UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

The Honorable Howard P. "Buck" McKeon
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

OCT 7 2014

Dear Mr. Chairman:

The enclosed report responds to section 702 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66), which requires the Secretary of Defense to submit to the congressional defense committees a report on the use of telemedicine to improve the assessment and treatment of Posttraumatic Stress Disorder, Traumatic Brain Injuries (TBIs), and Mental Health conditions no later than 270 days after enactment.

The Department of Defense (DoD) views telemedicine as an important set of tools to improve access to Psychological Health (PH) and TBI care services in both deployed and non-deployed settings. Substantial PH/TBI telemedicine activity occurs within the DoD. There is some activity in all military Services, but Service, beneficiary, and geographic distribution of PH/TBI telemedicine care remains uneven. Accordingly, at the direction of the Military Health System senior leadership, efforts are ongoing to improve Department-wide coordination and planning to better capitalize upon the opportunities enabled by telemedicine.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

Jessica L. Wright

Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

OCT 7 2014

The Honorable Barbara A. Mikulski
Chairwoman
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Madam Chairwoman:

The enclosed report responds to section 702 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66), which requires the Secretary of Defense to submit to the congressional defense committees a report on the use of telemedicine to improve the assessment and treatment of Posttraumatic Stress Disorder, Traumatic Brain Injuries (TBIs), and Mental Health conditions no later than 270 days after enactment.

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Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

for Jessica L. Wright

Enclosure:
As stated

cc:
The Honorable Richard C. Shelby
Vice Chairman

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

OCT 7 2014

The Honorable Carl Levin
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

Jessica L. Wright

Enclosure:
As stated

cc:
The Honorable James M. Inhofe
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND
READINESS

The Honorable Harold Rogers
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

OCT 7 2014

Dear Mr. Chairman:

The enclosed report responds to section 702 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66), which requires the Secretary of Defense to submit to the congressional defense committees a report on the use of telemedicine to improve the assessment and treatment of Posttraumatic Stress Disorder, Traumatic Brain Injuries (TBIs), and Mental Health conditions no later than 270 days after enactment.

The Department of Defense (DoD) views telemedicine as an important set of tools to improve access to Psychological Health (PH) and TBI care services in both deployed and non-deployed settings. Substantial PH/TBI telemedicine activity occurs within the DoD. There is some activity in all military Services, but Service, beneficiary, and geographic distribution of PH/TBI telemedicine care remains uneven. Accordingly, at the direction of the Military Health System senior leadership, efforts are ongoing to improve Department-wide coordination and planning to better capitalize upon the opportunities enabled by telemedicine.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

Jessica L. Wright

Enclosure:
As stated

cc:
The Honorable Nita M. Lowey
Ranking Member

REPORT TO CONGRESS

National Defense Authorization Act for Fiscal Year 2014, Section 702(b) Use of Telemedicine to Improve the Diagnosis and Treatment of Posttraumatic Stress Disorder, Traumatic Brain Injuries, and Mental Health Conditions

September 2014

The estimated cost of this report or study for the Department of Defense is approximately $13,000 for the 2014 Fiscal Year. This includes $0 in expenses and $13,000 in DoD labor

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Executive Summary

- The Department of Defense (DoD) submits this report in accordance with section 702(b) of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2014, P.L. 113-66, which requires the Secretary of Defense to submit a report to the congressional defense committees on the use of telemedicine to improve the diagnosis and treatment of Posttraumatic Stress Disorder (PTSD), Traumatic Brain Injuries (TBI), and mental health (MH) conditions.
- Substantial psychological health (PH)/TBI telemedicine (hereafter referred to as "telehealth") activity occurs within the DoD. There is some activity in each Service, with Army-sponsored beneficiaries receiving most of this care.
- The majority of recipients of FY 2013 Direct Care PH/TBI telehealth services were Active Duty Service members, including National Guard and Reservists on Active Duty, whereas other beneficiary categories (including dependents, retirees, TRICARE-Reserve beneficiaries not in Active Duty status, and others), in the aggregate, comprised the majority of recipients of FY 2013 Purchased Care PH/TBI telehealth services.
- The availability, beneficiary demand, and geographic distribution of telehealth services across the Military Health System (MHS) are uneven.
- While MHS PH/TBI telehealth efforts are significant, they still constitute a small percentage of overall PH/TBI service delivery. The potential for coordinated growth of PH/TBI telehealth is substantial.
- Progress has been made in DoD and Department of Veterans Affairs (VA) joint telehealth planning, sharing of education and training information, and development of small demonstration projects. Work progresses on development of enterprise level processes to support larger joint DoD/VA PH/TBI telehealth initiatives.
- The MHS views telehealth as an important set of tools to improve access to PH/TBI care, as well as a range of other healthcare services, for beneficiaries in deployed and non-deployed settings. As telehealth services develop, they enhance the Department's readiness to deliver the right care, in the right place, at the right time.
- MHS senior leaders fully support the continued development of telehealth across the DoD healthcare enterprise. Accordingly, the Assistant Secretary of Defense for Health Affairs (ASD(HA)) sponsored a Telehealth Strategic Planning Forum in September 2013 and, subsequently, chartered a Telehealth Integrated Product Team to develop a plan for MHS telehealth growth.
- Processes are currently being developed to integrate needs assessment and planning, identify needed information management and information technology infrastructure improvements, increase collaboration, improve the telehealth training of clinicians and support staff, and support healthcare needs in both non-deployed and deployed settings.

Introduction

Section 702 of the National Defense Authorization Act for Fiscal Year (FY) 2014, P.L. 113-66, requires the Secretary of Defense to submit a report to the congressional defense committees on the use of telemedicine (hereafter referred to as "telehealth") to improve the diagnosis and treatment of Posttraumatic Stress Disorder (PTSD), Traumatic Brain Injury (TBI), and mental health (MH) conditions.

Telehealth, the use of technology to provide healthcare, consultation, and education to beneficiaries and providers at a distance, has been a component of Department of Defense (DoD) healthcare for over 20 years. Use of telehealth to meet the needs of beneficiaries with psychological health (PH) and TBI issues has grown substantially over the course of Operation ENDURING FREEDOM and Operation IRAQI FREEDOM.

Current Status

DIRECT CARE NETWORK

Nearly all of the approximately 30,000 FY 2013 "real-time" (i.e., videoconferencing-based) telehealth encounters in the Military Health System (MHS) Direct Care Network (hereafter referred to as "Direct Care") were for PH-related issues, with PTSD accounting for approximately 20 percent of PH-related telehealth. Care of individuals with TBI accounted for approximately 400 telehealth encounters (approximately 1.3 percent). The individual Service medical commands have each developed telehealth services, with most services being provided to Army beneficiaries (Table 1). As seen in Table 2, Army clinicians accounted for most "real-time" FY 2013 Direct Care PH or TBI telehealth encounters and provided some telehealth support for beneficiaries of other Services as well as their own. Appendix A provides a qualitative description of telehealth activities, including telehealth for PH and TBI, among the Service medical commands (pages 33-37 of this report, corresponding to pages 15-19 of the Appendix A).

In FY 2013, more than 83 percent of Direct Care PH/TBI telehealth care was provided to Active Duty Service members (hereafter referred to as "Service members"), including members of the National Guard and Reserve on Active Duty. Services to dependents, retirees, and other non-Active Duty Service member beneficiaries accounted for the rest (Table 3). On average, recipients of Direct Care TBI telehealth services had slightly less than two TBI telehealth encounters in FY 2013. Similarly, PH telehealth recipients had slightly less than three PH telehealth encounters on average. The subgroup of PH telehealth recipients receiving care for PTSD, however, had an average of nearly five PTSD telehealth encounters during the fiscal year (Table 4).

DEPLOYED CARE

Army has developed a "real-time" tele-behavioral health capability in the Afghan and, previously, Iraqi theaters, with over 1,300 encounters recorded in FY 2013 (Table 5).

Table 1: Fiscal Year 2013 "Real-time" Telehealth Workload for the Military Health System Direct Care Network: Breakout by Military Service Affiliation of the Sponsor (Including Self)

Measure	Beneficiary – Service Affiliation of Sponsor (Including Self)						MHS Direct Care Totals	% of Total PH or TBI "Real-time" Telehealth	% of All "Real-time" Telehealth
	Air Force	Army	Coast Guard	Marines	Navy	Other			
All "Real-time" TH Encounters	995	28,036	222	480	1,006	225	30,964	-----	100.00%
All "Real-time" TH Patients	334	11,018	42	151	279	103	11,927	-----	100.00%
All Non-PH/TBI TH Encounters	66	1,042	8	14	40	32	1,202	-----	3.88%
All Non-PH/TBI TH Patients	58	756	7	12	34	19	886	-----	7.43%
PTSD TH Encounters	86	5,636	44	56	70	48	5,940	19.96%	19.18%
PTSD TH Patients	35	1,115	6	28	14	20	1,218	11.03%	10.21%
TBI TH Encounters	5	357		13	7	11	393	1.32%	1.27%
TBI TH Patients	5	189		7	2	5	208	1.88%	1.74%
All PH TH Encounters	928	26,920	214	464	966	190	29,682	99.73%	95.86%
All PH TH Patients	275	10,218	35	138	245	83	10,994	99.57%	92.18%
Dual Diagnosis PH & TBI TH Encounters	4	283		11	7	8	313	1.05%	1.01%
Dual Diagnosis PH & TBI TH Patients	4	143		6	2	4	159	1.44%	1.33%
Total PH or TBI TH Encounters	929	26,994	214	466	966	193	29,762	100.00%	96.12%
Total PH or TBI TH Patients	276	10,262	35	139	245	84	11,041	100.00%	92.57%

Source: MDR ambulatory care database. Workload includes data captured through clinical coding and dedicated Army telehealth hub clinics (duplications removed).
Note: The "Other" Beneficiary Service Affiliation category includes all Direct Care telehealth service recipients whose Service affiliation was other than one of the listed categories, or could not be determined. "All 'Real-time'" includes all real-time telehealth encounters whether for PH, TBI, or another medical condition. "All Non-PH/TBI" includes all real-time telehealth encounters for medical issues other than PH or TBI. "All PH" includes all real-time telehealth encounters (individual or group) with a non-TBI PH diagnosis, including PTSD. "Dual Diagnosis PH & TBI" includes all real-time telehealth encounters with both TBI and another PH diagnosis. "Total PH or TBI" includes all real-time telehealth encounters with either TBI or another PH diagnosis, including PTSD.

Table 2: Fiscal Year 2013 "Real-time" Telehealth Workload for the MHS Direct Care Network: Breakout by Service Affiliation of the Provider

Measure	Service Affiliation of Provider				MHS Direct Care Totals
	Air Force	Army	National Capital Region	Navy	
All "Real-time" Telehealth Encounters	166	30,569	186	43	30,964
All "Real-time" Telehealth Patients	86	11,735	178	28	12,027
% of Total Real-time Direct Care Telehealth Encounters	0.54%	98.72%	0.60%	0.14%	-----
% of Total Real-time Direct Care Telehealth Patients	0.72%	97.57%	1.48%	0.23%	-----
All Non-PH/TBI Telehealth Encounters	1	990	186	25	1,202
All Non-PH/TBI Telehealth Patients	1	794	178	19	992
% of Total Non-PH/TBI Direct Care Telehealth Encounters	0.08%	82.36%	15.47%	2.08%	-----
% of Total Non-PH/TBI Direct Care Telehealth Patients	0.10%	80.04%	17.94%	1.92%	-----
PTSD Telehealth Encounters	41	5,889		10	5,940
PTSD Telehealth Patients	21	1,188		5	1,214
% of Total PTSD Telehealth Encounters	0.69%	99.14%	0.00%	0.17%	-----
% of Total PTSD Telehealth Patients	1.73%	97.86%	0.00%	0.41%	-----
TBI Telehealth Encounters		393			393
TBI Telehealth Patients		208			208
% of Total TBI Telehealth Encounters	0.00%	100.00%	0.00%	0.00%	-----
% of Total TBI Telehealth Patients	0.00%	100.00%	0.00%	0.00%	-----
All PH Telehealth Encounters	165	29,499		18	29,682
All PH Telehealth Patients	85	10,894		9	10,988
% of Total All PH Telehealth Encounters	0.56%	99.38%	0.00%	0.06%	-----
% of Total All PH Telehealth Patients	0.77%	99.14%	0.00%	0.08%	-----
Dual Diagnosis PH & TBI Telehealth Encounters		313			313
Dual Diagnosis PH & TBI Telehealth Patients		159			159
% of Dual Diagnosis PH & TBI Telehealth Encounters	0.00%	100.00%	0.00%	0.00%	-----
% of Dual Diagnosis PH & TBI Telehealth Patients	0.00%	100.00%	0.00%	0.00%	-----
Total PH or TBI Telehealth Encounters	165	29,579		18	29,762
Total PH or TBI Telehealth Patients	85	10,941		9	11,035
% of Total PH or TBI Telehealth Encounters	0.55%	99.39%	0.00%	0.06%	-----
% of Total PH or TBI Telehealth Patients	0.77%	99.15%	0.00%	0.08%	-----

Source: MDR ambulatory care database. Workload includes data captured through clinical coding and dedicated Army telehealth hub clinics (duplications removed).

Note: "All 'Real-time'" includes all real-time telehealth encounters whether for PH, TBI, or another medical condition. "All Non-PH/TBI" includes all real-time telehealth encounters for medical issues other than PH or TBI. "All PH" includes all real-time telehealth encounters (individual or group) with a non-TBI PH diagnosis, including PTSD. "Dual Diagnosis PH & TBI" includes all real-time telehealth encounters with both TBI and another PH diagnosis. "Total PH or TBI" includes all real-time telehealth encounters with either TBI or another PH, including PTSD

Table 3: Fiscal Year 2013 "Real-time" Telehealth Workload for the Military Health System Direct Care Network: Breakout by Beneficiary Category

Measure	% Active Duty Service Member (ADSM), including Activated National Guard & Reserves	% Other Beneficiary Categories
All "Real-time" Telehealth Encounters	82.60%	17.40%
All "Real-time" Telehealth Patients	85.72%	14.28%
All Non-PH/TBI Telehealth Encounters	62.15%	37.85%
All Non-PH/TBI Telehealth Patients	58.87%	41.13%
PTSD Telehealth Encounters	89.36%	10.64%
PTSD Telehealth Patients	67.42%	32.58%
TBI Telehealth Encounters	79.39%	20.61%
TBI Telehealth Patients	81.25%	18.75%
All PH Telehealth Encounters	83.43%	16.57%
All PH Telehealth Patients	87.83%	12.17%
Dual Diagnosis PH & TBI Telehealth Encounters	79.55%	20.45%
Dual Diagnosis PH & TBI Telehealth Patients	78.62%	21.38%
Total PH or TBI Telehealth Encounters	83.42%	16.58%
Total PH or TBI Telehealth Patients	87.86%	12.14%

Source: MDR ambulatory care database. Workload includes data captured through clinical coding and dedicated Army telehealth hub clinics (duplications removed). PH and TBI definitions based upon clinics and procedural and diagnostic coding.
Note: "% Other Beneficiary Categories" includes the total percentage of Dependents, Retirees, and other Non-ADSM Beneficiaries receiving Direct Care telehealth services. "'All 'Real Time'" includes all real-time telehealth encounters whether for PH, TBI, or another medical condition. "All Non-PH/TBI" includes all real-time telehealth encounters for medical issues other than PH or TBI. "All PH" includes all real-time telehealth encounters with a non-TBI PH diagnosis, including PTSD. "Dual Diagnosis PH & TBI" includes all real-time telehealth encounters with both TBI and another PH diagnosis. "Total PH or TBI" includes all real-time telehealth encounters with either TBI or another PH diagnosis, including PTSD.

