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

PERSONNEL AND
READINESS

AUG 17 2022

The Honorable Jack Reed
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Department's response to section 718(e)(2) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328), is enclosed. This section requires a report on beneficiary and patient satisfaction with Virtual Health (VH), along with information on VH access, utilization, productivity, and cost savings within the Military Health System (MHS).

The enclosed report provides required information on the accelerated expansion of VH in the Direct Care system and Private Sector Care network due to the coronavirus disease 2019 (COVID-19) pandemic, including patient-to-provider, provider-to-provider, and complex monitoring capabilities. It includes the results of surveys of patients and providers, which indicate high levels of satisfaction with VH care. VH care continues to provide cost savings to the MHS by optimizing appointment capacity, reducing unnecessary deferrals, and minimizing lost duty days. The report also covers solutions to technological, training, and utilization challenges, which include standardized guidance, reorganization and integration of VH capabilities, rollouts of enterprise-wide VH applications, and changes to TRICARE policies and contracts. Overall, VH capabilities have been successful in supporting readiness, reducing healthcare costs, enhancing patient convenience and satisfaction and facilitating continuity of care in both normal operations and during unexpected contingencies, such as the COVID-19 pandemic. The MHS will further expand and support the use of VH capabilities, fully integrated into the overall healthcare delivery model, in support of MHS goals and priorities.

Thank you for your continued strong support for the health and well-being of our Service members, veterans, and families. I am sending a similar letter to the House Armed Services Committee.

Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable James M. Inhofe
Ranking Member

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

PERSONNEL AND
READINESS

AUG 17 2022

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

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Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Mike D. Rogers
Ranking Member

Report to the Committees on Armed Services of the Senate and the House of Representatives

Enhancement of Use of Telehealth Services in the Military Health System

In Response to: Section 718(e)(2) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328)

August 2022

The estimated cost of this report or study for the Department of Defense (DoD) is approximately $88,000.00 for the 2021 Fiscal Year. This includes $34,000.00 in expenses and $54,000.00 in DoD labor.

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EXECUTIVE SUMMARY

This report is in response to section 718(e)(2) of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017 which requires the expansion of Virtual Health (VH) services across the DoD Direct Care (DC) system and Private Sector Care (PSC) network. Section 718 included a provision for a final report on the implementation of this expansion and its impacts.

Since FY 2017, the Military Health System (MHS) has been working to centralize VH management at the Defense Health Agency (DHA) and expand its VH capabilities across the DC system in military medical treatment facilities (MTFs) and in the PSC network. MHS planning efforts outline a path to integrate VH services into the overall health care delivery model to fully leverage VH capabilities to enhance access to care, improve patient and staff satisfaction, optimize patient outcomes and support a ready medical force.

DC VH execution includes synchronous and asynchronous patient-to-provider, provider-to-provider, and complex remote monitoring capabilities for use both in garrison and in operational environments. The expansion of PSC VH has occurred during a period of transition from a Managed Care Support Contract (MCSC) that preceded the NDAA for FY 2017, to one that incorporates section 718 telehealth expansion requirements.

During the period covered by this report, the MHS experienced rapid growth in the use of VH capabilities, catalyzed by the coronavirus disease 2019 (COVID-19) pandemic. The MHS is leveraging lessons learned during the pandemic to expand VH programs, acquire effective technology and develop standard workflows to resolve challenges, and increase adoption by beneficiaries and staff. Most MHS VH care was delivered in the form of telephone calls and video-based encounters. During the COVID-19 pandemic, telephone encounters increased 70 percent and video encounters, while only four percent of all VH clinical encounters, increased 250 percent. Most VH encounters were in primary care and specialty behavioral health, chiefly because these specialties had the most experience in VH pre-pandemic. Due to the pandemic and TRICARE policy waivers, PSC network clinical video care increased by nearly 800 percent in FY 2020 during the COVID-19 pandemic. Active duty Service members (ADSMs) were the largest recipient group of DC system encounters while retirees used VH the most in the PSC network. This report also outlines MHS use of mobile health applications, secure messaging and other VH capabilities to achieve goals.

The MHS VH capabilities supported readiness including to front line units. This was done by providing VH-enabled readiness exams, on-site in military units, and VH-enabled provider-to-provide consultative services. These activities saved ADSM duty work days and avoided costly aeromedical evacuation. VH complex real-time capabilities including Tele-Critical Care (TCC) avoided unnecessary health care costs, improved clinical outcomes and, by keeping complex care in MTFs, contributed to team-based readiness currency.

SECTION A: INTRODUCTION

Definition of Telehealth. The 2018 MHS VH Strategic Plan defines telehealth as "the use of telecommunications and information technologies to provide health assessment, treatment, diagnosis, intervention, consultation, supervision, education, and information across distances." The 2018 MHS VH Strategic Plan notes there are many equivalent terms for telehealth including "telemedicine", "virtual health", and "virtual medicine." By convention, telehealth implemented within the DoD DC system and in operational settings is typically referred to as "Virtual Health" or "VH." In order to maintain consistency with the non-DoD health care community, the term "telehealth" is used within the TRICARE PSC network. In all DoD health care domains, specialty telehealth is often indicated by appending the prefix "Tele-" to the particular specialty service. This report will use the terms telehealth and VH interchangeably. The 2018 MHS VH Strategic Plan also noted that VH utilizes a number of technology tools. Among these tools are personal mobile devices such as smartphones and tablets. When used as a point of access to communicate with providers, mobile tools fall firmly within the realm of VH. However, mobile devices can also provide beneficiary or provider health education, and beneficiary health tracking and self-management, both as a standalone capability and in combination with connections to providers and the electronic health record. This broader utilization of mobile tools is often referred to as "mHealth." The growing use of mHealth will be considered later in this report.

Background

NDAA for FY 2017. Section 718 of the NDAA for FY 2017 required expansion of telehealth across the DoD's DC system and PSC network to include use of mobile applications. Section 718 required that DoD use telehealth to: (a) improve access to primary care, urgent care, behavioral health care, and specialty care; (b) perform health assessments; (c) provide diagnosis, interventions, and supervision of care; (d) monitor health outcomes for beneficiaries with chronic conditions; (e) improve communication between health care providers and patients; and (f) reduce DoD and beneficiary health care costs where possible. Secure messaging was to be used to improve access and reduce number of clinic visits. A combination of video, mobile platforms, and remote monitoring devices were to be used to assess and evaluate symptoms, diagnose diseases, supervise treatment, and monitor health outcomes. Additionally, TRICARE was required to achieve coverage parity, standardizing payment for and incentivizing telehealth, and reducing or eliminating copays for telehealth. The addition of the section 718 of the NDAA for FY 2017 congressional requirement for extensive VH services across DC and PSC further extended the mission and vision of MHS VH. Simultaneously other sections of the NDAA for FY 2017 (e.g., sections 702 and 703), plus subsequent legislation, required the DHA to assume authority, direction and control of MTF-based (i.e., non-"operational") care. The net effect of the NDAA for FY 2017 was a requirement for greatly expanded DoD VH care, delivered within the context of a restructured MHS.

Implementation Begins with the FY 2018 MHS Virtual Health Strategic Plan. The FY 2018 MHS VH Strategic Plan was the first effort to combine Military Department (MILDEP) and DHA VH efforts into a coordinated global MHS VH approach to care. The plan tied VH expansion to the MHS Quadruple Aim and MHS Strategic Goals as depicted in Appendix C,

Attachment 1. In support of its strategic goals, the FY 2018 MHS VH Strategic Plan contained a series of tactical initiatives primarily aimed at implementation of different parts of section 718 of the NDAA for FY 2017 as well as various MILDEP-based priorities. These initiatives included expansion of synchronous (i.e., "real time") VH, asynchronous (i.e., "store-and-forward" care and consultation) VH, and Remote Health Monitoring (RHM; now referred to as Remote Patient Monitoring, or RPM) for chronic conditions. Specifically targeted initiatives included expansion of a Hub-and-Spoke TCC system, expansion of Remote Medical Imaging, and the development of a multi-hub enterprise Virtual Medical Center (VMC), based on the Army's VMC. The MILDEPs combined their separate VH budgets under DHA to facilitate coordinated action in pursuit of the Campaign Plan's goals and initiatives. The strategic plan envisioned a planning initiative to enhance support of MTF-based VH care for individual ADSM medical readiness, deployment readiness of health care providers, and VH "reach back" capability from deployed settings.

Implementation Plan - VH Functional Capability 39. DHA developed a plan to support the transition of MTFs from MILDEP oversight to DHA's authority, direction, and control based on the requirements in the NDAA for FY 2017. The associated DHA Implementation Plan includes a number of "Functional Capabilities" (FCs). FC 39 describes a Market-based, enterprise-supported VH system that will allow ADSMs, and other beneficiaries, to receive appropriate care anywhere, anytime, deployed, in garrison, or in the community, while enhancing readiness, improving quality of care, increasing care access, and reducing costs. The goal is to ensure that clinical resources can be leveraged, via VH capabilities locally, regionally and globally. FC 39 capabilities included the VMC and VH Headquarters Governance; however, FC 39 also is being integrated into the overall health care delivery model with VH as an enhancement to existing capabilities.

VMC. The transition of the VMC from an Army VH coordinating asset into a single DHA VH execution and execution support arm for both Market-based VH and the operational VH needs of the Combatant Commands (CCMDs) is critical to the success of enterprise VH expansion. The VMC will integrate with the general DC execution model to integrate geographically-dispersed, enterprise-supporting VH components, support optimized, standardized VH provision across the enterprise and use VH to effectively leverage clinical resources locally, regionally and globally. The VMC also will provide a single point of MHS VH coordination for support of operational health care, enabling providers and war fighters in the field to receive appropriate and timely care and consultation, regardless of location or circumstance. The VMC will serve as the primary enterprise VH execution support for the DC system. The VMC currently plays an essential role in requirements gathering and coordination in accurately reflecting the needs of providers and beneficiaries. The VMC coordinates both regionally-based and clinically-based care including critical care, behavioral health and multi-disciplinary consultation. Through integration into the overall health care delivery model and regional medical care hubs, VH can support provision of care and consultation services to Markets/MTFs, and to CCMDs and operational forces. Formal transition of the VMC from Army to DHA alignment is in progress; however, the VMC already is executing MHS enterprise-wide support mission in partnership with DHA in anticipation of its transition. The current VMC construct is at Appendix C, Attachment 2.

VH Headquarters Governance. FC 39 established DHA Headquarters VH governance, which integrates key stakeholders into a VH Coordinating Group (VHCG) including: the Deputy Assistant Director for Medical Affairs (MA), for guidance, quality management, competency standards, requirements validation; the Deputy Assistant Director for Health Care Operations (HCO) for execution and integration with the TRICARE network; Information Operations for network support and cybersecurity; Health care Informatics (HI) for platform integration, workflow, and digital engagement and Management/Component Acquisition Executive for acquisition and life-cycle sustainment. The VHCG reports to the Patient-Centered Care Operations Board (PCCOB), run jointly by MA and HCO, which monitors VH execution, performance and informs the way ahead. The PCCOB reports to flag-level MHS governance and is jointly led by MA and HCO.

FY 2021 – FY 2026 MHS VH Strategy. As the transition of all MTFs to DHA is completed and due to the success and maturation of the VH program, the VH strategy is being integrated into the overall health care delivery model supported by HI. VH lines of effort, goals and objectives align with overall DHA goals, the health care delivery model, and the digital patient engagement strategy. Detailed and robust lines of effort, goals, and objectives that align with and support those of the DHA overall are presented in Appendix C, Attachment 3. Currently, the DHA and MILDEPs are developing a concept of operations document including an implementation plan for VH strategic goals and objectives. Main VH lines of effort are in support of:

- Great Outcomes: Improve availability and quality of health care for all beneficiaries across time and geography.
- Ready Medical Force: Leverage VH capabilities to expand and sustain operation medical proficiencies.
- Satisfied Beneficiaries: Leverage VH capabilities to safely maximize patient engagement and convenience.
- Fulfilled Staff: Enhance VH capabilities that efficiently utilize resources, integrate systems and support future VH requirement development.

SECTION B: VH in the DC System

This report assesses the effect of VH in DC based on patient and provider satisfaction as well as the effectiveness of VH to access health care services, frequency of use by covered beneficiaries, productivity of health care providers, reduction in use of services in MTFs, the number and types of appointments and any savings realized through use of VH, as applicable. The DC system VH program is broken down into three main types of capabilities: patient-to-provider, provider-to-provider and complex, real-time monitoring.

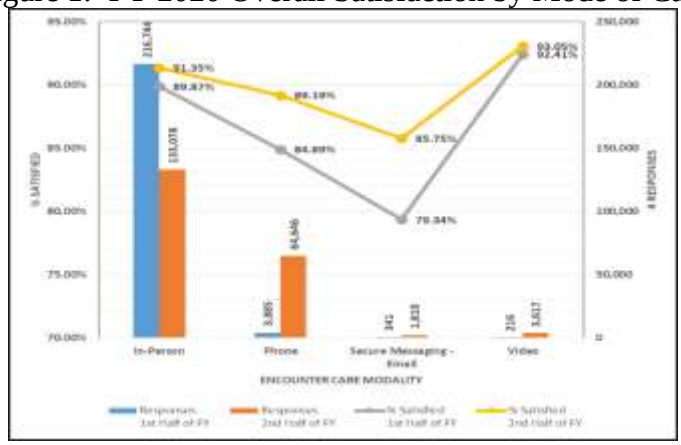
- ***Patient-to-Provider*:** Patient-to-provider capabilities include both synchronous and asynchronous capabilities. Examples of synchronous capabilities include telephone visits, video visits, the VIPRR and Tele-Behavioral Health (TBH) hubs and Tele-Dental consultation. Asynchronous capabilities include secure messaging in TRICARE On-Line (TOL), the patient portal of the new electronic health record, MHS GENESIS, and the Nurse Advice Line (NAL).

- ***Provider-to-Provider*:** Examples of provider-to-provider capabilities include the Advanced Virtual Support for Operational Forces system (ADVISOR) and the Global Teleconsultation Portal (GTP). Other capabilities include Mobile Medic and synchronous/asynchronous consultation such as tele-radiology and Project ECHO, which is a structured, synchronous tele-mentoring program for providers.

- ***Complex, Real-Time Monitoring*:** Complex, real-time monitoring capabilities include TCC and RPM. Both TCC and RPM are discussed in detail later in this report.

DC Patient Satisfaction of Covered Beneficiaries with VH Services. DC patient satisfaction is measured by the Joint Outpatient Experience Survey (JOES). Question 23 asks respondents to rate their satisfaction with the overall visit. Figure 1 depicts for FY 2020 results pre-pandemic (October 2019 – March 2020) to the last 6 months of the FY (April – September 2020). Results demonstrate different rates of patient satisfaction, depending on the mode of delivery. These differences demonstrate the importance of differentiating how care is delivered when assessing patient satisfaction with VH services. Results in Figure 1 demonstrate patient satisfaction is highest with video visits, followed by in-person visits. Lowest patient satisfaction is seen in visits conducted via secure messaging. The proportion of responses from patients receiving in-person visits decreased from 98 percent of all responses to 66 percent at the height of the pandemic. This change occurred because the DC system shifted to more virtual appointments during the COVID-19 pandemic to minimize unnecessary exposure to the virus. This is consistent with shifts to virtual care that occurred throughout the American health care sector. In the first half of FY 2020, only 2 percent of responses were from patients who had a telephone visit compared to 32 percent during the second half of the year. Satisfaction with the overall visit increased in the second half of FY 2020 for each mode of delivery.

