Defense Health Agency (DHA) Update on Virtual Health (VH) for Defense Health Board

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PERSONNEL AND READINESS

Agenda

- Definition of Telehealth/Virtual Health
- MHS VH Background
- Direct Care System (DC) VH Program
- Private Sector Care (PSC) VH Program
- COVID Impact on VH
- Future of VH Program within the MHS

Definition of Telehealth/VH

- The 2018 MHS VH Strategic Plan defined VH as “the use of telecommunications and information technologies to provide health assessment, treatment, diagnosis, intervention, consultation, supervision, education, and information across distances.”
- In the Military Health System (MHS), VH is not seen as it’s own service line, but rather a modality of care and a process supported by technology.

Background of VH in the MHS

- 2017 NDAA. Section 718 required expansion of telehealth across the DoD's DC system and PSC network, and directed the following:
  - (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
  - (f) reduce DoD and beneficiary health care costs where possible

Background of VH in the MHS

- 2018 MHS virtual Health Strategic Plan was the first effort to combine MILDEP and DHA VH efforts into a coordinated global MHS VH approach to care.
- The transition of the Virtual Medical Center (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) was critical to the success of enterprise VH expansion.
- The red dots on the map indicate the nodes of the VMC.

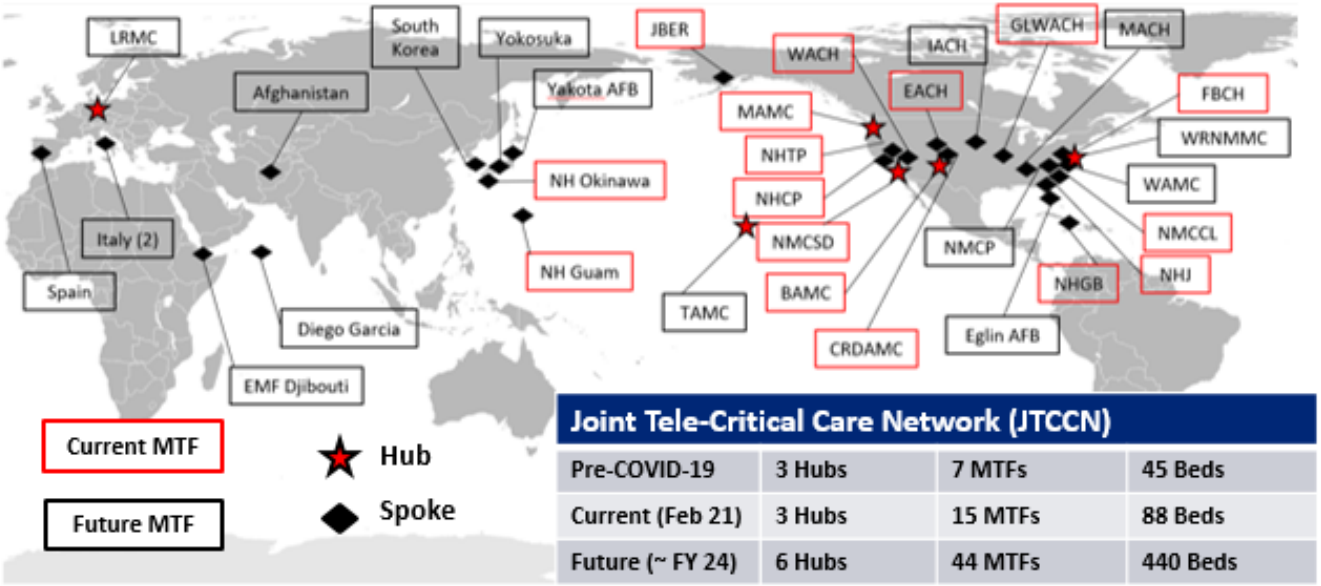
VH in the Direct Care (DC) System

- DHA is investing $76M in FY22 in VH capabilities including people, technology and training.
- The DC system VH program is organized into three main types of capabilities:
- **1) Patient-to-Provider:** Patient-to-provider capabilities include both synchronous (real-time) and asynchronous (store-and-forward) capabilities.
  - Synchronous capabilities include telephone visits, video visits, the Virtually Integrated Patient Readiness and Remote Care Clinic (VIPRR), Tele-Behavioral Health (TBH) and Tele-Dental consultation.
  - Asynchronous (store-and-forward) capabilities include secure messaging in the TRICARE On-Line (TOL) and MHS GENESIS Patient Portal and the Global Nurse Advice Line (NAL).

VH in the Direct Care (DC) System

- The DC system VH program is organized into three main types of capabilities (Continued):
- **2) Provider-to-Provider:** Provider-to-Provider capabilities include the synchronous Advanced Virtual Support for Operational Forces system (ADVISOR) and the asynchronous Global Teleconsultation Portal (GTP). Other capabilities include Mobile Medic and synchronous/asynchronous consultation such as Tele-Radiology.
- **3) Complex, Real-Time Monitoring**: Complex, real-time monitoring capabilities include Tele-Critical Care and Remote Patient Monitoring (RPM).

