OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND READINESS

The Honorable Peter J. Visclosky
Chairman
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

FEB - 1 2019

Dear Chairman:

Please find enclosed the Department's final response to House Report 115–219, pages 287–288, to accompany H.R. 3219, the Department of Defense Appropriations Bill, 2018, concerning Technology Solutions for Psychological Health. The House Report requests that the Department provide a report that details a strategy for delivering tele-behavioral health (TBH) services to Service members.

While behavioral health is the most frequently delivered synchronous (i.e., "real-time") telehealth clinical service in the Military Health System (MHS), there is still much to be done to provide a TBH system that is widely accessible for MHS beneficiaries across the enterprise. Expanding the availability of TBH is integral to achieving the strategic goals and objectives of the MHS Virtual Health (VH) Strategic Plan. The MHS VH Strategic Plan will set the stage for continued TBH growth through a focus on shared and coordinated acquisition processes and workflows; a consistent approach to front-line clinician and beneficiary education regarding how to access available services; and other relevant shared processes.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families. A similar letter is being sent to the other congressional defense committees.

James N. Stewart
Assistant Secretary of Defense for Manpower and Reserve Affairs, Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Ken Calvert

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND
READINESS

FEB - 1 2019

The Honorable Adam Smith
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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James N. Stewart
Assistant Secretary of Defense for Manpower
and Reserve Affairs, Performing the Duties
of the Under Secretary of Defense for
Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable William M. "Mac" Thornberry
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND
READINESS

FEB - 1 2019

The Honorable James M. Inhofe
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

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James N. Stewart
Assistant Secretary of Defense for Manpower and Reserve Affairs, Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Enclosure:
As stated

cc:
he Honorable Jack Reed
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND
READINESS

FEB - 1 2019

The Honorable Richard C. Shelby
Chairman
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Please find enclosed the Department's final response to House Report 115–219, pages 287–288, to accompany H.R. 3219, the Department of Defense Appropriations Bill, 2018, concerning Technology Solutions for Psychological Health. The House Report requests that the Department provide a report that details a strategy for delivering tele-behavioral health (TBH) services to Service members.

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James N. Stewart
Assistant Secretary of Defense for Manpower
and Reserve Affairs, Performing the Duties
of the Under Secretary of Defense for
Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Richard J. Durbin
Vice Chairman

Report in Response to House Report 115–219 Pages 287–288 to Accompany H.R. 3219, the Department of Defense Appropriations Bill, 2018

Technology Solutions for Psychological Health

The estimated cost of this report or study for the Department of Defense (DoD) is approximately $66,000.00 for the 2018 Fiscal Year. This includes $13,000.00 in expenses and $54,000.00 in DoD labor.

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TECHNOLOGY SOLUTIONS FOR PSYCHOLOGICAL HEALTH

EXECUTIVE SUMMARY

This report is in response to the House Report 115–219, pages 287–288, to accompany H.R. 3219, the Department of Defense (DoD) Appropriations Bill, 2018:

> *The Committee is encouraged by the Department's investment in technology that allows servicemembers access to behavioral health services, including videoconferencing platforms that can be delivered in both garrison and deployed locations. However, it is imperative that all servicemembers are aware of the resources available to them and how to readily gain access to assistance when needed. The Committee directs the Assistant Secretary of Defense (Health Affairs) to provide a report to the congressional defense committees not later than 90 days after the enactment of this Act that details a strategy for delivering tele-behavioral health services to servicemembers.*

House Report 115-219 requests a detailed strategy for delivering tele-behavioral health (TBH) services to Service members, including an awareness campaign on TBH resources available to them and how to gain access to assistance. With the incorporation of the defense appropriations into the $1.3 trillion omnibus spending bill signed on March 23, 2018, this report on a TBH strategy for the Military Health System (MHS), is a response to the House Appropriation Committee's request.

Providing improved access to behavioral health (BH) services is a key priority of the MHS, its beneficiaries, and its stakeholders. The MHS seeks effective strategies for delivering BH care for this nation's warriors and their families.

For the past 20 years, telehealth (TH) has been a useful care-delivery tool, enabling the MHS to meet spikes in demand for services and to facilitate access for beneficiaries who lack direct access to needed services. This report details the current state of TBH within the MHS, discusses issues that are relevant for TBH growth, and outlines a strategy for development of TBH across the MHS enterprise.

The report provides a detailed quantitative analysis of MHS TBH activity for fiscal years (FY) 2016 and 2017, the last full years for which relevant data is available. During that period, TBH services represented the majority of synchronous (i.e., real time) clinical TH activity in both the direct and purchased care networks. In addition, during the period in question, BH clinicians provided the majority of workload activity for TH related to DoD-specific readiness, occupational health, and administrative needs.

Subject matter experts (SME) noted variances in the availability of TBH services, such as pediatric and adult psychopharmacology, care management and coordination, forensics, aeromedical, and other specialties. In addition, SMEs noted that there continue to be access challenges for rural and remote beneficiaries. As a result, further improvement is needed for beneficiary access to TBH in garrison, community, and deployed settings.

The TBH strategy is nested within the overall MHS strategy and the MHS Virtual Health (VH) Strategic Plan. TBH will be developed as a key MHS VH Strategic Plan capability and will enhance the Strategic Plan's overall goals of supporting the warfighter, supporting the MHS clinical communities, and improving beneficiary access to VH services, all while managing costs responsibly.

The path forward for TBH will include:

- Conducting further analyses to better understand current capabilities, identify beneficiary needs, access gaps, and potential resources that can be leveraged via TBH to address these needs and gaps.

- Gathering and systematizing clinical, technical, and other requirements, and conducting appropriate acquisitions, as needed.

- Developing necessary policies and other guidance, business processes, and clinical protocols to ensure that TBH efforts are coordinated, comprehensive, safe, and evidence-based.

- Establishing provider and support staff TBH competency standards, training approaches, and competency measurement systems to ensure high quality TBH services.

- Developing a phased TBH stakeholder communication campaign that will:

    - Provide clinicians and beneficiaries with a standardized set of terms for discussing TBH.

    - Ensure that beneficiaries receive timely information about the expansion of TBH services and the means by which these services can be accessed.

- Integrating TBH into the joint planning process for operational healthcare to ensure the availability of TBH services in operational settings.

- Preparing healthcare personnel to provide TBH services in the deployed environment.

- Developing appropriate metrics to ensure that, as MHS TBH capabilities grow, these efforts are being measured and evaluated for efficiency and effectiveness.

In line with its historical commitment, and pursuant to the implementation of section 718 of the National Defense Authorization Act (NDAA) for FY 2017 (Public Law 114-328), the DoD shall continue to grow the use of TH as a key healthcare delivery technology within the MHS. TBH is integral to this effort. The framework outlined in this report points the way to more robust and accessible TBH services for warfighters, their families, and other MHS beneficiaries.

INTRODUCTION, BACKGROUND, AND CURRENT STATE

Providing improved access to BH services is a key priority of the MHS, its beneficiaries, and its stakeholders. The MHS seeks effective strategies for delivering BH care for the nation's warriors and their families. For the past 20 years, TH has been a useful care-delivery tool, enabling the MHS to meet spikes in demand for services and to facilitate access for beneficiaries who lack direct access to needed services. The MHS uses TBH services for assessment, for the provision of ongoing BH treatment, and to meet the demand for pre- and post-deployment evaluations, on a surge basis. However, the availability of TBH services varies by geographic area, service component, and whether the beneficiary seeks services through the direct care (military treatment facility (MTF)-based) or purchased care (community provider-based) networks.

The 2017 Government Accountability Office (GAO) report (GAO-18-108R: Published November 14, 2017) entitled "Department of Defense: Telehealth Use in Fiscal Year 2016," notes that TBH is the most frequently offered synchronous (i.e., "real time") TH service across all MHS components (page 8 of GAO report).

Direct Care Network Analytics

Note that direct care synchronous TBH cost will not be presented in this section. There is no formal TH cost accounting mechanism in the MHS. Existing data on cost per encounter are driven by MTF-specific formulas for direct and indirect cost assignment. As such, the "true" cost of TH workload within the direct care network is difficult to accurately identify and report.

"Classic" TH

This section will review "classic" TH services within the MHS. For purposes of this document, "classic" TH will include synchronous videoconferencing between a provider and beneficiary, in which the provider and, typically, the beneficiary, are located at MHS clinical facilities. MHS TBH activity almost exclusively fits within this classic TH model.

Table 1 provides an overall comparison of synchronous TH workload for the MHS Direct Care Network, with breakdown for MHS Component affiliation of the provider's treatment facility, for FY 2016 through FY 2017 (the last period for which there is complete data, at the time of this report). Overall synchronous TH workload grew by 2,084 annual encounters during this period, a 5.57 percent increase.

Table 1: FYs 2016-2017 Direct Care Provider-End Synchronous TH Workload, Breakout by MHS Component Affiliation of Provider Treatment Facility[1]

FY	Treatment Facility Service Affiliation	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters Per Patient
2016	Air Force	1,680	4.49%	696	4.98%	2.41
	Army	34,692	92.75%	12,734	91.08%	2.72
	National Capital Region (NCR)	613	1.64%	334	2.39%	1.84
	Navy	418	1.12%	217	1.55%	1.93
	FY 2016 Totals:	**37,403**	**100.00%**	**13,981**	**100.00%**	**2.68**
	FY 2016 Totals (Unduplicated)	**37,403**		**13,976**		**2.68**
2017	Air Force	2,028	5.14%	1,163	6.53%	1.74
	Army	34,582	87.58%	15,273	85.76%	2.26
	NCR	2,080	5.27%	787	4.42%	2.64
	Navy	797	2.02%	586	3.29%	1.36
	FY 2017 Totals:	**39,487**	**100.00%**	**17,809**	**100.00%**	**2.22**
	FY 2017 Totals (Unduplicated)	**39,487**		**17,776**		**2.22**
Change from FY 2016 to FY 2017 (Unduplicated Totals)		**2,084**	**5.57%**	**3,800**	**27.19%**	**-0.45**

While all encounters are uniquely contained within any of the breakdown workload categories presented, individual patients may receive TH services within more than one breakdown category. As a result, category sums of patients provided with TH services may be somewhat larger than the overall patient total due to a few such duplications. The small effect of this will be demonstrated in Tables 1-4 of this report. The remainder of the tables will report total encounters and total patients as category sums in the interest of making the data tables more streamlined.

In addition to its classic healthcare provision (i.e., assessment and treatment) role, MHS healthcare providers are called upon to provide professional services that are unique to the DoD's mission. Often, these providers are required to assess health readiness, evaluate fitness for duty or for a particular assignment, respond to an occupational health matter, or accomplish an administrative purpose (e.g., pre-separation evaluation). As Table 2 indicates, MHS synchronous TH can similarly be divided into "Clinical" versus "Readiness/Occupational Health/Administrative" (ROHA) workload categories.

The current report will utilize this "Clinical" versus "ROHA" workload distinction in order to highlight the unique readiness aspect of DoD synchronous TH, as well as to enable an equivalent clinical TH workload comparison between the direct and purchased care networks. It is

[1] Synchronous TH, for this document, is defined as the presence of the GT procedural modifier, or workload generated by one of the Army TBH hub sites that were in operation in FY 2016 and FY 2017. Note that encounters that were erroneously co-coded with the Pt-End TH code Q3014 were excluded from provider-end analyses.

important to note that this distinction is unique to this report. Most previous reports from MHS components have combined these workload categories. As such, caution is recommended in making direct comparisons between the TH workload analyses of this and previous reports.

