Building a Better USMC Psychological Health System: Coordination Analysis and Design Recommendations

January 29, 2016

Dr. Anne Quaadgras
Prof. Amy Glasmeier
Mr. Ken Kaplan

Contact: Dr. Anne Quaadgras, aquaad@mit.edu
Sociotechnical Systems Research Center
Massachusetts Institute of Technology
77 Massachusetts Avenue, E38-632
Cambridge, MA 02139

This material is based on research sponsored by the USAMRMC (under the cooperative agreement number W81 XWH 12-2-0016) and a consortium of other government and industry members. The U.S. Government is authorized to reproduce and distribute reprints for Governmental purposes notwithstanding any copyright notation thereon. The views and conclusions contained herein are those of the authors and should not be interpreted as necessarily representing the official policies or endorsements, either expressed or implied, of the USAMRMC, the U.S. Government, or other consortium members.

Building a Better USMC Psychological Health System: Coordination Analysis and Design Recommendations

Executive summary

In this report we present findings and recommendations for building a better USMC psychological health system. This report is in response to a March 2015 request by The Medical Officer of the Marine Corps, along with leadership from Navy Medicine and Marine and Family Programs, for an analysis of the implementation of the MOU signed in November 2013 by BUMED, MFP and Marine Corps Health Services. We visited three Marine Corps sites (Camp Pendleton, Camp Lejeune, and MCAS Cherry Point), performed a literature synthesis on medical/nonmedical coordination in civilian systems, and analyzed the MOU and 12 installations' Standard Operating Procedures documents enacting the MOU at their locations.

We used a systems perspective in two main ways. First, we analyzed not just programs and other elements, but more importantly studied how these elements are, and could be linked. Second, all analyses took into account not only structural features of the system, such as users, providers, and programs, but we also analyzed the system from a political perspective, including roles and authority, and a cultural perspective, incorporating issues such as military culture and stigma.

We frame our findings using coordination as our umbrella systems concept. Coordination requires taking a systemic perspective. It is also both complex and nuanced when used in this context. We developed a framework encompassing four domains of coordination, each with its own set of potential mechanisms. These are individual (care coordination), program coordination, organization coordination, and multi-organization coordination. This enabled us to highlight the systemic impacts of local variations in MOU implementation, and communicate the systemic potential of installation-level innovations that emerged from our installation visits.

When viewed through the lens of coordination, our analysis suggests that the Marine Corps needs a more comprehensive PH System that better links its many services and programs. The MOU is a partial blueprint towards a more comprehensive system, and Marine Corps installation-level innovations are consistent with the types of coordination innovations and experiments occurring in civilian medical/nonmedical systems. While clear progress is being made, challenges remain, in particular around system-level measurement.

Our recommendations focus on meeting these challenges through a combination of top-down (Headquarters-led) and bottom-up (installation-led) system design and measurement efforts, governance, and policy-based actions. Marine Corps and Navy Psychological Health system leaders must set up a governance framework to lead design and management of the overall system, and transparently make and enforce system-wide decisions. This governance framework will support three additional efforts: 1) developing a better understanding of both current (best) practices and needs; 2) building a measurement framework and IT infrastructure for system-wide and local decision making; and 3) implementing a design process that integrates both bottom-up (installation-led) and top-down (Headquarters-led) design efforts to develop a blueprint and roadmap towards a robust and comprehensive psychological health system.

Report date: January 29, 2016

Recommendations summary

Effective design requires adopting three guiding principles and taking key actions that we outline here and discuss in detail in the Recommendations section that starts on page 20.

Guiding principles

1. Include nonmedical (MFP), medical (BUMED), Marine Corps Health Services, and Marine Corps commanders and operational leaders at both the Headquarters and installation levels in all major aspects of the system design and governance process. Involving commanders is crucial to ensure that the system that emerges meets requirements from a command perspective.

2. Establish a multi-organizational governance framework to design and manage the overall system. Effective governance is a prerequisite for enforcing goals, holding people accountable, making systemic decisions transparently and making or recommending policy changes necessary for sustainable systemic improvements.

3. Build a measurement framework and IT infrastructure to support decision making and care at both the local and system-wide levels.

With these pieces in place, the Marine Corps will be ready to establish a design process that incorporates both bottom-up and top-down efforts and involvement. Civilian experience demonstrates that the design process must be tailored to the needs and capabilities of system participants and leaders, and that specific designs will vary due to local variation in resources, capabilities, and needs.

Recommendations overview

Develop a robust psychological health system governance framework to support system development, improvement, and sustainability. Set up a governance board, action officers, and charter that can be amended over time. Take foundational actions, including broadening the MOU to include additional PH system providers, increasing its scope to include additional coordination innovations discussed in this report, and creating processes and templates for bottom-up (installation-level) SOP designs and coordination experiments.

Develop a better understanding of local Marine Corps best practices and needs, including commander perspectives, baseline quantitative data, local metrics and HQ metrics and their uses. Measure resource availability and user needs across installations.

Build on installation measurement efforts by creating a robust measurement system that captures all the process and outcome measures needed to evaluate system changes, provide feedback, and identify opportunities for learning and improvement. Clarify the value of current and potential measures and feasibility of collecting and acting on them, and create the IT and other infrastructure to support measurement and evidence-based system decision making. Set up an MC PH system analytics team with the full range of technical, content, context and communications expertise to maximize the benefits of a measured system.

Develop a design process that is both bottom-up and top-down. Designing from both "directions" will be critical to Marine Corps success. See the Recommendations section for recommended design content, process, and key steps for both installation-level SOP and experiment designing, and HQ level participatory designing that includes adaptation of installation-level experiments that show evidence of positive impact.

Contents

Study request and goal

In early 2015, the Medical Officer of the Marine Corps, along with flag officers from Navy Medicine and Marine & Family Programs – who are jointly tasked with managing and overseeing most of the psychological health programs and services available in the Marine Corps – requested that MIT study the implementation efforts relating to their 2013 Psychological Health System Memorandum of Understanding (MOU), with an overall goal to develop actionable, evidence-based recommendations for further improving the Marine Corps Psychological Health system.

Specifically, we performed three tasks that together informed our conclusions and recommendations:

1. Analyzed the content of MOU and the 12 installation Standard Operating Procedures to provide a baseline understanding of implementation plans at each site

2. Reviewed civilian literature for evidence of and effective practices for developing a psychological health system that includes both medical and nonmedical services to inform recommendations

3. Visited three sites: Camp Pendleton, Camp Lejeune, and MCAS Cherry Point to interview providers and leaders about their MOU implementation efforts and results, and document systemic innovations and constraints. In this process we interviewed 45 PH leaders and providers across the three installations.

The research methods and analytical perspectives we used are summarized in Appendix E, page 68.

Background: The need for a better USMC Psychological Health System

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 that disqualify service. With respect to their Marines' psychological health, commanders have 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 whatever their assignments. The other reflects the long-held Marine Corps commitment to developing quality citizens,[1] 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 comprehensive steps to minimize the high number of suicidal ideation/attempts, violence, substance abuse, and behaviors symptomatic of serious mental health conditions such as post-traumatic stress disorder (PTSD) or depression. This requirement is well known among Marine Corps leaders and health services providers. Since 2007, many reports have documented the problem of high adverse outcomes, and recommended solutions, including The DOD Task Force on Mental Health (2007). The Department of Defense, Navy, and Marine Corps have all instituted policies in recent years that have resulted in myriad requirements and programs and the expenditure of significant monetary and human resources towards reducing adverse outcomes.[2]

[1] See www.marines.com/history-heritage/our-purpose

[2] E.g., DoDI 6490.09 on directors of psychological health (DoDI 6490.06, 2009); Marine Corps orders on Sexual Assault, Substance Abuse, FAP and General counseling (MCO 1752.5B, 2013; MCO 1754.11, 2012; MCO 5300.17 MRC-4, 2011)

Yet, the problems have persisted and the challenge continues. Users perceive policies and programs as complex and difficult to use. The changes to date are not meeting the needs of Marines and their families. According to the Joint Staff High-Risk Behavior Working Group, adverse outcomes in 2015 have continued at unacceptable levels.

More specifically, analyses of our interviews and surveys from our 2013 research with II MEF reveal that program proliferation has resulted in increased demand for resources, leaving many slots unfilled. Poor information technology (IT), individual mistrust, and varying interpretations of HIPAA/privacy issues limit sharing of information that could improve overall care. Varied program/resource awareness and perceptions of quality/availability create further problems and arise in part from poor coordination of education efforts related to the psychological health programs as well as poor coordination of care. Care seeking often happens via the chain of command, with the main path going through the MTF – which may not always be the most effective mechanism for addressing a psychological health concern, since many might be addressed with (nonmedical) prevention strategies offered through other resources (for literature on the effectiveness of prevention, see Appendix C, page 52).

Our analyses also show that certain aspects of the culture of the Marine Corps exacerbate the situation. Culture cannot be ignored when analyzing any highly complex system that involves humans. In the Marine Corps, stigma affects care seeking, as multiple interviewees shared examples of Marines and their families avoiding care or focusing on confidentiality over other options. Further, organizational disconnects among commanders, providers, and programs; and the expectations of leaders' roles in maintaining their Marines' psychological health without provision of sufficient tools, knowledge and resources to do so worsen the systemic problems. Our II MEF Report submitted to Marine Corps Health Services in January 2015 provides additional detail.

Conceptual foundation: a comprehensive, coordinated system

Key concepts and definitions

A robust solution to reducing adverse outcomes is to develop a comprehensive ***Psychological Health*** (PH) ***System*** that supports maximizing readiness and minimizing the high-risk behaviors that impact readiness and psychological health, and lead to Marine and family mental health (MH) and substance use (SU) issues.[3] In addition to increased readiness and better population psychological health, such a system should also meet the other requirements of the MHS Quadruple Aim: better care and lower costs.[4]

What do we mean by a ***health system***? A typical response might be "programs that serve people in order to improve their health". However, an explicit systems perspective broadens this definition and makes it more useful for considering systemic improvement. This broader definition of system includes not only component *elements* (programs, as well as human resources, financing, hospitals, and technologies) but also the *relationships* among them. The system does not consist just of suppliers and beneficiaries; rather people play *multiple roles*: as patients, consumers, taxpayers, citizens, and co-producers of health (the latter through care giving, care seeking, and behavior that may promote or harm health, for example) that impact the system. *Goals* include better care, but also levels of system responsiveness. Finally, *system functions* include not just service provision but also enabling functions such as governance, measurement, learning and improvement, and resource generation, all of which can affect other aspects of the system (Frenk, 2010).

Psychological health is a state of wellbeing 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. In the Marine Corps and Navy, psychological health provision generally refers to the full spectrum of services, including promotion, prevention, treatment, and rehabilitation. MFP uses the term *behavioral health* – which focuses on behaviors such as violence, addiction, PTSD, depression, and anxiety – to refer to the nonmedical psychological health services they provide. The Navy and Marine Corps use *mental health* – which focuses on internal clinical/medical states and the absence of disease – to refer to specific medical services provided at the MTF.[5] Throughout this document, we will use *psychological health* to encompass the broad system – including medical and nonmedical components alike.

Combining the definitions of health system and psychological health from above, we can define the Marine Corps system requirement as follows: a comprehensive ***Marine Corps Psychological Health System*** needs to include both medical and nonmedical **elements**, and their **relationships**. The Marine Corps **population** plays the following roles: Marine combatant, patient/client, co-producer of PH (individuals and families) and provider of PH (commanders/unit personnel); Navy personnel and off-base providers paid through TRICARE provide all medical care. System **goals** include Marine and unit readiness, as well as good Marine psychological health.

[3] The Marine Corps Commandant 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 (COSC), Suicide Prevention, Family Advocacy, Sexual Assault, and Substance Abuse Prevention) within the Marine Corps."

[4] The Quadruple Aim summarizes MHS goals: increased readiness, better health, better care, and lower cost. It adds readiness to the Triple Aim of civilian health systems, which consists of patient experience, population health, and cost.

[5] The Army uses behavioral health to refer to medical mental health care it provides (e.g., in Embedded Behavioral Health clinics, part of Army medical command).

System **functions** include service provision by Navy medical providers, MFP non-medical providers, unit-level resources, and others on and off base. Policymaking, governance, financing and resource generation are managed by Navy and Marine Corps leadership, as well as by the DOD and other federal stakeholders.

The Institute of Medicine (IOM) Continuum of Care model[6] (Figure 1, below) incorporates the broad definition of psychological health we employ, and is a useful starting point for thinking about psychological health as a system, since it categorizes services offered into eight related segments that together impact the full scope of psychological health defined above. Most PH programs or services offered in both civilian and military contexts fall into one or a few segments located near each other on the protractor. Each segment has different goals, target populations, and expected outcomes. For example, the model distinguishes three types of prevention: universal prevention, offered to everyone, such as information on how to recognize some severe stress symptoms in order to increase people's knowledge; selective prevention, offered to those identified as potentially at risk for a PH issue, such as anger management classes to prevent more severe violence; and indicated prevention, offered to individuals showing symptoms that could worsen into clinical symptoms requiring medical care, such as counseling to manage anxiety symptoms, or financial counseling to manage debt and reduce stress levels.

The model brings together the focus on prevention (see Appendix C, page 52 for a brief discussion of evidence for prevention) with a compact way to categorize PH services into segments, which makes it useful in developing a variety of descriptive models and frameworks highlighting the current state and key issues, such as Figure 2 and Figure 3, below.

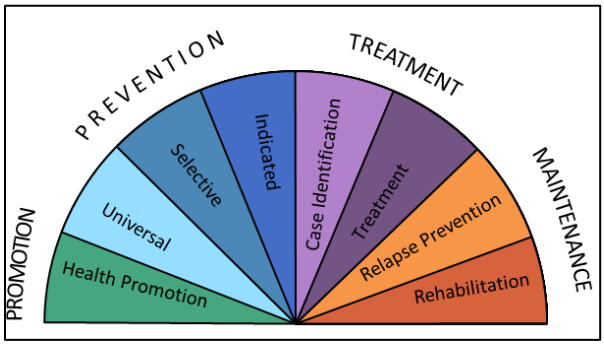

Figure 1: IOM Continuum of Care Model

Yet, in the Marine Corps, while there are myriad programs offered by multiple organizations designed to meet specific needs and provide interventions[7] across the IOM Continuum of Care, the lack of coordination precludes them from comprising an effective *system* of psychological health services.

[6] See O'Connell, Boat, & Warner (2009). This IOM model is comparable to the model in the Achievable Vision report (Department of Defense Task Force on Mental Health, 2007, p. 11). The key difference important to this context is in how prevention is defined and measured; for the Marine Corps, the IOM model is proving more useful in this regard. The IOM model has also found increasing use in both civilian and military policy contexts.

[7] We use intervention as a term encompassing medical treatment, but also other services designed to achieve an outcome that leads to greater health.

Findings: description and user perspective of PH services

Figure 2, below, shows which segments from the IOM Continuum of Care Model are incorporated in services offered by the major organizations involved with psychological health care in the Marine Corps. The diagram illustrates the complexity of the system and the potential for disconnects.

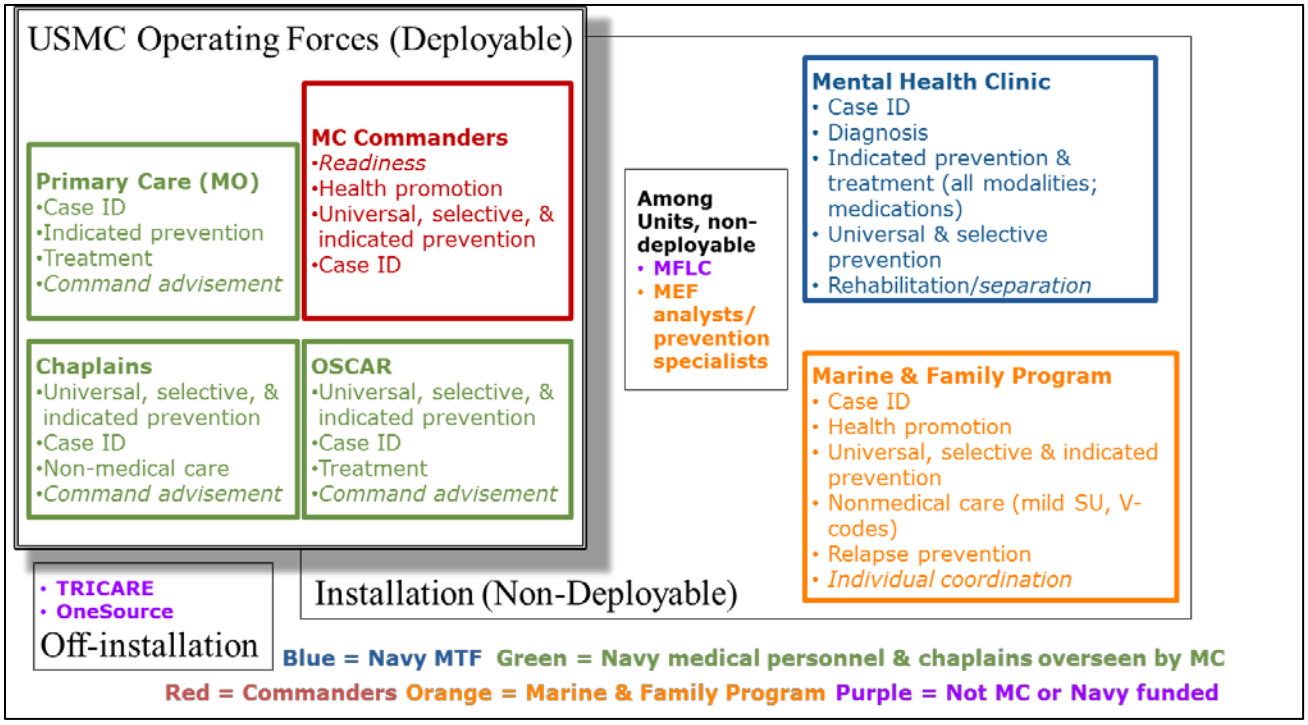

Figure 2: Marine Corps services offered, by organization

Coordinating these services in the Marine Corps is made even more challenging by a unique circumstance not faced by the other military services: the reporting structure of care provision.[8] Navy personnel provide all Marine Corps medical care. Some are "blue" providers who report to Navy medical command and work in a Medical Treatment Facility (MTF) such as a hospital or Mental Health clinic; others are "green" providers who report to Marine Corps commanders and deploy with Marine units. The uncoordinated reporting structure is made even more complex with the inclusion of nonmedical providers, including "green" Navy personnel such as chaplains, Military Family Life Counselors (MFLCs) employed through a separate DOD program, and Marine & Family Program providers employed by the Marine Corps through Marine Corps Community Services (MCCS). Finally, some MTF providers, as well as most MFP providers, are civilians.

The IOM Continuum of Care model above provides a useful categorization of service offerings but provides no guidance about how to choose a service nor pathways for how a service user (patient or client) moves from one service to another. These choices and pathways are an integral element of coordination of medical and nonmedical services.

[8] For example, in the Army all medical providers report to Medical Command; in the Air Force all medical providers report to operational commands.

In general, medical services are those provided by licensed medical providers, usually in a hospital or clinic, including evidence-based therapy for diagnosed mental disorders, and medication management. Nonmedical services are provided in other settings, and by other professionals and trained personnel, although some can be provided in medical settings. In civilian systems nonmedical services are often labeled 'community' services.

Medical and nonmedical services are defined in the MOU as follows: BUMED (which provides *medical* care) is "responsible for the treatment of all potentially disabling psychiatric diagnoses described in the Navy's Disability Evaluation Manual, all pharmacologic care, and all treatment of substance abuse disorders classified as "moderate" (depending on the criterion) or "severe" as per the current edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM). These services are typically offered in medical settings such as hospitals, clinics, or aid stations, and must be provided by licensed, credentialed, providers who are privileged by BUMED. The MOU permits *non-medical* counseling services to be provided by MFP. These are enumerated to include diagnostic screening, counseling for subclinical diagnoses that are not potentially disabling; nonmedical counseling addressing issues such as relationships, parenting, and grief, family and couples counseling not directly focused on a potential disabling condition, treatment for mild and moderate substance use disorders, child abuse, and domestic violence.

To help make the case for putting coordination at the center of the Marine Corps efforts going forward, we developed a diagram (Figure 3, below) applicable to the military context that shows both the psychological health-related states a user can be in and how they move from one to the next. The IOM continuum of care segments are shown in bold.

Note that in the diagram, the IOM segments link user states in some cases, but not consistently or completely. To support a user through this cycle, therefore requires coordination so that the user states are explicitly linked.

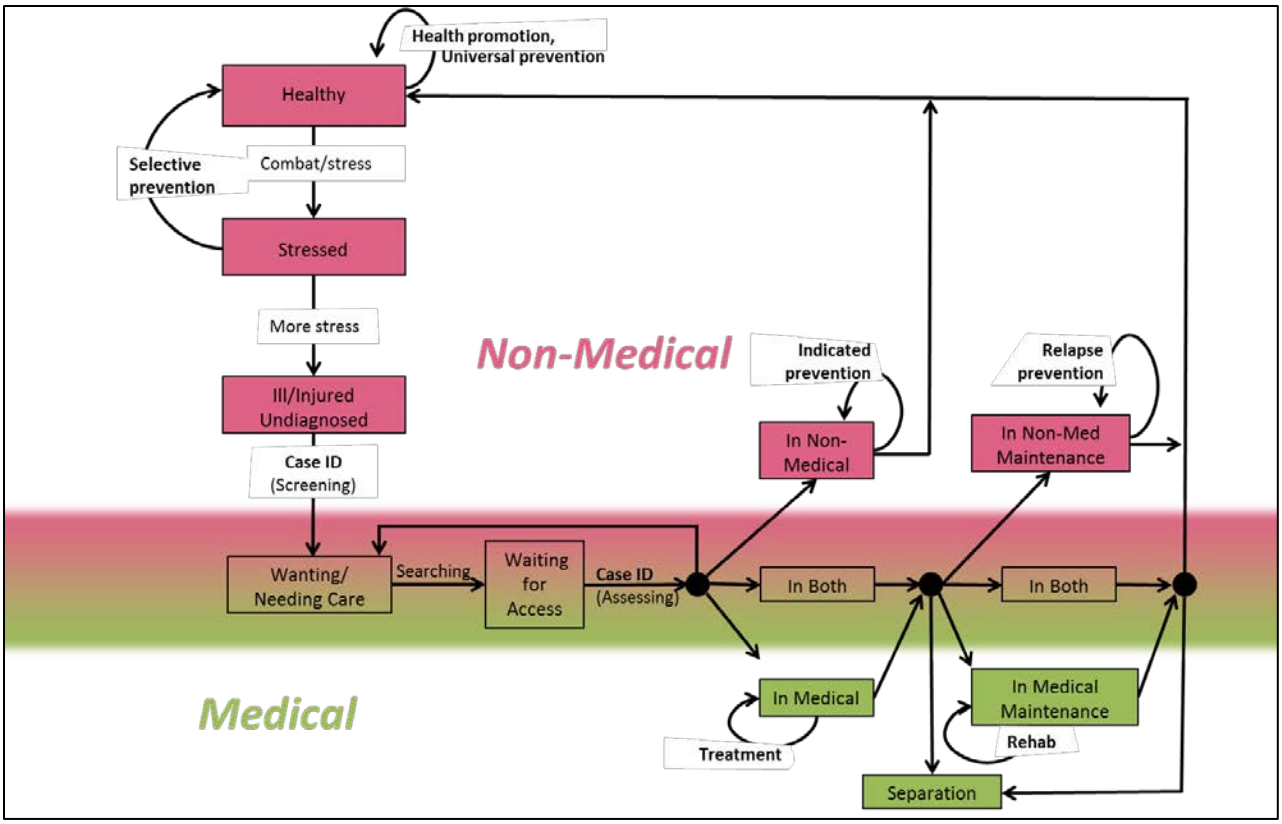

Figure 3: User perspective of a comprehensive PH system

While medical care and nonmedical care appear to be clearly delineated by the box colors in Figure 3, the boundaries are fuzzy in practice (illustrated by the blending colors). For example, prevention activities may occur in any user state, and may be provided as part of medical or nonmedical services. Further, users may receive both medical and nonmedical care and maintenance services concurrently (e.g., medication management along with nonmedical marriage counseling). In addition, users over time transition across states, moving from medical to nonmedical care as well as to and from healthy, stressed, and undiagnosed states.