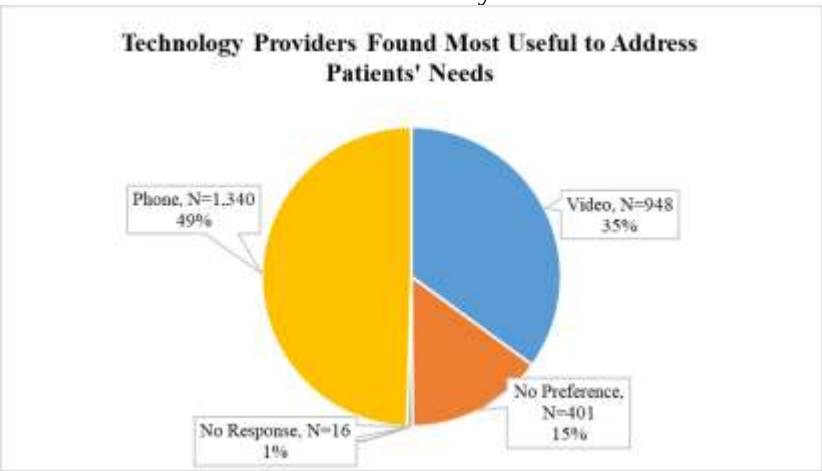
Figure 1: FY 2020 Overall Satisfaction by Mode of Care



DC Provider Satisfaction with VH Services. DHA sampled provider satisfaction with VH services in the DC system twice during the FY 2020 – FY 2021 time frame. In summer FY 2020, DHA HCO developed and implemented a survey of DC providers regarding use of and satisfaction with VH. Results demonstrated 2,705 of the 3,055 respondents (88.5 percent) reported use of some form of VH care during the COVID-19 pandemic. As depicted in Figure 2, nearly half of survey respondents, who had provided some form of VH care, identified the telephone as the most useful modality; 35 percent reported video care to be most useful; and 15

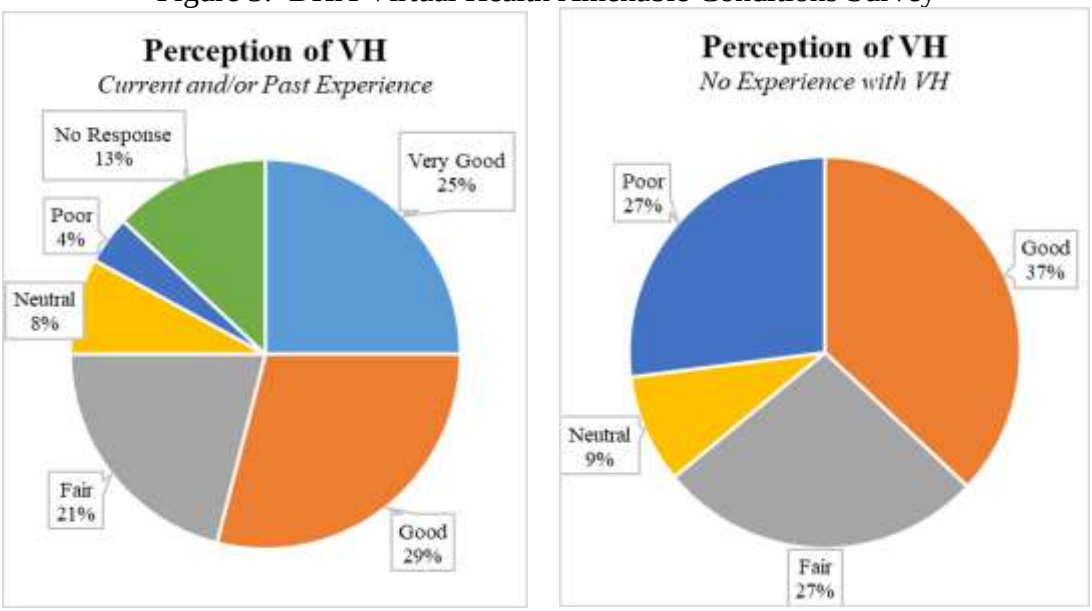
percent had no preference between the telephone and video. This result may be due to the greater historical use of the telephone, especially in primary care, to conduct VH visits and also to its relative ease of use. DHA expects that video visit use will increase with the implementation of the new, enterprise DHA video visit capability, which is integrated into MHS GENESIS.

Figure 2: DHA HCO VH Provider Survey on Usefulness of Technology



DHA fielded the Virtual Health Amenable Conditions Survey in June 2021, which queried DC primary and specialty care, and multi-disciplinary clinical community leaders, regarding their perceptions of VH and the diagnoses and clinical procedures that they felt would be most amenable to VH care. In this survey, VH was defined as care that was video-based and synchronous. Overall, the results demonstrate the significant impact of clinicians' prior VH experience on their perceptions of VH. Figure 3 compares the perception of VH between respondents with or without VH experience. Of respondents with no VH experience, 37 percent rated their perception of VH as good and none rated their perception of VH as Very Good. In contrast, 54 percent of respondents with VH experience rated their perception of VH as Good or Very Good.

Figure 3: DHA Virtual Health Amenable Conditions Survey

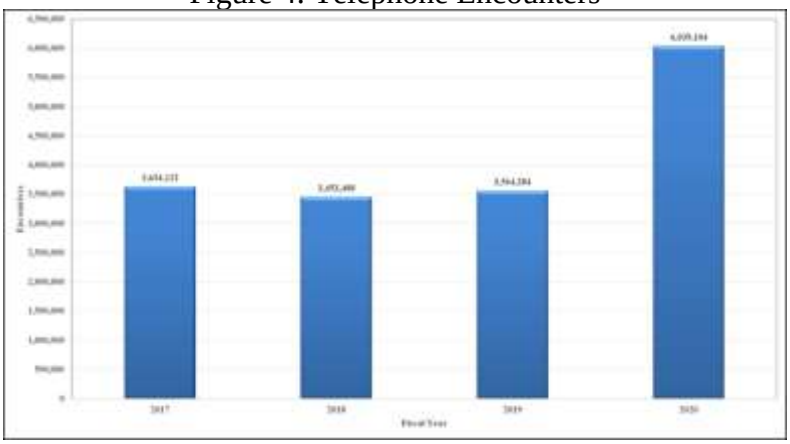


The two DHA surveys, as well as the RAND Corporation report on MHS Telebehavioral Health asked providers to assess key barriers to VH utilization in the DC system. Appendix C, Attachment 4 depicts results from the three surveys. Results demonstrate the most frequently cited barriers to VH utilization include: technical and equipment issues; need for clear standard guidance; need for better virtual training for providers and support staff; and integration issues with the Electronic Health Record (EHR).

DC Patient-to-Provider Capabilities. Examples of patient-to-provider synchronous VH capabilities include telephone and video visits by MTF providers, the VIPRR clinic and care delivered through the TBH hubs.

DC Telephone Visits. The most widely used VH capability to date is the telephone, representing over 96 percent of all patient-to-provider, synchronous VH visits in MTFs. To further encourage the use of VH, DHA guidance on access to care released in FY 2018 encouraged delivery of at least 20 percent of all visits virtually, if clinically appropriate, for both assessment of new acute and routine health care conditions and clinical follow-up of existing health care concerns. In FY 2020, the number of DC visits accomplished using the telephone increased almost 70 percent, compared to the previous year, seen in Figure 4.

Figure 4: Telephone Encounters



DC Telephone Visits by Specialty and Beneficiary Category. Primary care providers used the telephone the most; however, behavioral health (BH) increased the total number of telephone visits by 98 percent compared to 69 percent overall. The number of unique patients receiving telephone visits and visits per unique patient increased in primary care, BH and specialty care. Telephone visits, unique patients and visits per unique patient are depicted in Figure 5 below. Detailed data by individual specialty is provided in Appendix B.

Almost half of telephone visits were delivered to ADSMs. Active duty family members (ADFMs) and Retirees/Family Members had 20 percent and 32 percent of telephone visits, respectively. ADSM telephone visits increased the most, by 88 percent between FY 2019 and FY 2020. A graph of telephone visits by beneficiary category is at Appendix C, Attachment 5.

Figure 5: Telephone Visits, Unique Patients and Visits per Patient

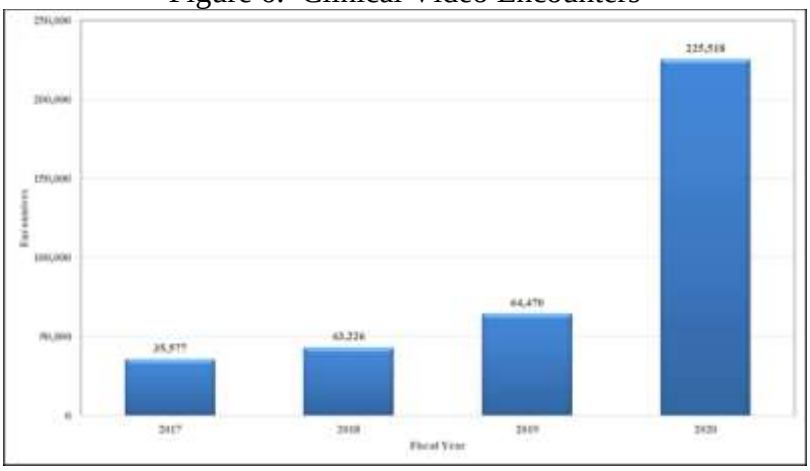
Type of Care	Total Visits		Unique Patients		Visits per Patient	
	FY 2019	FY 2020	FY 2019	FY 2020	FY 2019	FY 2020
Primary Care	2,361,985	4,010,898	1,201,113	1,848,160	2.0	2.2
Behavioral Health	464,862	919,723	158,725	220,262	2.9	4.2
Specialty and Other Care	737,437	1,108,483	436,134	629,435	1.7	1.8

DC Video Visits. Video-based visits increased 250 percent compared to the previous year, as depicted in Figure 6. Synchronous video-based care can take a number of forms, ranging from webcam and software-based (or mobile device-based) "conversational" video, to desktop or room-based in-clinic videoconferencing, to multi-function telemedicine carts supporting remote physical examination for multiple medical specialties. Through FY 2019, the DoD had no sanctioned enterprise-wide clinical video capability that would reach beneficiaries at home or on their mobile devices, with the exception of those ADSMs who had a camera equipped government-issued computer with Virtual Private Network access to the DoD's network. Prior to the COVID-19 pandemic, DHA began to re-task certain business collaboration systems (e.g., CISCO CMS, Adobe Connect) to allow for initial clinical videoconferencing to clinic and home. During the COVID-19 pandemic emergency, in order to keep up with a rapidly growing need for virtual services, DHA provided waivers to temporarily permit clinical videoconferencing to be

conducted over certain commercially available platforms (e.g., Apple FaceTime, Google Duo, Microsoft Skype).

Although many clinical services can be delivered appropriately via telephone with simple clinical interview, history taking, and review of the clinical record and laboratory values, some aspects of clinical evaluation and use in some specialties are limited by the lack of a visual modality. The DoD is currently in the process of executing a contract and distribution plan for a system-wide industry standard clinical video platform, MHS Video Connect (MHS VC). MHS VC will provide secure clinical video between clinicians and beneficiaries in clinic settings, home, and community. MHS VC works across both DoD legacy systems and MHS GENESIS. DHA has successfully concluded a pilot at eight MTFs and is now planning to expand MHS VC across all U.S. MTFs by the end of Calendar Year (CY) 2021. Overall, video visits increased by 250 percent as shown in Figure 6.

Figure 6: Clinical Video Encounters



DC Video Visits by Specialty. In FY 2020, the most frequently used DC synchronous VH encounters were for BH services. Video visits, unique patients and visits per unique patient are depicted in Figure 7. Details by individual specialty are provided in Appendix B.

Figure 7: Video Visits, Unique Patients and Visits per Patient

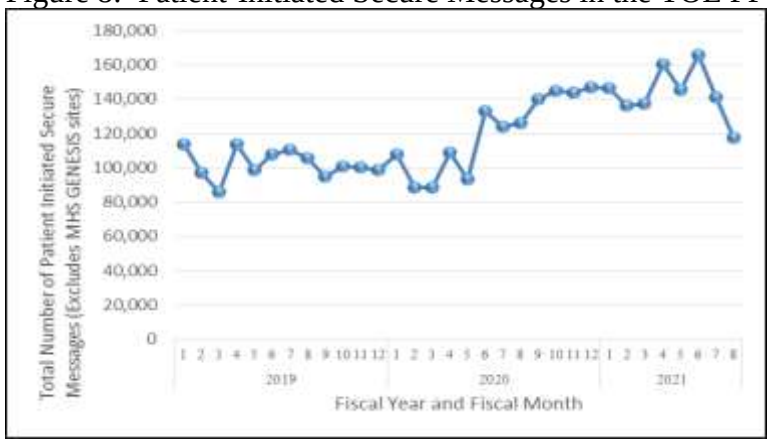
Type of Care	Total Visits		Unique Patients		Visits per Patient	
	FY 2019	FY 2020	FY 2019	FY 2020	FY 2019	FY 2020
Primary Care	25,769	64,278	21,461	48,103	1.2	1.3
Behavioral Health	31,480	126,948	12,639	40,530	2.5	3.1
Specialty and Other Care	7,221	34,292	5,366	23,655	1.3	1.4

DC Video Visits by Beneficiary Category. In FY 2020, 62 percent of video visits were delivered to ADSMs. ADFMs and Retirees/Family Members each had 19 percent. ADSM video visits increased the most, by 239 percent between FY 2019 and FY 2020, largely driven by its use in BH. A graph of video visits by beneficiary category over time is at Appendix C, Attachment 6.

DC Video Visits by Sponsor Affiliation and Age. In FY 2020, Army ADSMs and family members received 71 percent of all video visits, followed by beneficiaries associated with the Navy and Marine Corps. Beneficiaries in the 25-44 years of age range had the greatest proportion of video visits at 47 percent followed by 22 percent for those aged 18-25. The distribution of video visits by age range is consistent with the overall DC population distribution. Graphs of video visits by sponsor affiliation and beneficiary age category over time are at Appendix C, Attachments 7 and 8, respectively.

DC Secure Messaging in MTFs. Asynchronous secure messaging is available through both the TOL and MHS GENESIS patient portals. Secure messaging is a convenient means for beneficiaries in the DC system to contact their primary care and other health care team members asynchronously to discuss health care plans, get medical advice, arrange appointments and referrals or discuss test results. Figure 8 below depicts patient-initiated secure messages sent to health care teams at MTFs using the TOL Patient Portal. The secure messaging system in MHS GENESIS is available to all beneficiaries empaneled to MTFs. Because DHA guidance encouraging the use of secure messaging applies to all MTFs, secure messaging results in MHS GENESIS are expected to show similar trends to those in Figure 8 below from the TOL Patient Portal. Due to strong MHS-wide encouragement to use secure messaging to safely and conveniently contact health care teams during the COVID-19 pandemic, use increased 18 percent overall in FY 2020 and 41 percent in FY 2021 to date compared to FY 2019. The target response time to patient-initiated message is within one business day.

Figure 8: Patient-Initiated Secure Messages in the TOL PP



DC Secure Messaging: Mobile Health Care Environment/mCare. In FY 2009, the Army developed its Mobile Health Care Environment (MHCE) and its corresponding secure mobile application, mCare, to support wounded warriors who had migrated to an outpatient setting, and were recovering in their home communities, but were being actively managed by case managers at an MTF and/or medical unit. The mCare mobile application was used by ADSMs to exchange data with their care team using their personal mobile devices rather than being issued government furnished equipment while maintaining security and privacy measures. Since its inception, additional use cases have expanded the MHCE system. Though still considered a research and development platform, MHCE/mCare has been successfully in use at 15 sites across the DC system and in the operational theater in Afghanistan. Each use of mCare undergoes review and approval by the Institutional Review Board of Record. mCare, and more specifically

the larger MHCE framework, has full authority to operate on both our research network, hosted in Augusta, Georgia, and the .MIL system, hosted in Montgomery, Alabama. MHCE/mCare has been used for blast gauge data and weapons firing log data collection, COVID-19 test results data capture, operational readiness compliance, and wounded warrior recovery and reintegration transition planning. Figure 9 lists the number of MHCE/mCare secure information exchanges between providers and end users for FY 2017 – FY 2020.

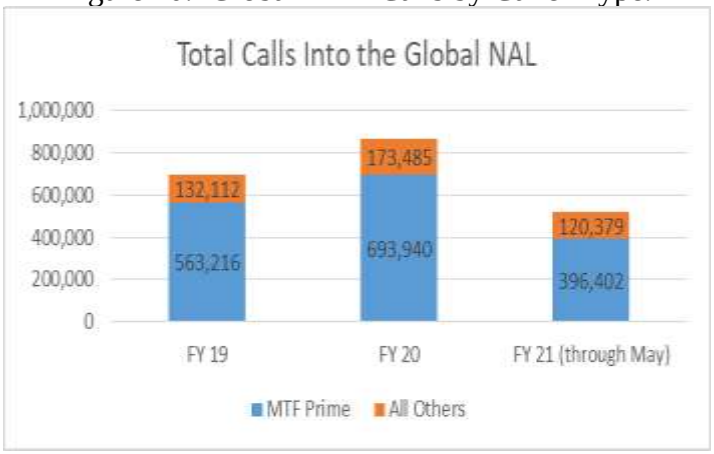
Figure 9: MHCE / mCare Exchanges.

FY	DATA EXCHANGES	NOTES
2017	2,041,951	*Large research study in progress during FY 2017*
2018	367,537	
2019	230,308	
2020	274,497	

VIPRR Clinic. The Army created the VMC VIPPR Clinic in FY 2016 to improve Soldier readiness for remotely located ADSMs without organic Army medical support in Europe, the Middle East and Africa. Currently, VIPRR exists primarily to provide synchronous Personal Health Assessments (PHAs), Pre- and Post-Deployment Health Assessments, Post-Deployment Health Reassessments and other readiness health services for ADSMs. VIPRR is the most productive PHA clinic in the DC system, completing over 33,000 PHAs and other readiness exams in FY 2020, when the San Antonio VIPRR hub came online, compared to fewer than 1,000 in FY 2019. VIPRR is on track to complete over 60,000 visits in FY 2021. In FY 2020, VIPRR visits avoided 1,024 miles in ADSM travel, saving both travel funds and lost duty time. In FY 2020, VIPRR began integrating with MTF appointing centers and the NAL to provide additional acute primary care capacity.