Table 2: Direct Care Provider-End Synchronous TH Workload: Clinical TH vs. ROHA TH, Breakout by MHS Component Affiliation of Provider Treatment Facility[2, 3]

FY	Synch TH Readiness Clinical Category	Treatment Facility Service Affiliation	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters Per Patient
2016	Clinical TH	Air Force	1,613	4.98%	669	6.77%	2.41
		Army	29,760	91.94%	8,688	87.97%	3.43
		NCR	581	1.79%	304	3.08%	1.91
		Navy	416	1.29%	215	2.18%	1.93
		FY 2016 Totals	**32,370**	**100.00%**	**9,876**	**100.00%**	**3.28**
		FY 2016 Totals (Unduplicated)	**32,370**	**86.54%**	**9,874**	**68.56%**	**3.28**
	ROHA TH	Air Force	67	1.33%	47	1.04%	1.43
		Army	4,932	97.99%	4,446	98.21%	1.11
		NCR	32	0.64%	32	0.71%	1.00
		Navy	2	0.04%	2	0.04%	1.00
		FY 2016 Totals	**5,033**	**100.00%**	**4,527**	**100.00%**	**1.11**
		FY 2016 Totals (Unduplicated)	**5,033**	**13.46%**	**4,527**	**31.44%**	**1.11**
	FY 2016 Overall Totals (Unduplicated)		**37,403**	**100.00%**	**14,401**	**100.00%**	
2017	Clinical TH	Air Force	1,886	6.27%	1,038	10.61%	1.82
		Army	25,935	86.22%	7,934	81.10%	3.27
		NCR	1,832	6.09%	592	6.05%	3.09
		Navy	428	1.42%	219	2.24%	1.95
		FY 2017 Totals:	**30,081**	**100.00%**	**9,783**	**100.00%**	**3.07**
		FY 2017 Totals (Unduplicated)	**30,081**	**76.18%**	**9,759**	**53.34%**	**3.08**
	ROHA TH	Air Force	142	1.51%	134	1.57%	1.06
		Army	8,647	91.93%	7,790	91.24%	1.11
		NCR	248	2.64%	247	2.89%	1.00
		Navy	369	3.92%	367	4.30%	1.01
		FY 2017 Totals:	**9,406**	**100.00%**	**8,538**	**100.00%**	**1.10**
		FY 2017 Totals (Unduplicated)	**9,406**	**23.82%**	**8,538**	**46.66%**	**1.10**
	FY 2017 Overall Totals (Unduplicated Data)		**39,487**	**100.00%**	**18,297**	**100.00%**	
Change from FY 2016 to FY 2017 (Unduplicated Data)	Clinical TH		-2,289	-7.07%	-115	-1.16%	-0.20
	ROHA TH		4,373	86.89%	4,011	88.60%	-0.01
	Overall Difference		**2,084**	**5.57%**	**3,896**	**27.05%**	

As Table 2 indicates, synchronous clinical TH workload decreased by 2,289 encounters (7.07 percent) between FY 2016 and FY 2017, while synchronous ROHA TH increased by 4,373 (86.89 percent) during the same period. On average, patients seen for clinical TH had a greater

[2] For this document, "clinical" TH is defined as synchronous TH workload that does not contain a DoD Unique or other administrative or occupational health diagnosis.

[3] For this document, ROHA Synchronous TH workload is defined as synchronous TH workload that contains a DoD Unique or other administrative or occupational health diagnosis within the first five diagnostic fields. Clinical and ROHA TH encounters will be accounted for in separate tables.

number of TH encounters (3.08 in FY 2017) than did patients seen for ROHA TH (1.10 in FY 2017). This is an expected result in that most ROHA TH encounters are for single assessment purposes, while many clinical TH services include assessment and follow-up care.

As Table 3 demonstrates, TBH accounted for 85.70 percent of synchronous TH clinical workload in FY 2016, and 80.81 percent of synchronous TH clinical workload in FY 2017. However, it is notable that, while non-TBH synchronous clinical TH experienced a 24.74 percent increase between FY 2016 and FY 2017, synchronous clinical TBH workload declined by 12.38 percent during the same period. The decrease in TBH workload between FY 2016 and FY 2017 may be partially explained by a fourth quarter FY 2017 close-down and realignment of one of the Army's TBH hub sites, as well as a reassignment of TBH providers to other duties at individual MTFs.

Table 3 also indicates that individual beneficiaries of TBH services have tended to receive more TH sessions per year than do recipients of non-behavioral TH services (Average encounters per patient was 4.19 for clinical TBH recipients and 1.41 for non-BH clinical TH recipients for FY 2017). Possible reasons for this are differences in the way that TH has been used within the MHS for BH and non-BH care. Use cases for clinical TBH include medication management, therapy, and case management / care coordination. These typically require multiple encounters within a relatively short period of weeks or months, in order to be maximally effective. By contrast, non-BH TH has, traditionally, been used to provide medical sub-specialty consultation, often in the form of a single encounter or an initial encounter and a single subsequent follow-up. It is unknown whether this BH – non-BH difference in number of TH sessions will persist as the role of TH in providing remote primary care, acute care, and chronic condition care coordination grows within the MHS.

Table 3: FYs 2016-2017 Direct Care Provider-End Synchronous TH "Clinical" Workload, Breakout by MHS Component Affiliation of Provider Treatment Facility[4]

FY	Synch TH Readiness Clinical Category	Synch TH Category	Treatment Facility Service Affiliation	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters per Patient
2016	Clinical TH	Non-TBH	Air Force	239	5.16%	117	3.28%	2.04
			Army	3,758	81.18%	3,021	84.81%	1.24
			NCR	426	9.20%	273	7.66%	1.56
			Navy	206	4.45%	151	4.24%	1.36
			FY 2016 Totals:	**4,629**	**100.00%**	**3,562**	**100.00%**	**1.30**
			FY 2016 Totals (Unduplicated)	**4,629**	**14.30%**	**3,562**	**35.70%**	**1.30**
		TBH	Air Force	1,374	4.95%	570	8.88%	2.41
			Army	26,002	93.73%	5,740	89.45%	4.53
			NCR	155	0.56%	42	0.65%	3.69
			Navy	210	0.76%	65	1.01%	3.23
			FY 2016 Totals:	**27,741**	**100.00%**	**6,417**	**100.00%**	**4.32**
			FY 2016 Totals (Unduplicated)	**27,741**	**85.70%**	**6,416**	**64.30%**	**4.32**
		FY 2016 Overall Totals (Unduplicated)		**32,370**	**100.00%**	**9,978**	**100.00%**	
2017	Clinical TH	Non-TBH	Air Force	464	8.04%	354	8.59%	1.31
			Army	3,960	68.58%	3,214	78.03%	1.23
			NCR	1,177	20.38%	413	10.03%	2.85
			Navy	173	3.00%	138	3.35%	1.25
			FY 2017 Totals:	**5,774**	**100.00%**	**4,119**	**100.00%**	**1.40**
			FY 2017 Totals (Unduplicated)	**5,774**	**19.19%**	**4,108**	**41.47%**	**1.41**
		TBH	Air Force	1,422	5.85%	692	11.91%	2.05
			Army	21,975	90.41%	4,815	82.89%	4.56
			NCR	655	2.69%	218	3.75%	3.00
			Navy	255	1.05%	84	1.45%	3.04
			FY 2017 Totals:	**24,307**	**100.00%**	**5,809**	**100.00%**	**4.18**
			FY 2017 Totals (Unduplicated)	**24,307**	**80.81%**	**5,798**	**58.53%**	**4.19**
		FY 2017 Overall Totals (Unduplicated)		**30,081**	**100.00%**	**9,906**	**100.00%**	
Change from FY 2016 to FY 2017 (Unduplicated Data)	**Clinical TH**	Non-TBH		1,145	24.74%	546	15.33%	0.11
		TBH		-3,434	-12.38%	-618	-9.63%	-0.13
		Overall Difference		-2,289	-7.07%	-72	-0.72%	

[4] For this document, clinical TBH workload is defined as synchronous TH workload, meeting the description of clinical TH, in which the work was performed by a mental health provider (MEPRS2= AF or BF; or presence of a BH provider specialty type) or there was a mental health diagnosis (ICD-10 CM = F01-F99) in at least one of the first five diagnostic fields.

Table 4: FYs 2016-2017 Direct Care Provider-End Synchronous ROHA TH Workload, Breakout by MHS Component Affiliation of Provider Treatment Facility[5]

FY	Synch TH Readiness Clinical Category	Provider Type	Treatment Facility Service Affiliation	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters per Patient
2016	ROHA TH	BH Provider	Air Force	66	1.43%	46	1.11%	1.43
			Army	4,531	98.50%	4,103	98.82%	1.10
			NCR	1	0.02%	1	0.02%	1.00
			Navy	2	0.04%	2	0.05%	1.00
			FY 2016 Totals:	**4,600**	**100.00%**	**4,152**	**100.00%**	**1.11**
			FY 2016 Totals (Unduplicated)	**4,600**	**91.40%**	**4152**	**91.49%**	**1.11**
		Not BH Provider	Air Force	1	0.23%	1	0.26%	1.00
			Army	401	92.61%	354	91.71%	1.13
			NCR	31	7.16%	31	8.03%	1.00
			Navy	0	0.00%	0	0.00%	0.00
			FY 2016 Totals:	**433**	**100.00%**	**386**	**100.00%**	**1.12**
			FY 2016 Totals (Unduplicated)	**433**	**8.60%**	**386**	**8.51%**	**1.12**
		FY 2016 Overall Totals (Unduplicated)		**5,033**	**100.00%**	**4,538**	**100.00%**	
2017	ROHA TH	BH Provider	Air Force	24	0.37%	16	0.27%	1.50
			Army	6,503	99.63%	5,808	99.73%	1.12
			NCR	0	0.00%	0	0.00%	0.00
			Navy	0	0.00%	0	0.00%	0.00
			FY 2017 Totals:	**6,527**	**100.00%**	**5,824**	**100.00%**	**1.12**
			FY 2017 Totals (Unduplicated)	**6,527**	**69.39%**	**5,824**	**68.05%**	**1.12**
		Not BH Provider	Air Force	118	4.10%	118	4.31%	1.00
			Army	2,144	74.47%	2,003	73.24%	1.07
			NCR	248	8.61%	247	9.03%	1.00
			Navy	369	12.82%	367	13.42%	1.01
			FY 2017 Totals:	**2,879**	**100.00%**	**2,735**	**100.00%**	**1.05**
			FY 2017 Totals (Unduplicated)	**2,879**	**30.61%**	**2,735**	**31.95%**	**1.05**
		FY 2017 Overall Totals (Unduplicated)		**9,406**	**100.00%**	**8,559**	**100.00%**	
Change from FY 2016 to FY 2017	**ROHA TH**	BH Provider (Undupl)		1,927	41.89%	1,672	40.27%	0.01
		Not BH Provider (Undupl)		2,446	564.90%	2,349	608.55%	-0.07
		Overall Difference (Unduplicated)		4,373	86.89%	4,021	88.61%	

As Table 4 indicates, in FY 2017, 69.39 percent of ROHA TH encounters were performed by BH providers, with the number of such BH provided encounters growing by 41.89 percent between FY 2016 and FY 2017. The overall percentage of ROHA TH encounters decreased from 91.40 percent in FY 2016 to 69.39 percent in FY17. However, this was due to the 2,446 encounter increase in non-BH provider ROHA TH encounters during this period, rather than any diminished role for BH provided ROHA TH services.

[5] BH Provider Type is identified as synchronous TH work performed by a BH provider (MEPRS2= AF or BF; or presence of a BH provider specialty type). The "BH Provider" / "Not BH Provider" distinction applies for both Clinical and ROHA TH workload.

The Clinical and ROHA TH categories will now be considered in turn, with an emphasis on FY 2017 BH workload.