Findings: building a framework for coordination from literature evidence

Synthesizing the research literature summarized in Appendix C, starting on page 54, we frame coordination for a medical/nonmedical system as touching on four distinct domains.

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. Most coordination is directly with providers, but other health workers and families may also be involved.

In the Marine Corps, an example is the warm handoff of individuals provided by CCC and MH providers colocated in the Camp Pendleton MH clinic.

Program coordination has as its goal to develop standards and processes to link users and their information across programs or services. Processes, rules, and program-level aggregated user information is coordinated. Program managers work together and use this information to make decisions about how the programs are linked in practice.

A Marine Corps example at Camp Pendleton is the SACC/SARP referral process and the borderline case decision-making process with the colocated SARP provider at the SACC.

The goal of *service line coordination* is to develop partnerships that benefit system participants (often patients and clients, but also other stakeholders such as commanders) by improving links within a service line's multiple programs, such as clinics and hospitals, or blue and green medical provider groups. It is similar to program coordination in that processes, rules, and impact information are developed and used jointly by service line leadership to improve client/patient experience, but is more complex in that it can cover multiple services or programs.

The Camp Pendleton MH clinic director's effort to work with NMCSD in multiple ways provides a Marine Corps example; one direct result is to reduce psychiatric inpatient admissions via the emergency room.

Finally, *multi-organizational coordination* focuses on the governance needed to link organizations with a variety of goals and interests, and that do not otherwise report to each other.

A Marine Corps example is the MOU between HS, BUMED and MFP. At Camp Pendleton, the governance structure consists of the local BUMED, OSCAR, and MFP leaders; they develop innovations, create the SOPs for them, and jointly respond to systemic issues raised across their services.

Table 1 pulls these four psychological health domains together into a coordination framework.

Table 1: A framework for PH system coordination: four domains

Domain	Coordination goal	What is coordinated	Who coordinates	Example from Camp Pendleton; see page 28
Individual	Improve individual care	Users, user info, outcome info	Providers, health workers, families	CCC/MH colocated provider warm handoff
Program	Develop standards to link users and info across programs	Processes, rules, program info (use, wait times, cost…)	Program managers	SACC/SARP referral process design and borderline case decisions
Service line	Develop partnerships among similar organizations	Processes, rules, Impact info	Service line leadership	MH clinic & NMCSD mechanisms to reduce ER inpatient admissions
Multi-organizational	Create governance to link organizations with varied goals/interests	System-level process & outcome information, system decisions	Organization leadership, system stakeholders	BUMED, OSCAR & MFP leadership team to develop innovations, create SOPs, and respond to systemic issues

Our research provides substantive evidence that a coordinated system is possible, and points to ways forward to achieving that objective. One source of evidence is the MOU, discussed next. Our site visits provide additional evidence; they are discussed further below.

Findings: evidence from MOU analysis

The MOU, with signatories representing multiple sectors, lays out a vision for a comprehensive Marine Corps psychological health system. While the MOU does not specifically use "coordination" as a term, it does specify and define roles and responsibilities, addresses scope of practice, and discusses foundational communication and measurement processes for the individual and program domains. These roles and processes – all key to a coordinated system – are designed to engage BUMED and MFP more closely with each other at both the installation and HQ 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 that link efforts across programs and organizations that have no reporting relationship to 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 of the key topics necessary to support creating a coordinated system, it also suggests that three key things are missing from the MOU. These omissions in no way diminish the MOU's importance to improving the system. In fact, the omissions reinforce the value of adopting an even broader systemic perspective of the problem than the MOU does. The first missing item is that the MOU covers only BUMED and MFP; two groups that encompass many of the services a comprehensive psychological health system should provide but by themselves do not constitute a complete system. Many other groups and sectors, including chaplains, MFLCs, and unit commanders and other MC active duty personnel provide preventive services and/or support BUMED and MFP in doing their work (as Figure 2 showed).

Second, the absence of any means in the MOU for enforcing adherence to the role definitions, scope of practice, or processes it discusses raises the question of governance, central to our recommendations and a key component of coordination. Governance must be defined for any multi-sectoral relationship.

Third, the MOU omits any identification of metrics for evaluating/monitoring performance. 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 lists a set of "applicable data, including information on numbers of people seen at BUMED and MFP facilities, referral patterns, diagnoses, problems encountered, access to care, workload trends, network referrals and any other systems issues that arise" (MOU Section 6), but absent metrics that clearly inform decisions and improvement of coordination and other processes, these will not serve the overall coordination objective.

We also found evidence supporting coordination in the SOPs we analyzed from 12 of 13 installation groups, covering all the bases that provide both BUMED and MFP services. Our summary of this analysis may be found in Appendix D, starting on page 61.

Findings: evidence from 2015 site visits

Our June 2015 visits to three Marine Corps installations – Camp Pendleton, Camp Lejeune, and MCAS Cherry Point – provide further evidence that a coordinated system is possible. We observed a number of systems and coordination innovations in these visits. The qualitative data from the provider interviews we conducted show that local innovations and coordination are mitigating some of the symptoms and overcoming some systemic constraints to creating a somewhat more effective psychological health system at these locations – strengths that can be built upon for a comprehensive and coordinated system across the Marine Corps.

Camp Pendleton. Innovations at Camp Pendleton include coordination efforts and innovations in all four domains described above – individual care, program, service line, and multi-organizational (see Appendix A, starting on page 28, for a more detailed description of Pendleton efforts).

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

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; this perspective is shared by multiple providers across different programs. This supports implementation of what in healthcare is often called a "no wrong door" concept.[9] These efforts, as well as the MIP implementation, mitigate the confusion that arises from program proliferation for both commanders and patients/clients.

In the service line domain, there is increased coordination within the medical organization between blue and green (OSCAR) providers through referrals and regular meetings to analyze and remediate systemic problems – for example, resources shortages due to fluctuating supply and demand as OSCAR providers deploy or Marine units return from deployment. In addition, efforts by MTF PH leadership to coordinate more closely with the Navy Medical Center San Diego have reduced unnecessary inpatient admissions for psychological health issues from the emergency room.

In the multi-organizational domain, the Pendleton leadership team members – the heads of the MTF mental health clinic and MFP Behavioral Health, along with the Division Psychiatrist – work together to manage as many aspects of the local psychological health system as possible. It has built and maintains a relationship with commanders through formal briefings and attendance at regular meetings (e.g., the Force Preservation Council, or the Case Management Group (CMG) 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 MIP for those who have expressed suicidal intentions or attempts; implementation of *"no wrong door"* through colocation and care coordination efforts designed to

[9] MFP uses the concept of "no wrong door" to describe improved access to psychological health services.

mitigate the 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; and *perceptions of improved access* for individual Marines through colocation of MFP providers with MTF, and forward location of MTF providers near units with high demand.

Camp Pendleton's coordination innovations, which began before the MOU was even signed, 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 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, so too would it be impossible simply 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 possible and necessary, and some guidance with respect to *how* to address specific aspects of the system. Customization will be necessary at the local level; each local system will share common attributes but also be unique, because the culture from location to location 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 that we also noted as missing in the MOU). The Pendleton leadership team, in particular, recognizes the importance of metrics and sees the potential for using metrics in its coordination efforts.

Camp Lejeune. A path to greater coordination system-wide can also be seen at Camp Lejeune, where we visited both in 2013 and 2015 (see Appendix B, page 41, for details of our 2015 visit and interviews).

In 2013, we worked jointly with II MEF leaders who developed multiple specific recommendations. Those 2013 recommendations broadly addressed the need to bolster cross-organizational relationships, establish more effective information sharing, build awareness of available resources and psychological health, bolster ICM-RMS development (a locally developed IT solution in II MEF to support information sharing especially about at-risk Marines), and enhance the Marine Centered Medical Home. While these recommendations were not explicitly placed in the context of a comprehensive or coordinated psychological health system, implementing them would improve the ability to coordinate among and between medical and nonmedical providers, programs, and organizations, and would represent important steps toward improving information sharing and measurement.

What we found through our June 2015 interviews was an increase in coordination. Weekly SACC/SARP discussions aided coordination in the individual domain, and SARP has hired a PhD psychologist as admissions coordinator. In the program domain, Lejeune now colocates an MTF provider at MARSOC one day each week, and has a full-time CCP provider at MARSOC. Community Counseling Center staff expanded from four to fifteen counselors. Further, a number of meetings have aided coordination in the multi-organization domain, including a May 2015 MFP/MTF meeting to discuss coordination, a meeting between the CCP director and Division

psychiatrist, and a CCC walkthrough in May 2015 by the II MEF General. In June MFP and II MEF leadership had begun discussions on colocating a BH counselor at the II MEF commands at Lejeune, Cherry Point, and Beaufort.

Between June and December 2015 efforts in cooperation and collaboration have continued to increase. These have included the full implementation of MIP, which reached standardization in June and has since resulted in multiple opportunities for MFP providers to communicate directly with unit commanders and first sergeants. The CCP director decided to assign a single person as the contact for each battalion. She selected contacts for their knowledge of the Marine Corps and effective prior interactions with commanders. As a result, MFP providers now participate in the Force Preservation Council meetings of two regimental units, as well as MARSOC.

As of June 2015, key challenges included the following:

- Geographic isolation of the Ground Combat Element (GCE) and associated green providers from other psychological health resources limited coordination.
- Neither MFP behavioral health nor OSCAR leaders had initiated efforts to bring their personnel together for introductions or explorations of possible coordination practices.
- Roles and responsibilities for Division mental health professionals continued to be poorly understood across the spectrum of on-base providers.
- Significant cultural distance and a lack of understanding existed among providers in MH and Division Psychiatry.
- Demand for medical mental health care and its pressure on providers at the MH Clinic remained high. The MH Clinic was booked four to six weeks out and the clinic was sending approximately 20% of Active Duty clients out to the TRICARE network to receive care.
- Time constraints and a heavy workload limited communication between MH care providers and the Division Psychiatrist.
- Certain technological hindrances to effective information exchange evident in 2013 remained, including separate electronic records systems at MFP and the MTF.
- No infrastructure to enhance communication and information sharing between MCB Camp Lejeune and off-base mental health professionals existed or was in development.

Some of these challenges were beginning to be addressed after our visit. In the fall of 2015 a CCP provider was added to the MTF for three afternoons per week. This provider completes assessments, conducts referrals and shares information with MTF providers on cases, referrals and related issues. This information feeds into regular meetings between MFP, CCP and MH leaders. As a result information sharing, case management has improved, and there is greater familiarity with the practices of both groups. There are plans to locate a CCP counselor at II MEF by early 2016. A large suicide prevention outreach event in September attracted over 1,200 Marines, but more importantly, was the result of planning that engaged all PH providers on base as well as several off-base organizations.

By the fall of 2015 the Division Psychiatrist 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. The defined system is designed to provide measured care by specifying the array of ‘front doors’ and thus resources available.

Future planned changes include the addition of new, non-deploying psychiatrists to support Division and MLG in summer 2016, and colocating all Division PH resources in a single location. Outcome metrics at CCC are scheduled for implementation by early 2016.

MCAS Cherry Point. Finally, our visit to MCAS 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 Camp Lejeune and Camp Pendleton, with no OSCAR presence, inpatient hospital, or SARP. 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 more 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 at Cherry Point serves is also smaller (about 10,000 active duty compared to more than 40,000 at the other two sites) and all MOs and MCMH providers work out of the same building as the MH clinic. This makes it easier to refer people to other services, as they simply need to go upstairs. MFP is also nearby.

Stable leadership at Cherry Point supports relationship development, with good relationships between MFP and MH as well as among providers within each organization. There are monthly MFP-MH tracking meetings and more frequent informal discussions among the leadership. The IBHC/MFP relationship is in its early stages, as a permanent IBHC only started in late 2014. Still, Cherry Point continues to face MH staffing shortages, which led the MH clinic to close its walk-in option. However, use of a consult liaison with MO's and IBHC mitigates this issue to some extent.

As with our visits to Camp Pendleton and Camp Lejeune, what we found strengthens our argument for putting *coordination* at the center of Marine Corps efforts to address the problem of its overall psychological health system. At MCAS Cherry Point we saw evidence of a solidifying relationship between the Integrated Behavioral Health Consultant in the MCMH and the mental health clinic and MFP. The SOP was very direct and is being followed, resulting in increasing referrals and generally good relationships and awareness between MH and MFP providers.

Findings: systemic constraints

Our recommendations would be useless without an enumeration of the very specific systemic constraints that exist in the Marine Corps (and more generally in systems of this kind) to building and sustaining a comprehensive and coordinated psychological health system that works effectively. 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 a subset of needed services to the Marine Corps, with MFP and organizations not under Marine Corps control providing others. A response to this situation was the expansion of MFP Behavioral Health. We have no evidence that changing this organizational complexity by increasing integration into a single organization is feasible, or beneficial, and so make no recommendations to change this constraint. Other systemic constraints are addressable, however.

There needs to be a better understanding of relevant policies. For instance, HIPAA/privacy regulations are not clearly understood. There are varying interpretations of the scope of practice restrictions across the Marine Corps. Complex administrative separation rules that require extensive command/provider coordination to develop appropriate individualized limited duty assignments require better understanding as well.

The need to enact policies suffers from absence of agreed-upon procedures for doing so. This affects, for example, effective information sharing for both commanders and providers, given HIPAA/privacy regulations.

There are multiple financing constraints. These include funding from multiple sources with various restrictions, such as Defense Health Program (DHP) money for health promotion; temporary sources that could dry up at any time; restrictions on contractors due to financing rules; and lack of accountability for performance to financing sources.

IT-based constraints include different hardware and software systems – for secure email, referrals, and scheduling software, for example – that do not interoperate across providers and Services. These interoperability challenges must be addressed.

Already mentioned, there is a perceived shortage of (provider) resources despite program overlap, fragmentation, and duplication of services**.** For example, the DOD/VA (2015) report suggests there are no serious system-wide resource shortages; however, our interviewees in both 2013 and 2015 across installations indicate otherwise.

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

Finally, there is the constraint of inadequate knowledge of the current state of supply and demand for psychological health system services. For example, our research revealed that no one in the Marine Corps has an easily accessible count of providers across programs, and quantification of unmet demand (e.g., people who “give up” on finding care) does not exist.

Conclusions

Based on the material above and the research evidence that is at its foundation (see page 52), we can develop an overall assessment that summarizes the current situation in the Marine Corps, from which we develop recommendations.

First, despite some very positive steps at various sites, and even as HS, MFP, and BUMED have begun to work together at multiple levels, *psychological health services in the Marine Corps continue to be fragmented.* The system is difficult to describe and use. Information is not shared well among participants. There is no structured way know what works for users, programs, and the Marine Corps as a whole. 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 lack of knowledge about users' health status and movements through programs, system and program utilization, and intervention outcomes; and missed opportunities for systemic improvement.

As we stated at the outset, *the Navy-Marine Corps MOU is a partial blueprint* for building a system, but it is far from a complete roadmap. On the positive side, it explicitly recognizes the important role of both medical and nonmedical services in a comprehensive psychological health system. It is a useful step toward defining roles and responsibilities of two key elements in that system. However, it is incomplete because it lacks guidance for all needed coordination domains and participants, lacks clear governance, and is not enforceable. Its implementation, in the form of installation-specific SOPs, varies in both extent and specific details across installations, and it provides no guidance for ongoing measurement of many important cross-program and cross-organizational system-level variables, as well as for comprehensive management and governance of the system through systematic evaluation, learning, and improvement processes.

Site visits showed both the importance of coordination and the significant variation in the extent of change from one location to another. We found progress in addressing the challenges issues we identified at Camp Lejeune in 2013 and that other researchers noted at Camp Pendleton (Whitmore & Carta, 2013), but 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. Still, the innovative coordination efforts emerging from Camp Pendleton to improve coordination go far beyond implementation of the MOU and their formal SOP. 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. Sustaining improvement at any one site – even at Camp Pendleton, where so much progress has been made – 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 is good news going forward. Civilian experiments in designing new systems of care that implement different coordination strategies and processes offer useful guidance for the Marine Corps. It is not necessary to reinvent the wheel, although the Marine Corps will need to create its own design process that includes commanders. This process can draw on emerging standard system "skeleton" elements and governance models, and on other research on coordination.

Recommendations for building a more comprehensive 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 on psychological health systems and medical/nonmedical coordination; and our collective research experience in organizational coordination, organizational systems design, and management of organizational change. While we did not explore every part of the Marine Corps in detail, our core recommendation is clear: creation of a comprehensive, coordinated PH system must become an integral part of the immediate Marine Corps agenda.

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; they cannot simply be copied. The solution must balance multiple types of services (private, medical, different levels of treatment) with an easy-to-use system – the "no wrong door" policy referenced earlier – that enhances and streamlines the experience of all users.

Effective design requires adopting three guiding principles and taking a number of key actions that we outline here and discuss in further detail in the remainder of this section.

First, include nonmedical (MFP), medical (BUMED), Marine Corps Health Services, and Marine Corps commanders and operational leaders at both the Headquarters and installation levels in all major aspects of the system design and governance process. 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 that provides them with relevant information about their Marines' readiness and risks to unit readiness. In practice, commanders at all levels play several vitally important nonmedical roles in the current system, even with its limitations: they provide and receive information, are co-decision makers about individual Marines, and, at higher levels, make decisions about the system itself. Because base commanders and other Marine Corps leaders have a responsibility to promote psychological health in their Marines, are responsible for returning good citizens, 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.

Second, a multi-organizational governance framework must be established for the design and management of the overall system. Effective governance is a prerequisite for enforcing goals and holding people accountable. It is within such a framework that decisions can be made transparently and enforced system-wide. Further, a governance framework is vital to completing the necessary analyses that will provide a clear understanding of the current state as a foundation for the design effort going forward. Finally, such a framework is key to developing and making or recommending policy changes necessary for making sustainable systemic improvements.

Third, there must be a measurement framework and IT infrastructure that will support decision making and care at both the local and system-wide levels.

With these pieces in place, the Marine Corps will be ready to establish a design process that incorporates both bottom-up and top-down efforts and involvement, and from which can emerge the blueprint for and roadmap to a robust, comprehensive, and coordinated PH system. Experience in the civilian world demonstrates that the design process must be tailored to the needs and capabilities of system participants and leaders.

Each of these principles is detailed below with general recommendations, along with specific action steps to support the recommendations.

Recommendation: *Develop a robust psychological health system governance framework to support 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 own at the Marine Corps, we recommend several specific actions:

1. Create a governance board and establish action officers. This should include MFP, BUMED, HS, and MC commanders and operational leaders at both the HQ and installation levels.
2. Create a governance charter. This charter, which can be amended over time, should detail: stakeholder roles; decisions to be made, along with the transparent decision processes for making them; relevant metrics and measurement processes to support this decision making; and processes for feedback, enforcement, and system changes. For example, one role of an effective governance board is its ability, through its interest in learning of local successes and challenges, to drive innovative coordination efforts.
3. Take short-term governance actions to create a solid foundation for further design. These include:
    - Broadening MOU participants to include additional PH providers, (e.g. chaplains, OSCAR providers), and commanders (e.g., installation command, MEF command).
    - Broadening MOU scope to be more explicit about coordination concepts and practices in all of the domains, such as care coordination and systemic resource management practices, metrics, and improvement processes.
    - Creating a standard template for SOPs to include required and optional structures and topics, and modifying and expanding SOPs to incorporate MOU changes. The SOP development/change process can be part of a formal cross-organizational learning/information sharing/trust development process and can incorporate adaptations based on learnings from bottom-up installation level experiments and designs (see bottom-up design example, page 24, below).
4. Make (or recommend) Marine-Corps wide policy changes to support a more effective PH system. Examples:
    - Privilege MFP providers (who are already licensed by the State and credentialed by MFP) by the Navy so that they can work as a team with Navy providers to provide a fuller continuum of care, balance workloads, and increase continuity when active duty providers deploy or PCS. This will also enable MFP providers to access parts of AHLTA as appropriate.
    - Create a mechanism to permit, track, and pay for time that providers spend on coordination. For example, current policy limits contractors working for the MTF in their hours and tasks so that they cannot participate in coordination-related work.
    - Add (and finance) case managers, referral managers, and other personnel to focus on coordination, scheduling, tracking, client/patient support, and follow-up tasks to support and free up providers to focus on care.
    - Implement the Installation DPH requirement to support system and SOP design, implementation, improvement and other coordination efforts.
    - Modify the PCS process to include time for training replacement personnel, coaching by their predecessors, and transition planning.

- Develop evidence-based system decision-making processes for installations and HQ. The evidence will arise both from newly designed metrics, as well as existing ones.
- Develop a more stable funding system that allows sharing of costs and savings from coordination work. Include clear goals and metrics to support funding change decisions.
- Update limited duty and administrative separation processes to better meet the needs of system users, commanders, and providers and to reduce stigma of help-seeking.
- Develop Marine Corps-wide interpretation of HIPAA and Privacy act requirements relating to information sharing about patient/client information, and create teaching tools (e.g. cheat sheets) and processes (e.g., interactive training, role plays, coaching) to ensure this understanding is shared among providers, commanders, and patients/clients and their families.

Recommendation: *Develop a better understanding of local Marine Corps best practices and needs* in order to develop a good baseline of both problems and opportunities, and to measure the impact of systemic and other changes. This includes completing the description of Camp Pendleton innovations with commander perspectives and baseline metrics, as well as gathering system-wide baseline information and metrics. Specific actions to implement this recommendation include:

1. Obtain commander perspectives, which may include interviewing a representative sample of commanders to get their views on the current psychological health system. Topics could include how commanders incorporate PH promotion and prevention activities with their Marines, how they perceive the current system (programs, providers, and psychological health leadership), how they use the overall PH system for "their" Marines, and what else they need from the system. In addition to directly learning of needs and concerns, commanders' views will also be useful to compare with provider perspectives to clarify areas of shared understanding and point to systemic gaps.
2. Collect baseline quantitative data showing how/where clients/patients are currently seen, as well as any available outcome data, and convert that into an easy-to-use format to observe the effects of system changes.
3. Determine what is currently measured locally at each installation as well as through formal mechanisms at BUMED, MFP, or others, such as metrics using M2, DOD-CMS, and BHDP or PHP data. Determine why these measures are required and how they are used in order to decide which ones are most useful and feasible to build on going forward. Measurement categories include[10]:
    - User characteristics, such as presenting problems, care received, and outcomes in terms of changes in risky behaviors
    - User flows, including entries and exits between medical and nonmedical services
    - Effectiveness of current coordination efforts
    - Effects of coordination efforts, observable by measuring changes in number of referrals, wait times, or provider time spent on 'appropriate' levels/types of care
4. Determine resource availability across programs and create an ongoing mechanism for tracking this as personnel turns over. This should include determining the supply of resources (programs and providers, as well as scope of services offered) available across the psychological health continuum of care. In particular, examine the capacity and capabilities of Navy Medicine to provide care that meets Marine Corps needs.