Complex Real-Time Monitoring: Tele-Critical Care (TCC)



Joint Tele-Critical Care Network (JTCCN)			
Pre-COVID-19	3 Hubs	7 MTFs	45 Beds
Current (Feb 21)	3 Hubs	15 MTFs	88 Beds
Future (~ FY 24)	6 Hubs	44 MTFs	440 Beds

Standardization of best practice (**quality**)

Increase network recapture (**cost savings**)

Higher acuity, complexity, and volume at spoke sites (**readiness**)

On-demand operational VH for warfighter (**lethality**)

- The MHS uses TCC capabilities to extend critical care intensivist expertise 24 hours a day, seven days a week remotely to MTF Intensive Care Units (ICUs), which lack full-time critical care.
- TCC capabilities result in MTFs being able to provide care to more complex patients, which increases case mix and enhances readiness skills of the entire MTF healthcare team.
- Furthermore, TCC avoids unnecessary network admissions (purchased care costs).

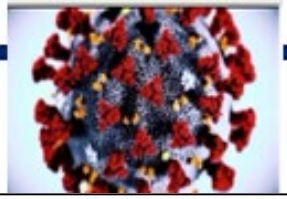
Provider-to-Provider: ADVISOR

- Advanced Virtual Support for Operational Forces system (ADVISOR) provides world-wide operational forces with 24/7 urgent/emergent on-demand and real-time VH access consultation with specialty providers.
- Operational providers access ADVISOR by a toll-free VMC telephone number. The VMC ADVISOR operators connect the operational providers to specialists.

Training

Provides Prolonged Field Care training for Deployed/ Deploying military units; with non-operational ADVISOR Providers.

Covid-19



Provides DoD Garrison MTFs with consultation support for COVID-19 Pandemic: critical care, infectious disease, pediatric infectious disease, pediatric critical care, palliative care

Operations

Critical Care	Hematology
Trauma	OB/GYN
Ortho	Veterinary MWD
Toxicology	Burn
Pediatrics	Emergency Department
Dental	Chemical Casualty Care
Infectious Disease	Ophthalmology

Patient-to-Provider: VIPRR

- VIPRR is the Virtually Integrated Patient Readiness and Remote Care Clinic.
- The VIPRR Clinic is a synchronous VH capability implemented by the Army in 2016 to enhance readiness for Soldiers located remotely without organic Army medical support in Europe, the Middle East, and Africa.

VIPRR
VIRTUALLY INTEGRATED PATIENT READINESS AND REMOTE CARE CLINIC

- Currently, VIPRR provides synchronous Personal Health Assessments (PHAs), Pre- and Post-Deployment Health Assessments, Post-Deployment Health Reassessments and other readiness health services for ADSMs for all Uniformed Military Services.
- The VIPRR clinic fills a critical gap by providing the exams virtually, thus VIPRR saves remote Service members hours of travel time and costs associated with avoiding travel to the nearest MTF.
- VIPRR is expanding primary care capacity and capability.

Patient-to-Provider: VIPRR

DHA VIPRR Clinic Data* (Thru FY 2021 Complete)

Patient Enrollment Site

Site Search Bar: All

Not Reported	EASTERN EUROPE	3
	NONE	5,097
ACH BASSETT-WAINWRIGHT	ACH BASSETT-WAINWRIGHT	7
	KAMISH CLINIC-WAINWRIGHT	1,331
	THC RICHARDSON	492
ACH BAYNE-JONES-POLK	ACH BAYNE-JONES-POLK	326
	FONTAINE TROOP MED CLINIC-POLK	3,602
	SCMH PATRIOT BRIGADE-POLK	3,008
ACH BLANCHFIELD-FT CAMPBELL	ACH BLANCHFIELD-FT CAMPBELL	7
	AHC ROCK ISLAND ARSENAL	8
	AVIATION MEDICINE-FT CAMPBELL	49
	BYRD HEALTH CLINIC-FT CAMPBELL	44
	CBMH SCREAMING EAGLE-CAMPBELL	1
	LA POINTE HLTH CLINIC-CAMPBELL	101
ACH BRIAN D ALLGOOD-PYEONGTAEK	ACH BRIAN D ALLGOOD-PYEONGTAEK	23
	AHC CAMP CASEY-TONGDUCHON	

Patient UIC

Search UIC: All

W4W6AAFC	1,000
N0023218	854
DM1LFCQ4	670
SP1CFNK6	642
DM1LFCPG	598
DM1LFCSD	591
SP1CFHK9	518
N4115060	513
DM1LFCS7	480
SP1CF901	455
W0U91FTC	454
Unknown	

*VIPRR Clinic Data is challenging to maintain accuracy due to using a shared DMIS ID with Mchwethy Troop Medical Clinic, several other units booking visits under our MEPRS code (MEDCoE COVID-19 response as an example), and high provider turnover. The current data was pulled using provider NPI's and then further refined prior to analysis, as such there may be slight inaccuracies. Data Source: M2 CAPERS Detail

Other	433
Air Force	7,333
Army	54,372
Coast Guard	123
Foreign Military	4
Marines	4,502
Navy	14,633
Public Health	2

