



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

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Chapter 2: US Army: Transformation to a Behavioral Health System of Care

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Introduction

When we began the project in 2009, the rotation of Service members to and from combat over the lifecycle of two wars was continuing to strain the ability of the Military Health System (MHS) ability to meet the demand for mental health services by those Service members and their families. Only two years earlier, the DoD Task Force on Mental Health had concluded that “the system of care for psychological health that has evolved over recent decades is insufficient to meet both current and future needs of beneficiaries.”¹

Using a systems approach, we designed our research to examine how behavioral health (BH) care is organized and delivered in the U.S. Army and to facilitate a transformation of the system of care. Our exploratory field research in 2009–11 as part of an earlier study observed systemic problems interfering with access to and continuity of care, adversely affecting the efficiency and cost of care and hindering coordination between command and providers around readiness. We saw these problems as impediments to improving care based on process and outcome data.

From this exploratory research, we developed 10 recommendations to enable system transformation in the DoD.² Of these, seven were tactical in nature, addressing component-level changes to the system of care such as improving telebehavioral health services and organizational barriers such as delays in hiring, credentialing, and privileging. We saw that these tactical recommendations could potentially be addressed with operational changes to the clinical care delivery within Military Treatment Facilities (MTFs). The remaining three recommendations focused on strategic challenges in the areas of system of care design, capacity planning, and performance management, which required senior leader engagement and support in the Army and the MHS.

¹ Department of Defense Task Force on Mental Health. “An Achievable Vision: Report of the Department of Defense Task Force on Mental Health.” Defense Health Board Falls Church, VA, 2007.

² Nightingale, Deborah J, Jayakanth Srinivasan, Wiljeana Glover, Robert C Kenley, Andrea Katherine Ippolito, Judy Wang, John Hess, *et al.* “Applying Lean to the Mental Health Services Enterprise Current State Analysis.” Cambridge, USA: Massachusetts Institute of Technology, 2011.

As part of this project, we observed significant changes in the system of care at the installation, Army, and MHS levels and worked in partnership with leadership at multiple levels to provide useful insights and recommendations developed from our ongoing observations of the transformation process.

This chapter describes our approach to collecting data and conducting participatory action research, details the core attributes we believe constitute the design and operating principles of an effective Army behavioral health system of care, and summarizes the current state and remaining challenges in the Army's system of care.

Our Approach

To describe and analyze the complex Army behavioral health system of care, we developed a multi-method approach incorporating field research, participatory action research, data analytics, and simulation modeling. With our first round of field research, we mapped the current state of the behavioral health system of care using an enterprise analysis framework developed by Nightingale and Srinivasan.³ We developed a hybrid approach for mapping out the current state using techniques from policy analysis, field research, and data analytics. The policy analysis examined 68 operational orders (OPORDs) and fragmentary orders (FRAGOs) relating to the provision of clinical behavioral health services issued from 2008 to 2014. These documents provide a history of desired planned changes across the system and enabled us to differentiate between the desired system and the implemented system.

We worked with our Army partners to identify four in-depth field research sites representative of installations that deploy forces to a combat theater. Our quantitative data analysis showed these posts to have the largest patient populations and highest demand for and use of behavioral health services. We spent a week at each site in 2010 conducting interviews and focus groups; we returned to the same posts in 2012–13 and again in 2014–15 to observe and work collaboratively to improve the system of care at these installations. In addition to these four field research sites, we conducted an additional 22 site visits to 15 other Army installations to assess the applicability of the findings from the four in-depth case. These 34 field research visits to 19 Army installations provided a rich

³ Nightingale, Deborah J, and Jayakanth Srinivasan. *Beyond the Lean Revolution: Achieving Successful and Sustainable Enterprise Transformation*. New York: AMACOM Press, 2011.

understanding of the organization, delivery, governance, and impact of behavioral health care in the Army.

At each field research site, we gathered interview and focus group data from more than 100 interviewees drawn from 18 key stakeholder groups in three organizations that provide support to Soldiers seeking behavioral health services:⁴ (1) service providers (psychiatrists, psychologists, licensed clinical social workers, social service assistants, nurse case managers, behavioral health technicians, clinical care leaders); (2) command teams (four levels from company to division); and (3) support services (substance abuse clinical care providers, substance use managers, installation support services, family advocacy services, military family life counselors, chaplains and legal services). We did not interview Soldiers and family members receiving care, as none of the research team members were clinicians. Data from our interviewees were rich enough to address issues of organizing, governance, and process improvement; further research would be needed to address the actual patient experience of care.

The ability to triangulate field research findings with actual care delivery data was a critical component of the research design. We used administrative healthcare data from FY2003–FY2014 that captured when a beneficiary was seen and the diagnostic and procedure codes associated with each visit. This gave us a deeper understanding of stakeholder perspectives, including disconnects between perceptions at the installation, Army, and DoD, than those based on the field research alone.

These baseline findings from the first round of visits and the quantitative data analysis provided the foundation for executing ongoing participatory action research.⁵ In these visits, we worked with our partners to share observations, facilitate discussion, and co-design interventions to improve the system of care at the installation and Army levels. The cooperative agreement was a necessary foundation for the partnership that enabled MIT researchers to serve as neutral observers of the system of care and share findings with a wide range of stakeholders, including senior leaders (DoD, Army, and Installations), operational leaders (clinic chiefs, command teams), and care providers, without concerns about the direct influence often found as part of the organization’s reporting structure. The cooperative agreement also established a shared mental model among all stakeholders

⁴ Srinivasan, Jayakanth. “Multi-Stakeholder Approach to Understanding Army Mental Health Services Delivery”: Massachusetts Institute of Technology, 2016.

⁵ Reason, Peter, and Hilary Bradbury. *Handbook of Action Research: Participative Inquiry and Practice*. Sage, 2001.

that the researchers were there to generate new knowledge, not as external consultants “solving” operational challenges.

To conclude each field visit, we met with the senior leadership team from all principal organizations on the Army post to share lessons learned. The team conducted a daily retrospective to identify the system strengths and disconnects, which were then aggregated into a final list of findings and recommendations for leader actions. We also obtained permission from the leaders of each post to share local innovations with the Army leadership to facilitate their diffusion, first through pilot projects and then by integrating the innovations into the larger system of care design. We wrote up a case summary and revisited our field recommendations to ensure applicability to the larger Army system of care. The research team and the Army behavioral health leadership team carried out regular retrospective reflections on quantitative data analysis to determine whether changes to the system of care were delivering the desired results.

We held regular feedback sessions with the senior Army and MHS leaders to share findings from the field research and data analytics. This allowed us to share information and insights in ways that supported actual decisionmaking by the senior leaders. These meetings were critical to the participatory action research at the MHS and Army levels, as it led to directive guidance that provided consistent access to the field research sites and accelerated participation in change efforts.

Although we originally framed our research solely in terms of clinical care, the first round of field research in 2010 highlighted the need to understand the dual nature of behavioral health in the military as both a command-driven, clinically supported system and a clinically driven command-supported system. We therefore designed all our field and participatory action research to engage installation leaders and incorporate their feedback. Every site visit included a kickoff meeting with the senior leadership team at the installation and concluded with a key learning meeting with the team. This ensured that local challenges could be addressed at the installation level and that the installation leadership was aware of the information being shared with their leaders. We made sure to speak with command teams at every level to understand the challenges they face in shaping the occupational environment. Their feedback was incorporated explicitly into the design of the system of care. We verified whether the system design changes actually affected command team communications with providers and whether the bidirectional flow of information enabled both actors to provide care better for Soldiers. Likewise, feedback from the clinic chiefs and clinicians

was incorporated into the system of care design. The power of the research was in the ability to engage the same groups of stakeholders longitudinally over multiple Plan-Do-Check-Act cycles so they could see the tangible impact of their participation. Throughout, the three-lens perspective described in detail in chapter 1—encompassing the strategic/structural, political, and cultural lenses—was an important element of our approach.

Three transformation levers can be applied to improve beneficiary health and wellness: improving clinical care in the *direct care* system, improving access to and performance of the *purchased care* network, and enhancing education and training to build resilience. We chose to focus the Army research on the design of the *direct care* clinical system because it serves as the nexus for receiving ill patients and routing them appropriately into care. We consider the *purchased care* network to be very important but beyond the scope of the project given the lack of access to data. We did analyze the current state of the Ready and Resilient Campaign, designed to improve unit readiness and further reinforce the Army Profession and surfaced some of the same challenges associated with system design and command engagement observed in the clinical system of care.^{6,7,8}

Overview of Our Findings

In the remainder of this chapter, we argue—based on the research just described—that improvement of the direct care system requires a clinically coherent, appropriately sized, culturally competent, recovery-oriented, and operationally responsive system of care. Such a system must also have a management framework that enables inspection of care processes and care outcomes and drives quality improvement efforts by providers, installations, and the Army. The titles of this chapter’s subsections are themselves the design rules guiding the transformation,⁹ each of which has been implemented to a greater or lesser degree.

Systems transformation requires a system design that is clinically coherent and specifies the desired patient flow across levels of care. In the *Develop a Clinically Coherent System of Care*

⁶ Army, Senior Leaders. “Ready and Resilient Tri-Signed Letter.” <http://www.army.mil/article/98337/>.

⁷ Allen, Charles D. “Assessing the Army Profession.” *Parameters* 41, no. 3 (2011): 73.

⁸ Fosmoe, Kristofer, Christopher Wadsworth, Joshua Williams, Melvis Chafac, and Jayakanth Srinivasan. “A Company Command Perspective on the Ready and Resilient Campaign.” Massachusetts Institute of Technology, 2014.

⁹ Srinivasan, Jayakanth. “Design Rules Guiding Army Behavioral Health Transformation “: Massachusetts Institute of Technology, 2016.

section below, we lay out the design process the Army adopted to transition from a loose discipline-based collection of individual practices to a mission-based system of care design. The capacity to provide care is the foundation for providing clinically appropriate, evidence-supported care. In the *Size the System of Care Appropriately* section, we discuss the shift in the Army from a volume-based sizing strategy to a more holistic capacity-estimation approach that accounts for the unique needs of military medicine. The system of care has to meet the needs of Soldiers, family members, and other beneficiaries. In the *Provide Culturally Competent Care* section, we lay out the Army's approach for providing culturally appropriate Soldier care and highlight the current limitations of providing family care in the direct care system. We also consider some of the practices the Army has adopted to improve cultural competence in both the direct care and purchased care systems.

Command teams play a significant role in enabling access to behavioral health services and creating an occupational environment conducive to recovery. In the *Build an Operationally Responsive System of Care* section, we highlight the importance of quantifying the impact of behavioral health conditions on readiness. We discuss the information systems and policy changes the Army has deployed to build collaborative relationships between command teams and providers that respect the authorities and responsibilities of both sets of actors. The *Ensure Safe Occupational and Operational Transitions* section describes the steps taken to help the management of moves such as Permanent Changes of Station and deployment-related transitions so that Soldiers and their dependents are not lost during these transitions.

The Army is a recovery-oriented organization, but stigma persists for seeking behavioral health services. In the *Create a Recovery-Oriented Culture* section, we examine the broad range of strategies the Army has utilized—including leader education, policy changes to security clearances, and care-colocation—to reduce the stigma associated with behavioral health services.

The ability to inspect care processes and outcomes is critical to building a learning healthcare system. In the *Design a Management System to Meet Key Actor Needs* section, we lay out the foundational components of accounting infrastructure, outcome measurement, performance transparency and formal incentives that together enable performance management of providers, clinics, installations, and the service line.

In the *Discussion and Next Steps* section, we identify some of the ongoing challenges, and identify areas for future actions and research. In chronicling this transformation, we pay special

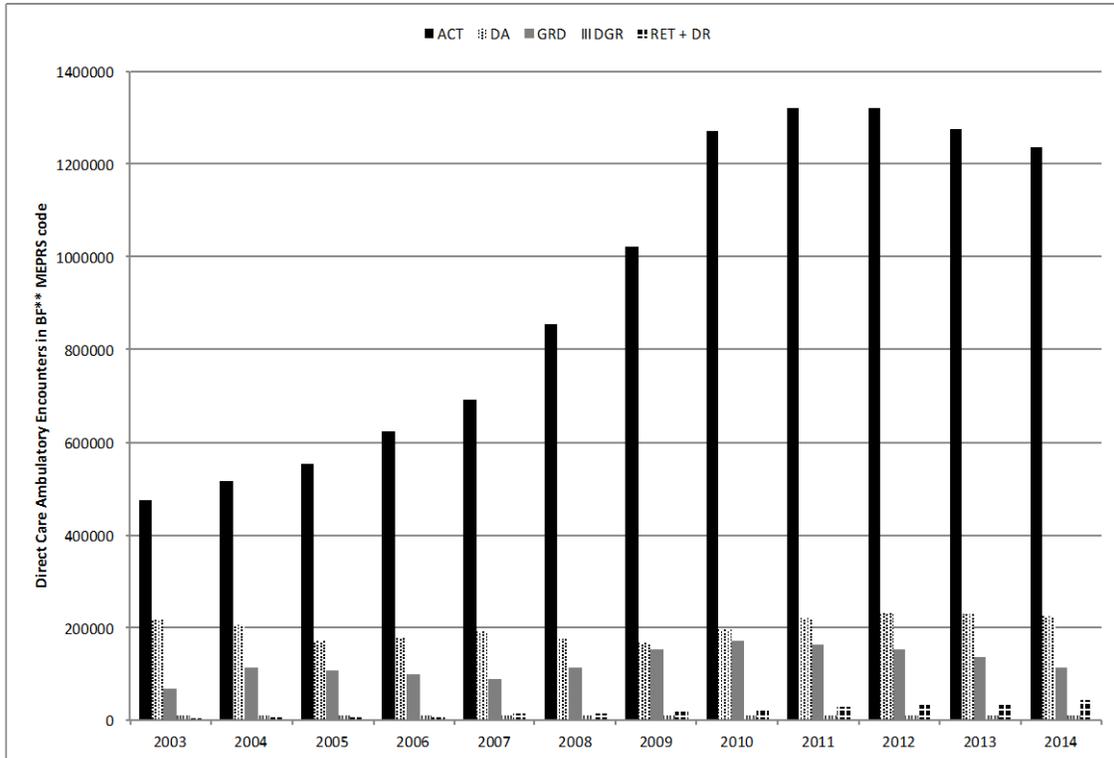
attention to the structural, political, and cultural challenges encountered. We present these not because they are unique to the Army's transformation, but because they are likely to be experienced in any large, complex organization seeking to design and implement a new system while continuing to carry out its core mission. As such, they are relevant to many other organizations, military or civilian, seeking system transformation.

The chapter concludes with some reflections in a section titled *The Journey Ahead*.