Global NAL. The Global NAL is available 24 hours a day and seven days a week to provide TRICARE-eligible beneficiaries with advice from registered nurses on the most clinically appropriate setting for health care, based on the caller's symptoms. Over 80 percent of callers are empaneled to the DC system. Overall call volume increased 25 percent in FY 2020, compared to FY 2019, due to caller concerns about COVID-19 symptoms. Starting in FY 2020, the Global NAL could schedule beneficiaries empaneled to the DC system for both in-person and VH visits with providers. Call volume through May 2021 is depicted in Figure 10.

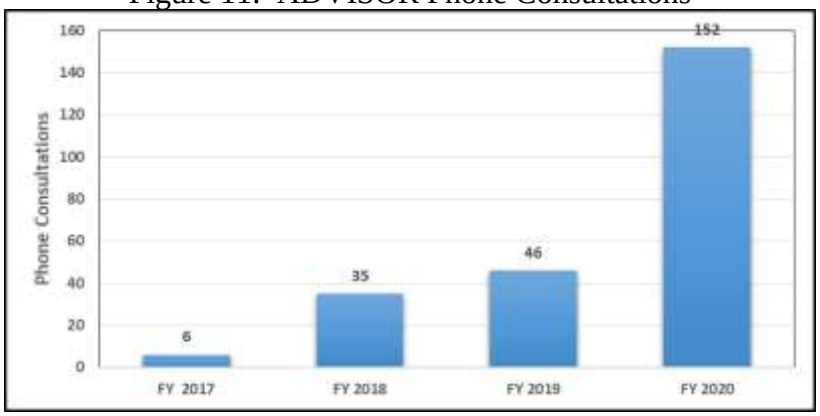
Figure 10: Global NAL Calls by Caller Type.



DC Provider-to-Provider Capabilities.

ADVISOR. ADVISOR provides real-time specialty support in operational environments. One-number ADVISOR support is available for critical care, general and trauma surgery, hematology-oncology, toxicology, infectious disease, OB/GYN, burns and chemical wounds and veterinary medicine. In FY 2020, ADVISOR addressed 152 cases and avoided $1.9 million in aeromedical evaluation costs. During COVID-19, ADVISOR expanded to support MTFs world-wide in critical care, infectious disease and adult palliative care. In FY 2020, utilization increased 230 percent, as depicted in Figure 11.

Figure 11: ADVISOR Phone Consultations



GTP. The GTP is an in-transition consolidation of two related asynchronous consultation platforms. The first is Pacific Asynchronous TeleHealth (PATH), which was initiated in 2004. It is based at Tripler Army Medical Center in Hawaii, with a secondary hub at Naval Medical Center San Diego covering the Pacific Area of Responsibility. The second is the Health Experts onLine Portal (HELP), based at Naval Medical Center Portsmouth and Landstuhl Regional Medical Center (LRMC). PATH/HELP have been used primarily to provide non-emergent web-based specialty consultation and medical coordination services to deployed providers. In FY 2020, the GTP supported over 5,700 cases, as depicted in Figure 12. GTP avoided almost 1,200 aeromedical evacuations, saving over $14 million and avoided almost $400,000 in network specialty referrals. Figure 13 depicts cost impacts of avoided aeromedical evacuations. Over 70 percent of the remote providers using the GTP are in primary care. The consultative specialties requested most are surgical and medicine sub-specialties. GTP utilization by specialty is presented in Appendix C, Attachment 9. Given the high utilization by primary care providers, the future GTP will provide asynchronous non-emergency specialty consultation support to primary care providers in MTFs world-wide. It is anticipated that, by providing easily accessed GTP-based specialty consultations, primary care providers can continue to manage their patients' care, thus improving their own readiness skills, reducing unnecessary specialty referrals and either referring patients to other MTFs with specialty capacity or recapturing workload and costs from network specialty providers.

Figure 12: FY 2017 – FY 2020 GTP Total Cases

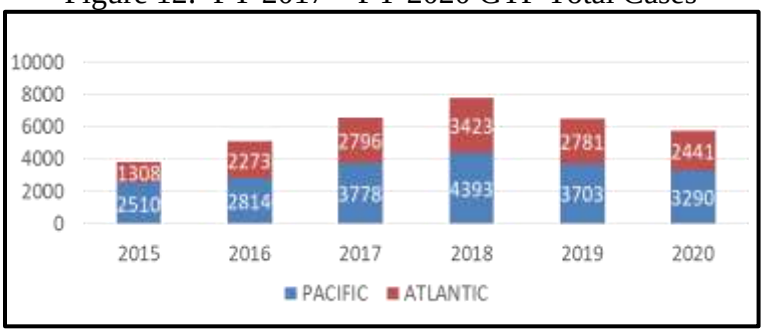
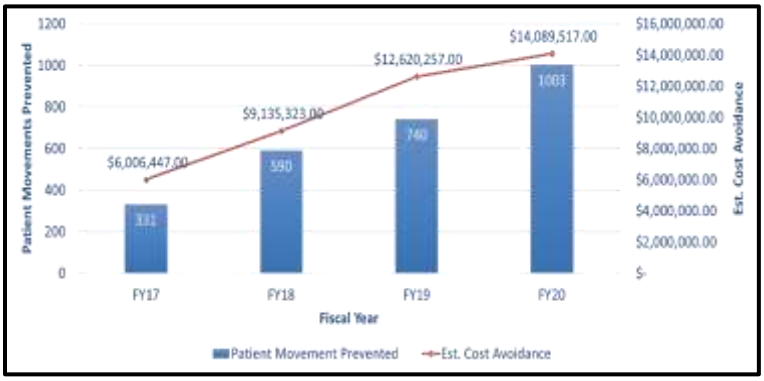


Figure 13: GTP Patient Movements Prevented and Estimated Cost Avoidance



Mobile Medic. In FY 2018 the Army established the Mobile Medic program at the VMC. The Army established Mobile Medic to increase utilization and improve primary care skills of Army medics through the use of readily available VH capabilities to ensure a ready medical force. The ability to provide primary care at the point of need also saves lost duty time and funding requirements to transport patients to higher levels of care, thus maximizing combat power forward. Mobile Medic results are depicted in Figure 14.

Figure 14: Mobile Medic Encounters

FY	TRIAGE	TREATMENT		
		MEDIC TREATED	MEDIC ASSISTED WITH VH VISIT	% TREATMENTS VH
2018	2,988	886	67	7.03%
2019	6,683	1,142	145	11.27%
2020	2,707	460	217	32.05%

Other. Other forms of asynchronous VH care include Project ECHO and tele-radiology. Tele-radiology involves medical image capture and temporary storage, and forwarding to a centralized storage and work allocation system. Specialists then review the images and enter a diagnostic impression. The image(s) and report are then integrated into the patient's EHR. Many of the specialties served by these medical imaging store-and-forward systems (e.g., diagnostic radiology, dentistry) do not normally view this sort of activity as a form of VH care. DHA is working to ensure that it captures and reports this workload in MHS GENESIS.

Complex Real-Time Monitoring.

Joint Tele-Critical Care Network (JTCCN). TCC is a proven, cost-effective mechanism that allows a smaller group of personnel to extend the reach of critical care specialists, while also recapturing care, improving readiness of medical providers through increased volume/acuity of patients, and improving quality and patient experience. TCC can also provide prolonged field care of casualties and provide situational awareness of the medical battlespace. Expansion of the JTCCN allows smaller MTFs to provide high-quality critical care supported by critical care physicians located at hubs who are available 24 hours a day, seven days a week.

In response to the COVID-19 pandemic, the JTCCN rapidly expanded to meet MTF demand for critical care expertise. Currently, the three-hub VMC JTCCN supports 17 MTFs and 109 patient beds. Future expansion is underway and the JTCCN, and its TCC counterpart in the Department of Veterans Affairs (VA), were recently awarded a Joint Incentive Fund grant to develop interoperability between the two Tele-Critical Care systems. Figure 15 depicts the current hub and spoke JTCCN organization.

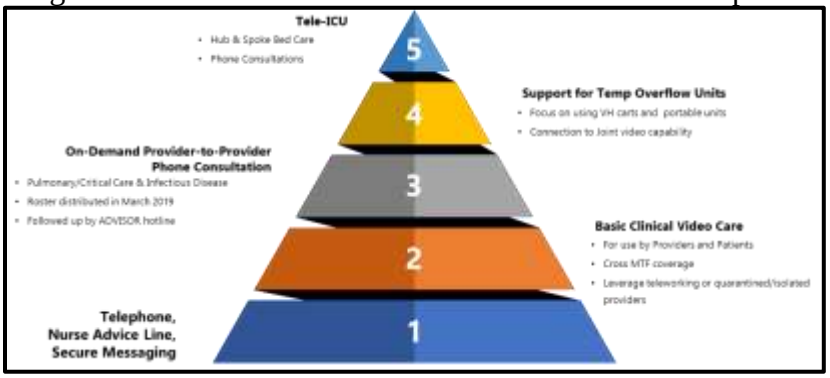
Figure 15: Current JTCCN Hub and Spoke System

RPM. RPM is the MHS term for what is commonly known as RHM. RPM augments care coordination for patients with chronic conditions (e.g., poorly controlled Type 2 diabetes mellitus [DM], congestive heart failure, etc.) and has an established research history showing effectiveness in reducing diagnosis-related emergency room visits, inpatient admissions, and inpatient lengths of stay, as well as reductions in diagnosis-related predictors of morbidity and mortality. In response to the RHM requirement contained within section 718 of the NDAA for FY 2017, the 2018 MHS VH Strategic Plan included a provision for an exploratory pilot implementation of RHM for Type 2 DM, referred to as Diabetes Remote Electronic Assisted Monitoring (DREAM). The DREAM pilot was implemented in the National Capital Region (NCR) and San Antonio markets. The two DREAM pilots were organized differently; consequently, their data are not directly comparable. Nevertheless, both pilots demonstrated significant reductions in Hemoglobin A1C for those patients who remained in the intervention for at least 5-6 months. Results are depicted for each market in Appendix C, Attachments 10 and 11, respectively.

During the COVID-19 pandemic emergency, the MHS initiated a third RPM pilot, Continuous Remote Patient Monitoring (CRPM) initiative, which monitors confirmed or presumptive COVID-19 patients who are asymptomatic or mildly symptomatic. The CRPM pilot results in fewer admission days and lower costs while maintaining access and increasing patient comfort. The CRPM initiative is based at the VMC and currently covers 10 MTFs caring for 183 patients. The initial CRPM sites are displayed in Appendix C, Attachment 12. CRPM prevented readmission for 61 patients and reduced bed days by 359 for 112 patients, resulting in net savings of $535,000 between September 2020 and April 2021. CRPM summary data are provided at Appendix C, Attachment 13.

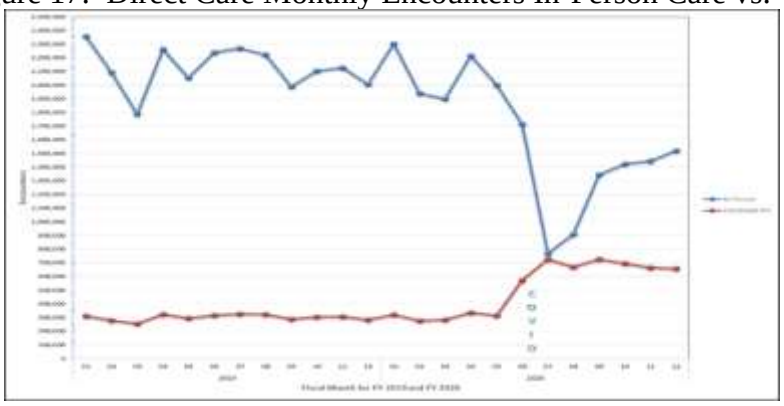
Impact of COVID-19 Pandemic Emergency.
The COVID-19 pandemic emergency began to significantly impact MTFs in the United States in March 2020. As MTFs transitioned rapidly to Health Protection Condition (HPCON) "Bravo" and subsequently to HPCON "Charlie," MTFs cancelled many in-person appointments and the DC system maximized telework. To ensure the MHS continued to provide medically necessary care throughout the pandemic that could not be delayed until a later date, DC system rapidly transitioned to maximized use of VH capabilities. In support of this effort, DHA released comprehensive initial guidance to all MTFs in March 2020, which identified a multi-pronged and tiered approach to VH depicted in Figure 16.

Figure 16: COVID-19 Tiered MHS Virtual Health Response



At the start of the pandemic, the MHS lacked an enterprise clinical video capability, which could be accessed by beneficiaries at home or by teleworking or quarantining providers. Through a combination of guidance waivers permitting limited use of commercial products, reinforced messaging about the use of the telephone and expanded use of administrative videoconferencing solutions, over a period of weeks the DoD was able to field an improvised VH-to-home capability. Other enhancements and expansions are discussed in the ADVISOR and JTCCN sections of this report. Prior to the COVID-19 pandemic and release of DHA guidance, the vast majority of appointments were in-person. In April 2020, the proportion of visits delivered using VH capabilities was roughly equal to in-person appointments for the first time ever. Figure 17 depicts use of VH continues to be higher than pre-pandemic use although MTFs are scheduling more in-person appointments to catch up on delayed routine and screening appointments, secondary to DHA's guidance to return to full operations.

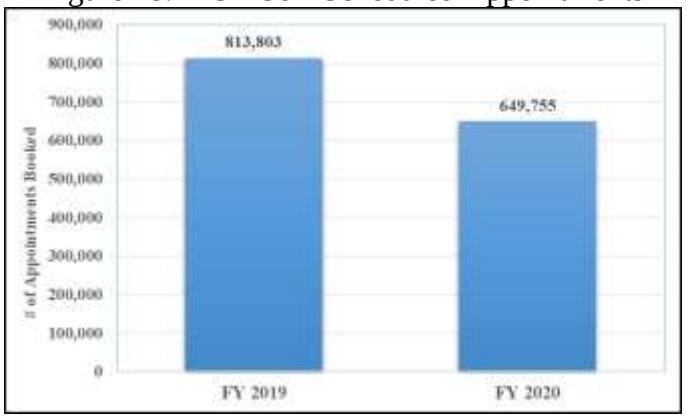
Figure 17: Direct Care Monthly Encounters In-Person Care vs. VH



Appointing and Scheduling.

Self-Scheduling. Self-scheduling of primary care, screening and some specialty care appointments is available through the TOL Patient Portal. In FY 2020, the DC system made virtual appointments available for self-scheduling for the first time to increase patient convenience. Figure 18 depicts the number of appointments scheduled on TOL. Because the total number of appointments available in MTFs decreased due to health protection measures and other COVID-19 support, the percent of appointments scheduled on-line increased from approximately six percent to over eight percent. The MHS GENESIS patient portal also allows on-line scheduling; however, usage data were not available for this report.

Figure 18: TOL Self-Scheduled Appointments



Enterprise Scheduling and Coordination of Resources. The DC system is leveraging synchronous and asynchronous VH scheduling through the establishment of integrating and regionalized Integrated Referral Management and Appointing Centers (IRMAC). Along with DC product line optimization to maximize capacity, the IRMAC model will leverage maximized appointment capacity to meet demand for care locally, regionally and globally in support of readiness. The regional IRMAC model reduces variance in patient experience; facilitates global transitions of care including in combat casualty care reception scenarios; supports capture of high-value readiness cases to the DC system; simplifies the MCSC process to return cases to the DC system; supports small-stand-alone MTFs and Markets with little network support due to isolated locations; and provides the foundation for the DC to operate as a global health care

system. Future opportunities for appointment scheduling of both in-person and virtual appointments across the integrated delivery system include processes for scheduling between the DC system, network partners and the VA. The proposed regional construct for the 50 United States, not including overseas, is identified in Figure 19.

Figure 19: Notional Map Regional IRMACs

Impact of VH on Use of MTF Health Care Services. The MHS expects the use of VH capabilities to enhance, but not replace, all in-person care in MTFs. Improvements due to VH utilization and enhancements include potential greater productivity by providers, improved access to care and convenience for patients and capture of high-value care from across the MHS to MTFs to support a ready medical force.

Productivity of Health Care Providers. Information in this report demonstrates the increasing use and future potential for use of VH in primary, specialty and behavioral health care. The DC system expects VH to support increased provider productivity. In order to achieve this goal through VH, the MHS is working to acquire appropriate technology, provide effective training and support health care teams with simple, standard workflows integrated into the EHR.

Competency, Education, and Training. Historically, variance existed in the DC system with modalities ranging from computer-based modules covering MILDEP virtual policy; classroom instruction pilots; and periodic local or regional "hands-on" training. As a result, VH providers and support personnel were not trained to consistent standards and workflows, slow content refresh resulted in training quickly becoming obsolete and in-person training requirements had limited capacity. To address training challenges, DHA is developing a comprehensive VH competency management system based on role-based VH competencies for both providers and support staff.

