PTSI Final Report: Transforming the Psychological Health System of Care in the US Military

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Chapter 3: US Marine Corps: Building a comprehensive coordinated psychological health system

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Introduction

The Marine Corps is not as far along as the Army in defining and implementing a psychological[1] health system suited to its mission, culture, and organizational structures. Indeed, because responsibility for the delivery of health care is shared between the Navy and the Marine Corps, any efforts to implement changes to existing practices must be negotiated—there is not a single hierarchical reporting structure as in the Army. Thus, throughout this chapter, we describe how and why a model of system development that is different from the Army approach, that takes account of the complex reporting structures and responsibilities, and that is responsive to the unique and more decentralized culture of Marines operations is underway and needs to continue to evolve. Moreover, our research on the Marine Corp processes is neither as deep nor as extensive as the work reported in the Army chapter. Therefore, what is presented here should be viewed as work in process, both for the Navy and Marine Corps personnel designing and providing psychological health care to Marines and family members and with respect to the information and analysis needed to support further development of a well-coordinated psychological health system in this service.

In addition, our work with the Marine Corps began later than the Army research, and was not a comprehensive effort to define and establish a new system service-wide. Rather, we were asked in 2012 to analyze systemic problems at Camp Lejeune and nearby North Carolina installations, and did so in 2013, and in 2015 study the impact of implementation of a Memorandum of Understanding (MOU) signed by the three organizations providing most of the Marine Corps' psychological health care. This MOU was a negotiated policy memorandum with the stated goal to create a more integrated psychological health system. It outlined the respective responsibilities of the Navy and the Marine Corps in delivering medical and non-medical care. Given these complex organizational arrangements, our study of the MOU implementation pays special attention to coordination across these organizations, which provide different yet potentially related types of care.

[1] As noted in chapter 1, we use the term "psychological health" to denote the overall system for the Marine Corps.

Like the Army work, the issues to be studied and the scope of work were developed jointly between Marine Corps leaders and MIT researchers. In this regard, the Marine Corps was especially interested in what could be learned from civilian sector research and practice on the effective management of psychological health. Therefore, we use that literature to frame and organize the presentation of the work done to date and directions for the future as the Marine Corps, in cooperation with the Navy, takes the next steps in defining and implementing a comprehensive psychological health care system suited to its mission and to the active-duty and post-active-duty lives of Marines and family members.

Psychological Health System development in the USMC: needs and responses

The Marine Corps, like the other U.S. military Services, faces a significant challenge to its core mission because of adverse health and social outcomes among Marines. With respect to Marines' psychological health, operational command has two goals. One is to maximize the number of people in an operationally ready state, which requires that Marines be psychologically healthy and prepared for their assignments, whatever they may be. The other reflects the long-held Marine Corps commitment to developing quality citizens, which also requires psychological health. It is an objective shared across the Marine Corps, both by commanders and by those who provide the services that should ensure psychological health.

Simply put, achieving these objectives requires that the Marine Corps take explicit steps to minimize the high number of suicidal ideation/attempts, violence, substance abuse, and behaviors symptomatic of serious mental health conditions such as PTSD or depression. This requirement is well known among Marine Corps leaders and health services providers, as noted in chapter 1.

The Marine Corps recognized that change was needed several years ago. As we noted in chapter 1, the Marine Corps Commandant's Planning Guidance of 2010 says, in part: "Integrate Behavioral Health efforts—present recommendations on how best to integrate more fully Behavioral Health programs/issues (Combat and Operational Stress Control, Suicide Prevention, Family Advocacy, Sexual Assault, and Substance Abuse Prevention) within the Marine Corps."[2] As a result, by 2012 Marine & Family Programs (MFP) was implementing plans to increase and modify its Behavioral

[2] See http://www.marines.mil/News/Publications/ELECTRONICLIBRARY/ElectronicLibraryDisplay/tabid/13082/Article/125378/35th-commandant-planning-guidance-2010.aspx , accessed April 25, 2016.

Health services to offer comprehensive "non-medical" counseling to Marines and their families.[3] This would happen through a new umbrella organization, the Community Counseling Center, incorporating the existing General Counseling services and serving as the main door to other MFP programs such as family advocacy, sexual assault prevention, new parent support, and non-medical (mild) substance abuse counseling.

This transition was underway when we began our study of psychological health care at the Camp Lejeune, New River, and Cherry Point installations in North Carolina. We were asked to include resources belonging to the installations as well as to the operational Marine Expeditionary Force (II MEF).

In 2013, we examined the current state of psychological health care provision from a systems perspective, focusing on experiences and perceptions of active-duty and civilian providers, members of the chain of command for both the installation and operational forces, and junior leaders. Our analysis of their interview and survey responses links observable features of psychological health care services with perceptions of effectiveness, and also highlights issues such as care seeking, access to care, stigma, and information sharing.

Design and Governance of Psychological Health Services in the Marine Corps

Marine Corps psychological health services comprise a large set (more than 25 at most installations) of mostly disconnected programs aimed at preventing, diagnosing, or treating psychological health issues, offered by multiple types of providers in a variety of settings, and all with different degrees of accessibility and levels of confidentiality.

To represent these programs and organizations visually and succinctly, we began with a structural and organizational perspective. Multiple groups provide psychological health services in the Marine Corps; figure 3-1 shows schematically their reporting and accountability relationships. The groups that offer direct services to Marines on and near installations (dark gray boxes) report to a variety of organizations that come together, from a governance and funding perspective, only at the level of the Office of the Secretary of Defense.

[3] Nonmedical counseling is not recorded in the medical record, and cannot be used to treat medical diagnoses such as major depressive disorder or PTSD. It is defined by DoD (see chapter 1) and in the text of the 2013 MOU.