Develop a Clinically Coherent System of Care

Outpatient Behavioral health utilization in the Army tripled from 1.1 million encounters in FY2003 to more than 3.3 million encounters in FY2014 (Figure 2-1 and Figure 2-2). In the same timeframe, psychiatric admissions for mental health and substance use conditions grew from 11,760 admissions in FY2003 to 25,686 admissions in FY2014, peaking in FY2012 at 27,374 admissions (Figure 2-3 and Figure 2-4). This rapid growth in demand for care led to an intensive examination in the Army of ways to organize care and assess its efficacy. Even though purchased outpatient care quintupled in this period, the care delivered in the purchased care system is governed by formal TRICARE contracts that constrain the level of changes the Army can make to the system. The Army focused its strategic redesign efforts on the direct care system because the Surgeon General has greater control over Military Treatment Facilities run by the Army.

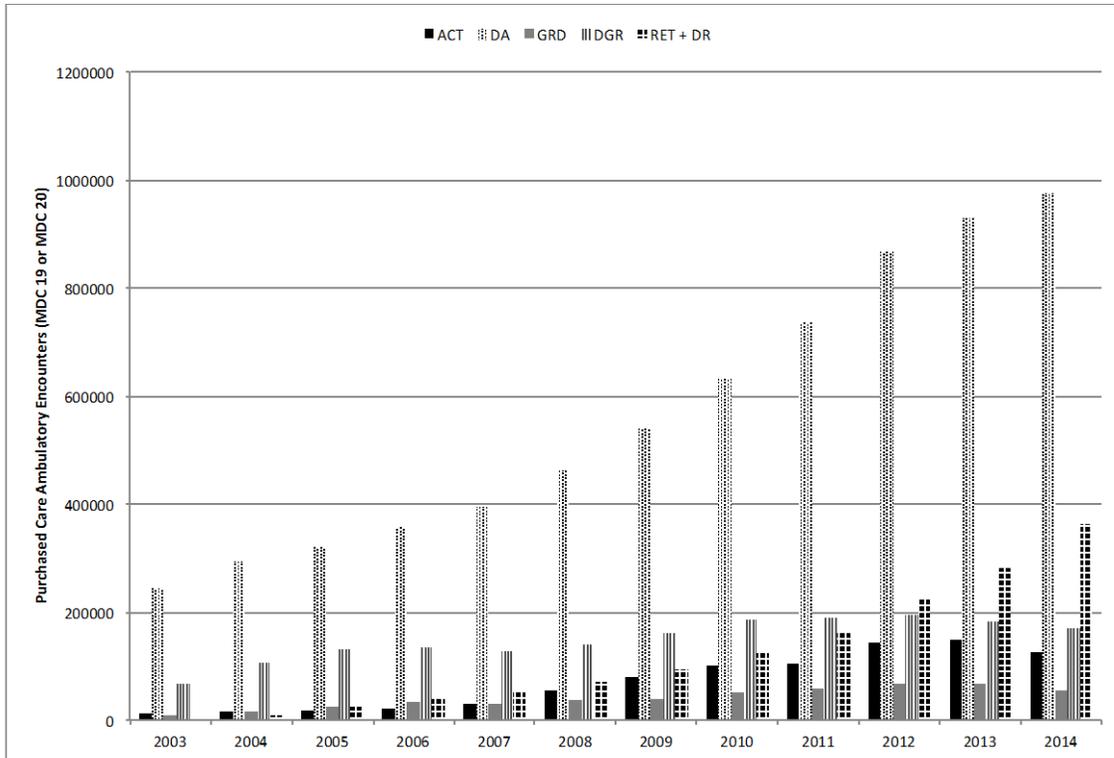
The traditional organization of behavioral health services around the disciplines of psychiatry, psychology, social work, and psychiatric nursing supported the creation of a departmental structure that enabled alignment to academic societies, licensure boards, and certification agencies. The sets of services available at an MTF depended highly on the types of providers at that MTF, making it difficult to create a consistent experience of care from one to the next. Soldiers, family members, and retirees accessed services within each department on an as-needed basis, and coordination of complex cases was executed at the discretion of the individual providers involved in the care of the patient. The system was provider-centric rather than patient-centric.



Year	ACT	DA	GRD	DGR	RET + DR	DC BH	All BH Care
2003	473,047	215,725	66,474	10,260	4,219	769,725	1,108,990
2004	515,702	205,119	113,091	11,802	7,064	852,778	1,293,089
2005	553,314	170,333	108,176	10,526	8,574	850,923	1,369,188
2006	623,189	176,650	100,705	10,817	12,470	923,831	1,505,762
2007	690,515	192,476	90,780	9,734	14,529	998,034	1,634,058
2008	856,235	175,587	113,735	9,760	14,394	1,169,711	1,935,751
2009	1,021,999	168,045	152,960	10,170	17,596	1,370,770	2,289,231
2010	1,270,821	195,874	171,520	10,428	24,584	1,673,227	2,773,706
2011	1,320,555	220,033	164,877	10,155	27,592	1,743,212	2,993,085
2012	1,321,847	230,228	152,644	9,952	31,687	1,746,358	3,241,314
2013	1,274,645	228,397	134,835	9,078	31,996	1,678,951	3,293,514
2014	1,236,360	225,193	114,369	9,162	42,895	1,627,979	3,317,763

ACT: Active Duty; DA: Dependents of Active Duty; GRD: Guard/Reserve; DGR: Dependents Guard/Reserve; RET + DR: Retirees and Retiree Dependents; DC: Direct Care Behavioral Health; All BH Care

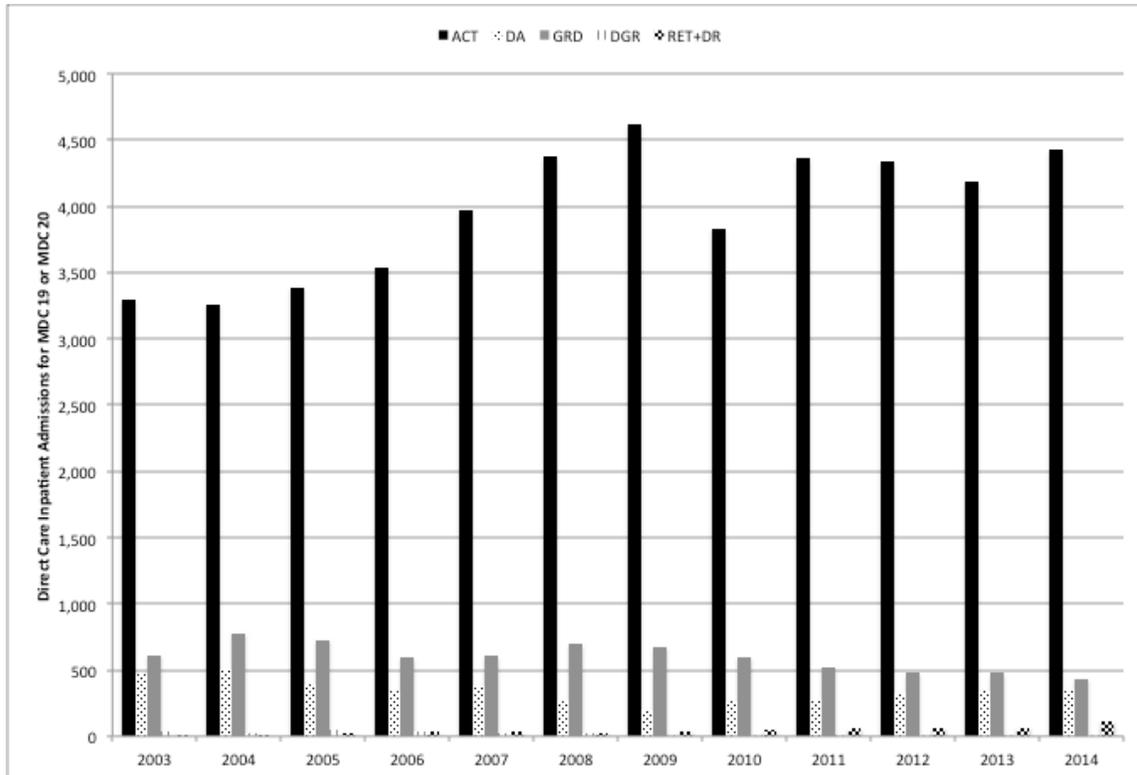
Figure 2-1: Growth in Direct Care Ambulatory Behavioral Health Encounter, FY2003–FY2014



Year	ACT	DA	GRD	DGR	RET + DR	PC BH	All BH Care
2003	12,412	245,434	10,573	67,209	3,637	339,265	1,108,990
2004	14,299	291,991	16,599	106,688	10,734	440,311	1,293,089
2005	17,580	321,086	25,568	130,776	23,255	518,265	1,369,188
2006	20,814	356,149	33,160	133,543	38,265	581,931	1,505,762
2007	29,639	394,417	31,271	127,802	52,895	636,024	1,634,058
2008	56,513	460,353	36,890	141,470	70,814	766,040	1,935,751
2009	78,210	541,462	40,242	162,505	96,042	918,461	2,289,231
2010	101,665	632,799	51,621	185,881	128,513	1,100,479	2,773,706
2011	102,539	735,405	56,708	189,380	165,841	1,249,873	2,993,085
2012	142,414	868,908	66,828	195,157	221,649	1,494,956	3,241,314
2013	151,219	929,822	67,269	183,691	282,562	1,614,563	3,293,514
2014	126,143	973,281	55,833	172,371	362,156	1,689,784	3,317,763

ACT: Active Duty; DA: Dependents of Active Duty; GRD: Guard/Reserve; DGR: Dependents Guard/Reserve; RET + DR: Retirees and Retiree Dependents;
PC: Purchased Care Behavioral Health; All BH Care

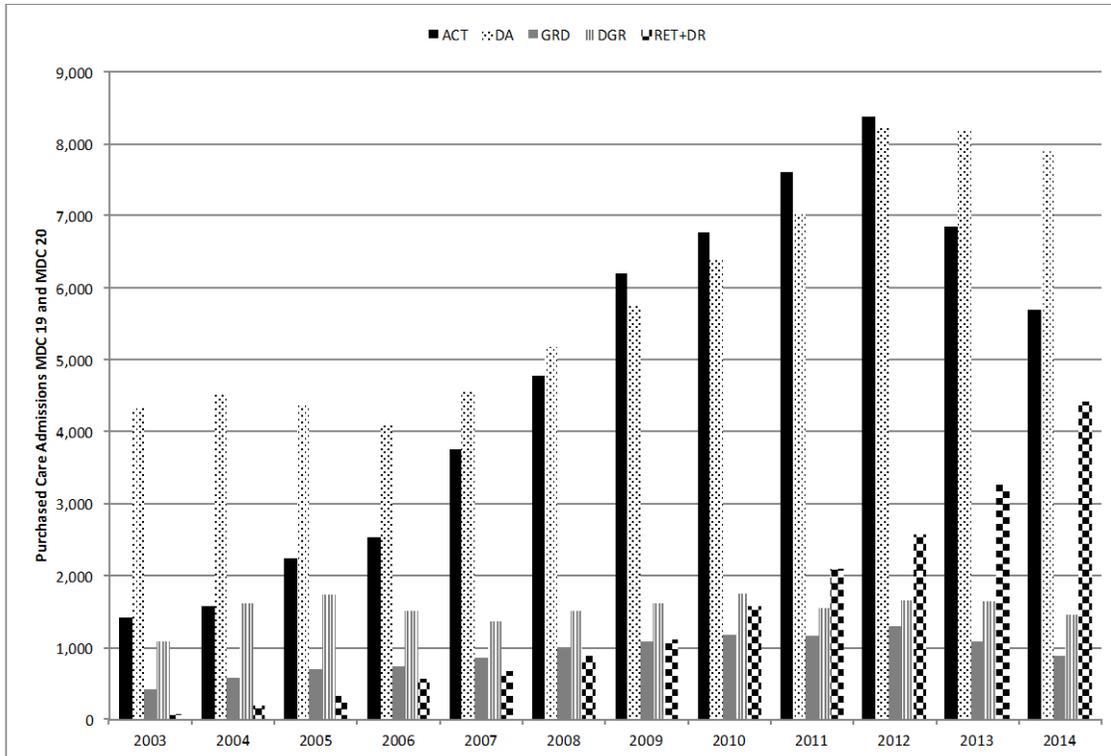
Figure 2-2: Growth in Purchased Care Ambulatory Behavioral Health Encounter FY2003–FY2014



Year	ACT	DA	GRD	DGR	RET + DR	DC Admits	All Admits
2003	3,296	469	613	33	4	4,415	1,108,990
2004	3,259	501	781	29	12	4,582	1,293,089
2005	3,388	396	729	43	26	4,582	1,369,188
2006	3,542	348	592	34	32	4,548	1,505,762
2007	3,976	380	604	18	30	5,008	1,634,058
2008	4,372	283	693	20	27	5,395	1,935,751
2009	4,614	207	671	16	40	5,548	2,289,231
2010	3,833	270	596	14	50	4,763	2,773,706
2011	4,360	273	519	10	60	5,222	2,993,085
2012	4,336	324	482	10	66	5,218	3,241,314
2013	4,190	347	480	12	66	5,095	3,293,514
2014	4,426	358	436	12	115	5,347	3,317,763

ACT: Active Duty; DA: Dependents of Active Duty; GRD: Guard/Reserve; DGR: Dependents Guard/Reserve; RET + DR: Retirees and Retiree Dependents;
DC Admits: Direct Care Inpatient Admissions; All Admits: All Inpatient Admissions

Figure 2-3: Growth in Direct Care Behavioral Health Inpatient Admissions, FY2003–FY2014



Year	ACT	DA	GRD	DGR	RET + DR	PC Admits	All Admits
2003	1,420	4,334	428	1,077	86	7,345	11,760
2004	1,568	4,523	594	1,609	203	8,497	13,079
2005	2,241	4,367	705	1,741	339	9,393	13,975
2006	2,534	4,117	748	1,509	553	9,461	14,009
2007	3,752	4,560	853	1,362	686	11,213	16,221
2008	4,792	5,171	975	1,490	883	13,311	18,706
2009	6,195	5,748	1,086	1,609	1,122	15,760	21,308
2010	6,772	6,405	1,174	1,753	1,561	17,665	22,428
2011	7,611	7,050	1,158	1,556	2,087	19,462	24,684
2012	4,336	324	482	10	66	22,156	27,374
2013	4,190	347	480	12	66	21,030	26,125
2014	4,426	358	436	12	115	20,339	25,686

ACT: Active Duty; DA: Dependents of Active Duty; GRD: Guard/Reserve; DGR: Dependents Guard/Reserve; RET + DR: Retirees and Retiree Dependents; PC Admits: Purchased Care Inpatient Admissions; All Admits: All Inpatient Admissions

Figure 2-4: Growth in Purchased Care Behavioral Health Inpatient Admissions, FY2003–FY2014

In 2009, the Army established 10 working groups to define the requirements for a standard *patient-centric* system of care. The working group process brought together subject matter experts from across the Army to develop consensus on the key components of the system such as family care, Soldier care, and telebehavioral health. The workgroups focused on key enabling processes such as outcome measurement, incentives, and governance, and built the foundation that led to key changes in policy and organizing. The work group efforts resulted in the 2010 Behavioral Health System of Care (BHSOC) Campaign plan that extended the Stroul and Friedman system of care concept to the military context.^{10,11} This change roadmap focused on building a system that could create a consistent *patient-centered* experience of care across all Army MTFs, increase capacity to provide care in the direct care system, engage command teams to shape the occupational environment, and promote recovery.