Cost Efficiency and Return on Investment. Specific impacts of VH on cost efficiency are discussed in capabilities sections in this report. In general, one major goal in use of VH capabilities in the DC system and a stated objective in the VH lines of effort is to leverage maximized appointment capacity to reduce unnecessary referrals to the PSC network. Capture of

more care to the DC system also supports DHA's ready medical force priority. A recent study at Aviano Air Base (AB) in Italy demonstrates an example of savings in PSC costs and ADSM productivity. LRMC supported Aviano AB with specialty care delivered using VH capabilities, which avoided 162 round trips to LRMC in CY 2019 and 140 round trips in CY 2020. As depicted in Figure 20, the use of VH saved 700 duty days at an opportunity cost of $287,000 and $288,000 in travel costs in FY 2020. Currently, Aviano AB is supported with specialty behavioral health through the VMC TBH hubs to further save duty days and avoid unnecessary PSC costs. Business case guidance for the use of VH integrated through the IRMAC regional construct are included in the Quadruple Aim Performance Plans to generate other cost savings across the DC system.

Figure 20: Aviano AB Savings due to VH Support

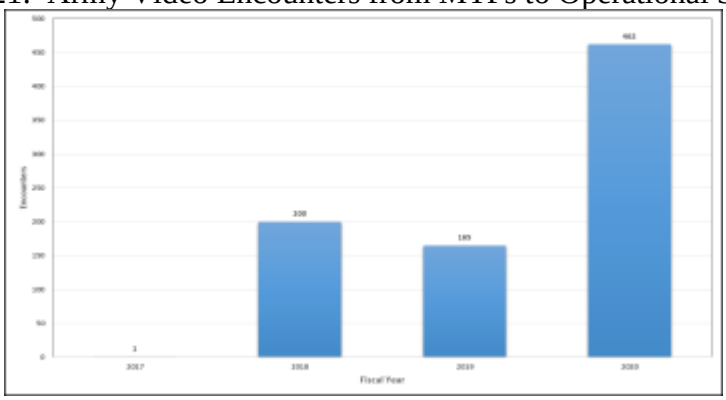
ITEM	2019	2020
VH Encounters	162	140
Travel Costs Saved	$331,177	$284,827
Duty Days Saved	810	700
Productivity Savings	$332,100	$287,000

VH Support for Military Readiness and Operational Care

Readiness and Operational Support. VH is a force multiplier, playing a significant role in the development and support of military medical readiness and care. An upcoming Report to Congress (Telehealth Across the Military Services, per section 756 of the NDAA for FY 2021) will discuss VH capabilities of the MILDEPs and CCMDs at length and are outlined briefly in this report. In support of readiness, VH advances the readiness of providers and support staff to deploy by providing an environment to train in MTFs like they fight in operational environments, provides MTF "reach-back" consultation and care, when needed, to operational settings, and supports the individual medical readiness of ADSMs.

Operational-to-Garrison Virtual Health Reach Back. The ability of front line operational care providers to reach back to MTFs to provide real time video care to their patients is a growing MHS capability. Much of this capability has been coordinated by the VMC, especially the VMC Europe Hub in Germany, which manages CCMD reach-back requests for VH services. Due to coding differences between the MILDEPs, workload for MTF-supplied synchronous VH care to operational settings was reported only from Army-affiliated MTFs through FY 2020. Figure 21 depicts the 180 percent increase in encounters for the Army.

Figure 21: Army Video Encounters from MTFs to Operational Settings.



Mobile Health (mHealth)

mHealth Overview. While MHS mHealth capabilities are available to any TRICARE beneficiary, they are primarily used in the DC system and available via mobile devices. Historically, mobile applications were built in-house at the National Center of Telehealth & Technology (T2); T2 has been incorporated into the DHA MA. While earlier mHealth efforts within DoD have concentrated on behavioral health-related applications, the current DHA portfolio of mobile applications includes women's health, neuromuscular rehabilitation, and primary care.

Key mHealth Applications (Apps). Virtual Hope Box, a suicide prevention resource, is used in suicide safety planning in the DoD and VA. The contraception decision making app for service women, Decide + Be Ready, is provided to active duty women of childbearing age during the service member's annual PHA and is tailored to service women who have unique needs related to deployments. As a result of COVID-19 requirements, the DHA Web and Mobile Team developed an Antimicrobial Stewardship app that included COVID-19 content to assist frontline providers with triaging and treating COVID-19 patients. The app provided the Centers for Disease Control and Prevention- recommended guidelines for in-patient, out-patient, urgent care and emergency room cases. In addition to these new and/or updated mHealth apps, a portfolio of existing behavioral health apps was packaged into a provider resilience toolkit and disseminated down to the MTF and clinic level beginning in March 2020 to assist in reducing staff burnout related to the pandemic. Current mHealth applications and utilization data are depicted in Figure 22.

Figure 22: mHealth Application Downloads

MOBILE APP NAME	FY 2017	FY 2018	FY 2019	FY 2020
Breathe2Relax	152,821	143,768	118,720	96,540
Decide + Be Ready	N/A	N/A	1,243	4,030
Dream EZ	14,061	30,387	17,493	2,254
LifeArmor	6,963	4,972	4,573	4,590
Military Pediatrics	N/A	142	235	170
MissionFit	N/A	127	1,007	1,754
Pain & Opioid Safety	N/A	219	250	210
Peds to Adult	N/A	N/A	30	154
Positive Activity Jackpot	3,103	2,975	2,276	2,685
Provider Resilience	9,332	8,754	9,472	9,631
T2 Mood Tracker	44,132	38,876	40,502	15,024
Tactical Breather	15,371	6,188	9,228	9,888
Virtual Hope Box	87,285	89,748	96,599	80,658

mHealth Clinical Input and Integration. Clinical Subject Matter Experts shape the selection, functionality, and form of MHS mHealth application development as well as promote utilization. mHealth apps are beginning to be more formally integrated into clinical practice. Dissemination has typically occurred through provider training seminars, formal information campaigns, and word of mouth.

mHealth Way Ahead. Most DHA mHealth solutions are standalone mobile applications on personal devices with little to no data exchange between patient and provider or the EHR. Standalone mobile applications are useful for patient education and skill-building; however, the standalone operating model inhibits the ability for mHealth capabilities to reach their fullest potential. With new innovations in the health informatics world, such as artificial intelligence and precision medicine, a more connected mHealth ecosystem could transform patients' health data into a tailored health care experience based on their unique needs, permitting tracking of a chronic condition, prescribing prevention services, or communicating with their provider. DHA plans to increase mHealth adoption by staff and patients as follows:

- A more developed research and/or clinical literature linking mHealth application use to positive clinical and health outcomes.
- An increasingly broad array of mHealth applications. This will make mHealth clinically relevant to larger sections of the MHS and could eventually lead to a formulary of FDA-approved digital therapeutics.
- Integration of mHealth applications into, or interoperability with, the evolving MHS EHR.
- Provider and support staff training on mHealth utilization that is more easily distributable across the MHS.
- Integration of mHealth and other VH capabilities into the overall health care delivery model, including support for enterprise-wide execution, and
- Development of an effective enterprise mHealth communication plan (e.g., text-based services, social media, waiting room videos, unit stand-downs for self-care) to increase

patient, provider, support personnel, and leadership awareness of these applications and their outcomes and engagement benefits.

SECTION C: VH IN THE PSC NETWORK

The PSC network, formerly referred to as the Purchased Care network, is managed by the TRICARE regional contractors with oversight through the DHA. This section will address coverage of VH services, reimbursement rates, and the reduction or elimination of copayments. This section also will present PSC VH utilization data.

TRICARE Benefit Changes. In response to section 718, the TRICARE Policy Manual (TPM) 6010.60-M, Chapter 7, Section 22.1 was updated in 2017 to reflect the following changes:

- Authorized telemedicine services were expanded to include "use of telecommunications systems" to "provide diagnostic and treatment services for otherwise covered TRICARE benefits when such services are medically or psychologically necessary and appropriate medical care." This provision is commonly referred to as "coverage parity."

- Payments for services rendered via synchronous telemedicine were paid on the same basis "as when these services are furnished without the use of an interactive telecommunications system." This provision is commonly referred to as "payment parity."

- Parity with in-person services was also applied to referral and/or preauthorization requirements, and ordering of ancillary services (e.g., laboratory tests, durable medical equipment) and pharmaceuticals, provided that the clinician is licensed to do this in both his or her local jurisdiction and that of the patient.

- Prior to the TPM changes, copay or cost-sharing eligible beneficiaries were required to cost-share at both the patient originating site and the provider distant site. This "double copay" acted as a disincentive for beneficiaries to access care via telehealth. The TPM revision changed this to state that, "the copayment amount shall be the same as if the service was rendered without the use of an interactive telecommunications system."

- Also in response to section 718, TPM Chapter 2, Section 8.1 "Remote Physiologic Monitoring" was added in July 2017 to add coverage of medically necessary remote monitoring of physiologic parameters including, but not limited to, weight, blood pressure, pulse oximetry, and respiratory flow rate for acute and chronic conditions.

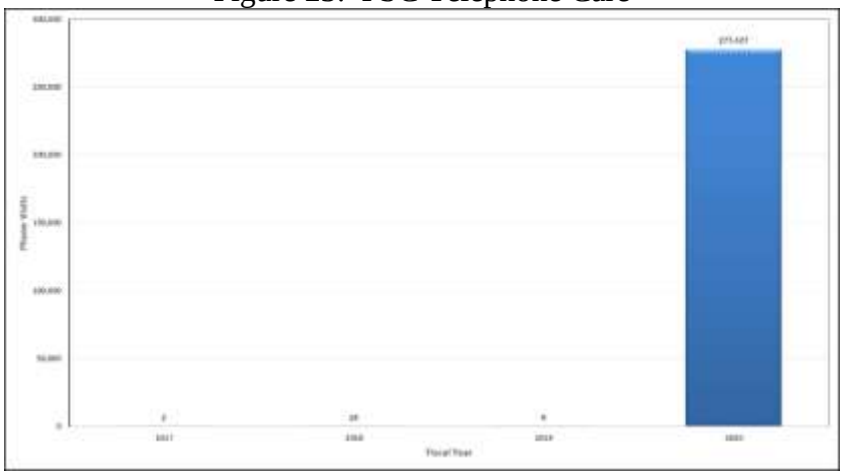
The TPM Chapter 2, Section 3.3 excludes from reimbursement audio-only telephone services, which were originally excluded by 32 CFR 199.4(g)(52). This provision was waived during the COVID-19 pandemic emergency through an interim final rule. Implementation of a number of other section 718 of the NDAA for FY 2017 requirements necessitated incorporation into a future MCSC. As such, section 718 supports changes that are planned for inclusion in the next iteration of the MCSC, known as "T5", with an anticipated period of performance beginning in FY 2023.

PSC Patient and Provider Satisfaction with VH Services. Satisfaction in the PSC is measured using the Center for Medicare and Medicaid Services' Clinician and Group Consumer Assessment of Health Care Providers and Systems (CG-CAHPS), also known as the JOES-C. The CG-CAHPS (JOES-C) does not include questions on satisfaction with VH and is not based on mode of visit delivery. Given the increased use of VH in the private sector health care industry overall, it is likely CMS will update the CG-CAHPS (JOES-C) survey in the future. The TRICARE regional contractors do not measure provider satisfaction in the PSC network.

The PSC network basic unit of workload is the "paid claim", which does not correspond directly to the DC network's basic unit of an "encounter", as there may be multiple paid claims in a single PSC network visit. For purposes of comparison between the PSC and DC networks, this report uses a constructed variable, the "visit", as the basic workload unit for PSC network care. Information on the calculation of PSC network visits can be found in Appendix A.

PSC Telephone Care. Telephone care was not a standard authorized TRICARE benefit until waivers were granted in FY 2020 in response to the COVID-19 pandemic emergency resulting in little workload reported in FY 2017 – FY 2019. In FY 2020, almost 280,000 telephone visits occurred in the PSC network as depicted in Figure 23. Over 80 percent of all telephone visits were for retirees and their family members, consistent with the older population enrolled in the PSC network. Retirees and their family members represented over 80 percent of telephone visits. Beneficiaries aged 65 or greater represented over 60 percent of telephone visits. Data by beneficiary category and age are presented in Appendix C, Attachments 14 and 15.

Figure 23: PSC Telephone Care



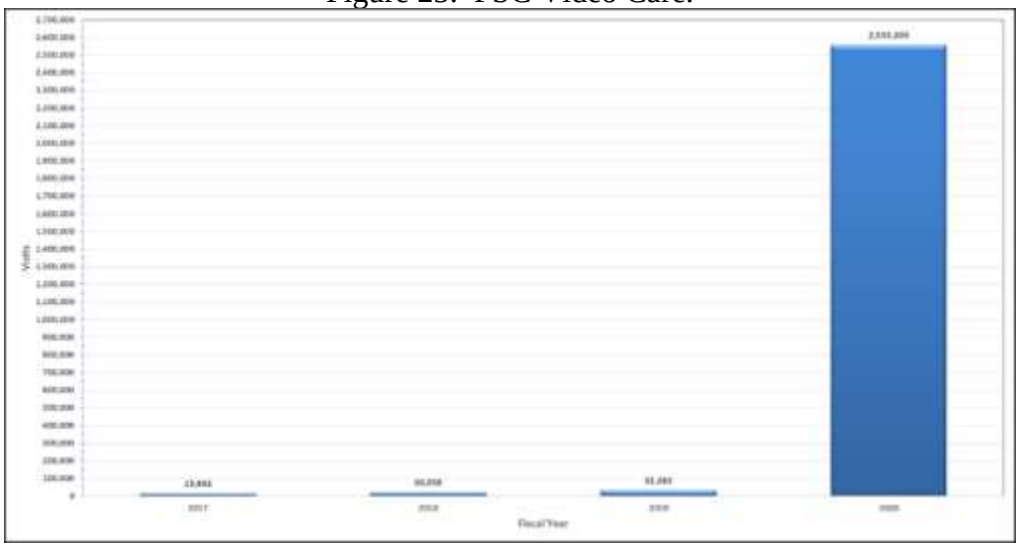
PSC Telephone Care by Specialty. Most PSC telephone utilization was in primary care as depicted in Figure 24. A complete list of FY 2020 PSC phone care specialties can be found in Appendix B.

Figure 24: FY 2020 PSC Telephone Visits by Specialty

TOP 10 HIPAA SPECIALTIES	CLINICAL CALLS	UNIQUE PATIENTS	$ PAID
Internal Medicine (Physician)	58,382	45,846	$1,467,651.69
Family Practice (Physician)	54,688	44,311	$1,533,127.24
Internal Medicine	52,180	45,311	$1,273,359.90
Nurse Practitioner	25,334	21,423	$677,841.76
Psychiatry & Neurology	15,036	11,947	$499,571.01
Physician Assistant	13,322	11,509	$345,130.24
Family	6,160	5,391	$141,265.50
Urology (Physician)	4,991	4,436	$108,055.18
General Practice (Physician)	4,960	3,760	$112,797.75
Pediatrics (Physician)	4,648	4,035	$186,813.36

PSC Video Care. Video care was not highly utilized in the PSC network prior to FY 2020, despite the policy changes implemented in FY 2017. In FY 2020, video visits outpaced clinical phone care by over 920 percent as depicted in Figure 25.

Figure 25: PSC Video Care.



PSC Video Care by Specialty. Utilization increased in all specialties with most PSC video care utilization in primary care, followed by psychiatry and neurology, as depicted in Figure 26. A complete list of FY 2020 PSC video care specialties is in Appendix B.

Figure 26: PSC Video Care by Specialty

FY 2020 TOP 10	VISITS		UNIQUE PATIENTS		$ PAID	
HIPAA SPECIALTIES	FY 2019	FY 2020	FY 2019	FY 2020	FY 2019	FY 2020
Family Practice (Physician)	1,400	405,725	1,003	283,001	$70,429.50	$20,194,747.94
Internal Medicine (Physician)	1,499	339,213	1,142	220,531	$109,570.75	$14,445,172.73
Psychiatry & Neurology	14,772	326,787	6,883	154,757	$995,941.72	$25,240,117.26
Internal Medicine	1,039	297,785	708	213,773	$120,381.85	$13,204,332.36
Behavioral Health & Social Service Provider	3,510	260,091	874	48,736	$352,823.34	$28,063,420.32
Nurse Practitioner	2,838	161,283	1,397	113,456	$125,296.70	$7,233,543.61
Physician Assistant	828	97,299	492	69,518	$69,314.97	$4,560,568.31
Pediatrics (Physician)	788	96,670	590	72,058	$47,301.83	$6,638,968.70
Physical Therapist	34	63,833	21	10,412	$1,761.97	$6,148,601.61
Psychiatric/Mental Health	2,451	61,310	1,048	24,396	$108,128.21	$4,056,150.63

PSC Video Care by Beneficiary Category and Age. Consistent with PSC telephone care, FY 2020 PSC video care visits were dominated by retired service members, their families, and other non-ADSM beneficiaries. Recipients of PSC video care also tended to be older, with the largest group being 65+ years old. One possible reason might be a tendency for older beneficiaries, who are more likely to be in age or medically related COVID-19 high vulnerability groups, to take advantage of telehealth more often than younger, less COVID-19-vulnerable groups. Data by beneficiary category and age are presented in Appendix C, Attachments 16 and 17.