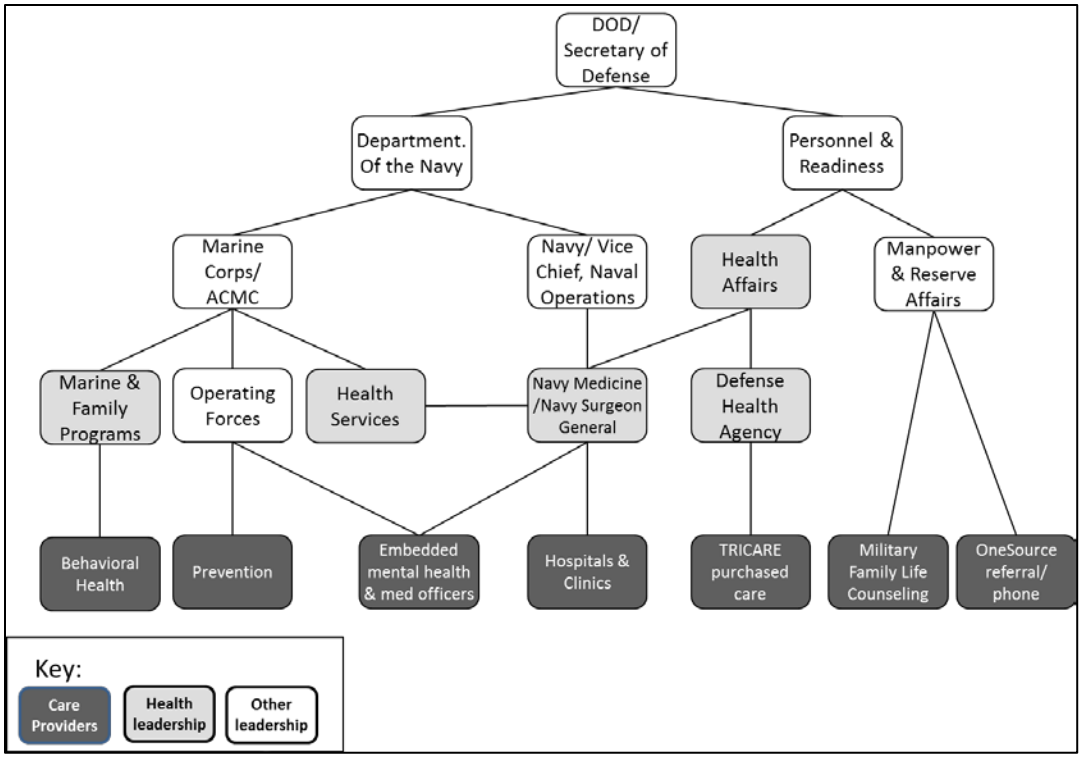

Figure 3-1: Organizations providing Psychological Health Services for the USMC

- Marine & Family Programs' Behavioral Health organization provides group classes such as anger management, individual and couples counseling, and DoD-mandated programs such as family advocacy for victims of domestic violence, sexual assault prevention and response, and substance abuse counseling.
- Prevention personnel offer in-unit prevention/promotion programs to mitigate behavioral health risk factors, including evidence-based formal training classes and group workshops. They report to operational commanders. Personnel at MFP headquarters design many of these programs.
- Embedded mental health providers (Operational Stress Control and Readiness, or OSCAR, providers) and embedded medical officers serve specific Marine Corps units and deploy with them. They provide referrals, as well as individual treatment through counseling and/or medication, which is recorded in the medical record. Although they are not shown in the diagram, chaplains are also embedded, and they provide confidential individual counseling and referrals. All embedded providers are "dual-hatted" in that they are Navy personnel who professionally report to Navy Medicine or the Chief of Chaplains but report operationally to Marine Corps commanders. OSCAR providers are psychiatrists and licensed mental health personnel. Medical Officers are mostly primary care doctors with limited psychiatric training,

but, like all medical doctors, can prescribe psychiatric medications. Health Services provides policy and procedural guidance for embedded Navy Personnel.

- Navy hospitals and mental health clinics house providers who offer a range of psychiatric treatment options for diagnoses recorded in the medical record, as well as some prevention services. These providers report to Navy Medicine. The hospital commander also has a dotted line supporting relationship with the installation commander.
- TRICARE pays for all psychological health-related off-installation care. It is overseen by the Defense Health Agency, which supports all the military branches.
- Military Family Life Counselors provide face-to-face, short-term, confidential individual counseling for subclinical concerns, and offer referrals for more serious mental health issues. They report to Manpower & Reserve Affairs, a DoD agency separate from its health services organization.
- Military OneSource offers free telephone and online referrals and short-term counseling services to all personnel and families. It is also part of Manpower & Reserve Affairs.

To show succinctly the types of services these organizations provide, we draw on the definition of psychological health in Chapter 1: "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community."

As noted in chapter 1, psychological health provision refers to a full spectrum of services, including promotion, prevention, treatment, and rehabilitation, and embodies the Institute of Medicine's 2009 Continuum of Care model. This IOM study also provides a thorough review and analysis of prevention research and programs, showing that most psychological health disorders originate before age 25 and noting that the research shows that many mental, emotional, and behavioral disorders can be prevented. In addition, the co-morbidities between mental health conditions and other chronic psychological conditions common to combat experience are widely acknowledged.[4] This indicates the need for better coordination between mental health care and general health care and health promotion.[5,6] In addition, both the Affordable Care Act of 2010 and

[4] See, for example IOM. (2012). Treatment for Posttraumatic Stress Disorder in Military and Veteran Populations: Final Assessment. IOM. pp. 1, 3

[5] See Goodell, S., Druss, B. G., & Walker, E. R. (2011). Mental disorders and medical comorbidity: research synthesis. RWJ foundation. http://www.rwjf.org/en/library/research/2011/02/mental-disorders-and-medical-comorbidity.html,

the 2011 National Prevention Strategy it mandated emphasize the importance of preventing health conditions (including psychological health conditions) to provide more effective services to a broader population at lower cost.[7]

In line with this evidence, the Marine Corps has adopted this comprehensive perspective and its psychological health services include not only medical diagnosis and treatment services provided by licensed medical professionals based in hospitals or clinics, but also health promotion and prevention services often delivered in a variety of programs outside of the clinics or hospitals—on the installation, at work in Marines' units, and in the community.

Figure 3-2 shows schematically where each of the groups offering psychological health service to Marines is located, and which services from the IOM Continuum of Care each offers.

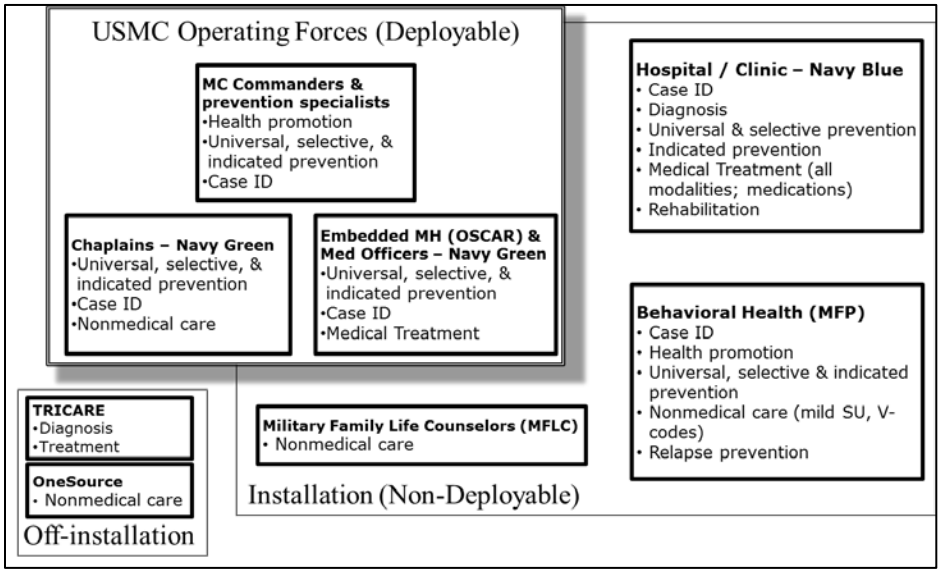

Figure 3-2: Marine Corps major psychological health services and groups

2013 Baseline research findings

We completed the first phase of our Marine Corps research in 2013. The results of that work provided the baseline set of issues and challenges that focused our 2015 follow-up work. In 2013, we interviewed and surveyed more than 270 line and provider respondents. We asked about

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[6] See Lando, et al. (2006). A Logic Model for the Integration of Mental Health into Chronic Disease Prevention and Health Promotion. *Preventing Chronic Disease*, *3*(2). http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1563949/

[7] For an example of the ACA impact, see: Saloner, B., & Cook, B. L. (2014). *An ACA Provision Increased Treatment for Young Adults with Possible Mental Illnesses Relative to Comparison Group*. Health Affairs, 33(8), 1425–1434. http://doi.org/10.1377/hlthaff.2014.0214 .

respondents' perceptions and knowledge of the care system, the pathways to care, and reasons a Marine might choose a particular pathway when seeking care. In this process, we uncovered multiple problems with the system as it existed in 2013, which we describe below. Many of these problems persist, although our 2015 visit uncovered multiple efforts to address them.

First and foremost, we found that while there were many programs and services, as figure 3-2 shows, these services were generally disconnected, making it difficult for users, commanders, and providers to know what services existed and which ones were most appropriate for an individual's needs at any time. In addition to these structural problems, our interviews and surveys identified a number of cultural barriers and differences between line commanders and Marines regarding their preferred pathways for obtaining care. For example:

- Line leaders showed a preference for medical mental health care pathways over non-medical options. Stated reasons included confidence that medical was the "best" care and the ability to obtain information about a Marine's status from medical providers relatively easily. However, both providers and line leaders noted that Marines who sought care on their own often chose more confidential routes that would keep their care from being recorded in their medical records. In some cases, respondents related these preferences explicitly to cultural issues of stigma.
- Stigma, whether real or perceived, affects and most likely limits care seeking. That stigma is a critical factor is reflected in the frequency with which respondents, independent of rank or position, mentioned its impact in our interviews.
- The General Counseling services within Marine & Family Programs were not well understood by line leaders and other providers, and also appeared relatively underused.
- Demand for medical mental health care, along with an increase in the number of programs, exceeded the supply of providers.
- Hiring qualified professionals was challenging. Contributing factors were the relative isolation of Camp Lejeune, uncertainty about long-term employment exacerbated by the temporary nature of much program funding, and bureaucratic time lags associated with the hiring process.
- As a result of this supply/demand mismatch, 10 to 20 percent of Marines at all three sites were sent into the off-base (TRICARE) network.
- Analysis of our 2014 interviews with off-base providers confirmed many of these issues, suggesting that Marines and family members used off-base providers because of on-base

provider shortages and perceived low care quality on base, as well as concerns about privacy and stigma. Comparison of care provision practices suggested that overall practices are similar to those on base in terms of abiding by treatment rules and guidelines, adapting to Marines' schedules, and respect for HIPAA and privacy rules. One difference in the experience of care may be due to the absence of operational pressures from a Marine's duties on off-base providers, which may result in Marines who use them feeling they receive more personal attention and more confidential care in a safer and less judgmental environment.