Table 4: FY 2013 "Real-time" Telehealth Average Encounters per Patient for the Military Health System Direct Care Network

Measure	MHS Direct Care Totals	Average Number of Telehealth Encounters per Patient
All "Real-time" Telehealth Encounters	30,964	2.60
All "Real-time" Telehealth Patients	11,927	
All Non-PH/TBI Telehealth Encounters	1,202	1.36
All Non-PH/TBI Telehealth Patients	886	
PTSD Telehealth Encounters	5,940	4.88
PTSD Telehealth Patients	1,218	
TBI Telehealth Encounters	393	1.89
TBI Telehealth Patients	208	
All PH Telehealth Encounters	29,682	2.70
All PH Telehealth Patients	10,994	
Dual Diagnosis PH & TBI Telehealth Encounters	313	1.97
Dual Diagnosis PH & TBI Telehealth Patients	159	
Total PH or TBI Telehealth Encounters	29,762	2.70
Total PH or TBI Telehealth Patients	11,041	

Source: Derived from MDR ambulatory care database. Workload includes data captured through clinical coding and dedicated Army telehealth hub clinics (duplications removed).
Note: "'All 'Real-time'" includes all real-time telehealth encounters whether for PH, TBI, or another medical condition. "All Non-PH/TBI" includes all real-time telehealth encounters for medical issues other than PH or TBI. "All PH" includes all real-time telehealth encounters (individual or group) with a non-TBI PH diagnosis, including PTSD. "Dual Diagnosis PH & TBI" includes all real-time telehealth encounters with both TBI and another PH diagnosis. "Total PH or TBI" includes all real-time telehealth encounters with either TBI or another PH diagnosis, including PTSD.

Table 5: In-Theater Tele-Behavioral Health Workload Capture for FY 2013

Initiative	FY 2013 Encounters Captured
Army Theater Tele-Behavioral Health (TBH)	1,350
Source: Information paper (July 3, 2014) from the Army Office of the Surgeon General, Telehealth Service Line. Workload reported is a combination of data captured in the Armed Forces Health Longitudinal Technology Application-Theater electronic medical record and hand counts maintained by personnel in the field.	

Private Sector Partnership

The MHS has developed a modest PH/TBI telehealth private sector partnership through its Purchased Care Network (hereafter referred to as "Purchased Care"). In FY 2013, there were approximately 4,000 paid Purchased Care PH/TBI telehealth procedures, covering approximately 1,750 beneficiaries. PH conditions accounted for over 76 percent of all "real-time" Purchased Care telehealth, with PTSD accounting for 15 percent of the PH telehealth total. Little TBI telehealth care was provided within Purchased Care during FY 2013 (seven paid procedures, representing five beneficiaries). Unlike Direct Care, nearly 95 percent of Purchased Care PH/TBI telehealth services were provided to non-Service member beneficiaries (Table 6).

Public Health and Prevention Efforts

The DoD supports its PH/TBI public health effort through a series of websites and mobile device applications that provide PH/TBI education, self-monitoring, and support for Service members, veterans, their families, and other stakeholders. In FY 2013, there were nearly 730,000 visits to DoD-sponsored websites that are dedicated to providing beneficiaries with PH/TBI self-management information, or to providing health care personnel with PH/TBI-related background information and best practices (Table 7). Military One Source, a general information and referral site that also provides PH/TBI resources, reported 5.6 million visits to its public-facing website in FY 2013. In addition, there are a number of DoD-sponsored organizational web sites providing links to PH/TBI-related information. In FY 2013, there were 1,000 visits to a DoD-developed PTSD education "virtual world." There were over 2 million individual FY 2013 uses of PH/TBI-related mobile applications developed by the DoD, or co-developed with the Department of Veterans Affairs (VA) (Table 7).

Table 6: Fiscal Year 2013 "Real-time" Telehealth Line Items for the Military Health Purchased Care Network: By Beneficiary Category

Measure	Beneficiary Category				All MHS Purchased Care	% ADSM	% Other Beneficiary Categories
	Active Duty Service Members (ADSM) (incl Activated Guard & Reserve)	Dependents	Retirees	All Others			
All "Real Time" TH Line Items	287	1,766	934	2,211	5,198	5.52%	94.48%
All "Real Time" TH Patients	206	731	494	994	2,425	8.49%	91.51%
All Non-PH/TBI TH Encounters	83	271	428	436	1,218	6.81%	93.19%
All Non-PH/TBI TH Patients	63	271	428	436	1,198	5.26%	94.74%
PTSD TH Line Items	113	190	97	198	598	18.90%	81.10%
PTSD TH Patients	69	63	56	72	260	26.54%	73.46%
TBI TH Line Items	4	3			7	57.14%	42.86%
TBI TH Patients	3	2			5	60.00%	40.00%
All PH TH Line Items	204	1,494	506	1,775	3,979	5.13%	94.87%
All PH TH Patients	143	625	244	733	1,745	8.19%	91.81%
Dual Diagnosis PH & TBI TH Line Items	4	2			6	66.67%	33.33%
Dual Diagnosis PH & TBI TH Patients	3	1			4	75.00%	25.00%
Total PH/TBI TH Line Items	204	1,495	506	1,775	3,980	5.13%	94.87%
Total PH/TBI TH Patients	143	626	244	733	1,746	8.19%	91.81%

Source: MDR Purchased Care Paid Claims database. Telehealth line items through clinical coding of submitted claims. PH and TBI definitions are based upon procedural and diagnostic coding.

Note: The "All Others" beneficiary category includes all recipients of Purchased Care telehealth services who were not included in the ADSM, Dependent, or Retiree categories. "% Other Beneficiary Categories" includes the total percentage of all recipients of Purchased Care telehealth services in the Dependent, Retiree, and All Other categories. "All 'Real Time'" includes all real-time telehealth paid line items whether for PH, TBI, or another medical condition. "All Non-PH/TBI" includes all real-time telehealth encounters for medical issues other than PH or TBI. "All PH" includes all real-time telehealth paid line items with a non-TBI PH diagnosis, including PTSD. "Dual Diagnosis PH & TBI" includes all real-time telehealth paid line items with both TBI and another PH diagnosis. "Total PH or TBI" includes all real-time telehealth paid line items with either TBI or another PH diagnosis, including PTSD.

Table 7: Department of Defense and Department of Defense/Department of Veterans Affairs Psychological Health/Traumatic Brain Injury Informational Websites, Mobile Applications, and "Virtual World" Sites

Web Site	FY 2013 Visits
After Deployment	103,236
Military Parenting	2,445
Military Pathways (militarymentalhealth.org)	216,421
Military Kids Connect	108,812
Moving Forward: Overcoming Life's Challenges	38,863
RealWarriors.Net	259,860
Total Web Site Visits	**729,637**
Mobile Application	**FY 2013 Uses**
At Ease Military Kids Connect Game *(family support)*	No Analytics Available
BioZen *(general stress management)*	8,824
Breath2Relax *(general stress management)*	1,004,405
CBT-i Coach *(Insomnia)* ***[DoD/VA]***	No Analytics Available
Global Gab Military Kids Connect Game *(family support)*	No Analytics Available
LifeArmor *(Depression, PTSD, & general Psych Health)*	24,580
Mood Tracker *(Depression, PTSD, & general Psych Health)*	396,508
mTBI Pocket Guide *(TBI)*	28,293
Operation Care Package Military Kids Connect Game *(family support)*	No Analytics Available
PE Coach *(PTSD)* ***[DoD/VA]***	84,439
Positive Activity Jackpot *(Depression)*	6,377
Provider Resilience *(Mental Health Provider support)*	42,152
PTSD Coach *(PTSD)* ***[DoD/VA]***	373,242
Stay Quit Coach *(smoking/tobacco use)* ***[DoD/VA]***	No Analytics Available
Tactical Breather *(general stress management)*	68,898
Total Mobile Application Uses	**2,037,718**
Mobile Applications Released in FY 2014	
ACT Coach *(Depression, Anxiety)* ***[DoD/VA]***	**Navy Leaders' Guide to Managing Sailors in Distress** *(Military Leader support)*
The Big Moving Adventure *(family support)*	**Parenting2Go** *(family support)* ***[DoD/VA]***
Concussion Coach *(TBI)* ***[DoD/VA]***	**Psychological First Aid Mobile** *(PTSD)* ***[DoD/VA]***
Feel Electric! *(family support)*	**Sesame Street for Military Families** *(family support)*
Mindfulness Coach *(general stress management)* ***[DoD/VA]***	**Virtual Hope Box** *(Depression, Suicide Prevention)*
Moving Forward *(coping, stress management)* ***[DoD/VA]***	
Virtual World Site	**FY 2013 Visits**
"Second Life" Virtual PTSD Experience *(PTSD)*	1,112
Source: 3rd- party web site and mobile application analytics packages.	

Integrating Telehealth into the MHS Electronic Health Record

Telehealth services within the MHS are supported by its electronic health record (EHR). However, the current EHR was developed prior to the availability of telehealth as an enterprise-scale tool. As a result, difficulties persist in accommodating the requirements of telehealth, including the need for real-time documentation, scheduling, and order entry (for medications, laboratory tests, etc.) across facilities, technical platforms, MHS Components, time-zones, and between DoD and VA telehealth collaborators. The need for enhanced EHR support of telehealth has been a recognized goal of MHS EHR modernization efforts. Telehealth provider input into these efforts is a prominent goal of current efforts to reorganize MHS telehealth support functions (Table 8).

Education and Training Issues

Telehealth education and training efforts within the DoD are growing, with both computer-based and live trainings occurring at the Service and facility levels. However, as with other areas of telehealth, the development of telehealth education within individual MHS components has resulted in variances in the scope of training experiences available to providers across the MHS enterprise. Currently, efforts are underway to consolidate information about existing MHS telehealth training assets within an online site accessible to telehealth subject matter experts throughout the MHS. The establishment of baseline telehealth provider and support staff competency requirements and educational curricula is included among the goals of the MHS telehealth support function reorganization effort (Table 8).

Table 8: Proposed MHS Enterprise Telehealth Support Functions

SUMMARY:	MHS is organizing its telehealth efforts at the enterprise level. The first step in this process is the enterprise reorganization of telehealth support functions to enhance the scope and reach of DoD telehealth service delivery, reduce variabilities in access, and improve accountability. The following flow-chart illustrates these functions and their relationship to telehealth service delivery.

(1) Develop Vision and Requirements	→	(2) Build Infrastructure / Prepare to Operate	→	(3) Deliver Telehealth Services	→	(4) Assess Performance
Conduct environmental scan		Develop doctrine and policy (e.g., privacy, security)		**Provider-to-Provider** - Generate consult request - Conduct consultation - Perform post-consult tasts (e.g., coding, documentation)		Capture and analyze data
Develop (or modify) strategic plan		Define organizational roles and responsibilities (Services, DHA, Joint Commands) and governance				Evaluate performance
Conduct needs assessment		Develop training, education, and communications (provider, patient)		**Provider-to-Patient** - Conduct pre-encounter activities (offsite) - Conduct pre-encounter activities (onsite) - Provide encounter services - Perform post-encounter tasks		
Develop requirements		Obtain materiel (e.g., equipment, software, telecommunications / networking infrastructure, devices)				Make recommendations for improvement
Complete business case analysis		Assign leaders and accountability		**Remote Health Monitoring, mHealth, and websites** - Establish means to monitor "agent" (individual, group/unit, population) - Translate data into information - Empowered agent takes action to improve health		
Develop performance measurement framework (for process & outcome measures)		Acquire and place personnel				Inform research agenda
Obtain resources		Design / modify facilities				

KEY →→→	TELEHEALTH SUPPORT FUNCTIONS	TELEHEALTH SERVICE DELIVERY FUNCTIONS

Source: MHS Telehealth Integrated Product Team

Joint DoD/VA Efforts

The DoD and the VA are closely engaged in development of PH/TBI telehealth. The DoD/VA Health Executive Council has sponsored a joint telehealth workgroup as well as a telemental health initiative as part of its Integrated Mental Health Strategy. The DoD and the VA have made progress in planning, documentation of available telehealth resources (Appendix A), and in the sharing of information on telehealth education and training. However, clinical initiatives have typically been limited to small demonstration projects. As Table 9 demonstrates, many of the barriers to expanded DoD/VA PH/TBI telehealth care derive from the current decentralized nature of DoD telehealth care, with varying processes and approvals required for each DoD site.

Table 9: Current Department of Defense/Department of Veterans Affairs Joint PH/TBI Telehealth Demonstration Projects (Operating Under the Auspices of the DoD/VA Health Executive Council)

DoD/VA PH/TBI Telehealth Demonstration Projects		
Initiative	**Beneficiary Site**	**Provider Site**
Tele-Pain Evaluations (up to 10 beneficiaries)	Joint Base Anacostia-Boling	National Telemental Health Center (NTMHC) / VA Connecticut Health Care System
Tele-Pain Evaluations & Treatment (up to 10 beneficiaries)	Cannon Air Force Base / 27th Special Operations Medical Group	NTMHC / VA Connecticut Health Care System
Tele-Insomnia: Group-Based Cognitive Behavioral Therapy (up to 80 beneficiaries)	Naval Hospital Camp Lejeune	NTMHC / VA Connecticut Health Care System/ Philadelphia VAMC
Common Issues Identified		
• Absence of a systematic needs assessment to identify candidate initiatives. Reliant upon individual Service/Facility queries. Currently working on joint DoD/VA geo-mapping project to identify candidate sites. • Access to cross-organizational EHR. Single VA EHR platform, but multiple DoD platforms, each with its own approval and access issues. Must be addressed individually for each provider and patient site. • Cross-organizational processes for granting provider clinical privileges. Each provider/patient site required its own Memoranda of Understanding (MOU). Different processes at each site. Currently working on a Department-level DoD/VA Privileging-by-Proxy MOU template. • Reliable connectivity across Department networks and across individual DoD IT platforms. Currently requires site-to-site pre-testing of video teleconferencing connections for each provider and patient location.		

Telehealth to Rural and Access Challenged Beneficiaries

Over 90 percent of all FY 2013 Direct Care PH/TBI telehealth was provided to beneficiaries who did not reside in Department of Health and Human Services, Human Resources and Services Administration (HRSA) identified Health Professional Shortage Areas (HPSA) (Table 10), suggesting that the predominant use of Direct Care PH/TBI telehealth was to supplement military treatment facility (MTF) capacity, rather than to increase access for remote beneficiaries. On the other hand, over 70 percent of FY 2013 Purchased Care PH/TBI telehealth was provided to beneficiaries residing within HPSAs, suggesting greater use of telehealth within Purchased Care as a healthcare access tool for remote, rural, or other access-challenged settings.

Telehealth to the Beneficiary's Home

Research is currently underway in DoD, VA, and other settings, to establish the parameters of safe and effective "in-home" PH/TBI telehealth care, as existing telehealth safety and effectiveness research has primarily been based in clinical settings (Appendix B). This research is designed to determine whether extension of telehealth services to beneficiaries in their homes or via mobile devices can be done safely and effectively.

Legislative and policy issues impacting authorized telehealth locations of care are addressed in the "Licensure and Locations of Care Issues" section below.

Tele-Psychotherapy and Tele-Group Therapy

MHS telehealth practice reflects the fact that research has established the safety and effectiveness of appropriately conducted, clinic-based telehealth psychotherapy for PTSD, depression, and other mental health conditions for established patients (Appendix B). As shown in Table 11, four of the 10 most frequent Direct Care telehealth procedures (approximately 38 percent, by frequency) in FY 2013 were for forms of psychotherapy. Psychoeducationally-based telehealth group therapy also has support in the research literature (Appendix B). However, telehealth group therapy was provided to a comparatively small number of beneficiaries in FY 2013, and did not appear to be primarily utilized for multiple session groups, as would be expected for evidence-based forms of telehealth group therapy (Table 12).

