI	traumatic brain injury
USPSTF	U.S. Preventive Services Task Force
UTI	urinary tract infection
VA	U.S. Department of Veterans Affairs

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NATIONAL SECURITY RESEARCH DIVISION

Congress mandates that the Department of Defense (DoD) assess and monitor the health readiness of the armed forces. Accordingly, DoD implements a suite of health assessments to monitor service members' health readiness. One annual and four additional deployment-related health assessments screen for issues with physical and behavioral health at specified intervals throughout the deployment cycle to facilitate early intervention and any medical care required to maintain force readiness. The content of many of the items in these assessments overlap, and the required time frames for assessment completion can be very close to one another. In addition, administration of similar assessments can involve unnecessary monetary and other resource costs.

The Office of the Assistant Secretary of Defense for Health Affairs asked the RAND National Defense Research Institute to evaluate DoD's suite of health readiness assessments against their stated objectives and identify potential opportunities for improvement, increased efficiencies, and cost savings. In this report, the authors review the policies behind these health assessments at both department and service branch levels and the assessments themselves for overlaps and gaps, comparing them with U.S. guidelines for health screenings and the use of similar health assessments among high-risk civilian professions. Drawing from this analysis and interviews with military stakeholders, they offer recommendations for improving the health assessments' efficiency and effectiveness.

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