"Clinical" TBH Analysis

Table 5: FY 2017 Direct Care Provider-End Synchronous Clinical TBH, by Treatment Site and Provider Affiliation

FY	Synch TH Category	Provider Treatment Site Affiliation	Provider Service	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters Per Patient
2017	TBH	Air Force	Air Force	1,404		677		2.07
			Army	17		14		1.21
			Unknown	1		1		1.00
		Air Force Treatment Site Total		**1,422**	**5.85%**	**692**	**11.89%**	**2.05**
2017	TBH	Army	Air Force	3		3		1.00
			Army	21,673		4,777		4.54
			Public Health Service (PHS)	299		45		6.64
		Army Treatment Site Total		**21,975**	**90.41%**	**4,825**	**82.88%**	**4.55**
2017	TBH	NCR	Army	23		5		4.60
			Navy	4		3		1.33
			NCR	462		161		2.87
			PHS	166		52		3.19
		NCR Treatment Site Total		**655**	**2.69%**	**221**	**3.80%**	**2.96**
2017	TBH	Navy	Navy	252		82		3.07
			PHS	3		2		1.50
		Navy Treatment Site Total		**255**	**1.05%**	**84**	**1.44%**	**3.04**
		Overall Provider-End FY 2017 Totals:		**24,307**	**100.00%**	**5,822**	**100.00%**	

As shown in Table 5, among the military services, Army facilities and clinicians have provided the largest proportion of synchronous clinical TBH encounters within the MHS (90.41 percent of all facility synchronous TBH encounters for FY 2017), primarily through the use of strategically-located TBH provider hubs. The Army has also offered TBH services in Iraq and Afghanistan though, as the report describes below, there is no current standardized workload capture and tracking mechanism for these and other TH services delivered in operational settings.

Recently, both Air Force and Navy have expanded their TBH efforts. Air Force has developed a regional "hub-and-spoke" model for TBH care. Navy is expanding access to Tele-Psychiatry (i.e., psychiatric services delivered via TH) and is engaging in pilots of ship-board access to TBH care.

Table 6: FY 2017 Direct Care Provider-End Synchronous Clinical TBH, by Beneficiary Category

FY	Synch TH Category	Beneficiary Category	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters Per Patient
2017	TBH	Active Duty (AD) & Active Duty Guard and Reserve (AD G/R)	17,343	71.35%	4,193	71.35%	4.14
		AD Dependent	3,591	14.77%	823	14.00%	4.36
		All Others	1,732	7.13%	472	8.03%	3.67
		Retired	1,641	6.75%	389	6.62%	4.22
		FY 2017 Totals:	**24,307**	**100.00%**	**5,877**	**100.00%**	

In FY 2017, 71.35 percent of clinical TBH encounters in the direct care system were provided to AD Service members, including activated members of the Reserve Components (National Guard and Reserves). This was followed by dependents (14.77 percent), and other categories of MHS beneficiaries (13.88 percent, aggregated) (Table 6).

Table 7: FY 2017 Direct Care Provider-End Synchronous Clinical TBH, by Beneficiary Age Group

FY	Synch TH Category	Age Group	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters Per Patient
2017	TBH	0-4	24	0.10%	20	0.34%	1.20
		5-14	528	2.16%	180	3.02%	2.93
		15-17	398	1.63%	101	1.69%	3.94
		18-24	4,008	16.43%	1,145	19.19%	3.50
		25-34	8,341	34.19%	2,112	35.39%	3.95
		35-44	7,133	29.24%	1,556	26.08%	4.58
		45-64	3,793	15.55%	806	13.51%	4.71
		65+	172	0.71%	47	0.79%	3.66
		FY 2017 Totals:	**24,397**	**100.00%**	**5,967**	**100.00%**	

As might be expected from the large number of FY 2017 TBH encounters delivered to AD Service members (71.35 percent of total), the bulk of FY 2017 direct care TBH services were provided to individuals in the 18-64 year range (95.41 percent), with a peak in the 25-44 year old range (63.43 percent). However, the highest average number of TBH encounters per patient (4.71) occurred in the 45-64 year range (Table 7). Please note that this table may contain patient (not encounter) duplications, as some beneficiaries had birthdays during FY 2017 that moved them between age group categories.

Table 8: FY 2017 Direct Care Provider-End Synchronous Clinical TBH , by Beneficiary Sponsor's Service Affiliation (Includes both Sponsor and Dependents)

Sponsor Service Text	Beneficiary Category	Encounters	Percent Total Encounters	Patients	Percent Total Patients	Avg Encounters Per Patient
Air Force	AD & AD G/R	1,494		499		2.99
	AD Dependent	218		122		1.79
	All Others	245		99		2.47
	Retired	251		63		3.98
	FY 2017 Air Force Totals:	**2,208**	**9.08%**	**783**	**13.29%**	**2.82**
Army	AD & AD G/R	14,393		3,261		4.41
	AD Dependent	2,907		583		4.99
	All Others	1,098		233		4.71
	Retired	1,088		246		4.42
	FY 2017 Army Totals:	**19,486**	**80.17%**	**4,323**	**73.40%**	**4.51**
Coast Guard	AD & AD G/R	48		7		6.86
	AD Dependent	73		8		9.13
	All Others	4		2		2.00
	Retired	26		4		6.50
	FY 2017 Coast Guard Totals:	**151**	**0.62%**	**21**	**0.36%**	**7.19**
Marine Corps	AD & AD G/R	414		131		3.16
	AD Dependent	47		24		1.96
	All Others	55		16		3.44
	Retired	73		17		4.29
	FY 2017 Marine Corps Totals:	**589**	**2.42%**	**188**	**3.19%**	**3.13**
Navy	AD & AD G/R	839		246		3.41
	AD Dependent	333		84		3.96
	All Others	134		53		2.53
	Retired	160		47		3.40
	FY 2017 Navy Totals:	**1,466**	**6.03%**	**430**	**7.30%**	**3.41**
Other/Unknown	AD & AD G/R	133		51		2.61
	AD Dependent	9		2		4.50
	All Others	195		69		2.83
	Retired	41		11		3.73
	FY 2017 Other/ Unknown Totals:	**378**	**1.56%**	**133**	**2.26%**	**2.84**
PHS	AD & AD G/R	22	0.09%	7	0.12%	3.14
	AD Dependent	4	0.02%	2	0.03%	2.00
	All Others	1	0.00%	1	0.02%	1.00
	Retired	2	0.01%	2	0.03%	1.00
	FY 2017 PHS Totals:	**29**	**0.12%**	**12**	**0.20%**	**2.42**
	FY 2017 Totals:	**24,307**	**100.00%**	**5,890**	**100.00%**	

As noted in Table 8, in FY 2017, 80.17 percent of clinical TBH encounters within the direct care network were provided to individuals affiliated with the Army (themselves or through their sponsor). This is followed by encounters for beneficiaries affiliated with the Air Force (9.08

percent), the Navy (6.03 percent), and other components (3.16 percent, aggregated). Service affiliation was unknown for 1.56 percent of encounters.

Together, Tables 5 and 8 provide evidence of clinical TBH cross coverage among MHS components. For example, while Army facilities provided 21,975 clinical TBH encounters in FY 2017, Army-affiliated beneficiaries received only 19,486 clinical TBH encounters for that year, a difference of 2,489 encounters. For FY 2017, Air Force had an excess of 786 affiliated beneficiary clinical TBH encounters to facility-generated clinical TBH encounters. The excess for Navy was 1,800 (Navy and Marine Corps beneficiaries combined). Total excess of Air Force, Navy, and Marine Corps clinical TBH beneficiary encounters was 2,586. Adding Coast Guard and PHS affiliated beneficiaries, for whom there are no corresponding affiliated clinical TBH provider facilities, as well as beneficiaries for whom service affiliation is unknown, the total excess of beneficiary clinical TBH encounters is 3,144. This figure matches the combination of excess Army generated clinical TBH encounters and those generated within the National Capital Region.

Table 9: FY 2017 Direct Care Provider-End Clinical TBH, "Top 10" Primary Diagnoses for BH Providers

Diagnosis, Chief Complaint	Chief Complaint Text	Encounters	Patients	Avg Encounters Per Patient
F4312	Post-Traumatic Stress Disorder (PTSD), Chronic	3,530	637	5.54
F4323	Adjustment Disorder (D/O) w/ Mixed Anxiety & Depressed Mood	2,435	742	3.28
F419	Anxiety D/O, Unspecified	1,559	520	3.00
F331	Major Depressive D/O, Recurrent, Moderate	1,033	321	3.22
F4310	PTSD, Unspecified	979	259	3.78
F411	Generalized Anxiety D/O	847	230	3.68
F341	Dysthymic D/O	631	197	3.20
F902	Attention Deficit Hyperactivity Disorder (ADHD), Combined Type	533	177	3.01
F321	Major Depressive D/O, Single Episode, Moderate	583	176	3.31
F4322	Adjustment D/O w/ Anxiety	643	248	2.59
	FY 2017 Top-10 Total:	**12,773**	**3,507**	
	FY 2017 Clinical TBH by BH Providers Total:	**23,977**	**5,536**	
	Top-10 Percent of Total:	**53.27%**	**63.35%**	

As might be expected, Table 9 indicates that BH clinicians providing clinical TBH care tend to focus on what can be considered "core" BH issues, such as PTSD, other anxiety disorders, depressive disorders, and adjustment disorders with both anxious and depressive features. TBH treatment for ADHD also features prominently (533 FY 2017 encounters).

Table 10: FY 2017 Direct Care Provider-End Clinical TBH, "Top 10" Primary Diagnoses for non-BH Providers

Diagnosis, Chief Complaint	Chief Complaint Text	Encounters	Patients	Avg Encounters Per Patient
F649	Gender Identity D/O, Unspecified	31	18	1.72
Z1389	Encounter for Screening for Other D/O	28	22	1.27
R0683	Snoring	22	21	1.05
F909	Attention Deficit Hyperactivity D/O, Unspecified Type	19	19	1.00
G4733	Obstructive Sleep Apnea	18	18	1.00
F419	Anxiety D/O, Unspecified	17	15	1.13
F902	Attention Deficit Hyperactivity D/O, Combined Type	9	8	1.13
F900	Attention Deficit Hyperactivity D/O, Predominantly Inattentive Type	8	7	1.14
F329	Major Depressive D/O, Single Episode, Unspecified	7	6	1.17
F840	Autistic D/O	7	7	1.00
	FY 2017 Top-10 Total:	**166**	**141**	
	FY 2017 Clinical TBH by Non-BH Providers Total:	**330**	**278**	
	Top-10 Percent of Total:	**50.30%**	**50.72%**	

The pattern of diagnoses treated by non-BH providers (e.g., Primary Care) for clinical TBH encounters differs from those that are the focus of BH providers (Table 10). While it is true that both groups of providers use TH to treat anxiety, depressive, and attention deficit disorders, non-BH providers also appear to use TH to assess and/or treat gender identity disorder, sleep disorders, autistic disorder, and the BH concomitants of these.