Table 10: Fiscal Year 2013 "Real-time" Psychological Health/Traumatic Brain Injury Telehealth Workload and Line Items Paid for the Military Health System Direct and Purchased Care Networks: Breakout by Beneficiary Location Within and Outside of Health Resources and Services Administration-Designated Health Professional Shortage Areas

Direct Care Network					
Measure	HPSA Designation		All MHS Direct Care	% In HPSA	% Not In HPSA
	In HPSA	Not In HPSA			
All PH Telehealth Encounters	1,799	27,883	29,682	6.06%	93.94%
All PH Telehealth Patients	966	10,058	11,024	8.76%	91.24%
TBI Telehealth Encounters	33	360	393	8.40%	91.60%
TBI Telehealth Patients	14	195	209	6.70%	93.30%
Dual Diagnosis PH & TBI Telehealth Encounters	26	287	313	8.31%	91.69%
Dual Diagnosis PH & TBI Telehealth Patients	12	147	159	7.55%	92.45%
Total PH or TBI Telehealth Encounters	1,806	27,956	**29,762**	**6.07%**	**93.93%**
Total PH or TBI Telehealth Patients	967	10,104	**11,071**	**8.73%**	**91.27%**
Purchased Care Network					
Measure	HPSA Designation		All MHS Purchased Care	% In HPSA	% Not In HPSA
	In HPSA	Not In HPSA			
All PH Telehealth Line Items	2,847	1,132	3,979	71.55%	28.45%
All PH Telehealth Patients	1,135	609	1,744	65.08%	34.92%
TBI Telehealth Line Items	5	2	7	71.43%	28.57%
TBI Telehealth Patients	3	2	5	60.00%	40.00%
Dual Diagnosis PH & TBI Telehealth Line Items	5	3	8	62.50%	37.50%
Dual Diagnosis PH & TBI Telehealth Patients	1	1	2	50.00%	50.00%
Total PH or TBI Telehealth Line Items	2,847	1,133	**3,980**	**71.53%**	**28.47%**
Total PH or TBI Telehealth Patients	1,135	610	**1,745**	**65.04%**	**34.96%**

Source: MDR ambulatory care and Purchased Care paid claims databases. Direct Care workload includes data captured through clinical coding and dedicated Army telehealth hub clinics (duplications removed). Purchased Care workload includes telehealth-coded line items paid by TRICARE. HPSA designation per HRSA (Department of Health & Human Services). PH and TBI definitions are based upon clinics (Direct Care), and procedural and diagnostic coding (Direct and Purchased Care).
Note: "All PH" includes all real-time telehealth encounters or line items with a non-TBI PH diagnosis, including PTSD. "Dual Diagnosis PH & TBI" includes all real-time telehealth encounters or line items with both TBI and another PH diagnosis. "Total PH or TBI" includes all real-time telehealth encounters or line items with either TBI or another PH diagnosis, including PTSD.

Table 11: Most Frequent Fiscal Year 2013 "Real-time" Telehealth Clinical Procedures for the Military Health System Direct Care Network (TH Psychotherapy Procedures in *Bold and Italics*)

Code	Procedure	Frequency
90806	Psytx, Off, 45-50 Min	3,592
90834	***Psychotherap, 45 Min W Pat &/Fam***	***3,489***
90791	Psychiatric Diag Evaluation	3,398
90801	Psy Dx Interview	3,042
90833	***Psychothera, 30 Min, Pat & Fam, E&M***	***2,963***
96102	Psyc Tst, Interp & Rpt, Adm Tech	2,647
90837	***Psychotherap, 60 Min, w Pat & Fam***	***1,895***
90805	Psytx, Off, 20-30 Min, w/ E&M	1,430
96150	Assess Hlth/Behave, Init	1,107
90832	***Psychotherap, 30 Min, w Pat & Fam***	***1,029***
Total Frequency – Top 10 "Real Time" Telehealth Clinical Procedures		**24,592**
Percent of Top 10 Procedures Accounted for by Psychotherapy (by procedure frequency)		**38.13%**
Source**:** MDR ambulatory care database. Workload includes data captured through clinical coding and dedicated telehealth hub clinics (duplications removed).		

Table 12: Fiscal Year 2013 "Real-time" Psychological Telehealth Group Therapy Workload for the Military Health System Direct Care Network: Breakout by Military Service Affiliation of Provider

Measure	Provider Service Affiliation				All MHS Direct Care
	Air Force	Army	National Capital Region	Navy	
Group Therapy Telehealth Encounters		278			278
Group Therapy Telehealth Patients		267			267
Source**:** MDR ambulatory care database. Workload includes data captured through clinical coding and dedicated TH hub clinics (duplications removed). PH and TBI definitions are based upon clinics and procedural and diagnostic coding. Note**:** "Group Therapy" includes all telehealth group therapy encounters with a non-TBI PH diagnosis, including PTSD.					

Privacy Issues

Since most current MHS telehealth care occurs in established clinical settings, MHS facilities are able to use existing institutional protections to ensure patient privacy for telehealth encounters. As telehealth care expands to alternative settings, however, MHS will need to develop overarching privacy guidance and safeguards appropriate to these settings. For example, MHS-wide privacy standards for beneficiaries receiving PH telehealth services at National Guard armories, in their homes, or in the community via video-enabled mobile devices have yet to be established.

Privacy issues in the use of websites and non-"real-time" video mobile device applications are currently being addressed via a combination of anonymous logons to some informational websites and applications as well as the use of secure registration and communication tools for others.

The establishment of consistent telehealth privacy standards across the MHS enterprise is among the goals of the current telehealth support function reorganization effort described in Table 8.

Licensure and Location of Care Issues

Section 713 of the National Defense Authorization Act for Fiscal Year 2012 authorized an expansion of DoD telehealth provider categories and care locations eligible for preemption of individual State professional licensure requirements. This authorization was translated into DoD policy guidance via DoD Manual (DoDM) 6025.13M (Appendix C). Provider categories covered by section 713 and DoDM 6025.13M include members of the Armed Forces, other DoD uniformed providers, civilian DoD employees, personal services contractors, and National Guard providers who are performing training or duty in response to an actual or potential disaster. Non-MTF telehealth care locations authorized by DoDM 6025.13M, pursuant to section 713:

- VA medical centers and clinics;
- Installations, armories, or other non-medical fixed DoD locations;
- DoD mobile telemedicine platforms;
- Civilian sector hospitals and clinics;
- TRICARE contracted provider offices; and
- Other locations approved by the ASD(HA).

The changes brought about by section 713, and DoDM 6025.13M, are designed to provide additional clarity and flexibility to the DoD in the expansion of its telehealth services. The clarity comes primarily from the delineation of covered provider categories, while the increased flexibility comes from the inclusion of non-MTF locations of care under the state licensure preemption umbrella.

It is important to note that not all provider categories, or potential locations of care, are covered under section 713, and/or DoDM 6025.13M. For example, non-personal services (e.g., contract agency) providers and TRICARE network providers were not covered under section 713 and, as a result, were not included in the DoDM. These providers must still possess unrestricted licenses in the states where they provide (i.e., where beneficiaries receive) telehealth care. Section 713 removes geographic restrictions regarding the location of DoD telehealth care. In turn, DoDM 6025.13M expands authorized locations for such care, as described above. However, other potential locations of care, such as the beneficiary's home, were not specifically included within the DoDM's authorized locations list. Rather, the DoDM provides the ASD(HA) with discretion to authorize such locations once evidence of effectiveness has been established, and privacy and safe practice guidelines have been developed.

Discussion

Telehealth is an important tool that is actively being used to expand PH/TBI care for beneficiaries within the Direct and Purchased Care Networks. While the use of telehealth is growing, it still constitutes less than one percent of overall Direct and Purchased Care PH/TBI care (Table 13). The decentralized history of telehealth development within the MHS has resulted in both areas of excellence and significant cross-enterprise variances in service availability, processes, and education and training. Interagency PH/TBI telehealth efforts with the VA have begun, though they are presently limited to individual demonstration projects.

Table 13: Fiscal Year 2013 "Real-time" Psychological Health/Traumatic Brain Injury Workload and Paid Claims Figures for the Military Health System Direct and Purchased Care Networks: Breakout by Telehealth vs. All Ambulatory Care

Direct Care Network			
Measure	**Type of Care**		**Telehealth Percent of Total**
	Telehealth	**All Care**	
All PH Encounters	29,682	5,198,421	0.57%
All PH Patients	11,024	1,389,621	0.79%
TBI Encounters	393	262,241	0.15%
TBI Patients	209	53,820	0.39%
Dual Diagnosis PH & TBI Encounters	313	134,856	0.23%
Dual Diagnosis PH & TBI Patients	159	24,587	0.65%
Total PH or TBI Encounters	29,762	5,325,806	0.56%
Total PH or TBI Patients	11,071	1,406,445	0.79%
Purchased Care Network			
Measure	**Type of Care**		**Telehealth Percent of Total**
	Telehealth	**All Care**	
All PH Line Items	3,979	15,416,866	0.026%
All PH Patients	1,744	1,558,344	0.112%
TBI Line Items	7	776,445	0.001%
TBI Patients	5	141,589	0.004%
Dual Diagnosis PH & TBI Line Items	8	125,161	0.006%
Dual Diagnosis PH & TBI Patients	2	22,005	0.009%
Total PH or TBI Line Items	3,980	16,068,150	0.025%
Total PH or TBI Patients	1,745	1,626,487	0.107%

Source: MDR ambulatory care and purchased care paid claims databases. Direct Care telehealth workload includes data captured through clinical coding and dedicated Army telehealth hub clinics (duplications removed). Purchased Care telehealth workload includes telehealth-coded line items paid by TRICARE. PH and TBI definitions are based upon clinics (Direct Care), and procedural and diagnostic coding (Direct and Purchased Care).

Note: "All PH" includes encounters or line items with a non-TBI PH, including PTSD. "Dual Diagnosis PH & TBI" includes encounters or line items with both TBI and another PH. "Total PH or TBI" includes encounters or line items with either TBI or another PH diagnosis, including PTSD.

The current state of DoD PH/TBI telehealth care points to a number of development opportunities that are being explored and/or currently addressed by the MHS:

- Expanding PH/TBI telehealth access within and across the Services, beneficiary classes, Direct/Purchased Care, and to HRSA-identified HPSAs.
- Improving coordination between non-deployed and deployed PH/TBI telehealth care.
- Capturing theater tele-behavioral health "lessons learned" and incorporating these into DoD planning and training efforts.
- Developing larger scale joint DoD/VA PH/TBI telehealth initiatives, with supporting enterprise-level processes.
- Improving MHS-wide coordination of telehealth planning, infrastructure, investments, education and training, business measures and incentives, and performance metrics.
- Completing research to determine the safety and efficacy of telehealth in non-medical settings.
- Streamlining the process of translating research evidence into newly approved or expanded PH/TBI telehealth services or locations of care.

To more fully address these issues, the MHS leadership has chartered a high-level working group to explore development of an enterprise-wide process for telehealth needs assessment, planning, standards and metric development, education and training, supporting analytics, and assessment/evaluation.

Conclusion

There has been substantial PH/TBI telehealth development within the DoD over the past several years. However, many opportunities remain to make this important healthcare access tool more accessible and more consistent across the MHS enterprise. As a result, the leadership of the MHS has initiated an enterprise-wide assessment approach to address variances in telehealth availability and to capitalize upon possible telehealth development opportunities.

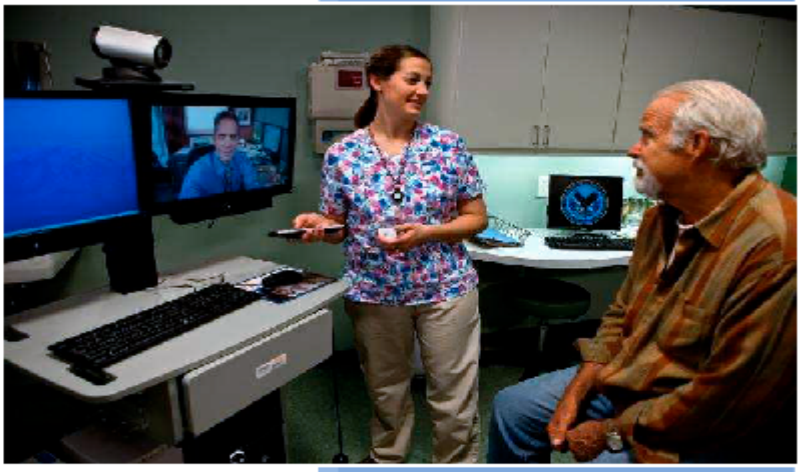
APPENDICES

Appendix A

Health Executive Council (HEC) Telehealth Work Group Joint DoD/VA Telehealth Inventory

FY 2012

An Inventory of National Telehealth Services within the Departments of Defense and Veterans Affairs



Health Executive Committee
DoD/VA Telehealth Work Group

VA Telehealth Services (VHA Office of Patient Care Services) / DoD National Center for Telehealth and Technology (Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury)

May 2013

AN INVENTORY OF NATIONAL TELEHEALTH SERVICES WITHIN THE DEPARTMENTS OF DEFENSE AND VETERANS AFFAIRS

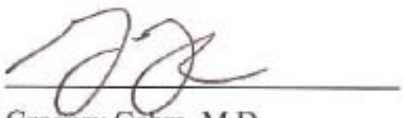
The Department of Defense (DoD) and the Department of Veterans Affairs (VA) are recognized as leading innovators in the development of telehealth services. In the last several years, there has been increasing interest from healthcare leadership in the DoD and VA in the use of telehealth as a tool for efficiently leveraging clinical resources within and between the Departments. The DoD/VA Health Executive Committee (HEC) and Joint Executive Committee (JEC) chartered a DoD/VA Telehealth Work Group to make recommendations for joint planning efforts and to suggest ways in which barriers to interagency telehealth services could be reduced or eliminated. Part of the Integrated Strategic Plan for this working group called for the creation of a baseline description of telehealth services within the DoD and VA.

In pursuit of establishing this baseline, the working group produced a comprehensive inventory of telehealth activities in the two Departments. This inventory will augment stakeholder awareness of the current DoD/VA telehealth activities, as well as inform the development of services to further support beneficiaries.

In presenting this overview of telehealth, we acknowledge the innovation and dedication of the numerous individuals in each Department dedicated to these efforts and the support of technology partners with whom we have worked.

We are pleased to share data on the increased access to health care that these services are providing to those that have served, and those that are currently serving our nation.

Adam Darkins, M.D.
VA Co-Chair, HEC Telehealth Work Group
Department of Veterans Affairs



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TELEHEALTH IN THE DEPARTMENT OF VETERANS AFFAIRS

VA's Adoption of Telehealth in Alignment with Its Core Values, Core Characteristics, and Business Needs

The health care needs of each generation of Veterans are determined by the unique circumstances of the mission they have served and the conditions they face after separating from the military. Aging Veterans of previous generations, and those of the current generation, who have returned from conflicts in Iraq and Afghanistan, are united by their need to receive care in the least restrictive setting and their desire to make their home and local community into their preferred place for care. Veterans often have an alternative choice of health care provider/organization outside VA, and accessibility is a major factor in their deciding whether VA is their health care provider of choice. These all are needs and preferences that telehealth is uniquely placed to address.

Telehealth uses information and telecommunication technologies to provide care when patient and clinician are geographically separated. Telehealth's value, to healthcare organizations that adopt it, is increasing access to care (especially in rural and remote locations), enhancing the quality of care, and making the home and local community into the preferred site of care, when appropriate — all of which are VA strategic goals.

In support of these strategic goals, the Veterans Health Administration (VHA) commenced development of a national telehealth infrastructure in fiscal year (FY) 2003. A national program office was established, VHA Telehealth Services (formerly the Office of Care Coordination) to develop, implement, and monitor new telehealth-based models of care nationally in VHA.

The first national telehealth model implemented in VHA was a home telehealth (HT) network, a strategic initiative aimed at transforming health care delivery through improving chronic care management. VHA's HT model was initially designed to support 50,000 Veterans with complex chronic conditions live independently in their homes. Annual costs of supporting this selected population of Veterans using telehealth was 12 percent of comparable non-institutional care programs, and 2.5 percent of the annual cost of an institutional care bed. VHA's HT program focused on high-incidence, high-prevalence conditions — diabetes, chronic heart failure, chronic obstructive pulmonary disease, hypertension, post-traumatic stress disorder (PTSD), and depression.

In FY 2005, VHA adapted a model of teleretinal imaging to screen Veterans for diabetic eye disease as a means of further targeting the 20 percent of Veterans with diabetes to prevent blindness. In its subsequent national roll-out, this validated model of teleretinal imaging was implemented in 221 image acquisition sites; these were served by a network of distributed reading centers in all 21 Veterans Integrated Service Networks (VISNs). Teleretinal imaging became the first national VHA store-and-forward telehealth (SFT) program, one that has now been supplemented with a national teledermatology program, and for which there are future plans to nationally implement screening programs for macular degeneration and wound care management.