Inadequate information sharing was identified as a key source of disconnects in providing care:

- Provider groups worked in silos, and each provider group had its own culture, resource streams, and accountability structures. This resulted in few opportunities for communication and collaboration, which constrained care coordination. In particular, Navy providers in hospitals and clinics were unclear about the roles and responsibilities of embedded mental health (OSCAR) providers compared with Navy hospital-based providers in caring for Division Marines.
- There were challenges with sharing medical information among on-base providers and with commanders. Two contributing factors were the lack of a comprehensive medical information system and differences in providers' and commanders' understanding about rules governing HIPAA and privacy. Instead, many providers and commanders relied on informal communication networks to help manage the constraints imposed by the limits of the formal medical information system and the HIPAA regulatory environment.
- A lack of effective communication channels between on- and off-base TRICARE-paid providers led to unease and poor sharing of information.

In short, while respondents valued highly a psychological health system with characteristics including efficacy, availability, confidentiality, and accessibility, they did not believe the system they perceived—with its many disconnected programs, lack of information sharing, and inability to provide sufficient care in a non-stigmatizing way—was effective.[8] We describe below, in our description of our 2015 site visits, changes that begin to address these issues.

[8] For details, see our January 2015 report, "The Marine Corps II MEF Psychological Health System," with initial analysis of our 2013 interviews and surveys, and our more detailed January 2016 report, "The Emergent Psychological Health System at Marine Corps, Base Camp Lejeune 2012-2015," which also includes our analysis of interviews with TRICARE providers, and our 2015 work at Camp Lejeune. Both are available at http://hsi.mit.edu/ptsi .

2015 Analysis: MOU implementation and coordination

Navy and Marine Corps leaders recognized the importance of clarifying how the expanded Marine & Family Programs Behavioral Health programs would interact with existing Navy medical programs, and during 2013 they developed a Psychological Health System Memorandum of Understanding. Its stated goal was: "Establishment of a comprehensive system of psychological health services for active-duty Marines and their families." The MOU was a negotiated formal policy document that clarified the scopes of practice and thus the responsibilities of providers. One result of this negotiation was to define "medical" care and "non-medical" care as a way to delineate Navy Medicine and MFP Behavioral Health responsibilities, especially since professionals in both organizations have the same professional qualifications (e.g., licensed clinical social worker or psychologist).

The negotiation also resulted in agreement on broad requirements for referral mechanisms, tracking, and systemic change over time, but as is common with policy documents it did not specify many implementation details. Both Marine Corps and Navy cultures leave implementation to those who understand a local situation best: in this case, that was each installation's psychological health leadership, usually the directors of MFP Behavioral Health and Navy mental health.

Table 3-1 summarizes the contents of the MOU, which was signed in November 2013.

Roles and responsibilities:	Specifies the respective roles of Navy and Marine Corps providers. • Navy Medical providers must treat all potentially disabling psychiatric diagnoses, all medication needs, and all moderate and severe substance use disorders, suicidality, and violence. • Marine & Family Programs providers may provide outpatient "non-medical counseling services" for subclinical diagnoses and to address "general conditions of living," provide educational or preventive services, treat mild/moderate substance abuse disorders, and assist victims of child abuse and domestic violence. • All providers may provide diagnostic screening and assessments for determining appropriate referrals.
Individual (case) coordination:	Requires development of processes to make and track referrals and provide feedback to the referrer; specifies circumstances requiring case management.
MOU implementation tracking	Provides headquarters and installation-level guidance including: frequency/attendance at tracking meetings, tracking metrics, and role of the Installation Director of Psychological Health (a DoD required position)
Other topics:	Refers to policies on informed consent, non-duplication of care, and command notification requirements

Table 3-1: MOU Overview

In early 2015, we were asked to study the implementation efforts relating to the MOU. In this process, we interviewed 45 psychological health leaders and providers at three installations (Camp Pendleton, Camp Lejeune, and MCAS Cherry Point), and analyzed the content of the MOU and 12 installations' Standard Operating Procedures (SOP) documents that described how each installation was implementing the MOU. We also reviewed the relevant civilian literature for applicable learnings and frameworks. The goal was to develop actionable, evidence-based recommendations for improving the Marine Corps Psychological Health system.

Both the MOU and the perspective we had taken in our 2013 work highlighted the importance of focusing on the system rather than individual programs and services, in particular by emphasizing coordination efforts that could reduce the disconnects we had observed. The evidence derived from our literature review showed the growing importance of the concept of coordination within and

among medical practitioners, and especially the value of coordination in effectively aligning medical practice and the professional social service community. Therefore, we made the coordination perspective more explicit in 2015 in both our analysis and the resulting recommendations.

Our analysis began with figure 3-2 above, which shows the main provider groups, locations, and service offerings available to Marines, but provides no guidance about how to choose either a service or a pathway for moving from one service to another. These choices and pathways are key drivers of the need to coordinate these services. To make this issue more explicit, and help make the case for putting coordination at the center of the Marine Corps efforts going forward, we developed a framework (Figure 3-3) showing both the psychological health-related states a user can be in and how a user typically moves from one to the next. The role of the IOM continuum of care components is shown in bold. Note that the IOM segments link user states in some cases, but not consistently or completely.

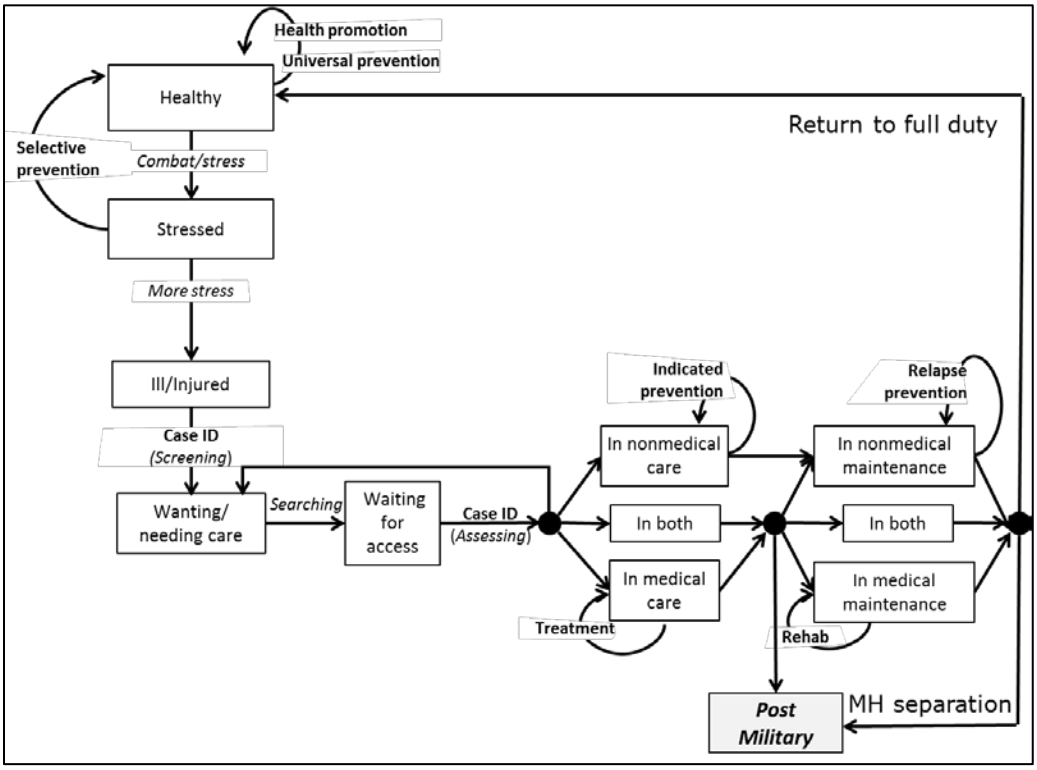

Figure 3-3: User perspective of a comprehensive psychological health system

While medical care and non-medical care appear to be clearly delineated by the boxes at the bottom right in Figure 3-3, the boundaries are fuzzy in practice. For example, prevention activities may occur in any user state, and may be provided as part of medical or non-medical services.