SECTION D: SUMMARY

Since 2017, the MHS has been working to implement Congress' NDAA for FY 2017 requirement for comprehensive expansion of DoD VH services, to occur within the context of a restructured MHS. Currently, VH is being integrated into the overall health care delivery model in support of readiness. VH planning is occurring across the newly forming DHA markets. In support of DHA's VH execution goals, existing MILDEP regional and enterprise VH capabilities are being reorganized under a global VMC. Program expansions are under way in VH capabilities including JTCCN, the GTP, ADVISOR, TBH, VIPRR and RPM. To enhance use of video to conduct clinical visits, the DC system is implementing a single enterprise MHS VC application and developing standard VH workflows, integrated into the EHR. To support VH in the PSC network, the MHS updated TRICARE policy to incentivize current use of VH and will include additional enhancements and incentives in the next generation of contracts.

VH capabilities have been successful in supporting readiness, reducing health care costs, enhancing patient convenience and satisfaction and facilitating continuity of care in both normal operations and during unexpected contingencies, such as the COVID-19 pandemic. The MHS will further expand and support the use of VH capabilities, fully integrated into the overall health care delivery model, in support of MHS goals and priorities.

Appendix A: Analytics Methodology

Overall Data Methodology:

Telehealth care was reviewed and classified based on professional service data for care occurring within the MTF, also known as Direct Care, and care performed in the network, also known as Private Sector Care. For this review, the focus was on synchronous care and telephone care performed by Skill Level 1 and 2 providers only (i.e., Clinician and Direct Care Professionals, respectively). Care was classified as synchronous if the record contained a procedure modifier equal to either 'GT', 'G0', or '95'. Care was classified as telephone care if the record was not already counted as synchronous and contained one of the following procedure codes:

'T2025'
'G2012'
'99441'
'99442'
'99443'
'98966'
'98967'
'98968'.

All records that included an originating code of 'Q3014' (Patient-End Facility Fee), technical procedures with a 'TC' modifier (Patient-End Technical Component), and any records where professional to professional consultations occurred were excluded from the telehealth analysis. We defined professional to professional consultations as any records containing the following procedure codes:

'99446'
'99447'
'99448'
'99449'
'99451'
'99452'.

Specific Considerations for Direct Care Data:

- The DoD has behavioral telehealth "hub" clinics at select MTFs. These clinics all have a MEPRS code (clinic designation) of BFDR and are located at Eisenhower Army Medical Center (AMC) (Fort Gordon, Georgia), Tripler AMC (Hawaii), and Brooke AMC (Joint Base San Antonio, Texas). All care performed within these clinics by Skill Level 1 and 2 providers was considered synchronous.

- Patients were counted using individual DoD identifiers.

- Encounters within this Direct Care data include all codes noted related to the encounter on one record; therefore, each record was counted as an encounter. The encounter count is the sum of all records meeting a given criteria.

Specific Considerations for Private Sector Care Data:

- If a claim included a Place of Service code equal to Telehealth ('02'), the care was categorized as synchronous.

- Provider Health Insurance Portability and Accountability Act (HIPAA) Taxonomy was used to filter data to Skill Level 1 and 2 providers using the same mapping used to classify providers in the Direct Care data.

- Patients were counted using individual DoD identifiers (EDIPNs).

- Individual visits were counted using claim number and the date of care.

Appendix B: Supplementary Data Tables

Table B-1: FY 2019 - FY 2020 Direct Care Phone Encounters Ranked by FY 2020 MEPR3 Specialties

PHONE ENCOUNTERS BY SPECIALTY (MEPRS3) (SORTED BY FY 2020 RANKING)	PHONE ENCOUNTERS		UNIQUE PATIENTS	
	FY 2019	FY 2020	FY 2019	FY 2020
Family Medicine Care Not Elsewhere Clsfd	1,043,082	1,715,220	497,022	702,505
Mental Health Clinic	343,142	700,359	111,369	153,708
Family Medicine Clinic	367,871	690,907	206,107	318,101
Prim Med Care Not Elsewhere Clsfd	252,971	388,431	127,182	168,737
Medical Care Not Elswhere Clsfd	158,600	257,683	60,417	84,999
Medical Examination Clinics	46,371	196,092	39,122	166,836
Obstetrics and Gynecology Clinic	153,331	194,127	86,372	98,421
Flight Medicine Clinic	131,312	183,338	75,988	100,326
Pediatric Care Not Elsewhere Clsfd	93,779	152,585	51,018	78,216
Primary Care Clinics	78,054	125,204	47,961	80,736
Internal Medicine Clinic	85,114	112,691	34,385	40,603
Pediatric Clinic	57,562	100,169	39,227	59,853
Physical Therapy Clinic	22,231	75,497	18,319	48,876
Child Guidance Clinic	34,635	74,717	13,980	18,753
Behavioral Health Promotion and Prevention	45,610	71,155	15,561	17,667
Gastroenterology Clinic	45,612	64,635	27,200	35,946
Cardiology Clinic	42,913	54,643	18,990	24,517
Urology Clinic	34,636	48,278	20,432	29,119
Support to Non-MEPRS Reporting Medical Acts	38,174	47,457	22,666	26,804
Pediatric Subspecialty Clinic	36,777	44,412	16,344	19,197
Endocrinology (Metabolism) Clinic	36,759	43,395	14,761	15,443
Pulmonary Disease Clinic	26,340	43,205	15,745	25,618
Neurology Clinic	27,942	42,380	14,145	20,417
Substance Abuse Clinic	28,505	41,514	9,962	10,734
Dermatology Clinic	30,236	35,842	22,685	24,802
Immediate Care Clinic	3,397	34,959	2,964	23,511
Orthopedic Clinic	20,560	34,256	15,706	25,607
Rheumotology Clinic	25,080	32,608	8,839	10,544
Pain Management Clinic	15,704	32,493	8,797	14,512
Hematology and Oncology Clinic	16,756	25,095	7,583	10,900
Otolaryngology Clinic	13,893	23,954	10,646	17,592
Allergy Clinic	15,703	23,107	11,152	15,528
General Surgery Clinic	16,519	22,720	12,879	16,731
Ophthalmology Clinic	14,690	21,234	11,187	15,897
Psychiatry Clinic	11,835	20,205	3,891	5,509
Peacetime Disaster Preparedness Response and NDMS		19,898		16,865

Table B-1 (continued): FY 2019 - FY 2020 Direct Care Phone Encounters Ranked by FY 2020 MEPR3 Specialties

PHONE ENCOUNTERS BY SPECIALTY (MEPRS3) (SORTED BY FY 2020 RANKING)	PHONE ENCOUNTERS		UNIQUE PATIENTS	
	FY 2019	FY 2020	FY 2019	FY 2020
Nephrology Clinic	15,072	19,350	6,295	7,683
Occupational Health Clinic	7,637	18,730	6,155	13,406
Physical Medicine Clinic	8,935	17,747	5,942	8,681
Optometry Clinic	12,280	17,370	10,614	15,312
Infectious Disease Clinic	14,440	17,265	6,248	7,930
Community Health Clinic	4,167	16,865	3,224	12,890
Outpatient Nutrition Clinic	61	13,857	57	9,460
Support to Non-Federal External Providers	15,948	10,778	10,383	6,924
Occupational Therapy Clinic	2,797	10,229	2,291	6,745
Support to Other Military Activities	8,171	9,283	4,483	4,904
Undersease Medicine Clinic	7,064	8,957	3,346	4,334
Podiatry Clinic	5,071	8,856	3,810	6,928
Social Work Clinic	6,358	8,352	3,274	3,981
Psychology Clinic	2,400	6,692	1,333	2,467
Managed Care Administration	7,434	6,493	5,842	5,567
Military Patient Personnel Administration	7,023	6,317	4,027	3,445
Audiology Clinic	3,436	5,800	2,827	4,483
Neurosurgery Clinic	2,097	4,985	1,525	3,325
Emergency Medical Clinic	4,136	4,858	3,754	4,462
Chiropractic Clinic	1,080	3,391	925	2,517
Clinical Investigation Program	1,897	3,371	921	956
Radiation Therapy Clinic	1,334	2,889	933	2,046
Peripheral Vascular Surgery Clinic	1,358	2,476	1,047	1,775
Environmental Health Program	627	2,423	585	1,823
Speech Pathology Clinic	404	2,223	359	1,306
Epidemiology Program	402	2,174	354	1,965
Diabetic Clinic	1,058	2,006	418	620
Organ Transplant Clinic	1,091	1,474	423	505
Unknown	86	1,428	83	926
Dental Care	456	1,330	389	1,147
Breast Care Clinic	492	918	437	732
Hearing Conservation	957	916	820	846
Plastic Surgery Clinic	800	904	635	761
Vascular and Interventional Radiology Clinic	255	795	215	669
Preventative Medicine	267	696	244	438
Spec Proc Services Not Elsewhere Clsfd		387		336

Table B-1 (continued): FY 2019 - FY 2020 Direct Care Phone Encounters Ranked by FY 2020 MEPR3 Specialties

PHONE ENCOUNTERS BY SPECIALTY (MEPRS3) (SORTED BY FY 2020 RANKING)	PHONE ENCOUNTERS		UNIQUE PATIENTS	
	FY 2019	FY 2020	FY 2019	FY 2020
Spc Health Programs Not Elswhere Clsfd	323	229	245	149
Cardiovascular & Thoracic Surgery Clinic	267	225	213	195
Medically Related Services (MRS)	31	196	31	70
Multidisciplinary Team Services (MTS)	82	174	47	78
Internal Medicine (Inpatient)	24	173	23	139
Early Intervention Services (EIS)	115	131	71	57
Obstetrics and Gynecology (Inpatient)	36	111	33	100
Public Health Service Not Elsewhere Clsfd	179	104	158	91
Hyperbaric Medicine	49	83	37	42
Burn Clinic	102	78	35	31
Psychiatry (Inpatient)	45	69	22	62
Immunizations	67	50	65	50
Clinical Pathology	17	49	17	49
Ambulatory Nursing Services	49	43	49	39
Anesthesiology	18	41	16	36
Pediatrics (Inpatient)	1	39	1	33
General Surgery (Inpatient)	2	38	2	32
Family Medicine (Inpatient)	5	35	5	31
Hemodialysis	9	29	9	14
Hematology and Oncology (Inpatient)		18		10
Surgical Ward (Inpatient)	7	14	7	13
Diagnostic Radiology	6	13	6	13
Neurosurgery (Inpatient)		12		5
Cardiology (Inpatient)		11		7
Pharmacy	2	10	2	10
Respiratory Therapy	3	9	3	9
Orthopedics (Inpatient)	3	8	2	7
Genetics Clinic (Keesler Only)	16	7	16	7
Neurology (Inpatient)		6		4
Medical Ward (Inpatient)	7	6	5	6
Otolaryngology (Inpatient)	3	5	3	5
Newborn Nursery Care (Inpatient)		5		5
Ambulatory Procedure Unit	2	4	2	4
Industrial Hygiene Program		4		4
Post Anesthesia Care Unit	5	3	5	3
Pediatric Ward (Inpatient)	1	3	1	3

Table B-1 (continued): FY 2019 - FY 2020 Direct Care Phone Encounters Ranked by FY 2020 MEPR3 Specialties

PHONE ENCOUNTERS BY SPECIALTY (MEPRS3) (SORTED BY FY 2020 RANKING)	PHONE ENCOUNTERS		UNIQUE PATIENTS	
	FY 2019	FY 2020	FY 2019	FY 2020
Clinical Management		3		3
Ambulatory Care Administration	2	3	2	3
Urology (Inpatient)	1	2	1	2
Purchased/Referred Care		2		2
Case Management	6	2	6	2
OB/Gyn/Newborn Ward (Inpatient)	2	1	2	1
Pulmonary/Upper Respiratory Disease (Inpatient)	1	1	1	1
Substance Abuse Rehabilitation Care (Inpatient)	4	1	2	1
Pediatric Intensive Care Unit		1		1
DoD Military Blood Program		1		1
Neonatal Intensive Care Unit		1		1
Oral Surgery (Inpatient)	1	1	1	1
Surgical Suite	4		4	

Table B-2: FY 2019 – FY 2020 Direct Care Synchronous Video Encounters Ranked by FY 2020 MEPR3 Specialties

(FY 2020 RANKING) SYNCHRONOUS VIRTUAL HEALTH CLINICS (MEPRS3)	ENCOUNTERS		UNIQUE PATIENTS	
	FY 2019	FY 2020	FY 2019	FY 2020
Mental Health Clinic	28,985	97,472	10,892	29,799
Family Medicine Care Not Elsewhere Clsfd	14,968	37,058	12,319	26,079
Child Guidance Clinic	141	12,064	53	4,131
Substance Abuse Clinic	27	8,494	18	1,273
Prim Med Care Not Elsewhere Clsfd	1,456	6,554	1,243	5,572
Pain Management Clinic	948	5,412	354	2,466
Physical Therapy Clinic	106	5,230	105	3,799
Pediatric Subspecialty Clinic	1,111	4,174	934	3,092
Primary Care Clinics	1,991	4,158	1,799	3,531
Medical Care Not Elswhere Clsfd	2,210	4,132	1,504	2,810
Family Medicine Clinic	638	3,544	530	3,039
Pediatric Care Not Elsewhere Clsfd	1,904	3,441	1,486	2,924
Outpatient Nutrition Clinic	465	2,800	381	1,942
Behavioral Health Promotion and Prevention	34	2,511	17	927
Dermatology Clinic	30	2,333	30	2,146
Neurology Clinic	111	2,309	92	1,401
Psychiatry Clinic	333	1,850	131	954
Pulmonary Disease Clinic	1,389	1,617	1,106	1,473
Physical Medicine Clinic	575	1,560	242	875
Medical Examination Clinics	2,274	1,517	2,223	1,496
Pediatric Clinic	217	1,465	184	1,036
Speech Pathology Clinic	56	1,391	19	464
Internal Medicine Clinic	887	1,124	711	994
Support to Non-MEPRS Reporting Medical Acts		942		539
Occupational Therapy Clinic	27	914	24	537
Endocrinology (Metabolism) Clinic	307	840	236	704
Obstetrics and Gynecology Clinic	128	829	113	714
Hematology and Oncology Clinic	63	732	54	602
Orthopedic Clinic	166	694	141	660
General Surgery Clinic	245	641	203	498
Preventative Medicine		615		269
Allergy Clinic	646	604	605	574
Urology Clinic	94	580	90	550
Psychology Clinic	29	516	27	304
Cardiology Clinic	94	506	76	468
Psychiatry (Inpatient)		397		123
Clinical Investigation Program		385		106
Optometry Clinic	43	352	34	344
Infectious Disease Clinic	251	308	207	277
Gastroenterology Clinic	168	252	160	244
Immediate Care Clinic	3	239	3	237
Nephrology Clinic	30	227	20	202
Ophthalmology Clinic	2	206	2	200
Social Work Clinic	27	203	15	95
Rheumotology Clinic	39	202	34	178

Table B-2 (continued): FY 2019 – FY 2020 Direct Care Synchronous Video Encounters Ranked by FY 2020 MEPR3 Specialties

(FY 2020 RANKING) SYNCHRONOUS VIRTUAL HEALTH CLINICS (MEPRS3)	ENCOUNTERS		UNIQUE PATIENTS	
	FY 2019	FY 2020	FY 2019	FY 2020
Organ Transplant Clinic		191		116
Podiatry Clinic	86	176	49	134
Neurosurgery Clinic	156	153	123	118
Flight Medicine Clinic	8	136	8	121
Unknown		136		121
Early Intervention Services (EIS)		131		33
Community Health Clinic	4	130	2	63
Managed Care Administration		123		122
Hearing Conservation	85	104	84	100
Peacetime Disaster Preparedness Response and NDMS		103		100
Spc Health Programs Not Elswhere Clsfd		91		14
Audiology Clinic	191	59	122	53
Breast Care Clinic	25	58	25	56
Occupational Health Clinic	15	53	15	53
Chiropractic Clinic	13	37	13	37
Plastic Surgery Clinic	11	34	9	34
Internal Medicine (Inpatient)	2	31	1	23
Military Patient Personnel Administration		23		23
Emergency Medical Clinic	534	22	486	22
Radiation Therapy Clinic		20		20
Family Medicine (Inpatient)		11		5
Burn Clinic	1	8	1	6
Genetics Clinic (Keesler Only)	37	8	32	8
General Surgery (Inpatient)		6		4
Support to Non-Federal External Providers	1	5	1	5
Organ Transplant (Inpatient)		5		5
Cardiovascular & Thoracic Surgery Clinic	3	5	3	5
Medically Related Services (MRS)		4		4
Pediatrics (Inpatient)		3		3
Obstetrics and Gynecology (Inpatient)	2	3	2	3
Undersease Medicine Clinic		2		2
Vascular and Interventional Radiology Clinic		1		1
Urology (Inpatient)		1		1
Spec Proc Services Not Elsewhere Clsfd		1		1
Newborn Nursery Care (Inpatient)		1		1
Medical Ward (Inpatient)		1		1
Neurology (Inpatient)		1		1
Peripheral Vascular Surgery Clinic	1	1	1	1
Hematology and Oncology (Inpatient)		1		1
Neurosurgery (Inpatient)		1		1
Support to Other Military Activities		1		1
Surgical Suite	1		1	