VHA's third national telehealth network, the Clinical Enterprise Videoconferencing Network (CEVN) began as the Polytrauma Telehealth Network (PTN) that was implemented in FY 2007. The PTN provided real-time clinical videoconferencing to support expert consultation between VA medical Centers (VAMCs), VA's major Polytrauma Centers, the former Walter Reed Army Medical Center, and the former Bethesda National Naval Medical Center. After the PTN was successfully implemented, VHA expanded this resource to form CEVN as a national clinical Internet Protocol (IP)-based videoconferencing capability, with interoperable standards and a national VHA dial plan. CEVN now interconnects over 6,600 video end points that support clinical care via Clinical Video Telehealth (CVT) and the VHA Specialty Care Access Network (Scan-ECHO) — a clinical consultation network to support VHA primary care practitioners.

By FY 2008, all three of VHA's national telehealth networks, HT, SFT, and CVT, were routine operational programs providing mission critical services to over 200,000 Veteran patients annually. In support of these services, VHA Telehealth Services developed systematic national processes to support training and education, quality management, contracting for telehealth technologies, credentialing and privileging, clinical coding, workload credit, and a national VHA telehealth help desk that integrates with Information Technology (IT) and Biomedical Engineering. These foundational platforms put VHA in a position to dramatically expand its telehealth-based services.

Telehealth and Transformative Change within the Department of Veteran Affairs

Since FY 2009, as part of the Secretary of the Department of Veterans Affairs (SECVA's) Transformation Initiatives, VHA has dramatically increased its delivery of telehealth-based care to rise to the challenges of an aging Veteran population; meeting the extraordinary needs of returning Service members from conflicts in Iraq and Afghanistan; recruiting of clinicians in rural/remote locations; and responding to impending changes to the wider healthcare system with implementation of the Affordable Care Act. Infirmity, chronic illness, travel distance to care, and low income contribute, individually and synergistically, to the difficulties many Veterans face in accessing care, especially those living in rural and remote locations. In the past, Veterans have invariably needed to travel to fixed physical assets for VA healthcare, including VA Medical Centers (VAMCs), community based outpatient clinics (CBOCs), and VET Centers. In the face of these challenges, VHA is seeking ways to make care more convenient, timely, and locally accessible to Veterans, and serve the increasing proportion of women Veterans accessing the system.

As part of the FY 2009 – FY 2013 telehealth transformational initiative, VHA dramatically expanded its ability to provide clinic-based telehealth (SFT and CVT). This included recruiting over 970 telehealth clinical technicians (TCTs), and purchasing equipment for over 900 sites of care to provide the capacity to undertake two concurrent 384 kilobit/second clinical videoconferencing sessions. These clinical assets provide VHA with the capacity to deliver 1.2 million clinic-based telehealth consultations between VAMC and VAMC, and VAMC and CBOC in FY 2013.

In FY 2012, VHA developed Tele-intensive care unit (Tele-ICU) services in two of VA's 21 Veterans Integrated Service Networks (VISNs) 10 and 23, where ICU physicians (intensivists) at the central monitoring center provide remote critical care support services to multiple ICU patient care sites at smaller VAMCs using networked monitoring, health information, video and telecommunications technologies. Interest is growing in other VISNs to connect to these Tele-ICU centers. If this is to happen, a critical dependency is the ability to transfer funds for these services between VISNs based upon clinical encounters. Similar issues with cross-VISN funding arise with telemental health and teleretinal imaging. In September 2012, VHA Telehealth Services met with the VHA Chief Medical Officers and agreed to work with VHA Office of Operations and Management (10N) and propose models of cross-VISN charging for telehealth services.

Telehealth is a very different way of delivering health care than what most clinicians, particularly physicians, were trained to provide. In FY 2011, Telehealth Services began a change management program to support clinicians adopting telehealth. This program consisted of virtual training resources and regular virtual clinical champions meetings. A critical asset in helping clinicians transition to new telehealth-based models of care is the cadre of master preceptors and preceptors for HT, SFT, and CVT that VHA is developing through its three telehealth national training centers. These training centers provide 98 percent of their training virtually. Because of their familiarity with Veterans issues and empathy with Veterans, VHA is working to encourage clinicians who retire from the Military Health System (MHS), with and without telehealth experience, to work in VHA to provide care via telehealth. As part of this process of

recruitment and retention of clinical staff, VA is developing models of telework that make it attractive for clinicians to see VHA as their employer of choice.

Telehealth Collaborations that Further the Mission of the Department of Veteran Affairs

Telehealth Services in VHA acts as a coordinating body to bring together the clinical, technology, and business components of telehealth-based models of care that meet health care needs of Veterans that VHA must address in a way that is safe, effective, cost effective, and appropriate. In order to accomplish this, regular, ongoing collaborations exist that include but are not limited to: all other services in the Office of Patient Care Services, VHA Operations and Management (10N), the Office of Nursing Services, VHA Office of Health Information, VHA Quality and Safety, the VHA Office of Rural Health (ORH), and VA Office of Information Technology.

In May 2012, a VHA Telehealth Expansion Task Force (Task Force) produced its Telehealth Expansion Report outlining a three-phased expansion of Telehealth between FY 2011 and FY 2018. The Task Force recognized the evolution of virtual systems of care to include the telephone, secure messaging, e-consults, mobile applications, and teleradiology, in addition to HT, SFT, and CVT. In September 2012, VHA's e-Connected Health Task Force provided recommendations to the VA Undersecretary for Health on how virtual care services in VHA, including telehealth, should come under a common framework to ensure consistency and continuity of virtual care services to Veterans. The strengthening of collaborations with other virtual modalities of care will help shape the evolution of telehealth. Already HT, SFT, and CVT are converging, and convergence with other virtual modalities of care is on the horizon. This needs to happen within a common strategic framework with interoperability of technologies and clinical processes, in ways that are convenient, accessible, and usable for patients and staff.

VHA Telehealth Services has a close collaboration with the VHA ORH to support the mission of minimizing any restrictions on Veterans receiving healthcare services by virtue of their geographic location. Telehealth offers the means to provide some services in rural and remote locations, but not all. There are obligate reasons why Veteran patients have to visit outpatient facilities and are admitted to hospitals. Telehealth Services works with ORH to incorporate telehealth into a continuum of care that can best serve Veterans in rural and remote locations.

VHA is one of several federal government agencies that have significant interests in telehealth. Others include, but are not limited to: the DoD, the Department of Health and Human Services (Indian Health Services and HRSA), the Department of State, the Department of Agriculture, the Department of Commerce, and the Federal Communications Commission. Opportunities, both planned and ad hoc, arise each year to work with these and other federal agencies in support of telehealth.

Telehealth Assets within the Department of Veteran Affairs

As telehealth is expanding, significant elements of care are now provided to Veteran patients outside the traditional "bricks and mortar" assets such as VAMCs and CBOCs. As this has happened, VHA has put resources in place to support the critical components of care needed for virtual systems of care, just as systems have had to be in place to support the physical care infrastructure. Telehealth leverages VA's electronic health record (EHR) to change the location of care and needs accompanying information technology and telecommunications technology platforms to do so. Between FY 2002 and FY 2008, VA invested in the clinical, technology, and business infrastructures to create robust and sustainable national telehealth networks.

These networks provided care to over 497,000 Veteran patients in FY 2012. In addition to outlining how telehealth services are expected to meet planned levels of growth for FY 2013 and FY 2014, this Strategic

Plan for Telehealth details how the current infrastructure will guarantee the levels of care achieved in FY 2012 in FY 2013; maintain the levels of care reached in FY 2013 in FY 2014; and the continue to meet levels of care reached in FY 2014 in FY 2015.

The most important asset that VHA has in supporting its telehealth programs is the staff involved in telehealth. Telehealth is a team-based undertaking. The network engineer who is responsible for the wide area network, on which the digitized cardiac echo (echocardiogram) is transmitted from the patient site to the hospital where the cardiologist reports the investigation, is as important as all other clinical members of the team in terms of ensuring care takes place. Table 1 provides the numbers of VA staff members supporting telehealth development and service delivery in FY 2012. From its most rural clinic to its central office staff, those in VA that are charged with implementing telehealth do so in accordance with VA's values of Integrity, Commitment, Advocacy, Respect and Excellence ("I CARE"). VA staff is similarly committed to ensuring the Veteran experience of telehealth in VA is characterized as being: Trustworthy, Accessible, Quality, Agile, Innovative, and Integrated.

Table 1: Staff Employed In Support of Telehealth Development In VA FY 2012

Staff Designation	Total Number of Staff VA Wide
VISN Telehealth Leads	21
VISN Telehealth Support Staff	44.5
Facility Telehealth Coordinators	140
Home Telehealth Care Coordinators	612
Home Telehealth Program Assistants	122
Telehealth Clinical Technicians	973
Tele-retinal Imagers	1,384
Tele-retinal Readers	322

Targets for Expanding Telehealth

VHA's FY 2013-FY 2015 Targets for Expanding Virtual Care to Veteran Patients Relative to Projected Clinical Capacity to Deliver Care on Current Telehealth Platforms, and Under Current Budgetary Assumptions are shown in Table 2.

Table 2: Current VHA Virtual Care Performance Metric Fiscal Years FY 2012-FY 2014

Fiscal Year	Virtual Care Metric
FY 2012	9.2%
FY 2013	15%
FY 2014	16%
FY 2015	TBD

Table 3 below gives the projected levels of telehealth activity VA can anticipate for its national telehealth programs under current budgetary assumptions for FY 2013-FY 2015. Data is provided for unique Veteran patients receiving care ('Uniques' in table) and number of consultations/clinical episodes they each receive ('Visits' in table). The projected figures provided are the combined totals of uniques and visits for CVT, HT, and SFT. Sources of funding (current VERA, T-21 and Telehealth Expansion Initiative) are also provided.

Table 3: Anticipated Capacity of VA Telehealth Programs FY 2013-FY 2014

Telehealth	FY 2013 Uniques	FY 2013 Visits	FY 2014 Uniques	FY 2014 Visits
Totals	830,703	2,462,041	892,582	2,549,718

The following Tables 4 -23 provide an inventory listing of the types and levels of telehealth services provided by VHA in FY 2012.

Table 4: Descriptions of Virtual Care Services in VA FY 2012

Service	Description
Home Telehealth (HT)	Monitors patients and manages diseases through video into the home and use of mobile devices for acute and chronic care management, and health promotion/disease prevention
Clinical Video Telehealth (CVT)	Real-time videoconferencing between VA medical centers and Community-Based Outpatient Clinics (CBOC)that replicates face-to-face consultations between patient and provider, or provider to provider. Uses include specialty consultations and delivery of mental health services
Store-and-Forward Telehealth (SFT)	Acquisition, storage, and forwarding of clinical images to experts for review. Currently used for teleretinal imaging and teledermatology
Teleradiology	Remote analysis of radiology and nuclear medicine images
Secure Messaging	Enables timely and secure text-based communication with patients via mobile phones.
Mobile Health	Smart phone applications for self-management of health conditions 24/7; currently unsecured. Example is PTSD coaching

Table 5: Virtual Care Services: Teleradiology Activity Level in VA FY 2012

Service	FY 2012 Consultations
Teleradiology	331,848 consultations

Table 6: Virtual Care Services: Secure Messaging Activity in VA FY 2012

Service	FY 2012 Enrollees

Secure Messaging	480,848 Veterans enrolled at end of FY 2012

Table 7: Virtual Care Services: CVT, HT, and SFT Unique Veterans in VA FY 2012

Service	FY 2012 Veterans Receiving Care
Telehealth (Home Telehealth (HT), Clinical Video Telehealth (CVT), and/or Store-and-Forward Telehealth (SFT))	497,342 Veterans

Table 8: Virtual Care Services: Growth in Uniques in VA from FY 2010 to FY 2012

Services	FY 2010 Uniques	FY 2012 Uniques	Percent Growth
Virtual Care Telehealth + Secure Messaging (excludes Teleradiology)	299,009 Veterans	497,342 Veterans	66% Increase

Table 9: Virtual Care Services: Telehealth and Secure Messaging in VA FY 2012

Service	FY 2012 Percentage of Veterans Receiving Care
Virtual Care (Telehealth + Secure Messaging) excludes Teleradiology	17.9%

Table 10: Virtual Care Services: SFT Uniques in VA FY 2012

Service	FY 2012 Veterans Receiving Care
Store-and-Forward Telehealth (SFT)	263,444 Veterans

Table 11: Virtual Care Services: Teledermatology Growth in VA FY 2010 to FY 2012

Services	FY 2010 Uniques	FY 2012 Uniques	Percent Growth
Teledermatology (CVT + SFT)	17,989 Veterans	35,504 Veterans	97% Increase

Table 12: Virtual Care Services: Teleretinal Imaging Growth in VA FY 2010 to FY 2012

Services	FY 2010 Encounters	FY 2012 Encounters	Percent Growth
Teleretinal Imaging (SFT)	168,797 Encounter	216,189 Encounters	28% Increase

Table 13: Virtual Care Services: Teleretinal Imaging Cameras in VA FY 2012

Service	FY 2012 Inventory TRI Cameras
Teleretinal Imaging Cameras (SFT)	731 Teleretinal Imaging Cameras

Table 14: Virtual Care Services: Telehealth Training in VA FY 2012

Training	FY 2012 Training Events	FY 2012 VA Staff Receiving Training
Telehealth (CVT, HT, SFT) Training	1,800 Telehealth Training Events	Over 4,000 VA Staff Trained

Table 15: Virtual Care Services: CVT Encounters in VA FY 2012

Services	FY 2012 Encounters
Clinical Video Telehealth (CVT)	387,495 CVT Encounters
Telemental Health (TMH CVT)	217,975 TMH Encounters
Telerehabilitation (TRH CVT)	12,640 TRH Encounters

Table 16: Virtual Care Services: CVT Sample of Clinical Care by Type and Level of Services in VA FY 2012

CVT Sample Service Types	FY 2012 Encounters
1. Telemental Health	217,979 Encounters
2. TeleMOVE	50,261 Encounters

3. TelePharmacy	18,172 Encounters
4. TelePrimary Care	15,998 Encounters
5. TeleNutrition	11,936 Encounters
6. TeleAnticoagulation	7,978 Encounters
7. TeleDiabetes	6,821 Encounters
8. TeleRehabilitation	5,785 Encounters
9. TeleAudiology	5,131 Encounters
10. TelePain	3,695 Encounters
11. TeleInternal Medicine	3,207 Encounters
12. TeleRenal/Nephrology	2,731 Encounters
13. TeleDermatology	2,517 Encounters
14. TeleSCI	2,439 Encounters
15. TelePacemaker Care	2,405 Encounters
16. TeleSleep Medicine	2,088 Encounters
17. TeleSurgery	1,984 Encounters
18. TeleSpeech Pathology	1,863 Encounters
19. TeleCardiology	1,819 Encounters
20. TeleOncology	1,668 Encounters
21. TeleEndocrinology	1,610 Encounters
22. TelePulmonary	1,577 Encounters
23. TeleGastroenterology	1,509 Encounters
24. TeleSocial Work	1,492 Encounters
25. TeleAnesthesia (Pre- and Post-Op)	1,310
26. TeleInfectious Disease	1,251
27. TeleHomeBasedPrimaryCare (HBPC)	1,247
28. TelePodiatry	1,191
29. TeleGI Endoscopy	1,041

30. TelePolytrauma	1,002
31. TeleNeurology	887
32. TeleOrthopedics	6643
33. TeleEnterostomal	614
34. TeleAmputation	539
35. TeleHepatology	524
36. TeleEpilepsy	276
37. TeleRheumatology	275
38. TeleUrology	197
39. TeleProsthetics/Orthotics	178
40. TeleRespiratory Disease	178
41. TeleParkinson's Disease	176
42. TelePalliative Care	128
43. TeleHypertension	122
44. Other CVT	2,982

Table 17: Virtual Care Services: CVT/CEVN Endpoints in VA FY 2012

Inventory	FY 2012 Inventory CEVN Endpoints
Clinical Enterprise Video Network CEVN Registered Endpoints (for CVT)	6,634

Table 18: Virtual Care Services: CVT into the Home Growth in VA FY 2010 to FY 2012

Services	FY 2010	FY 2012	Percent Growth
CVT into the Home Veterans	989 Veterans	1,371 Veterans	39% Increase
CVT into the Home Encounters	3,658 Encounters	6,920 Encounters	89% Increase

Table 19: Virtual Care Services: HT Growth in VA FY 2010 to FY 2012

Services	FY 2010	FY 2012	Percent Growth
Home Telehealth Veterans	58,093 HT Veterans	119,535 HT Veterans	106% Increase

Table 20: Virtual Care Services: Number and Type of Telehealth Sites of Care in VA FY 2012

VA Telehealth Sites	FY 2012	FY 2012 Percentage
VA Medical Center/Hospital	152 Hospitals Telehealth Active	100% VA Hospitals Active
VA Community-Based Outpatient Clinic (CBOC)	702 CBOCs Telehealth Active	86% of VA's 819 CBOCs Active

Table 21: Virtual Care Services: Patient Satisfaction in VA FY 2012

Telehealth Services	FY 2012 Patient Satisfaction
Clinical Video Telehealth (CVT)	93%
Home Telehealth (HT)	85%
Store-and-Forward Telehealth (SFT)	96%

TELEHEALTH IN THE DEPARTMENT OF DEFENSE

Introduction

The DoD MHS is a complex health care system with global reach and approximately 9.7 million beneficiaries. The timely and cost-effective provision of quality health care services to that population is a growing challenge for the MHS, as increasing numbers of beneficiaries reside in health care shortage areas. This translates into inconvenience in the form of excessive travel to seek care; delays in obtaining appropriate care as beneficiaries wait for an available opening among a limited pool of specialty providers; and expense in the form of "leakage" to the purchased care network of workload that should be captured by MHS direct care services. For the past 20 years, the health care arms of the Services have been working to develop telehealth as one tool for addressing these access and resource-leveraging challenges.