[10] See page 58 in the Appendix for some sources that provide measurement concepts, as well as examples

5. Measure user needs. If commanders are doing unit needs analyses, these could be built upon. Additionally, there is a need to assess and clarify true demand of psychological health needs (i.e., unmet needs) of both Marines and their families, for example as a survey. One example we saw of this was the 5th Marines study (NCCOSC, 2013).

Recommendation *Build on installation measurement efforts by creating a robust measurement system that captures all the process and outcome measures needed to evaluate, provide feedback, and identify opportunities for learning and improvement*.

1. Building on the work begun in implementing the previous recommendation to understand local best practices (above), clarify the value of possible measures more systematically by focusing on why to measure something, what to measure, and how to measure it. Once a measure's potential value is clear, determine the activities and processes needed to collect, clean, analyze, report, and act on the desired measures.
2. Improve IT and physical infrastructure to support metrics gathering and analyses processes developed above, as well as to support provider workflows, especially information sharing. While this step involves automation of metrics designed in the previous step, human analysts and experts will always be needed to design and implement changes as workflows and other system design elements are changed.
3. These systemic measurement and measurement design efforts require multiple types of expertise, which in practice requires a collaboration of an interdisciplinary team of 3 to 5 people, as no expert will have all of the required skills and experience. Therefore we recommend building a dedicated team at HQ who among them have the *technical expertise* to accurately collect data, clean it, and analyze it (i.e. construct and query databases, run descriptive and statistical analyses correctly); *the content and context expertise* to ask the right questions of the data and know what both the data and analytical results mean, and the *presentation and communication skills* to inform decision makers of not just results but also to discuss implications and recommended actions based on the questions asked and answers elicited (See also Davenport, Harris, & Morison, 2010, Ch. 6).
4. In multiple interviews across time and in different locations, several additional desired IT and infrastructure changes emerged[11]. These include:
    - Create reliable hardware infrastructure so all providers (medical and nonmedical) have reliable and fast access to email, AHLTA and/or DOD-CMS and other work-related IT systems as appropriate. For example, we were told that some OSCAR providers still do not have reliable IT access in their offices. We were also told that MTF providers cannot work in many Marine Corps locations (including being colocated at CCC) because the hardware infrastructure in those buildings does not allow them to access their email or AHLTHA.
    - Buy/create a secure messaging system, which could be via email, so that providers can send referrals and other documentation electronically rather than by fax. (Providers may still want to give the patient/client a paper document to remind them where to go, but this should not be the primary information transfer system).
    - Create a robust and easy to use authentication/authorization mechanism to enable authorized providers to see/change relevant other patient/client information in AHLTA

[11] Civilian systems, including those highlighted in Appendix C in our literature review, have developed a variety of IT/infrastructure solutions to shared scheduling, information sharing and secure messaging across programs and provider groups. Visiting with some of them to see specifics may be helpful in sparking improvement ideas.

and other heath databases. This (invisible to the user) infrastructure simplifies implementing coordination designs.

- Create an easy to use (e.g. searchable, customizable, centralized) website/app with up to date useful information (e.g. program descriptions that can help users make effective choices with respect to privacy, treatment type/duration/impact, contact information, availability, etc.)
- Accelerate development of systems that support high risk behavior identification, tracking and support of at-risk Marines. This will support design work on creating effective behavior outcome metrics and reports, for example standardizing 8 day briefs.
- Modify MC buildings so medical providers can work in them (Joint Commission certification), and clients/patients have privacy (e.g., aren't seen entering if that would increase stigma).
- Improve large installations' transportation options so users can get to care providers and other PH services (e.g., Bus service at Camp Pendleton is inadequate, especially for families needing nonmedical care).

Recommendation *Develop a design process that is both bottom-up and top-down.* Designing from both "directions" will be critical to Marine Corps success. Below are two examples of ways to do this. The first focuses on bottom-up design of SOPs for coordination at installations; the second is an example of a top-down participatory design process that incorporates bottom-up design efforts.

Example 1: bottom-up design of SOPs for coordination at the installation level

Experiments are innovations that are measured. Creating an SOP is a useful mechanism for creating local experiments that can be adapted, transformed, and scaled if they work. Conceptually SOP design, metrics, and Information Technologies (IT) are related, as follows:

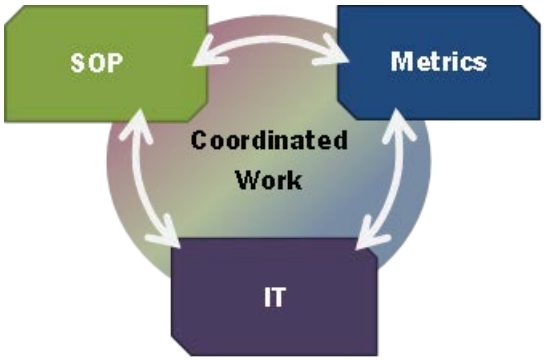

Figure 4: Design of SOPs, IT, and metrics are interrelated

That is, an effective SOP includes a metrics plan that will help the design team determine how well it works and how it impacts the overall system. These metrics should be supported by appropriate IT. In addition, an SOP design should include use of existing IT, and may lead to IT changes as well. IT can support metrics collection, analysis, and reporting.

Over time as IT changes (e.g., a new system is introduced for whatever reason), SOPs and metrics should be updated. If the system metrics or experiences using an SOP show that the SOP is not working well, it should be redesigned. Thus design is an ongoing learning process.

Design content for installations: What to design

Based on the Camp Pendleton experience, as well as emerging civilian experience, SOPs should first be created for the following processes that involve building links among providers:

- **Referrals**, ideally using the secure email and shared scheduling systems listed in the IT changes, above; this includes agreement on screening processes (e.g., which questionnaires to use) in referral decisions.
- **Informed consent & information sharing** among providers, including agreement on interpretation of HIPAA and Privacy act requirements. As shared access to online information becomes feasible based on IT changes, design mechanisms for sharing information in notes fields and other parts of databases.
- **Colocation**, including supervision, exceptions, and information sharing practices; similar formal coordination practices may also be built through shared duty opportunities or off hour coverage.
- **Use of MCMH as entry point**: as the Marine-Centered Medical Home is implemented, this organization should be included in SOP development and decision making as well.

As the installation design team learns how to create and implement designs, builds trust, and gains experience they can add other processes, which could include **Leadership coordination mechanisms** such as cross-organizational meetings to discuss both system and patient-related issues, 'difficult case conferences', FPC meetings that include nonmedical providers as well as medical, and training/informational briefing opportunities.

A subsequent round of design would include commanders. The focus here could include, for example, **limited duty and separation processes**, as well as **information sharing practices between providers and commanders** based on a shared understanding of HIPAA and Privacy Act requirements.

Given that commanders at many levels are involved in the PH system, another set of SOPs should include **development of training processes and content emphasizing how command can guide their Marines**, emphasizing that treatment is better than no treatment, walking the talk, and showing data on successful treatment and nonnegative career impact to help reduce the impact of stigma.

For installations that use a large amount of purchased care, designing an SOP for **coordinating and sharing information between on base and off base providers** is also appropriate.

Design process for installations: how to design

The design process should use as its baseline the understanding of the current state and needs of providers, commanders, patients, and clients.

Design participants should include leaders, subject experts and appropriate representatives from the organizations designing the coordination efforts. Including a facilitator is also useful, especially if trust, skills or design experience is low. The team should be small – design literature and experience suggests no more than eight people, and as few as two or three to start.

Design is a shared learning process that is also an effective way to build trust and share information. Therefore we recommend an initial facilitated three day 'design learning' workshop in a neutral location that includes representatives from a few (large) installations to start (e.g. Camp Lejeune and 29 Palms). The workshop has two parts: learning from the Pendleton PH leadership team what they did, how they did it, and why; and work as teams (with facilitator support and help from the Pendleton team) begin to design an SOP on referrals.

We recommend creating and using a standardized SOP template that is based on the MIT analysis categories (see Appendix D: MOU and SOP Analysis Summary, page 61) and Pendleton experience to ensure appropriate breadth of discussion and to allow adjustment for local conditions. It should include required and optional structures and topics and should be modifiable to incorporate MOU changes. In particular, it should include procedures for analyzing and adjusting the effectiveness of the procedures at the installation, as well how as ways in which effectiveness will be judged (including metrics, but not only quantitative ones).

These initial designs are, in essence, coordination experiments: changes in practices that will be measured in order to decide how well they work.

These SOP design sessions should be followed up with periodic external coaching and continued support to help with implementation and unexpected issues, as well as to design additional SOPs when the teams feel ready to do so.

Example 2: top-down participatory design process that incorporates bottom-up efforts

Given the centrality to our overall recommendations of the design process, presenting an example of one that we believe points in the direction the Marine Corps ought to go is an important part of this report. This example process incorporates the bottom-up innovations at installations developed through the SOP design process described above, as well as recognition of the potential impact of local circumstances on a design into a more top-down, centralized, and yet still *participatory* process led by the Headquarters governance board and action officers.

Such a process has high impact precisely because it *is* participatory, which increases commitment and ownership of results and changes the perspective of those involved from role/program/organization to *system*. The process assumes programs will continue to exist as building blocks within the system, certainly in the near term, and the focus is design of the system links, specifically, the coordination requirements in all four domains identified earlier: individual care, program, service line, and multi-organizational.

This process includes a preparation phase of about one year, during which the governance structure to lead and make tough systems decisions would be created, a current-state analysis completed, and participants become familiar with the issues and options. The latter would happen through a series of preparatory meetings in which small groups of stakeholders build shared knowledge and understanding of the situation.

From this preparation phase results a *prototype* design shared with all participants, which is then discussed and refined in a weeklong workshop process to explore alternatives and agree on key principles and design alternatives. The workshop results are documented into a *baseline* design that will be implemented at selected sites, tracked closely, and adjusted through a robust design and change management process led by the governance board and its action officers. Based on evidence from State Innovations (see page 57, in particular evidence from Oregon) as well as experience at Camp Pendleton, we estimate that implementation of the initial baseline would take at least twelve months to show impact, but it is important to note that monitoring and adjustment, and thus governance board involvement and transparent decision making, will always be needed.

Appendices

Appendix A: Camp Pendleton coordination description

Overview

This document presents our understanding of how the providers from Marine & Family Programs Behavioral Health (MFP BH), BUMED (Navy Medicine), and OSCAR (Operational Stress Control and Readiness) at Camp Pendleton, California, have developed a rich set of practices centered around coordination that supports more effective care delivery. It is based on our notes from the interviews conducted at Camp Pendleton June 1 to 3, 2015, with additional data and clarifications provided in August and September 2015.

Map of provider and program locations

The map of Camp Pendleton, (Figure 5, below) shows the location of the major MFP BH and BUMED programs, as well as major OSCAR provider locations. There are 9 OSCAR providers, each with at least one psychiatric technician; they are spread across Division locations at Camp Pendleton and 29 Palms to support operational Marines and Sailors. Most work out of Regimental or Battalion Aid Stations, alongside the general medical officers. These aid stations are basically primary care clinics, in the process of being converted to Marine-Centered Medical Homes (MCMH). The gray arrows lead to an enlarged representation of the respective dots to show the major programs and the August 2015 cross-program colocation of providers. The Mental Health clinic at Lake O'Neill (MH) is represented as a single square since all the programs are in one building; MFP BH is represented as separate blocks since the programs are in distinct but geographically close buildings. Drive time between MFP BH and the MH clinic at Lake O'Neill is about 10 minutes.

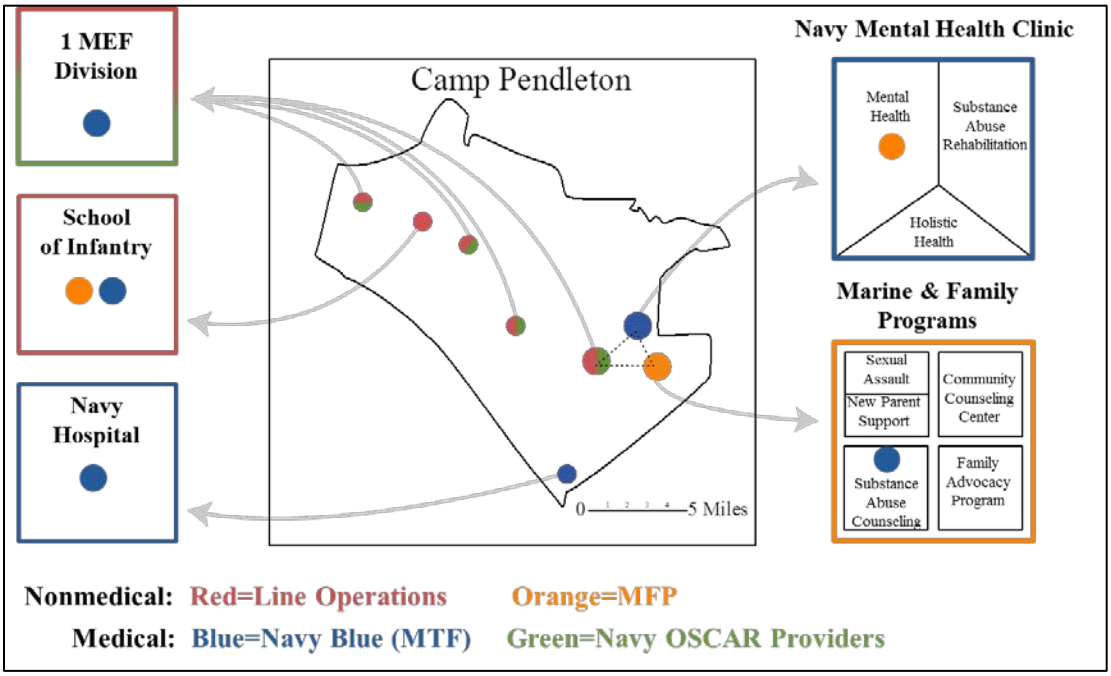

Figure 5: Camp Pendleton major PH service locations, showing colocated providers

The **MH Clinic – Lake O'Neill** is a set of interconnected temporary buildings that includes Mental Health (MH), the Navy Substance Abuse Rehabilitation Program (SARP), and Holistic Health (including acupuncture, healing touch, and meditation, available with a referral from Mental Health, as well as walk-in Yoga and Tai Chi classes). An MFP Community Counseling Center (CCC)

provider is colocated with MH four mornings per week to see walk-ins and referrals likely to be potential CCC clients for intake and setup with a CCC counselor or program. The colocated CCC provider will also assist MH providers by ensuring that any MH referrals to the Family Advocacy Program (FAP), which handles domestic violence issues, are communicated effectively.

MFP Mainside comprises four buildings located within about a half-mile radius. The CCC building also houses four FAP providers so that walk-ins or referrals who report domestic violence issues can begin care right away. A SARP representative from the MH clinic is colocated with the SACC (MFP Substance Abuse Counseling Center) three times per week.

OSCAR providers work in several locations, and are embedded with Division Marines. The Division Psychiatrist, an LCSW, several psychiatric technicians, as well as a Military Family Life Counselor (MFLC) who is unaffiliated with OSCAR, are colocated in a single building and are available to provide care in 33 Area, and for I MEF Division HQ and independent battalions within I MEF Division. They are located about a 10-minute drive from both the MH Clinic and MFP Mainside.

Operational areas Further to the Northwest, the School of Infantry (SOI),[12] is supported by two CCC providers and five MFP Family Advocacy Program (FAP) providers located in one nearby building; an active-duty psychologist and Psych Tech from the MH Directorate work out of another nearby building. Several Division regimental or battalion aid stations/MCMH include both MH providers and OSCAR providers.[13] In addition to SOI, as of August 2015 MH providers located in the operational areas include a full time civilian psychologist supporting the 5th Marines Regiment; a full-time civilian social worker colocated with the 1st Marines Regiment OSCAR; an active duty social worker one day a week to support the 11th Marines Regiment; and a civilian psychologist one day a week to support MEF HQ Marines. Note that the MH providers continue to be employed by the Navy MH Directorate at the MTF, and stay on the installation, while the OSCAR providers are embedded in Division, report to I MEF command, and may be deployed along with Division Marines.

Pendleton Navy Hospital, near the south Main gate, also houses a mental health clinic with five providers. Mental Health Resources, including psychiatry, are available in-house during business hours. After hours, a mental health provider is available by phone consultation and works with the ED and Medical wards on every Mental Health patient transfer for psychiatric admission to Navy Medical Center San Diego (NMCSD),[14] admission for medical stabilization before psychiatric admission, and discharge.

[12] SOI is not part of I MEF or Division, so does not have OSCAR providers

[13] Specifically: 1st Marine Division is at 53 Area, Camp Horno, 5th Marine Division is at 62 Area, Camp San Mateo; and 11th Marine Division is at 43 Area, Camp Las Pulgas. 7th Marine Division is based at 29 Palms, about 100 miles east of Camp Pendleton.

[14] Camp Pendleton does not provide psychiatric or substance abuse inpatient services; these are located at Navy Medical Center San Diego (NMCSD), about 40 miles away.

Interviewees and their roles

	Camp Pendleton
MH Directorate Director	CDR Scott Kane
MH Directorate Deputy Director	Dr. Daniel Wright
MH Dept. & SARP director & providers	5 individuals
MFP Director	Mrs. Trish Spencer
MFP BH Branch Head	Dr. Sally Wolf
Other MFP personnel (CCC and SACC)	3 individuals
DIV psychiatrist	CDR Ken Richter
MEF surgeon and OSCAR provider	3 individuals

Most of the coordination description below focuses on the leadership triangle between MFP Mainside (Dr. Wolf and the CCC program manager); MH clinic O'Neill (CDR Kane, Dr. Wright); and the OSCAR Division Psychiatrist, CDR Richter.

Collaboration through coordination "initiatives" and "elements"

To understand how collaboration and coordination is practiced at Pendleton, we describe various coordination efforts over time. We group them into "initiatives," which are coherent cross-organizational coordination efforts with a tangible goal usually developing over time and consisting of multiple "elements." Elements are coordination tools, such as calls, meetings, IT-supported coordination (e.g., emails, scheduling systems, AHLTA, DOD-CMS), and paper-supported coordination (e.g., referral forms). Elements support initiatives, but can be used individually for many different purposes. Elements may be interchangeable; for example; a referral process may use paper referral forms or electronic referrals, while case management may use in-person meetings or phone calls.

In describing the coordination efforts at Pendleton we highlight the driver(s) of a coordination initiative, its planning and development process, initiative elements, and any outcomes noted by the interviewees.

The coordination initiatives described below are:

1. Leadership infrastructure development
2. Referral procedures development
3. Colocation
4. Command relationship building
5. MIP implementation
6. Critical incident response (local SPRINT)

We also include additional examples as well as a summary of unresolved issues and concerns noted by interviewees.

1. Leadership infrastructure development

The core of the Pendleton coordination infrastructure is the relationship among the directors of MFP BH, the MH Directorate, and the OSCAR Program (Dr. Wolf, CDR Kane, and CDR Richter, respectively, along with Dr. Wright, deputy director of MH, and the program manager of MFP CCC). They all report that they have each other's cell numbers, speak multiple times each week, have scheduled weekly phone meetings, and meet in-person at least monthly. Issues covered range

from client/patient problem solving and care expediting for emergencies to balancing demand loads, designing and implementing standard operating procedures (SOPs) that go beyond the MOU, and institutionalizing their efforts. While this relationship began by developing the referral system described below, each success has opened up the door to new opportunities for coordination.

The drivers of leadership coordination development include the participants' individual and joint recognition of the need for coordination, as well as initial successes. A key driver for CDR Richter's involvement has been the need to manage variable demand within Division as parts of battalions and regiments deploy. The ability to shift resources and referrals by coordinating with Dr. Wolf and CDR Kane has helped him manage that demand. In addition, as a Special Staff Officer to the Division Commander and the senior mental health asset within I MEF, CDR Richter needs to have good visibility on mental health affairs and open channels of communications with everyone involved in the delivery of care to Marines and Sailors attached to operational units. Similarly, CDR Kane supports variable demand by locating some MTF providers at the units, for example, by colocating them with the Medical Officer at an aid station or MCMH.

We were also told that leadership team members were chosen at least in part for their ability to work with others and their recognition of the importance of coordination; each has significant experience in administration and/or working with Marines at Pendleton. They have continued this effort, placing others with the same skills and priorities into program management, as division officers, and into other positions with large coordination roles.

Interviewees made many qualitative statements describing rapid response to emergencies, about the ability to fix problems before they escalate, and the ability to move resources around when demand spikes, and we heard multiple comments from all the interviewees about how well the coordination among the leaders works. These can all be considered outcomes.

One effect of the highly visible leadership relationship development and coordination effort is that other providers in the system are adapting it for their own use. For example, an OSCAR provider said he will often coordinate in person or via email with relevant MH, MFP, and MFLC providers who patients tell him they are seeing. Getting all these providers together to discuss patient disposition uncovers issues such as "team splitting," in which a patient tells parts of their story to different providers; these meetings give providers a fuller picture and help them resolve such problems. This process has been quite effective. He also runs a monthly "difficult case conference" covering all North area Marines in his purview. This meeting brings together the North Area CCC counselors, MFLCs, Chaplains, MH, and prevention specialists to address specific cases as well as systemic issues that get in the way of people getting care; it also helps build personal relationships among providers, increasing the likelihood of referrals and future coordination.

Another example is regular meetings between the CCC program manager and the deputy MH director, Dr. Wright, that include care coordination for specific individuals, referral tracking and feedback to close the loop on all referrals between CCC and MH, as well as systemic problem solving discussions on issues raised by their respective providers.

2. Referral procedures development

When Dr. Wolf was first named MFP BH Branch Head in spring 2013, at the same time as CCC was being stood up, she knew it would be imperative to collaborate with BUMED MH, as services provided by the two groups could be seen as overlapping. She had met Dr. Wright in her role as an MFP general counseling (GC) clinician in the FAP program, and she began meeting with him to discuss improving the referral process. At the time, referrals were done between FAP/GC and MH,

but there was no standard way and no consistent sharing of case-related information. They began by redesigning the referral form to include V-codes to check off for common presenting issues seen by general counselors, as well as additional useful information.

When MOU drafts were shared from HQ in summer 2013, both saw it as a validation of what they were doing and something they could build on. It presented an opportunity to standardize and improve referrals between both CCC/MH and SACC/SARP and make sure clients/patients got to the right service as quickly and painlessly as possible. This standardization effort itself would require collaboration and trust building among the leaders to ensure that providers in both groups would be able to refer appropriately. When CDR Kane started as MH directorate director, these SOP development discussions were already in progress; he did not become fully involved until early 2014, but at that point fully supported the efforts and helped to bring them to closure. The SOP was signed in December 2014.