In our exploratory research, we saw behavioral health services provided under various clinic names, including post deployment health centers, sleep clinics, and traumatic brain injury clinics in addition to the traditional disciplinary-based clinics or departments of psychiatry, psychology, and social work.¹² Each installation had its own process for scheduling patients and unique approaches for meeting the MHS standards for access to care. For example, some installations established walk-in clinics to triage all Soldiers in lieu of giving them a formal first appointment; follow-up visits were scheduled as referrals from the triage clinic.¹³

The autonomy provided to hospital commanders to design the care delivery system to meet the needs of their local population encouraged diversity in the architecture and components of the system of care. The number of programs related to mental health also grew rapidly with the infusion of congressionally directed funding for psychological health and traumatic brain injury in the National Defense Authorization Act for FY2008.¹⁴ An unanticipated side effect of this independent funding was hospital commanders choosing to use the additional money as replacement funding for

¹⁰ OTSG/MEDCOM. "Operational Order 10-70 Comprehensive Behavioral Health System of Care Campaign Plan." 2010.

¹¹ Stroul, Beth A, and Robert M Friedman. "A System of Care for Severely Emotionally Disturbed Children & Youth." (1986).

¹² Nightingale et al, 2011.

¹³ Scott, Shane Paul. "Network Governance for the Provision of Behavioral Health Services in the Us Army." Massachusetts Institute of Technology, 2012.

¹⁴ Government Accountability Office. "Defense Health Coordinating Authority Needed for Psychological Health and Traumatic Brain Injury Activities." 2012.

maintaining behavioral health programs rather than expanding investment in behavioral health services. We also observed hospital commanders use funds generated from expanding behavioral health care to revitalize non-behavioral health programs such as ob-gyn and surgery wards.

The Army's behavioral health leadership team carried out an inventory of all the programs labeled as behavioral health irrespective of the funding source of the program.¹⁵ Each program manager was required to complete a data call that captured critical program information including goals, financials, patient demographics, infrastructure, staffing, access to care, utilization, and positioning within the Behavioral Health System of Care (BHSOC). These data were further triangulated against the list of programs identified by an independent RAND study¹⁶ to generate a final list of 212 Army-specific programs. Three clustering criteria were used to understand this generated portfolio of programs: the stakeholder served, the level of care provided, and the uniqueness of the program.

The direct care system outpatient behavioral health services grew from 769,725 encounters in FY2003 to a peak of 1,746,358 encounters in FY2012. A majority of care was provided to active-duty Soldiers, activated Guard, and dependents. Soldiers (both active-duty and activated Guard and Reserve) are unique because they often receive care during work hours, requiring permission from their command teams to be away from their duty stations. Unlike for the other two populations, mission-related limitations resulting from Soldier care must be documented and potentially shared with command teams. Command teams can have a significant effect on access to care, care compliance, and the environment of recovery, making them a stakeholder that needs to be accounted for explicitly in any system of care design.

Six clusters emerged when programs were organized along the level of care provided in both the direct- and purchased care systems: care provided in primary care clinics; outpatient behavioral health services in community clinics; specialty care services in hospitals; and intensive outpatient services in hospitals, psychiatric nursing units, and residential treatment facilities. The program portfolio analysis also identified programs unique by virtue of the population served, such as school-

¹⁵ OTSG/MEDCOM. "Fragmentary Order 6 to Operational Order 10-70 Comprehensive Behavioral Health System of Care Campaign Plan - Psychological Health Spend Plan Data Call." 2011.

¹⁶ Weinick RM, Beckjord EB, Farmer CM, Martin LT, Gillen EM, Acosta J, et al. *Programs Addressing Psychological Health and Traumatic Brain Injury Among U.S. Military Service members and Their Families*. Santa Monica, CA: Rand Corporation; 2011.

based behavioral health, or the modality of care delivery, such as telebehavioral health. This baseline analysis provided a foundation for developing the new organizational architecture for delivering behavioral health services.

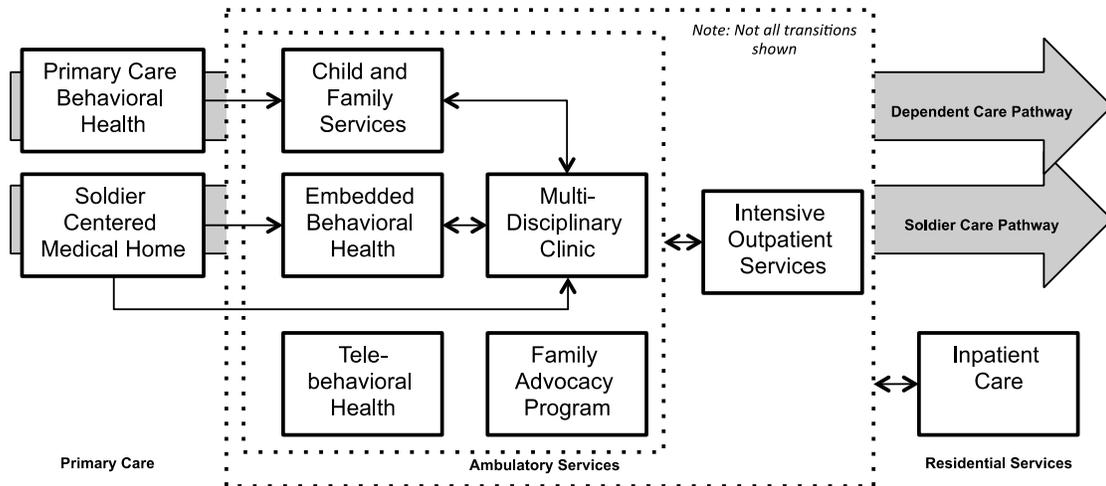


Figure 2-5: BHSOC Architecture Specifying Key Clinical Programs

The Army BHSOC architecture finalized in 2013 (Figure 2-5) establishes the core set of clinical care programs, with Army-wide standards defined for each program. Beneficiaries can enter the BHSOC as a walk-in, with a scheduled appointment, and/or additionally in the case of Soldiers, for command-directed mental health evaluations. An appointment can be scheduled by self-referral, specialty-care referral, follow-up after an emergency department visit, or as a result of a screening visit (for Soldiers, these include the pre-deployment screen, post-deployment health assessment, post-deployment health reassessment, and annual health exam). Other professionals such as chaplains and military family life counselors also refer beneficiaries to the behavioral health system of care, but these referrals are often not traceable because care received from such professionals is not documented in the medical record.

The architecture differentiates the first-level services for Soldiers from those for dependents and retirees to reflect the unique needs of the military environment. Soldiers receive first-level services in the Soldier Centered Medical Home (SCMH), the Embedded Behavioral Health (EBH) Clinic, or a Multi-Disciplinary (Multi-D) Behavioral Health Services clinic. The integrated behavioral health provider in the primary care setting works collaboratively with the primary care team to enable early identification and enrollment in care. Soldiers requiring more than four sessions of psychotherapy or needing medications beyond the scope of practice of primary care physicians are enrolled either in

an EBH team or a Multi-D team. Once a Soldier is established in one of these three settings, the responsibility for providing services rests with that care team.

Dependents and retirees receive first-level services in either a patient-centered medical home or in a Child and Family behavioral health clinic. In addition, both Soldiers and dependents can receive services in the Family Advocacy Program (FAP) clinic dedicated to dealing with prevention, education, intervention, and treatment of child abuse and domestic violence (including intimate partner violence). The Multi-D clinic also provides specialized services such as psychological testing that may not be available in other first-level service clinics. Beneficiaries needing more intensive care receive services in an intensive outpatient program, psychiatric nursing unit, or residential treatment facility.

The Army recognized a significant gap between the demand for care and the capacity to that provide care. Telebehavioral health services are a critical component of the system of care because they enable both sustainable capacity expansion and surge capacity in locations with significant provider shortages.¹⁷

This strategic design serves as the template for the system of care that must be implemented at each Army Military Treatment Facility. It is important to note, however, that not every MTF will implement every component of the system of care. For instance, low-volume, long-term residential care is sourced from the *purchased care* network, as there is insufficient demand to provide these services within the *direct care* system. The BHSOC specification also does not rule out the development of new programs; rather, it enables Military Treatment Facilities to be more deliberate about understanding population needs and developing justifications for new programs. Key components of the system of care such as the Soldier Centered Medical Home and Embedded Behavioral Health have more detailed concepts of operations, standard operating procedures, and team designs specified as a starting point for implementation.

Implementation of the BHSOC at each Military Treatment Facility requires active management of the cultural and political aspects of the change. The BHSOC takes away some of the discretionary power of the MTF commanders to route behavioral health funds to other services. It also restricts the MTF commander's ability to develop non-conforming local systems of care through funding

¹⁷ Ippolito, Andrea Katherine. "Architecting the Future Telebehavioral Health System of Care in the Army." Massachusetts Institute of Technology, 2012.

restrictions and policy. Even today, a key reason for the varying levels of conformance to the new design is leaders who have not bought into the new design and cannot articulate the need for change beyond that it is a requirement from headquarters.

Another area of tension is that the DoD requires that every installation have an Installation Director for Psychological Health (IDPH),¹⁸ which sometimes leads to the Behavioral Health Chief also filling that roles and thus reporting to two different people. Installations that made progress in their transformation journey have established ways of working that alleviate this conflict by empowering the IDPH to serve as the voice of the Military Treatment Facility commander on behavioral health issues. In installations at which the transformation journey has been slow or outright stalled, the relationships between the MTF commander and the IDPH were found to be combative.

The 2013 Behavioral Health Service Line (BHSL) policy memo represents a shift from a discipline-based organization of behavioral health services to a multi-disciplinary, mission-based approach.¹⁹ This expands the role of some providers in the areas of health education and command engagement. While this role expansion comes naturally for some, others need to be trained on the cultural norms and formal policies and procedures for engaging command teams. For command teams, understanding the mission support role played by providers requires active engagement of the behavioral health care team. The cultural differences among the various stakeholders need to be identified explicitly and managed. Some installations utilize leader education forums such as the Company Commanders Course and the 1st Sergeant's course to educate leaders on their responsibilities when engaging behavioral health providers.

Size the System of Care Appropriately

Sufficient clinical care capacity is a necessary foundation for providing access to care and ensuring quality of care. Clinical care capacity can be increased through a combination of growing the number of providers in the system and improving the productivity of clinical care providers already in the system.

¹⁸ Department of Defense. "Instruction 6490.09 DoD Directors of Psychological Health." Edited by Department of Defense, 2012.

¹⁹ OTSG/MEDCOM Policy Memo 13-059 (2013) "Behavioral Health Service Line Policy, Consolidated Army Behavioral Health (BH)."

Since a large number of Army installations are in geographic Mental Health Care Health Professional Shortage Areas (HPSAs),²⁰ aggressive hiring actions were taken to grow the number of core behavioral health providers (psychiatrists, psychologists, licensed clinical social workers, marriage and family therapists, and psychiatric nurse practitioners). This included providing direct hire authority at the MTF, enabling greater retention and relocation bonuses for new hires, and training new personnel through Health Professionals Scholarship Program (HPSP).²¹ Training new providers has a built-in time delay based on the training and certification requirements of the individual disciplines involved, and does not meet the immediate challenges of growing demand.^{22,23} Competing initiatives by the Department of Veterans Affairs targeted at the same providers, often in the same locations, further complicated the strategy of capacity growth through hiring. Nevertheless, the total number of providers grew from 2,721 in FY2009 to 3,731 in FY2013, with 345 positions not yet filled at the end of FY2013.²⁴

Without enough providers to fill available positions, the near-term answer in 2009 was to focus on maximizing productivity. Providers in our field research interviews articulated all three dimensions of burnout: they said they were exhausted; they felt frustrated that the system seemed focused on paying for volume rather than care quality; and, worst of all, they felt they were not effective in helping their patients or clients.^{25,26,27} The Availability for Patient Care guideline issued in 2009 specified clinical care contact hours based on the employment category: 6 hours for uniformed providers; 6.5 hours for general schedule civilian employees; and 7 hours for

²⁰ An overview of the mental health HPSA designation can be found at:

<http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/mentalhealthhpsaoverview.html>

²¹ Each of the services offers their own HPSP scholarship. More details on the Army program can be found at <http://www.goarmy.com/amedd/education/hpsp.html>

²² Ivey, Susan L, Richard Scheffler, and James L Zazzali. "Supply Dynamics of the Mental Health Workforce: Implications for Health Policy." *Milbank Quarterly* 76, no. 1 (1998): 25-58.

²³ Heisler, Elayne J, and Erin Bagalman. "The Mental Health Workforce: A Primer." Washington DC: Congressional Research Service, 2015.

²⁴ Government Accountability Office. "Additional Information Needed About Mental Health Provider Staffing Needs." 2015.

²⁵ Maslach, Christina, and Susan E Jackson. "Patterns of Burnout among a National Sample of Public Contact Workers." *Journal of Health and Human Resources Administration* (1984): 189-212.

²⁶ Maslach, Christina, and Julie Goldberg. "Prevention of Burnout: New Perspectives." *Applied and preventive psychology* 7, no. 1 (1999): 63-74.

²⁷ Maslach, Christina, Wilmar B Schaufeli, and Michael P Leiter. "Job Burnout." *Annual review of psychology* 52, no. 1 (2001): 397-422.

contractors.²⁸ This guideline attempted to address the immediate problem of access to initial care at the expense of both follow-on care and time for shaping the recovery environment through command consultation and education.

The guideline specified workload requirements for critical personnel such as providers in administrative and teaching roles and non-Military Treatment Facility behavioral health assets such as unit behavioral health officers. This emphasis on provider productivity also eroded provider motivation. Providers noted that in addition to their desire to serve those who served the nation, a key reason they chose to practice in the military health system was to focus on patient clinical care without constraints such as meeting patient quotas or billing found in civilian managed care environments.