Telehealth Within the Department of Defense

Telehealth efforts within the DoD fall into two broad categories: synchronous and asynchronous. Synchronous, or "real time," telehealth is the equivalent of VA's "Clinical Video Telehealth" (CVT), and uses

live videoconferencing, with or without additional instrumentation, between provider and patient. Asynchronous telehealth is the equivalent of VA's "Store-and-Forward Telehealth" (SFT), and involves the capture of diagnostic images, sounds, and data that are interpreted at a later time and at a different location by a qualified diagnostician. VA is also actively engaged in the provision of "Home Telehealth" (HT), an active home telecommunications network providing care management for patients with chronic condition. However, this form of care has not yet gained a substantial foothold in the DoD.

Though not currently captured as telehealth workload, provider-to-provider video consultation is another important use for telehealth technology within the DoD. This form of consultation can vary from an electronic version of the traditional "curbside consult" between individual clinicians, to scheduled regional, national, or global live consultation sessions via the Extension for Community Healthcare Outcomes (Project ECHO), originally developed at the University of New Mexico.

Similarly, secure messaging systems, such as the DoD's Relay Health and VA's MyHealtheVet, while not captured as telehealth workload, facilitate closer communication and coordination between patients and providers.

The description that follows covers DoD telehealth activity for FY 2012. Individual and joint telehealth efforts of the Services are discussed based on information provided by the Services. This is followed by a telehealth workload analysis based on extracts from the MHS direct care business intelligence databases. The reader will note some discrepancy between results of Service and MHS workload reports. This discrepancy is addressed in the DoD Telehealth Workload Capture Reports section.

The DoD section of this document will conclude with a brief description of the Telehealth Strategic Aims and Foundational Pillars articulated in the MHS Telemental Health and Related Telehealth Strategic Plan, developed during the course of FY 2012.

Service Reports of Telehealth Activity

Telehealth leadership for each of the Services was asked to complete a survey of current telehealth activity and challenges (Appendix A). The following summary is based on the responses received.

Army

For FY 2012, the Army reports providing telehealth care across 19 time zones in over 30 countries and U.S. territories at approximately 70 sites across all five Regional Medical Commands (RMC) and approximately 90 sites in the operational environment. In addition to these fixed sites, the Army reports deploying over 2,000 portable video teleconferencing (VTC) systems in support of behavioral health (BH) providers. The report provided by the Army can be found in Appendix B.

The Army reports a combined synchronous and asynchronous FY 2012 telehealth workload of 35,084 encounters (88 percent synchronous and 12 percent asynchronous) in garrison (i.e., in facilities not located in actively deployed environments), exclusive of radiology, secure messaging, and any educational modalities. The Army further reports that, in FY 2012, clinical telehealth services were provided in 28 specialties. Tele-Behavioral Health (TBH) accounted for 86 percent of the total telehealth volume in garrison and 55 percent of total telehealth volume in operational (i.e., actively deployed) environments. Dermatology and cardiology are also reported by the Army as telehealth services with a higher utilization rate. Additionally, the Army is leveraging a partnership with the University of New Mexico for the current deployment of Project ECHO to develop provider capacity to treat diseases in rural and underserved areas.

As part of their provider-patient clinical encounter solutions, the Army makes use of TBH to support surge clinical care needs, where large numbers of soldiers are preparing to be deployed, or are returning from deployment. One example of this is the use of TBH to support referrals generated by pre- and post-deployment BH assessments during Soldier Readiness Processing (SRP) events. TBH is used to supplement existing BH assets at facilities. Previously, such SRP events required travel of BH providers from other facilities to the SRP locations. Some of the BH assessment needs of these SRP events are now met virtually by TBH providers.

Reported Challenges

The Army Medical Command reports that fiscal uncertainty, and associated hiring freezes and contracting concerns, represent the greatest current barriers to the spread of telehealth.

Air Force

The Air Force reports limited Integrated Services Digital Network (ISDN)-based VTC connectivity at each of its 75 Military Treatment Facilities (MTFs). The Air Force is in the process of an eventual conversion to an IP-based clinical network that will possess the bandwidth and resources to support significant synchronous telehealth growth. The Air Force-provided report can be found in Appendix C.

Partially in response to these resource constraints, the Air Force has actively developed programs associated with Project ECHO. Project ECHO provides primary care providers, across the Air Force and DoD enterprise, with synchronous access to specialists for case presentation and other forms of consultation. The Air Force currently maintains four ECHO networks: Complicated Diabetes, Traumatic Brain Injury (TBI), Chronic Pain Management, and Behavioral Health. New ECHO networks in the areas of International Medical Readiness and Dermatology are pending deployment in FY 2013. The Air Force Medical Service has begun purchasing and deploying webcam-based VTC systems to Air Force providers in support of Project ECHO. The Air Force Project ECHO implementation provides low-cost, real-time access to provider-to-provider consultation across a global network of treatment settings.

Reported Challenges

As noted, Air Force telehealth development has been constrained by an older and less capable network environment and a lack of capital for investment in VTC endpoint upgrades. One potential challenge to telehealth development will be the need for endpoint investment to match pending upgrades in Air Force clinical network capabilities.

The Air Force also notes a challenge in MTF commander (DoD's equivalent of VA's Medical Center Director) acceptance of the need for, or advisability of, Air Force clinicians providing telehealth care or consultation for beneficiaries and/or colleagues outside of the particular MTF's population. Reticence to share clinical resources via telehealth is a concern that transcends the Air Force, as a key rationale for telehealth development within the MHS lies in its potential to improve resource leveraging across the enterprise.

Navy

Navy Medicine has been involved with telehealth since the mid-1990s. The primary focus has been on teleradiology for shore facilities and the use of MedWeb to transfer images from ships and overseas commands to stateside MTFs. In recent years, Navy MTFs have initiated VTC services both within the Navy system and with other Services. In 2011, Navy Medicine initiated a headquarters-level Telemedicine Program to address the need to improve utilization of scarce provider resources, reduce network costs, extend care to theater and forward deployed settings, and work in a joint environment.

The Navy reports a variety of telehealth services at their MTFs on the U.S. Eastern and Western seaboards, the Great Lakes region, the Atlantic and Pacific basins, and Europe. Services provided include Tele-Radiology, Tele-ICU, Tele-BH, Neuropsychology and Neuropsychiatry services for Traumatic Brain Injury (Tele-TBI), Tele-Pain Management, Tele-Echocardiography, Tele-Pediatrics, Tele-Nutrition, Tele-Speech Pathology, and Tele-Pharmacy.

In addition to their own MTFs, Navy Telehealth Partners include: Tripler Army Medical Center (HI), Walter Reed National Military Medical Center, Army Kimbrough Ambulatory Care Center, VA (for the Lovell Federal Health Care Center in North Chicago, IL and the Naval Medical Center San Diego, CA), Madigan Army Medical Center, and commercial Tele-Radiology reading services, among others.

A number of Navy MTFs are in various stages of planning for expansion of telehealth services, seeing telehealth as a tool to improve access to services, reduce clinician and beneficiary travel, better leverage resources, and reduce "leakage" to the purchased care network.

VTC and software-based (e.g., CISCO Jabber) video solutions are available to all Navy MTFs, though their proliferation is limited by funding and infrastructure.

The Navy's Comprehensive Pain Management Program (NCPMP) is an example of its efforts to provide condition-specific telehealth care. The NCPMP offers interdisciplinary provider tele-consultation, utilizing the Project ECHO model, with care reviews and continuing medical education credits (CMEs) offered to participating primary care providers. The NCPMP also provides direct, VTC-based care and a provider "hotline" for direct phone access to a pain specialist.

The Navy reports working with the Army on a Patient Centered Medical Home (PCMH) Information Management and Information Technology (IM/IT) Subgroup to explore clinical use cases for the Relay Health secure messaging system. Use cases being explored include "pushing" assessments to patients for ongoing care management, moving images, and enabling provider-to-provider consultation.

Navy Medicine has been actively developing mobile applications, with a mild Traumatic Brain Injury (mTBI) app for providers expected by the third quarter of FY 2013 and with several MTF-requested apps in development this FY.

A Navy Medicine policy governing the use of VTC for clinical care was issued in December 2012. Among other issues, guidance regarding proper telehealth coding and documentation was included in the policy.

Navy Medicine continues to develop clinical requirements and metrics, and is working on a strategic plan focusing on garrison care. Garrison capabilities and experience can then be leverage as a foundation for operational forces distance support.

The Navy provided reports can be found in Appendices D1 and D2.

Reported Challenges

While infrastructure improvements and telehealth service expansions are in the planning and/or implementation phases at a number of Navy MTFs, space and technology limitations continue to constrain telehealth growth at others. For example, significant bandwidth limitations at Naval Base Guantanamo Bay prevent the institution of most synchronous telehealth services, with a major infrastructure upgrade still several years off. (However, asynchronous technologies, such as Tele-Radiology, are currently in use).

The Navy has plans to utilize its Critical Infrastructure Program to address some of these infrastructure deficits.

DoD Telehealth Workload Capture Reports

Unlike VA, the MHS does not currently possess a means to "structurally" capture telehealth workload through a series dedicated telehealth clinics. Therefore, telehealth workload capture and tracking are dependent upon clinical procedure coding, as outlined below, and self-counts of telehealth activity from the Services.

DoD policy and industry standard telehealth coding practice establishes that, for each instance of telehealth care, two clinical encounters are generated, one at the patient ("originating") site and one at the clinician ("remote") site. A telehealth coding modifier is added to the relevant clinical procedure code at the provider end (there are distinct modifiers for synchronous and asynchronous telehealth), while a dedicated Healthcare Common Procedure Coding System, Level II (HCPCS II) code (Q3014) is entered at the patient-end. The following analysis covers workload that was captured into the MHS work flow databases for FY 2012 utilizing the approved coding process described above. As in VA, the DoD telephone consultations have been excluded from this telehealth workload analysis.

Total telehealth captured workload for FY 2012 is lower than Service self-reports of telehealth activity. Technical problems in the Armed Forces Health Longitudinal Technology Application (AHLTA) clinical documentation platform contributed to this discrepancy for most of FY 2012 by preventing the addition of the telehealth modifier to the correct clinical procedure codes at the time of service. The modifier could be added by coding staff at a later time, though this was often not done due to resource limitations and a lack of MHS-wide guidance on this issue. Potential work-arounds were attempted at a number of MTFs. However, the lack of consistent guidance on this issue resulted in lost telehealth workload capture at many locations. The technical error in AHLTA was repaired by the end of FY 2012.

In a large, semi-closed healthcare system, such as the MHS direct care network, the total number telehealth patient-end encounters captured should approximate the combined total number of provider telehealth encounters. However, this was not observed for the FY 2012 data. Also, since they reference different ends of the telehealth connection, there should be no instance in which provider and patient-end telehealth codes co-occur within the same clinical encounter. Unfortunately, a large number of encounters were observed in which such co-coding occurred. This analysis included the co-coded encounters within the telehealth provider captured workload counts.

Given the known technical and procedural issues with telehealth workload capture during FY 2012, the reader is encouraged to exercise caution in the interpretation of these results.

Synchronous Telehealth

Table 22 provides a summary of synchronous telehealth workload captured for the MHS direct (vs. purchased) care network for the FY 2012 period. Included in the Table are the number of provider-end encounters and the number of patient-end encounters. (In cases in which encounters included codes for both the provider and patient-end, the workload is counted as a provider encounter.) As noted above, the number of provider-end encounters does not equal the number of patient-end encounters in the system; therefore, data is provided for each. The number of "non-duplicated" or unique patients is provided for each. Finally, the average number of visits per non-duplicated patient is provided for both provider-end and patient-end encounters.

TABLE 22: FY 2012 Synchronous TH Workload Capture – All MHS
All Clinic Types, No Telephone Consultation

	# of provider-end encounters (encounters with provider modifier)	# of Non-Duplicated Patients	Avg # of provider encounters per Non-Duplicated Patient	# of patient-end encounters (encounters with patient code, excluding dual codes)	Non-Duplicated Patients	Avg # of patient encounters per Non-Duplicated Patient
MHS DIRCT CARE TOTALS	24,873	11,702	2.126	5,117	4,367	1.172

For FY 2012, there were 24,873 synchronous telehealth provider-end encounters captured MHS-wide. These encounters served 11,702 non-duplicated patients. Patient-end encounter totals were significantly lower than the corresponding clinician-end numbers. After removing dual provider/patient-end miscodes (which were counted under the provider-end workload capture), the FY 2012 patient-end telehealth total was 5,117 captured encounters for 4,367 patients.

The captured telehealth workload suggests that a large portion of MHS telehealth consists of 1-2 session assessments and/or brief consultations (average number of provider-end encounters per patient = 2.126; average number of patient-end encounters per patient = 1.172), though there were several facilities that provided or received multiple encounter telehealth services.

Table 23 lists the five most common procedures to be delivered by the captured synchronous telehealth workload during FY 2012:

Table 23: Top 5 Synchronous Telehealth Coded Procedures for FY 2012

RANK	PROCEDURE (CPT) CODE	DESCRIPTION	# OF ENCOUNTERS
1	90805	Individual Psychotherapy, Office or Outpatient Facility, 20-30 minutes, with medical evaluation and medical management services	3,356
2	90806	Individual Psychotherapy, Office or Outpatient Facility, 45-50 minutes	2,342
3	90801	Psychiatric or Psychological Diagnostic Interview	1,876

4	90862	Psychopharmacologic Medication Management	506
5	90807	Individual Psychotherapy, Office or Outpatient Facility, 45-50 minutes, with medical evaluation and medical management services	254

Asynchronous Telehealth

Table 24 provides the preliminary FY 2012 captured workload for encounters utilizing the asynchronous telehealth provider-end modifier.

Table 24: Preliminary FY 2012 Asynchronous TH Provider-End Workload Capture Data (M2 database, 5 DEC 2012 Extract, Ambulatory Data)

	PROVIDER-END ENCOUNTERS
MHS DIRECT CARE TOTAL	5,589

MHS Telemental Health / Telehealth Strategic Plan

In FY 2012, in an effort to foster the expansion of coordinated telehealth efforts within the MHS, reduce stove-piping, increase accountability, and promote quality services and an alignment with MHS strategic priorities, the Office of the Secretary of Defense for Cost Assessment and Program Evaluation (OSD-CAPE), and the Assistant Secretary of Defense for Health Affairs (ASD/HA) tasked the National Center for Telehealth and Technology with conducting an enterprise-wide gap analysis of telemental health and related telehealth issues and with developing an MHS Telemental Health / Telehealth Strategic Plan based on that analysis. The resulting Strategic Plan established four Strategic Aims for the overall MHS Telehealth Program of Care (the MHS total telehealth effort):

Telehealth Strategic Aims

Strategic Aim # 1: Expanded Access to Services

The MHS Telehealth Program of Care will expand access to a broad range of high quality, evidence-based clinical services for MHS beneficiaries. Services will be offered at more convenient times and locations than traditional bricks-and-mortar healthcare can provide.