ROHA TH Analysis: BH Providers

Table 11: FYs 2016-2017 Direct Care Provider-End Synchronous ROHA TH, BH Providers, by Treatment Site and Provider Affiliation

FY	Synch TH Readiness Clinical Category	Provider Type	Provider Treatment Site Affiliation	Provider Service	Encounters	Percent Encounters	Patients	Percent Patients	Avg Encounters per Patient
2016	ROHA TH	BH Provider	Air Force	Air Force	64	1.39%	44	1.06%	1.45
				Unknown	2	0.04%	2	0.05%	1.00
			Air Force Treatment Site Totals:		66	1.43%	46	1.11%	
			Army	Army	4,510	98.04%	4,083	98.31%	1.10
				Navy	3	0.07%	3	0.07%	1.00
				PHS	12	0.26%	12	0.29%	1.00
				Unknown	6	0.13%	6	0.14%	1.00
			Army Treatment Site Totals:		4,531	98.50%	4,104	98.82%	
			NCR	PHS	1	0.02%	1	0.02%	1.00
			Navy	Navy	2	0.04%	2	0.05%	1.00
			FY 2016 Totals:		**4,600**	**100.00%**	**4,153**	**100.00%**	
2017	ROHA TH	BH Provider	Air Force	Air Force	24	0.37%	16	0.27%	1.50
			Army	Army	6,501	99.60%	5,806	99.691%	1.12
				PHS	2	0.03%	2	0.034%	1.00
			Army Treatment Site Totals:		6,503	99.63%	5,808	99.73%	
			NCR		0	0.00%	0	0.00%	0.00
			Navy		0	0.00%	0	0.00%	0.00
			FY 2017 Totals:		**6,527**	**100.00%**	**5,824**	**100.00%**	
Change from FY 2016 to FY 2017	**ROHA TH**	**BH Provider**	**Air Force Treatment Sites**		**-42**	**-63.64%**	**-30**	**-65.22%**	1.50
			Army Treatment Sites		**1,972**	**43.52%**	**1,704**	**41.52%**	0.00
			NCR Treatment Sites		**-1**	**-100.00%**	**-1**	**-100.00%**	-1.00
			Navy Treatment Sites		**-2**	**-100.00%**	**-2**	**-100.00%**	-1.00
			Overall Difference		**1,927**	**41.89%**	**1,671**	**40.24%**	

As Table 11 demonstrates, 99.63 percent of the ROHA TH workload by BH providers in FY 2017 came from Army-affiliated provider-end treatment sites and personnel (6,503 treatment site encounters, 6,501 provider encounters). This was a 43.52 percent increase from FY 2016. The maturity of the Army BH provider TH network has permitted it to "surge" TH services to meet this sort of workload demand; for example, when an entire unit of Service members is undergoing post-deployment BH evaluation. The use of TH to perform a large number of mandated or procedurally directed clinical assessments has contributed to more efficient utilization of local in-person clinical capacity.

Table 12: FY 2017 Direct Care Provider-End Synchronous TH, ROHA Workload, "Top 10" Primary Diagnoses for BH Providers

Diagnosis, Chief Complaint	Chief Complaint Text	Encounters	Patients	Avg Encounters Per Patient
Z0189	Encounter for Other Specified Special Examination	2,617	2,418	1.08
DOD0222	Exam, Occupational, Retirement / Separation, Long	2,329	2,276	1.02
Z0289	Encounter for Other Administrative Examination	631	481	1.31
DOD0211	Assessment, Pre-Deployment	222	213	1.04
DOD0212	Assessment, Post-Deployment DD2796	169	166	1.02
DOD0302	Case Management Continue	120	35	3.43
DOD0213	Assessment, Post Deployment DD2900 - Post Deployment Health Reassessment	82	82	1.00
F4312	PTSD, Chronic	56	25	2.24
DOD0102	Personal History of Mild Traumatic Brain Injury	27	21	1.29
DOD0301	Case Management Start	26	21	1.24
	FY 2017 Top-10 Total:	**6,279**	**5,738**	
	FY 2017 DoD Specific, Admin, & Occ Health TH by BH Providers Total:	**6,527**	**5,824**	
	Top-10 Percent of Total:	**96.20%**	**98.52%**	

As can be seen in Table 12, the bulk of the ROHA TH encounters are for specialized evaluations, outside of a clinical context, for which BH expertise is required.

Other Direct Care Virtual BH Services

The ability of VH, a superset of health maintenance and delivery technologies which includes TH, to provide care in non-traditional locations, such as the Service member's home, vehicle, or other location of choice, has important implications for the expansion of MHS TBH services. In addition to improving access (including reducing the time spent in traveling to an MTF, parking, waiting in a waiting room, etc.), for many beneficiaries, TBH appears to reduce the stigma that is often associated with going to a "bricks and mortar" facility associated with BH care. However, providing TBH care in non-traditional settings can introduce risks and liabilities that must be accounted for (e.g., emergency procedures, appropriate selection, etc.).

Authority to provide TBH and other VH care, in non-clinical locations, was clarified legislatively in section 713 of the NDAA for FY 2012 (Public Law 112-81). It was promulgated in DoD policy by an Assistant Secretary of Defense for Health Affairs memorandum in February 3, 2016, which was later incorporated into formal DoD policy in DoD Manual 6025.13M. However, due to the lack of an MHS enterprise clinical video platform that allows for easy community-based access by beneficiaries, TH services to non-clinical locations have been limited to pilot initiatives. Army reports conducting 27 community-based video encounters in FY 2017. Navy has a limited pilot operating in FY 2018. These pilots have delivered a number of clinical services, including BH. In addition to technical platform limitations, the MHS has yet to develop a standardized workload capture methodology for community-based clinical video encounters, which may result in difficulty scheduling, tracking, and crediting such work across the MHS enterprise.

In addition to videoconferencing, BH providers and other clinicians provide care and follow-up to beneficiaries via telephone encounters. While there is a large number of phone transactions between clinicians and beneficiaries, the MHS has yet to develop a simple and consistent method for clinical workload capture, or for distinguishing between phone-mediated BH interventions and other phone transactions.

Asynchronous, or "store-and-forward" technology, is also used to extend the reach of provider-to-provider BH consultations. Asynchronous consultation portals enable specialists from throughout the MHS enterprise to support care delivered by front line clinical staff. Asynchronous consultations are usually provided to the front-line clinician within 24-72 hours of the request. The current MHS asynchronous portals, the "Pacific Asynchronous TeleHealth" and the "Health Experts onLine Portal," as well as the "Army Knowledge Online E-Mail Teleconsultation program for Deployed Providers" do handle BH consultation requests. However, quantification of BH utilization of these systems is difficult. In addition, these systems do not connect to one another, nor do they connect directly with the Electronic Medical Record (EMR), thus limiting the potential reach of consultation requests.

VH also provides a means for beneficiary self-education and self-management of BH concerns via websites and mobile applications ("apps"). MHS mobile health (mHealth) apps have been created utilizing evidence-based principles. They are designed to help Service members and their families build resiliency, self-manage minor symptoms, learn about treatment, monitor and manage clinical symptoms as part of ongoing treatment, and find emergency help. Many of the mHealth mobile apps released by MHS components focus on BH concerns. Others support care by simplifying scheduling, medication refills, and secure messaging with providers. Unfortunately, due to the anonymous nature of the analytics available from public mobile application stores, such as iTunes™ and Google Play™, there is currently no standardized means of determining beneficiary download and use patterns of many of the MHS created applications.

Purchased Care Network Analytics

TBH services are offered within the MHS Purchased Care Network. Purchased care workload tracking is based upon paid lines within provider claims. As such, there is no direct purchased care workload counterpart to the direct care clinical encounter. However, for comparison purposes, an approximation of a clinical visit can be created by aggregating a beneficiary's line items on a given date of service. To demonstrate the relationship between "visits" and "line items," both forms of workload will be reported in Tables 13a and 13b. Thereafter, "visits" will be utilized for simplicity and to maintain a comparison between direct and purchased care. Purchased care TBH is based upon paid claims. Therefore, the MHS costs associated with this care can be precisely determined, and will be reported below.

Table 13a: FYs 2016-2017 Purchased Care Provider-End Synchronous TH Workload (Visits)[6]

FY	Service Type	Visits	Patients	Percent Visits	Percent Patients	Visits per Patient (avg)	Amount Paid	Amt Paid per Visit (avg)	Amt Paid per Patient (avg)
2016	BH	12,383	4,871	83.03%	76.54%	2.54	$905,398.22	$73.12	$185.88
	Non-BH	2,530	1,493	16.97%	23.46%	1.69	$168,170.93	$66.47	$112.64
	FY 2016 Totals:	**14,913**	**6,364**	**100.00%**	**100.00%**		**$1,073,569.15**		
2017	BH	20,168	7,234	86.24%	77.22%	2.79	$1,752,656.28	$86.90	$242.28
	Non-BH	3,217	2,134	13.76%	22.78%	1.51	$135,540.20	$42.13	$63.51
	FY 2017 Totals:	**23,385**	**9,368**	**100.00%**	**100.00%**		**$1,888,196.48**		
Change from FY 2016 to FY 2017	**BH**	**7,785**	**2,363**	**62.87%**	**48.51%**	**0.25**	**$847,258.06**	**$13.79**	**$56.41**
	Non-BH	**687**	**641**	**27.15%**	**42.93%**	**-0.19**	**-$32,630.73**	**-$24.34**	**-$49.12**
	Total	**8,472**	**3,004**	**56.81%**	**47.20%**		**$814,627.33**		

Table 13b: FYs 2016-2017 Purchased Care Provider-End Synchronous TH Workload (Line Items)

FY	Service Type	Visits	Line Items	Patients	Percent Line Items	Line Items per Visit (avg)	Line Items per Patient (avg)	Amount Paid	Amt Paid per Line Item (avg)
2016	BH	12,383	14,291	4,871	84.63%	1.15	2.93	$905,398.22	$63.35
	Non-BH	2,530	2,595	1,493	15.37%	1.03	1.74	$168,170.93	$64.81
	FY 2016 Totals:	**14,913**	**16,886**	**6,364**	**100.00%**			**$1,073,569.15**	
2017	BH	20,168	25,462	7,234	88.57%	1.26	3.52	$1,752,656.28	$68.83
	Non-BH	3,217	3,285	2,134	11.43%	1.02	1.54	$135,540.20	$41.26
	FY 2017 Totals:	**23,385**	**28,747**	**9,368**	**100.00%**			**$1,888,196.48**	
Change from FY 2016 to FY 2017	**BH**	**7,785**	**11,171**	**2,363**	**78.17%**	**0.11**	**0.59**	**$847,258.06**	**$5.48**
	Non-BH	**687**	**690**	**641**	**26.59%**	**-0.005**	**-0.20**	**-$32,630.73**	**-$23.55**
	Total	**8,472**	**11,861**	**3,004**	**70.24%**			**$814,627.33**	

As shown in Table 13a and 13b, there were 20,168 visits and 25,462 paid synchronous TBH line items, representing 7,234 beneficiaries, in FY 2017. While below direct care levels (24,307 FY 2017 clinical TBH encounters), this represents a 62.87 percent increase in TBH visits, and a 78.17 percent increase in paid TBH line items, from the previous FY. Average cost per TBH visit in FY 2017 was $86.90 (average cost per TBH line item was $68.83) with an average cost per beneficiary of $242.28. Cost per TBH visit, TBH line item, and TBH beneficiary all increased from FY 2016 to FY 2017 ($13.79, $5.48, and $56.41, respectively). This may be due,

[6] BH workload was determined by the presence of a BH related provider specialty within the Health Insurance Portability and Accountability Act taxonomy, or by the presence of a mental health diagnosis (ICD-10 CM "F01-F99") within diagnosis fields 1-5.

in part, to the introduction of new TBH specialty services in FY 2017, as will be discussed below.