Historically, the Army has used the Automated Staffing Assessment Model (ASAM) to develop manpower requirements for fixed military treatment facilities.²⁹ More recently, the Army has used both ASAM and the Psychological Health Risk Adjusted Model for Staffing (PHRAMS) to determine its behavioral health staffing needs.³⁰ Each of these models has significant limitations that led to development of a new staffing approach in the Army called the BH Matrix.³¹

The behavioral health model in ASAM IV projected the required number of providers and support staff using a multivariate model that incorporated a linear trend for future demand based on the previous five years of care provided, expected population growth as estimated by the hospital, and static leadership and education positions. The expected population drove family advocacy requirements at a ratio of 1 social worker per 3800 beneficiaries. The projected support staff requirements were estimated using a standard ratio of 1.82 support full-time equivalents (FTE) per provider. The key limitations of ASAM IV are its linear demand projection assumption, the limited incorporation of other key military mental health tasks such as command consultation and occupational assessments, and a sizing strategy focused on the direct care system.

²⁸ OTSG/MEDCOM. "Policy Memorandum 09-041 minimum Amount of Direct Patient Care for Behavioral Health (BH) Providers." 2009.

²⁹ Government Accountability Office. "Enhanced Collaboration and Process Improvements Needed for Determining Military Treatment Facility Medical Personnel Requirements." 2010.

³⁰ Government Accountability Office. "Additional Information Needed About Mental Health Provider Staffing Needs." 2015.

³¹ OTSG/MEDCOM. "Policy Memorandum 15-045 Behavioral Health Profiling Standardization Policy." 2015.

PHRAMS forecasts the total staffing requirement using more sophisticated demand-based projection than ASAM IV. It divides the population into risk groups based on demographics and geography, assigns them to population planning units associated with military treatment facilities, and uses estimated disease prevalence across 24 diagnosis groups to determine clinical workload. As with ASAM IV, PHRAMS assumes homogeneity when assessing productivity (default at 85%), and baselines expected demand based on prior performance. PHRAMS has a lower support staff requirement than ASAM IV because it uses a static ratio of 1 support FTE per provider. PHRAMS has an advantage over ASAM IV with its ability to forecast purchased care requirements in addition to direct care requirements.

Both models under-forecast personnel requirements and fail to capture the full spectrum of roles providers perform in the military health system. A refined capacity planning approach was needed that specifies a minimum population baseline that can be adjusted based on demand. The new system of care design (Figure 2-5) enables the decomposition of demand to smaller population groups, making prevalence estimates and demand projections more accurate. This new design also enables more accurate distribution of non-clinical provider workload. In 2014, the Army published the Distribution Matrix Tool (DMT), which uses a combination of population, workload, and staffing models to determine the number of behavioral health personnel needed to provide direct care services. This tool also supports the estimation of behavioral health personnel to support traumatic brain injury care, which is not part of the behavioral health service line. The DMT is refreshed in the third quarter of each fiscal year to assess performance against projection.³²

The new workload standards published in 2013 are connected to the mission of each clinic. For example, the psychotherapy providers in an EBH clinic have a workload target of 0.65 FTE, whereas psychotherapy providers in a specialty care clinic have a 0.75 FTE requirement. This explicit reduction of clinical workload requirements is augmented with a requirement to engage command teams through command consultation, psychosocial education, and participation in line meetings. The lack of providers also highlighted the need for involving and engaging all available providers, including behavioral health officers, through a borrowed military manpower agreement.

³² OTSG/MEDCOM Memorandum (2014) “Guidance for the Behavioral Health Service Line (BHSL) Distribution MATRIX Tool (DMT)”

This new mission-based workload specification for each core provider type combined with a multidisciplinary team structure serves as the foundation for building a patient-centered care team. The challenges multidisciplinary behavioral health teams face includes bridging the philosophical differences across the disciplines, managing role diffusion, and building the routines and tools to enable reflexivity and team ownership of patients/clients.^{33,34,35,36,37} Professional differences can both inhibit diffusion of innovations and hinder team functioning.³⁸ Consider the case of Embedded Behavioral Health that creates perceived equivalence between psychologists and social workers, since each provider is responsible for the care of their aligned unit.³⁹ Psychiatrists have raised concerns about PTSD over diagnosing by social workers, noting that they may not have sufficient experience early in their careers to accurately diagnose the disease. Common goals of enabling patient recovery, maintaining shared understanding of complex cases, and maximizing readiness helped to bridge some provider disciplinary differences. Providers are required to address occupational issues with command teams, a role that some providers are not comfortable executing, and that is often not part of the training repertoire. Outside of peer reviews, there are limited fora such as Morbidity and Mortality conferences to enable reflective practice.⁴⁰ The system of care design has to build in mechanisms enable reflexivity and accelerate learning in the care team.

The new system design does not encroach on provider autonomy in selecting the best approach for engaging patients/clients. Encouraging providers to practice at “the top of their licenses” also enables maximization of scarce resources. While psychiatrists may want to provide both psychotherapy and pharmacotherapy to patients, the workload standards argue that teams are better

³³ Ribner, David S. “Psychiatrists and Community Mental Health: Current Issues and Trends.” *Psychiatric Services* 31, no. 5 (1980): 338-41.

³⁴ Herrman, Helen, Tom Trauer, and Julie Warnock. “The Roles and Relationships of Psychiatrists and Other Service Providers in Mental Health Services.” *Australian and New Zealand Journal of Psychiatry* 36, no. 1 (2002): 75-80.

³⁵ Delaney, Kathleen R, and Cynthia Taylor Handrup. “Psychiatric Mental Health Nursing’s Psychotherapy Role: Are We Letting It Slip Away?”. *Archives of psychiatric nursing* 25, no. 4 (2011): 303-05.

³⁶ Brown, Brian, Paul Crawford, and Jurai Darongkamas. “Blurred Roles and Permeable Boundaries: The Experience of Multidisciplinary Working in Community Mental Health.” *Health & Social Care in the Community* 8, no. 6 (2000): 425-35.

³⁷ West, Michael. *Reflexivity and Work Group Effectiveness: A Conceptual Integration*. John Wiley & Sons, Ltd, 1996.

³⁸ Ferlie, Ewan, Louise Fitzgerald, Martin Wood, and Chris Hawkins. “The Nonspread of Innovations: The Mediating Role of Professionals.” *Academy of Management Journal* 48, no. 1 (2005): 117-34.

³⁹ Srinivasan, Jayakanth. “Lessons Learned from Implementing Embedded Behavioral Health at Four Army Installations.” Massachusetts Institute of Technology, 2016.

⁴⁰ Orlander, Jay D, Thomas W Barber, and B Graeme Fincke. “The Morbidity and Mortality Conference: The Delicate Nature of Learning from Error.” *Academic Medicine* 77, no. 10 (2002): 1001-06.

served when the psychiatrists' unique medico-legal expertise is exploited, and hence psychiatrists and psychiatric nurse practitioners have a 0.75 FTE workload requirement. Team roles are structured to help address role diffusion challenges; a member of the team may have more than one role. For example, a unit's point of contact in an EBH often also has a psychotherapist role. Similarly, the team lead also has a clinical role mandating 0.5 FTE of clinical care.

The new staffing models are built on the use of multidisciplinary teams. The desired team composition for a brigade combat team-aligned EBH team is four licensed clinical social workers, three clinical psychologists (each aligned to one of the seven battalions in the brigade), one prescriber (psychiatrist, psychiatric nurse practitioner), three social service assistants or behavioral health technicians, one nurse case manager, and two medical support assistants. This support staff estimate is higher than PHRAMS (5.3) and lower than ASAM IV (9.6), but has been found adequate for the smaller patient catchment area (4,500–5,400 Soldiers) for the clinic. The EBH staffing model most closely matches the MHAT recommendation of 1 provider per 700 Soldiers.

The mission-based staffing model is transparent in its assumptions, which enables planners at installation and Army headquarters to test its limits. All the staffing models at the component level are assessed on annually by the program leads for the 11 standard programs. Two limitations remain, though, in this new approach: the installations themselves provide the population projections, and the model does not capture demand variation due to deployments. The first limitation is mitigated to some extent by assessing at the third quarter of each year when most permanent change of stations would have been completed. Integrating current assignment information from the Army G1 into future population forecasts can potentially address the second limitation.

Provide Culturally Competent Care

Care provided for the military beneficiary population must reflect the population's diverse values, beliefs, and behaviors. This cultural competence is more difficult to achieve when care is distributed across the direct care and purchased care systems.^{41,42,43} In this section, we first discuss the purchased care challenges and then explore the direct care system challenges.

⁴¹ Lavizzo-Mourey, Risa, and Elizabeth R Mackenzie. "Cultural Competence: Essential Measurements of Quality for Managed Care Organizations." *Annals of Internal Medicine* 124, no. 10 (1996): 919-21.

⁴² Betancourt, Joseph R, Alexander R Green, and Juan Emilio Carrillo. *Cultural Competence in Health Care: Emerging Frameworks and Practical Approaches*. Vol. 576: Commonwealth Fund, Quality of Care for Underserved Populations, 2002.

The Department of Health and Human Services (HHS), DoD, Veterans Administration, and local communities have made significant efforts to educate providers in the civilian community about the unique needs of the military population. Since 2011, HHS Area Health Education Centers in 47 states have been providing professional continuing education on the specific needs of the military population for civilian primary care, mental, and behavioral health providers.⁴⁴ In 2014, this program reported training more than 13,000 providers. Also, the DoD and VA partnered to develop a community provider toolkit for training and educating providers.⁴⁵ At the Military Treatment Facility level, we have observed annual provider fairs that bring the community to the MTF for continuing education at no charge.

Still, despite these efforts, community mental health providers feel underprepared to treat this population.⁴⁶

There are limited strategies that can be deployed for assessing care quality in the purchased care network because they are governed by formal contracts that are difficult to improve. Furthermore, the contracts require very limited documentation for behavioral health conditions. This is of concern because dependent use of purchased outpatient behavioral health services continues to grow, while that of active-duty personnel dropped according to figures for the latest fiscal year (Figure 2-2).

The Combatant Commands and Military Health System have clear guidelines on the medical conditions for deployment of active-duty personnel, but the guidelines are not followed uniformly. For example, changes to the treatment regimen for psychiatric disorders require that Soldiers must demonstrate three months of stability prior to deployment to Iraq and Afghanistan. Community providers may not be aware of these standards, and their care may have occupational impacts on the Soldier. Some Army MTFs now implement case management to ensure outpatient services provided in the community conform to Army standards. In addition, they have introduced regular medical readiness screening activities to identify any readiness-related impacts early in the deployment lifecycle. We have seen some Military Treatment Facilities leverage the community for

⁴³ Bhui, Kamaldeep, Nasir Warfa, Patricia Edonya, Kwame McKenzie, and Dinesh Bhugra. "Cultural Competence in Mental Health Care: A Review of Model Evaluations." *BMC Health Services Research* 7, no. 1 (2007): 15.

⁴⁴ <http://bhw.hrsa.gov/grants/areahealtheducationcenters/ta/trainings/veterans/index.html>

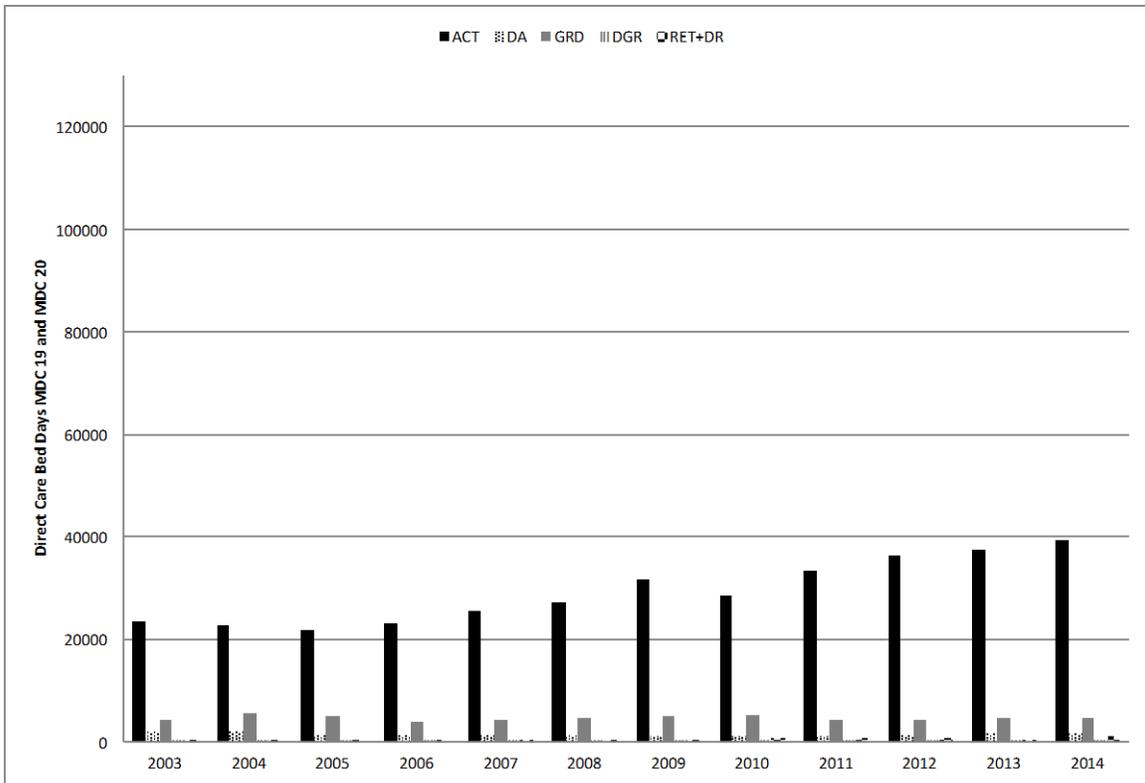
⁴⁵ <http://www.mentalhealth.va.gov/communityproviders/>

⁴⁶ Tanielian, T., F. Coreen, B. Caroline, F. M. Carrie, E. Robinson, C. C. Engel, M. Robbins and L. H. Jaycox (2014). Ready to Serve: Community-Based Provider Capacity to Deliver Culturally Competent, Quality Mental Health Care to Veterans and Their Families. Santa Monica, CA, RAND Corporation.

psychotherapy to ensure continuity of care in the face of provider shortages, while retaining prescription-related care within the direct care system. This approach makes aggressive use of case managers, but at most installations the positions have yet to be filled.

Prior to implementation of the system of care, case managers developed their own local solutions (often Excel spreadsheets) to track these Soldiers manually. They then had to engage with the TRICARE office to obtain treatment information on their Soldiers because purchased care providers are required to provide only summary information (if any) as part of their billing data. In the face of high utilization, this approach was onerous and in some cases overwhelming for case managers.