FY 2020	29,260
FY 2021	52,018
VIPRR Totals	81,278

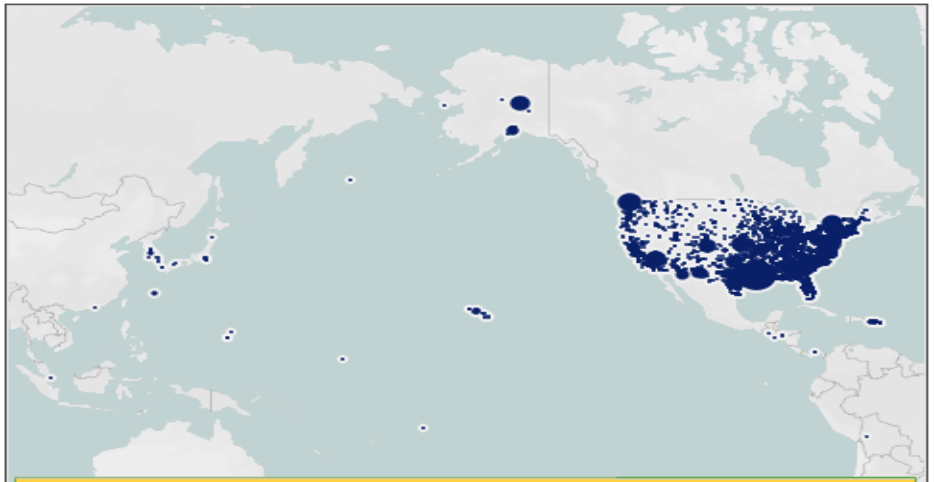
Sites Supported: 160

Sponsor Service: All

Fiscal Year: All

Fiscal Month: All

Specific Date: All



Tricare Status Not Captured	11,174
Tricare Prime Members	60,260
Tricare Prime Remote Service Members	9,968

Private Sector Care (PSC) VH Program

- 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:

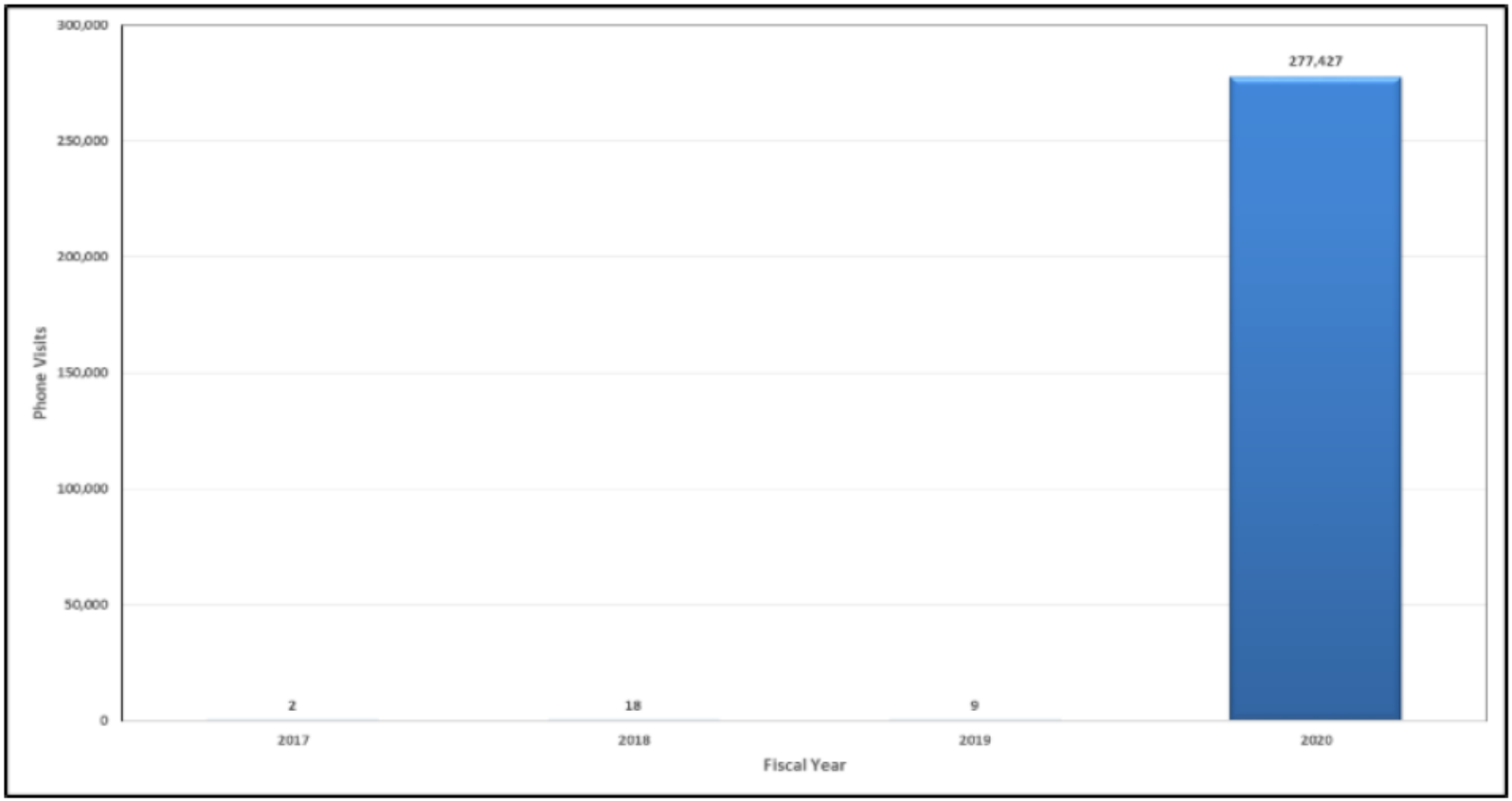
- VH expansion of “use of telecommunications systems” to “provide diagnostic and treatment services for otherwise covered TRICARE benefits when such services are medically or psychologically necessary and appropriate medical care”.