Table 14: FY 2017 Purchased Care Provider-End Synchronous TBH, by Beneficiary Category

Beneficiary Category	Visits	Patients	Percent Visits	Percent Patients	Visits per Patient (avg)	Amount Paid	Amt Paid per Visit (avg)	Amt Paid per Patient (avg)
AD	943	542	4.68%	7.44%	1.74	$120,125.09	$127.39	$221.63
AD Dependent	7,550	2,280	37.44%	31.29%	3.31	$943,654.42	$124.99	$413.88
Other	9,697	3,672	48.08%	50.39%	2.64	$590,878.14	$60.93	$160.91
Retired	1,978	793	9.81%	10.88%	2.49	$97,998.63	$49.54	$123.58
FY 2017 Totals:	**20,168**	**7,287**	**100.00%**	**100.00%**		**$1,752,656.28**		

Table 15: FY 2017 Purchased Care Provider-End Synchronous TBH, by Beneficiary Age Group

Age Group	Visits	Patients	Percent Visits	Percent Patients	Visits per Patient (avg)	Amount Paid	Amt Paid per Visit (avg)	Amt Paid per Patient (avg)
0-4	1,235	241	6.12%	3.25%	5.12	$210,196.69	$170.20	$872.19
5-14	5,234	1,595	25.95%	21.52%	3.28	$658,425.07	$125.80	$412.81
15-17	1,768	780	8.77%	10.52%	2.27	$139,660.90	$78.99	$179.05
18-24	1,905	952	9.45%	12.84%	2.00	$164,101.99	$86.14	$172.38
25-34	2,334	976	11.57%	13.17%	2.39	$202,167.48	$86.62	$207.14
35-44	1,851	782	9.18%	10.55%	2.37	$145,653.75	$78.69	$186.26
45-64	3,175	1,196	15.74%	16.14%	2.65	$183,911.93	$57.93	$153.77
65-69	580	223	2.88%	3.01%	2.60	$11,602.99	$20.01	$52.03
70-74	508	178	2.52%	2.40%	2.85	$9,038.51	$17.79	$50.78
75-79	498	184	2.47%	2.48%	2.71	$8,972.77	$18.02	$48.77
80-84	451	149	2.24%	2.01%	3.03	$8,303.83	$18.41	$55.73
85+	629	156	3.12%	2.10%	4.03	$10,620.37	$16.88	$68.08
FY 2017 Totals:	**20,168**	**7,412**	**100.00%**	**100.00%**		**$1,752,656.28**		

As seen in Table 14, for FY 2017 most recipients of purchased care TBH services are either dependents of AD Service members, or were uncategorized on claim forms (85.52 percent of visits and 81.68 percent of beneficiaries served, in aggregate). Table 15 breaks down FY 2017 TBH purchased care by age group. Children, ages 5-14 years received the largest percentage of

TBH visits for a single age group (25.95 percent of the FY 2017 total), while adults, ages 18-64 received the largest volume of TBH services in the aggregate (45.94 percent of visits, 52.70 percent of beneficiaries served by TBH). Children ages 0-4 years had the most expensive TBH visits ($170) and the most expensive per beneficiary TBH costs ($872.19) for FY 2017. They were followed by children ages 5-14 ($125.80 per visit, $412.81 per beneficiary). Number of TBH visits per person were highest for the youngest (0-4 years: 5.12) and oldest (85+: 4.03) beneficiaries.

Table 16: FY 2017 Purchased Care Provider-End Synchronous TBH, by Enrollment Site Military Service

Enroll Site Mil Svc	Visits	Patients	Percent Visits	Percent Patients	Visits per Patient (avg)	Amount Paid	Amt Paid per Visit (avg)	Amt Paid per Patient (avg)
Air Force Defense Health Program (DHP)	2,915	869	14.45%	11.90%	3.35	$340,129.67	$116.68	$391.40
Army DHP	4,891	1,774	24.25%	24.29%	2.76	$530,604.40	$108.49	$299.10
Coast Guard	6	6	0.03%	0.08%	1.00	$688.41	$114.74	$114.74
Managed Care Support Contractor (MCSC)	2,791	1,151	13.84%	15.76%	2.42	$228,999.22	$82.05	$198.96
Navy DHP	1,214	331	6.02%	4.53%	3.67	$160,350.59	$132.08	$484.44
Unknown	8,351	3,171	41.41%	43.43%	2.63	$491,883.99	$58.90	$155.12
FY 2017 Totals:	**20,168**	**7,302**	**100.00%**	**100.00%**		**$1,752,656.28**		

Table 17: FY 2017 Purchased Care Provider-End Synchronous TBH, by Beneficiary Sponsor's Service Affiliation (includes AD, Dependents, Retirees)

Sponsor s Service	Visits	Patients	Percent Visits	Percent Patients	Visits per Patient (avg)	Amount Paid	Amt Paid per Visit (avg)	Amt Paid per Patient (avg)
Air Force	4,842	1,703	24.01%	23.54%	2.84	$428,811.10	$88.56	$251.80
Army	10,605	3,943	52.58%	54.49%	2.69	$916,349.80	$86.41	$232.40
Coast Guard	245	114	1.21%	1.58%	2.15	$18,746.72	$76.52	$164.44
Marine Corps	1,017	358	5.04%	4.95%	2.84	$86,911.98	$85.46	$242.77
Navy	3,116	1,047	15.45%	14.47%	2.98	$277,463.45	$89.04	$265.01
Other	236	38	1.17%	0.53%	6.21	$20,013.31	$84.80	$526.67
Unknown	107	33	0.53%	0.46%	3.24	$4,359.92	$40.75	$132.12
FY 2017 Totals:	**20,168**	**7,236**	**100.00%**	**100.00%**		**$1,752,656.28**		

Table 18: FY 2017 Purchased Care Provider-End Synchronous TBH, by Pre-2018 TRICARE Region

Pre 2018 TRICARE Region	Visits	Patients	Percent Visits	Percent Patients	Visits per Patient (avg)	Amount Paid	Amt Paid per Visit (avg)	Amt Paid per Patient (avg)
Alaska	264	112	1.31%	1.55%	2.36	$47,120.81	$178.49	$420.72
North	5,103	1,688	25.30%	23.30%	3.02	$421,170.77	$82.53	$249.51
Outside of Continental United States (OCONUS) Europe	3	3	0.01%	0.04%	1.00	$175.62	$58.54	$58.54
OCONUS Pacific	3	3	0.01%	0.04%	1.00	$378.34	$126.11	$126.11
South	7,498	3,223	37.18%	44.49%	2.33	$593,011.54	$79.09	$183.99
West	7,297	2,216	36.18%	30.59%	3.29	$690,799.20	$94.67	$311.73
FY 2017 Totals:	**20,168**	**7,245**	**100.00%**	**100.00%**		**$1,752,656.28**		

For FY 2017, 40.8 percent of beneficiaries receiving TBH care through MHS purchased care were enrolled for treatment through a military service facility (including Coast Guard). Another 15.76 percent were enrolled directly through a TRICARE MCSC. For 43.43 percent of purchased care TBH beneficiaries, an enrollment facility was not recorded or could not be determined (Table 16).

As with the direct care network, the largest group of FY 2017 TBH recipients have sponsors (inclusive of the AD Service member) who are associated with the Army (52.58 percent) (Table 17). However, the percentage of FY 2017 purchased care TBH visits for Army affiliated beneficiaries is lower than the corresponding percentage for FY 2017 direct care clinical TBH encounters (80.17 percent; Table 8). Correspondingly, the percentage of FY 2017 TBH purchased care visits was higher than the percentage of direct care clinical TBH encounters for beneficiaries affiliated with Air Force (24.01 percent vs. 9.08 percent), Navy (15.45 percent vs. 6.03 percent), Marine Corps (5.04 percent vs. 2.42 percent), and Coast Guard (1.2 percent vs. 0.62 percent). Beneficiaries with other or unknown affiliations accounted for 1.70 percent of FY 2017 purchased care TBH visits, versus 1.68 percent of direct care TBH encounters. Taken together, these data would indicate that use of TBH services is somewhat more widely distributed among service affiliates within the purchased care system versus the direct care system.

In FY 2017 the majority of purchased care TBH visits were provided to enrollees of the area now covered by the TRICARE East region (the old North and South regions) (62.48 percent in aggregate). A substantial number of TRICARE West enrollees also being served via TBH (36.18 percent of TBH visits). The number of TBH instances OCONUS was minimal (0.02 percent of visits in aggregate). This is to be expected due to the difficulty of providing off-base TH services in a multi-national jurisdictional environment (Table 18).

Table 19: FY 2017 Purchased Care Provider-End Clinical TBH, "Top 10" Primary Diagnoses

Primary Diagnosis	Diagnosis Description	Visits	Patients	Percent of Total Visits	Percent of Total Patients	Visits per Patient (avg)
F840	Autistic Disorder	4,182	782	20.74%	10.81%	5.35
F902	ADHD, Combined Type	1,194	438	5.92%	6.05%	2.73
F331	Major Depressive Disorder (MDD), Recurrent, Moderate	1,134	459	5.62%	6.35%	2.47
F411	Generalized Anxiety D/O	1,028	407	5.10%	5.63%	2.53
F332	MDD, Recurrent, Severe, No Psychotic Features	1,017	585	5.04%	8.09%	1.74
F4310	PTSD, Unspecified	945	344	4.69%	4.76%	2.75
F319	Bipolar D/O, Unspecified	448	201	2.22%	2.78%	2.23
F419	Anxiety D/O, Unspecified	425	218	2.11%	3.01%	1.95
F329	MDD, Single Episode, Unspecified	401	217	1.99%	3.00%	1.85
F900	ADHD, Inattentive Type	398	173	1.97%	2.39%	2.30
	FY 2017 Top-10 Total:	**11,172**	**3,824**			
	FY 2017 TBH Visits Total:	**20,168**	**7,234**			
	Top-10 Percent of Total:	**55.39%**	**52.86%**			

The mix of conditions treated via purchased care TBH is somewhat different than that for TBH providers in the direct care network. In purchased care TBH, disorders typically associated with childhood (e.g., Autistic Disorder, ADHD) predominate (28.63 percent, in aggregate, of FY 2017 TBH visits), although PTSD, mood, and anxiety disorders are also featured among the most frequent diagnoses treated (Table 19). Licensed professional virtual supervision of Applied Behavior Analysis therapists and patients with Autism was approved by TRICARE for FY 2017, and, in that year, became the most frequently provided TBH service (20.74 percent of FY 2017 TBH visits). The diagnostic findings in Table 19 are consistent with the age groupings in Table 15, which show that 21.52 percent of FY 2017 TBH beneficiaries were in the 5-14 year age range (24.77 percent in the 0-14 aggregate age range). The demand for specialized pediatric TBH care likely drives the higher costs for these services noted earlier (Table 12: $125.80 per visit and $412.81 per person for ages 5-14; $170.20 per visit and $872.19 per person for ages 0-4).

Operational Care Description

The Armed Forces Health Longitudinal Technology Application – Theater (AHLTA-T) is the legacy EMR for operationally deployed forces. AHLTA-T does not currently permit entry of the "GT" procedural modifier that has been used by the MHS to identify synchronous TH and, by extension, TBH. As such, there is no standardized mechanism to consistently track TBH provided within deployed settings.

As described above, Army has provided TBH services in forward operational settings in Iraq and Afghanistan, and Navy is currently piloting efforts to provide TBH shipboard services. Army has developed a partial work-around for the lack of GT modifier tracking in deployed settings. This work-around, which can be used when providing TH services from a garrison medical

facility to deployed beneficiaries, uses the Healthcare Common Procedure Coding System Level II code "T1014" (TH transmission, per minute, professional services billed separately) as an additional procedural code to denote synchronous TH delivered from garrison to an operational setting. The T1014 code is used in addition to standard provider TH coding practice (GT procedure modifier for synchronous TH, "GQ" procedure modifier for asynchronous TH). Using this coding work around, four garrison to deployed setting TH encounters were identified by Army for FY 2017. One of these appears to be for synchronous TH. However, there is no indication that this encounter was used to provide BH services. The coding work around is currently being used exclusively by the Army.

It is known, from field reports, that TBH was frequently used during the height of deployments to Iraq and Afghanistan, as a means for providing BH services to forwardly deployed units. However, as described above, there was no system in place to reliably capture and quantitatively analyze this effort.

Due to bandwidth limitations in remote operational settings, specialty healthcare consultation requests are often handled in an asynchronous (i.e., "store-and-forward") manner. The number of such consultation requests that originate from operational settings, and that focus on BH questions, is unknown at this time.

Subject Matter Analysis of Current TBH State within the MHS

From July 30 through August 2, 2018, a series of focus groups brought together VH, BH, and related SME consultants from the Military Services, the NCR Enhanced Multi-Service Market (eMSM), and a variety of Defense Health Agency (DHA) offices, to discuss the current status of MHS TBH, needs for future TBH development, and issues to be addressed to achieve that development. The key consultant observations from these meetings are summarized in Table 20.