Table B-3: FY 2020 Private Sector Care Clinical Phone Visits Ranked by HIPAA Specialties

HIPAA SPECIALTIES	CLINICAL CALLS	UNIQUE PATIENTS	$ PAID
Internal Medicine (Physician)	58,382	45,846	$1,467,651.69
Family Practice (Physician)	54,688	44,311	$1,533,127.24
Internal Medicine	52,180	45,311	$1,273,359.90
Nurse Practitioner	25,334	21,423	$677,841.76
Psychiatry & Neurology	15,036	11,947	$499,571.01
Physician Assistant	13,322	11,509	$345,130.24
Family	6,160	5,391	$141,265.50
Urology (Physician)	4,991	4,436	$108,055.18
General Practice (Physician)	4,960	3,760	$112,797.75
Pediatrics (Physician)	4,648	4,035	$186,813.36
Physical Medicine & Rehabilitation (Physician)	2,962	2,052	$71,662.22
Anesthesiology (Physician)	2,772	1,946	$59,627.60
Pain Medicine (Physician)	2,473	1,635	$54,998.06
Orthopaedic Surgery (Physician)	2,424	2,207	$69,472.90
Obstetrics & Gynecology (Physician)	2,203	1,980	$79,038.38
Radiology	1,929	1,715	$38,972.34
Surgery (Physician)	1,854	1,614	$48,210.37
Psychiatric/Mental Health	1,714	1,148	$54,780.59
Primary Care	1,340	1,192	$34,946.03
Neurological Surgery (Physician)	1,329	1,224	$41,181.15
Emergency Medicine (Physician)	1,209	1,029	$30,144.71
Obstetrics & Gynecology	1,161	1,039	$49,364.36
Ophthalmology (Physician)	1,147	1,074	$19,990.82
Medical	1,110	947	$23,878.29
Dermatology (Physician)	985	878	$24,398.77
Pediatrics	937	854	$48,887.72
Otolaryngology (Physician)	927	869	$24,157.65
Surgery	888	807	$18,156.98
Behavioral Health & Social Service Provider	831	465	$31,248.36
Anesthesiology	823	603	$17,239.65
Allergy & Immunology (Physician)	742	671	$26,156.25
Adult Health	693	617	$17,077.16
Family Practice	662	525	$15,864.92
Hospitalist (Physician)	471	397	$12,818.55
Podiatrist	469	426	$10,365.25
Pain Medicine	358	202	$6,746.63
Thoracic Surgery (Cardiothoracic Vascular Surgery) (Physician)	346	317	$7,044.52
Acute Care	311	290	$7,090.21
Eye and Vision Services Provider	289	271	$4,734.06
Midwife, Certified Nurse (CNM)	261	234	$10,512.86
Gerontology	256	215	$5,948.88
Physical Medicine & Rehabilitation	242	186	$5,423.86

Table B-3 (continued): FY 2019 - FY 2020 Private Sector Care Clinical Phone Visits Ranked by FY 2020 HIPAA Specialties

HIPAA SPECIALTIES	CLINICAL CLINICAL	UNIQUE PATIENTS	$ PAID
Allergy & Immunology	144	132	$4,740.64
Orthopaedic Surgery	137	130	$4,258.53
Pediatrics	124	117	$5,338.03
Physical Therapist	119	82	$2,435.49
Plastic Surgery (Physician)	101	89	$3,405.54
Nurse Anesthetist, Certified Registered (CRNA)	100	85	$2,267.23
Pathology	99	87	$2,762.88
Surgical	81	78	$1,711.30
Otolaryngology	73	65	$2,401.88
Medical Genetics	68	61	$3,748.53
Dietary & Nutritional Service Provider	68	54	$859.05
Colon & Rectal Surgery (Physician)	65	61	$1,942.58
Clinical Nurse Specialist	62	55	$1,749.05
Women's Health	57	55	$1,730.36
Preventative Medicine	55	44	$1,624.36
Dental Provider	47	44	$1,383.12
Audiologist	30	24	$531.89
Psychiatric/Mental Health, Adult	25	15	$365.46
Nuclear Medicine (Physician)	22	21	$522.99
Urology	21	20	$661.87
Psychiatric/Mental Health, Child & Adolescent	16	13	$455.85
Obstetrics & Gynecology	14	14	$315.45
Neuromusculoskeletal Medicine & OMM (Physician)	13	13	$243.37
Emergency Medical Services (Physician)	10	4	$253.28
Oral & Maxillofacial Surgery (Physician)	10	10	$304.03
Dermatology	10	9	$509.04
Critical Care	5	5	$126.13
Oncology	5	5	$168.77
Perinatal	4	4	$348.96
Ophthalmology	4	4	$24.71
Emergency Medicine	3	3	$124.86
Dermatopathology (Physician)	3	3	$32.91
Nuclear Medicine	3	3	$51.16
Pathology (Clinical)	3	2	$81.12
Neonatal	2	2	$61.73
Community Health	1	1	$60.61
Neuromusculoskeletal Medicine, Sports Medicine (Physician)	1	1	$35.48
Rehabilitation	1	1	$33.92
Phlebology (Physician)	1	1	$12.00
Medical-Surgical	1	1	$72.21
Pediatrics, Critical Care	1	1	$59.07
Family Health	1	1	$8.48

Table B-4: FY 2019 - FY 2020 Private Sector Care Synchronous Video Care Visits Ranked by FY 2020 HIPAA Specialties

HIPAA SPECIALTIES (SORTED BY FY 2020 FREQUENCY)	VISITS		UNIQUE PATIENTS		$ PAID	
	FY 2019	FY 2020	FY 2019	FY 2020	FY 2019	FY 2020
Family Practice (Physician)	1,400	408,725	1,003	283,001	$70,429.50	$20,194,747.94
Internal Medicine (Physician)	1,499	339,213	1,142	220,531	$109,570.75	$14,445,172.73
Psychiatry & Neurology	14,772	326,787	6,883	154,757	$995,941.72	$25,240,117.26
Internal Medicine	1,039	297,785	708	213,773	$120,381.85	$13,204,332.36
Behavioral Health & Social Service Provider	3,510	260,091	874	48,736	$352,823.34	$28,063,420.32
Nurse Practitioner	2,838	161,283	1,397	113,456	$125,296.70	$7,233,543.61
Physician Assistant	828	97,299	492	69,518	$69,314.97	$4,560,568.31
Pediatrics (Physician)	788	96,670	590	72,058	$47,301.83	$6,638,968.70
Physical Therapist	34	63,833	21	10,412	$1,761.97	$6,148,601.61
Psychiatric/Mental Health	2,451	61,310	1,048	24,396	$108,128.21	$4,056,150.63
Family	254	44,886	163	33,020	$10,026.60	$1,837,648.34
Anesthesiology (Physician)	209	33,145	178	16,747	$14,653.96	$1,311,800.78
General Practice (Physician)	276	30,572	178	19,337	$16,100.27	$1,519,763.89
Urology (Physician)	64	30,035	56	25,575	$1,512.06	$1,211,419.72
Pain Medicine (Physician)	27	29,983	8	14,561	$596.59	$1,284,827.49
Physical Medicine & Rehabilitation (Physician)	40	29,297	27	15,268	$1,575.68	$1,186,802.36
Dermatology (Physician)	78	26,620	52	20,880	$2,782.09	$1,207,527.17
Pediatrics	279	19,661	206	15,214	$20,891.43	$1,816,969.97
Orthopaedic Surgery (Physician)	45	19,198	37	15,904	$3,568.50	$850,384.54
Obstetrics & Gynecology (Physician)	183	18,086	119	14,962	$17,060.91	$1,086,518.36
Allergy & Immunology (Physician)	26	14,406	25	12,068	$1,118.71	$887,575.05
Otolaryngology (Physician)	50	12,901	46	11,043	$2,112.27	$656,640.41
Primary Care	237	11,602	153	8,918	$5,947.90	$521,893.84
Surgery (Physician)	39	11,425	35	8,868	$2,615.71	$584,308.90
Emergency Medicine (Physician)	183	10,575	155	7,989	$6,416.99	$530,937.27
Obstetrics & Gynecology	224	10,294	122	8,364	$14,854.31	$757,403.04
Anesthesiology	2	8,847	2	4,785	$75.62	$333,575.18
Neurological Surgery (Physician)	14	7,961	13	6,457	$446.50	$408,845.03
Medical	44	7,571	29	5,577	$1,944.94	$307,783.52
Radiology	78	6,121	62	5,013	$3,108.75	$273,348.76
Ophthalmology (Physician)	9	4,998	8	4,510	$684.73	$179,823.24
Family Practice	4	4,861	2	3,461	$81.92	$217,678.91
Adult Health	48	4,453	29	2,838	$1,594.56	$165,757.94
Hospitalist (Physician)	60	3,707	48	2,643	$2,677.06	$154,604.28
Allergy & Immunology	6	3,495	5	2,860	$218.29	$217,474.96
Podiatrist	4	3,457	4	2,794	$59.23	$122,282.42

Table B-4 (continued): FY 2019 - FY 2020 Private Sector Care Synchronous Video Care Visits Ranked by FY 2020 HIPAA Specialties

HIPAA SPECIALTIES (SORTED BY FY 2020 FREQUENCY)	VISITS		UNIQUE PATIENTS		$ PAID	
	FY 2019	FY 2020	FY 2019	FY 2020	FY 2019	FY 2020
Pediatrics	40	3,011	38	2,445	$3,309.53	$213,724.43
Pain Medicine	5	2,963	5	1,384	$538.59	$125,097.10
Physical Medicine & Rehabilitation	3	2,646	3	1,602	$215.64	$125,522.48
Gerontology	6	1,752	4	1,023	$128.17	$48,677.07
Eye and Vision Services Provider	391	1,696	358	1,472	$14,421.83	$56,267.92
Orthopaedic Surgery	3	1,691	3	1,436	$819.51	$82,399.74
Pathology	4	1,607	4	555	$140.67	$104,104.00
Midwife, Certified Nurse (CNM)	2	1,592	2	1,335	$54.48	$94,041.15
Dietary & Nutritional Service Provider	31	1,404	13	845	$2,217.98	$86,010.35
Acute Care	8	1,191	7	958	$166.68	$39,424.85
Otolaryngology	5	1,107	5	983	$126.27	$77,753.60
Thoracic Surgery (Cardiothoracic Vascular Surgery) (Physician)	6	1,050	6	940	$413.91	$47,375.62
Medical Genetics	21	1,040	16	947	$2,051.10	$117,192.46
Dermatology	5	1,032	5	834	$142.86	$67,947.46
Plastic Surgery (Physician)	1	1,019	1	884	$27.58	$56,379.73
Preventative Medicine	9	705	3	360	$918.16	$25,609.46
Clinical Nurse Specialist	1	593	1	293	$94.84	$26,333.63
Urology	5	584	3	522	$40.72	$51,713.00
Colon & Rectal Surgery (Physician)		480		436		$22,738.19
Nurse Anesthetist, Certified Registered (CRNA)	12	457	12	291	$1,818.64	$15,539.39
Women's Health	1	447	1	381	$40.00	$21,411.42
Psychiatric/Mental Health, Adult	5	443	4	177	$365.85	$23,037.87
Audiologist	40	321	4	154	$11,134.27	$73,642.66
Surgical	3	310	3	284	$8.86	$10,863.39
Nuclear Medicine (Physician)		265		154		$11,893.12
Dental Provider		261		221		$13,787.74
Emergency Medical Services (Physician)	4	142	4	105	$76.67	$6,432.80
Neuromusculoskeletal Medicine & OMM (Physician)		126		101		$5,678.05
Family Health		96		77		$4,665.67
Obstetrics & Gynecology		95		74		$3,491.14
Psychiatric/Mental Health, Child & Family	6	89	5	40	$516.73	$5,878.25
Psychiatric/Mental Health, Child & Adolescent	1	78	1	43	$53.11	$3,891.48
Developmental Therapist		70		27		$6,782.81
Critical Care		69		55		$1,707.23
Dermatopathology (Physician)		68		54		$2,747.82

Table B-4 (continued): FY 2019 - FY 2020 Private Sector Care Synchronous Video Care Visits Ranked by FY 2020 HIPAA Specialties

HIPAA SPECIALTIES (SORTED BY FY 2020 FREQUENCY)	VISITS		UNIQUE PATIENTS		$ PAID	
	FY 2019	FY 2020	FY 2019	FY 2020	FY 2019	FY 2020
Nuclear Medicine		58		52		$3,047.82
Pathology (Clinical)		54		48		$4,244.05
Specialist/Technologist	5	53	4	12	$327.97	$7,338.78
Emergency Medicine		49		45		$3,862.19
Pediatrics, Critical Care		38		33		$2,722.38
Rehabilitation Counselor		36		6		$3,363.41
Transplant Surgery (Physician)	2	27	2	22	$55.90	$2,190.02
Chronic Care		25		20		$1,631.11
Neuromusculoskeletal Medicine, Sports Medicine (Physician)		25		19		$948.73
Rehabilitation Practitioner		11		5		$544.40
Perinatal		9		9		$682.05
Plastic Surgery		7		7		$418.98
Ph.D. Medical Genetics		7		6		$130.60
Neonatal		7		7		$340.71
Ophthalmology		7		7		$255.67
Psychiatric/Mental Health, Community		4		4		$179.83
Community Health		3		3		$234.06
Occupational Health		3		2		$197.81
Neuroscience		3		2		$291.25
Medical Geneticist PhD		2		2		$72.31
Sleep Specialist, PhD		2		2		$140.87
Oncology		1		1		$9.39
Community Health/Public Health		1		1		$13.13

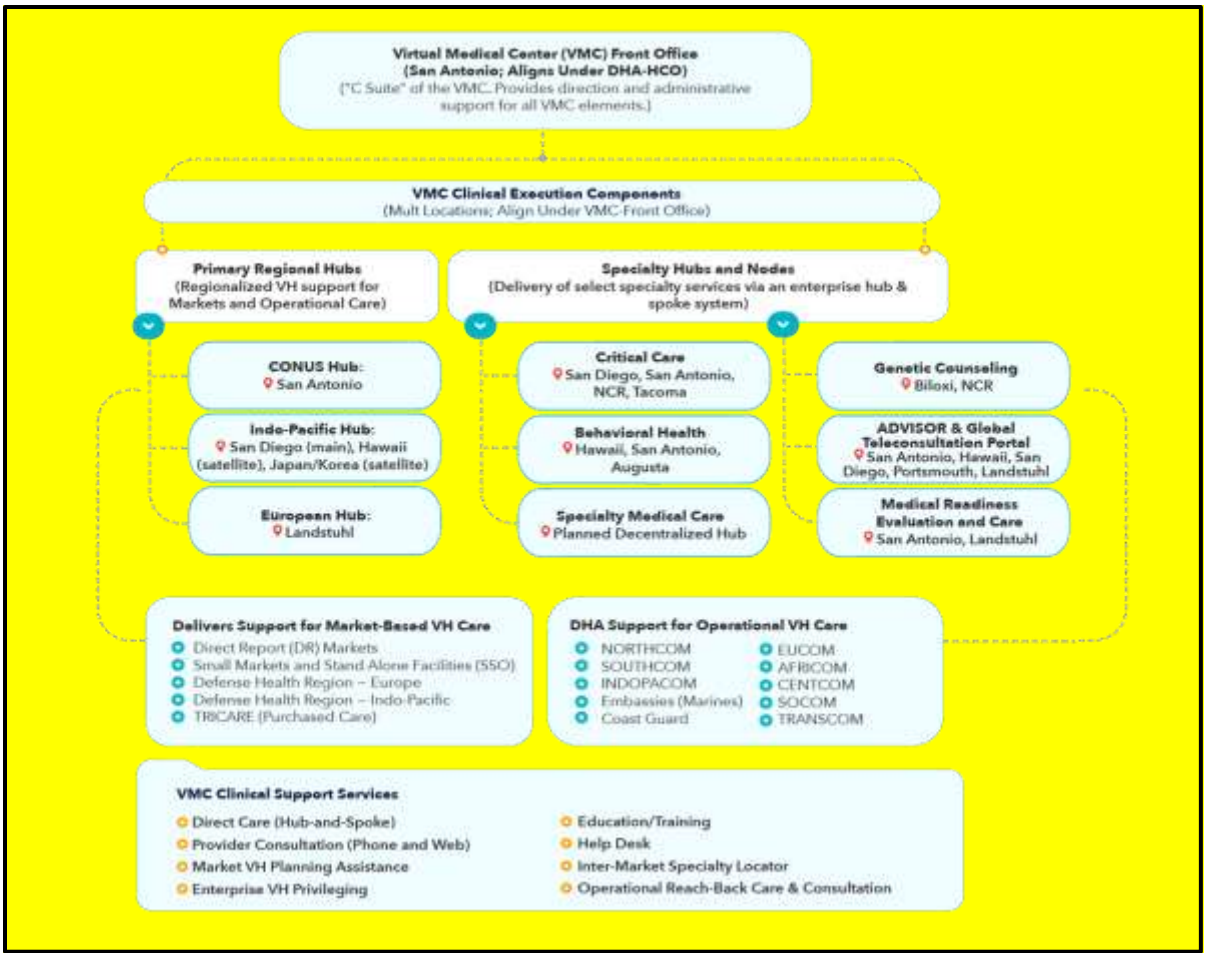
Table B-5: FY 2019 and FY 2020 Direct Care Monthly Encounters:
In-Person Care vs. Combined Virtual Health (Phone + Video)