Strategic Aim #2: Patient-Centered Virtual Care Team

The MHS Telehealth Program of Care will better integrate patients, families, primary care providers, and specialists across geographic locations and time, fostering the growth of an 'office without walls' approach to healthcare.

Strategic Aim # 3: Beneficiary Wellness

The MHS Telehealth Program of Care will foster beneficiary health and wellness within and between clinical appointments. Prevention, resiliency, and population wellness will be supported through technology tools that aid in assessing, sustaining and improving health; managing chronic conditions; and promoting active and ongoing engagement with members of the care team.

Strategic Aim # 4: A More Nimble and Efficient Healthcare Force

The MHS Telehealth Program of Care will leverage direct care, purchased care and interagency resources to respond faster and more effectively to beneficiary healthcare needs than is currently possible. Telehealth will better equip our healthcare force to address current and future demands for access, quality and value.

Telehealth Foundational Pillars

The four Strategic Aims are supported by four Foundational Pillars designed to help MHS components to develop telehealth in a manner that is competent, accountable, and sustainable:

Pillar #1: Quality

The MHS Telehealth Program of Care will adhere to enterprise-wide standards of quality that meet or exceed national and international benchmarks. Performance will be measured against standards using valid and reliable assessment metrics and processes. Results will be used to inform a continuous quality improvement cycle designed to enhance performance and refine standards over time.

Pillar # 2: Competency

The MHS Telehealth Program of Care will utilize clinical and support personnel with appropriate skills and training. Telehealth training standards and materials will be well defined and disseminated within MHS training programs to all relevant individuals. Personnel will demonstrate acquisition and maintenance of appropriate telehealth skills. Education and training standards and materials will keep pace with new developments in the telehealth field and new applications of telehealth to the MHS mission.

Pillar #3: Accountability

The MHS Telehealth Program of Care will operate according to relevant, consistent, and well-defined enterprise-wide business practices. MHS-wide telehealth informatics tools will be developed and utilized to track value indicators at all levels of the enterprise and to inform business decisions.

Pillar #4: Technical Capability

The MHS Telehealth Program of Care will utilize technology tools and structures that are appropriate to its mission. Telehealth functional requirements will be fully integrated into Inter-Agency, TMA, Service-level, and Military Treatment Facility (MTF) Information Management and Information Technology (IM/IT) planning. The overall MHS IM/IT architecture will support the full range of current and planned telehealth services.

Over the course of FY 2013, work has begun in each of the Foundational Pillar areas. This includes work to enhance accountability through improved telehealth workload and cost capture, establish basic telehealth competency standards, develop consensus quality metrics for telemental health, and begin coordination of telehealth functional requirements which will provide input into the MHS IM/IT planning process. The DoD and VA Telehealth Strategic Plans have been shared within the DoD/VA Telehealth Working Group and will serve as a basis for joint planning efforts.

Appendices

Appendix A:	Service Telehealth Survey
Appendix B:	Army Telehealth Information Paper
Appendix C:	Air Force Telehealth Survey Response
Appendix D1:	Navy Telehealth Status Update
Appendix D2:	Navy Telehealth Survey Response

Appendix A

Service Telehealth Stakeholder Questions

Purpose: A key deliverable for the DoD/VA Health Executive Council (HEC) Telehealth Work Group (TH WG)'s Joint Strategic Plan is to produce a report on the current state of telehealth (TH) services within the DoD and VA, and potential future telehealth services that could be offered jointly by the DoD and VA. This report will go to the HEC and the DoD/VA Joint Executive Council (JEC) and will also identify challenges that need to be addressed in order to expand these services. Accurate FY 2012 Service TH utilization data is critical for completion of this report. Please answer the questions below to ensure that we have accurate information on each Service's telehealth services and offerings. Also, please let us know the source for the information so that we can ensure proper citing and credit. For purposes of this survey, please consider only non-Theater TH operations. Feel free to forward these questions to command or MTF level stakeholders for their input. Command and MTF level responses can be included with the Service rollup to help identify location, type, and volume of TH service offered.

General Overview

1) Using the attached spreadsheet please provide a list of your Service's active Telehealth programs with as much detail as possible on the services provided. Please specify whether the program is Service specific, between Services, or between Service and VA. At a minimum, please describe the following:
   a. program, project, or initiative name;
   b. number of encounters and data source;
   c. discipline of care (e.g., behavioral health, dermatology)
   d. whether the tele-services are provided synchronously or asynchronously;
   e. whether the tele-services are direct provider to patient care, or provider to provider consult;
      1. if direct provider to patient care, whether the care was part of an episodic massed assessment effort (e.g. Soldier Readiness Processing – SRP) or part of ongoing clinical operations (this will assist in projecting utilization and resource availability trends as deployed forces are drawn down);
   f. for services that are provided between different MTF systems and/or between different Military Services, which are the provider sites and patient sites for each type of service. TH services without this information will be presumed to be between parent and child sites within an MTF system.
   g. the type of technology used to provide the service (e.g., stand alone VTC in clinic space, laptop MOVI/Jabber, electronic transfer of medical images, mobile phone, Telemedicine equipment (specify type), etc.).

2) What do you see as the greatest healthcare access challenges your beneficiaries faced in FY 2012?
   a. In general medical care?
   b. In specialty medical care?
   c. In mental/behavioral health care?
   d. In patient education and prevention efforts?

3) Which, if any, Telehealth programs existed in FY 2012 to address these challenges? Please described any specific barriers to implementing or expanding programs to address these challenges? Are there plans to address these challenges in the near future?

4) Did you conduct any effectiveness, satisfaction, or other Telehealth outcomes research in FY 2012? If so, please include a summary of results of these efforts. If not, do you plan to conduct any effectiveness, satisfaction, or other Telehealth outcomes research in the near future? If no, why not?

Assessments

1) How are you determining where to allocate resources? Are you conducting needs assessments? If yes, what is your general approach to these assessments? If not, why not, and would you find formal needs assessments beneficial?

IT Requirements

1) What equipment do you currently have available for telehealth? What equipment you would like to enhance your telehealth services? If you know of specific location and type of equipment needs, please note these.
2) How many of your sites (percentage & number) have sufficient bandwidth for multiple 386kbps VTC connections? 786kbps Telemedicine connections? Which sites have the greatest gap between TH potential and available bandwidth?
3) How many of your point-to-point TH VTC connections are purely IP? How many use ISDN for some portion of the connection?
4) Who supplies the network back-up?

Future Implementation

1) What do you think are the most critical issues to address that might hinder or enhance more widespread telehealth implementation? (e.g., structural/administrative changes to providing care, patient education, provider acceptance, provider training and education, reimbursement issues, technology availability/cost/integration, etc.)
    1. In particular, are there any policy barriers that you would like to see addressed/revised to enable more widespread telehealth implementation, either within or between the Services or for joint DoD-VA provision of care?
2) Where do you see the biggest need/optimal insertion points of telehealth for the future?

INFORMATION PAPER

MCHO-CL
22 Feb 13

SUBJECT: Army Telehealth (TH)

1. Purpose: To provide information on Army TH for the DoD/VA Health Executive Council (HEC) Telehealth Work Group's Joint Strategic Plan (TH JSP)

2. Facts:

a. Army TH provides clinical services across the largest geographic area of any TH system in the world.* Services are currently provided across 19 time zones in over 30 countries and territories at ~70 sites across all 5 Regional Medical Commands (RMC) and ~90 sites in the operational environment. Additionally, over 2,000 portable video tele-conferencing (VTC) systems have been deployed to support Behavioral Health (BH) providers globally, leading to an increase in patient and provider endpoints.

b. Army TH has grown substantially since 2009. Army TH clinical volume grew 935% FY09 – FY12. In FY12, the Army provided 35,084 real-time provider-to-patient encounters and asynchronous provider-to-provider teleconsultations in garrison, excluding radiology and secure messaging. An approximate 2,350 encounters were conducted in the operational environment. In FY12, clinical TH services were provided in 28 specialties compared to 13 specialties in FY09. Army TH offers services across a variety of interoperable technologies such as fixed and portable VTCs and associated peripherals, mobile platforms, and picture archiving and communications systems.

c. In FY12, Tele-BH accounted for 86% of total TH volume in garrison and 55% in operational environments. Dermatology and cardiology also accounted for significant clinical encounter volume. TH services are routinely exchanged between RMCs to enable the U.S. Army Medical Command (MEDCOM) to surge clinical support to the specialty and geographic areas with the greatest access challenges.

d. The DoD lead for the TH JSP, the National Center for Telehealth and Technology (T2), requested a description of the most critical issues that hinder or enhance widespread telehealth implementation. Fiscal uncertainty and associated hiring freezes / contracting concerns are the greatest current barriers to the spread of MEDCOM TH.

e. Bottom line: Army TH has grown 935% FY09-FY12 and is poised to continue accelerating the adoption of advanced virtual care.

Dr. Rye/(703) 681-4426
Approved by: COL Cho

* The source of garrison data for this Information Paper is M2. A complete conversion to M2 was accomplished for garrison TH on 2 Jan 13, after AHLTA was fixed to accommodate TH modifiers.

Appendix C

Service Telehealth Stakeholder Questions (Air Force)

Purpose: A key deliverable for the DoD/VA Health Executive Council (HEC) Telehealth Work Group (TH WG)'s Joint Strategic Plan is to produce a report on the current state of telehealth (TH) services within the DoD and VA, and potential future telehealth services that could be offered jointly by the DoD and VA. This report will go to the HEC and the DoD/VA Joint Executive Council (JEC) and will also identify challenges that need to be addressed in order to expand these services. Accurate FY 2012 Service TH utilization data is critical for completion of this report. Please answer the questions below to ensure that we have accurate information on each Service's telehealth services and offerings. Also, please let us know the source for the information so that we can ensure proper citing and credit. For purposes of this survey, please consider only non-Theater TH operations. Feel free to forward these questions to command or MTF level stakeholders for their input. Command and MTF level responses can be included with the Service rollup to help identify location, type, and volume of TH service offered.

General Overview

1) Using the attached spreadsheet please provide a list of your Service's active Telehealth programs with as much detail as possible on the services provided. Please specify whether the program is Service specific, between Services, or between Service and VA. At a minimum, please describe the following:
   a. program, project, or initiative name;
   b. number of encounters and data source;
   c. discipline of care (e.g., behavioral health, dermatology)
   d. whether the tele-services are provided synchronously or asynchronously;
   e. whether the tele-services are direct provider to patient care, or provider to provider consult;
      1. if direct provider to patient care, whether the care was part of an episodic massed assessment effort (e.g. Soldier Readiness Processing – SRP) or part of ongoing clinical operations (this will assist in projecting utilization and resource availability trends as deployed forces are drawn down);
   f. for services that are provided between different MTF systems and/or between different Military Services, which are the provider sites and patient sites for each type of service. TH services without this information will be presumed to be between parent and child sites within an MTF system.
   g. the type of technology used to provide the service (e.g., stand alone VTC in clinic space, laptop MOVI/Jabber, electronic transfer of medical images, mobile phone, Telemedicine equipment (specify type), etc.).1. AF has ISDN VTC portable carts in all 75 MTFs in the mental health clinic to be fully deployed by May 2013, conversion from ISDN to IP currently in network IA approval work list 2. Movi-Jabber units purchased and approved for network use with distribution to begin to AF providers participating in Project ECHO 3. Pilot testing of Virtual Medical Center (VMC) as alternative platform for Project ECHO projected go live in May 2013

2) What do you see as the greatest healthcare access challenges your beneficiaries faced in FY 2012?
   a. In general medical care?
   b. In specialty medical care? ***

c. In mental/behavioral health care?
d. In patient education and prevention efforts?

3) Which, if any, Telehealth programs existed in FY 2012 to address these challenges? Please described any specific barriers to implementing or expanding programs to address these challenges? Are there plans to address these challenges in the near future? Project ECHO is to meet the challenge of 2B above

4) Did you conduct any effectiveness, satisfaction, or other Telehealth outcomes research in FY 2012? If so, please include a summary of results of these efforts. If not, do you plan to conduct any effectiveness, satisfaction, or other Telehealth outcomes research in the near future? If no, why not? Project ECHO successful in 2012 and has continued into 2013 with expansion now to 4 specialties (DM, TBI, chronic pain, Behavioral health)

Assessments

1) How are you determining where to allocate resources? Are you conducting needs assessments? If yes, what is your general approach to these assessments? If not, why not, and would you find formal needs assessments beneficial? Lowest capital investment gets priority with very limited funding opportunities. Project ECHO runs at very low cost

IT Requirements

1) What equipment do you currently have available for telehealth? What equipment you would like to enhance your telehealth services? If you know of specific location and type of equipment needs, please note these. See 1g
2) How many of your sites (percentage & number) have sufficient bandwidth for multiple 386kbps VTC connections? 786kbps Telemedicine connections? Which sites have the greatest gap between TH potential and available bandwidth?
3) How many of your point-to-point TH VTC connections are purely IP? How many use ISDN for some portion of the connection? See 1g
4) Who supplies the network back-up?

Future Implementation

1) What do you think are the most critical issues to address that might hinder or enhance more widespread telehealth implementation? (e.g., structural/**administrative changes to providing care***, patient education, provider acceptance, provider training and education, reimbursement issues, technology availability/cost/integration, etc.)
    - In particular, are there any policy barriers that you would like to see addressed/revised to enable more widespread telehealth implementation, either within or between the Services or for joint DoD-VA provision of care? MTF commanders accepting that their providers are doing Telehealth for other beneficiaries outside their MTF population
2) Where do you see the biggest need/optimal insertion points of telehealth for the future? Extending specialty consultation out to primary care (Project ECHO goal)

R. G. Masannat, M63
16 Apr 2013
703-681-8546

Subject: Navy Telehealth Status Update

1. Purpose: To provide information on Navy telehealth for the DoD/VA Health Executive Council (HEC) Telehealth Work Group's Joint Strategic Plan (TH JSP)

2. Background: Navy Medicine has been involved in telehealth since the mid-1990s. The primary focus has been teleradiology for shore facilities and the use of MedWeb to transfer images from ships and overseas commands to stateside Military Treatment Facilities (MTFs). In recent years, Navy MTFs have initiated video teleconferencing (VTC) services both within the Navy system and with other Services. In 2011, Navy Medicine initiated a headquarters-level Telemedicine Program to address the need to improve utilization of scarce provider resources, reduce network costs, extend care to theater and forward deployed settings, and work in a joint environment.

3. Discussion:

- The accompanying Excel sheet (Appendix D2) lists current and planned/desired telehealth services at each Navy MTF. Tele-pharmacy, teleradiology, and behavioral health-related-care are the predominant services.
- VTC and CISCO MOVI (aka Jabber) are the available to all facilities, though their proliferation is limited by funding and infrastructure. The Navy Critical Infrastructure Program should address some of the infrastructure deficit.
- The Navy Comprehensive Pain Management Program (NCPMP) is a model for condition-specific telehealth care. The NCPMP offers interdisciplinary provider tele-consultation (aka "ECHO") with care reviews and CMEs offered to participating primary care providers. The NCPMP also provides VTC care and a provider "hotline" for direct phone access to a pain specialist. VTC and MOVI equipment has been procured specifically for high-demand sites using NCPMP funds.
- Navy and Army are working with the Patient Centered Medical Home IM/IT Subgroup to explore use cases for expanding Relay Health secure messaging. This expansion would entail proactively "pushing" assessments to patients for ongoing care management, moving images, and enabling provider-to-provider consultation.

- Navy Medicine policy governing the use of VTC for clinical care was issued on 31 DEC 2012. Proper coding and documentation guidance was included in the policy.
- mHealth is an area that requires quad-service cooperation and a joint strategy. Until that occurs, Navy Medicine will continue to develop mobile applications. A mild traumatic brain injury app for providers is expected to be available in May 2013, and 7 apps requested by our MTFs will be developed this fiscal year.
- Navy Medicine continues to develop clinical requirements and metrics, and is working on a strategic plan focusing on garrison care. Garrison capabilities and experience can then be leveraged as a foundation for operational forces distance support.