Further, users may receive both medical and non-medical care and maintenance services concurrently (e.g., medication management along with non-medical marriage counseling). In addition, users over time transition across states, moving from medical to non-medical care as well as to and from healthy, stressed, and ill/injured states.

To support a user through this cycle, therefore, requires coordination so that the system components are linked, the user is supported in moving from one to the other, and information moves with the user. Moreover, the coordination must exist in multiple domains. Synthesizing the research literature, we define coordination for a medical/non-medical system such as that of the Marine Corps in three distinct domains: individual care, across programs, and across organizations.

Coordination of individual care aims to improve that care. Individual care includes referrals, warm handoffs, transfers, and case management. Users and their care information need to be moved; individual outcome information is important as well to make good care coordination decisions. Coordinated care emphasizes communication among providers, systems, patients/families, and organizations, especially at points of transition between professionals and programs.

The importance of care coordination is clearly illustrated by the growing prevalence of patient-centered medical homes, due in large part to the care coordination capabilities between primary care services and other specialty care services they bring. DoD is moving towards medical homes for all primary care services and working to integrate some behavioral health care and coordination within medical homes.[9] The Agency for Healthcare Research and Quality's Clinical-Community Relationships Measures Atlas is one particularly relevant resource on care coordination for the Navy/Marine Corps case; it provides a measurement framework and existing measures of clinical-community (i.e., medical/non-medical) relationships.[10]

In the Marine Corps, the warm handoff of individuals between the colocated MFP Behavioral Health provider and Navy mental health providers at the Camp Pendleton mental health clinic is an example of individual care coordination. In this process, a mental health clinician triages walk-ins and sends them to the Marine and Families Program provider if symptoms seem subclinical, and

[9] See DODI 6490.15 (2013): Integration of Behavioral Health Personnel (BHP) Services into Patient-Centered Medical Home (PCMH) Primary Care and Other Primary Care Service Settings.

[10] See Dymek, C., Johnson Jr., M., McGinnis, P., et al. (2013). *Clinical-Community Relationships Measures Atlas.* AHRQ Pub No. 13-0041-EF. http://www.ahrq.gov/professionals/prevention-chronic-care/resources/clinical-community-relationships-measures-atlas/index.html

briefly discusses intake findings with her. The MFP provider does a detailed assessment and either explains the scope of community counseling and, with the individual's agreement, sets up an appointment or refers the individual back to a mental health provider across the hall (often walking the individual over) if the assessment suggests medical care is needed.

Individual care coordination, however, is not enough. The 2013 SAMHSA care coordination for integrated health care report discusses the importance of including not only individual care coordination but also program and organizational coordination as part of its integrated care framework.[11]

Coordination across programs has as its goal development of standards and processes to link users and their information across programs or services. Processes, rules, and program-level aggregated user information are coordinated. Program managers work together and use this information to make decisions about how the programs are linked in practice. This type of coordination links specific programs, but because it focuses on a single relationship it usually does not require involvement of parent organizations and related governance decisions.

A civilian example of program coordination describes how the Electronic Linkage System prompts clinicians to offer counseling to appropriate patients and then refers patients to community services that could help them address preventable health risks. Once clinicians and patients agree on an appropriate option, the system sends referrals electronically to community-based counseling organizations, prompting them to contact patients to arrange services. A group of medical practices incorporated this system into its daily workflow to prompt clinicians to offer behavioral counseling regarding diet, exercise, smoking, and alcohol consumption. The program led to well-above-average rates of referrals for counseling services and improved behaviors related to diet and exercise that, in turn, led to weight loss and enhanced quit rates among smokers.[12]

A Marine Corps example of program coordination at Camp Pendleton is the referral process between the Marine & Family Program's substance abuse counseling service and Navy Medicine's, as well as the decision making process for managing borderline cases by the Navy Medicine

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[11] See Heath, B., Romero, P. W., & Reynolds, K. (2013). *A Standard Framework for Levels of Integrated Healthcare*. National Council for Community Behavioral Health, SAMHSA. http://www.integration.samhsa.gov/resource/standard-framework-for-levels-of-integrated-healthcare

[12] See AHRQ (2014): https://innovations.ahrq.gov/profiles/automated-clinician-prompts-and-referrals-facilitate-access-counseling-services-leading

provider colocated at the Marine & Family substance abuse clinic. At Camp Lejeune, Navy Medicine hired an admissions coordinator who works with the MFP substance abuse clinic and unit representatives to assist in the process of placing Marines in treatment in either MFP or Navy Medicine substance abuse treatment.

Coordination across organizations is the most complex form, as it requires development of governance mechanisms to link organizations that have a variety of goals and interests and do not otherwise report to each other. This governance development is a political process, requiring that an agreement on how to govern, measure, and make system decisions be negotiated.

Civilian examples of new governance models include Accountable Care Organizations (ACO), which are medical-centric models, as well as Accountable Health Communities, which aim to link medical and community (non-medical) services more broadly. ACOs are incentivized by the Accountable Care Act to coordinate care to improve outcomes and access while reducing costs, and range from single practices to statewide networks. Models that include mental health, substance abuse treatment, and other social supports for Medicare and Medicaid patients are now emerging.[13]

The Accountable Health Community is an emerging model that incorporates both medical and community services in a holistic system, with shared leadership.[14] The concept, still new, is a promising example for the Marine Corps' medical/non-medical coordination efforts. Initial reviews focus on governance requirements and financing.[15] Models vary in structure in part because they are designed to meet needs of the communities they serve within state-specific organizational and funding requirements. However, there is growing agreement on guiding principles that encompass neutrality, accountability to the community, flexibility, and sound governance. These principles are instantiated in core components of an Accountable Health Community, which include:

- **Community Stakeholders**: organizations in the health care sector, government, and nonprofit

[13] For more, see Burton, A., Chang, D. I., & Gratale, D. (2013). *Medicaid Funding of Community-Based Prevention: Myths, State Successes Overcoming Barriers and the Promise of Integrated Payment Models*. Nemours Foundation, and Somers, S., & Mcginnis, T. (2014) http://healthaffairs.org/blog/2014/01/23/broadening-the-aca-story-a-totally-accountable-care-organization/

[14] Other labels include Accountable Community for Health and Accountable Care Communities. For more, see Fisher, E. S., & Corrigan, J. (2015). Accountable Health Communities: Getting There From Here. *JAMA*, *312*(20), 2093–2094 and Alley, D. E., Et al. (2016). Accountable Health Communities — Addressing Social Needs through Medicare and Medicaid. *New England Journal of Medicine*, *374*(1), 8-11.

[15] For more see, for example: Cantor, Tobey, Houston, & Greenberg (2015), Corrigan & Fisher (2014) or Plaza, Arons, Rosenthal, & Heider (2014).

organizations, including community organizations and social service providers.

- **Governing Body:** provides for joint decisionmaking and prioritization of interventions; establishes roles, responsibilities, and relationships between the component organizations; accountable to broader community of stakeholders.
- **Backbone:** host entity to provide leadership and administrative support; can be a nonprofit, government, or for-profit organization.
- **Wellness Fund:** fund established by the AHC to pool and leverage funding from a variety of resources to sustain the AHC initiative.