Initially referrals were focused between MH and CCC. When the CCC program manager came on staff, she began monthly meetings with Dr. Wright at MH and also regularly briefed BUMED staff about CCC programs and circumstances under which a referral would be appropriate.

By fall 2014, formal referrals expanded to include referrals by OSCAR providers to CCC programs such as anger management groups, and CCC clinicians referring Division Marines who needed a higher level of care than CCC were permitted to provide directly to the appropriate OSCAR provider, rather than to MH. This was enabled by the visibly effective relationship between Dr. Wolf and CDR Richter. Within CCC, the program manager has also established increased coordination among CCC providers, for example, through weekly staff meetings in which program changes and effective practices such as new referral processes are shared among all providers.

3. Colocation

Colocation[15] has proven to be a powerful coordination initiative. Experimentation with colocation started in late 2014 with moving a CCC provider three mornings per week to a spare office in MH. The first goal was to enable her to do CCC intakes immediately for the average of 12 walk-in and referral patients per week deemed candidates for CCC services, thereby enabling MH providers to focus on more medically severe cases. But there have been many other benefits. These include greater awareness of MFP programs by MH providers, increased comfort in asking in-person questions about CCC programs and possible referrals, both to CCC and to other MFP BH programs such as the New Parent Support Program (NPSP); as well as the status of people referred and increased confidence that patients are seen as quickly as possible in the appropriate setting. The colocated CCC provider also shares MH general information and processes she has learned about during MH staff meetings at the weekly CCC staff meeting, and shares CCC information at MH staff meetings, creating another communications channel that reaches many providers.

The “colocated CCC referral” process is as follows: individuals who walk in are first triaged by a MH psychiatric technician (psych tech). The psych tech compiles all the relevant information and presents the case to the duty triage MH clinician, who meets the patient and determines whether to send the person to the CCC provider[16] for care of mild and subclinical symptoms, or to a MH

[15] Interviewees often used the term “embedding.” The technically correct term for this practice, used in the literature, and which we use in this document, is colocation.

[16] The CCC provider is a licensed clinical social worker, privileged by MFP. While she is located in the same building as MTF providers, she provides only CCC-type services, as per the MOU.

provider for further evaluation and treatment of moderate or severe clinical symptoms. If a person is sent to the CCC provider, the psych tech will also share a printout of relevant clinical questions and provide other information verbally if needed.

The CCC provider will do the full CCC intake assessment, a mental health evaluation that includes a GAD-7, PHQ-9, and PCL (for anxiety, depression, and PTSD, respectively) as well as a Columbia suicide assessment and other self-assessments, typing information onto a standardized CCC paper form with the client, and discussing and explaining options for care, as well as explaining the basics of psychological health care if needed. This process usually takes 45 minutes to an hour. If the client is interested in seeing a CCC counselor, the colocated provider works with a CCC supervisor to assign one who is a good match. That counselor will upload the assessment information as an image into DOD-CMS, which is MFP's case management system, and in most cases will see the new client within a week. If upon assessment the CCC provider feels that the individual requires medical care, or if she has doubts about whether it is appropriate for CCC to provide treatment, she consults with one of the MH providers and/or re-refers the individual back to MH (which is easy since the patient is already in that building)**.** In this way, an individual walk-in at MH will always receive a full assessment to help determine the most appropriate type of care, and begin receiving the appropriate services by the second visit.

Faxed patient referrals from command or an MO are screened by the MH Department Head and, if appropriate, are routed to the embedded CCC provider as well. He adds them into her daily schedule kept at the MH front desk for a call or in-person visit. During the call or visit, she may refer a patient back to MH if needed. Having a CCC provider embedded at MH is also useful for those who should see both – for example, a person with both a relationship issue and a diagnosable mental health condition: they only need to go to a single location. In this way, the MO need not worry whether CCC or MH is the appropriate place; he or she can just refer and know the Marine will be seen appropriately.

The CCC program manager, who follows all supervisory and quality guidelines established by MFP HQ, supervises the colocated CCC provider. One clear metric of success is that within three months of starting at the MH clinic, the colocated provider went from three days per week to four, and multiple interview respondents from both CCC and MH felt embedding was going very well. It is estimated she sees 10 to 15 percent of people who go through triage. CDR Kane has reported that there have been no cases in which the CCC provider provided care beyond the CCC scope of practice: all patients with potential DSM diagnoses were referred back to MTF providers. He has had some comments from overtaxed MTF providers that indicate the CCC provider "should be able to take on more"; it is clear to him that the CCC provider errs in favor of more referrals to the MTF, so he has no scope of practice concerns.

There are plans to colocate a provider from MH at CCC, but there are some infrastructure concerns, including lack of IT infrastructure for AHLTA (the DOD medical records system) and Navy email in the CCC building. However, resolving this issue would enable additional coordination of AHLTA and DOD CMS information for people seen in both settings, thereby improving care coordination, simplifying referrals, and avoiding duplication.

For substance abuse, the SARP division officer was temporarily colocated at SACC when no director was available in fall 2014. This relationship worked well, as he had worked at SACC in the past and knew many of the providers and all the programs offered. As a result, at joint request, he has continued to be colocated three days per week, providing advice on complex cases (including recommendations for inpatient hospitalization at NMCSD), providing relevant information from

AHLTA (as SACC providers do not have access to AHLTA), and sharing information about patients and programs across the two entities. He also helps expedite patient care via his relationships with MH/SARP leadership.

4. Command relationship building

Many of the coordination efforts described in this section include a strong command component. The result is that there are many opportunities for the leadership and their provider teams to interact with commanders at many levels, build relationships with them, and provide helpful information – in both directions.

For example, starting in January 2014, there was an opportunity for increased collaboration between MFP and MH via the Case Management Group (CMG) for sexual assault. This group is led by the Installation Deputy Commander. They oversee all the unrestricted sexual assaults that occur on the base. Dr. Wright and Dr. Wolf both sit on it, as do representatives from the Naval Criminal Investigative Service (NCIS) and relevant commanders.

Force Preservation Council (FPC) meetings, attended by designated providers from CCC, MH, and OSCAR, along with command, are another important opportunity for building relationships with commanders while coordinating care for high-risk Marines. FPC meetings also give providers another opportunity to share information about cases covered with one another offline, even if they say nothing in the meeting itself.[17]

Communication with commanders about specific clients or patients is handled mainly by OSCAR providers and designated MH leadership, rather than by individual CCC clinicians or most MH providers, to ensure a consistent point of contact and an ongoing, trusted relationship.

Emergency room (ER) admissions provide an example of the positive impact of working with command. CDR Kane worked with command, in particular at SOI, to enable them to feel comfortable about returning Marines who had been sent to the ER for suicidal ideation on a weekend back to their unit rather than admitting them until Monday. He arranged to ensure they were seen by the on-call MH clinician within 12-15 hours (i.e., on Saturday or Sunday morning), when a full assessment could be done. This has reduced mental health-related admissions rates of ER patients from 50 to 35 percent, while “appropriate admissions” grew from 50 to more than 70 percent.

In practice, almost all of the coordination practices described here positively affect the ability to coordinate with command. CDR Richter noted that there is likely to be variation in comfort about working with PH between commanders with experience being in a unit with an OSCAR provider (i.e., in Division) and those without such experience (e.g., MLG). CDR Kane noted that personal relationships and regular interactions with commanders in any unit increase trust and effectiveness. He therefore has set up designated liaisons for MLG so they can reach out to a few individuals. He noted that ideally he would colocate an MTF provider in additional units to build that capability; even better would be to have an MFP provider also colocated near more units.

The leadership team has validated among themselves that once a client/patient enters the system, they will undergo the appropriate intake process and standard of care, and be referred to the right place. They know that all providers across MH, MFP, and OSCAR are licensed and credentialed,

[17] Since they are all providers caring for the same patient/client, this type of communication is permissible under HIPAA and DOD privacy directives.

and that a credentialed provider always does a safety assessment, determining whether a person is safe or needs to be evaluated at a higher level of care. And in cases where something went wrong, they worked independently and together to fix it, enhancing their confidence in one another and in their respective programs.

5. MIP implementation

Startup of the Marine Corps-wide MFP Marine Intercept Program (MIP) in October 2013 provided another opportunity to enhance collaboration to maximize MIP effectiveness. The MIP program was designed so that any suicide ideation/attempt would be reported by local line command to Headquarters, which would then inform CCC. Identifying details such as name and unit were not always available, however. The role of a CCC provider would then be to find the Marine, and offer them support (in the form of contact on day 3, 5, 7, 14, 30, 60, and 90). A Marine is free to accept or decline such support. The CCC provider is also tasked to work with the Marine's chain of command and other providers to ensure they get care and to remove obstacles to access. One measure of MIP's effectiveness is that a third of Marines in the program would like to continue the support they receive beyond 90 days. In addition, across the Marine Corps more than 75 percent of those offered MIP services have accepted.

Once local improvement relating to MIP concerns the MFLC "duty to warn" requirement, in which an MFLC must call a Marine's unit for an escort to take the Marine to MH when a Marine reveals suicidal ideation. The MFLC would also notify Dr. Wolf that this had occurred, but was not permitted to provide the name of the Marine to anyone – either at MFP or the MTF. As a result, MTF providers would not know who was coming in and could not prepare. This seemed like an ineffective procedure to Dr. Wolf and CDR Kane, so in mid-2015 they met with the local and regional MFLC coordinators to propose the following addition to the protocol: in calls ahead to the hospital or MH clinic, the triage person should also be given the name of the individual coming in. This would allow the provider to check the individual's medical record before arrival, thereby improving care. At this meeting, it was clear to all that this change would be in patients' best interest for their safety, and the MFLC protocol was adjusted so that at Pendleton, MFLCs provide the name of the suicidal individual to the MTF. The MFLCs still call Dr. Wolf (as MFLC POC) to make her aware of any duty to warn incidents, but do not provide her with names, as per the protocol. The Pendleton MFLC coordinator noted that as of August 2015, this revised protocol is used only at Pendleton.

As of early 2015, CCC, MH, and OSCAR providers have each developed "high risk trackers." For OSCAR providers, these are individual spreadsheets, while CCC and MH independently have built trackers stored on a secure server with access restricted to relevant staff. The trackers are used to monitor high-risk cases. The MH tracker is updated daily and is monitored by a psychiatrist to help ensure no appointments are missed and there is appropriate follow-up.

These trackers support the MIP program by increasing awareness and providing some history for Marines identified through MIP, as many of them will have had contact with a provider at some point before an ideation or attempt and so often will already be followed on a tracker. In addition, the leadership had already developed a sufficiently deep collaboration that they often already knew, or could easily find out, the MIP Marine's identity, and could begin quickly to take appropriate action. Among them, leadership has developed deep contacts with chaplains, MFLCs, and of course their own providers who are comfortable speaking about these high-risk cases. This has made it relatively easy to fold MIP into coordination work already being done, and thus enhance its effectiveness.

Initially, command was somewhat wary of the MIP program, concerned about its impact on privacy, and unsure of its goals or implementation. Endorsement by the I MEF Sergeant Major in November 2013, based on his close working relationship and positive work experiences with MFP and Dr. Wolf, helped speed implementation at Pendleton. Frequent communication about the program by MFP leadership at every command leadership training opportunity, as well as at other meetings, such as the FPC, has also helped increase awareness and command willingness to take part in it.

6. Critical incident response (local SPRINT)

Dr. Wolf and CDR Kane began coordinating with CDR Richter to improve local Psychological First Aid capabilities in early 2015 in response to incidents such as completed suicides. While the Navy has long provided SPRINT (Special Psychiatric Rapid Intervention Team) teams, based at NMCSD, for critical incidents, the leadership team felt it would be more effective to work locally with people who already knew the local system. Therefore, they undertook to develop an SOP, with key principles including rules about, first, being asked by Command to form a team, and second, talking to the leadership and explaining what would be done in response, as a form of psychological first aid. This also means command realizes they do not need to call in the outside SPRINT team, which saves resources. Once the SOP is complete, the leadership team expects to be recognized by Command as the local resource for SPRINT needs.

In the past, individuals – including FROs (Family Readiness Officers), MFLCs, chaplains, and OSCARs – would respond separately to a critical incident; with this SOP, the response will be both more coordinated and faster, since information is shared immediately with Dr. Wolf through her extensive relationships. Dr. Wolf has also created a Critical Incident Contact list with more than 15 phone numbers of key program leaders who should be informed and who, in many cases, may help out. The list includes MH, MFP, and OSCAR program leadership, as well as MFLC, chaplain, FRO, and OneSource contacts. She also regularly runs a behavioral health resource brief to link all providers, including chaplains.

Going forward, an incident response for Division will be led by CDR Richter, with support from the others, while for other units CDR Kane leads and the CCC team augments. In this way, command will know who to expect and what they will do more quickly and clearly.

Several interviewees noted that one of the benefits from both the enhanced MIP and the Critical Incident Response efforts is that the rapid communication and sharing of information among the leadership and with commanders increases everyone's confidence in these individuals and, by extension, the coordinated system: the leadership team is seen as helpful and effective, which makes it more likely that it will get the information it needs in a timely way to help.

7. Other coordination examples

Collaboration and coordination do not occur only across OSCAR, MFP, and MH, but also within MFP and MH and with other groups. While many of these efforts are less formal than the initiatives described above, they also have important effects. Examples include the following.

Mental Health

- Regular meetings within MH among the directors of MH and SARP with CDR Kane and Dr. Wright are used to coordinate care for individuals and solve logistical and systemic problems.
- There are many referrals back and forth between deployment health and MH, as both treat similar conditions; in practice, these referrals allow for some load balancing.

- The SARP Choices program is a dual diagnosis Intensive Outpatient (IOP) program. A team of providers from both SARP and MH leads each IOP session, and there is intense collaboration among the provider team to provide appropriate care for each patient in both group and individual settings.
- To increase MH collaboration in the region for the care of all patients, CDR Kane arranged to share Military MH resources for evening and weekend call coverage with NMCSD, which has the only acute inpatient psychiatric unit for active duty in the region. Naval Hospital Camp Pendleton (NHCP) will have its Military psychiatrists take calls on the in-patient week at NMCSD for three weeks each year. In exchange, NMCSD will have its Military non-psychiatrist providers (psychiatric nurse practitioners and psychologists) each take three weeks of call for NHCP, primarily by phone on nights and weekends but available to see patients in person, if needed. The goal is to build understanding for Pendleton Mental Health practices in general, and care for Marines in particular, as well as enhance a truly regional trusted collaboration in MH care.
- About 50 percent of providers are contractors. Most are on annual contracts, and have contractual limitations around work practices. Coordination efforts such as team meetings, expediting processes, and informal information sharing within the group help mitigate some of these issues, but are time consuming.
- About 70 percent of MH providers work at the MH Clinic; 20 percent at the hospital, and the remaining 10 percent are embedded with the Wounded Warrior Battalion, about 100 yards east of the Lake O'Neill MH clinic. As noted on the map, several clinicians are colocated with medical officers in other facilities on this large installation, increasing visibility and trust by building relationships as well as providing easily accessible clinical care.
- MH treatment teams were established in January 2015 and take turns making providers available for same-day walk-in appointments. Using teams has improved access to a first appointment. However, due to staff shortages resulting from contractor issues and rules that limit the hours and activities of contractors, treatment teams may have to be discontinued.

MFP

- There are regular meetings every other week, and almost daily conversations, among the five MFP program managers with Dr. Wolf to coordinate care and solve logistical and systemic problems within MFP.
- Within MFP BH, FAP and NPSP have longstanding coordination. NPSP will also refer someone to a CCC group as appropriate. There is also good coordination with the sexual assault program (SAPR).
- Providers frequently do briefings about CCC services at meetings with other providers, both within MFP as well as with MH or command.
- CCC has a continually updated shared resource binder for nonmedical community referrals (e.g., food stamps).
- MFP/MFLC relations: Dr. Wolf has met all 33 MFLCs personally. Interviewees told us that MFLCs know to go to Dr. Wolf with questions. She also knows whether there are concerns and can let HQ know, which can then reach out to the DOD Office that runs the MFLC program. In turn, that office can reach out to the MFLC contractor to resolve issues.
- MFP and the MEF Prevention Program: the I MEF prevention program has taken over initial training of commanders on PH issues from MFP, but in practice, because the program is new, the briefs do not have as much content as needed and MFP subject matter experts (e.g., from

SACC) are still involved in training. Many BH programs include prevention capabilities, but CCC does not. What coordination does exist is handled by the leadership team.

OSCAR

- CDR Richter sees part of his role as sharing good practices by an OSCAR provider with the other OSCAR providers.
- OSCAR/MFLC: MFLCs feel comfortable escalating cases to CDR Richter or referring to MH; it is a good relationship.
- OSCAR providers participate in the training of OSCAR Mentors, a Marine Corps-led program in which at least 5 percent of MEF Marines receive training on Psychological Health awareness.

8. Extending collaboration and learning beyond Camp Pendleton

We heard many examples of sharing coordination learnings across installations. For example, CDR Kane now has weekly calls with his counterpart at Camp Lejeune, who is working to implement some of highly effective ideas such as embedding a CCC provider at the Navy Hospital MH clinic.

There was a comment about working with other sites around the Pacific to provide guidance for implementing a leadership coordination infrastructure. One specific example was that Dr. Wolf shared the Pendleton SOP written in response to the MOU with her counterpart in Okinawa, who used it as the basis for developing an SOP there adapted to local conditions.

Major unresolved issues and concerns noted in interviews

Continuity

- Sustaining coordination with 100 contractors (in MH/SARP) is difficult when contracts turn over and the new contract is worse than the old one, leading to significant loss of experienced personnel. And in general, contractors only get a year at a time, increasing uncertainty and reducing provider stability.
- The Permanent Change of Station (PCS) process does not provide for overlap between outgoing and incoming providers to share experience and meet people (this is especially an issue for OSCAR and commanders, although the problem exists for the military in general); frequent PCS requires everyone to reestablish their credentials and way of working every three years. Some ways to counter this problem suggested by interviewees include: 1) proactively creating good turnover with one's replacement by reaching out during the month before they PCS; 2) creating a binder detailing duties, responsibilities and reasons for taking various positions (thus assuring that at turnover all salient issues are covered); and, when possible, 3) formalizing systems with SOPs so that best-practices endure.

IT infrastructure

- Problems include a lack of IT connectivity, such as different Navy and Marines email systems; the inability of CCC providers to access relevant parts of AHLTA (and, conversely, the inability for MH providers to have access to relevant parts of DOD-CMS); and the inability to share DOD-CMS among MFP providers because the system does not allow access to multiple users at the same time (a local solution is to make sure to close files frequently so providers in other programs can open them).
- Because both MH and OSCAR providers use AHLTA, any building they work from requires special connectivity that most Marine Corps buildings do not have. Thus is it difficult to locate MH providers near points of need.

- There is a lack of shared scheduling software across CCC and MH, and no automated feedback mechanism to ensure someone is scheduled and seen (instead, this process requires follow-up calls from providers/case managers)
- Trackers are not robust: their accuracy is very dependent on individuals' efforts to maintain and update them, which is time consuming.

Time/effort constraints

- Other locations lack the experienced resources (and number of resources) for coordinating; it is time consuming. With fewer resources, a single personality issue can seriously impede effective coordination
- Leadership team members put in far more than the required number of hours; they volunteer availability after hours and on weekends, which may not be sustainable in the long term. Both CDR Kane and Dr. Wolf estimate that they spend more than 80 percent of their time on management, administration, and coordination. CDR Richter and the other OSCAR providers are expected to see patients for 50 percent of their time, and provide command support and other duties the other 50 percent. In practice, all the active duty providers (both MH and OSCAR) work more than a standard workweek to fulfill all of their obligations; however only time spent providing direct care is tracked, as part of M2 reporting.
- While the leadership team would like to measure the impact of its efforts quantitatively, it lacks the time and resources.
- Contractors are constrained in their ability to spend time on coordination efforts by their contracts, which limit their hours and permissible activities; this results in a higher burden on non-contractor personnel to do this work.
- The inability to record/track the provision of "sidewalk medicine" by OSCAR providers, as well as other informal collaboration and coordination efforts by providers at all levels, under-measures the effort required for effective coordination.

Policy/regulatory issues

- Policy limitations: you can only put so much in an order, MOU, or SOP; it is important to balance clarity and detail with excessive restrictiveness
- It is an ongoing challenge to ensure that informed consent requirements, DOD Privacy directives, and HIPAA are understood appropriately to maximize the effectiveness of information-sharing processes.
- The "to do" list for OSCAR providers is too long because of the lack of clarity around the OSCAR role in medical/nonmedical collaboration (OSCAR is not in the MOU, in part because not all commands have OSCAR Providers, only those in Division do), as well as around the general OSCAR role in care provision vs. prevention/education/command support. While one of the roles of OSCAR providers is to deploy, with the reduction in large-scale regiment-sized deployments commanders have shown more interest in retaining their OSCAR providers in garrison, where their largest concentration of Marines remain.
- The complexity of administrative separations for new personnel, combined with the boot camp culture of avoiding help seeking early when issues or concerns initially manifest, means that many Marines only realize that the Marine Corps is not a good fit for them after they have completed SOI. At that point, they are no longer eligible for expedited separation but must go through the standard (complex) administrative separation process.

Geography and physical infrastructure

- Geographic dispersion may impede communication/coordination (e.g., one OSCAR provider feels very comfortable working with the CCC providers stationed near SOI, but less so with Mainside providers); conversely, a single centralized location would impede access. One partial solution is the colocation of providers.
- Reliable transportation access for clients/patients, given the size of the base and dispersion of treatment locations, is necessary but not consistently available. The organization managing transportation has no links to the leadership team, so it is difficult to improve this situation.

Preliminary MFP data findings, based on locally collected data:

Findings from analyzing FAP/GC/CCC data from FY 2010 through end of FY 2014

Number of cases and referrals:

	FAP/GC 2010-2013 (approx. per year)	**FAP/CCC 2014**
Total cases	~1000	1900
Total referred out of MFP[18]	~600	281
# Referrals from medical	~45	93
# Self-referrals	~300	900

After CCC opens, in the first fiscal year, total cases go up about 50 percent, total cases referred out go down about 50 percent, and referrals from medical double. The number of self-referrals triples.

Presenting issues:

	FAP/GC 2010-2013 (approx. average per year)	**FAP/CCC 2014**
Marital/relationship cases	225	800
Anxiety/depression	115	250
Anger	50	80

After CCC opens, most of the increase in cases is for marital/relationship issues, followed by anxiety depression and anger.

FY 2015 (9 months, to June 30, 2015) findings from analyzing CCC data

- CCC provided counseling to about 1,600 people in FY 15 so far (3/4 of the fiscal year). In some cases, couples are counted as a single person (in couples counseling), but in others they are counted individually (if they participate in separate programs)
- The total number of people referred out so far in FY 15 is about 242.
- Overall the number of cases is about 50% higher than FY14.

[18] If a person is referred out from MFP in most cases at least 2 options are provided; sometimes as many as 8. There is no formal mechanism to track which, if any, option was chosen.

Appendix B: Camp Lejeune coordination description

This Appendix summarizes coordination efforts at Camp Lejeune, based on our visit in June of 2015, with additional information and clarifications provided in through early December 2015[19].