Table 20: SME Consultant Observations for:

Area	Consultant Observations
Direct Care TBH	1. It is important that MHS TBH planning efforts focus on beneficiary needs 2. There are shortages, and non-uniform distribution, of certain types of BH specialty care. TBH expansion can be used to mitigate these shortages and distribution issues. 3. TBH can be used to improve access to quality care for rural and remote beneficiaries 4. It is important to focus the goals and objectives of MHS enterprise TBH expansion on beneficiary-oriented benefits 5. Addressing "enabling" issues would improve access to quality TBH care for MHS beneficiaries
Purchased Care	1. Increased use of TBH could streamline and shorten the end-to-end process for providing assessment (current "bottle neck"), treatment, and medication management for BH conditions 2. Purchased Care TBH could benefit from delineated coverage, access, and quality goals; provider competency standards or expectations; and indices of technical sufficiency at both the provider and originating ends of the TBH connection 3. Integrating Direct and Purchased Care TBH services can have benefits for beneficiaries and for the MHS as a whole
Readiness & Operational Care	1. Increased use of TBH can reduce the need for clinicians and Service Members to travel to and from forward deployed settings for the purposes of delivering BH care 2. Operational TBH planning and execution can be aided by a consistent set of methods to document and track operational TH encounters and asynchronous provider-to-provider consultations 3. Use of standardized, secure operational synchronous and asynchronous TH platforms will improve support of theater-to-theater and garrison-to-theater TBH 4. Deployment-focused TBH training for clinicians and support personnel will help to ensure competent and consistent use of TBH resources in the operational setting
Stakeholder Communications	1. Providers and beneficiaries would benefit from a simplified and consistent TH/TBH nomenclature 2. While it is important to support individual facility or regional efforts to move forward with TBH, it would be preferable to do so within a consistent enterprise approach and communication plan 3. A coordinated stakeholder communication plan will be an important component of TBH roll-out in both the Direct and Purchased Care network 4. Careful timing, as new TBH capabilities are rolled-out, will be important in the stakeholder informational campaign

These consultant observations are summarized below:

Direct Care Network TBH

1. It is important that MHS TBH planning efforts focus on beneficiary needs.

a. Clinic-based TBH workload growth targets are important primarily insofar as they serve larger beneficiary-based access and quality of care targets.

2. **There are shortages, and non-uniform distribution, of certain types of BH specialty care. TBH expansion can be used to mitigate these shortages and distribution issues.**

    a. Specialties affected include, but are not limited to:

        i. Prescribing providers, in particular those with expertise in pediatric care.

        ii. Nurse care coordinators and case managers, for more complex BH care.

        iii. Aeromedical and forensic specialists – These are less frequently used resources. However, when needed, these resources must be obtained quickly.

    b. Other consultant observations related to these shortages and distribution issues include:

        i. Need for better mechanisms to distribute TBH provider effort where needed; identification of TBH provider capacity, and matching to need, on a continual and enterprise-based basis.

        ii. There may be additional institutional issues (e.g., incentive structures, policy issues) impacting upon effective utilization of TBH to address specialty provider shortages. These could benefit from additional study and planning.

3. **TBH can be used to improve access to quality care for rural and remote beneficiaries**

    a. There is some evidence of this already occurring within purchased care.

    b. A rural/remote focus for direct care TBH is less evident in current utilization patterns.

    c. Consultants indicated that further analyses would be needed to identify gaps in BH access that would be amenable to TBH-provided care.

    d. Of note, a DHA sponsored RAND study, looking at the issue of access to evidence-based treatment for PTSD, Depression, and Substance Use Disorder, for rural and remote Service members, is currently in progress. The results of this study may inform planning efforts to expand TBH to meet rural and remote beneficiary needs.

4. **It is important to focus the goals and objectives of MHS enterprise TBH expansion on the beneficiary-oriented benefits.** These include, but are not limited to:

    a. Increased access through scheduling that draws upon more than the local availability of clinical resources.

    b. Reduced beneficiary burden in terms of travel distance and time.

    c. Improved access to evidence based treatment for BH concerns.

    d. Improved “dose” of evidence-based care (e.g., more frequent encounters and reduced likelihood of cancellations or no-shows).

    e. Reduced stigma associated with receiving treatment at an identified BH clinic.

f. Improved compliance for certain forms of treatment, such as PTSD, with certain beneficiaries (this is based upon anecdotal evidence from a wide range of clinicians).

g. Improved assessment and care of BH issues following demobilization, provided:

   i. A consistent protocol for connecting with the leadership of demobilizing units to clarify the BH resource needs for demobilizing personnel based, in-part, on level of stress exposure.

   ii. Improved integration with the Reserve Components to partner on TBH follow-up after demobilization.

5. **Addressing "enabling" issues would improve access to quality TBH care for MHS beneficiaries.** Examples include, but are not limited to:

   a. Establishing standardized guidance and procedures for TH services, including TBH.

   b. Developing consistent workload and cost capture processes for TH services, including TBH.

   c. Reviewing available data on safety and effectiveness of TBH services by clinicians practicing from alternative, non-clinic-based sites.

   d. Simplifying technology platforms and making them more robust and universal.

   e. Clarifying and streamlining technical, administrative, and clinical support at both provider and beneficiary end.

   f. Improving overall TBH competency of providers and support staff.

      i. Where possible, this might be done in partnership with other stakeholders such as the Department of Veterans Affairs (VA) and the Uniformed Services University of the Health Sciences (USUHS).

   g. Clarifying guidance on MHS provider TH/TBH prescribing of controlled medications without a prior face-to-face visit (Ryan Haight Act).

   h. Working with stakeholders to identify, analyze, and address clinical "trade-off" issues in TBH. For example:

      i. Improved access through enterprise-wide TBH hubs, versus improved care integration through the local Patient Centered Medical Home.

      ii. Using TBH to maintain continuity of care for station transferring or deploying personnel, versus consolidating care at the receiving site.

Purchased Care Network TBH

In 2017, the MHS revised the TRICARE Policy Manual (Chapter 7, section 22.1) to encourage the greater use of TBH, and other forms of VH services, within the purchased care network. Key changes included:

- Coverage and payment parity between services provided in-person and via telemedicine (TM), if the provider determines that the services are medically necessary and safe to deliver via TM.

- The MHS rescinded many specific, costly, and dated technology requirements and replaced these with a general requirement that the connection be secure and compliant with the Health Insurance Portability and Accountability Act.

- Previously, co-pays or cost shares were required on both ends of the TBH/TM connection. This served as a disincentive for beneficiaries to access care via TBH. The requirement for dual co-pays has been eliminated.

In addition, as noted earlier in this document, in FY 2017 the MHS authorized reimbursement for live supervision of Autism therapists and their patients.[7]

All of these changes have had a positive effect on the number, type, and distribution of TBH services within purchased care. However, the purchased care SME consultants for this report continue to raise many of the same issues as their direct care colleagues. In addition, they made the following observations with respect to TBH under purchased care:

1. **Increased use of TBH could streamline and shorten the end-to-end process for providing assessment (current "bottle neck"), treatment, and medication management for BH conditions.**

2. **Purchased care TBH could benefit from delineated coverage, access, and quality goals; provider competency standards or expectations; and indices of technical sufficiency at both the provider and originating ends of the TBH connection.**

    a. The Purchased care SME consultants understood that any changes to purchased care TBH goals or standards would need to occur within, and be consistent with, the contract nature of purchased care.

    b. The SME consultants also suggested that rapidly evolving standards, such as the indices of technical sufficiency, should be provided in a form that can be readily updated.

3. **Integrating direct and purchased care TBH services can have benefits for beneficiaries and for the MHS as a whole.** Examples include, but are not limited to:

    a. Use of direct care TBH resources to provide assessments prior to initiating medication management in purchased care.

[7] This authorization was dropped in FY 2018 as part of a restructuring of Autism therapy reimbursement.

b. Use of direct care TBH to help meet follow-up care criteria after a discharge from a community-based inpatient BH unit.

c. Use of direct care TBH specialty providers as a means for workload and cost recapture from purchased care. In this instance, the purchased care network would be used for the originating (patient-end) site, while the specialty care services (distant site) would be supplied by direct care providers.

Readiness and Operational Care TBH

The following TBH readiness and operational care issues were highlighted by SME consultants:

1. **Increased use of TBH can reduce the need for clinicians and Service members to travel to and from forward deployed settings for the purposes of delivering BH care.** This has significant advantages:

   a. Increased force readiness by maintaining Service members' BH fitness for duty.

   b. Reduced need to take frontline, clinical, and escort/security personnel "out of the fight" to transfer Service members and clinicians between forward posting and healthcare locations.

   c. Force protection advantages resulting from reduced need for battlefield circulation in order to provide or receive care.

   d. Ability to quickly assess and manage behavioral emergencies (e.g., suicidal or homicidal ideation, psychosis) in an operational setting.

2. **Operational TBH planning and execution can be aided by a consistent set of methods to document and track operational TH encounters and asynchronous provider-to-provider consultations.**

3. **Use of standardized, secure operational synchronous, and asynchronous TH platforms will improve support of theater-to-theater and garrison-to-theater TBH**. SME consultants noted that potential features of such platforms could include:

   a. Support for synchronous TBH encounters under the low bandwidth conditions often found in operational settings.

   b. Support for a transfer of learning for BH and support personnel deploying from garrison settings.

   c. Unifying existing asynchronous platforms into a global teleconsultation portal which can support and track BH consultation requests (especially important in areas with insufficient bandwidth for synchronous TBH).

4. **Deployment-focused TBH training for clinicians and support personnel will help to ensure competent and consistent use of TBH resources in the operational setting.**

Stakeholder Communications

VH planning and communication SME consultants had the following observations regarding current TBH efforts and potential near and longer-term initiatives:

1. **Providers and beneficiaries would benefit from a simplified and consistent TH/TBH nomenclature.**

    a. The VH / TH / TM area is awash in overlapping and often confusing terms. A simplified and consistent nomenclature would aid in provider-beneficiary discussions of TH/TBH and facilitate provider and beneficiary awareness and educational material.

2. **While it is important to support individual facility or regional efforts to move forward with TBH, it would be preferable to do so within a consistent enterprise approach and communication plan.**

    a. Individual MTFs, eMSMs, regions, and services have moved, or wish to move, forward with their current and/or planned TBH efforts, often involving their own stakeholder communication plans. There is nothing wrong with this, to the extent that these initiatives are consistent with developing MHS VH strategic plans (see below). However, there is a risk of lost investment in generating large quantities of stakeholder communication materials, and developing sophisticated stakeholder communication campaigns, which may be shortly superseded by MHS-wide stakeholder communications efforts.

    b. It is possible for messaging priorities of a soon-to-be enterprise informational campaign to differ from individual facility or regional efforts. This could introduce confusion for beneficiaries and providers.

    c. Therefore, it is important that any MHS-wide, regional, or facility TBH effort provide consistent educational materials to internal staff, from front desk personnel to clinical providers.

    d. Initial phases of an enterprise TBH communications plan will likely focus on staff education. During the roll-out of TBH services, most beneficiary information will come in the form of discussions between healthcare personnel and patients. Later phases of the TBH roll-out will likely involve beneficiary-targeted material, once services become more consistently available across the enterprise.

3. **A coordinated stakeholder communication plan will be an important component of TBH roll-out in both the direct and purchased care networks.**

    a. Coordinated communication across both direct and purchased care will be important in order to ensure comparable access to TBH care across the entire MHS.

    b. A coordinated TBH communication plan would account limitations inherent in the contract nature of the purchased care network.