Appendix D2

To effectively plan for the growth of telehealth, BUMED requests your assistance in 1) identifying the current telehealth activities throughout your Area of Responsibility and 2) indicating specific clinical areas and MTFs for future telehealth capabilities. This information will be used by BUMED M3 and M6 to support any current initiatives and to develop a comprehensive plan. Please include information on video teleconferencing for direct care or specialty consultation, store-and-forward of images and e-consultations (i.e. Tripler's PATH system), and the integration of websites in patient self-assessment or management.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc) ?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
NME	FHCC Great Lakes	1. MOVE Bariatric Group 2. Speech PIRATE program (speech pathology)	1. Jesse Brown VA, 2. Pittsburgh VA	MOVE: 14 in FY13/ PIRATE Just beginning	1. MOVE! Weight Management Program 2. Diabetes Self Management Education (DSME) 3. Telemental Health (TMH) including Smoking Cessation, Coping Skills Group, Substance Abuse, & PTSD 4. Nutrition 5. Rehab (assistive devices) 6. Audiology (hearing aid fitting and adjustment)	FHCC Community Based Outpatient Clinics (CBOCs) - Evanston, McHenry & Kenosha	1. MOVE - 152 visits/month 2. DSME - 14 visits/month 3. TMH - 10 visits/month 4. Nutrition - 24 visits/mo 5. Rehab - 1 visits/month 6. Audiology - 7 visits/January (started in January)	Neuropsychology, Gastrointestinal (Pre-colonoscopy visi) Audiology expansion, in Evanston CBOC Teleretinal Imaging at Evanston & Kenosha CBOCs Palliative Care	Telemedicine such as Oncology, Cardiology and Neurology	

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc) ?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	BHC NAS Jacksonville	None	N/A	N/A	Provision of individual psych assessments & weekly PTSD group therapy	BHC Albany, GA (MEDLOGCOM and MEDSUPCOM and BHC HMs)	24 pts/mo for group; 1-2 pts/mo for individual	VTC group therapy for PTSD for BHC Key West (HM and other post-deployers); support group for spouses of SM's w/ PTSD in Albany PRN	Mayport/Kings Bay (individual /group on PRN basis); VTC post-deployment therapy for active FLNG/Reservists; training webinars/seminars via VTC for community providers	Very high attendance rate for VTC PTSD group therapy & individual sessions at BHC Albany, GA. Quarterly site visits for in-person group therapy augments therapeutic rapport.
	BHC Groton	None	N/A	N/A	Behavioral Health and Wellness	NHCNE Branch Clinics	20 visits/month	None	None	
	ACC Newport	None	N/A	N/A						
	BHC Portsmouth	None	N/A	N/A						
	BHC Saratoga Springs	None	N/A	N/A						
	NMCP Portsmouth				1.) Teleradiology: wet reads, final reports, and specialty consultations 2.) Child Psychiatry VTC 3.) Neuropsychology VTC	1.) NHC Corpus Christi NH Jacksonville NHC New England NH Guantanamo Bay NH Okinawa NH Yokosuka NH Guam All NME MTFs 2.) USNH Naples. 3.) NC Cherry Point and NH Camp Lejeune	1.) 585 studies 2.) 5-10 Child Psychiatry. 3.) 6 for Neuropsychology.	1.) Health Experts on-Line at Portsmouth (HELP): Asynchronous Telehealth sharepoint tool similar to PATH in the Western Pacific at TAMC. Primary audience is referring providers to NMCP to include fleet providers and local NME MTFs. 2.) Video telehealth specialty consultations via Jabber with NHCL (mental health and pediatric specialties). 3.) Specialty referral guidelines on NMCP internet homepage	1.) eICU capability to support NHCL. 2.)Neuropsychology VTC evals with VAMCs.	Need IP infrastructure to be in place.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc) ?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	Naval Hospital Camp Lejeune	Telepain management educational VTC	Walter Reed Army Medical Center	1 per month	None at this time	Not applicable	Not applicable	Per the attached sheet - there is a large scale initiative currently underway with NME funding - which includes clinical evaluation services for teleneurology, telepain management, and telepsychiatry.	Per the attached sheet - initiatives are additionally underway to allow e-ICU remote monitoring access, and improve subspecialty consultative services / connectivity during medical transfer both throughout the NHCL network and within the NME network once other facilities - such as NMCP - are brought on-line. These services will reduce costs of MEDEVAC and subspecialty care sent to the civilian network.	Per the attached spreadsheet - telehealth services at this facility and options for connectivity with other medical centers within the NME network would reduce costs of MEDEVAC / subspecialty care appointments currently shunted to the civilian network. Bandwidth is being improved. IP infrastructure is being developed.
	NHC Beaufort	NH Beaufort provides a negative response regarding current tele-health activities. Although we have discussed the potential for tele-derm and tele-ENT, we have postponed any discussions pending the outcome of the CONUS hospital study.								

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NHC Corpus Christi	Teleradiology	NMCP	Variable, back up for our solo radiologist	None				Teledermatology - Network dermatology services are limited. Pediatric Behavioral Health- these services are limited locally	Would reduce wait times and network costs.
	NHC Charleston	none	none	none	none	none	none	none	none	Naval Health Clinic Charleston is a joint venture site with the VA. The business office is doing a cost annalysis on a MH/VTC JIF project with VA. The plan at this point is to use VA equipment as they already have a robust program going in the Charleston area.
	NH Pensacola (1)	Nighthawk afterhours telerad services through VALOR; second opinion and subspecialty consultation readings from NMCP	Nighthawk: VALOR (contractor) Consult: NMCP	VALOR: 200 NMCP: 1	Radiologist peer review	NHCCC (Naval Health Clinic Corpus Christi)	ten	Naval Reserve Radiologist remote reading during drill weekends to help cover afterhours services and decreased contract costs; increased resource sharing with the VA	Virtual Colonography from NNMC Bethesda	Telerad reduces cost of services through improved resource sharing; services could be improved further through improved (faster) remote network connectivity
	NH Pensacola (2)	Tele-pain	Walter Reed	3 pt's monthly				Continue tele-pain, open to more enrollees, added sites are outlying clinics such as Whiting Field, Gulfport, New Orleans with R4 visit/support	VTC equipment, IT support, training, staffing to outlying clinics within AOR.	Added Support staff to manage and run larger size telepain clinic. Space utilization to accommodate for increased load

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NHC Cherry Point	Tele Neuro Psychiatry screening occuring with Portsmouth for TBI (8). Followed by Neuro Psych/TBI mobile van for more extensive workup.	Portsmouth	8	None	NA	NA	Planning to EXPAND tele-TBI service with Portsmouth to possibly 16 a month.	Anticipate increase Dermatology for family members and Active duty population. Network referrals currently average 108 per month. (Jun12-Dec 12)	Telehealth could reduce network leakage for Derm patients and improve the care of our beneficiaries/Wounded Warriors.
	NH Guantanamo Bay	Radiology Study Interruption	Portsmouth NMC	224 per month	None	None	N/A	None	Emergency Room and Critical Care	Bandwidth makes robust telehealth virtually impossible. Infrastructure is slated to be upgraded to fiber with in the next 7 years.
	NH Rota	Teleradiology (MedWeb/Agfa)	Naples, Sigonella, Bahrain, San Diego, Portsmouth	101 studies	Teleradiology	Naples, Sigonella, Bahrain, San Diego, Portsmouth	101 studies	None	None	Providers were quieried and found no new telehealth capabilities that were needed.
	NH Naples	TeleChild Psychiatry services	NMCP	5-10 visits	None	N/A	N/A	No information provided	No information provided	Possible use of Jabber equipment to use for child psychiatry services for ease of use and decreased cost
	NH Sigonella	Teleradiology	NMC San Diego, NMC Portsmouth, Walter Reed NMMC, Landstuhl RMC, NH Naples, NH Rota for Teleradiology	50 Radiologic studies for Teleradiology	Teleradiology	NH Naples, NH Rota, BHC Bahrain	250 Radiologic Studies for Teleradiology	Teleradiology - remote readings for MRI, CT, US, Xray	Teleradiology	

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	BHC Bahrain	Teleradiology	Teleradiology from NH Sigonella	200 radiologic studies for Teleradiology	N/A	N/A	N/A		N/A	
	BHC Souda Bay	Telepsychiatry	Telepsychiatry from NH Sigonella	Once every two months for Telepsychiatry	N/A	N/A	N/A	Increase volume for TelePsychiatry by purchasing webcam to use DCO.	N/A	
NCA	NHC Annapolis	None Currently	None currently	0	None currentlly	None currently	0	No current capability to begin telehealth-DUE Feb 2013 15 CISCO JABBER UNITS.	Mental Health services (both within our command and with WRNMMC or even Ft. Dix's mental health department) Teledermatology VTC capability with each BHC, and the departments at Brigade VTC capability for the departments at NHCA to include Readiness, the PEBLO office, Patient education, and other departments who have the need. VTC capability for Lockwood Heaton, or the equivalent location in the new clinic. Teleoptometry with WRNMMC.	Telehealth would decrease travel time and cost for the command and our patients.
				Current Capabilities				Future Capabilities		

	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	BHC Earle									
	BHC Lakehurst									
	BHC Mechanicsburg									
	BHC Philadelphia									
NCA	NHC Quantico	Telepain, Telebehavioral health, Teleradiology, Telepharmacy	Army Telehelath (kimbrough) provides neuropsych testing telebehavioral health; WRNMMC provides telepain and Teleradiology; NHC Quantico provides telepharmacy.	Tele neuropsych testing= 6 patients/month (8 hours per patient total); Telepain 36 patients/month; telepharmacy 1000 scripts/month; teleradiology 2200 films/month.	Telepharmacy	NHC Pax River and NHC Annapolis	NHC Quantico is used as a back-up for Pax and/or Annapolis if their telepharmacy is inoperative	Would like to entertain more robust use of telehealth services that provide treatment vice consultation (for example telederm that treats/prescribes/follows up rather then "telling" the primary care provider what treatments to provide.)	Possibly implementing telebehavioral health for medication management.	
NMW	NH Twentynine Palms	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	NHTP, BHC CL and BHC BP do not have any telehealth as our infrastruction currently does not support.
	BHC Bridgeport	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	NHTP, BHC CL and BHC BP do not have any telehealth as our infrastruction currently does not support.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	BHC China Lake	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	No telehealth	NHTP, BHC CL and BHC BP do not have any telehealth as our infrastruction currently does not support.
	NH Okinawa	Telebehavioral health TeleICU	Tripler provides some Telebehavioral health support Tripler provides TeleICU support	Telebehavioral health - OCT2012-DEC2012 * Monthly Avg for encounters TAMC 12.3 TeleICU 1-2/month	Telebehavioral Health - USNH Okinawa currently providing limited child psychiatric services to USNH Guam and will be providing clinical supervision for an unlicensed psychologist at USNH Guam TeleICU - can be used to coordinate high acuity (CCATT) transports w/ USNH Guam, USNH Yokosuka, Brian Allgood Army and TAMC	Telebehavioral health - USNH Guam TeleICU - USNH Guam (has been used), could be used at USNH Yokosuka, Brian Allgood Army	Telebehavioral health - Monthly Avg for encounters Guam 6.3 TeleICU - 1-2/month	Plan to continue to expand Telebehavioral health services including the plan for Tripler to provide Neuropscyhological support/supervision for the USNH Okianwa TBI Program Possible TeleCME services depending on new facility	Telebehavioral health expansion TeleCME TeleSpeech pathology f/u	Telehealth services could reduce transports for patient evals and f/u, improve patient care (by getting specialist input early in care) Will need cont IT support and some new hardware/software (package submitted) Moving to a new facility spring 2013
	NH Guam	Telepsychiatry	NH Okinawa provides telepsychiatry	12 child psych visits/month	None	N/A	N/A			Reduces/eliminates circuit rider. Allows for more timely support of child psychological services.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NH Guam	Tele Developmental Pediatrics			None	N/A	N/A	Okinawa; Tele Developmental Pediatrics	Anticipated volume ~36 new pt follow-ups w/freq between monthly and quarterly. Devp Peds circuit rider would continue for initial visits, though it is possible that this may change with in	Anticipated to reduce/eliminate circuit rider through more timely support of developmental pediatric consultation and follow-up.
	NH Guam	e-ICU	TAMC	~ 18 e-icu consults /yr	None	N/A	N/A	Pre-CCAT mission consultations w/Okinawa and TAMC (~8/yr).	With expansion or/and improved flexibility and capabilities, enhanced speciality care consultation may be realized across a variety of areas to include: surgery, dermatology, nephrology, cardiology, etc.	Most (not all) CCAT missions origin in Okinawa and terminate in Hawaii. Some do return to Okinawa and some do origin in Hawaii then return Hawaii.
	NHC Hawaii	None	None	NA	None	NA	NA	Tele-PSYCHOLOGY-to be provided by Tripler Army Medical Center Telebehavioral health department and staff		Telehealth could improve patient access to care, decrease wait time between appointments. Limited by funding
	BHC Kaneohe Bay	See above for all clinics that are part of NHCHawaii								
	BHC Camp Smith									
	BHC Naval Shipyard									
	BHC PMRF									

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	BHC Wahiawa									
	NH Oak Harbor	None	NA	NA	NA	NA	NA	Planning to begin a partnership with the VHA Puget Sound to implement Tele-Derm services by summer 2013.	Increased utilization of Navy Comprehensive Pain Management Services. Currently participating in provider monthly ECHO/VTC led by Dr. Christopher Spevak of Walter-Reed.	
	NH Bremerton	Pediatric Tele-echocardiography	Tele-echocardiography using MAMC providers	1 per month	None	NA	NA	Continue present level of service	No unplanned as of this time	
	BHC Puget Sound Naval Shipyard	None								
	BHC NS Everett	Telepsychiatry	Provide distance neuropharmacotherapy/psychotherapy for Naval Station Everett clinic	29.5 per month	None	NA	NA	Continue video neuropharmacotherapy and, if patient/clinician comfortable, psychotherapy	No unplanned as of this time	
	BHC NBK Bangor	None								

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NH Camp Pendleton	Telepharmacy Remote Dispensing and Verification System (TRDVS)	TRDVS allows remote communication and verification of prescriptions between 6 sites (NH Camp Pendleton and area BHCs)	Over 2,000 prescriptions are verified remotely via TRDVS	TRDVS within and between NH Camp Pendleton and area BHCs	TRDVS within and between NH Camp Pendleton and area BHCs	n/a	n/a	n/a	TRDVS is a POR centrally managed by NAVMISSA TRDVS ensures TJC standards are met through prospective review of prescriptions by pharmacists
	BHC Yuma	none	none							
	BHC Oceanside	Telepharmacy Remote Dispensing and Verification System (TRDVS)	TRDVS allows remote communication and verification of prescriptions between 6 sites (NH Camp Pendleton and area BHCs)	Over 2,000 prescriptions are verified remotely via TRDVS	TRDVS within and between NH Camp Pendleton and area BHCs	TRDVS within and between NH Camp Pendleton and area BHCs	n/a	n/a	n/a	TRDVS is a POR centrally managed by NAVMISSA TRDVS ensures TJC standards are met through prospective review of prescriptions by pharmacists
	BHC Point Mugu							Request to NAVMISSA for TRDVS capabilities between Port Hueneme and Port Hueneme		
	BHC Port Hueneme							Request to NAVMISSA for TRDVS capabilities between Port Hueneme and Port Hueneme		
	ABHC 13	Telepharmacy Remote Dispensing and Verification System (TRDVS)	TRDVS allows remote communication and verification of prescriptions between 6 sites (NH Camp	Over 2,000 prescriptions are verified remotely via TRDVS	TRDVS within and between NH Camp Pendleton and area BHCs	TRDVS within and between NH Camp Pendleton and area BHCs	n/a	n/a	n/a	TRDVS is a POR centrally managed by NAVMISSA TRDVS ensures TJC standards are met through prospective review of prescriptions by pharmacists