In the summer of 2015 we returned to Marine Corps Base Camp Lejeune to examine the psychological health care system as it has evolved. In the span of two years, the organizations involved in psychological health care at Camp Lejeune have experienced significant and rapid changes, from the addition of new services to leadership turnover. Some of the most influential were the standing up of the Community Counseling Center (CCC) and the Community Counseling Program (CCP) and establishing the Substance Abuse Counseling Center (SACC) within Marine and Family Programs (MFP) at MCCS. MFP stood up the CCC in early 2014 under the current branch manager, and SACC in January of 2015 with its own manager. The type of counseling offered by CCP used to be given through General Counseling as a part of the Family Advocacy Program (FAP). Since separating from FAP, the Community Counseling Program has grown from four to 15 counselors with different backgrounds including individual and family therapy. The services that SACC offers—substance abuse prevention and early intervention programs, counseling, and non-medical outpatient and intensive out-patient treatment—used to be fully handled by the Substance Abuse Rehabilitation Program (SARP), the Blue-side program that provides medical care to treat substance abuse issues.

As CCC and SACC have improved their visibility on the installation through communication and outreach, Marines from all ranks are increasingly taking advantage of the services. CCP counselors went from seeing 400 clients in the first fiscal year (which was not a full 12 month period) to 890 in the second, a significant increase from the number they counseled as part of FAP, to 1250 in the first 11 months of 2015. SARP personnel noted that because of SACC's presence they are better able to treat Marines with more complex substance abuse problems. Both managers are working to create a visible presence at Camp Lejeune, and a substantial part of the efforts in SACC is toward prevention, whether through outreach or very early intervention. In fact, the head of the CCP feels the dedication of one hour per week for four to five weeks to learn coping and other behavioral skills may prevent more serious issues that interfere with a Marine's readiness and may lead to fewer separations.

In addition, for years prior to standing up and fully staffing the CCP and SACC, the MH Clinic experienced leadership turnover that was reported to be an impediment to effective operations. The lack of continuity and major physical renovations to the space in the MTF in 2013 made it difficult to focus on both internal and inter-organizational collaborative strategies. During construction in-patient services were provided in an off-site facility near the base. As of June 2015, the base retained a contract for a number of beds at the facility for use by Marines.

With the development of two new programs at MFP and stable leadership at the MH Clinic, providers of mental health care across Marine Corps Base Camp Lejeune have had the opportunity to put in place critical practices that enable them to work together more effectively and to develop new modes of outreach that will strengthen relationships with members of command and persuasively battle the continued real and perceived stigmatization of mental health care and treatment. We first outline the coordination and outreach efforts undertaken since 2013, and then discuss remaining challenges to be addressed.

[19] For more on our work at Camp Lejeune, see our January 12, 2016 report "*The Emergent Psychological Health System at Marine Corps, Base Camp Lejeune 2012-2015: Analysis and Recommendations*" from which this Appendix is derived.

Advances since 2013 in Cross-organizational Coordination

SARP and SACC. The most well developed inter-organizational relationship we observed at Camp Lejeune in June 2015 was that between SACC and SARP. Before the current manager was hired to manage the SACC centers at both Lejeune and New River, there was a leadership gap of about six months during which substance abuse treatment was limited. Now the SACC has five counselors, two supervisors and a manager at Lejeune, and the manager hopes to add five more counselors over the next two years to match the number at the SACC at Camp Pendleton. As it expands, SACC is supposed to change facilities from the temporary quarters it has now to Building 14 on the other side of the base. After this shift SACC will be closer to where most Marines are located as well as to SARP, giving Marines easier access to services.

As part of standing up SACC at Camp Lejeune in early 2015, the manager and department head (DH) of SARP, began to establish practices to bring SACC's and SARP's services together as a continuum of care rather than as separate and perhaps duplicative offerings. Central to their discussions were the division of responsibilities and codification of referral practices. Substance Abuse Counseling Officers (SACOs) had for years been embedded in operational units to monitor Marines' alcohol and drug use. SACOs had little training and were not professional counselors. These officers now needed to be trained in selecting the appropriate programs for Marines struggling with substance abuse. The two programs have separate SOPs with a division of labor and referral guidelines. In general, SACC has taken on much of the initial screening work and also as a matter of course handles cases that do not require diagnoses—for example, isolated incidences of underage drinking. SACC also treats Marines assessed as having a mild substance abuse disorder, demonstrating one to three criteria out of a set of eleven. SARP is assigned those cases deemed to be severe, meeting eight to eleven of the same criteria. The moderate cases are less straightforward because the outpatient and intensive outpatient programs at SACC and SARP are structured differently. With the evolution of the two programs, SARP serves Marines with any substance abuse issues that have previously been treated at SARP to maintain continuity, as well as any Marine who has received a DWI.

Three main coordination processes between the two programs allow leaders to discuss all the cases, including those in the moderate range, and negotiate placement. First, the current department head (DH) of SARP was hired as Deputy Director of Mental Health and attends a multidisciplinary team meeting each week, with the SACC manager, clinical supervisors, and SACC counselors. If a Marine self-refers or is sent to SACC, they receive a full bio-psycho-social assessment and his or her case is written up by a counselor. On the other side, if a service member comes to SARP, providers there do a preliminary assessment to quickly indicate the level of care needed. If the person screening believes the case should go to SARP, the Marine will receive a full screening. If not, SARP personnel will call SACC to let them know the Marine will be coming to their program and will then send the paperwork they have collected. At the interdisciplinary team meeting, participants discuss and staff each case, agreeing on the appropriate program for placement. The DH for SARP, who has access to AHLTA, shares patient information with the SACC staff if necessary. Participants in the team meeting then brief the SACOs responsible for ensuring those Marines show up for treatment. If it is decided that the Marine needs care at SARP, SACC makes a referral using a standardized form given by Headquarters. However, if SARP does not have appointments open for immediate treatment, SACC counselors will see that Marine weekly until the SARP treatment program begins.

Second, SARP has hired a PhD Psychologist in the position of admissions coordinator after that position had been empty for six to eight months. This member works with SACC and the SACOs from the individual units to assist in the process of placing Marines in treatment. Third, the two

programs and the SACOs have worked out a method of email encryption allowing them to communicate key documents like treatment and discharge letters as well as other critical information across the Navy-Marine Corps network divide. Currently the DH and Manager are trying to streamline the screening and other paperwork necessary to admit a Marine into treatment because both programs now have different information requested but with significant overlaps. SARP and SACC staff and SACOs also communicate with each other and exchange paperwork through face-to-face and phone interactions rather than asking individual Marines in treatment to transmit forms among providers.

Behavioral Health at MFP and the MH Clinic

Since 2014, and particularly since the CCC and the CCP stood up and were fully staffed, and the current leadership of the MH Clinic began his tenure, the organizational relationship has been strengthened between the Department of Mental Health at the Naval Hospital and Marine and Family Programs. The Director of the MH Clinic and his Department Head and the Deputy Director from the Naval Hospital, and the Director of the behavioral health programs at MFP and the Director of the CCP, along with several counselors met together in May 2015 to discuss possible modes of collaboration. Out of those meetings, the participants made the decision to colocate a counselor from the CCP in the MH Clinic for several hours a number of mornings per week. The CCP counselor in that position would be able to better educate providers about the services of MF's behavioral health programs and assist in channeling Marines to the type of provider most appropriate for their needs.

Behavioral Health at MFP and II MEF

The head of MFP, and, the Director of Behavioral Health Programs at MFP, have also been working to develop connections to II MEF leadership. In particular, the head for MFP had been meeting regularly and communicating by telephone almost daily with the II MEF prevention director (more about the prevention program below) before he was transferred to Marine Corps Headquarters. During their meetings, the idea of colocating a behavioral health counselor at the II MEF commands at Lejeune, Cherry Point, and Beaufort was conceived. When we met with the head of MFP, she had just received a phone call from a II MEF analyst requesting a meeting to discuss putting that idea into action. At Camp Lejeune, the CCP counselor would potentially work in the II MEF headquarters several days a week, facilitating interactions with Marines, members of the chain of command, and other providers and offering opportunities for warm-handoffs to other behavioral health programs at MFP. To handle the logistics of data, the colocated counselor would be equipped with a laptop containing assessment software and a spreadsheet for logging referrals and interactions in order to add the data to the main MFP system upon returning to the office. In June it was difficult to discern whether going forward, the counselor would have the full/most pertinent data or whether IT problems would remain an impediment. Nor were we able to establish whether confidentiality problems/constraints would hinder this level of collaboration as it develops.

Possibly in response to the connections MFP and II MEF were developing and perhaps because of CCP's and SACC's increasing visibility, in early June II MEF Commanding General Beydler requested a walk-through of the Behavioral Health programs. He spent 90 minutes visiting the SACC and CCC, discussing key issues affecting Marines and barriers to their care. MFP leaders felt that the visit was successful.

Mental Health Care for MARSOC. The Marine Corps Special Operations Command, or MARSOC, has also been a testing ground for coordination efforts among various types of mental health care providers and members of the chain of command. MARSOC is geographically separate, and for that reason and for convenience to the commander and to accommodate the value of proximity for MARSOC families, the leadership approached CCP about having a clinician assigned specifically to

their units. A tier three social worker with CCP, lives near the MARSOC units and spends most of her days there providing counseling for Marines and families. She also attends MARSOC Human Factors Council meetings (similar to Force Preservation Councils, but often characterized as more intensive) and engages with other providers and members of the chain of command there.

Outreach and Prevention

The need for a program to assist Marines and members of the chain of command in navigating the range of resources provided for behavioral and mental health on Marine Corps bases was identified in 2010-2011, but it was not until 2014 that the II MEF program was established with a director, analysts, and program specialists assigned to different elements of the base. The program was designed in part to support the standing up of the CCC and SACC, keeping those in the chain of command apprised of these new resources and assisting in the logistics of connecting Marines to behavioral health options. As noted above, the first program director worked with the DH of MFP and the Director of MFP to brainstorm opportunities for coordination between Behavioral Health Programs and II MEF. Five prevention specialists were to serve different commanders and were expected to play a number of important roles to facilitate communication and effective information exchange. They were expected to collect data from the units to which they are assigned on suicide attempts and ideations, analyze trends in substance abuse and domestic violence data, and track incident reports to take early intervention measures. They were to attend Force Preservation Councils and act in an advisory capacity to higher-level leaders (05-06 and higher), not only serving as a "walking directory" of programs and services, but also educating Marine leaders on the types of incidents that must be reported and reminding them to follow up on the reporting process. Prevention specialists were also anticipated to make appointments for Marines for behavioral health services and try to the best of their ability under HIPAA regulations to facilitate communication among behavioral health providers and commanders.

The leadership of the CCP has also begun to informally give prevention-oriented trainings that focus more on interaction among Marines and less on transfer of information. The DH of the CCP ran a suicide prevention session for a large number of Marines utilizing the technique of role-playing to practice straightforward communication on the subject of suicide. The DH of the CCP found that even in the act of role playing, fearful of the potential consequences on their career, Marines were hesitant to say they were suicidal, and she used this reticence as an opportunity to talk about how to ask these questions without euphemisms and embarrassment, and what to do with the answers.

Remaining Challenges – June 2015

In the preceding section, we presented inroads that providers have made in moving toward a more cohesive system of mental health care at Camp Lejeune. However, considerable challenges remain that, if not addressed, may stymie current improvements. Some of these challenges are simply part of the time it takes to adapt to new programs and adjust to leadership changes. Others, though, require intentional interventions to shift existing functional and interactional patterns.

<u>The Separation of the Ground Combat Element (GCE):</u>

One of the major challenges we observed at Camp Lejeune in the June 2015 interviews was the geographic isolation and lengthy distance of Marines in the infantry division and associated green mental health providers from other psychological health resources (Map Appendix II). The office of the Division psychiatrist is located near the site of the Second Marine Division on the installation, and he and the OSCAR provider associated with the 8th Regiment currently work out of that building. At the time, the remaining OSCAR providers were connected to the 2nd and 6th regiments and worked out of Division Psychiatry. According to the Division Psychiatrist, there is need for a

fourth OSCAR provider. Unlike the Division psychiatrist, OSCAR psychologists and psychiatrists are embedded with their assigned units, training and deploying with them. As a result they may often be out of their offices and difficult to contact.

On the side of the MH Clinic, although providers have occasional phone calls with the Division Psychiatrist, time constraints and a heavy workload limited communication between these care providers. At the time of our visit in June the head of the MH has had only one in-person meeting with the Division Psychiatrist to discuss changes in the process of writing up medical boards. BUMED would like medical boards to be handled mainly by Blueside providers out of a concern that Green providers would be too influenced by pressure from members of the chain of command. The Division Psychiatrist and OSCAR providers will refer to the MH Clinic, but there are no existing regular opportunities for interaction among mental health professionals at the Naval Hospital and Green mental health providers with Division. In early June, there were no specific plans discussed to establish coordination processes. MTF providers did not participate at all in Force Preservation Councils despite treating Marines discussed at these meetings. The one understood, but unwritten protocol is between the Division Psychiatrist's office and SARP: in general, if a Marine with a substance abuse issue is sent to the Division Psychiatrist, the Psychiatrist will refer that Marine to SARP and not SACC, under the assumption that the SACOs will catch less severe substance abuse cases.

Leaders and counselors with Behavioral Health at MFP communicate to some extent with the Division Psychiatrist, but connections with OSCAR providers were limited. One individual referred to OSCAR psychologists and psychiatrists as "ghosts." MFP personnel did not have names or contact information for OSCAR providers, nor were they certain that behavioral health programs even received referrals from Division mental health professionals apart from the Division Psychiatrist. [20] There appeared to be some confusion about the roles and credentials of OSCAR providers versus members of OSCAR teams. Thus far, during our visit in June there had been no attempt made to bring MFP behavioral health personnel and OSCAR providers together for introductions or coordination efforts. In addition, at the time MFP leaders and counselors did not attend Force Preservation Councils in Division units, not, seemingly, from lack of time but from lack of an invitation. The disjuncture between behavioral health services at MFP and the infantry units is particularly problematic in that Division Marines are an underrepresented population among the CCP's clients but represent the majority of Marines at Camp Lejeune. SACC is the only MFP program that maintains a connection with Division through the SACOs working in operational units.

On the Division side, frustrations remain similar to those from 2013: roles and responsibilities for Division mental health professionals are not well understood across the spectrum of on-base providers. The Division Psychiatrist and the OSCAR psychologists and psychiatrists interpret their role under the original outlines of the OSCAR program as providing a certain level of mental health care to Marines in the Ground Combat Element, but not all levels of care. They can give therapy and prescribe, and the OSCAR providers are a consistent presence in the units to educate and to monitor Marines' behavior and unit climates with the goal of early identification of mental health issues. However, in acute cases the Greenside mental health providers we interviewed feel they needed to be able to move Marines from the infantry units to the Naval Hospital for three primary reasons: access to weapons, pressure to continue working from members of the chain of command, and

[20] We heard from an OSCAR provider that he did make referrals to CCP. The Head of the CCP confirmed that referrals were coming from OSCAR providers.

mistreatment or abuse from other Marines. Each of these factors can exacerbate the conditions of Marines who are already exhibiting suicidal or psychotic behavior. These gaps in understanding and cooperation await resolution through formal channels.

The Greenside mental health providers in Division that we interviewed perceive that their counterparts in the MH Clinic, as well as some professionals in the behavioral health programs at MFP, expect the Division Psychiatrist and the OSCAR providers to handle all tiers of care for Marines in the infantry units. This perception seems to be based on communications and actions from individuals within each provider group rather than on any kind of organizational statement to that effect. But Division providers have experienced some difficulties in moving Marines with acute psychological distress from the infantry environment to the Naval Hospital for treatment.

There remains significant cultural distance and a lack of understanding among psychological care providers in the MH and Division Psychiatry. One provider (outside of the infantry units) referred to the Division as "the toughest nut to crack," suggesting that the Marines in those units were strongly influenced by cultural attitudes associating seeking mental or behavioral health care with weakness and poor performance. At the same time, another observer suggested that there is a lack of awareness and understanding on the part of Navy Medicine of the operational practices of the Marine Corps Ground Command Element. Rather than the Marines being difficult to figure out, there is a lack of situational and cultural awareness of the operations of the ground forces that reinforces isolation and fosters suspicion, both diminishing the likelihood of cooperation and collaboration in the provision of care. That view indicates that more outreach to Marines in the GCE is needed to both shift pervasive misconceptions related to attitudes toward mental health and to connect Marines to the available services. The II MEF prevention program is a step in that direction, but it is not yet a permanent initiative. Likewise, the creative and interactive suicide prevention sessions described earlier and offered by CCP are not yet an institutionalized part of the set of outreach and prevention resources.

For their part, Division providers indicated an interest in collaboration with other MFP and MH Clinic mental health professionals, up to and including a separate Greenside mental health clinic with providers from all three groups in one location near the infantry units. The political and economic feasibility of this idea is under consideration, but at the very least Division providers must be included in coordination strategies engaging the MH Clinic and MFP. At present, this lack of coordination leads to unscheduled patients queuing up to see the Division psychiatrist in lieu of being seen by a psychologist to schedule the requisite follow-up with the appropriate care provider. Although it is a small and distinct case, the successful colocation of a MH Clinic and CCP provider at MARSOC—which already has its own OSCAR provider—suggests that coordination among providers is possible and effective.

Coordination of Care and Information Exchange

The extensive changes that have shifted the provider landscape for mental health care at Marine Corps Base Camp Lejeune over the last two years require time for adjustment and adaptation. The advent of the CCC and the repositioned SACC are essentially still new programs within MFP, and the new leadership at the MH Clinic until the Head of the MH came in was an obstacle in establishing cross-organizational coordination practices. Many of the challenges from 2013 remain in terms of the demand for medical mental health care and the pressure this creates on providers at the MH Clinic. There are still significant wait times for follow up care. MOs still tend to send Marines to medical over non-medical providers, particularly as the CCP is still building its reputation. The MH Clinic continues to be booked four to six weeks out for appointments, and while

the Clinic providers accept patients through the emergency room, they would like to provide better walk-in services for Marines who self-refer. Impacted, the MH is sending out approximately 20% of Active Duty clients out to the network to receive care.

Certain technological hindrances to effective information exchange evident in 2013 are still in place. MFP has a separate electronic records system, DOD-CMS, used by all of its programs. The MTF now utilizes a patient medical record system Essentris. At present, Division Psychiatry lacks access to the mental health portion of the record. When introduced, there was no technical assistance or support provided to ensure that psychological health providers had access to the record system. Access requires training, in a situation where time scarcity is a day-to-day hindrance to getting the job done. As with any major change in technology, providers are still adapting to the use of new products and are working out kinks in the system, such as the fact that staff from different programs cannot look at the same record at the same time. Workarounds are evident, but their consequence is an extra burden on the staff member who has dual access to both systems. There is no connection between DOD-CMS and AHLTA, so medical and non-medical personnel need to develop a work around to ensure access to required information, which they have. This separation may be intentional; providers indicated that the subject of connecting professionals at MFP to AHLTA had been discussed, but as of June the outcome appeared to be negative. Selective privileging of CCP providers by the head of the MH in the MTF is a possible solution for to limitation.

Colocating a CCP counselor several mornings a week at the MH Clinic is a promising avenue for addressing some of these roadblocks to communication and coordination. The presence of the CCP counselor would provide the opportunities for face-to-face interactions and relationship building so important to the efficient functioning of organizational systems. It would strengthen the "no wrong door" approach and help to manage MOs' (and line leaders') bias toward medical mental health referrals as the counselor would be able to place Marines who would benefit from non-medical behavioral health care quickly into the appropriate program. Finally, under predetermined privacy agreements, the colocated CCP provider could bridge the records gap between AHLTA and DOD-CMS by exchanging information on individual patients with MH Clinic providers. However, the presence of a CCP counselor cannot serve the same function as key procedures that are not yet in place between MFP and the MH Clinic: regular, institutionalized phone and in-person meetings among the leadership, and formalized understandings of and protocols for sharing of patient information among providers. Moreover, since the infantry units comprise such a large proportion of the Marines at Camp Lejeune, failure to integrate Division mental health providers into coordination schemes disables the efficient functioning of the care system.

The current leadership is actively working toward bringing medical mental health care for active-duty Marines completely under the purview of the MH Clinic to avoid referring Marines to TRICARE providers off base. This may be possible as CCP continues to increase its reach and the MH Clinic fills its billets for providers, but a certain number of Marines needing treatment for psychological issues are still referred to the network at this point (20%). CCP offers services for Marine dependents, but for medical mental health care families must generally use off-base providers. Yet despite this significant role, in our 2014-2015 interviews with mental health professionals out-in-town, we found that there are few opportunities for off-base civilian providers who treat Marines and other military patients to connect relationally with each other or with mental health professionals on the base.

Evidence of communication with off-base providers comes from a reference to actions taken starting in 2012 by the II MEF Surgeon and the then head of the MTF through their participation in the North Carolina Health Care Council. Referenced in our interviews with off-base mental health care

providers, is a need and desire for similar infrastructure to enhance communication and information sharing between MCB Camp Lejeune and off-base mental health professionals serving the region around the Camp Lejeune installation. Developing such a program would go a significant way toward fulfilling the desire of on-base care providers to have a better understanding of off-base care provision and vice versa.

Moreover, providers have to meet certain criteria to be accepted by TRICARE, but once designated they do not have to participate in any programs specific to treating military service-members. Nor is there a specific training program required to develop sensitivity to specific characteristics of life in the Military. One potential tool for improving on-/off-base relationships would be to create a TRICARE mental health providers association that would also have a partnership-oriented link to the base. Periodic formalized meetings between on-base providers and this association could provide a forum for relationship building and better mutual understanding of the roles of each type of provider. Adding a continuing education component with requirements related to military psychological health might help to increase on-base providers' perception of civilian professionals' credibility.

To further strengthen the program at Camp Lejeune, our 2015 visit identified the execution of regularly scheduled interactions among providers and mental health leadership at the Lejeune and Pendleton installations. The head of Mental Health at the Camp Pendleton Naval Hospital regularly communicates with the head of Mental Health at Naval Hospital Camp Lejeune and is sharing "state of care" practices developed at Pendleton and found in other locations within the system and beyond. CCP Bureau Chiefs of the two installations also are in limited communication. Cross fertilization and information sharing is vital to the effective implementation of the "no wrong door" concept, a practice predicated on trust, communication, and collaboration, and the often referenced framework that underpins strengthening coordination among units of the psychological health care system.

December 2015: Evidence of Cooperation and Collaboration Buttressed by Shared Experiences and Added Resources Represent New Developments at MCB Camp Lejeune

Communicating with psychological health providers at Marine Corps Base Camp Lejeune in December 2015 for corrections and updates to our June 2015 report, we see demonstrable progress made in the practice of care provision, cooperation and collaboration efforts. Four structural features represent enhanced collaboration as of December 2015. We note: full implementation of the Marine Intercept Program; maturation of the Community Counseling Program; colocation of CCP assets in several sites across the installation; and enhanced collaborative relationships as measured by invitations to attend Force Preservation Councils and the Human Factors meetings at two regiments and MARSOC. These developments have coalesced to produce a dynamic and synergistic context supporting and encouraging a growing awareness of and trust and engagement in psychological health programming at MCB Camp Lejeune. There is more defined and regular communication and collaboration with the MTF, commanders, and Division Psychiatry representing the GCE, ACE and the MLG. Procedural innovations built upon cross-organizational cooperation and collaboration are leading to coordination that is growing and becoming more robust. Leaders of programs reference the evident commitment of commanders to psychological health efforts.