FISCAL MONTH	FY 2019		FY 2020	
	In-Person Encounters	Combined VH Encounters	In-Person Encounters	Combined VH Encounters
01	2,358,547	312,318	2,304,613	322,519
02	2,096,044	280,612	1,940,190	278,259
03	1,790,412	255,558	1,900,477	284,396
04	2,263,931	323,848	2,215,726	335,991
05	2,053,902	296,640	2,002,141	314,371
06	2,239,522	318,882	1,716,847	573,143
07	2,269,689	327,751	770,013	728,656
08	2,223,664	325,037	910,820	671,627
09	1,990,966	288,743	1,346,081	728,944
10	2,105,660	305,138	1,424,413	698,057
11	2,128,561	308,372	1,445,074	665,257
12	2,006,245	285,761	1,520,486	658,762

Appendix C: Supplementary Attachments

Attachment 1: 2018 MHS VH Strategic Plan: Goals and Quadruple Aim Integration

Attachment 2: Functional Overview of the Virtual Medical Center



Attachment 3: FY 2021 – FY 2026 MHS VH Strategy: Lines of Effort, Goals, and Objectives

LOE 1: GREAT OUTCOMES – IMPROVE AVAILABILITY AND QUALITY OF HEALTH CARE FOR ALL BENEFICIARIES ACROSS TIME AND GEOGRAPHY	
1.1: Improve medical readiness and deployability of the force	Initiative 1.1.1: In collaboration with the MILDEPs, develop programs and processes to address the Operational VH (OVH) needs of the CCMDs and ensuring OVH maintains DHA standards of care Initiative 1.1.2: Expand and sustain VH capabilities to maintain individual readiness across the military services
1.2: Evaluate and deploy VH in support of the Clinical Communities and markets	Initiative 1.2.1: Develop lines of communication and business processes to identify requirements to address Clinical Community and market needs
1.3: Engage medically and geography at-risk populations, matching case and complexity to the appropriate level of care	Initiative 1.3.1: Expand and sustain access to virtual specialty, routine, and preventative care (e.g., tele-critical care, tele-behavioral health, tele-genetics) Initiative 1.3.2: Ensure seamless coordination of VH across direct and privatesector care
1.4: Leverage technology to optimize beneficiary health, convenience, and ease of use independent of location	Initiative 1.4.1: Improve access and continuity of care through synchronous("real-time") provider-to-beneficiary virtual video visits Initiative 1.4.2: Expand asynchronous ("store-and-forward") support for provider-to-provider consultation and provider-to-beneficiary care Initiative 1.4.3: Integrate virtual health capabilities into standardized EHR clinical workflows Initiative 1.4.4: Develop and expand remote health monitoring capability Initiative 1.4.5: Develop enterprise imaging requirements within VH specialty workflows
1.5: Provide global, regionally aligned VH care and consultation with 24/7/365 capability between and within garrison and operational forces	Initiative 1.5.1: Evaluate and consolidate the MHS VH organizational structure, manpower, facilities, equipment, and processes Initiative 1.5.2: Consolidate administrative functions for centralized VH Clinical Quality Management (VH privileging and patient safety)
LOE 2: READY MEDICAL FORCE – LEVERAGE VH CAPABILITIES TO EXPAND AND SUSTAIN OPERATIONAL MEDICAL PROFICIENCIES	
2.1: Integrate VH competencies into all levels of MHS training	Initiative 2.1.1: Improve staff knowledge, skills, and abilities (KSAs) to use VH through the development of comprehensive education and training programs
2.2: Leverage VH for critical backfill in response to contingency operations in military and civilian settings	Initiative 2.2.1: Develop comprehensive VH capabilities to rapidly respond to MHS emergencies and other clinical staffing disruptions Initiative 2.2.2: Develop pathways and programs to enhance DHA VH coordinated responses to disasters

Attachment 3 (continued): FY 2021 – FY 2026 MHS VH Strategy: Lines of Effort, Goals, and Objectives

LOE 3: SATISFIED BENEFICIARIES – LEVERAGE VH CAPABILITIES TO SAFELY MAXIMIZE PATIENT ENGAGEMENT AND CONVENIENCE	
3.1: Improve beneficiary satisfaction with VH engagement	Initiative 3.1.1: Develop Digital Patient Engagement (DPE) tools that are seamless for patients to access, manage, and own their health information Initiative 3.1.2: Enhance beneficiary assessments to improve VH usability and experience
3.2: Promote direct care as the care of choice for beneficiaries	Initiative 3.2.1: Enhance patient access and convenience through locally, regionally, and globally coordinated "true" First Call Resolution to include 24/7 virtual provider availability wherever and whenever patients attempt to seek care Initiative 3.2.2: Use VH to maximize capacity by reducing unnecessary referrals to private sector care Initiative 3.2.3: Integrate VH into a global referral management capability with regionalized locations across the globe
3.3: Leverage VH capabilities to improve beneficiaries' ability to manage their own care	Initiative 3.3.1: Enhance beneficiary knowledge of VH to improve health outcomes and ability to provide self-care
LOE 4: FULFILLED STAFF – ENHANCE VH CAPABILITIES THAT EFFICIENTLY UTILIZE RESOURCES, INTEGRATE SYSTEMS, AND SUPPORT FUTURE VH REQUIREMENT DEVELOPMENT	
4.1: Improve ability to manage beneficiary care regardless of geographic location	Initiative 4.1.1: Increase health care team flexibility to virtually provide and document safe beneficiary care, increasing satisfaction and reducing burnout Initiative 4.1.2: Enhance provider assessments to improve VH usability and experience
4.2: Ensure health care teams have access to easy-to-use, reliable VH capabilities	Initiative 4.2.1: Develop a lifecycle management and sustainment plan for VH equipment

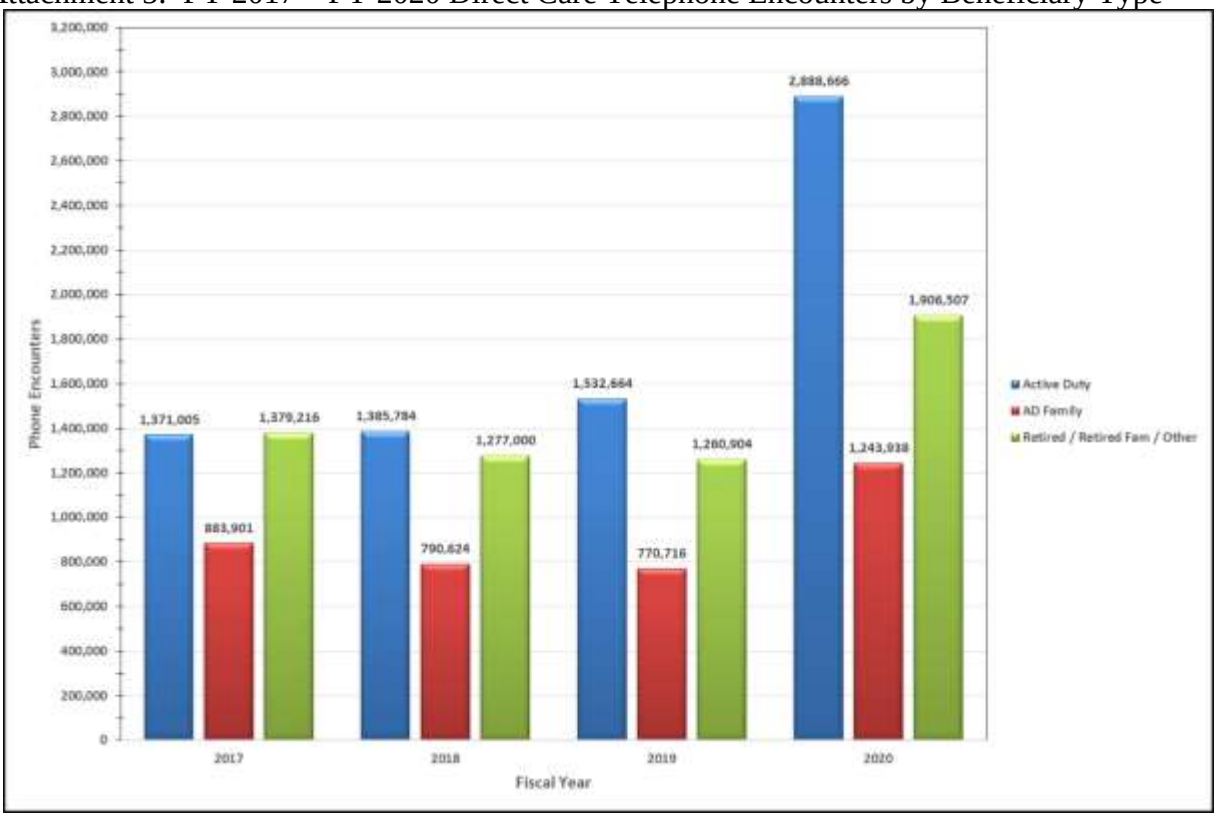
Attachment 4: Identified Barriers to Virtual Health Utilization

	HCO Provider Survey (n=2705)	VH Amenable Conditions Survey (n=37 specialty care areas)	RAND TELEBEHAVIORAL HEALTH REPORT (N=53)
Lack of bandwidth or connectivity Issues	✓	✓	✓
Inadequate audio/video capability & quality	✓	✓	✓
Lack of training for patients	✓		
Lack of training for staff and healthcare teams	✓	✓	✓
Inability to protect private phone number	✓		
Lack of cell phone service at MTF or home	✓		
Lack of leadership support	✓		
Lack of a civilian healthcare specific video capability	✓		
Lack of scheduling and virtual waiting room capability	✓		✓
Inability to document visit within EHR	✓	✓	✓
Coding problems	✓		

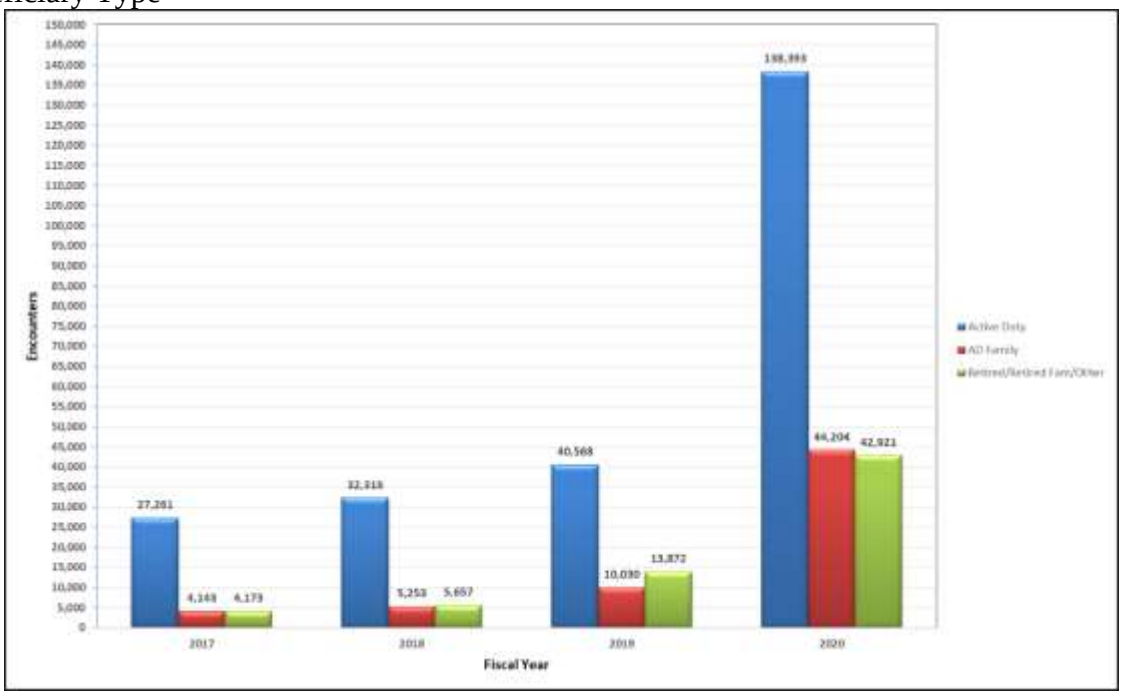
Attachment 4 (continued): Identified Barriers to Virtual Health Utilization

	HCO Provider Survey (n=2705)	VH Amenable Conditions Survey (n=37 specialty care areas)	RAND TELEBEHAVIORAL HEALTH REPORT (N=53)
Need hardware/software or easier platform	✓	✓	✓
Patient issues (multi-tasking, connection drops)	✓		
Lack of IT or Technical Support	✓	✓	✓
In person care required	✓	✓	✓
Lack of DHA policy and/or guidance	✓	✓	✓
Lack of equipment such as remote monitoring devices, quality camera, phone)	✓	✓	✓
Lack of dedicated clinic space for VH		✓	
Lack of trust in security and/or privacy	✓		✓
Lack of patient and provider acceptance		✓	
Lack of Staff	✓		

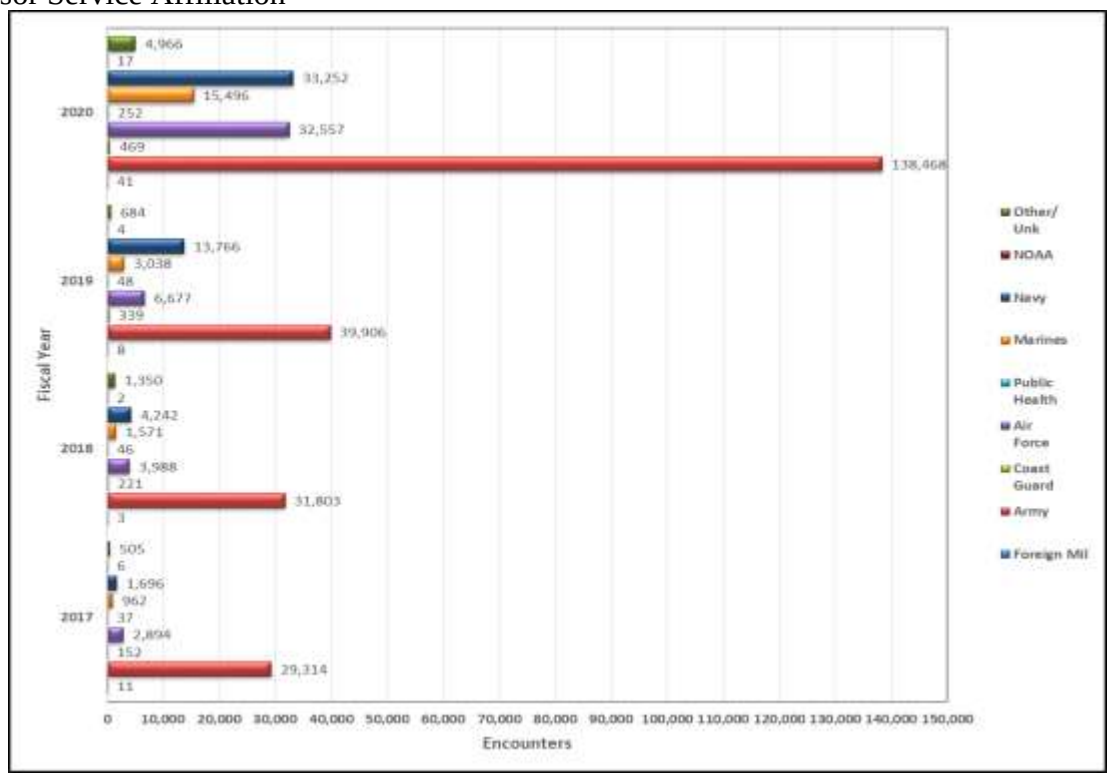
Attachment 5: FY 2017 – FY 2020 Direct Care Telephone Encounters by Beneficiary Type