- Payments for services rendered via synchronous telemedicine were placed on the same basis “as when these services are furnished without the use of an interactive telecommunications system”.

- Prior to the TPM changes, copay or cost-sharing eligible beneficiaries were required to cost-share / copay at both the patient originating site and the provider distant site. 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”.

PSC VH Program

- 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 2019.



PSC VH Program

- See utilization of video per specialty below, which increased in all specialties with most Private Sector Care video care utilization in primary care, followed by psychiatry and neurology.

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 VH Program: Doctors on Demand

- The telemedicine services made available through Doctor on Demand are provided by licensed physicians practicing within a group of independently owned professional practices collectively known as “Doctor on Demand Professionals.” These professional practices provide services via the Doctor on Demand telemedicine platform.

- Active duty service members need a referral before getting care under the telemedicine benefit. TRICARE Prime active duty family members and retirees do not need a referral or authorization.

- Doctors On Demand offers urgent care and behavioral health psychology/psychiatry services and is available over smartphones, tablets or computers.

COVID Impact on VH

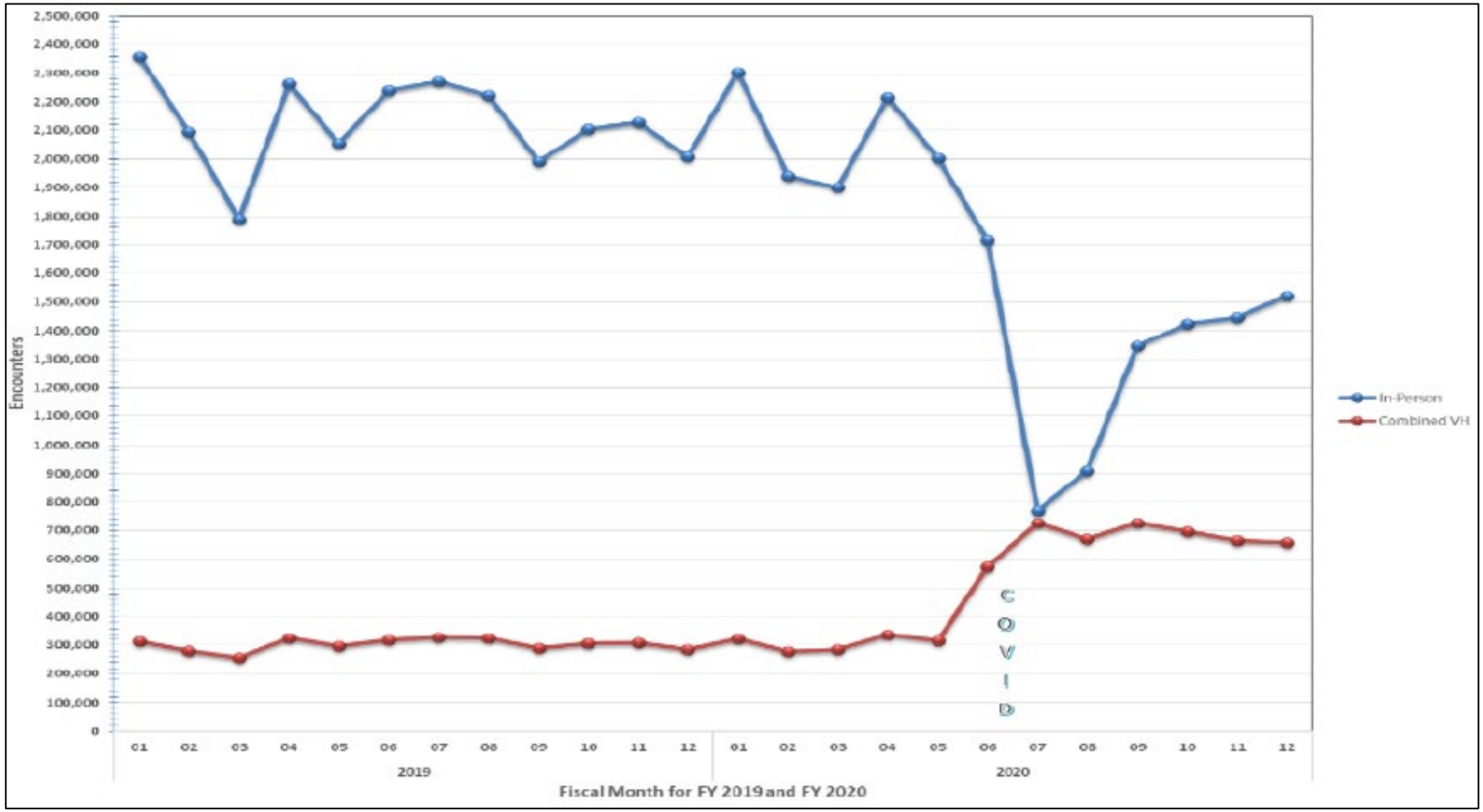
- The MHS experienced rapid growth in the use of VH capabilities, catalyzed by the COVID-19 pandemic. The MHS is leveraging lessons learned during the pandemic to expand VH programs, acquire effective technology and develop standard workflows to resolve challenges and increase adoption by beneficiaries 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 4 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 TRICARE contract changes, 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.