The Center for Medicare and Medicaid Services has to date provided more than $600 million in grant funding to more than 30 states, resulting in new evidence for and models of multi-organizational coordination. Many models also include information technology innovations such as health information exchanges and data capture and analysis capabilities, which enable evidence-based evaluation and modification of the models. The program's measurement system has shown promising results that favor a community model supporting the medical model, with better outcomes.[16] These metric-driven models, although distinctly civilian, offer the Marine Corps some practical lessons on designing a "bottom-up" local, tailored model, as well as providing an evidence-based governance approach that stresses local leadership and engagement to maintain the integrity of common resources.

In the Marine Corps, the MOU itself is an example of coordination across organizations. It begins to outline a vision for a system linked across two distinct organizations. At Camp Pendleton, the local psychological health system governance structure consists of the leaders of the local Navy mental health clinic, embedded mental health, and Marine and Families Behavioral Health. As a group, they develop innovations; create, implement, monitor and adjust standard operating procedures for them; and respond jointly to systemic issues raised across their programs.

To summarize, the Marine Corps is working towards a coordinated system that crosses these multiple domains. Our research provides evidence that a coordinated system is possible, and points to a way forward to achieve that objective. One source of evidence arises from our analysis of the

[16] See reports at http://innovation.cms.gov/initiatives/state-innovations/

MOU and the related installation standard operating procedures, discussed next. Our site visits provide additional evidence; they are discussed afterward.

MOU implementation: findings from 2015 document analysis

The Memorandum of Understanding, with signatories representing multiple organizations within the military, begins to lay out a vision for a comprehensive Marine Corps psychological health system. It specifies and defines roles and responsibilities, addresses scope of practice, and discusses foundational communication and measurement processes for the individual and program domains. These structural roles and processes—all of which are important to a coordinated system—are designed to engage Navy Medicine and Marine & Family Programs more closely with each other at both the installation and headquarters levels. The MOU is a milestone in the development of a comprehensive Marine Corps psychological health system because it is the first attempt we have seen to define roles, responsibilities, and processes linked across programs and organizations that have no reporting relationships with each other. And, as we found in our site visits, its implementation is broadening and accelerating installation-level innovations in multiple ways.

While our analysis shows that the MOU covers many topics necessary to support creating a coordinated system, it also suggests that the MOU is missing three key things. The first is that the MOU covers only Navy Medicine and the Marine & Family Programs, two groups that encompass many of the services a comprehensive psychological health system should provide but by themselves do not constitute a complete system. As figure 3-2 shows, many other groups, including chaplains, Military Family Life Counselors, and commanders provide preventive services and other types of care.

Second, the absence of any means in the MOU for enforcing or negotiating adherence to the role definitions, scope of practice, or processes it discusses raises the question of governance, a key component of coordination. As is becoming clear from civilian efforts at creating Accountable Health Communities, governance must be defined explicitly for any multi-organizational relationship, which requires ongoing negotiations and trust-building efforts given the mix of different professionals and complex reporting and peer relationships involved.

Third, the MOU omits any identification of metrics for evaluating/monitoring performance of the system as a whole. There is no call in the document for creating a measurement system to provide the data needed for effective coordination of services. The MOU does provide for tracking and

monitoring the flow of patients, urges creation of a Quality Assurance/Process Improvement program, and recommends using "applicable data, including information on numbers of people seen at Navy Medicine and MFP facilities, referral patterns, diagnoses, problems encountered, access to care, workload trends, network referrals and any other systems issues that arise,"[17] but these will not serve the overall system development objective absent specific metrics that clearly inform decisions and show improvement in coordination and other processes.

Despite these gaps, representatives at the Marine Corps installations were asked to develop Standard Operating Procedure documents to implement the MOU for each location. However, leaders were not able to clarify fully the clinical and operational differences between medical and non-medical, nor how these differences would affect daily practice. In essence, headquarters leaders moved the complex task of harmonizing medical and non-medical programs to the parties on the ground, but without providing them a clear framework with which to do so. Given this unresolved context, it is not surprising that many base-level staff were unable to create an effective SOP. Efforts to come to terms with this "medical/non-medical" difference varied; Camp Pendleton made the most comprehensive attempt (described further in the section on our site visits, below).

Our analysis of twelve Standard Operating Procedures, covering most installations, showed significant variations in scope, detail, and specificity. Most SOPs are more explicit than the MOU regarding how groups at the installations plan to coordinate, especially around referrals and tracking. However, the SOPs do not consistently describe planned practices. Close reading also surfaced local variations in each installation's psychological health system's organizational structure, practices, and relationships that may reflect or inform political and cultural as well as structural differences. While we cannot evaluate which variations are "good" or "bad" without site visits and interviews, these differences suggest that understanding the sources of variation, rather than either assuming they are necessary or attempting to eliminate them through standardization, is important.[18] Despite that no specific SOP development guidelines or templates were provided to installations, SOP similarities suggest some cross-installation information sharing and support.

[17] See Section 6 of the MOU.

[18] For details of our SOP analysis findings, see the 2016 MOU implementation report submitted to the Marine Corps January 29, 2016.

The MOU says that each installation's Director of Psychological Health will have responsibility for leading MOU-related meetings and issue resolution, but it also notes that these positions have yet to be established. As of this writing, we know of no Marine Corps installation at which that role has been formally filled, although there is an explicit DoD Instruction requiring one.[19] This issue adds ambiguity to installation-level implementation guidance.

Our installation interviews suggest that SOP creation has served as an opportunity for installation leaders to work together to negotiate and think systemically, as well as to consider unique aspects of their sites that might require additional coordination processes. Interviews also suggest the process resulted in increased trust among the negotiation participants, leading to additional innovations and a willingness to solve problems together. More generally, validation and updating of SOPs will provide good opportunities to improve practices and learn from experiences across sites. However, SOP development is not the only way to increase communication and build trust.

MOU implementation: findings from 2015 site visits

Our June 2015 visits to Camp Pendleton, Camp Lejeune, and MCAS Cherry Point provide further evidence that a coordinated system is possible. In fact, we observed a number of system and coordination innovations in these visits. The qualitative data from our interviews show that local innovations and coordination are mitigating some of the symptoms and overcoming some systemic constraints we observed in 2013—strengths that can be built upon for a comprehensive and coordinated system across the Marine Corps.[20]

Camp Pendleton. Innovations at Camp Pendleton through June 2015 include coordination efforts and innovations in all three domains described above: individual care, program, and organizational. A culture of innovation was growing even before the MOU was signed. This early start helped build on successes by increasing trust and shared understanding among the leadership and providers, and increased their willingness to try new approaches.

In the individual care domain, the leadership has developed effective referral and tracking procedures, and schedules meetings and other opportunities to discuss complex cases or those for which the best program is unclear. While the Marine Intercept Program (MIP) for suicide prevention

[19] DOD Instruction 6490.09 (2012) on DoD Directors of Psychological Health

[20] For descriptions of Camp Pendleton and Camp Lejeune coordination efforts and innovations see the 2016 MOU implementation report submitted to the Marine Corps January 29, 2016, Appendices A and B. http://hsi.mit.edu/ptsi.

is a Marine Corps-wide innovation, its implementation at Camp Pendleton also supports individual care coordination for those who have agreed to be included.

In the program domain, boundaries between programs have been smoothed by colocation and multiple mechanisms that increase all providers' awareness of the goals and locations of other programs; multiple providers across different programs shared this observation. These efforts, as well as the MIP implementation, mitigate the confusion from program proliferation that arises for both commanders and patients/clients.

In the organizational domain, there is increased coordination between installation medical personnel who report up through the Navy hierarchy and embedded Navy providers who report to Marine Corps commanders. This is being accomplished through referrals and regular meetings to analyze and remediate systemic problems—for example, resource shortages due to fluctuating supply and demand as embedded mental health providers deploy or Marine units return from deployment. In addition, efforts by Pendleton clinic mental health leadership to coordinate more closely with the Navy Medical Center San Diego have reduced unnecessary inpatient admissions from the emergency room for psychological health issues.