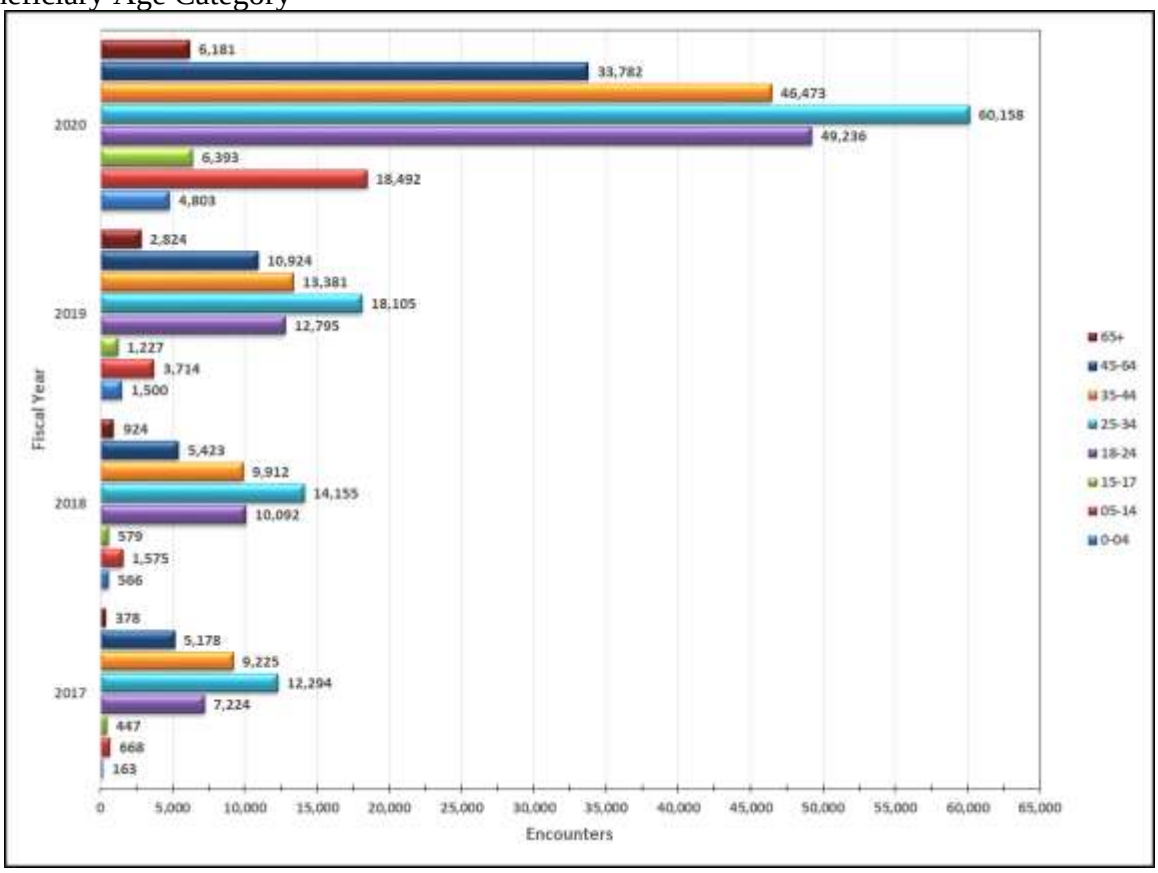
Attachment 6: FY 2017 – FY 2020 Direct Care Synchronous Virtual Health Encounters by Beneficiary Type



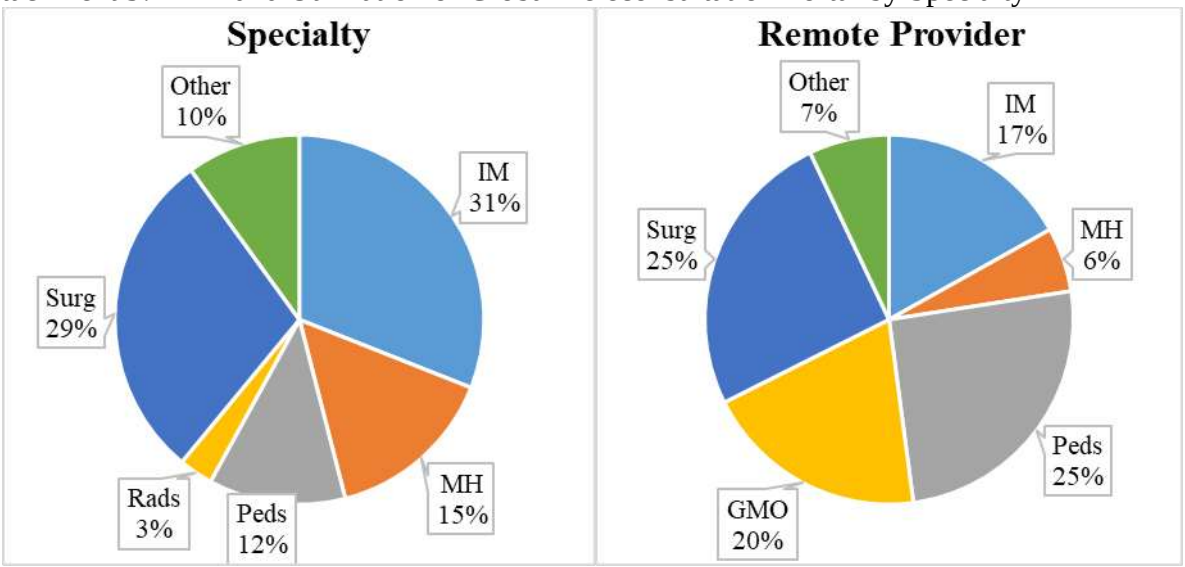
Attachment 7: FY 2017 – FY 2020 Direct Care Synchronous Virtual Health Encounters by Sponsor Service Affiliation



Attachment 8: FY 2017 – FY 2020 Direct Care Synchronous Virtual Health Encounters by Beneficiary Age Category



Attachment 9: FY 2020 Utilization of Global Teleconsultation Portal by Specialty



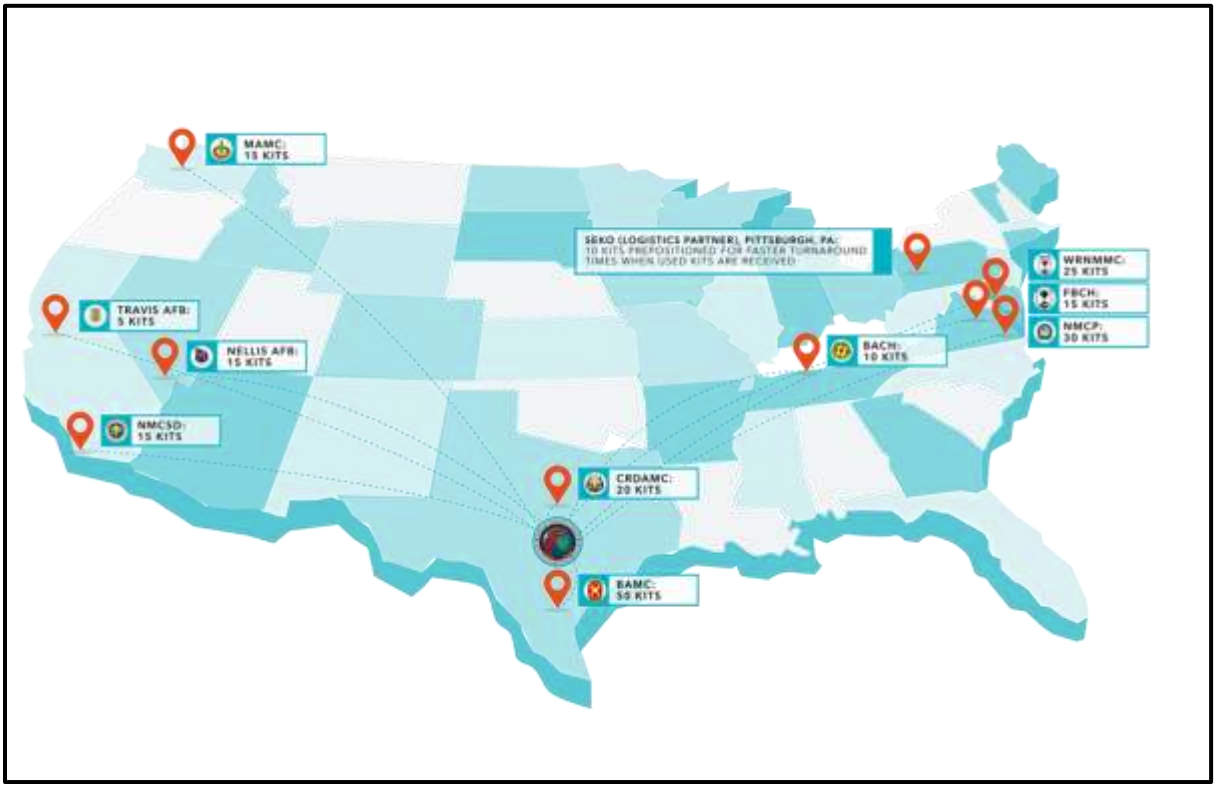
Attachment 10: NCR DREAM RMP Results

TIMELINE	N	AVG A1C LEVEL	AVG A1C CHANGE
Baseline	84	11.00	N/A
3 Months	63	8.35	-2.19
6 Months	41	8.15	-2.31
12 Months	11	7.90	-2.68

Attachment 11: San Antonio DREAM RPM Results

PATIENTS ENROLLED FROM FEB 2019 TO MAY 2021	44
Completion	
Graduated	29 Patients
Disenrolled	15 Patients
Average Enrollment Length	
Graduated	5.21 Months
Disenrolled	4.47 Months
Average Baseline A1C	
Graduated	8.6
Disenrolled	9.5
Average End A1C	
Graduated	6.74
Disenrolled	9.22
Average Change in A1C	
Graduated	-1.85
Disenrolled	-0.16

Attachment 12: Initial CRPM Sites



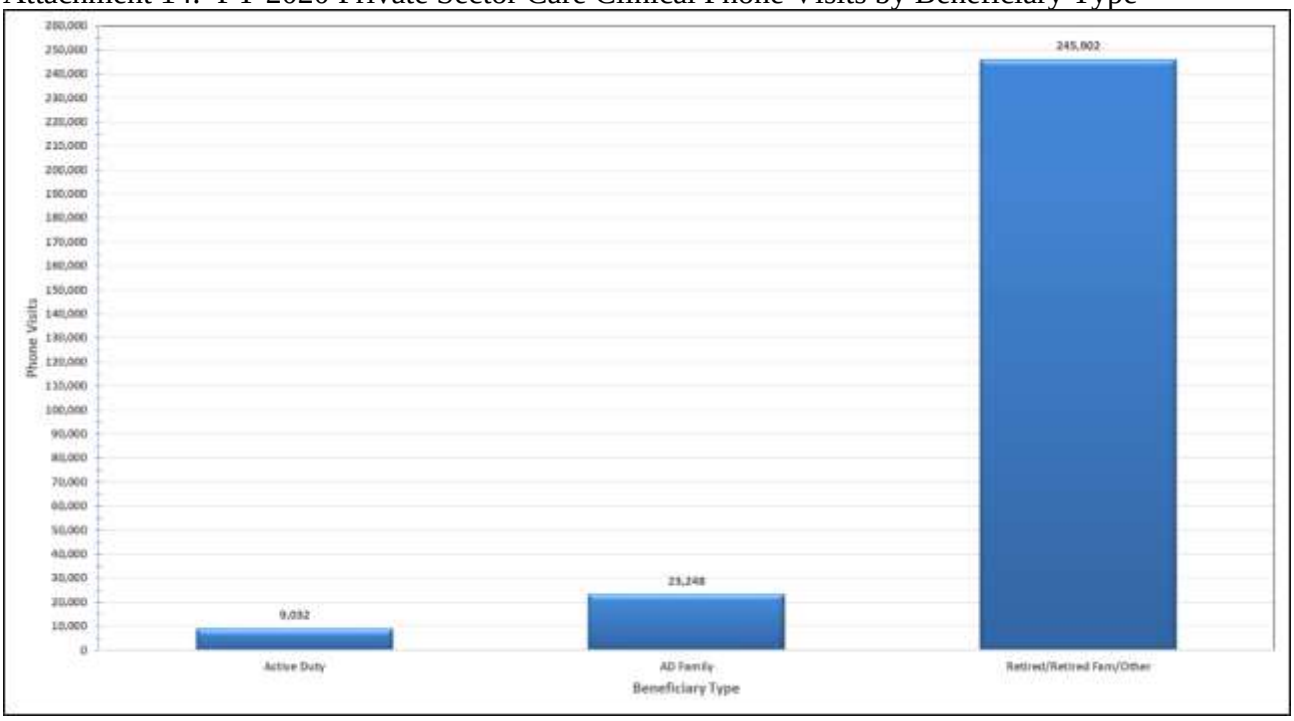
Attachment 13: CRPM Summary Data 07 DEC 2020 – 25 APR 2021

CRPM SUMMARY DATA	
# of Patients Enrolled (Overall)	183
# of Active Patients Enrolled	30
Average Daily Census	20
Total # of Patients Discharged	150
Average # of Days Enrolled	15.7
# of Prevented Admissions	61
# of Enrollments Decreasing Patient Bed-Days (Based on provider estimate)	112
Total # of Patient Bed-Days Saved (Based on provider estimate)	359
# of COVID+ Patients	160
% of COVID+ Patients	87%

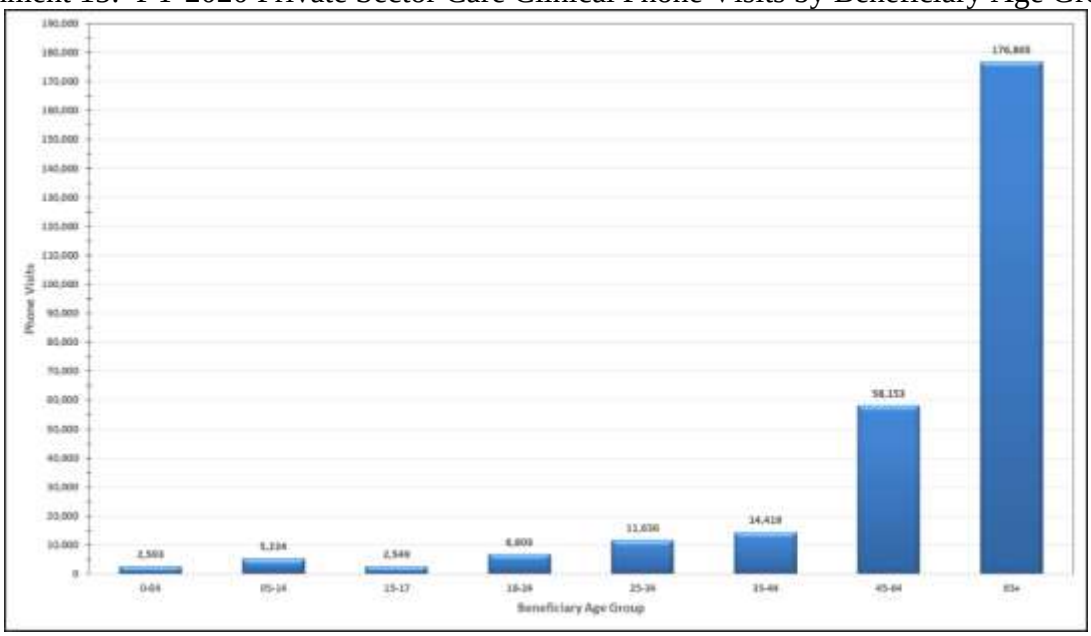
CRPM SUMMARY DATA	
# of Patients Referred back to MTF/ER for a Higher Level of Care	43
# Readmitted to the Hospital	20
# Admitted to the ICU	3
Average # of Days Being Monitored Prior to Return to MTF	8.4
# of patients re-enrolled in the pilot after readmission discharge from the hospital	32
% of Patients Enrolled Referred Back to MTF	23%
Total Net Cost Savings To Date (Variable Cost Savings - Total Expenses)	$534,987.43
Net Return on Investment (A net ROI above zero reflects savings (i.e., a positive ROI))	0.97
% of COVID+ Patients	87%

ENROLLMENT BY MTF	
BAMC	62
CRDAMC	34
WRNMMC	26
NMCP	35
BACH	14
FBCH	7
NMCSD	3
NELLIS AFB	2
MAMC	0
TRAVIS AFB	0

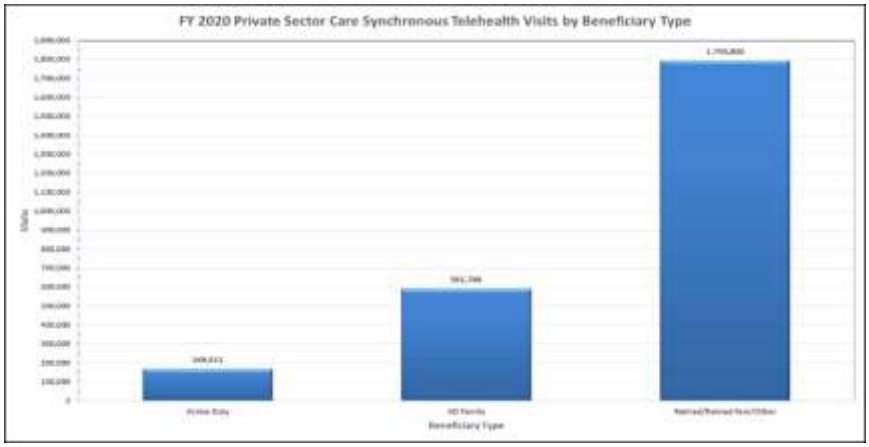
Attachment 14: FY 2020 Private Sector Care Clinical Phone Visits by Beneficiary Type



Attachment 15: FY 2020 Private Sector Care Clinical Phone Visits by Beneficiary Age Group



Attachment 16: FY 2020 Private Sector Care Synchronous Virtual Health Visits by Beneficiary Type



Attachment 17: FY 2020 Private Sector Care Synchronous Virtual Health Visits by Age Group