Cross-Organizational Implementation of the Marine Intercept Program (MIP).

Perhaps more than any other element beyond adoption of the MOU, the full implementation of the Marine Intercept Program has served as a forcing function in establishing recognition of, rapport with and inter-reliance among nearly the entire complement of psychological health assets at MCB Camp Lejeune. Almost two years into its implementation, the MIP was just beginning to gel in June 2015. The initiation of the program was originally hampered by a lack of detailed guidance from

Marine Corps Headquarters, which was overcome through a MARADMIN and the experimentation and coaching made available and dispersed from MCCS Headquarters in Quantico to MCB Camp Lejeune.

The MIP implementation required establishing a communications chain triggered by a Critical Incident Report that traveled from the base to Marine Corps Headquarters in Quantico to MCCS Headquarters (similarly situated) back down to the base through HQ MCCS to CCP and then to a local level contact. When originally introduced, the head of the CCP was instructed to contact the presiding commander closest to the Marine involved. Initial hesitancy subsided as awareness spread, the MARADMIN was released and the communication chain solidified. Initial implementation required a new form of care provider-commander communication. The first response to this requirement was to hesitate. Eventually the emergent protocol came into place and contacts across rank and role smoothed out with deliberate haste. While seemingly elaborate and time intensive, the round trip from the initial filing of the Critical Incident Report to notification of Marine HQTRS and Headquarters MCCS to the return journey to MBC Camp Lejeune typically occurs in less than 24 hours. The level of involvement is intense and all encompassing, including ultimately the platoon level where the Marine's direct contact information (cell phone) is accessed; this regularly involves the Gunny or the First Sergeant.[21] The extensive number of incidents occurring over the course of the past two years, meant tens of opportunities arose to communicate across rank, role, function and location among parties at MCB Camp Lejeune. The program has been honed for efficiency and effectiveness. A byproduct of the program is the extensive network of relationships and trust built up across the installation. Early on during the program implementation the DH of the CCP made a critical and strategic decision to assign the same professional counselor to be the point of contact (POC) with each battalion. Individuals serving as the primary contact were specifically selected for their knowledge of the Marines and that had an individual-comportment in line with previous experience engaging with commanders.

Bottom-up coordination. The chain of contacts are further cemented as CCP has one day to get in contact with the presiding commander and then a little longer to get in contact with the service member. Operated as a phone chain, MIP relies upon someone at the local level already paying attention; usually the MO or the OSCARS are watching. The contact at the CCP checks to see that the Marine has services in place and is getting to his/her appointments. The CCP contact assesses whether there are any barriers to receipt of care, thereby ensuring a case management function is in place. Some MIP participants come back into counseling at the CCP, but this relationship is separate from the MIP program.

Cross Function Coordination. As a result of the MIP program, several new points of access and intermingling exist strengthening the ties among the parties in the psychological health system of MCB Camp Lejeune. It has led to invitations to the CCP leadership to have counselors participate at the Force Preservation Councils of two regimental units 1-8 and 1-10 and the Human Factors meetings of MARSOC.

Coordination of Care and Information Exchange

Community Counseling Program.

The combination of maturing trust developed across the installation in conjunction with the MIP program and the collaboration of the CCP with the MTF and Division Psychiatry through the efforts of OSCAR providers, the CCP has grown in recognition as an effective care provider. Since 2014,

[21] They have the cell phone number of the Marine in their pocket.

the client numbers have increased by almost a third from 890 in FY 2014 to 1250 in the first eleven months of 2015.

Behavioral Health at MFP and the MH Clinic:
As anticipated as of June 2015, the CCP has placed licensed providers at several locations at MCB Camp Lejeune. Essential is the placement of a licensed counselor at the MH at Naval Hospital Camp Lejeune three afternoons a week. This allows staff in the MH to work alongside of members of the CCP. Borrowing an office, CCP personnel conduct referrals, complete assessments and importantly share information with Navy hospital MH providers about cases, referrals, and other matters. This information feeds into regular meetings between the second in command of the NH MH Clinic and the head of MFP and the CCP. Here issues are identified and bottlenecks addressed. Resulting outcomes are smoother working relationships between CCP and members of the Naval Hospital MH, heightened information sharing and case management, and familiarity with the practices of both organizations. This has resulted in greater collaboration between the providers as well as an improved understanding on both sides of the mission, scope, and role of each provider. CCP resources encompass a broad spectrum of CCC providers increasing relationship building across the two programs.

Behavior Health at MFP and II MEF:
As of June plans were to locate a CCP counselor at II MEF. The details of this outreach are still being developed. Both sides, II MEF and Behavioral Health, are eager to engage the opportunity of enhanced services. This outreach will be in place within the next few months. II MEF has a new Commanding General, General Miller, as well as a new Prevention Director, Rani Collins. These changes anticipate full implementation by the first of the year. Leadership of both Marine and Family Programs as well as II MEF are preparing for this collaboration.

Outreach and Prevention

Cross Installation Event: "Building the Warrior Within: Suicide Prevention through Wellness"
Cooperation and collaboration evolving over the last nine months culminated in a cross installation program, planned and executed in September in recognition of Suicide Awareness month. The head Chaplain of New River and the head of the CCP organized a day long fair for members of the installation community of MCB Camp Lejeune and New River. Stimulated by the Chaplain at New River, planning with the CCP began in February 2015 and the event was held at the end of September, running across two separate days at New River and MCB Camp Lejeune. A MARADMIN was released and planning engaged all psychological health programs on the installation and several organizations outside the base. Private care providers in the community helped sponsor the events and made donations of resources to support the operation. The head of MFP was instrumental in bringing resources in from off-base care providers. The event included stations with various activities Marines were to complete.

Participants included:

- *MCCS: CCP, FAP, SACC, New Parent Support, Exceptional Family Member Program, Personal and Professional Development, Marine Corps Family Team Building*
- *Blue Serving Green: Chaplain Corps, II MEF Embedded Prevention Staff, Embedded and School based MFLC's, FOCUS, Intrepid Spirit TBI Clinic, Wounded Warrior BN*
- *Other Resources: Eastern Carolina University, Brynn Marr Hospital, NCIS*

Attendees included staff from the Naval Hospital MH, members of the off-base community including staff of Onslow Co. Partnership for Children, the Jacksonville Police Dept. and the

Onslow Co. Sheriff. 1200 Marines participated and members of the chain of command in attendance included Flag officers.

Division Psychiatry and the Ground Force Element Reaching Out and Providing Guidance

Three developments highlight significant change occurring within Division Psychiatry and across the installation. First is the specification of a continuum of care by the Division Psychiatrist. Second is the augmentation of care providers to support regiments including the operational units and the Division Psychiatry Clinic. Third is the allocation of space within Building 318 to colocate Division Resources to enable closer coordination of the psychiatric resources for the GCE and ACE.

Specification of a Continuum of Care among Care Providers on Installation

The lack of clarity of the care pathways for Marines dating back to 2013 was evident in our visit in June 2015. The Division Psychiatrist and the OSCAR assigned to the 8th regiment sought to formalize a pathway toward psychological health resources at Marine Corps Base Camp Lejeune. The system is defined based on tiers of acuity. The first tier directs Marines and Sailors to first tier resources for assessment. Resources here include providers falling under the following organizations and individuals: BHIP, MFLC, CCC, Military OneSource, Prevention Specialists and Chaplains. This "first open door" will conduct assessments and provide direction for further assistance. Tier 2 includes OSCAR providers and Division Psychiatry resources. Tier 3 assets include the NHCL. The defined system is designed to provide measured direction by specifying the array of entry ways to care while clarifying the more extensive resources available at MCB Camp Lejeune.

New Resources Provide Capacity and Opportunities for Coordination

The second major development is the opening of several new Navy billets to support Division Psychiatry. As originally referenced in 2013 and currently planned for implementation, in the summer of 2016 Division Psychiatry is scheduled to receive as many as three new psychiatrists; one each for regiments 2, 6 and 8. Navy Medicine recognizes the need to put psychiatrists in operational units and Division Psychiatry is expecting to receive another psychiatrist for the Marine Logistics Group 2nd Division. This will help support the East Coast Expeditionary Force allowing Division Psychiatry to focus on its current tasks. The resources allocated to the operational units are not expected to deploy. They will be Oscar-like, but they are not dedicated Oscars.

Approval Received to Colocate 2nd Marine Division Psychological Services Assets

The third development is the agreement by the Marines to resource a physical home at BLDG 318 for the Division Psychiatry function, coalescing resources around OSCAR Mental Health providers, division psychologists, psychiatric technicians and supporting staff in the next several months. The Marines have agreed to allocate the downstairs spaces and provide needed telecommunications capabilities. The space was previously used as a medical clinic and will situate 2nd Marine Division mental health providers in one location. This force multiplication will allow the Division Psychiatrist to better manage the ebb and flow of deployments while securing high efficiency Garrison care.

Appendix C: Evidence from literature

In this appendix we show how recent literature on health systems and health care systems informs and supports the key points in our report. This increasing body of knowledge is a timely and practical resource for both the Marine Corps and Navy to borrow and learn from as they build a comprehensive PH system for the Marine Corps. Although the social, political, and economic context of the civilian health systems are quite different than the military, there are a number of factors can be viewed as comparable, and potentially transferable, especially in the central opportunities/challenges of coordination between medical and non-medical services, programs, and organizations.

We discuss five key points and support each with evidence and examples from the literature, and summarize key related policies:

1. Prevention matters to reducing poor health outcomes
2. Prevention efforts must occur not just in the medical system but also in the community (nonmedical)
3. Coordination in four domains is required to support a system with both medical and nonmedical elements; there is now evidence in all four domains that provides examples of the role and value of coordination
4. Health Information Systems are needed to support coordination
5. Coordination efforts, and their outcomes, can and should be measured

1. Prevention matters to reducing poor health outcomes

Prevention matters in reducing poor health outcomes in general. Many studies have proven the need for a comprehensive system of care to prevent and mitigate diabetes, obesity, and other diseases. Today it is widely accepted that these systems include a psychological health component. More specifically, prevention efforts matter to reducing the adverse health outcomes that result from poor psychological health that are the focus of this report.

Evidence to support the importance of prevention

Two IOM reports effectively summarize the research evidence and drivers for work in this field. The first, IOM's landmark 1994 report, Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research (Mrazek & Haggerty, 1994) addressed the lack of prevention interventions for mental disorders compared to interventions focused on physical disorders. The report was a systematic review and thorough analysis of the existing research and service programs. While acknowledging a lack of evidence for preventing specific disorders, the authors maintained that there was adequate knowledge to support a research agenda, build a research infrastructure, expand the knowledge base, and conduct well-evaluated preventive interventions, and provided extensive recommendations for developing and implementing this agenda. The report also introduced the protractor model of prevention, treatment, and maintenance that we have applied in this research project, identifying three categories of prevention interventions: universal, selective, and individual. Last, the report emphasized the importance of using the risk-reduction model in designing interventions (mitigate risk factors and augment protective factors), and noted the correlation of mental and physical health, calling for a more integrated approach to research and prevention.

IOM's follow-on 2009 report, Preventing Mental, Emotional, and Behavioral Disorders among Young People (O'Connell, Boat, & Warner, 2009) documented the significant progress made, including improved methodologies, as well as challenges faced since 1994 in prevention research and practice, and provides a thorough review and analysis of prevention research and programs,

focusing on populations through the age of 25. The focus on prevention and young people resulted from significant cited research indicating that most psychological health disorders originate before the age of 25. The report notes "…a solid body of accumulated research now shows that it is possible to positively impact young people's lives and prevent many MEB disorders." (p. 16). The report also notes that while "…the evidence on costs and benefits is limited"; it suggests "many are likely to have benefits that exceed costs." (p.3).

There is also some, though limited, evidence that, from a population health perspective, prevention interventions may be more effective than treatment alone (Freeman et al., 2010)

Policies relating to prevention

Two major policies that incorporate this understanding and evidence on the importance of prevention are the Affordable Care Act of 2010 (See Saloner & Cook, 2014) and the National Prevention Strategy (National Prevention Council, 2011). Both policies emphasize the importance of preventing health conditions (including psychological health conditions) in order to provide more effective services to a broader population at lower cost (the Triple Aim). The National Prevention Strategy, mandated by the ACA, cites and reflects themes and recommendations of the 2009 IOM report discussed above, including the relationship of psychological health to overall health, risk reduction, early intervention, and comorbidity with chronic physical disease.

A related federal initiative is Healthy People 2020[22], an HHS initiative that provides science-based, 10-year national objectives for improving the health of all Americans (U.S. Department of Health and Human Services, 2011). The section on Mental Health and Mental Disorders twice cites the 2009 IOM report stating that it "provides the most current evidence on preventing mental, emotional, and behavioral disorders among young people."

2. Prevention efforts occur in both medical and nonmedical settings

Many risk factors for poor psychological health, as well as protective factors that maintain or improve psychological health (jointly, social determinants of health) arise outside of the medical arena, which means that in order to reduce PH risk factors and enhance PH protective factors ***prevention efforts must occur not just in the medical system, but also in the community***, which, following Military usage, we will label as nonmedical. Therefore a comprehensive psychological health system must include prevention, which means that such a system must include both medical and nonmedical elements.

Evidence to support the role of nonmedical

There is increasing recognition that health is more than health care, and that behavioral health at a population level in particular is greatly influenced by social determinants of health, most of which are nonmedical (Magnan et al., 2012). The "non-clinical determinants – social, economic, and environmental factors – influence health, including mental health (World Health Organization, 2013).

Drawing on the "socio-ecological model" (Bronfenbrenner, 1994) of the individual, family, unit, community, and workplace, this approach does not "silo" medical and psychological health, but addresses them holistically in a continuum of care model including prevention, treatment and rehabilitation.

[22] See http://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders#six.

The co-morbidities between mental health conditions and other common chronic medical conditions are widely acknowledged. Chronic medical conditions can impact mental health. Mental health conditions can keep individuals from activities that treat or prevent medical conditions. This indicates the need to better coordinate mental health care with general health care (Goodell, Druss, & Walker, 2011; Prince et al., 2007) and with health promotion (Lando, Williams, Williams, & Sturgis, 2006).

3. Coordination in four domains is critical to health system success

There is now sufficient evidence, in all domains described in the main report, above, that supports the need to improve the MC PH system in all of these domains. This evidence provides examples of the role and value of coordination. Evidence also provides learnings that may be useful to the Marine Corps.

Examples of effective coordination models listed in the National Prevention Strategy (National Prevention Council, 2011) at the individual, program and organization levels include medical homes, community health teams, and integrated workplace health protection and health promotion programs.

Coordination is now recognized as being key to improving the overall health system in general, and this includes the PH system in particular. Much of the coordination work done in general health systems can be applied to the PH system issues discussed in this report. Coordinated care emphasizes communication among providers, systems, patients / families, and organizations, especially at points of transitions between professionals and programs. The SAMHSA care coordination for integrated health care report discusses individual care, program, and organizational coordination as part of its integrated care framework (Heath, Romero, & Reynolds, 2013). The Care Coordination Atlas (McDonald et al., 2014) describes multiple evidence-based care coordination processes and metrics.

Individual care coordination evidence

Individual care coordination is central to the Patient-Centered Medical Home, which provides coordination through hospital, primary care practice outpatient clinics. The primary care physician (PCP) is central, and the PCMH concept stresses structured communication/coordination among PCP, hospital, pharmacy, specialty medical services, and other clinical participants including outpatient clinics. Some communication/coordination with community support and social services may occur. Most coordination is done by staff in the clinical setting. Some models also employ community health workers or navigators. In addition to electronic health records, PCMHs may use innovative information sharing tools such as mobile devices that share information under HIPAA guidelines.

The PCMH is similar to the Marine-Centered Medical Home (MCMH) in that it is top-down and medical centric; a key difference is that many instances of PCMH are experimenting with innovative communication tools.

Another relevant individual-level coordination model is TEAMcare, in use in the United States and Canada. In this program a care manager (usually a nurse) serves as the conduit between the consultation team, the primary care team, and the service user to deliver holistic care for depression and comorbid non-communicable diseases. The TEAMcare program has been shown to be effective in a randomized controlled trial. During a 24-month period, a Michigan program resulted in a cost saving per service user of $600 in a capitated system and of $1,100 in a fee-for-service system (DeSilva, Samele, Saxena, Patel, & Darzi, 2014).

The Community Preventive Services Task Force recommended a similar collaborative care effort for managing depression (Thota et al., 2012).

Program domain coordination evidence

The King County (WA) Regional Veterans Initiative is a county-wide effort to better coordinate the fragmented public and private regional services for veterans and their families and to facilitate access to those services (including medical care, behavioral health care, employment, education, financial benefits, and housing). The County Department of Community and Human Services (DCHS) estimated that more than half of King County veterans were either not aware of or didn't fully understand available services or how to access them. (King County Department of Community and Human Services, 2013b) DCHS planned the initiative in collaboration with stakeholders, including veterans, the Veterans Health Administration (VHA), and other service providers and developed a two-year Implementation Plan. The initiative is run by staff from several county departments, and a veteran services network coordinator. The VHA is a member of the initiative's Technical Work Group.(King County Department of Community and Human Services, 2013a) Outcomes are not yet available.

Virginia Commonwealth University's Department of Family Medicine developed the Electronic Linkage System (eLinkS), an automated system that prompts clinicians at the point of care to offer counseling to appropriate patients and then refers patients to community services that could help them improve preventable health risks regarding diet, exercise, smoking, and alcohol consumption; once clinicians and patients agree on an appropriate counseling option, the system electronically sends referrals to community-based counseling organizations, which then proactively contact patients to arrange services. A group of medical practices incorporated the system into its daily workflow to prompt clinicians to offer behavior counseling regarding diet, exercise, smoking, and alcohol consumption. The program led to well-above average rates of referrals for counseling services, improved behaviors related to diet and exercise (which, in turn, led to weight loss), and enhanced quit rates among smokers. (AHRQ, 2014)

Organizational (service-line) coordination evidence: Accountable care organizations

Established by the Affordable Care Act, Accountable Care Organizations (ACO) are incentivized to coordinate care across patient-centric, multidiscipline organizations to improve outcomes and access while reducing cost. ACOs range from single practices to State-wide, multi-organization networks. Evaluation of existing organizations and experimentation with emerging models facilitates the evolution of the ACO model. ACO models are 'medical-centric' in that the core organization and the leadership orientation are from a medical perspective (e.g., a group of hospitals or group of medical providers).

The Affordable Care Act has been criticized for not explicitly including mental health services in the ACO model even though the organizational and financial structures could accommodate it. (O'Donnell, Williams, Eisenberg, & Kilbourne, 2013) However, new models are emerging that will be responsible for services beyond just medical care (for example, mental health, substance abuse treatment and other social supports) for Medicare and Medicaid patients. (Burton, Chang, & Gratale, 2013; Somers & Mcginnis, 2014)

Multi-sectoral evidence: Accountable Health Communities and Center for Medicare & Medicaid Services State Innovation Models

Evidence from Accountable Health Communities

An emerging model that incorporates both medical and community services (such as State social service programs, the criminal justice system) in a holistic system, with leadership shared among medical providers and others with diverse goals and interests, is the Accountable Health Community (AHC) (Fisher & Corrigan, 2015). The concept is still new and currently has multiple labels, including Accountable Communities for Health and Accountable Care Communities. It is the topic of many state and regional experiments and policy reports, and is a promising example for medical/nonmedical coordination efforts.

Stephen Shortell (2015) commented on designing an AHC: "A major lesson to date is that delivery system provider organizations cannot do it themselves " …especially in caring for "high-cost, highly complex patients". Implementation "…requires outreach to an array of community and social services resources including education, housing, transportation and public health"

Multiple recent reports have provided initial reviews of selected state AHC models, focusing on governance requirements and financing (e.g., Cantor, Tobey, Houston, & Greenberg, 2015; Corrigan & Fisher, 2014; Plaza, Arons, Rosenthal, & Heider, 2014). Models vary in structure because they are designed to meet the specific needs of the communities they serve within state-specific organizational and funding requirements.

ChangeLab Solutions (ChangeLab Solutions, 2014), in its report on legal and practical implications of AHC models, has analyzed four large efforts that attempt to implement this concept, providing a definition as well as guidance for creating an effective AHC going forward. They define AHC as: "a multi-institutional, collaborative effort that brings together community stakeholders to improve population health by linking the health care delivery system with public health and non-health sectors in order to address the social determinants of health. Each AHC would commit to advancing the goals of the Triple Aim on behalf of the entire community it serves by selecting and implementing specific activities to improve the health of the community."

Guiding principles encompass neutrality, accountability to the community, flexibility, and sound governance. Core Components of an Accountable Health Community include:

- **Community stakeholders**: organizations in the health care sector, government, and nonprofit organizations, including community organizations and social service providers.
- **Governing Body:** provides for joint decision making ad prioritization of interventions. Establishes roles, responsibilities, and relationships between the AHC components organizations. Accountable to broader community of stakeholders.
- **Backbone:** Host entity to provide leadership and administrative support. Can be nonprofit, government, or for-profit organization.
- **Wellness Fund:** A fund established by the AHC to pool and leverage funding from a variety of resources to sustain the AHC initiative.

A summary of three state examples of work being done in Accountable Health Communities (Minnesota, Colorado, and Oregon) is described in the three models below (and Corrigan & Fisher, 2014; Plaza et al., 2014). All three states strive for integrated systems with medical, behavioral health, and social services coordinated via a PCP medical home. All are required to provide progress

reports, work to improve Clinical-Community Linkages, and enhance Health Information Exchanges.

Minnesota: Minnesota has two ACO demonstrations, as well as a Community Care Team pilot in three communities that emphasize linkages between providers and community organizations. The State is experimenting with Accountable Health Communities. Key points:

- Health Care Delivery System (HCDS) began with six pilot organizations in 2013. The HCDS requires providers to demonstrate how partnerships with community-based organizations can be included in their care delivery model.
- Hennepin Health, a county level model in Minnesota, consists of two public health care providers, the county public health department, and the county health plan. Through primary care providers patients are assigned a care coordinator who connects them to behavioral health and social services such as housing. A team, including community health workers, delivers the services and shares health information electronically to coordinate services. The first year saw a decline in hospital admissions and readmissions, reduced costs for previously high-cost patients, and reached nearly 90 percent enrollee satisfaction.
- During 2015 – 2016, Minnesota is rolling out 15 pilot Accountable Health Communities.

Colorado: Colorado's Accountable Care Collaborative consists of seven Regional Care Collaborative Organizations (RCCOs) that develop a network of providers; manage and coordinate member care; connect members with behavioral health and social services; and report on costs, utilization and outcomes for their population of members. The initiative is led by the Governor's Office with the participation of public and private organizations. A data analytics center prepares data that helps RCCOs and PCMPs understand which services are used most frequently and which are needed most in the region, and to track RCCO performance to established indicators.

Oregon: Oregon's Coordinated Care model began with development Coordinated Care Organizations (CCO), the state's version of accountable care in a community-level entity. These organizations began operating in mid-2013 and are five year systems change experiments. Chang et al (2014) noted that "significant progress has been made on the utilization piece, and cost savings may be achievable, similar to the Massachusetts demonstration project, (described in Song et al., 2011) by year 2." The Oregon model is the most "bottom-up" of the three models discussed here. CCOs are required to establish Community Advisory Councils bringing together stakeholders, assess community needs and develop transformation plans to meet those needs. Currently, there are 16 CCOs in Oregon that incorporate medical care, dental, mental health, and certain social supports into a single financing mechanism.