In a more complex organizational example, the Pendleton leadership team members—the heads of the Navy mental health clinic and MFP Behavioral Health, along with the Division Psychiatrist who leads the embedded mental health providers—work together to manage as many aspects of the local psychological health system as possible. The leadership team has built and maintains a relationship with commanders through formal briefings and attendance at regular meetings such as Force Preservation Councils and the Case Management Group for sexual assaults. Coupled with ongoing innovation efforts, this has resulted in an informal governance capability that supports responsiveness to systemic or environmental changes as well as continuous improvement.

Analysis of our interviews shows that the impacts of Camp Pendleton's innovations include improved care coordination for individual patients/clients who see multiple providers, as well as through the voluntary Marine Intercept Program; colocation and care coordination efforts designed to mitigate confusion arising from program proliferation for both commanders and patients/clients; a reduction in duplication of effort through colocation of providers, which reduces wait times and distance between making referrals and intake interviews that help determine the appropriate care for

an individual; perceptions of improved access for individual Marines through colocation; and the moving of Navy mental health providers to be near units with high demand.

Camp Pendleton's coordination innovations have strengthened cross-organizational relationships, information sharing, and psychological health resources and awareness across providers and command. There is now an effective local governance structure to guide these multi-organizational coordination efforts.

Still, it is important to note that just as there is no simple formula for designing a comprehensive, coordinated psychological health system for the entire Marine Corps, it would also be impossible to replicate precisely the Pendleton innovations at other locations. What these innovations offer the effort to address the larger Marine Corps problems is evidence that coordination is necessary and possible, as well as some qualitative guidance with respect to *how* to address specific aspects of the system. Customization will be necessary; each local system will be unique while sharing some common attributes, because the culture from one location to another differs, needs and available resources are not the same, relationships and power dynamics vary from site to site, and there are important (even if subtle) differences in how people work together at each Marine Corps site. The challenge is to balance replication and customization to create a well-coordinated system at each site.

Further, it should be noted that we had no access to comprehensive quantitative data, and it is not clear that adequate measures exist (something we also noted as missing in the MOU). The Pendleton leadership team recognizes the importance of metrics and sees the potential for using metrics in its coordination efforts.

Camp Lejeune. A path to greater system-wide coordination can also be seen at Camp Lejeune. While the Camp Lejeune Standard Operating Procedure document did not describe specific coordination efforts, we found an increase in coordination beginning to occur: weekly discussions between the Marine & Family and Navy substance abuse programs aided coordination in the individual domain, and the Navy program hired a PhD psychologist as admissions coordinator. In the program domain, an installation medical provider colocated with the special operations command one day each week, along with a full-time MFP provider. Further, a number of meetings in Spring 2015 across installation leaders from the Navy hospital, embedded mental health, and MFP

behavioral health have aided coordination efforts, including planning for several additional colocation opportunities.

Coordination efforts continued to increase between June and December 2015. These included full implementation of the Marine Intercept Program for suicide prevention, which increased opportunities for MFP providers to communicate directly with unit commanders. The Community Counseling Program director assigned a single person for each battalion, selecting contacts for their knowledge of the Marine Corps and effective prior interactions with commanders. As a result, Marine & Family providers now participate in the Force Preservation Council meetings of two regimental units, as well as for the special operations command.

In Fall 2015, an MFP Behavioral Health provider was colocated at the Navy hospital for three afternoons each week. This provider completes assessments, conducts referrals, and shares information with Navy mental health providers on cases, referrals, and related issues. This information feeds into regular meetings among MFP behavioral health and Navy mental health leaders. Information sharing has improved case management, and there is greater familiarity with the practices of both groups. There are plans to locate a behavioral health counselor with II MEF operating forces in 2016.

Also in Fall 2015, the Division Psychiatrist, who leads the embedded mental health providers, formalized a specification of a continuum of care for the Division at Camp Lejeune with three tiers of acuity, and specific roles for different provider groups and individuals. This defined system is designed to provide clearer care pathways by specifying the array of "front doors" and thus types of resources available.

Future planned changes include the addition of new, non-deploying psychiatrists to support Division (Ground Combat Element) and the Marine Logistics Group in Summer 2016, and colocating all embedded Division psychological health resources in a single location. Outcome metrics at the Community Counseling Program are scheduled for implementation in 2016.

Extensive coordination and collaboration efforts began earlier at Camp Pendleton than at Camp Lejeune, and turnover of leadership personnel at Camp Lejeune has been much higher than at Camp Pendleton. But with new leadership in place, coordination efforts at Camp Lejeune grew rapidly in 2015. These efforts have also benefited from increased contact and the resulting knowledge sharing between psychological health leadership at Camp Pendleton and Camp Lejeune. Direct sharing

through regular teleconferences allows for surfacing structural, political, and cultural differences and similarities in a natural and integrated way that is not possible through mere adaptation of written procedures and plans.

Cherry Point. Finally, our 2015 visit to the Marine Corps Air Station Cherry Point revealed a significant increase in coordination efforts, tied to the signing of the MOU. Development of the Cherry Point SOP included specific referral and tracking processes that have been effectively implemented. The Cherry Point SOP also served as a model for several others.

Certain characteristics of Cherry Point speak to our argument that customization must unfold at the local level, while still maintaining overall system coordination. For instance, Cherry Point is smaller than both Camps Lejeune and Pendleton, with no embedded mental health presence, inpatient hospital, or Navy substance abuse program (it does have the Marine & Family substance abuse program for mild/moderate substance abuse issues). It is also relatively remote, making it difficult to coordinate with external hospital services at Camp Lejeune (about an hour's drive away) or in the community. Further, Cherry Point must refer many patients to purchased care due to capacity shortages. This has necessitated having a case manager/referral specialist to coordinate post-discharge care needs.

The population that Cherry Point serves is also smaller: there are about 10,000 active-duty Marines compared to more than 40,000 at each of the two other sites. Cherry Point has implemented the Marine-Centered Medical Home model, including an internal behavioral health consultant. All medical officers and medical home providers work out of the same building as the Navy mental health clinic. This makes it easier to refer people to other services, as they simply need to go upstairs. MFP programs are also nearby.

Stable leadership at Cherry Point supports relationship development, with good relationships between MFP and Navy mental health leaders as well as among providers within each organization. There are monthly tracking meetings and more frequent informal discussions among the leadership. The behavioral health consultant/MFP relationship is in its early stages, as a permanent behavioral health consultant only began working in late 2014. Still, Cherry Point continues to face mental health staffing shortages, which led the mental health clinic to eliminate its walk-in option. However, use of a consult liaison process with medical officers and the behavioral health consultant mitigates this issue to some extent.

As with our visits to Pendleton and Lejeune, what we found at Cherry Point strengthens our argument for putting coordination at the center of Marine Corps efforts to address the problem of its overall psychological health system. We saw evidence of a solidifying relationship between the Internal Behavioral Health Consultant and the mental health clinic and the Marine & Family Programs. The Standard Operating Procedure was very direct and was being followed, resulting in increasing referrals and generally good relationships and awareness between providers.

Discussion & ongoing systemic constraints

Based on the material above, we offer an overall assessment that summarizes the current situation in the Marine Corps, from which we develop recommendations. While our data come from only a subset of Marine Corps installations, these installations were chosen in consultation with our Marine Corps partners with the view that they would provide a reasonable window for taking stock of the general state of practice and potential directions for the future.

First, despite some very positive steps, and even as organizational leaders have begun to work together at multiple levels, *psychological health services in the Marine Corps continue to be fragmented.* The services are difficult to describe, choose, and use. Information is not shared well among participants. There is no structured way to know what works for users, programs, and the Marine Corps as a whole, or to learn whether, how, and why local innovations are effective. Despite a plethora of policies, programs, and professionals focused on various aspects of the psychological health of active-duty Marines, there are still long waits for access; a persistent lack of knowledge about users' health status and movements through programs, the system, and their program utilization and intervention outcomes; missed opportunities for systemic improvement; and, as noted in chapter 1, continued occurrence of high-risk behaviors such as suicide and substance abuse, along with diagnoses of PTSD and major depressive disorder, at unacceptably high levels.[21]

The Memorandum of Understanding is a partial blueprint for building a system, but it is far from a complete roadmap. On the positive side, it recognizes explicitly the important role of both medical and non-medical services in a comprehensive psychological health system. It is a useful step toward defining roles and responsibilities of two key elements in that system. It is incomplete, though, because it lacks guidance for all needed coordination domains and participants, lacks clear

[21] We did not have access to more recent Marine Corps data, but none of our 2015 respondents believed these numbers had changed significantly in the last two years.

governance, and is unenforceable. Its implementation, in the form of installation-specific SOPs, varies in both extent and details across installations, and it provides no guidance for ongoing measurement of many important cross-program and cross-organizational system variables, nor for comprehensive management and governance of the system through systematic evaluation, learning, and improvement processes.