A similar challenge is faced when dealing with inpatient psychiatric care, as military health system standards on medication use are more stringent than civilian standards. The number of admissions in the purchased care network has been increasing steadily for family members (Figure 2-4), and while the number of admissions for active-duty Soldiers is lower, the number of bed days are comparable (Figure 2-6). From an occupational perspective, every inpatient admission is time the Soldier is absent from her or his unit, and thereby affects both cohesion and readiness. The mean lengths of inpatient stay in the *direct care* (8 days) and *purchased care* (14 days) systems differ widely. In our field research, we observed one MTF (Site Alpha) that had dramatically lower purchased inpatient care length of stays, starting in FY2010, when compared to the overall lengths of stay for the Army (Figure 2-7).



ACT: Active Duty; DA: Active Duty Dependent; GRD: Guard/Reserve; DRG: Dependent of Guard/Reserve; RET+DR: Retiree and Retiree Dependents

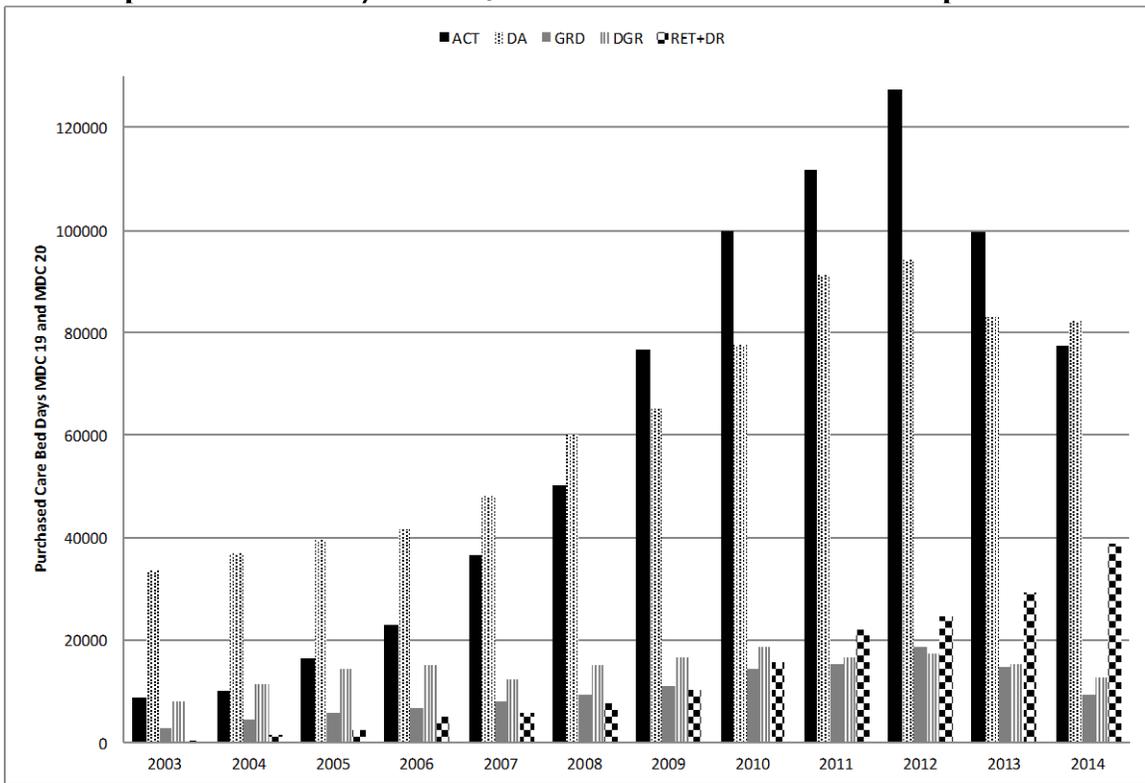
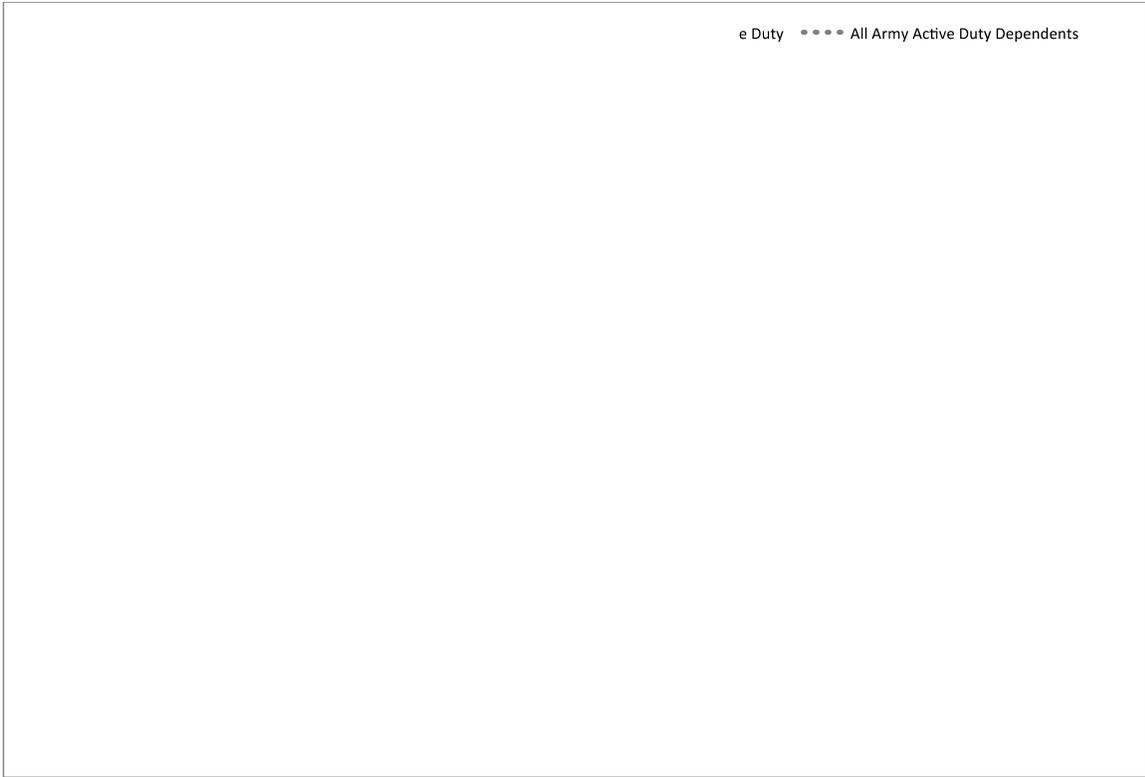


Figure 2-6: Growth in Behavioral Health Inpatient Bed Days in Direct Care and Purchased Care



Year

Figure 2-7: Care Coordination at Site Alpha Resulting in Shorter Lengths of Stay

In the FY2010– FY2013 timeframe, Site Alpha had 3,903 admissions for 2,349 patients who accounted for 39,862 bed days of purchased inpatient psychiatric care. This increased reliance on the purchased care network was driven by the closing of the direct care inpatient ward for renovations, as well as continued deployments. The behavioral health leadership team at the Military Treatment Facility placed an increased emphasis on effective care coordination for Soldiers using purchased inpatient facilities. The team established utilization management meetings in FY2010, initially focusing solely on utilization and expanding to coordination around expected release dates and handoffs between the installation and the care facility. TRICARE guidelines provide for a minimum of seven days of inpatient stay for alcohol withdrawal and 14 days for opiate withdrawal; purchased inpatient facilities, though, wanted to keep all patients for 28 days. Having purchased care providers share their treatment plans for longer stays helped the MTF better manage the use of those facilities. The Site Alpha utilization manager was able to negotiate an agreement that allowed for approving stays exceeding the minimum guaranteed stays in three-day increments.

Increased utilization of network facilities also surfaced the differences between Army practices for inpatient care and the practices in those facilities, from basic awareness of Army culture and regulations to more specific aspects such as guidelines on deployment limiting conditions and compliance to MHS guidelines on use of atypical anti-psychotics.⁴⁷ In February 2012, the behavioral leadership team reframed the utilization meetings into *Connect Care* meetings to create the mentality of initiating discharge planning at time of admission rather than at release. These meetings included nurse case managers and the Site Alpha psychiatrist who owned the specific patient’s care to ensure follow-on care and safety planning. This same approach has now become standard practice for all purchased inpatient admissions across the Army.

The mix of uniformed and civilian providers in the direct care system has changed dramatically over the last decade from being largely uniformed personnel to civilian personnel comprising more than 75 percent of the workforce in FY2013.⁴⁸ A large number of these civilian providers had no military experience or experience working with a military population, and typically had never dealt with multiple agency challenges like those found in the military setting.

⁴⁷ OASD(HA). “Guidance for Providers Prescribing Atypical Anti-Psychotic Medications.” 2012.

⁴⁸ Department of Defense. “Final Report to the Secretary of Defense Military Health System Review.” Washington DC, 2014.

The Army developed a provider onboarding program to teach “Army 101” to providers to enhance their cultural competence. The onboarding also addresses explicitly some of the information sharing required with command teams. The new system of care is built around small care teams in which more experienced providers and uniformed providers can transfer cultural context to their colleagues through peer mentoring and team meetings.

Understanding and validating the occupational context is an integral part of understanding the stressors a Soldier may be experiencing. In the hospital-centric system of care, providers worked with the entire installation as their catchment area, and had patients/clients in their panel from multiple units. This made it difficult to gather and retain context information from their panel of patients. The new design narrows the catchment area for a care team to a single large unit (a brigade combat team) or a set of smaller units; thus, providers need only retain situational awareness about their aligned units.

The borrowed military manpower—line providers who work in the Military Treatment Facility for 20 hours a week—are integral to keeping the care team updated on the operational issues facing the units within which they work. The system of care design focuses on moving first-level services to within walking distance from a Soldier’s workplace. This not only improves access to care for Soldiers, but also it makes it easier for providers to participate in line-side meetings such as *Command and Staff* meetings and the unit high risk team meetings for their aligned units.

The new system of care design builds in multidisciplinary care coordination meetings at which the core behavioral health care team and the extended care team can come together to maintain shared situational awareness. At a morning meeting of the core behavioral health care team, the case manager identifies Soldiers who needed acute care (ER visit, suicidal ideation, homicidal ideation) during off-duty hours, as well as Soldiers being released that day from inpatient care. Care coordination happens at a Multi-Disciplinary Treatment Planning (MDTP) meeting that follows and that brings together the extended care team from across various all organizations involved in the behavioral health of a Soldier, including primary care providers, substance dependence care providers, and family advocacy representatives.

One of the principal sources of distrust of the behavioral health system of care in the Army was Soldiers having to repeat their narratives to multiple providers before entering a course of treatment.

This multiple triage process⁴⁹ made it difficult for providers in a hospital setting to retain situational awareness of their panel of patients, especially when a patient had a walk-in appointment with a different provider. The team-based care ownership for a Soldier's care in the new system of care reduces the number providers who can potentially triage a patient to the care team. Providers use their morning meetings to update colleagues on any walk-in cases they may have seen the previous day, and to alert the assigned walk-in provider about at-risk Soldiers with a high likelihood of walking-in.

Provider attrition remains a key barrier to continuity of care. The planned attrition due to uniformed providers moving or retiring is predictable and can be managed by the behavioral health leadership. However, provider losses due to lack of job satisfaction related to the new mission-based approach and managing multiple agency in the military setting remain an ongoing challenge. The purchased care network needs to share more information with the direct care team to enable rigorous assessment of care quality. While some Army locations have developed ways to assess local purchased, the DoD should adopt military wide policies to assess quality and cultural competence of purchased care providers.

Build an Operationally Responsive System of Care

The Army's stated mission is "to fight and win our Nation's wars by providing prompt, sustained land dominance".⁵⁰ Success is predicated on having sufficient medically ready personnel who can be deployed to a combat setting. Typically, commanders are expected to have 90 percent of the Soldiers in their units medically ready for deployment. Failure to meet this target could result in losing a command position. At the same time, the primary responsibility and professional interest of medical providers is to ensure that Soldiers receiving treatment are healthy enough to be deemed ready for partial or full return to service and/or deployment. This difference in goals and professional responsibilities naturally creates the potential for ongoing tension and conflict between command teams and medical providers. This is especially the case with respect to behavioral health providers and commanders, since the state of health involves mental rather than clearly visible physical impairments.

⁴⁹ Scott, Shane Paul (2012)

⁵⁰ Murphy, Patrick, and Mark Milley. "A Statement on the Posture of the United States Army 2016." Edited by Committees and Subcommittees of the United States Senate and the United States House of Representatives, 2016.

One source of tension we observed in our early field research in 2011 centered on the processes and information systems associated with identifying Soldiers who could not deploy for medical reasons were fractured and incomplete.⁵¹ The Army uses a physical profile serial system to determine Soldier availability for duty.^{52,53} The six classifications—physical capacity, upper extremities, lower extremities, hearing, eyes, and psychiatric—are captured in a standard form DA 3349. The paper-based profiling process relied on individual coordination between providers and the Soldier’s immediate command team to ensure shared understanding a Soldier’s medical readiness. The form itself relied on provider-supplied free text to capture behavioral health-related functional limitations, leading to significant variation from provider to provider.

The paper-based process also meant senior commanders relied on a laborious, often inaccurate process for constructing the medical readiness picture at aggregated levels of analysis such as a brigade or a division. In 2011, however, the Army introduced an automated system called E-Profile to replace the traditional paper-based form. The profile data are now captured through the Web in a centralized Medical Protection System database. The E-Profile system automatically identifies as medically non-deployable any Soldiers with deployment-limiting conditions lasting more than 30 days. Command teams now have a way to examine medical readiness automatically and transparently. This identification of Soldiers not medically ready is a necessary step for building a deployable force. Identifying this population of Soldiers also provides Military Treatment Facility leaders with critical information on population disease burden that can be used to develop both clinical care and public health interventions.

We examined the E-Profile data from November 2013–May 2015 to identify Soldiers with either a temporary (rating of 3) or permanent (rating of 4) profile in any of the six classifications listed above (shown in Figure 2-8), and to understand the impact of behavioral health on readiness. The data show that as the E-Profile system was fully rolled out in early 2014, temporary profiles for a behavioral health condition grew from 2.6 percent of all temporary profiles in January 2014 to

⁵¹ Malish, Richard G, Anthony D Arnett, and Ronald J Place. “Returning to Duty from Temporary Disability in the Us Army: Observational Data and Commentary for Commanders, Providers, and Soldiers.” *Military Medicine* 179, no. 11 (2014): 1190-97.

⁵² Jacobs, Eugene C. “PULHES, the Physical Profile Serial System.” *United States Armed Forces Medical Journal* 4, no. 2 (1953): 235-41.

⁵³ Department of the Army. “Army Regulation 600-60: Physical Performance Evaluation System.” Washington DC, 2008.