4. **Careful timing, as new TBH capabilities are rolled-out, will be important in the stakeholder informational campaign.**

    a. If informational campaigns are begun only after the technical platforms, workflows, support protocols, recruitment, and training are in place, then these important and valuable resources may be underutilized while new TBH services are socialized across the enterprise. In turn, this may result in the erosion of such resources, just as demand for them will begin to build.

    b. As this document has demonstrated, the components necessary to substantially expand TBH across the MHS direct care, purchased care, community-based, and operational environments are complex and will take some time to develop, acquire, integrate, and train. If TBH is promoted too aggressively via an early and comprehensive enterprise stakeholder information campaign, there is a risk that stakeholder expectations will be raised well beyond the level of actual availability of the comprehensive TBH resources that are being planned. Therefore, a phased approach to an informational campaign will be critical in balancing stakeholder expectations and the availability of services.

Current TBH State within the MHS: Summary

In summary, the current state of TBH within the MHS can be characterized as follows:

1. TBH represents a significant portion of current synchronous TH effort, in both the direct care and purchased care networks.

2. Within direct care, BH providers conduct the largest portion of both clinically focused TH encounters and those focused upon readiness, occupational health, and other administratively driven assessments and interventions. Army is the largest provider of both clinical and readiness/occupational health/administrative behavioral TH encounters.

3. For FY 2016 and FY 2017, the last years for which there is complete data, there was year-to-year growth of TBH in purchased care and for readiness/occupational health/administratively driven evaluations within direct care. However, there was a 12.38 percent decrease in clinically-based direct care TBH during this same period, as Army closed one of its TBH hub sites as part of a restructuring of its healthcare regions.

4. Among the military services, Army has the most mature TBH capability. Air Force and Navy are building their TBH capabilities.

5. Within the direct care network, synchronous clinical TBH is used frequently to assess and treat such conditions as PTSD, Adjustment Disorders, Depressive Disorders, and Anxiety Disorders.

6. Within the purchased care network, TBH is most frequently used to provide live expert supervision of therapists treating children with Autistic Disorder. ADHD, PTSD, Depression, and Anxiety are also frequent TBH diagnoses.

7. TBH also occurs in the form of asynchronous clinician-to-clinician consultation. However, the number and characteristics of these consultations are not known at this time.

8. TBH has been offered as both a synchronous and asynchronous (consultation) service in operational settings. Lack of a consistent workload tracking mechanism has made characterization of this effort difficult. A recent coding work around used exclusively by the Army, captured a small number of garrison-to-operational TH encounters in FY 2017, although none of these appear to have been for BH issues.

9. BH focused mobile applications and websites supplement clinical TBH services. However, analytics on MHS beneficiary utilization are missing for most mHealth apps developed by MHS components.

10. According to SMEs consulted for this report, MHS beneficiaries could benefit from a substantial increase in TBH services especially in areas such as pediatric psychopharmacology, nursing, care coordination, aeromedical and forensic specialty services, rural and remote care, follow-up post inpatient discharge, and follow-up and coordination following demobilization.

11. A gap analysis can establish areas of need which could be well accommodated by TBH.

12. Large-scale TBH growth would be facilitated by improvements in technical platforms, availability of support personnel, competency and training of clinical and support staff, ability to level resources quickly to match need, workflows, scheduling, documentation, order entry, and cost and workload accounting.

13. Access could benefit from recruitment of TBH specialty clinicians whose expertise would be utilized across the MHS enterprise.

14. The success of a large expansion of TBH services will depend, in part, upon a well-developed and well-timed stakeholder communications plan.

GROWING TBH IN THE DOD: A WAY FORWARD

The DoD is committed to growing the use of TH as a key health care technology within the MHS. Support for BH services has been featured prominently in the report to the congressional defense committees directed by section 702(b) of the NDAA for FY 2014 (Public Law 113-66), titled "Use of Telemedicine to Improve the Diagnosis and Treatment of Posttraumatic Stress Disorder, Traumatic Brain Injuries, and Mental Health Conditions," October 7, 2014).

In 2015, the MHS chartered a TH workgroup to coordinate and move TH forward at the MHS enterprise level. The workgroup was renamed the "MHS Virtual Health Workgroup" in 2018 to reflect the current MHS consensus term describing the umbrella of technology tools associated with remote care. Terms such as "telehealth," "telemedicine," and "tele-care" are synonymous with VH. Other terms, such as "tele-behavioral health," "tele-mental health," "tele-psychiatry," "tele-radiology," "tele-ICU," "tele-cardiology," etc., describe specialty services that are subsumed within the more general umbrella of VH. For the remainder of this report, VH will be used to describe the broad domain of technology-mediated remote care services, while TBH will refer to the cluster of VH services used to assess, treat, and support self-care for BH issues.

Congress has continued to take a strong interest in the robust growth of VH as an MHS health care capability, most notably through section 718 of the NDAA for FY 2017 (Public Law 114-

328) (Report to Congress: "Enhancement of Use of Telehealth Services in the Military Health System," October 7, 2017).

In response to its charter, the NDAA for FY 2017, and further guidance from MHS leadership, the MHS Virtual Health Working Group (VHWG) drafted a VH Strategic Plan for the MHS, which was subsequently approved through MHS governance. This plan outlines a series of strategic goals (Figure 1 and Table 21) and supporting initiatives (Table 22) that align VH growth efforts with overall MHS strategic goals and congressional guidance. This strategic framework will guide the growth and development of current and future TBH and other VH initiatives. The MHS VH Strategic Plan will also set the stage for continued TBH growth through a focus on shared and coordinated acquisition processes and workflows, full integration of TBH and VH, generally, into information technology (IT) infrastructure planning, and other shared processes.

Figure 1: MHS VH Strategic Goals and the Quadruple Aim

Goal 1: Develop VH support for the Warfighter
Goal 2: Support the MHS Clinical Communities
Goal 3: Use VH to Improve Access to Quality Care for MHS Beneficiaries
Goal 4: Manage Costs Through and Within VH

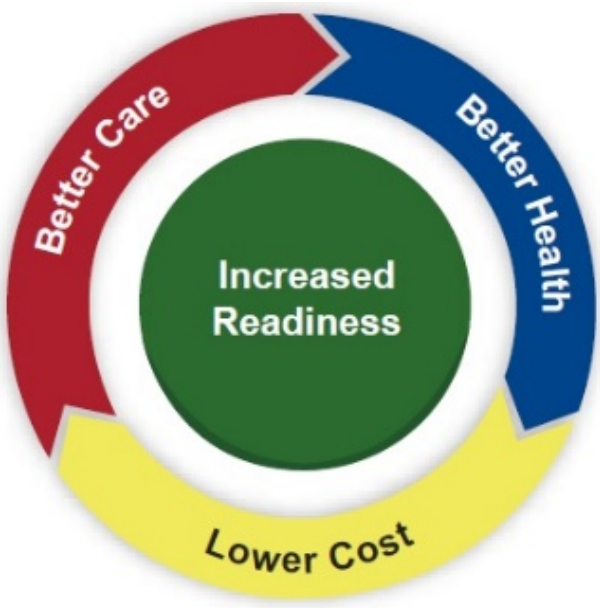

Table 21: MHS VH Strategic Goals: Implications for BH

Goal	Description	BH Implications
1	Develop VH support for the warfighter	Promote behavioral resiliency and support for Service members, and other beneficiaries, through: • Early intervention and self-help mobile and web tools • Operational TBH care • Use of VH to enhance BH care for wounded warriors • Stigma reduction through alternative care access locations.
2	Support the MHS Clinical Communities	MHS is in the process of standing up a series of "Clinical Communities" based upon frequently treated conditions and/or populations. BH is the first of these to be organized: • Align VH capabilities with BH Clinical Community requirements • Work to train clinicians and support personnel on use of VH technologies
3	Use VH to improve access to quality care for MHS beneficiaries	• Utilize TBH to improve access to evidence-based BH care throughout Direct Care and Purchased Care networks, including to community locations of the beneficiary's choice.
4	Manage costs through and within VH	• Improve access and value of TBH care for a growing number of beneficiaries • Maximize efficiencies in acquisition and sustainment of technologies, work flows and business processes.

Table 22: MHS VH Strategic Plan Initiatives

	Initiative Title	Impact for TBH
1	Establish enterprise VH IM/IT Program Management Office (PMO) to provide efficient, effective acquisition and management of MHS VH IT capabilities	• Gathering functional & technical requirements • Enterprise acquisition and sustainment of platforms • Contract personnel for TBH support & help desk
2	Expand Asynchronous Specialty Support for Deployed Providers through a Global Teleconsultations Portal (Store and Forward)	• Global portal to support BH asynchronous teleconsultations (operational & non-operational arenas) • Manage & account for BH consultation requests
3	Improve Access through Virtual Video Visits (V3) to a Patient's Location)	• Will be the basic, enterprise-wide synchronous video platform supporting TBH • Capable of supporting providers and beneficiaries in clinic, community, and in operational settings
4	Develop Virtual Medical Centers (VMC) to support delivery of VH solutions	• Key organizational component to support TBH work flows, scheduling, credentialing & privileging, resource matching, & clinical help desk
5	Expand Specialty Care through the use of VH Carts staffed by Trained Nurses	• Less commonly used for TBH • Able to support instances where remote physical examination is necessary • Includes ruggedized "Telehealth in a Bag" systems to support field TH, including TBH
6	Enterprise Image Sharing for teleconsultation across the enterprise, available and archived in the EHR	• Minimal applicability to TBH
7	Monitor outcomes of chronic disease patients through Remote Health Monitoring	• Initial pilots will be for diabetes • Technology can also be used to support chronic BH conditions w/ frequent hospitalizations & Emergency Department visits
8	Stand up Synchronous Provider-to-Provider Warfighter Support for Urgent and Emergent Care (Real-time using Portable VH)	• Emergent BH field evaluations (e.g., suicidal or homicidal ideation, possible psychosis)
9	Examine Provider-to-Patient Warfighter Support (Pilots)	• Same as #8
10	Support Clinical Communities in Training Providers and Tele-presenters on VH Modalities, Processes, Performance, and Documentation/Coding	• Standardized competency criteria for providers & support staff • Enterprise-wide training curricula • TH readiness training for deployable clinicians • Work on synergizing Direct/Purchased Care competencies
11	Co-lead with Joint Staff Surgeon's Office (JSSO), a Joint Capabilities Integration and Development System (JCIDS) process for VH in Operational Environments	• Insure that TBH becomes a standard part of Combatant Command (COCOM) health delivery • Establish requirements and standards for operational TBH
12	VH Program Evaluation	• Standardize business, access, & quality TBH metrics • TBH Need/Resource Gap Analysis • Coordinate Direct & Purchased Care TBH metrics
13	Assist in the integration of VH capabilities within Legacy and GENESIS Electronic Health Records (EHRs), and MHS Clinical Workflows	• VH/TBH platform will need to either be embedded within MHS GENESIS or will need to seamlessly integrate with it, as well as with the legacy EHR. • Coordinate w/ new VH PMO & the Genesis team to establish requirements to support such integration

Table 21 outlines a summary of the implications for TBH of the four MHS VH Strategic Goals. In broad strokes, the VH Strategic Goals cover a number of the areas discussed earlier in this report. The mapping of TBH issues discussed in this document with the VH Strategic Plan is more explicit when looking at the relationship of MHS TBH development to the 13 strategic initiatives contained within the strategic plan (Table 22). In addition to these initiatives, the MHS is currently examining ways to further integrate clinical planning for VH, including TBH, as part of the overall MHS restructuring effort required by section 702 of the NDAA for FY 2017 (Public Law 114-328). This restructuring of VH planning and coordination has resulted in planning for the creation of an MHS VH Clinical Integration Office, as well as an MHS VH Technology PMO, described below.

The TBH issues raised within this document will be added to the task lists of the VH Strategic Plan initiatives and will be tracked and updated through these initiatives. The section to follow describes how these initiatives will work together to expand and enhance TBH within the overall MHS Strategic Framework and the MHS governance-approved VH Strategic Plan.