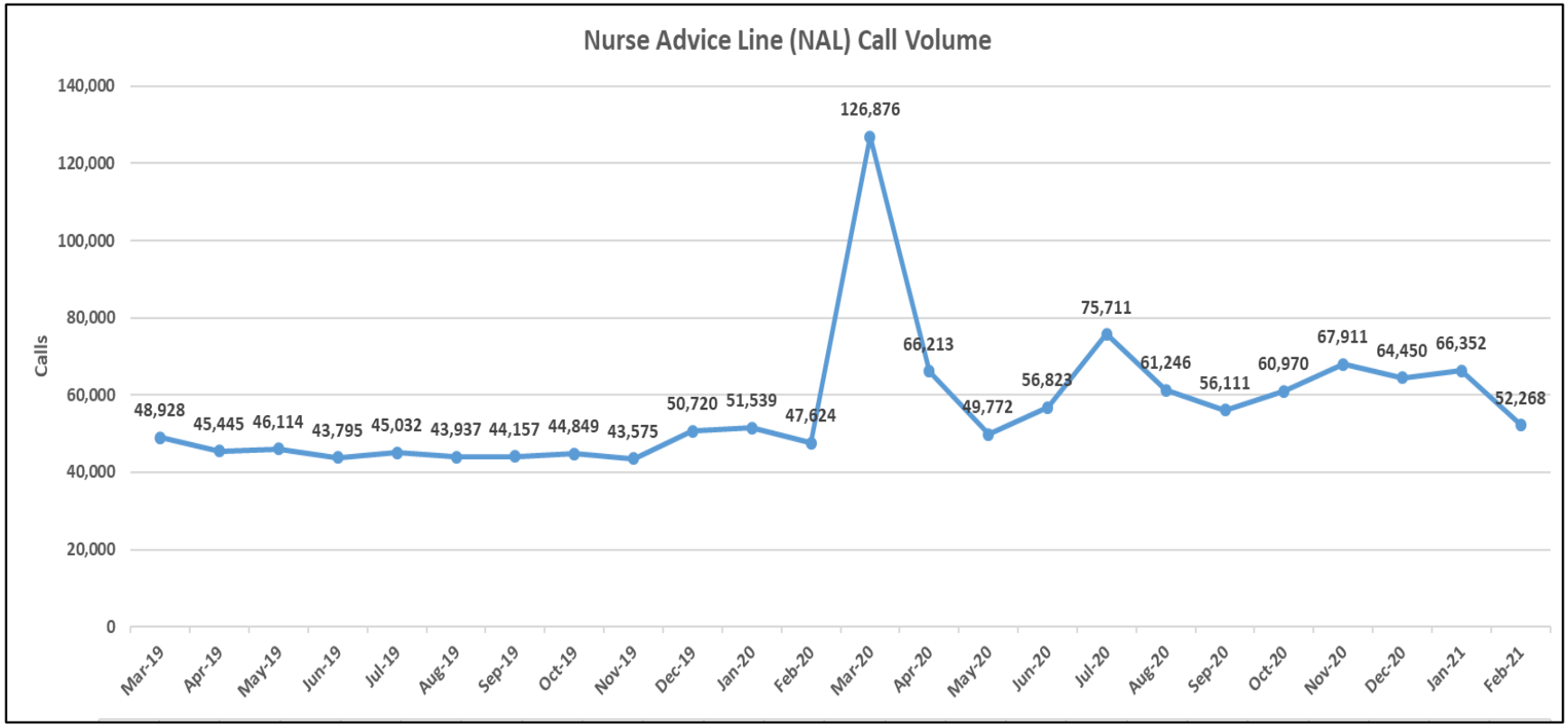
COVID Impact on VH

- DC In-person (blue) vs. VH (red) encounters at the beginning of the pandemic.



COVID Impact on VH

- 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 healthcare, based on the caller's symptoms. This graph shows the impact on NAL utilization at the pandemic's beginning.