9 percent of all temporary profiles in May 2015. The data also show the rapid growth in behavioral health permanent profiles to almost 30 percent of all permanent profiles. While the data may suggest behavioral health conditions are not among the main medical conditions affecting overall unit readiness, our field research shows that the readiness impact is underreported because profiles were not always written for behavioral health conditions.

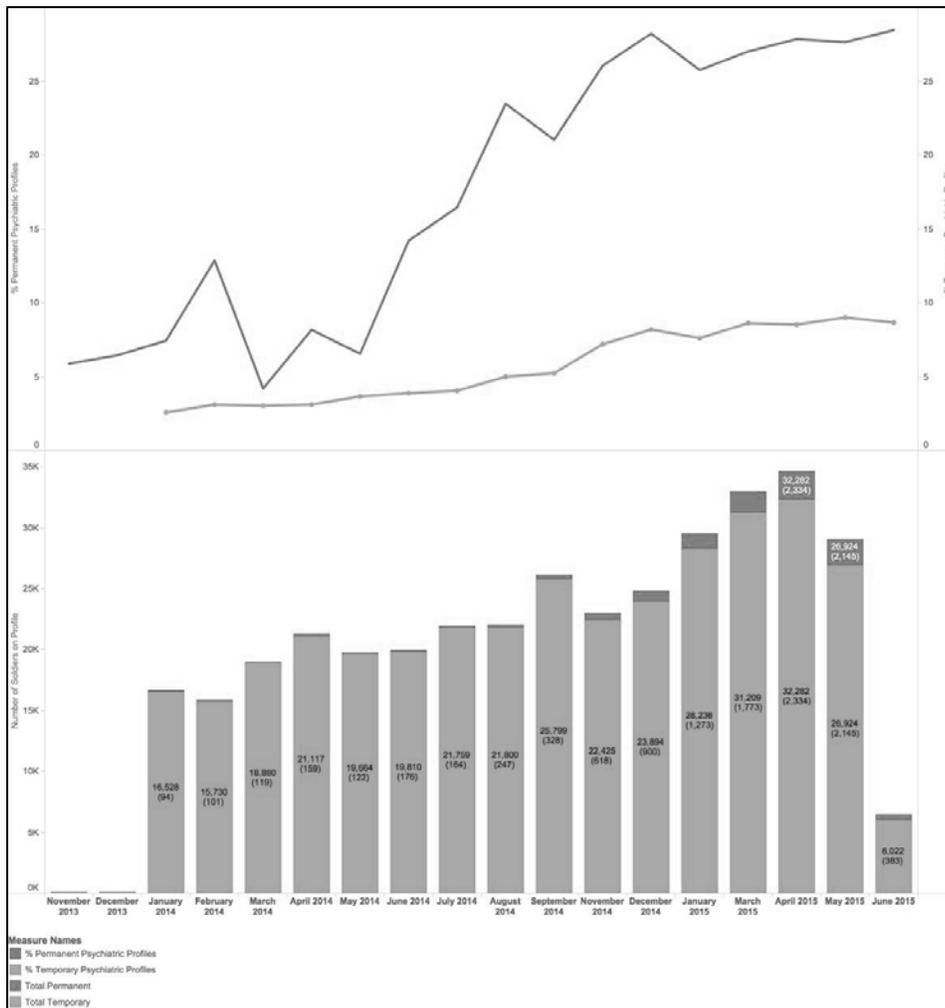


Figure 2-8: Documented Impact of Behavioral Health Conditions on Readiness

Prior to 2014, command teams complained that the free text in DA 3349 forms was written for clinicians, not a command team. They felt some providers were using profiles and other forms of formal documentation to create a paper trail that forced commanders to take explicit ownership of the decision to take a Soldier to war when the provider felt the Soldier should not deploy. Command teams often complained that they could not get clarification on the content of a profile because they were not able to reach the provider who wrote it. The tension between command teams and

providers escalated to the point that the Vice Chief of Staff of the Army had to issue an All Army Communication on the sharing of protected health information with commanders.⁵⁴

The Army has focused on educating providers and command teams on the military exceptions to the federal Health Insurance Portability and Accountability Act (HIPAA) as it pertains to behavioral health.^{55,56} The Army policy on writing profiles required authorship by a doctoral-level provider. Some installations narrowed profile-writing privileges even further to psychiatrists. Since, a significant portion of psychotherapy is provided by master's-level licensed clinical social workers (LCSWs), this policy created an additional burden on doctoral-level providers who now had to write profiles for Soldiers were not empaneled with them. The Army has since addressed this structural limitation by revising the profile writing policy for behavioral health to allow LCSWs to write temporary profiles. Permanent profiles still require review by at least one doctoral-level provider. The newly developed policy guidance on behavioral health profiles aims to improve the quality of profiles by focusing on what the Soldier can do, which enables command teams to minimize the Soldier's separation from his or her unit.⁵⁷

The Army also changed the staffing requirements for brigade combat-size units to include one Behavioral Health Officer (BHO) per brigade.⁵⁸ These BHOs also serve as clinicians in the Military Treatment Facility, augmenting direct care capacity. As providers in the *direct care* system privileged by the MTF, BHOs and brigade primary care providers can access HIPAA-protected information to maintain situational awareness of complex cases. They serve as boundary spanners who can also share mission-related information with command teams in a HIPAA-compliant manner. The new system of care moves first-level behavioral health care within walking distance of the Soldier's workplace, and aligns a provider to a battalion-size unit.

While digitizing the profiles and these staffing changes may help improve coordination between medical providers and commanders, we found that having a single point of contact at the

⁵⁴ ALARACT. "160/2010 VCSA Sends on Protected Health Information." Washington DC, 2010.

⁵⁵ OTSG/MEDCOM. "Policy Memorandum 14-080 Release of Protected Health Information (Phi) to Unit Command Officials.", 2014.

⁵⁶ Department of Defense. "DoDI 6490.08 Command Notification Requirements to Dispel Stigma in Providing Mental Health Care to Service Members." 2011.

⁵⁷ OTSG/MEDCOM. "Policy Memorandum 15-045 Behavioral Health Profiling Standardization Policy." 2015.

⁵⁸ Warner, Christopher H, Jill E Breitbach, George N Appenzeller, Virginia Yates, Thomas Grieger, and William G Webster. "Division Mental Health in the New Brigade Combat Team Structure: Part I. Predeployment and Deployment." *Military medicine* 172, no. 9 (2007): 907-11.

commander-provider interface also produced significant improvements in key outcomes. For example, we studied intensively these tensions in four brigades located on the same post as the post was in the process of moving outpatient mental health providers from centralized post hospitals to freestanding clinics colocated within the footprint of the different brigades.⁵⁹ Initial data collected in 2012 showed considerable commander resistance in all four brigades to provider recommendations regarding the readiness of Soldiers receiving treatment to return to duty. An intensive follow-up study 18 months later, however, found significant improvements in the management of this interface in two of the four brigades. Both brigades that improved had implemented a *single point of contact* arrangement in which one provider was given responsibility for communicating readiness recommendations with commanders in the brigade; in the other two, brigades commanders continued to receive readiness recommendations from multiple providers.

The results of this organizational change were quite significant. In the two brigades with single point of contact arrangements, 86 percent of commanders interviewed reported regularly accepting the provider recommendations; in the other two brigades, the figure was only 10 percent. We examined how a subset of conflicts were resolved between commanders and providers and confirmed this difference: 90 percent of the recommendations coming from single point of contact providers were implemented, compared to only 18 percent in the other two brigades. Similarly, 89 percent of providers and commanders combined in the single point of contact brigades agreed the outcomes of these interactions were positive, compared to 5 percent of interaction outcomes being deemed positive in the other two brigades. Our interviews and observations of these interactions indicated that the single point of contact allowed providers and commanders to develop closer interpersonal relationships and a deeper understanding of each other's responsibilities, language, and norms. Single point of contact providers were better able to identify with the commanders' perspectives without sacrificing their professional norms and relationships with fellow providers.

While these data are limited to a single post, we observed the same general pattern at three other posts: a single point of contact arrangement seemed to allow for managing the tensions between commanders and providers better than in brigades without that structure. This demonstrates the need to manage the natural, ongoing political and cultural differences reflected in goals and professional

⁵⁹ DiBenigno, Julia M, "Command-Provider Relationships in Embedded Behavioral Health." Massachusetts Institute of Technology, 2016.

norms in command-medical provider relationships. In this case, the single point of contact structural arrangement allowed commanders and providers to develop the trust, mutual respect, and understanding of each other’s needs and responsibilities.

Our point here is not to suggest that a single point of contact is necessarily the best option for managing commander-provider relationships in all settings, but rather to stress the importance of recognizing that tensions at this interface are a natural and ongoing issue that needs to be addressed in all units within the Army and perhaps in other military settings as well.

We surveyed 238 command teams at one installation to assess satisfaction with the implemented system of care. The data (Figure 2-9) reveal a strong correlation between communication and follow-up and five key aspects of behavioral health system performance: the ability of the system to meet Soldiers’ behavioral health needs of their; whether the system of care provides quality care; whether it supports mission readiness; whether providers incorporate command feedback; and whether they share mission-essential information. As part of our field research, we explored the weaker but still positive correlation on communication and follow-up with working directly with the EBH team. Command teams cited overall system maturity, the improvements from implementing e-profiles, and the use of the line aligned medical personnel as trust multipliers.

Non-Parametric Kendall's τ_b	Communication and Follow Up	Work directly with EBH Team	Able to meet BH needs	Provides quality care	Supports Mission Readiness	Considers command feedback
Work directly with BH Team	0.3234					
Able to meet BH needs	0.6664	0.2684				
Provides quality care	0.6648	0.2954	0.7213			
Supports mission readiness	0.673	0.2648	0.672	0.6952		
Considers command feedback	0.7365	0.3452	0.6508	0.664	0.6602	
Shares mission essential information	0.6882	0.3774	0.6644	0.641	0.6471	0.6977

Figure 2-9: Non-Parametric Correlation of Communication and Follow-Up on Command Satisfaction Components

Our field research shows there is still progress to be made capturing duty limitations in E-Profile. There remains confusion at the provider level on what behavioral health conditions actually require a profile. We have anecdotal evidence on the use of the Behavioral Health Data Portal (BHDP) to track clinical transitions, but the process has not yet been institutionalized in the Army.

Ensure Safe Occupational and Operational Transitions

There are two key transitions the BHSOC needs to manage: Permanent Changes of Station (PCS) and deployment-related transitions.⁶⁰ A clearly specified policy for managing PCS transitions for Soldiers and their families mandated a warm handoff from the losing installation to the gaining installation. Our field research showed, however, that compliance with the policy varied from installation to installation. Some conducted a monthly medical record assessment of Soldiers and families joining that installation to determine whether they had received behavioral health services in the last 90 days and when deemed clinically appropriate, case managers were assigned to reach out and offer them services. Providers and case managers complained that the list of contacts specified in the policy guidance was outdated, and it was difficult to hand someone off to a provider when the unit to which the Soldier was assigned was unclear. The handoff was even more difficult when dependents received care in the *purchased care* network because of difficulties in obtaining records from that provider (the managed care support contracts are structured such that these providers share only a high-level treatment plan with the MTF). This switch between installations is a potential source of dropout from care.

We worked with the BHSL to develop the algorithm for making sure patients are not lost during the transition. In the pre-PCS screening, a provider now assesses whether the beneficiary of services needs follow-on services and, if so, flags them. When there is a PCS of the beneficiary to the new installation, the flag is checked as part of the in-processing step and the beneficiary is offered behavioral health services. If the beneficiary chooses to refuse services or schedules an appointment, the flag is deactivated. The installation director for psychological health does a monthly screening to determine whether any flags remain active, and directs the appropriate care team to offer services to those patients. This efficacy of this process needs to be examined in greater detail.

Create a Recovery-Oriented Culture

Service members who screen positive for a mental health condition are more likely to leave service in the year following the deployment, according to research.⁶¹ In our initial field research

⁶⁰ Srinivasan, Jayakanth. "Transitional Care Needs of Army Beneficiaries: Implications for Integrated Mental Healthcare." Massachusetts Institute of Technology, 2016.

⁶¹ Milliken, Charles S., Jennifer L. Auchterlonie, and Charles W. Hoge. "Longitudinal Assessment of Mental Health Problems among Active and Reserve Component Soldiers Returning from the Iraq War." *JAMA* 298, no. 18 (2007): 2141-48.

interviews, more experienced, often higher-ranking Soldiers articulated their belief that seeking behavioral health services was career ending.

One analysis found that Soldiers with higher perceived organizational support were less like to report intent to leave service based on mental health symptoms and the organizational climate.⁶² Another recommended targeting organizational cohesion and support to promote retention.⁶³ Researchers found that the most commonly endorsed barrier to seeking mental health services were negative perceptions by unit members and leaders and being viewed as weak.⁶⁴

The DoD and Army recognized the need create a culture that promotes recovery from mental illness.⁶⁵ Army senior leadership made a significant investment in a stigma-reduction campaign in an effort to shift the culture from “avoiding care” to “care seeking.” A recent review of stigma in the military found that DoD has on the whole made progress at reducing the stigma to seek services.⁶⁶ The data show that mental health service utilization by active-duty Soldiers in the Army grew from 5.6 percent of the population in FY2003 to 15.6 percent in FY2014, suggesting an increase in care seeking.

Three key barriers to seeking services, from a system of care perspective, are awareness of services, accessibility of services, and getting time off to get care.^{67,68,69} The new system of care design attempted to address the first two by creating a standard system of care across all installations

⁶² Britt, Thomas W, Kathleen M Wright, and DeWayne Moore. “Leadership as a Predictor of Stigma and Practical Barriers toward Receiving Mental Health Treatment: A Multilevel Approach.” *Psychological Services* 9, no. 1 (2012): 26.

⁶³ Vasterling, Jennifer J, Susan P Proctor, Mihaela Aslan, John Ko, Matthew Jakupcak, Christopher B Harte, Brian P Marx, and John Concato. “Military, Demographic, and Psychosocial Predictors of Military Retention in Enlisted Army Soldiers 12 Months after Deployment to Iraq.” *Military medicine* 180, no. 5 (2015): 524-32.

⁶⁴ Warner, Christopher H, George N Appenzeller, Thomas Grieger, Slava Belenkiy, Jill Breitbach, Jessica Parker,Carolynn M Warner, and Charles Hoge. “Importance of Anonymity to Encourage Honest Reporting in Mental Health Screening after Combat Deployment.” *Archives of General Psychiatry* 68, no. 10 (2011): 1065-71.

⁶⁵ Department of Defense. “Instruction 6490.08 Command Notification Requirements to Dispel Stigma in Providing Mental Health Care to Service Members.” 2011.

⁶⁶ Acosta, Joie, Amariah Becker, Jennifer L Cerully, Michael P Fisher, Laurie T Martin, Raffaele Vardavas, Mary Ellen Slaughter, and Terry L Schell. *Mental Health Stigma in the Military*. RAND, 2014.