Site visits showed both the importance of coordination and significant variation in the extent of coordination efforts. We found progress in addressing the challenges we identified at Camp Lejeune in 2013 and that other researchers noted at Camp Pendleton.[22] We also observed continuing systemic issues that, if left unaddressed, will limit improvement over the long run and create greater challenges for the Marine Corps as a whole, including sustaining changes when leadership turns over, the ability to measure the impact of changes, and the ability to measure and respond to changes in environmental circumstance such as supply and demand. Still, the innovative efforts emerging from installations to improve coordination go far beyond implementation of the MOU and its formal SOPs. These innovations are important and point to the potential for improving the Marine Corps psychological health system across the board.

Coordination remains a critical priority, and local coordination innovations are insufficient. This speaks directly to the systems perspective we have adopted, looking beyond any one Marine Corps site to see the bigger picture, and incorporating civilian findings cited earlier. Sustaining improvement at any one site, and measuring, governing, and building a robust, comprehensive, and coordinated Marine Corps psychological health system will require additional resources, support, and engagement at both the local level and from senior stakeholders across the Navy and Marine Corps.

The increasing evidence for prevention and coordination, especially for young people under 25 (which includes more than half of all Marines), is good news going forward. Civilian experiments in designing new systems of care offer useful guidance for the Marine Corps and Navy. It is not necessary to reinvent the wheel, although the Marine Corps and Navy will need to create their own design through a process that includes personnel from both services. This process can draw on

[22] See the CNA report by Whitmore and Carta (2013): *Navy Medicine Mental Health Resources for the Marine Corps: Perceptions of Access*.

emerging standard system "skeleton" elements and governance models, recent learnings from the Army behavioral health system of care (see chapter 2) and civilian research on coordination.

Systemic constraints

Our recommendations need to account for the very specific systemic constraints that make it difficult for the Marine Corps to build and sustain a comprehensive and coordinated psychological health system. These constraints play out both in the provision of services and with respect to coordination efforts.

First, we must acknowledge the organizational structural complexity of the current system, with Navy Medicine providing needed medical services to the Marine Corp, and the Marine & Family Programs as well as organizations not under Marine Corps control providing others, as figure 3-1 shows. The initiative to expand MFP Behavioral Health was an explicit response to this situation. We have no evidence that changing this organizational complexity by integrating all services in a single organization is feasible or beneficial, and so make no recommendations to address this specific constraint. Other systemic constraints, though, are addressable.

There needs to be clearer and shared understanding of relevant policies by all system participants. For instance, HIPAA/privacy regulations are not clearly understood. There are varying interpretations of the scope of practice restrictions across the Marine Corps that hamper communications and breed mistrust. Similarly, complex rules that require extensive command/provider coordination to develop appropriate individualized limited duty assignments can impede effective treatment and a return to duty.

The need to enact policies for both Marine Corps and Navy personnel suffers from the absence of agreed-upon procedures for doing so, as illustrated by the variability in the scope and detail of the Standard Operating Procedures. This affects, for example, effective information sharing for both commanders and providers, given HIPAA/privacy regulations.

There are multiple financing constraints in the system, including funding from multiple sources with various restrictions on programs, position duration, or specific activities. Examples include the inability to use Defense Health Program money for health promotion; temporary funding sources for prevention specialists and Community Counseling resources that could dry up at any time; and restrictions on activities, such as care coordination by Navy mental health providers who are

contractors, due to financing rules that limit the activities contractors can perform. In addition, there is little accountability to financing sources for performance resulting from the provided funds.

IT-based constraints include the inability of different hardware and software systems—for secure email, referrals, and scheduling software, for example—to interoperate across providers and Services. Such challenges must be addressed.

A coordinated system that works will also require appropriate physical infrastructure. At present, though, this is a constraint. For instance, buildings that might be used for psychological health services are not appropriate for that purpose (i.e., they are not Joint Commission-certified), and at larger installations there are ongoing transportation issues.

Already mentioned, there continues to be a perceived shortage of (provider) resources despite program overlap, fragmentation, and duplication of services. While a recent DoD/VA report suggests there are no serious system-wide resource shortages, [23] our interviewees in both 2013 and 2015 across installations indicated that personnel on the ground believe otherwise. However, without accurate information on both supply of providers and demand for care, this issue is difficult to manage. Our work revealed that no one in the Marine Corps or Navy has an easily accessible count of providers across programs that can support resource allocation decisions, and quantification of unmet demand (e.g., people who "give up" on finding care) does not exist.

Four recommendations for building a more comprehensive MC system

Our recommendations arise from the analysis of our interviews, surveys, and visits to three Marine Corps installations in 2013 and 2015; our synthesis of the health systems literature referenced throughout this chapter; and our collective research experience in organizational coordination, health system design, organizational systems design, and management of organizational change. While we did not explore every part of the Marine Corps and Navy collaboration in detail, our core recommendation is clear: creating a comprehensive, coordinated psychological health system must become an integral part of the immediate Marine Corps/Navy agenda.

[23] See the (2015) *DoD/VA Report to the Congress in Response to Senate Report 113-44, pg. 133, Accompanying S. 1197, the National Defense Authorization Act for Fiscal Year 2014 Mental Health Counselors for Service Members, Veterans, and Their Families*. http://www.health.mil/Reference-Center/Reports/2015/04/17/Mental-Health-Counselors-for-Service-Members-Veterans-and-Their-Families

There is no specific recipe for bringing such a system to fruition; rather, a conscious and concerted design effort must be undertaken. Given the complex desired system qualities, even desired features and characteristics of systems elsewhere will still need to be adapted for the Marine Corps through a joint effort with the Navy; they cannot simply be copied from elsewhere. The solution must balance multiple kinds of health promotion, prevention, and treatment services (varying in degree of confidentiality, accessibility, and treatment) with an easy-to-use system that enhances and streamlines the experience of all users.

Recommendation 1: *Negotiate a robust psychological health system governance framework that includes all key stakeholders and supports system development, improvement, and sustainability.*

The civilian literature is beginning to provide recommendations on the appropriate scope, charter, and responsibilities for a psychological health system. Based on this research and our work with the Marine Corps, we recommend that the Marine Corps and Navy create a governance board with members from across the military health system and with commanders and operational leaders at both the headquarters and installation levels. Involving commanders is crucial to ensuring that any psychological health system that emerges meets requirements from a command perspective; most notably that it improves Marine readiness. Commanders want a system that is readily available, easy to understand, easy to use, and provides them with relevant information about their Marines' readiness and risks to unit readiness. In practice, commanders at all levels play several vitally important non-medical roles in the current system: they provide and receive information, are co-decision makers about individual Marines, and, at higher levels, make decisions about the system itself. Because installation commanders and other Marine Corps leaders have a responsibility to promote psychological health in their Marines, are responsible for returning good citizens to civilian life, and are held accountable for doing so, involving them in designing a coordinated system that will support their ability to meet these responsibilities is crucial.

The complex structure and reporting relationships among providers makes it clear that this governance framework will have to be negotiated by representatives of all the stakeholders. These representatives will need to agree on a detailed governance charter that includes: stakeholder roles; decisions to be made, and transparent decision processes for making them; relevant metrics and measurement processes to support decision making; and processes for feedback, enforcement, and

system changes. As this framework is being built, the Marine Corps/Navy should take short-term governance actions to create a solid foundation for further design, including broadening MOU participants to include additional providers and commanders and broadening the MOU scope to be more explicit about coordination concepts and practices in all of the coordination domains, such as care coordination and systemic resource management practices, metrics, and improvement processes. The governance board should also make or recommend policy changes to support a more effective psychological health system, such as privileging Marine & Family Programs Behavioral Health providers so they can work more directly with Navy providers and access medical records as appropriate; creating mechanisms to permit, pay for, and measure coordination work; developing a more stable funding system that incorporates accountability and metrics that support change decisions; and clarifying HIPAA and privacy regulations as they relate to information sharing.