Evidence from the Center for Medicare & Medicaid Services State Innovation Models

A major source of new evidence for and examples of organizational and multi-sectoral coordination is from The Center for Medicare and Medicaid Services (CMS) Innovation Center (CMMI). This HHS group is funding a number of efforts to test payment and service delivery models that can advance the transformation to community centric models. Data-driven models are enabled by improved data capture and analysis of the health care system as well as innovations, which enables evaluation and modification of existing models. As of October 2015, it had distributed over $660mm to 28 states, three territories and the District of Columbia to design and test innovative medical/community models.

In particular, the CMS State Innovation Models (SIM) Initiative is providing financial and technical support to states for the development and testing of state-led, payment and service delivery models

based on the state-specific environment. The program's measurement system has shown some promising results in favor of a community model supporting the medical model, with better outcomes (RTI International, 2014a, 2014b).

These metric-driven models, although distinctly civilian, offer the Marine Corps, some practical learnings on how to design a "bottom-up" local model, tailored to the unique needs of a community population as well as providing an evidenced-based governance approach that stresses that "…local leadership and engagement are critical to maintaining the integrity of common resources

4. Health Information Exchanges are needed to support medical/nonmedical coordination

Sharing health data is key to enabling medical and nonmedical coordination. A 2014 Health Affairs article on Minnesota's Hennepin Health (Schuchter & Jutte, 2014) notes that "…integrating information about medical, behavioral, and social service interventions has been challenging. In some cases, social service providers must use a separate electronic system to document interventions while, with the patient's permission, accessing medical and behavioral care plans in the EHR. Uncertainty about data privacy regulations has been a barrier to giving these providers access to information, even though social services data are often relevant to health care…. an integrated data warehouse for analytics and reporting includes health plan claims and enrollment data, EHR data, and social service records."

CMS is funding the development and enhancement of Health Information Exchange (HIE) systems by Accountable Care Organizations (ACO) to expand patient access to their health information, as well as securely share information between multiple stakeholders across the continuum of care (RTI International, 2014a, 2014b). Some ACOs enable the use of HIEs by nonmedical caregivers.

HHS is funding HIE models to enable care coordination, and to support both individual and community health. Such models enable secure and timely exchange of health data between primary care providers, specialists, hospitals, mental health and substance abuse services, long-term and post-acute care, home and community-based services, other support and enabling services providers, care and case managers and coordinators, and other authorized individuals and institutions. The Community Interoperability and HIE Program will help increase the number of non-eligible care providers who are able to send, receive, find, and use electronic health information (inclusive of all determinants of health).

Some community-based health networks use web-based systems or mobile technologies to coordinate outreach, referral, and follow-up activities. For example, the Pathways Community HUB Model employs an evidence-based community care coordination system and mobile technology that provides risk-reduction tracking and patient education tools for Community Health Workers (Redding & Redding, 2008).

5. Measuring Coordination across Medical and Nonmedical Entities

In 2013, the HHS Agency for Healthcare Research and Quality (AHRQ), created the Clinical-Community Relationships Measure (CCRM) Atlas. This is the first effort we have found that provides "…users a measurement framework and a listing of existing measures of clinical-community relationships." (Dymek, et al., 2013) It could also be an excellent tool for facilitating the research on the value of evidence-based coordination.

Additional potential measures, including a subset of the most relevant and feasible as determined by the researchers involved in developing the CCRM Atlas (Johnson & Mardon, 2013), and how they

might be obtained are shown in Table 2, below, which is based on Based on: (Donabedian, 1980), (Porterfield et al., 2012) and (Johnson & Mardon, 2013)

Table 2: Examples of system measures to support evidence-based system decision making

Type of measure	Examples
Structure measures - programs	Medical/nonmedical infrastructure to maintain medical/nonmedical relationships (staffing, technology, & training assessment)
	Nonmedical resource capacity to deliver preventive services (audit/periodic assessment)
Structure measures - linkages	Strength of a medical/nonmedical relationship (evaluation form, e.g. relational coordination survey)
Process measures - success	Percentage of referrals that are actionable, even if not delivered (audit)
	Provider receipt of treatment plan from a service coordinator (audit)
Process measures - flows	Percentage of clients referred who received appropriate services (user survey, user EHR/paper record)
	Percentage of users who received appropriate services (user survey, user EHR/paper record)
Outcome measures - intermediate	User experience of care with a resource (user satisfaction survey)
	Utility of "bridging resources"/informational tools used by providers to foster medical/nonmedical relationships (provider survey)
	Costs to both partners to establish and maintain a medical/nonmedical relationship (provider analysis).
Outcome measures – long term	Clinical outcome measures such as changed self-assessment scores (assessment analysis)
	Behavioral outcome measures across populations such as DUI's, cases of violence, MH diagnoses, suicide statistics, etc. (outcome analysis)

Another useful research area to support individual and program level coordination innovations is relational coordination (RC), which focuses on communicating and relating for the purpose of task integration. This is key for work that is interdependent, uncertain, and time constrained, such as patient care within and across programs. It focuses attention on the network of role relationships involved in a set of tasks, rather than personal characteristics or personal relationships, and describes the relationship and communication ties through which coordination occurs. Multiple researchers over the last 15 years have shown that effective relational coordination, meaning frequent, timely, accurate, and problem-solving-focused communications, supported by relationships with shared goals, shared knowledge, and mutual respect, positively impact performance. Performance includes higher quality outcomes, greater efficiency and better client and/or worker engagement.

Relational coordination research has produced validated surveys to measure coordination, as well as guidelines for relational, process, and structural interventions that impact coordination effectiveness in a variety of contexts, and which can be adapted to new situations, as illustrated in Figure 6 below (Gittell, Seidner, & Wimbush, 2010).

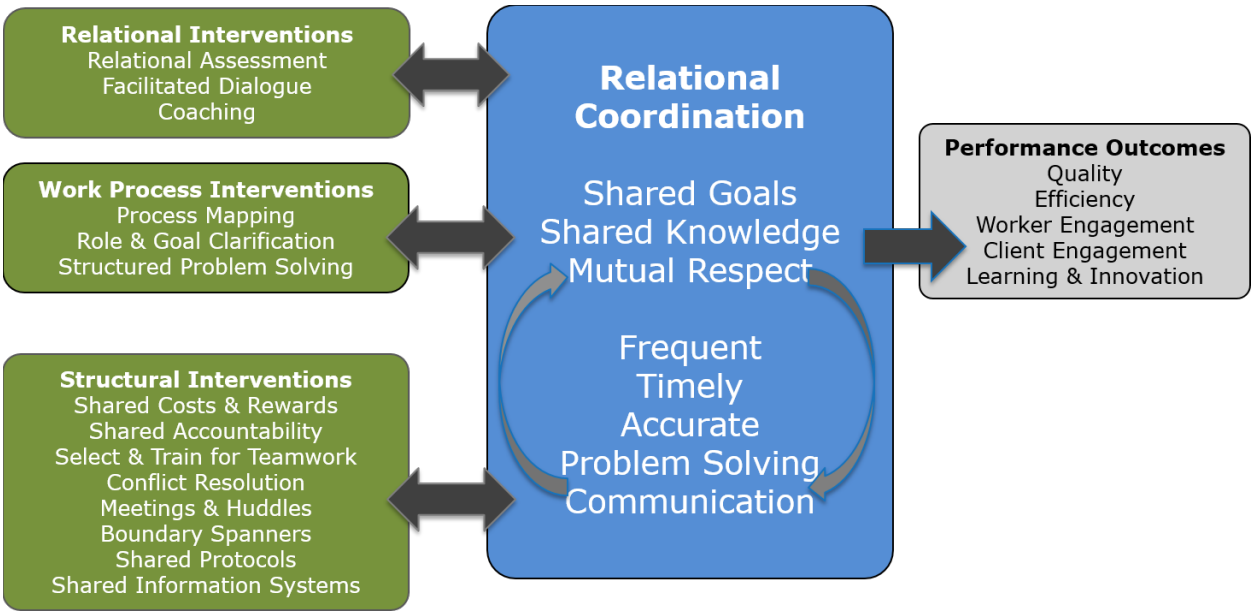

Figure 6: Relational Coordination: conceptual overview

Appendix D: MOU and SOP Analysis Summary

Introduction and context

This note summarizes our analysis of the November, 2013 Memorandum of Understanding (the "MOU") between the Navy Bureau of Medicine and Surgery (BUMED), Marine And Family Programs Division (MFP)m and Marine Corps Health Services (HS) on the "Establishment of a comprehensive system of psychological health services for active-duty Marines and their families"(Department of the Navy, 2013), and our analysis and comparison of 12 subsequent installation-specific Standard Operating Procedures (SOPs) implementing MOU requirements.

By necessity, and as is typical for Service-level policy documents, the MOU is not specific on implementation details, recognizing that on-the-ground situations may vary at different locations. Thus, BUMED and MFP representatives at each installation were asked to develop a Standard Operating Procedure (SOP) to implement the MOU locally.

The goal of this analysis was to set the context for site visits and interviews at three installations to increase understanding of the MOU implementation process, its status, and to make recommendations for system improvements.

Overview of the MOU

The MOU's main focus is to define the care offered by BUMED and MFP to Marines and Families, establish clear lines of communication between these entities, and delineate responsibilities of all the parties. It covers responsibilities related to psychological health and substance use care (both medical and non-medical), administration, reporting requirements, and communication processes.

The main MOU topics analyzed can be grouped as follows (Section labels in parentheses):[23]

1. **Scope:** a typology of applicable situations (4a2, 4a5, 4b6)
2. **Roles & Responsibilities** of BUMED and MFP providers (4a, 4b)
3. **Individual (case) coordination**: making referrals, tracking referrals, providing feedback to the referrer, and circumstances where case management is needed (5a, 5c, 6a1)
4. **MOU implementation tracking (organizational and program coordination)**, including HQ and installation-level topics, frequency/attendance at tracking meetings, tracking metrics to use, and involvement of the Installation DPH in MOU implementation (6)
5. **Other practices**: informed consent (by reference only), non-duplication of care (5a), and command notification (6a3)

The AHRQ Care Coordination Atlas (McDonald, Schultz et al. 2014) defines care coordination as follows:

> *Care coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshalling of personnel and other resources needed to carry out all required patient care activities, and is often managed by the exchange of information among participants responsible for different aspects of care.*

[23] Introductory and concluding paragraphs, covering sections 1-3 and 7-9, were not included in this analysis.

The Atlas reflects an understanding of care coordination as a process that occurs most often during and in response to care transitions (e.g., transitions across settings, within care teams, among care participants, between encounters or care episodes, as patient needs change) and that involves activities or approaches that bridge gaps arising from those transitions. The Atlas (and other sources) defines two types of transitions: those between entities (e.g., referrals) and those over time (e.g., across a trajectory of illness, such as moving from inpatient to outpatient care).

Based on the above definition, the MOU is the first systematic attempt between BUMED and MFP to coordinate individual care better across their two organizations, and to track that coordination at the program level (CCC/MH and SACC/SARP).

Analytically organized summary of the MOU

1. Scope, roles, and responsibilities

These topics are covered together in Section 4 of the MOU.

In general, all potentially disabling psychiatric diagnoses described in the Navy Disability Evaluation Manual, all pharmacologic care, and all moderate and severe substance abuse disorders MUST be treated by BUMED. Topics covered explicitly include suicide, violence, and substance abuse. MFP may provide "nonmedical counseling services," enumerated as outpatient counseling for diagnoses that are subclinical and not potentially disabling, as well as nonmedical counseling to address "general conditions of living," family and couples counseling; this may be in addition to medical care provided by BUMED, so long as the potentially disabling diagnosis is not the primary focus of MFP care. MFP may also provide educational or preventive services, provide treatment for mild/moderate substance use disorders under 20 hours/week and provide treatment for child abuse and domestic violence. Both BUMED and MFP may provide diagnostic screening and assessments for the purpose of determining appropriate referrals.

2. Coordination for individuals

The MOU discusses various aspects of care coordination in several different sections. It is not a complete discussion of an explicit process (or processes), with exceptions – though a process might be inferred from the rules that ARE stated.

For example, Section 5a and 5b require coordination between MFP and BUMED representatives on cases where the appropriate level of care is unclear, or an individual refuses recommended care, or BUMED and MFP might potentially provide duplicate care. These are all care transition cases over time, or situations in which joint care may be needed (such as medical consultation for MFP SACC participants, prescribing medications for someone being treated for a non-disabling diagnosis at MFP, or provision of stress or anger management by MFP for someone receiving treatment by BUMED).

Section 5c covers a referral situation: due to an organizational transition with respect to Licensed Independent Practitioners who had been credentialed through BUMED but in the future will be credentialed through MFP; clients who present with issues beyond the SACC scope of practice must be referred to BUMED SARP for services.

While a referral process is implicit in the discussion of roles and responsibilities (see Scope, roles, and responsibilities, above), no further guidance on how it should occur is given, beyond Section 5c of the MOU.

However, explicit attention is paid to referral tracking and feedback in Section 6, as part of the communication process, with implications for developing a referral process at the installation level. Specifically, section 6 calls for monthly communication by BUMED and MFP representatives at the installation level, with support from an Installation director for psychological health (DPH), as per the DOD Instruction on directors of psychological health (DoDI 6490.09, 2012). This section also discusses development of a Quality Assurance/Process Improvement (QA/PI) Program by MFP and BUMED HQ that includes "records review to ensure referrals are being made appropriately, that timely evaluation and follow-up is provided, and that responses are sent to the referring provider." From this statement it is clear, if implicit, that installation representatives need to develop mechanisms for making appropriate referrals, as well as mechanisms and metrics to ensure timely evaluation, follow-up, and referral tracking.

3. MOU implementation tracking (coordination to prevent, find, and fix systemic problems)

Section 6, on communications, covers a large set of data that MFP and BUMED representatives should examine when exercising oversight of this system of care, in addition to the referral information and patterns noted above. This date includes numbers of people seen at each facility, diagnoses, facility-level problems, access to care (initial and ongoing), workload trends, and network referrals. Implicit in this statement is a set of metrics to be used at each installation, as well as an implicit analysis and discussion process for the installation level MFP and BUMED representatives.

While not stated explicitly, these metrics and processes are expected to be part of the overall QA/PI Program of review and oversight at both the monthly installation-level meetings and the quarterly HQ-level meetings. The MOU also states that MFP and BUMED at the HQ level will ensure that installation level representatives are "cooperatively engaged with their counterparts," although there is no statement as to how, nor is there approval for additional resources to support this requirement. It is also not clear from the MOU who will develop the metrics, or how they will be used.

4. Other practices

While not specifically about coordination, the MOU notes a few additional requirements necessary to ensure installation providers are in compliance with prior policies. These include a reference to informed consent and HIPAA requirements (Section 8, referring to the DOD and Navy instructions on privacy) as well as command notification requirements, which apply to BUMED providers. However, both of these practices have implications for effective referral and case coordination process design at installations, because of their strong impact on information sharing processes between BUMED and MFP providers for both individual coordination and QA/PI.

SOP analyses

We received 12 SOPs to analyze, covering most permanent MC installations worldwide. As of September 2015, we had not seen an SOP for **Twentynine Palms**. We focused our analysis on content relating to processes and procedures, and did not include references, introductory material, and concluding material.

In terms of document structure and similarity, the SOPs can be divided into four broad groups:

1) **Group 1:** a localized version of the MOU, replicating the overall structure and content, substituting in specific locations and installation-level signatories. **Camp Lejeune/New River, Miramar,** and **Yuma** re in this group.

2) **Group 2:** Short documents modeled on the **Cherry Point** SOP[24] referenced the MOU on topics such as roles and responsibilities but referral, case coordination, and tracking procedures re made explicit. This group includes SOPs from **Albany, Iwakuni,** and **Beaufort/Parris Island**.
3) **Group 3:** A longer document developed at **Camp Pendleton** and adapted by **Okinawa** that includes more detail on referrals, tracking, and collaboration, while also referencing the MOU.
4) **Group 4:** SOPs from **Barstow**, **Hawaii**, and **Quantico** developed independently from the above groups and include different subsets of topics customized to local needs.

To compare across SOPs, we looked at the scope in terms of a typology of situations covered; processes covered; MOU Implementation feedback practices, and other topics. (See the tables below.)

For **scope**, in terms of a typology of situations, the following are explicitly covered in most SOPs:

- mental health issues
- suicidality
- substance use
- domestic violence

Many SOPs include process variations for "typical" vs. "high-risk" cases; the latter typically involve a call or walking a person from MFP to MH, rather than just creating a paper or faxed referral. Miramar and Pendleton include explicit references to situations involving sexual assault victims.

Scope exceptions: Yuma notes no treatment was available for child abuse. Barstow and Quantico make no reference to processes for suicide or violence; Hawaii has no processes for substance use or violence.

Explicit processes for **individual case coordination** discussed are:

- MTF --> MFP referral (8 of 12; missing Lejeune, Miramar, Yuma, Barstow)
- MFP --> MTF referral (10 of 12; missing Lejeune & Yuma; Miramar explicitly included this process)
- Warm handoffs for high-risk cases (in addition, Pendleton & Okinawa refer to MIP services; Yuma mentions MIP in the context of the MTF clinic's responsibility to assign a MIP contact officer)
- Referral tracking (mentioned in groups 2 and 3, plus Hawaii)
- Feedback to referrer for an individual (mentioned by Pendleton, Okinawa, Barstow and Hawaii)
- Individual case management: most SOPs mention a process as part of the monthly tracking meeting or a separate (monthly) meeting for POCs to discuss

MOU implementation feedback practices, which include

- metrics to be tracked (in most cases, numbers referred and average wait time; Pendleton includes a statement about using the same tool across BUMED and MFP)

[24] Interview with MFP BH Head at Cherry Point.

- Tracking/system issues discussion meetings, and case management. These generally followed the MOU expectation of at least monthly meetings; in most of them, case management topics are combined with tracking of program metrics. Iwakuni includes case staffing, 3-month update on cases, and pre-discharge outbriefs in its list of topics.

Other topics mentioned:

- ***Informed consent*** is noted explicitly in the group 2 and 3 SOPs, except for Iwakuni; it is mentioned for Barstow; it is implicit in the Lejeune and Yuma SOPs via the HIPAA reference; this reference was removed in the Miramar SOP. Informed consent is not mentioned in the Hawaii SOP.
- ***Non-duplication of care*** is mentioned explicitly in the Pendleton SOP, noting that the embedded (i.e., colocated) clinicians would not duplicate care; Barstow also includes a no duplication notation.
- ***Command notification*** is mentioned by Cherry Point and Iwakuni, where MFP notifies command in cases for which expedited care is needed.
- Pendleton includes a specific section on ***appropriate information sharing situations.***

Unique features of SOPs that suggest local innovations, gaps, or constraints

This set of features is notable because the features seem location-specific and suggest local variations worth a closer look. It is clear some may be due to installation size/numbers served, but there may be other reasons as well. Unique features include:

- **Yuma**: one of the MFP BH roles is to provide outpatient counseling to patients waiting more than one week to receive scheduled treatment at the MH clinic. They are also expected to coordinate referrals with the MH clinic if there is a waiting list at CCC. They are also to alert MH when a Marine has voluntarily enrolled in MIP (this may be part of the MIP standard protocol, but it is nonetheless notable enough that it is mentioned explicitly here).
- In **Group 2:**
    - Beaufort/Parris Island SOP calls for direct involvement of staff in some referrals: for example, an MTF to MFP referral with a safety risk requires a phone call; the other three SOPs state that a safety risk should be noted on the referral form or via telephone. For an MFP to MTF referral, the staff will contact the MTF with referral information; for the others, for general care the client may call; staff is only required to call MTF for expedited care.
    - Command notification procedures vary: at Beaufort/Parris Island MFP staff notifies command (if the person first came to MFP): at Iwakuni, “command is notified”; no mention of command notification is made for Albany or Cherry Point.
    - Mechanisms for getting an expedited case to the MTF clinic also vary: at Albany a patient is asked to walk; Cherry Point has a walk-in clinic; Iwakuni command will arrange for transport; and at Beaufort/Parris Island, staff gets the patient a same-day appointment but no mention is made of how the patient gets to the clinic.
- The **Barstow** SOP covers only MFP to clinic referral and case coordination procedures. It also includes details on clinical staff meetings, BH program manager responsibilities, and a process for confirming referral receipts and appointment dates, but no explicit mention of tracking. It is explicit about family care being provided off base, with providers as care coordinator for off-base treatment.

Tabular summary of SOP analysis

The two tables below summarize the SOP text analysis. Blank boxes indicate topics not mentioned. Text in boxes summarizes unique features mentioned in the SOP relating to that topic.

Table 3: SOP differences from the MOU: Situations Covered and Individual Coordination

		Situation					Individual Coordination		
Group	Location	Mental health	Suicide	Subst. use	Violence	Sexual assault	Referral processes	Referral tracking	Roles/ responsibilities
1	Camp Lejeune								
	Miramar					y	MFP->MTF		
	Yuma								
2	Albany	y	y	y	y		y	y	
	Cherry Point	y	y	y	y		y	y	
	Iwakuni	y	y	y	y		y	y	
	Beaufort & Parris Island	y	y	y	y		y	y	
3	Camp Pendleton	y	y	y	y	y	y	y	PrgMgrs
	Okinawa	y	y	y	y		y	y	POCs
4	Barstow	y		y					PrgMgr
	Hawaii	y	y	y	y		y	y	
	Quantico	y	y		y		y	informal	

Table 4: SOP differences from the MOU: Tracking & Feedback and Other Practices

		Tracking & Feedback		Other Practices			
Group	Location	Program tracking/ meetings	Tracking metrics	Consent/ confidentiality	non-duplication of care	command notification	Other
1	Camp Lejeune						
	Miramar						
	Yuma						See note
2	Albany	y	y	y			
	Cherry Point	y	y	y		y	
	Iwakuni	y	y			y	
	Beaufort & Parris Island	y	y	y			
3	Camp Pendleton	y	y	y	y		share info, MIP
	Okinawa	y	y	y			MIP
4	Barstow	y			y		share records
	Hawaii						
	Quantico	y		y			

***Note** (Yuma): MFP provides counseling to patients waiting over a week for scheduled MTF treatment; MFP notifies clinic of MIP enrollment.*

Implications of MOU and SOP analysis

As noted, the MOU is the first attempt at better coordination between MFP and BUMED, even though the specific word *coordination* is used only once in the MOU document. The analysis shows that to implement the MOU appropriately, coordination principles must be applied to referral processes as well as to monthly and quarterly systems analysis and problem solving meetings at the installation and HQ levels.

The vision of the MOU is for a comprehensive system, but the text in the MOU focuses on role definitions, scope of practice, and foundational communication and measurement processes designed to engage BUMED and MFP more closely with each other at both the installation and HQ levels. Again, it does not specifically use *coordination* as a term but does specify roles, responsibilities, and tracking requirements that contribute to overall effective coordination.