Direct Care Appointing and Scheduling

- **DHA COVID-19 guidance** established standard appointing and scheduling processes to encourage use of VH phone/video visits
  - DHA guidance did not limit the number of VH visits MTFs scheduled in templates and based it on provider judgment.
  - Allowed beneficiaries to schedule VH visits through centralized appointing, on patient portals and the Nurse Advice Line.
  - **VH acute care visits** with VIPRR providers available through MTF appointment desks
  - At height of the pandemic, percent of visits done virtually increased:
    - **Primary Care**: up to 70%
    - **Behavioral Health**: up to 60%
    - **Other Specialty Care**: up to 20%
- DHA will continue increasing access by leveraging VH capabilities to meet patient needs when clinically appropriate; demand for VH is approximately **15-20 percent**, consistent with the civilian industry.

Future of VH Program within the MHS

- To facilitate VH implementation, the MHS is standardizing workflows, integrating capabilities into the EHR as feasible and is addressing policy gaps to eliminate obstacles and make the right way, the easy way. In support of MHS strategy, DHA is focusing on standardized integration and use of all VH capabilities and is prioritizing implementation of **MHS Video Connect**, **TCC**, **Tele-Radiology**, and **Tele-Behavioral Health** (TBH).

Future of VH Program within the MHS

- **MHS Video Connect** is the new enterprise Virtual Video Visit capability integrated into the new electronic health record (EHR), MHS GENSIS. MHS Video Connect is a commercial platform and uses agile industry development processes to iteratively identify, develop, test and field updates to meet evolving user requirements, environmental changes and industry/technology advances. The MHS has deployed MHS Video Connect to all CONUS MTFs December 2021 and is projected to complete expansion to OCONUS sites by the end of FY 2022.

Future of VH Program within the MHS

- The MHS plans to expand **TCC** capabilities to operational environments to provide expertise at the point of injury, during enroute care, and higher care echelons via synchronous audio video communications, advanced monitoring, decision support tools and care coordination throughout the continuum of care. The MHS is acquiring a consolidated, single user interface solution for clinical decision support, which enables audiovisual connectivity, integration of patient bio-physiologic data with the EHR, predictive analytics like multi-parameter alerting, and quality data management. To standardize processes and optimize TCC capabilities, the MHS is coordinating a DHA Procedures Manual for all military MTFs and Markets.

Future of VH Program within the MHS

- The MHS is expanding and standardizing an enterprise **Tele-Radiology** approach in order to serve the Joint Warfighter and beneficiaries. This initiative is informed by best practices from the US Air Force to develop an enterprise imaging home within DHA healthcare information technology, which will be integrated into MHS GENESIS. The desired end state is a system that enables every image taken in the MHS the ability to be stored, archived, retrieved, searched, and viewed across the enterprise. Furthermore, artificial intelligence can assist providers with clinical decision support, image interpretation, workflow management, and predictive medicine.

Future of VH Program within the MHS

- In order to meet access needs of MHS beneficiaries, DHA will be launching a new, centralized **TBH** enterprise solution to supplement care for military MTF-based providers at the end of FY 2022. This solution will provide 60,000 TBH appointments annually to all MILDEPS in both CONUS/OCONUS and operational/garrison domains for ADSMs. The MHS is exploring expansion of TBH capabilities also to provide care to AD Family Members on a space available basis.

- Finally, 17 VH initiatives have been added to DHA's FY 2022-2026 Campaign Plan, which will keep the VH progress at the forefront of DHA leadership.