⁶⁷ Eisenberg, Daniel, Ezra Golberstein, and Sarah E Gollust. “Help-Seeking and Access to Mental Health Care in a University Student Population.” *Medical care* 45, no. 7 (2007): 594-601.

⁶⁸ Gulliver, Amelia, Kathleen M Griffiths, and Helen Christensen. “Perceived Barriers and Facilitators to Mental Health Help-Seeking in Young People: A Systematic Review.” *BMC psychiatry* 10, no. 1 (2010): 113.

⁶⁹ Kim, Paul Y, Jeffrey L Thomas, Joshua E Wilk, Carl A Castro, and Charles W Hoge. “Stigma, Barriers to Care, and Use of Mental Health Services among Active Duty and National Guard Soldiers after Combat.” *Psychiatric Services* 61, no. 6 (2010): 582-88.

and by moving first-level services to within walking distance of the Soldiers' workplace. Attempts to address the third barrier involved command education and efforts to treat behavioral health as a routine medical appointment.

The impact on security clearance of seeking behavioral health services was a key concern we heard early in our field research. The Army supported the DoD-wide revision of the Standard Form 86 in 2010 that explicitly excluded requiring that seeking mental health services for either a family issue or for adjustments from service in a combat environment be reported on the form to obtain a security clearance.⁷⁰ Providers also were concerned that Soldiers were being discharged or retired inappropriately from the Army for treatable personality disorders and chronic mental health conditions. The Army has since tightened the use of these administrative separations for personality disorders and other chronic mental health conditions to ensure Soldiers receive a disability evaluation and honorable medical discharge when appropriate.⁷¹ Soldiers can still be administratively separated for misconduct if the Army assesses their conduct to be unrelated to their behavioral health condition.

Early in our field research, some providers were concerned that command teams inappropriately sent Soldiers to behavioral health providers for mental status evaluations as punishment, further stigmatizing the use of behavioral health services. In the same timeframe, some commanders reported that mental status evaluations were the only means they had for piercing the HIPAA barrier and getting information about their Soldier. The Army developed implementation guidelines for operationalizing DoD policies on the use of mental health status evaluations by commanders, with an explicit focus on ensuring appropriate use of services.^{72,73,74} The new guidelines focused on ensuring formal documentation of evaluation requests, informing Soldiers of their rights at least two business days prior to an evaluation, and ensuring that a doctoral-level provider assesses the validity of requests from a clinical perspective.

⁷⁰ Office of Personnel Management (2010) "Questionnaire for National Security Positions"

⁷¹ OTSG/MEDCOM. "Policy Memorandum 11-010 Administrative Separation of Soldiers for Personality Disorder (PD) under Chapters 5-13 and 5-17, or Other Designated Physical or Mental Conditions under Chapter 5-17." 2011.

⁷² OTSG/MEDCOM "Regulation 40-38 Command Directed Behavioral Health Evaluations." 2011.

⁷³ Department of Defense "Directive 6490.1 Mental Health Evaluations of Members of the Armed Forces." 1997.

⁷⁴ Department of Defense "Instruction 6490.4 Requirements for Mental Health Evaluations of Members of the Armed Forces." 2013.

Typically, command teams have managed Soldiers deemed to be at high risk because of a behavioral health condition by separating them from their usual workplaces and assigning them to desk jobs. This inadvertently increases social isolation. The profiling improvements have caused a shift from the idea that a profile is *set in stone* to seeing profiles as a starting point for conversations about creating the appropriate healing environment for the Soldier. We have observed health of the force meetings at which behavioral health providers provide strategies command teams can use to minimize social isolation and promote recovery.

Our recent field research has revealed a new set of concerns affecting recovery from mental illness. First, some command teams frame behavioral health as an “easy button” some Soldiers use to avoid work, disciplinary action, and sometimes deployment to a combat zone. As a result, some other Soldiers who need behavioral health services choose not to seek care to avoid being associated with the group seen as using behavioral health inappropriately. Second, some command teams use behavioral health as their own “easy button,” sending Soldiers with sub-clinical symptoms to behavioral health care providers rather than engaging them as their leaders. Such inappropriate use of behavioral health clinics affects access to care for all Soldiers, and can also have a negative impact on continuity of care because providers have fewer open slots to see continuing patients. Third, the increased engagement between command teams and behavioral health care providers has raised concerns among Soldiers about the privacy of their communications with their providers. The phrase we often hear is “command is always in the room.” Providers also remain concerned about the impact of sharing with command teams information on therapeutic alliance and continued patient engagement in care.

Despite efforts to develop clear policies and guidelines to create a culture of recovery from mental illness, the translation of policy to practice remains problematic and requires ongoing education and consistent relationships between command teams and providers. Soldier concerns about Army downsizing and early termination boards have further reinforced the perceived stigma associated with seeking behavioral health services. Stigma cannot be addressed with education campaigns alone, but will require a cultural shift in the mindset of leaders and Soldiers to see mental and physical ailments in the same way.

Design a Performance Management System to Meet Key Actor Needs

The Behavioral Health Service Line (BHSL) is responsible for enterprise-level management of the behavioral health system of care across all 32 Army Military Treatment Facilities. The BHSL performance management system uses resource, process, and clinical outcomes metrics to support action by Army senior leadership, installation/clinic leaders, and clinicians, all key actors in the BHSOC. The system is evolving its capabilities to connect decision makers with the information they need to drive action. The information needs of each of these actors are related but different, and the performance management system must be designed to integrate across three sets of requirements.

- The first set of requirements is that the system must capture population-level demand for services, accurately represent the cost of providing services, explain the quality of services provided, and quantify the impact of services on overall readiness of the force. By providing accurate information in this way, the system will support population-level decision making by senior Army leaders.
- The second set of requirements focuses on enabling practice management and quality improvement at the installation level. The system must reflect accurately when and where care is provided, who provides the care, and the impact of care on patient wellness and unit readiness. This will facilitate decision making by MTF commanders and Installation Directors of Psychological Health.
- The third set of requirements is built around clinical decisionmaking support for individual providers. The system must capture patient-reported outcome data and then tabulate and present the data in real time to support patient engagement. The performance management system has to merge previously stove-piped data systems and develop a governance system that ensures efficient resource distribution, and rapid dissemination of best practices.

The Behavioral Health Service Line performance management systems utilize a wide variety of data and reporting tools, as Figure 2-10 shows. The M2 aggregates cost information that provides a baseline for comparing performance across the Army.

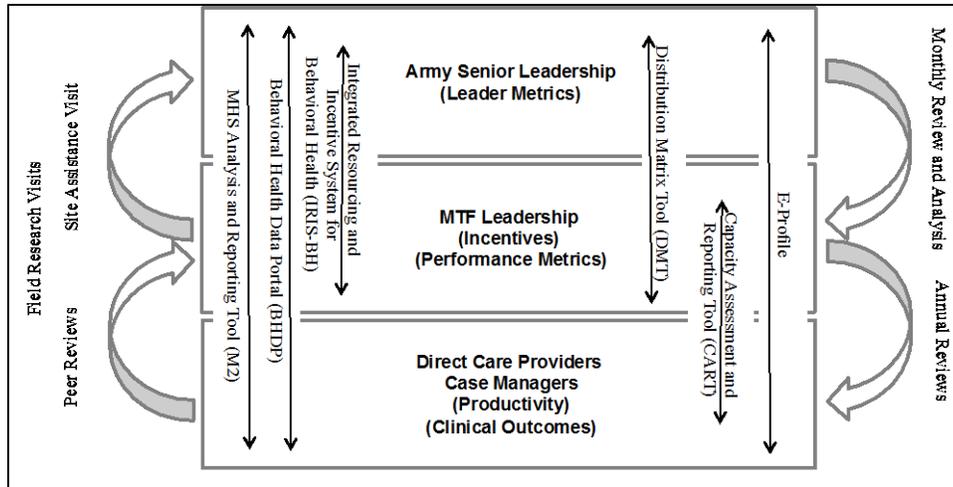


Figure 2-10: Behavioral Health Service Line Management Framework

Our analysis shows significant differences in the cost of providing inpatient and outpatient services between the *direct care* system and the *purchased care* system in FY2014 (Figure 2-11 and Figure 2-12). One potential explanation for the difference in costs for ambulatory care is the lack of accurate costing data in the *direct care* accounting system, which does not capture all the non-clinical services performed by MTF providers such as occupational evaluations and screenings.



ACT: Active Duty; DA: Active Duty Dependent; GRD: Guard/Reserve; DRG: Dependent of Guard/Reserve; RET+DR: Retiree and Retiree Dependents

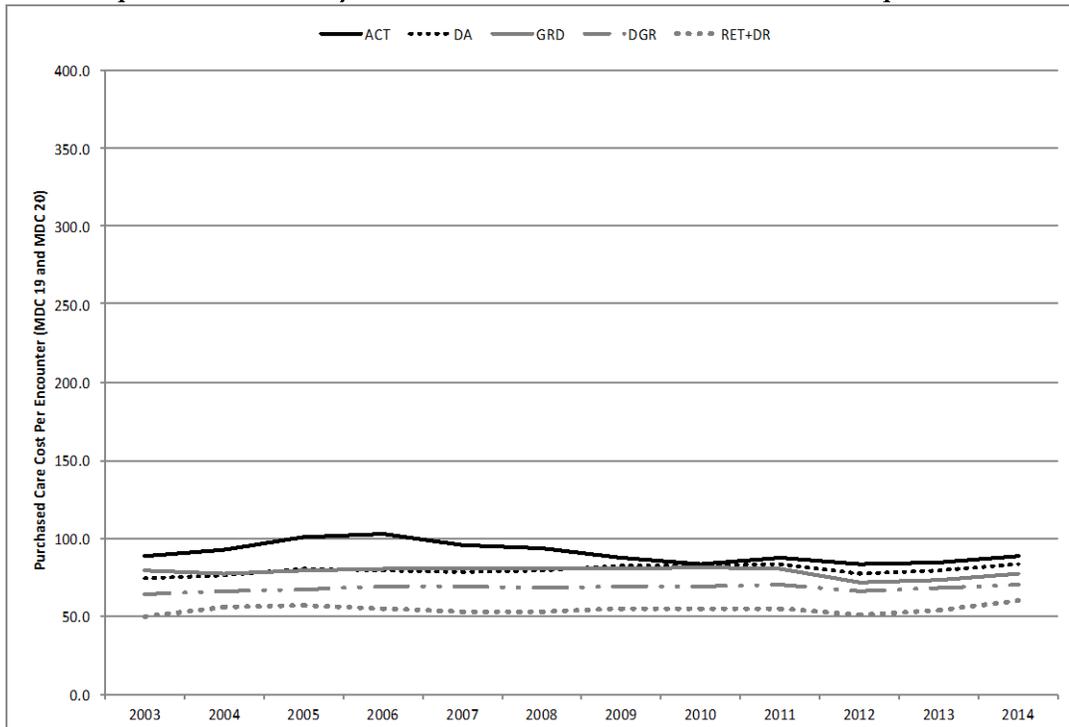


Figure 2-11: Differences in Cost per Behavioral Health Encounter in Direct and Purchased Care



ACT: Active Duty; DA: Active Duty Dependent; GRD: Guard/Reserve; DRG: Dependent of Guard/Reserve; RET+DR: Retiree and Retiree Dependents

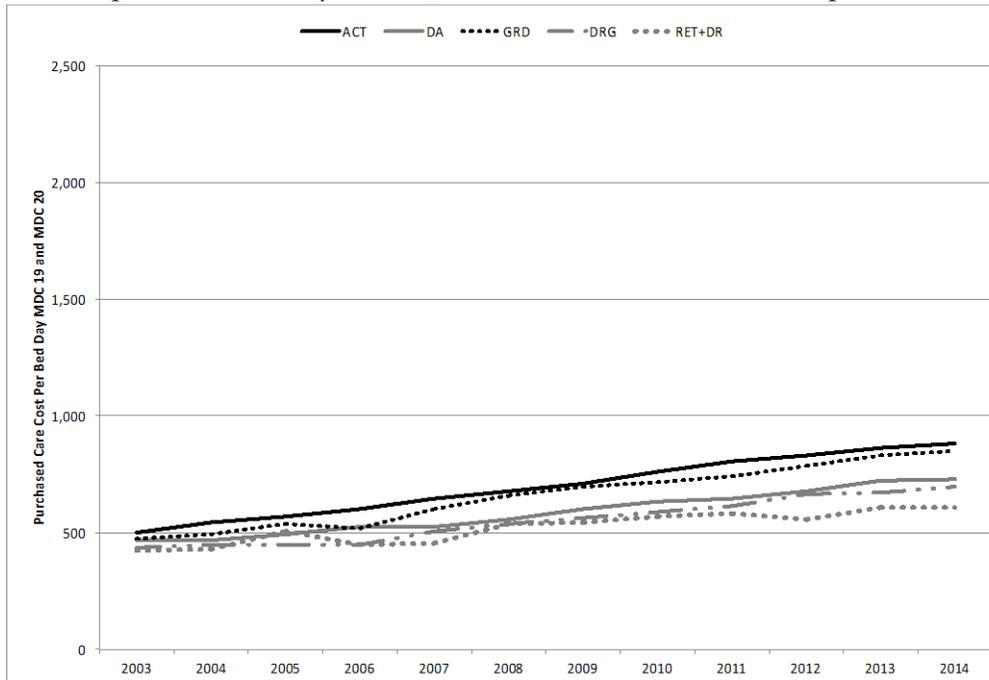


Figure 2-12: Differences in Cost per Behavioral Health Inpatient Bed Day in Direct and Purchased Care

The Distribution Matrix Tool is a first step at addressing the incomplete accounting problem by staffing to a more accurate clinical FTE workload requirement reflective of the providers' mission. These should show a reduced cost in FY2015, but our data set does not extend to this period.

A monthly review and analysis process was initiated in February 2014 to assess progress towards the implementation of the BHSOC.⁷⁵ This quarterly meeting evolved from an existing quarterly meeting focused solely on funding to one focused on a more holistic analysis to facilitate problem solving and priority setting. In this meeting, Military Treatment Facility performance is discussed, and corrective actions are co-developed with the installation director for psychological health. These Review and Analysis (R&A) sessions also provide the Installation Directors for Psychological Health with an opportunity to provide input to the Army behavioral health strategy and highlight potential priority areas for the next year.