Recommendation 2*: Develop a better understanding of local Marine Corps/Navy best practices and needs.*

Implementing this recommendation will require establishing a good baseline of both problems and opportunities, and measuring the impact of systemic and other changes against this baseline. This includes completing the description of installation innovations with commander perspectives, prevention activities, and system-wide baseline information and metrics. System metrics need to include baseline quantitative data showing how and where clients/patients are currently seen, as well as any available outcome data. Other activities include determining resource availability across programs as personnel turns over, and measuring user needs.

Recommendation 3: *Create a robust measurement system that captures all the process and outcome measures needed to evaluate, provide feedback, and identify opportunities for learning and improvement.*

The actions for this recommendation build on the work begun in Recommendation 2 by focusing on why to measure something, what to measure, and how to measure it. It will require improving IT and physical infrastructure to support metrics gathering and analyses processes and support provider workflows, especially information sharing across the entire IOM Continuum of Care. While this process will eventually result in automation of metrics, human analysts and experts will always be needed to design and implement changes as workflows and other system design elements are modified.

Recommendation 4: *Develop a design process that is both bottom-up and top-down.*

Designing from both "directions" will be critical to success. Involving those on the front lines of service delivery will help ensure that the cultural norms and traditions of different providers, Marines, and family members are taken into account as the system evolves. Involving all stakeholder groups from the bottom to the top of the organizations will also ensure that their multiple interests are surfaced and understood, and that strategies for better aligning them and resolving differences are built into future plans and processes. Bottom-up design of practices also provides opportunities for creating local experiments that can be adapted, transformed, and scaled if they succeed.

Based on the Camp Pendleton experience, as well as on emerging civilian experience, installation design efforts should begin with processes that involve building links among providers, such as referrals, informed consent and information sharing practices, colocation, and use of the Marine Centered Medical Home as an entry point into the system. As the installation design team learns how to create and implement designs, builds trust, and gains experience, it can add other processes, including those that involve commanders and prevention activities more generally.

A top-down participatory design process—led by the governance board—incorporates the bottom-up innovations and successful experiments, and recognizes the potential impact of local circumstances on an overall design. Such a process has high impact precisely because it *is* participatory, which increases commitment and ownership of results and changes the focus of those involved from "their" role/program/organization to the overall system. The design process assumes programs will continue to exist as building blocks within the system, and the focus is design of the system links—specifically, the coordination requirements across the continuum of care in all three domains identified earlier: individual care, across programs, and across organizations.

These systems-based recommendations for building a better psychological health system are important to both Marine Corps and Navy success for several reasons. First, the Marine Corps force needs to be maximally ready—that is, more psychologically healthy, with fewer high-risk behaviors, at both the individual and unit level.[24] Despite reduced deployment rates, risky behaviors and

[24] The 37th Commandant's update to the 36th Commandant's Planning Guidance (2016), by General Neller, states: "We will immediately and aggressively reduce the number of non-deployable Marines and Sailors, especially those injured during training. Part of this effort must address destructive behaviors. Abuse of alcohol, abuse of illegal and prescription drugs, sexual assault, hazing and other high risk behaviors all negatively impact the readiness of the team." See http://www.hqmc.marines.mil/cmc/Home.aspx Frago 01/2016, p. 7.

psychological health issues remain high among Marines. A comprehensive, measured system will enable increased readiness by providing evidence for innovations that make a difference. Second, the large number of disconnected psychological health programs is confusing, potentially costly, and difficult for Marine Corps leaders to manage effectively; linking these programs in a coherent system will clarify pathways and help users, commanders, and providers navigate the complexity. Finally, both programs and links among programs (i.e., the system) need to be measured to take maximum advantage of resources in an uncertain, rapidly changing environment. By creating a comprehensive, coordinated, and measured system for psychological health care, the Marine Corps and Navy will improve its service members' ability to achieve their military mission and return to civilian life psychologically healthy.

Appendix: Acronyms

ACA	Affordable Care Act
ACMC	Assistant Commandant of the Marine Corps
ACO	Accountable Care Organization
ADM	Admiral
AHC	Accountable Health Community
ASAM	Automated Staffing Assessment Model (Army)
BG	Brigadier General
BH	Behavioral Health
BHDP	Behavioral Health Data Portal
BHO	Behavioral Health Officer
BHSL	Behavioral Health Service Line
BHSOC	Behavioral Health System of Care
Blue	Navy Health Care providers based in MTFs and clinics
CAPT	Captain (Navy)
CART	Capacity Assessment and Report Tool
CMMI	Center for Medicare and Medicaid Innovation
CDR	Commander
CMS	Center for Medicare and Medicaid Services
COL	Colonel
COSC	Combat Operational Stress Control
DMT	Distribution Matrix Tool (Army)
DoD	Department of Defense
DoDD	DoD Directive (policy document)
DODI	DoD Instruction (policy document)
DPH	Director for Psychological Health
DSM	Diagnostic and Statistical Manual of Mental Disorders
EBH	Embedded Behavioral Health
ER	Emergency Room
FAP	Family Advocacy Program
FRAGO	Fragmentary Order
FTE	Full-Time Employee
FY	Fiscal year (For DoD: Oct. 1 to Sept. 30)
G1	Office of the Deputy Chief of Staff for Personnel (Army)
GAO	Government Accountability Office
GEN	General
Green	Navy Health Care providers embedded in Marine units (e.g. OSCAR providers)
HEDIS	Healthcare Effectiveness Data and Information Set
HHS	Dept. of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act

HPSA	Mental Health Care Health Professional Shortage Areas
HPSP	The Health Professions Scholarship Program
I MEF	1st Marine Expeditionary Force (pronounced 'one mef')
IBHC	Integrated Behavioral Health Consultant (provides PH care in MCMH)
IDPH	Installation Director for Psychological Health
II MEF	2nd Marine Expeditionary Force (pronounced 'two mef')
IOM	Institute of Medicine
IRIS-BH	Integrated Resourcing and Incentive System for Behavioral Health
LCSW	Licensed Clinical Social Worker
LTC	Lieutenant Colonel
LTG	Lieutenant General
M2	Military Health System Management Analysis and Report Tool
MAJ	Major
MC	Marine Corps
MCAS	Marine Corps Air Station
MCMH	Marine-Centered Medical Home
MDD	Major Depressive Disorder
MDTP	Multi-Disciplinary Treatment Planning
MEDCOM	Medical Command
MFP	Marine and Family Programs (part of MC Community Services)
MG	Major General
MHAT	Mental Health Advisory Team
MHS	Military Health System
MIP	Marine Intercept Program (for suicide prevention)
MIT	Massachusetts Institute of Technology
MOU	Memorandum of Understanding
MTF	Military Treatment Facility
Multi-D	Multi-Disciplinary Behavioral Health Services
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OPORD	Operations Order
OSCAR	Operational Stress Control and Readiness
OTSG	Office of the Surgeon General
PCMH	Patient-Centered Medical Home
PCS	Permanent Change of Station
PH	Psychological Health
PHRAMS	Psychological Health Risk Adjusted Model for Staffing
PTSD	Post-Traumatic Stress Disorder
PTSI	Post-Traumatic Stress Innovations (this project)
RADM	Rear Admiral (upper half)
RDML	Rear Admiral (lower half)

ROM	Routine Outcome Monitoring
SAMHSA	Substance Abuse and Mental Health Services Administration
SCMH	Soldier-Centered Medical Home
SIM	State Innovations Model (via CMMI)
SOP	Standard Operating Procedure
TBH	Telebehavioral Health
TBI	Traumatic Brain Injury
TMO	The Medical Officer (of the Marine Corps)
USA	US Army
USAF	US Air Force
USMC	US Marine Corps
USN	US Navy
VA	Veterans Administration
VADM	Vice Admiral
WHO	World Health Organization

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