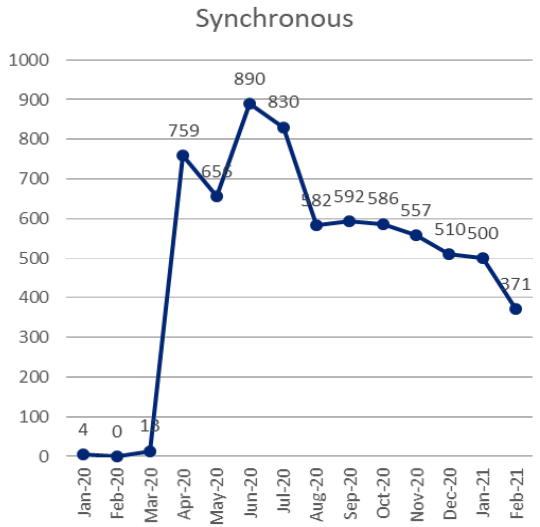
Conclusion

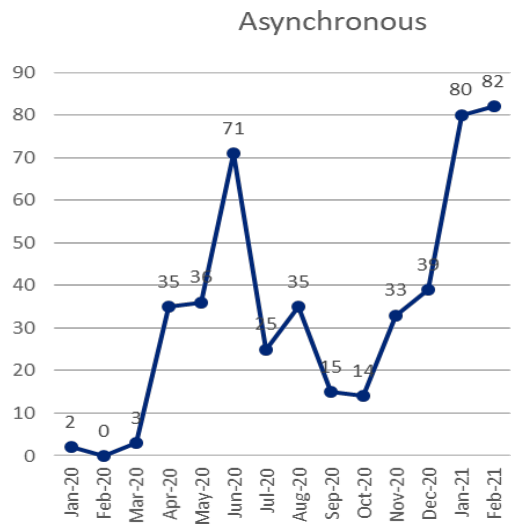
- To facilitate VH implementation, the MHS is standardizing workflows, integrating capabilities into the EHR as feasible and is addressing policy gaps to eliminate obstacles and make the right way, the easy way.
- While VH will never replace face-to-face healthcare, MHS VH implementation plans will optimize the readiness profile of the MHS, support the medical readiness of the force, improve health outcomes, enhance access to care and reduce unnecessary healthcare costs.
- The MHS will continue to leverage VH technologies optimally to meet demand for care locally, regionally and globally.

Back-Up Slides

Tele-Dentistry

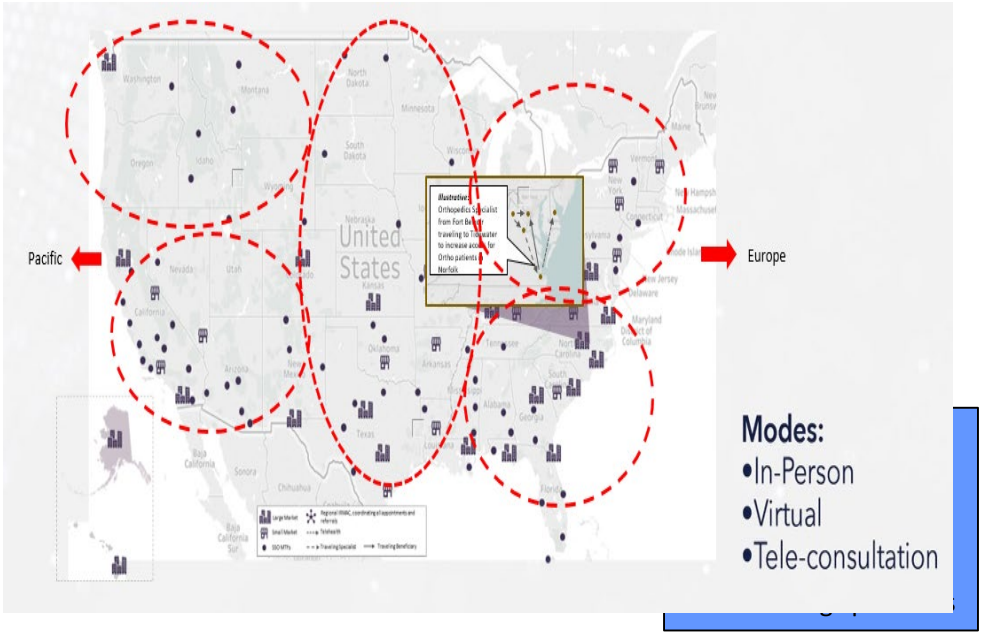
- Enables dentists/dental specialists to **provide advice, consultation, and triage** for patients with certain dental conditions and concerns, which is not a substitute for readiness exams and/or definitive treatment but a valuable option in the dental care portfolio
- Aids **COVID-19 compliance** with social distancing guidelines, preserves Personal Protective Equipment and minimizes patients seeking dental care at emergency departments
- Provides **patient care and education** through synchronous and asynchronous means
- Tele-dentistry will continue to be **utilized in the future** to provide the noted services saving patient/provider time, clinical space/time and materiel.





VH Capabilities Match Resources to Meet Patient Demand Locally, Regionally and Globally

- **Integrated Referral Management and Appointing Center (IRMAC)** implementation is underway across direct care to centralize and standardize appointing and specialty referral processing, reduce ***unnecessary Private Sector Care costs*** and to conduct ***intra/inter-regional care coordination***, in partnership with Product Line Optimization in support of DHA Priorities.
- Market IRMACs will be organized into geographic "hubs" to leverage optimized ***specialty care*** **appointment supply to meet patient demand** for care locally, regionally and globally using virtual health capabilities, traveling specialists and traveling patients.



VH and GME

- The Accreditation Council for Graduate Medical Education (ACGME) has explicitly **permitted Virtual Health** (called Telemedicine by the ACGME) in GME since 18 March 2020.
  - The **supervising physician** remains ultimately responsible for the care of the patient regardless of VH or in-person appointment.
  - **Supervision must still occur** in VH appointments, but may occur through “appropriate telecommunication technology.”
  - Specialties have not specified the proportion of VH that is “too much” during GME.
    - Family Medicine (FM): ACGME FM Review Committee reviewing “how to manage telehealth in the next iteration of program requirement revisions.”

VH Funding

- The purpose of this slide is to demonstrate the DHA VH FY2021-2025 funding by Budget Activity Group (BAG), which will support implementation of VH capabilities into the healthcare delivery model. This information is provided for situational awareness, only.