Six metrics tracked at present in these meetings provide insight into the strategic direction for the Behavioral Health Service Line:

- *Outpatient market share* focuses leader attention on recapturing care from the network for both Soldiers and family members.
- *Inpatient care utilization* is a good indicator of the disease acuity in the population, and also has a direct effect on unit readiness.
- Despite the growth in capacity, provider utilization remains the principal lever for improving access to care. The *positions filled* and *production against Capacity Assessment and Report Tool (CART)* metrics focus leaders on ensuring that they have the staff they need to accomplish their mission, and that their providers are at minimum meeting Army workload requirements.
- Since the Army is still in the process of implementing the BHSOC, the *Behavioral Health Data Portal adoption* metric ensures that leader attention is focused on the collection and utilization of clinical outcome data.
- The *Telebehavioral Health utilization* metric alerts leaders to other opportunities for increasing capacity.

The IRIS incentives provide additional monetary rewards to installations to accelerate implementation of the BHSOC and guide desired behaviors at the installation. In the previous year, there were nine IRIS-BH incentives: compliance to production targets, raw production, availability for patient care, behavioral health care cost, market share, Telebehavioral Health utilization, BHDP adoption, care continuity for PTSD and Major Depressive Disorder, and inpatient utilization. Each

⁷⁵ OTSG/MEDCOM. "Operational Order 14-31behavioral Health Service Line Quarterly Review and Analysis (R&A) Implementation." 2014.

incentive reflects a shift towards a baseline system of care. As the system has been implemented, the review and analysis process has allowed for changing incentives to focus on rewarding quality of care for PTSD and Major Depressive Disorder, the diseases that contribute to high utilization and potentially affect readiness. The refined accounting systems and increased collection of clinical outcome data enable inspection of care quality in terms of process (number of encounters, continuity of care) and clinical outcomes.

Review & Analysis creates a potential learning process in which incentives and leader metrics may serve as markers of system maturity. As the BHSOC implementation has progressed, the leader metrics have also evolved, as Figure 2-13 shows. For example, the current year focuses on improving data quality in the Behavioral Health Data Portal rather than solely on survey completion in the previous year. The incentives and leader metrics were very closely related in the previous year, and the payout associated with incentives was still being refined.

	Previous Year	Current Year
IRIS-BH Incentives	Compliance to Production Targets Raw Production BHDP Adoption Availability for Patient Care BH Cost Trend Market Share TBH Utilization PTSD and MDD Care Continuity Inpatient Utilization	PTSD Treatment Dosage PTSD Treatment Outcome MDD Treatment Dosage MDD Treatment Outcome
Leader Metrics	Outpatient Market Share Inpatient Utilization Rate HEDIS 7 Day Follow Up after Admission Production against CART BHDP Adoption Rate Initial PTSD Treatment Quality Initial MDD Treatment Quality	Outpatient Market Share Inpatient Utilization Rate Staffing against DMT Production Against CART BHDP Surveys with key data fields populated TBH Provider Utilization
Performance Metrics (Partial List)	Access to Care Patient Satisfaction Referrals Staffing to Business Plan Frequency of encounters Antidepressant medication management Population Health	Access to Care Production Against CART Staffing against DMT TBH Utilization by Patient BHDP Adoption Treatment Alliance HEDIS 7 day Follow Up HEDIS 30 Day Follow Up Population Health

Figure 2-13: Evolution of Measures Reflects System of Care Maturity

The Capacity Assessment and Report Tool is an analytical tool that draws data from the human resource management system and the M2 to analyze and compare provider, clinic, and Military Treatment Facility performance against minimum expected clinical care delivery. The tool enables leaders to drill down to the individual provider level to determine whether there are any productivity shortfalls. This information is also made available to individual providers so they can see clearly the impact of their performance on the larger behavioral health mission of the installation. The historical emphasis on productivity without matching transparency from leadership was a source of frustration among providers in our early field research. CART is now a critical enabler of trust in the leadership team at the MTF level, as there are no surprises related to productivity during Annual Reviews or Peer Reviews. The initial rollout of the tool surfaced significant data quality challenges, as providers were misclassified in the human resource management system and, in some cases, were not even associated with the installation at which they were working. These initial problems have since been remediated as leaders focused on ensuring that data in the CART was reflective of actual work performed.

The Behavioral Health Service Line also tracks key population health indicators such as disease burden, suicides, outpatient utilization, and inpatient hospitalization, to assess the impact of the behavioral health system on readiness and wellness of the force. The use of the E-Profile tool provides quantification of the impact of behavioral health conditions on the readiness of the force.

High patient volumes, the limits of the electronic health record as it relates to behavioral health, and a history of not utilizing routine outcome measurement have driven quality improvement efforts to rely on small data samples. Furthermore, the focus narrows to administrative details rather than improving actual clinical practice. Patient-reported outcome data brings the voice of the patient/client to the multidisciplinary team and create a common foundation upon which providers from multiple disciplines can collaboratively construct care plans that maximize recovery. The Behavioral Health Data Portal was designed to overcome some of the known challenges of routine outcome monitoring in mental health by explicitly minimizing providers' data collection burden. It improves the clinical workflow by automating demographic and self-reported data entry and gives providers real-time longitudinal visibility of patient-reported outcome data. BHDP enables clinic-leader monitoring of the population-level impact of behavioral health care. More important, it allows the provider to tailor their care more effectively for their patients. BHDP is essential to shift

performance management from being predominantly structure- and process focused to a more balanced mix of structure, process, and outcomes.

At the Military Treatment Facility level, there may be skill gaps that prevent accurate root cause analysis. Site Assistance Visits provide MTFs with subject matter experts from within the BHSL to provide leaders with a performance assessment of the installation along with potential courses of action to rectify identified disconnects. The MIT research team has also played a role in continuous improvement through the participatory actions research in which field research findings are shared with providers, MTF leaders, and Army leadership.

The Army now has a baseline performance management system that can be improved continually to create a learning healthcare system. The performance management system is designed to enable corrective action at the provider, clinic, and/or MTF levels. Peer reviews utilizing outcome data can now enable richer conversations between peers on the perception of care by the patient/client and potential actions to enable recovery. These data can also enable practice management by clinic chiefs to initiate conversations on care termination and case mix adjustments.

Providers still bring up being “trapped in the tyranny of the tools” rather than feeling empowered to improve the system of care. The infrastructure has been built, but the organizational routines associated with translating insights to action are still being refined and institutionalized. For example, the population trends captured by the BHSL are not yet disseminated widely across the Army, and the use of site assistance visits is not yet routine practice. Consistent provider attrition makes ongoing provider training critical for operating in the new governance framework.

Discussion and Next Steps

When the MIT team began our research, overall behavioral health care in the Army was organized differently from one installation to another. The overall system was highly fragmented, with stakeholder differences in interests and cultures reinforcing the fragmentation. The enterprise goals specified only broad parameters in terms of access to care, deployment limiting conditions, and productivity requirements. Each Army MTF translated these goals into the local context (of resources, stakeholder power, and cultural meanings), and developed unique local organizing mechanisms to group providers and care coordination strategies. This reflected the siloed organization approach at the headquarters level that structured medical services, personnel, and other support services within individual, disconnected commands that were formally coordinated only at

the headquarters of the Army. The headquarters level established command-specific policies and practices that often failed to take into account the needs of the other commands. The power differences between key stakeholder groups at the post level, such as command teams and providers, further inhibited cross-group interactions. Stakeholders interacted primarily through formal communication mechanisms, but there were no formal integration mechanisms to align stakeholder groups. The underlying narrative was us-versus-them, with behavioral health care providers and command team silos feeling they were alone in supporting Soldiers and their families.

The Army has made significant progress towards the design objectives of building a clinically coherent, appropriately sized, culturally competent, operationally responsive, recovery-oriented system of care. There is an Army-wide standard system of care design that clearly specifies the desired patient flow across levels of care. The shift from disciplinary-based system design to a mission-based design has enabled the creation of care teams centered on specific beneficiary groups. The shift from a volume-based system sizing strategy to a more holistic capacity estimation approach accounts explicitly for the unique needs of military medicine such as command engagement and occupational assessments. The Army has focused on providing culturally appropriate Soldier care and is working to ease the capacity limitations of providing family care in the direct care system. Command teams play a significant role in enabling access to behavioral health services, and in creating an occupational environment that is conducive to recovery.

The new system of care design encourages collaborative relationships between command teams and providers that respect the authorities and responsibilities of both sets of actors. It focuses on appropriate information systems, policy changes that address the stigma associated with seeking mental health services, and improving communication between providers and command teams. The transformation is ongoing and requires active management of the structural, political, and cultural aspects of the change to institutionalize this new system of care.

From the perspective of designing a system of care, the Army continues to work on two disconnects. The first is managing patients seen in the emergency department for a behavioral health reason but who are not admitted to inpatient psychiatric care. We observed significant variations to how follow-up care was provided for Soldiers, as well as in how information was shared with the Soldiers' command teams. Some installations required Soldiers to walk into their assigned behavioral health clinic the next business day, while other installations submitted a formal referral to

the behavioral health clinic. When it came to notify command, some installations used a formal mental status evaluation form, while others used a provider-dependent free text summary document.

The second disconnect surfaces during the parallel treatment of comorbid conditions. Some conditions such as services related to a sexual assault or domestic violence are protected for legal reasons, but those providers are part of the medical system and attend the multidisciplinary treatment planning meetings to make sure their treatment plans do not conflict with those of other providers. The separation of first-level treatment for alcohol dependence and other substance use disorders from the clinical behavioral health system of care in 2010 has created a significant coordination challenge because substance use providers do not always document care in the medical record. These providers are part of a different organization and cannot be required to attend multidisciplinary treatment planning meetings.

While it may seem that the high-level strategic redesign of the Army system of care was all-important, the reality of implementation at the installation level shows that strategic design was necessary, but not sufficient, to accomplish the desired transformation. The details of how the system evolved reveal numerous challenges that had to be overcome, most notably arising from political and cultural issues not explicitly identified during the strategic design process. All of these will require ongoing attention and active management as the system evolves.

The use of all three lenses in the approach we adopted reveals there is no single recipe for success, although there are useful principles to apply. The Army faces conflicting demands from Congress and the public, rapid fluctuations in deployment, and changes in the knowledge base regarding measuring and treating behavioral health issues. This calls for conversations about where flexibility and innovation at the post level and standardized design of care provision can be mutually supportive. Further, cooperation and collaboration across organizational levels and professional domains of expertise requires mutual trust and respect. The political and cultural lenses help leaders at all levels understand the broad range of stakeholders, their interests and values, their sources of power (rank, expertise, credibility, personal networks, willingness to leave the Army, etc.), and the disparate meanings they can give to the same situation. Preparation for change requires an active communication plan with strong agreements and shared understanding among stakeholders. Feedback loops occur in conversations and meetings, and those processes are facilitated by clear

plans, measures with reliable and meaningful data, and collaborative relationships to ensure shared goals and interpretations.

Finally, bridging across stakeholder boundaries is greatly facilitated by having an objective party trusted by multiple stakeholders and that understands the cultures, vocabularies, and interests of the stakeholders, while always maintaining a big-picture perspective. This sometimes emerges with a single leader who happens to have the right background, mindset, skillset, and relationships. The Inspector General is an institutionalized third-party role that offers the proper objectivity but lacks domain knowledge and organizational expertise. The research team was able to play that role by building trust with various stakeholders (each of whom viewed the team as helpful rather than threatening), listening to everyone up and down the hierarchy, seeing the whole system, sharing data with all parties in a trustful atmosphere, and getting stakeholders to realize that they shared the same goals. There had to be a meeting of the minds around the Quadruple Aim—the mission statement alone is insufficient—to understand how to negotiate shared language, shared metrics, interdependent role expectations, and inevitable conflicts.

The Journey Ahead

The Army has taken significant strides towards transforming the organization and delivery of behavioral health services into a *system* of care. The Operating Company approach enabled the Army to make infrastructure investments such as standardized accounting, routine collection of patient reported outcomes, and improved staffing models that are critical to governing the system of care. The Army has established a framework for inspecting and improving the system of care through defined standards of performance and monthly review and analysis sessions. The management systems can now provide the data needed to evaluate performance and provide feedback for learning and resource allocation. The implementation of the new system of care is ongoing, and in this final section we suggest a number of actions needed to continue developing and implementing a comprehensive behavioral health care system for all beneficiaries.

The Army has prioritized the design and implementation of the BHSOC in the direct care system. However, the data show that most care for other beneficiary groups is provided in the purchased care network, over which the Army has limited direct control. The Army faces an ongoing challenge with assessing the quality of care provided in the purchased care network and ensuring equity for all its beneficiaries. The direct care system bears the responsibility exclusively of

coordinating care when services are sourced from purchased care. The Army experience has shown that this is an extremely difficult and, in some cases, ineffective approach absent changes to how information is shared by purchased care providers and how those providers are managed. Addressing these issues is a logical next step in the development of a truly comprehensive Behavioral Health system of care for all beneficiaries.

The current system operates in an environment of force reductions, evolving missions, and reduced budgets. These external uncertainties will require the system design to adapt in unforeseen ways to meet the needs of the beneficiary population. Good examples of expected changes are ongoing efforts to recapture care from the purchased care network. These efforts have to be managed carefully to minimize care fragmentation and develop trust between the beneficiary and the system of care. The implementation of the system of care has already taken a significant toll on providers, care extenders, and support staff who have had to deal with changes in their roles and their ways of working. The reduced utilization by active-duty Soldiers will potentially result in providers returning to care roles focused predominantly on clinical care. The Army must continue to invest in its analytics infrastructure to estimate more accurately the demand profile for the changing beneficiary population, and must also continue to invest in active change management to ensure provider retention.

Our research has highlighted the variation in documentation of substance use care in the direct care system because of the separation of first-level substance use care from behavioral health care. The Army has decided to reintegrate the former into the behavioral health system of care. This is not simply a structural change to the system care; it raises fundamental questions about the scope of practice of substance use providers and how care should be provided for Soldiers with comorbid conditions. There are important political issues that need to be addressed such as pay scales for licensed clinical social workers in those clinics. Last but not least are the critical cultural reintegration activities that must be carried out as providers change their organizational affiliations from Installation Management Command to Medical Command.

The behavioral health system of care is but one large component in the much larger system of health and discipline in the Army. There are key interfaces between behavioral health and other components of the health system such as the emergency room, primary care, and traumatic brain injury care that still need to be defined and refined. While the Army has a clear concept of

behavioral health support for operational units such as brigade combat teams, more work is needed to develop the framework for non-operational units such as a sustainment brigade. There is an implicit understanding that health and discipline are interconnected, and that the Army's Ready and Resilient system depends on the behavioral health system of care. The relationships between these two systems need to be better understood.

Our research was possible only because of the trust-based relationship between the Army leaders and the MIT research team. It provided us with the ability to develop observations and insights grounded in the lived experiences of people in the system. The Army was an active partner that acted on the recommendations provided by the MIT team, and worked with us to help improve DoD policies. Such research-practice partnerships are unusual and difficult to sustain; the five-year partnership between the Army and MIT provides a framework for replication in other services and other health systems.

Appendix: Acronyms

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

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

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

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