Understanding Current State, Identifying Needs and Resources

Supports MHS VH Strategic Plan Initiatives: 1, 12

Additional Coordination: MHS VH Clinical Integration Office, RAND Study (described earlier in this document)

As indicated in the SME consultant section of this document, strategic planning for TBH begins with a thorough analysis of current efforts, resources, needs, and gaps. Quantitative and qualitative analytics will be used to identify which TBH services are being provided to which beneficiaries from which providers, at which beneficiary and provider locations, over what timeframes, and at what cost. Different geographic, diagnostic, age, gender, and beneficiary category groups will be examined to identify potential gaps in availability of BH services that might be mitigated via TBH. Locality and population gaps in BH timeliness performance data will also be examined for potential TBH opportunities. “Natural experiments”, i.e., comparisons between areas well served by TBH and similar areas that are less-served, will be examined to assess the potential impact of broad expansion of TBH as a healthcare access challenge mitigator. Provider capacity will also be reviewed within the direct and purchased care networks.

The goal of this comprehensive analysis would be to identify TBH development that will maximize beneficiary access and quality, while promoting cost efficiency. The analysis will begin with FY 2017 data, adding FY 2018 information as this stabilizes within the appropriate databases (typically around the third fiscal quarter). New VH workload coding options were introduced in FY 2018, though these have not yet been consistently applied throughout the MHS enterprise. Therefore, it is likely that FY 2018 TBH data will have somewhat more of the interpretive difficulties described in this report for data in FY 2016 and FY 2017. Efforts will be made during FY 2019 to standardize, to the extent possible, Direct and Purchased care synchronous, asynchronous, and telephone-based workload and cost capture for TBH.

Gathering and Systematizing Functional and Technical Requirements, Acquisitions

Supports MHS VH Strategic Plan Initiatives: 1, 2, 3, 4, 12, 13

Additional Coordination: MHS VH Clinical Integration Office, MHS VH Technology PMO

The establishment of the 13 initiatives in the MHS VH Strategic Plan was based upon the gathering of functional (clinical) and technical requirements from a wide array of MHS stakeholders (though not, systematically, from beneficiaries). In addition, the focus groups conducted in preparation for this report further explored functional requirements directly supportive of TBH.

The DoD has already provided funding to begin the process of expanding video capabilities at the clinical and community levels (Initiative 3: V3). In addition, the MHS is in the process of establishing a VH Technology PMO to translate these functional requirements into technical requirements and formal technology platform acquisition and sustainment actions.

It is anticipated that the new acquisitions supporting TBH will begin during FY 2019 and continue for several years. Thereafter, TBH-supporting technical platforms will be placed on a lifecycle management program, so that the technology can be maintained, upgraded, and replaced, as appropriate.

On the clinical side, VH and BH stakeholders have identified a number of BH service shortages based upon difficulties in timely provision of certain key services (e.g., pediatric psychopharmacology, nursing and care coordination for complex BH conditions, aeromedical and forensic evaluation, post-inpatient discharge follow-up, and pre-medication assessment). Together, with the needs analysis described above, these efforts form the basis from which functional requirements can be developed for TBH clinical services and supporting functions. As stated above, the MHS is currently in the process of developing a VH Clinical Integration Office. The VH Clinical Integration Office will work in tandem with the VH Technology PMO to ensure a strong correlation between the clinical and support needs of an expanding TBH effort, and the technical platforms which will underlie that effort. Planning and setup of a VH Clinical Integration Office will occur over the course of FY 2019. While this is occurring, clinical requirement gathering and processing will continue to be done by the MHS VHWG.

Coordination of Clinical Effort

Supports MHS VH Strategic Plan Initiatives: 4, 12, 13

Additional Coordination: MHS VH Clinical Integration Office, MHS VH Technology PMO

In moving from a silo-based, to an enterprise-wide, VH/TBH clinical service delivery system, coordination is essential at both the planning and execution level. Initiative 4 establishes a global VMC, with up to three networked locations. In addition to acting as provider hubs for TBH and other VH services, the VMC will be responsible for managing resource identification and recruitment, credentialing and privileging, training of providers and support staff (see below), matching need to available resources, scheduling, and help-desk support functions.

The first VMC location was established in San Antonio in FY 2018 with the start-up process still in progress at the time of this report. This will be followed by decisions about siting, and start-up schedules, of additional VMC locations.

It is anticipated that the VH Technology PMO, the VHWG, the MHS VH Clinical Integration Office, the first VMC location (San Antonio), the TRICARE Health Care Plan office, and other stakeholders will, over the course of FY 2019 and FY 2020, develop standardized procedures that will facilitate growth of TBH within the purchased care network, and the coordination of TBH care between direct and purchased care.

Competency and Training

Supports MHS VH Strategic Plan Initiatives: 4, 10, 12

Additional Coordination: MHS VH Clinical Integration Office, USUHS and Other MHS Training Sites, DHA Education and Training, VA

As indicated earlier in this document, there is general agreement among VH and BH stakeholders that there is a need for basic VH/TBH provider, tele-presenter (staff who assist beneficiaries on their end of the VH/TBH connection, and who act as the "hands" of the provider, when necessary), and support staff competency requirements within both the direct and purchased care networks. Currently there are no enterprise-wide competency standards in this area, nor is there a competency certification system. The VHWG maintains an Education and Training Sub-WG which works with DoD and VA stakeholders to coordinate VH-related educational offerings. For example, the Education and Training Sub-WG is collaborating with its VA counterpart to update VA's tele-provider and tele-presenter modules to be applicable to DoD VH practice as well. Most current training efforts within direct care have been siloed and have focused on supporting a specific initiative, or set of initiatives, at the MTF, region, or component level. There are currently no set TBH competencies or training curricula for purchased care providers. The MCSCs are required to provide appropriately trained providers for TH, but the parameters of competency are not specified.

Full implementation of TBH, and other VH areas, will necessitate the establishment of a core set of VH and TBH competencies for all personnel with roles in the VH encounter. While it is likely that the core competencies for direct care providers will be more detailed than those developed for purchased care providers, an effort will be made to ensure sufficient compatibility to support a consistent TBH experience for beneficiaries, regardless of which network is supplying the remote provider. As they are developed, competency criteria could be supported by a formal certification process, as TBH competency is neither a licensing credential nor a formally privileged clinical skill and therefore, to date, has not been evaluated in MHS credentialing and privileging processes. Training offerings, developed under this plan, will be deployed across the enterprise to assist TBH and VH-related personnel in attaining, demonstrating, and maintaining these competencies.

The first part of the competency management system, the joint DoD-VA training modules, are currently in development. Other elements will be planned, developed, and deployed over the next several FYs.

Stakeholder Communication

Supports MHS VH Strategic Plan Initiatives: Not in the enumerated initiative list, but called out in the MHS VH Strategic Plan

Additional Coordination: MHS VH Clinical Integration Office; MHS Communications

The current state analysis earlier in this document points out the importance of developing a TBH stakeholder communication campaign which addresses four major concerns:

1. Confusing and overlapping terminology in the area of VH/TH/TBH. The immediate goal is to develop a VH/TBH simplified glossary and to disseminate this to stakeholders.

2. Communications support for existing and currently developing TBH initiatives which does not compromise a more comprehensive VH/TBH communications campaign. This will be addressed using a phased approach, beginning with internal education and communications tools to assist with initial discussions with beneficiaries.

3. Development of an enterprise-wide stakeholder communication campaign which can provide consistency regarding TBH services in both the direct and purchased care network.

4. A phased VH/TBH communications campaign that balances expectations with the availability of resources, as capabilities roll out across the enterprise.

The phased communications campaign would be designed by MHS Communications, with support from MHS VH assets, to provide inputs on platform and service deployment schedules, key goals for TBH service, and target audience(s) for education and communications materials. Additionally, the DHA TRICARE Health Plan office would play an important role in coordinating communication between direct and purchased care.

An MHS VH standardized nomenclature, and an initial VH provider information tool kit are currently under development. The phased informational campaign discussed above will be planned in concert with other TBH enterprise planning and will be timed to support the overall VH/TBH roll-out.

Joint Planning for Operational VH/TBH Deployment

Support MHS VH Strategic Plan Initiatives: 1-6, 8-10, 11, 12-13

Additional Coordination: MHS VH Clinical Integration Office, MHS VH Technology PMO

VH Strategic Plan Initiative 11 calls specifically for a collaboration with JSSO on the initiation of a JCIDS planning cycle for Operational VH. The JCIDS process is the primary method for ensuring the orderly integration of a capability into COCOM and operational planning. As an important operational healthcare need, TH support for deployed BH will be a key part of this planning process. The development of a JCIDS proposal will occur over FY 2019 and FY 2020. It is anticipated that such a proposal will begin to move through the concurrence process in FY 2020.

In the interim, Joint Staff and Readiness Office support will be solicited for the planning efforts outlined above. This will help ensure that gathered functional and technical requirements, acquisitions, planning, competency and training, execution, and communications planning all support both warfighter and health care provider readiness, as well as the current and planned needs of operational settings.

VH Analysis and Evaluation

Supports MHS VH Strategic Plan Initiatives: All, especially 12

Additional Coordination: MHS VH Clinical Integration Office, MHS VH Technology PMO

The current VHWG; the VHWG Coding, Analytics, and Metrics Sub-WG; DHA Connected Health; the DHA Health Care Plan Office; and other stakeholders are developing methods for tracking current state, some of which have resulted in the data tables presented in this document. These efforts continue, as well as efforts to identify changes in coding and cost capture guidance and practice that will allow for better description of existing VH efforts and ability to plan more precisely. In addition, each initiative in the Strategic Plan will have associated process and outcome measures. All of these will need to be integrated into a unified VH analysis and evaluation program, which will be a core component of the MHS VH Clinical Integration Office (as well as the MHS VH Technology PMO for acquisition, sustainment, technical performance, return on investment, and similar issues). Current collaborative efforts will continue through FY 2019, as well as planning for their transition to the MHS VH Clinical Integration Office and MHS VH Technology PMO in late FY 2019 to early FY 2020.

Further Reporting

As stated above, these TBH initiatives represent a clinical area implementation of the overall MHS governance-approved VH Strategic Plan. TBH progress will be reported through the VH Strategic Plan, and will be integrated into the final VH implementation report pursuant to section 718 of the NDAA for FY 2017 (Public Law 114-328), which is due to Congress in FY 2021.

ACRONYMS

Acronym	Explanation
AD	Active Duty
AD G/R	Active Duty Guard and Reserve
ADHD	Attention Deficit Hyperactivity Disorder
AHLTA-T	Armed Forces Health Longitudinal Technology Application – Theater
BH	Behavioral Health
COCOM	Combatant Command
D/O	Disorder
DHA	Defense Health Agency
DHP	Defense Health Program
DoD	Department of Defense
EHR	Electronic Health Record
EMR	Electronic Medical Record
eMSM	Enhanced Multi-Service Market
FY	Fiscal Year
GAO	Government Accountability Office
IT	Information Technology
JCIDS	Joint Capabilities Integration and Development System
JSSO	Joint Staff Surgeon's Office
MCSC	Managed Care Support Contractor
MDD	Major Depressive Disorder
MEPRS	Medical Expense and Performance Reporting System
mHealth	Mobile Health
MHS	Military Health System
MTF	Military Treatment Facility
NCR	National Capital Region
NDAA	National Defense Authorization Act
OCONUS	Outside of Continental United States
PHS	Public Health Service
PMO	Program Management Office
PTSD	Post-Traumatic Stress Disorder
ROHA	Readiness/Occupational Health/Administrative
SME	Subject Matter Expert
TBH	Tele-Behavioral Health
TH	Telehealth
TM	Telemedicine
USUHS	Uniform Services University of the Health Sciences
VA	Department of Veterans Affairs
VH	Virtual Health
VHWG	Virtual Health Working Group
VMC	Virtual Medical Center