Estimated FY21-25 VH Controls ($K)						
Appropriation	FY21	FY22	FY23	FY24	FY25	Total
BAG 1	63,288	72,565	77,948	68,151	70,778	352,730
BAG 4	2,879	2,997	3,002	3,062	3,123	15,063
BAG 7	323	60	9	9	9	410
TOTAL	66,490	75,622	80,959	71,222	73,910	368,203
NAVY POM	3,500	3,500	3,500	0	0	10,500

- FY26 controls are expected to be a 2% increase from FY25 if execution is met. Navy POM funding expected to end in FY23.

Remote Patient Monitoring (RPM) Pilot

Outcomes (7 Dec 20 – 21 Feb 21):

- ❑ 92 Total Enrollments (29 current, 63 discharged)
- ❑ 40 prevented admissions
- ❑ 164.5 patient bed-days saved (> $854,000 estimated savings)

- VMC developed & coordinated
- Initiated 7 Dec 20
- 10 MTFs in CONUS
- Goals
  - ❑ Early identification of clinical deterioration
  - ❑ Decrease # and length of inpatient admissions
  - ❑ Reduce inpatient admissions from Emergency Department
  - ❑ Reduce staff and patient exposure risk

Remote Patient Monitoring*

- ***Time-limited, Continuous***
- ***SPO_2 HR, Temp, BP,***
- ***Peak Flow & Movement***

*Video connection to home, and cellular built-in for safety

Virtual Medical Center (VMC)

Virtual Behavioral Health (VBH)

Synchronous

- ❑ Worldwide - MTF & Operational
- ❑ 27.6K encounters (FY 20)
- ❑ 3 Hubs/32 Clinical FTEs

Virtually Integrated Patient Readiness & Remote (VIPRR) Clinic

Synchronous

- ❑ ***#1 Provider PHAs in MHS by 2-fold***
- ❑ 28K encounters (FY 20)
- ❑ 60K (projected FY 21)
- ❑ Remote units, isolated SMs
- ❑ Travel avoided ~ 1,024 miles

Advanced Virtually Support of Operational Forces (ADVISOR) *Synchronous*

- ❑ Support front line providers/medics
- ❑ 13 specialties, including Veterinary & Dental
- ❑ Expanded support to garrison:

o Critical Care o Infectious Disease o Nurse Advice Line
o Peds/Infectious Disease o Palliative Care o Urgent Care

Global Teleconsultation Portal (GTP)

Asynchronous ("store-and-forward")

- ❑ Specialty consultation for front-line providers
- ❑ 90 subspecialties w/24-72 hour turn around time
- ❑ Field consultation and multi-modal transport
- ❑ Reduced transports (better care, saving time & cost)
- ❑ Will expand to Primary Care providers in MTFs

Mobile Medic/Connected Corpsman (MM/CC) *Synchronous*

- ❑ Mobile Medic Triage: 4,450 (2018) - 5,609 (2019) - 2,264 (2020)
- ❑ Connected Corpsmen: 4,971 (presented) and 2,339 (treated) in 128 weeks

Conducts Telemedicine Privileging by Proxy **(TPbP)**

VH Joint Patient Safety Reports **(JPSR)** monitoring

Tele-Critical Care (TCC) Evidence-Based Literature

- The articles below are provided by DHA subject matter experts for further reading and reference; however, these articles may not represent the official position of the DoD and are not officially endorsed by the DoD. The articles are offered for situational awareness, only.

- MHS Results::
- **Successful Implementation of Low-Cost Tele-Critical Care Solution by the U.S. Navy: Initial Experience and Recommendations**
  - *CDR Konrad Davis, MC, USN; LT Alexandria Perry-Moseanko, MC, USN; CDR Matthew D. Tradlock, MC, USN; Nichole Henry, RN; LTC Jeremy Pamplin, MC, USA*
  - Increased volume & acuity of patient admissions decreased disengagements to network, care was safe (actual vs predicted mortality)
  - BCA identified **ROI of 16%**
- **Implementation of Tele-Critical Care at General Leonard Wood Army Community Hospital**
  - *CPT Robert D. McLeroy, MC, USA; John Ingersoll; COL (ret) Peter Nielsen, MD; COL Jeremy Pamplin, MC, USA*
  - Increased volume and acuity of patient admissions, decreased disengagements to network, care was safe (actual mortality vs. predicted), positive staff satisfaction scores
  - $233K cost savings with ROI of 19%
- Decreased Cost
  - ❑ Lilly C, Thomas E. Tele-ICU: Experience To Date. J Intensive Care Med. 2009;25(1):16-22. doi:10.1177/0885066609349216
  - ❑ Fifer S, Everett W, Adams M, et al. Critical care, critical choices: the case for tele-ICUs in intensive care. Cambridge (MA): Massachusetts Technology Collaborative; New England Healthcare Institute; 2010.
- Decreased LOS
  - Lilly C, Thomas E. Tele-ICU: Experience To Date. J Intensive Care Med. 2009;25(1):16-22. doi:10.1177/0885066609349216
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- Decreased mortality
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  - Zawada ET Jr, Herr P, Larson D, et al. Impact of an intensive care unit telemedicine program on a rural health care system. Postgrad Med 2009;121:160–70.
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