What is not in the MOU may be as important as what is included. In reality, while BUMED and MFP encompass many of the services a comprehensive PH system should provide, it is not complete. Many other groups, including chaplains, MFLCs, and various unit personnel, provide preventive services and/or support BUMED and MFP in their work. These groups are not covered in the MOU. In addition, the MOU does not provide a means for enforcing adherence to the role definitions, scope of practice, and processes.

The SOPs are more explicit about how MFP and BUMED at the installations plan to coordinate, especially around referrals and tracking. However, they are not all aware of better and more complete practices, and while some variation is clearly based on installation and environmental differences, other causes for variation are not so clear and could lead to confusion in the longer term.

There was no clear instruction or template, but SOP similarities indicate some cross-installation information sharing and support. SOP creation has served as an opportunity for installation leaders to work together and think systemically as well as to consider unique aspects of sites that might require more non-standard coordination processes. Validation and updating of SOPs should occur regularly and are good opportunities to improve practices and learn from experience and other sites.

The role of the DPH is left somewhat ambiguous and, as of September 2015, we do not know of any Marine Corps installation at which that role has been filled, although there is an explicit DOD Instruction requiring one (DoDI 6490.09, 2012). Thus, there is a need to update the SOPs as this issue is resolved.

Table 5: References used in the MOU and SOPs

Used in	Type/Number	Name/Description
Parris Island	BUMEDINST 6300.17	Navy medicine clinical case management, 2009
Camp Lejeune	BUMEDINST 7050.1	Support agreements, 2011
MOU	DoDD 5136.01	Assistant Secretary of Defense for Health Affairs
Pendleton, Okinawa	DODD 6495.01	SAPR (updated Jan 20, 2015)
MOU	DoDI 6025.18R	DoD Health Information Privacy Regulation
MOU	DoDI 6490.08	Command Notification Requirements to Dispel Stigma in providing mental health Care to Service Members
MOU	DoDI 6490.09	DoD Directors of Psychological Health
Yuma	MARADMIN 129/14	Guidance for creating a local MOU (SOP) 3/19/2014 http://www.marines.mil/News/Messages/tabid/13074/Article/160965/development-of-memorandum-of-understanding-mou-for-installations-to-provide-a-c.aspx
Miramar	MCO 1752.5B	SAPR
MOU	MCO 1754.11	Marine Corps Family Advocacy and General Counseling Program
MOU	MCO 5300.17	Marine Corps Substance Abuse Program
MOU	SECNAVINST 5211.5E	Department of the Navy Privacy Program
MOU	SECNAVINST l850.4E	Department of the Navy Disability Evaluation Manual

Appendix E: Research methods

2013: II MEF PH system analysis

The 2013 II MEF Psychological Health System analysis used a multidisciplinary systems approach. This research methodology, including expected dimensions of variation, research instruments, and analytical methods, drew heavily from a recent health systems study done at MIT (Fradinho, 2014). Four dimensions of variation drove our respondent sampling strategy. These were: **location** (e.g., Camp Lejeune vs. Cherry Point), **function** (e.g., Division (DIV) vs. Marine Aviation Wing (MAW)), **role** (e.g., Line/command leaders vs. Navy blue vs. Navy green vs. MFP behavioral health providers), and **rank** (General to Lance Corporal).

We collected four types of evidence on a weeklong site visit in June 2013: interviews, surveys, observations, and internal documents. Ninety group interview sessions were conducted with a total of 270 participants surveyed. Personnel who were sampled were not close to deployment, deployed, or recently returned from deployment. Providers and program coordinators were from both embedded and non-embedded programs (i.e. Navy blue, Navy green, MCCS Behavioral Health). Observation was formally conducted in six settings including a Battalion Aid Station (BAS), a Regimental Aid Station (RAS), two Marine Centered Medical Homes (MCMH), and two clinics. Finally, internal documents such as policies, program descriptions, and program statistics were also collected.

Analysis results were validated with a representative sample of key stakeholders in II MEF's Psychological Health System and were presented and further validated at a decision brief on December 19, 2013, presided over by General John Paxton, ACMC, and attended by various senior leaders from the Marine Corps and Navy Medicine.

Details of this work are in our report "The Marine Corps II MEF Psychological Health System: overview, findings and recommendations" submitted to Marine Corps Health Services in January 2015.

2015: MOU implementation analysis

The 2015 MOU implementation analysis request that is the central focus of this report included three main tasks: review Health Systems literature, analyze signed MOU and SOP's, and conduct interviews at three sites to understand implementation status, learn about innovations, and note concerns.

For the literature review we began with the most recent (2015) US government reports from IOM, RAND, and HHS on health systems development, with a focus on prevention and medical/community coordination. We then worked backwards towards foundational studies, and performed citation analyses to focus in on the types of issues and innovations found in our 2013 II MEF work.

We used content analysis methods, with coordination as key analytical concept to analyze the MOU and compare the SOPs, as each was written independently. Our 45 interviews were with MTF, OSCAR and MFP leaders and providers. Questions focused on MOU implementation efforts, with specific attention to coordination work.

Analysis approach for interviews

We used a systemic analysis approach based on strategic design, political, and cultural "lenses" or perspectives on organizations, each of which distills the essence of related theories that share ideas about human nature, the functions of organizations, the meaning of organizing, and the information needed to make sense of an organization. By using all the lenses to analyze a situation, we gain new insights and a richer understanding.

The strategic design lens takes a structural perspective, viewing an organization as a kind of machine that has been designed to achieve **goals** by carrying out **tasks**. Every organization uses **grouping** of people and tasks to facilitate the flow of materials and information. When people are grouped together, information is transmitted across boundaries using **linking mechanisms**, including command hierarchy, liaison roles, task forces, accounting and IT systems, planning processes, and meetings. Since specific individuals and groups may have different values and goals, **alignment mechanisms** coordinate the efforts of diverse individuals and groups using incentive systems, resource allocation decisions, and human resource development processes around hiring, training, mentoring, and job rotation.

The political lens views the organization as a contested struggle for **power** (the ability to get things done) among **stakeholders** with different goals and underlying **interests**. Individuals and groups have different sources of power, including formal authority, control over scarce resources, rules and regulations, information and expertise, alliances with others, skill at manipulating symbols and persuading others, and personal energy and charisma. As the environment shifts or new strategies are developed, groups come to the fore that have the capabilities to deal with these new demands, but existing power holders may resist losing their power and status by delaying and subverting any change.

The cultural lens assumes that people take action as a function of the **meanings** they assign to situations. Meanings are not given, but rather are constructed from the bits and pieces of social life. Cultural elements – the **symbols**, stories, and experiences from which meanings are derived – are shared among members of a culture and transmitted to new members. Culture is a way of life; it is what we do around here and why we do it. Organizational cultures may be relatively uniform or fragmented into subcultures. Cultures can be thought of in layers, with visible symbols or **artifacts** that are easily observed, articulated **attitudes and beliefs** that are written and discussed, and underlying **assumptions** and meanings that are more difficult to surface. For example, PTSD diagnosis and treatment is complicated by cultural assumptions about toughness, stigma of mental illness, and malingering.

Appendix F: Acronyms

ACA	Affordable Care Act
ACE	Aviation Combat Element
ACMC	Assistant Commandant of the Marine Corps
ACO	Accountable Care Organization
AHC	Accountable Health Community
AHLTA	Armed Forces Health Longitudinal Technology Application (electronic health record)
AHRQ	Agency for Healthcare Research and Quality
BH	Behavioral Health
BHIP	Behavioral Health Integration Program
Blue	Navy Health Care providers based in MTFs and Clinics
BUMED	Bureau of Medicine and Surgery, Dept. of the Navy
BUMEDINST	BUMED Instruction
CCC	Community Counseling Center (part of MFP Behavioral Health)
CCP	Community Counseling Program (part of MFP Behavioral Health)
CDR	Commander (Navy)
CMG	Case Management Group; installation; hears all unrestricted sexual assault cases
CMMI	Center for Medicare and Medicaid Innovation
CMS	Center for Medicare and Medicaid Services (part of HHS)
COSC	Combat Operational Stress Control
DCHS	King County (WA) Dept. of Community and Health Services
DH	Department head
DHP	Defense Health Program
DIV	Division (Major Subordinate Command)
DIV PSYCH	Division Psychiatrist (most senior OSCAR provider)
DOD	Department of Defense
DOD-CMS	DOD Case Management System (used by MFP BH)
DoDD	DOD Directive
DODI	DOD Instruction (policy document)
DPH	Director for Psychological Health
DSM	Diagnostic Statistical Manual of Mental Disorders
DWI	Driving while intoxicated
EHR	Electronic Health Record
ER	Emergency Room
FAP	Family Advocacy Program
FPC	Force Preservation Council
FRO	Family Readiness Officer
GAD-7	self-assessment for generalized anxiety disorder (7 questions)
GC	General Counseling (part of FAP within MFP BH before expanding into CCC in FY 14)
GCE	Ground Combat Element
GMO	General medical officer (primary care physician for active duty personnel), also MO
Green	Navy health care providers embedded in Marine units (e.g. OSCAR providers, GMO)
HS	Health Services (Marine Corps)
HHS	Dept. of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
HQ	Headquarters
IBHC	Integrated Behavioral Health Consultant (provides PH care in MCMH)
ICM-RMS	Integrated Clinical Management and Risk Mitigation System (pronounced “ICM-Rams”)
I MEF	1st Marine Expeditionary Force (pronounced ‘one mef’)
II MEF	2nd Marine Expeditionary Force (pronounced ‘two mef’)
IOM	Institute of Medicine

IOP	Intensive Outpatient Program
IT	Information Technology
MARADMIN	Marines Administrative (message)
MARSOC	United States Marine Corps Forces Special Operations Command
MC	Marine Corps
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCCS	Marine Corps Community Services; MFP is part of MCCS
MCMH	Marine-Centered Medical Home
MCO	Marine Corps Order (policy document)
MEB disorders	Mental, Emotional, and Behavioral Disorders
MEF	Marine Expeditionary Force
MFLC	Military and Family Life Counselors (DOD nonmedical program)
MFP	Marine and Family Programs (part of MCCS; sometimes written MF or M&FP)
MH	Mental Health (directorate within Navy Medicine; department within MH Directorate)
MHS	Military Health System
MIP	Marine Intercept Program (MFP BH program in response to suicide ideation or attempt)
MIT	Massachusetts Institute of Technology
MLG	Marine Logistics Group
MO	Medical Officer (Primary care physician for Active Duty personnel), also GMO
MOU	Memorandum of Understanding
MTF	Military Treatment Facility
NCIS	Naval Criminal Investigative Service
NHCL	Naval Hospital Camp Lejeune (NC)
NHCP	Naval Hospital Camp Pendleton (CA)
NMCSD	Naval Medical Center San Diego (CA)
NPSP	New Parent Support Program (part of MFP BH)
OSCAR	Operational Stress Control and Readiness
PCL	PTSD Check List Self-assessment
PCMH	Patient-Centered Medical Home
PCP	Primary Care Physician
PCS	Permanent Change of Station
PH	Psychological Health
PHP	Psychological Health Pathways
PHQ-9	Patient Health Questionnaire's 9 question self-assessment for depression
POC	Point of Contact
Psych Tech	Psychiatric Technician
PTSD	Post-traumatic stress disorder
QA/PI	Quality Assurance/Process Improvement
RDML	Rear Admiral (lower half)
SACC	Substance Abuse Counseling Center (part of MFP)
SACO	Substance Abuse Counseling Officer
SAMHSA	Substance Abuse and Mental Health Services Administration
SAPR	Sexual Assault Prevention and Response Program
SARP	Substance Abuse and Rehabilitation Program (part of BUMED MH)
SECNAVINST	Secretary of the Navy Instruction
SIM	State Innovations Model (via CMMI)
SOI	School of Infantry
SOP	Standard Operating Procedure
SPRINT	Special Psychiatric Rapid Intervention Team (Navy)
SU	Substance Use
TMO	The Medical Officer (of the Marine Corps)

USMC	United State Marine Corps
VA	Veterans Administration
VHA	Veterans Health Administration (part of the VA)
WHO	World Health Organization

Appendix G: Bibliography

AHRQ. (2014). Automated Clinician Prompts and Referrals Facilitate Access to Counseling Services , Leading to Positive Behavior Changes. Retrieved from https://innovations.ahrq.gov/profiles/automated-clinician-prompts-and-referrals-facilitate-access-counseling-services-leading

Bronfenbrenner, U. (1994). Ecological Models Of Human Development. International Encyclopedia of Education, 3, 2nd Edi, 1643–1647. Retrieved from http://www.psy.cmu.edu/~siegler/35bronfebrenner94.pdf

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.

Cantor, J., Tobey, R., Houston, K., & Greenberg, E. (2015). Accountable Communities for Health: Strategies for Financial Sustainability. JSI Research & Training Institute, Inc.

Chang, A. M., Cohen, D. J., McCarty, D., Rieckmann, T., & McConnell, K. J. (2014). Oregon's Medicaid Transformation -- Observations on Organizational Structure and Strategy. Journal of Health Politics, Policy and Law, 40(1), 257–264. http://doi.org/10.1215/03616878-2854959

ChangeLab Solutions. (2014). Accountable Communities for Health: Legal & Practical Recommendations. ChangeLab Solutions. Retrieved from http://www.chhs.ca.gov/PRI/ACHLegalPracticalRecommendationsReportFinal.pdf

Corrigan, J. M., & Fisher, E. S. (2014). Accountable Health Communities: Insights From State Health Reform Initiatives. Lebanon, NH: The Dartmouth Institute for Health Policy & Clinical Practice. Retrieved from http://tdi.dartmouth.edu/images/uploads/AccountHealthComm-WhPaperFinal.pdf

Davenport, T. H., Harris, J. G., & Morison, R. (2010). Analytics at Work: Smarter Decisions, Better Results. Boston, MA: Harvard Business School Press.

Department of Defense Task Force on Mental Health. (2007). An Achievable Vision: Report of the Department of Defense Task Force on Mental Health. Falls Church, VA: Defense Health Board. Retrieved from http://intransition.dcoe.mil/sites/default/files/MHTFReportFinal.pdf

Department of the Navy. (2013). Memorandum of Understanding (MOU) Between the Navy Bureau of Medicine and Surgery (BUMED), Marine and Family Program Division (MFP), and Marine Health Services (HS).

DeSilva, M., Samele, C., Saxena, S., Patel, V., & Darzi, A. (2014). Policy Actions To Achieve Integrated Community-Based Mental Health Services. Health Affairs, 33(9), 1595–1602. http://doi.org/10.1377/hlthaff.2014.0365

DoDI 6490.06. (2009). 6490.06: Counseling Services for DoD Military, Guard and Reserve, Certain Affiliated Personnel, and Their Family Members. Department of Defense. Retrieved from http://www.dtic.mil/whs/directives/corres/pdf/649006p.pdf

DoDI 6490.09. (2012). 6490.09: DoD Directors of Psychological Health. Department of Defense. Retrieved from http://www.dtic.mil/whs/directives/corres/pdf/649009p.pdf

Donabedian, A. (1980). Explorations in quality assessment and monitoring: the definition of quality

and approaches to its assessment. Ann Arbor: Health Administration Press.

Dymek C, Johnson M Jr, McGinnis P, Buckley D, Fagnan L, Mardon R, Hassell S, C. D., Dymek, C., Johnson Jr., M., McGinnis, P., Buckley, D., Fagnan, L., … Carpenter, D. (2013). Clinical-Community Relationships Measures Atlas. AHRQ Pub No. 13-0041-EF. Retrieved from http://www.ahrq.gov/professionals/prevention-chronic-care/resources/clinical-community-relationships-measures-atlas/index.html

Epidemiology Program Post-Deployment Health Group. (2015). Analysis of VA Health Care Utilization among Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans.

Fisher, E. S., & Corrigan, J. (2015). Accountable Health Communities: Getting There From Here. JAMA: The Journal of the American Medical Association, 312(20), 2093–2094.

Fradinho, J. M. dos S. (2014). Towards high performing hospital enterprise systems: an empirical and literature based design framework. Enterprise Information Systems, 8(3), 355–390. http://doi.org/10.1080/17517575.2013.850746

Freeman, E., Presley-Cantrell, L., Edwards, V. J., White-Cooper, S., Thompson, K. S., Sturgis, S., & Croft, J. B. (2010). Garnering partnerships to bridge gaps among mental health, health care, and public health. Preventing Chronic Disease, 7(1), A21. Retrieved from http://www.cdc.gov/pcd/issues/2010/jan/09_0127.htm

Frenk, J. (2010). The Global Health System: Strengthening National Health Systems as the Next Step For Global Progress. PLoS Medicine, 7(1). http://doi.org/10.1371/journal.pmed.1000089

Gittell, J. H., Seidner, R., & Wimbush, J. (2010). A Relational Model of How High-Performance Work Systems Work. Organization Science, 21(2), 490–506.

Goodell, S., Druss, B. G., & Walker, E. R. (2011). Mental disorders and medical comorbidity. A research synthesis report. Robert Wood Johnson foundation: The Synthesis project. Robert Wood Johnson Foundation. Retrieved from http://www.rwjf.org/en/library/research/2011/02/mental-disorders-and-medical-comorbidity.html

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

Johnson, M. J., & Mardon, R. (2013). Potential Measures for Clinical-Community Relationships. Rockville, MD: Agency for Healthcare Research and Quality. Retrieved from http://www.ahrq.gov/professionals/prevention-chronic-care/resources/ccrm-atlas-suppl/index.html

King County Department of Community and Human Services. (2013a). Regional Veterans Initiative - Report and Recommendations. King County Department of Community and Human Services. Retrieved from http://www.kingcounty.gov/~/media/socialServices/veterans/documents/RVI_Final_Report_090313.ashx?la=en

King County Department of Community and Human Services. (2013b). Status of Veterans and Veterans Services in King County. King County Department of Community and Human

Services. Retrieved from http://www.kingcounty.gov/~/media/socialServices/CSD/documents/Status_of_Veterans_and_Veterans_Services_in_King_County.ashx?la=en

Lando, J., Williams, S. M., Williams, B., & Sturgis, S. (2006). A Logic Model for the Integration of Mental Health into Chronic Disease Prevention and Health Promotion. Preventing Chronic Disease, 3(2). Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1563949/

Magnan, S., Fisher, E., Kindig, D., Isham, G., Wood, D., Eustis, M., … Leitz, S. (2012). Achieving accountability for health and health care. Minnesota Medicine, 95(11), 37–9. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/23243752

McDonald, K. M., Schultz, E., Albin, L., Pineda, N., Lonhart, J., Sundaram, V., … Davies, S. (2014). Care Coordination Measures Atlas. Agency for Healthcare Research and Quality, MD: U.S. Department of Health and Human Services. Retrieved from http://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/atlas2014/index.html

MCO 1752.5B. (2013). MCO 1752.5B: Sexual Assault Prevention and Response (SAPR) Program. Department of the Navy, Headquarters Marine Corps.

MCO 1754.11. (2012). MCO 1754.11: Marine Corps Family Advocacy and General Counseling Program. Department of the Navy, Headquarters Marine Corps.

MCO 5300.17 MRC-4. (2011). MCO 5300.17 Marine Corps Substance Abuse program. Department of the Navy, Headquarters Marine Corps.

Mrazek, P. J., & Haggerty, R. J. (1994). Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research (IOM Report). Washington, DC: National Academies Press (US). Retrieved from http://www.nap.edu/catalog/2139/reducing-risks-for-mental-disorders-frontiers-for-preventive-intervention-research

National Prevention Council. (2011). National Prevention Strategy: America's Plan for Better Health and Wellness. Office of the Surgeon General. Retrieved from http://www.surgeongeneral.gov/priorities/prevention/strategy/report.pdf

NCCOSC. (2013). 5th Marine Regiment Preferences for and Barriers to Mental Health Care.

O'Connell, M. E., Boat, T., & Warner, K. E. (2009). Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities (IOM Report). IOM. Retrieved from http://www.nap.edu/catalog/12480/preventing-mental-emotional-and-behavioral-disorders-among-young-people-progress

O'Donnell, A., Williams, B., Eisenberg, D., & Kilbourne, A. (2013). Mental Health in ACOs: Missed Opportunities and Low Hanging Fruit. Am J Manag Care, 19(3), 180–184. http://doi.org/10.1016/j.biotechadv.2011.08.021.Secreted

Plaza, C., Arons, A., Rosenthal, J., & Heider, F. (2014). Financing Prevention: How States are Balancing Delivery System & Public Health Roles. ChangeLab Solutions. Retrieved from http://www.changelabsolutions.org/financing-prevention

Porterfield, D. S., Hinnant, L. W., Kane, H., Horne, J., McAleer, K., & Roussel, A. (2012). Linkages Between Clinical Practices and Community Organizations for Prevention. American Journal of Preventive Medicine, 42(6), S163–S171. http://doi.org/10.1016/j.amepre.2012.03.018

Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M. R., & Rahman, A. (2007). No Health Without Mental Health. The Lancet, 370(9590), 859–877. http://doi.org/10.1016/S0140-6736(07)61238-0

Redding, M., & Redding, S. (2008). Program uses "pathways" to confirm those at-risk connect to community based health and social services, leading to improved outcomes. Retrieved from http://www.innovations.ahrq.gov/content.aspx?id=2040

RTI International. (2014a). State Innovation Models (SIM) Initiative Evaluation: Model test base year annual report. Retrieved from http://innovation.cms.gov/initiatives/state-innovations/

RTI International. (2014b). State Innovation Models (SIM) Initiative Evaluation: Model design and model pre-test evaluation report. Retrieved from http://innovation.cms.gov/initiatives/state-innovations/

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

Schuchter, J., & Jutte, D. P. (2014). A framework to extend community development measurement to health and well-being. Health Affairs, 33(11), 1930–1938. http://doi.org/10.1377/hlthaff.2014.0961

Shortell, S. (2015). Creating Accountable Communities for Health. Hospitals & Health Networks Magazine. Retrieved from http://www.hhnmag.com/Magazine/2015/July/ahavoices_jul15

Somers, S., & Mcginnis, T. (2014). Broadening the ACA Story: A Totally Accountable Care Organization – Health Affairs Blog. Retrieved from http://healthaffairs.org/blog/2014/01/23/broadening-the-aca-story-a-totally-accountable-care-organization/

Song, Z., Safran, D. G., Landon, B. E., He, Y., Ellis, R. P., Mechanic, R. E., … Chernew, M. E. (2011). Health care spending and quality in year 1 of the alternative quality contract. The New England Journal of Medicine, 365(10), 909–918. http://doi.org/10.1056/NEJMsa1101416

Thota, A. B., Sipe, T. A., Byard, G. J., Zometa, C. S., Hahn, R. a., McKnight-Eily, L. R., … Williams, S. P. (2012). Collaborative Care to Improve the Management of Depressive Disorders: A Community Guide Systematic Review and Meta-Analysis. American Journal of Preventive Medicine, 42(5), 525–538. http://doi.org/10.1016/j.amepre.2012.01.019

U.S. Department of Health and Human Services. (2011). Healthy People 2020: A Resource for Promoting Health and Preventing Disease Throughout the Nation. Retrieved from http://www.healthypeople.gov/sites/default/files/HealthyPeoplePresentation_2_24_11.ppt

Whitmore, C., & Carta, C. (2013). Navy Medicine Mental Health Resources for the Marine Corps: Perceptions of Access. CNA.

World Health Organization. (2013). Mental Health Action Plan 2013-2020. Retrieved from http://www.who.int/mental_health/publications/action_plan/en/