			Pendleton and area BHCs)							
				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	ABHC 21	Telepharmacy Remote Dispensing and Verification System (TRDVS)	TRDVS allows remote communication and verification of prescriptions between 6 sites (NH Camp Pendleton and area BHCs)	Over 2,000 prescriptions are verified remotely via TRDVS	TRDVS within and between NH Camp Pendleton and area BHCs	TRDVS within and between NH Camp Pendleton and area BHCs	n/a	n/a	n/a	TRDVS is a POR centrally managed by NAVMISSA TRDVS ensures TJC standards are met through prospective review of prescriptions by pharmacists
	ABHC 31	Telepharmacy Remote Dispensing and Verification System (TRDVS)	TRDVS allows remote communication and verification of prescriptions between 6 sites (NH Camp Pendleton and area BHCs)	Over 2,000 prescriptions are verified remotely via TRDVS	TRDVS within and between NH Camp Pendleton and area BHCs	TRDVS within and between NH Camp Pendleton and area BHCs	n/a	n/a	n/a	TRDVS is a POR centrally managed by NAVMISSA TRDVS ensures TJC standards are met through prospective review of prescriptions by pharmacists
	ABHC 52	Telepharmacy Remote Dispensing and Verification System (TRDVS)	TRDVS allows remote communication and verification of prescriptions between 6 sites (NH Camp Pendleton and area BHCs)	Over 2,000 prescriptions are verified remotely via TRDVS	TRDVS within and between NH Camp Pendleton and area BHCs	TRDVS within and between NH Camp Pendleton and area BHCs	n/a	n/a	n/a	TRDVS is a POR centrally managed by NAVMISSA TRDVS ensures TJC standards are met through prospective review of prescriptions by pharmacists

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NH Lemoore	Mental Health and Teleradiology	NMCSD/NAVH OSP Camp Pendleton	24 Adult Mental Health/ 20 Wet Reads On weekends.	N/A	N/A	N/A	N/A	N/A	N/A
	NBHC Fallon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NMAU Monterey	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
NMW	NMC San Diego-DCSS	3D Custom Cranial Prosthetics (saves money using WRNNMC lab vs local civilian counterpart)	WRNNMC - Prosthetics Lab	2-3/ year	A) Teleradiology Secondary Coverage for Fleet ships utilizing Medweb. B) Primary Coverage for local ships and in the event Medweb connectivity fails. C) Night/Day Hawk Wet Read Coverage of CONUS/OCUNUS MTF'S D) Retrieval/Transfer of Patient Studies for Second opinions, treatment and/or planning (i.e. Trauma, C5, Medevac, Surgery, Ortho, Neuro and General Consult) from outside MTF's via Medweb, CD Import (civilian, MTF's without connectivity and VA) or PACS to PACS configurations	A) Retrieval/Transfer: NHCP, NMC Portsmouth, NH Jacksonville, BAMC, Madigan, WRNNMC, Tripler (via BAMC), FT Irwin (via Madigan), NH Guam, NH Corpus Christi, LRMC Landstuhl (Bagram, Kuwait, Kandahar) Great Lakes B)Wet Read Coverage/Study Retrieval & Transfer: NH Sigonella, NH Naples, NH Rota, NH Lemoore (BMC China Lake), NH Okinawa 29 Palms COMPACFLT - Wet Reads, Consults and Full Coverage as requested	MTF Wet Reads: appx 78 per month Study Transfers: Via Medweb - appx 475 per month Via CD - appx 537 per month Fleet Coverage: 77 (as of Jan 2013)	A) Continue Joint Task Effort JMED IP Project and seeking solution for Standardization of Fleet Coverage B) Cooperation in efforts to build Central Repository of Navy and Army Imaging C) Developing plan for PACS to PACS with European Counterparts for retrieval and transmission of studies as back up to Medweb D) Continuing current services	Coverage both Full and Wet Read for MTF's and "visiting" ships and/or Connectivity interupption to Bethesda for deployed Fleet	Lack of understanding and communication from IA/IT creates a difficult environment and can threaten patient services and possibly safety.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NMC San Diego-VTC office				NMCSD has a state of the art VTC Bridge and the gateway devices to connect between IP to IP (NMCSD LAN to the INTRNET) and IP to ISDN. We have proven the IP-IP, HD Video connections and hourly connect between IP and ISDN. Issues of network security have kept the ports and protocols closed to use of IP-IP network connectivity.					
	NMC San Diego-Mental Health Directorate (part 1)	—Psychiatry clinical supervision is provided by VA San Diego in conjunction with NHCP providers.	VA San Diego		—DMH Grand Rounds was VTC to NH Lemoore, NHTP, NHCP, and SARP Pt Loma(NMCSD) on weekly basis, 90 minutes each Friday.	NH Lemoore, NHTP, NHCP, SARP Pt Loma	Weekly conf	Expand televised NMCSD Directorate of Mental Health weekly Grand Rounds to MTFs on the West Coast and if desired to other NMW MTFs.—Continue clinical group supervision of psychotherapy (Cognitive Processing Therapy, Prolonged Exposure Therapy, and EMDR) with VA San Diego and regional MTFs.	Possibly ability to do telemental health evaluations on deployed ships thereby reducing medevac and lost Sailor productivity costs. —Possibly stateside telemental health evaluations of deployed land based personnel (i.e. OEF/Africa).	DMH, NMCSD, would like to do continued telepsychiatry to backfill MTFs providing all psychiatric services by VTC which includes medical board submissions, command contact via phone, medication management via computer, and training of supported facility staff (psych techs, Corpsmen, providers) via VTC.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NMC San Diego-Mental Health Directorate (part 2)	- This occurs for 2 hrs every other week for 10 LIPs clinically supervised for EMDR psychotherapy. Avg volume is 5 cases discussed in group supervision monthly.	VA San Diego		From Jan-Jun 2012, this was regularly attended by NHL psychiatry and SARP Pt Loma with sporadic attendance by NHTP and NHCP.	NH Lemoore, NHTP, NHCP, SARP Pt Loma	Weekly conf	--Efficiently backfill psychiatrist services at NMW MTFs with deploying psychiatrist. Plan to make this a robust offering to reduce travel/per diem costs, increase backfill provider productivity, and increase staff morale by decreasing family separation.	Possibly ability to do telemental health evaluations on deployed ships thereby reducing medevac and lost Sailor productivity costs. --Possibly stateside telemental health evaluations of deployed land based personnel (i.e. OEF/Africa).	Telemental services provided to NHL saved $21,300 in daily per diem to cover 150 days while allowing psychiatrists to cover NHL clinical services a total of one day weekly, thereby preserving 4 days of NMCSD clinic time, avoiding family separation and related morale issues and TAD expenses.The savings by backfilling other MTFs by telemedicine would be similar with possibility of increased travel/per diem costs to overseas locations. Additionally, there is excellent VTC availability in the evening if needed to cover MTF needs in WestPac (i.e. Yokosuka work week is Sunday-Thursday 1600-2400 NMCSD time).Televised grand rounds would reduce travel and TAD costs for small MTF providers to get continuing medical education and continuing education hours necessary for maintaining professional licensure and credentialing.

				Current Capabilities				Future Capabilities		
	MTF	What telehealth services do you receive from other MTFs, the VA, or civilian providers?	What facilities are providing each of these services to you?	Average monthly volume	What telehealth services do you provide to other MTFs or the VA?	What facilities are receiving each of these services?	Average monthly volume	What telehealth services are you currently planning for in the next year (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	What unplanned telehealth services do you anticipate needing in the next 1-5 years (video teleconferencing, teledermatology, remote readings of sonograms or audiograms, etc)?	Comments
	NMC San Diego- Radiology				We offer teleradiology coverage for Naval Hospital Lemoore, Naval Hospital 29 Palms, and the three Naval Hospitals in Europe(Sigonella, Naples, and Rota). Service is only for wet reads and does not encompass a final report. The wet read is generally returned by fax and followed up with a phone call to the requesting provider.	NH Lemoore - every weekend 1600 Friday to 0800 Monday; Volume of studies is somewhere on the order of 3 to 5 per day. Transmission of studies is either direct PACS to PACS or PACS to Medweb to PACS. We do not currently participate in teleradiology via VTC. Though there is interest in participating in Radiology Grand Rounds with NMCP and WRNMMC via VTC (not an example of telemedicine with respect to patient care). NH 29Palms - every M,T, W from 1600 to 0800 the following morning Europe - every M-F 0800 to 2000 NH Lemoore - every weekend 1600 Friday to 0800 Monday; NH 29Palms - every M,T, W from 1600 to 0800 the following morning; Europe - every M-F 0800 to 2000		We may eventually be taking on the clinic at Pearl Harbor when the Radiologist there is on leave. This is expected to be only 30 or 40 plain films a day. However, we have not seen an MOU yet so don't think it would be anytime soon. Plus there is Tripler that in the spirit of "Jointness" might end up being the more logical option anyway.		
	USNH Yokosuka	1. TCCU. Tele critical care unit is set up to receive care from TAMC intensivists. The MOU is currently in development. 2. PATH (Pacific Asynchronous TeleHealth) allows consults to be placed to various TAMC specialists.	Tripler provides support for the TCCU and PATH systems.	The TCCU has not been used for an actual patient yet.	3. Tele pharmacy (ScriptPro)	ScriptPro allows remote communication and verification of prescriptions between 6 sites (NH Yokosuka and area BHCs)	250	1. Increase TCCU usage once MOU is approved. 2. Providing mental health services to branch health clinics; branch clinics may also received this support from TAMC telebehavioral surge and support department. 3. Beginning tele-pain service coordinated with Dr. Spevak at Walter Reed. 4.Telehealth appointments for EDIS patient with developmental pediatrician from USNH Okinawa.	TeleHealth access to other subspecialty services such as rheumatology, endocrine, etc.	Receiving TeleHealth services from TAMC is complicated by different interservice privileging processes and need for MOU

Appendix B

Annotated Bibliography of Relevant Telehealth Research

Home-Based Telemental Health

Luxton, D.D., Pruitt, L.D., O'Brien, K., Stanfill, K., Jenkins-Guarnieri, M.A., Johnson, K., Wagner, A., Thomas, E., and Gahm, G.G. (2014). Design and methodology of a randomized clinical trial of home-based telemental health treatment for U.S. military personnel and veterans with depression. *Contemporary Clinical Trials*, *38(1)*, 134–144.

This article notes that mental health treatments provided directly to beneficiaries' homes are not presently the standard of care within the DoD Mental Health System due to a paucity of supporting research on the feasibility, safety, and effectiveness of these treatments with the target population. The article then describes a current randomized controlled trial (RCT) of home-based telemental health treatment for depression among Active Duty Service Members and Veterans.

Evidence for Psychotherapy provided via Telehealth

Gros, D.F., Morland, L.A., Greene, C.J., Acierno, R., Strachan, M., Egede, L.E., Tuerk, P.W., Myrick, H., and Frueh, B.C. (2013). Delivery of evidence-based psychotherapy via video telehealth. *Journal of Psychopathology and Behavioral Assessment, 35*, 506-521.

A review of the research literature on the use of telehealth to deliver forms of psychotherapy that have an already established base of supporting evidence in traditional settings. Article reviewed 26 studies, of varying complexity and size. A number of the studies showed no difference in outcome between the telehealth and traditional in-person versions of the therapies. Some studies showed somewhat more improvement for the in-person version. The general finding was for significant treatment improvement for both forms of therapy. Several studies demonstrated that structured, psycho-educational group therapy can be safely and effectively delivered via telehealth.

Appendix C

DoDM 6025.13M, Enclosure 4
(Telehealth Relevant Excerpts)

DoDM 6025.13, October 29, 2013

ENCLOSURE 4

CREDENTIALS AND CLINICAL PRIVILEGES

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2. PORTABILITY OF STATE LICENSURE FOR HEALTHCARE PROVIDERS

a. General Provisions

(1) Section 1094(d) of Reference (j) mandates that, notwithstanding any law regarding the licensure of healthcare providers, a designated licensed individual provider may practice his or her profession in any location in any jurisdiction of the United States, regardless of where the provider or patient are located, so long as the practice is within the scope of authorized federal duties. For this purpose:

(a) A covered provider is one who is a member of the Military Services, civilian DoD employee, personal services contractor in accordance with section 1091 of Reference (j), or other health-care professional credentialed and privileged at a federal healthcare institution or location specially designated by the Secretary for this purpose.

(b) A jurisdiction of the United States is a State, the District of Columbia, or a Commonwealth, territory, or possession of the United States.

(2) Portability of State licensure does not apply to:

(a) Non-personal services contractor healthcare providers, whether on-base or off-base, unless specifically stated in the applicable contract and specifically approved by the ASD(HA).

(b) Non-DoD uniformed services personnel, employees, contractor personnel, volunteers, or other personnel of non-DoD agencies, unless specifically approved by the ASD(HA), or unless such personnel are properly detailed to DoD, in which case portability may apply to the same extent as to similar personnel of the DoD entity to which detailed.

(3) DoD Components must follow the procedures established in this section prior to assigning licensed individual providers to off-base duties to promote cooperation and goodwill with State licensing boards.

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c. Coordination with State Licensing Boards

(1) Prior to a healthcare provider performing off-base duties pursuant to section 1094(d) of Reference (j), the DoD Component must notify the applicable licensing board of the host State of the duty assignment involved. Such notification will:

(a) Include:

1. Healthcare provider's name, State(s) of licensure, and commanding officer.

2. Location and expected duration of the off-base duty assignment.

3. Scope of duties.

4. MHS liaison official for the licensing board to contact with any questions or issues concerning the off-base duty assignment.

5. A statement that the healthcare provider meets all the qualification standards in paragraph 2b of this enclosure.

(b) Cite section 1094(d) of Reference (j) and this manual as its underlying authority.

(2) In cases in which the off-base duties involve the provision of healthcare services through telemedicine from an MTF and patients outside MTFs, paragraph 2c(1) of this enclosure will not be applicable.

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6. CREDENTIALS, PRIVILEGING, AND ADDITIONAL REQUIREMENTS FOR TELEMEDICINE

a. Clinical Privileging for Telemedicine Providers. For facilities that grant clinical privileges, the requirements for credentialing and granting of clinical privileges are modified such that the privileging authority of the facility where the patient is located (known as the "originating site") may choose to rely on the credentialing and privileging determinations of the facility where the provider is located (known as the "distant site") to make local privileging decisions. This is known as "privileging by proxy," and decisions must incorporate applicable telemedicine standards as identified in References (s), (t), (u), and (v) to include requirements of the originating site to make final privileging decisions. These modifications are conditional on the following:

(1) The originating and distant site facilities are accredited by TJC, the Accreditation Association for Ambulatory Healthcare, or other appropriate accrediting entity designated by the ASD(HA). Hospitals must meet the standards in Reference (s) for privileging by proxy.

(2) The distant site provider is privileged at the distant site facility to provide the identified services and is authorized to provide telemedicine services. The provider or the distant site facility must request of the originating site facility, permission to use the provider's current privileges to provide care to patients in the originating site. The request and a privileging decision must be appropriately documented at the originating site. The distant site facility must provide at a minimum a copy of the distant site provider's current list of credentials, privileges, and proof of HIPAA training in accordance with Reference (n).

(3) The originating site facility has evidence of periodic internal reviews of the distant site practitioner's performance of these privileges and receives such performance information, including all adverse events resulting from telemedicine services, for use in the periodic appraisals.

(4) The originating site will transmit performance information, including adverse event information and complaints from patients, other providers or staff to the distant site and the distant site will demonstrate use of this information in periodic performance reviews of the provider.

(5) The privileging authority of the originating site may choose to use the ICTB (or other credential transfer mechanism approved by ASD(HA)) as a source to rely upon the credentialing and privileging determinations of the distant site.

(6) If the distant site facility is not a MTF or Department of Veterans Affairs (VA) hospital, or otherwise does not have access to the ICTB (or other credential transfer mechanism approved by ASD(HA)), its medical staff credentialing and privileging process and standards at least meet the standards in Sections 482.12(a)(1) through 482.12(a)(7) and 482.22(a)(1) through 482.22(a)(2) of Title 42, CFR (Reference (ad)).

b. Additional Conditions. The use of an originating or distant site that is not an MTF or VA medical facility, but is an installation, armory, or other non-medical fixed DoD location, a DoD mobile telemedicine platform, or a civilian sector hospital, clinic, TRICARE contracted provider's office, or other location approved by ASD(HA) for this purpose is permissible unless restricted by the SG concerned, or Commander, JTF CapMed. Prior to engaging in telemedicine services, the applicable medical command(s) must ensure that with respect to originating and distant sites and the providers involved:

(1) Patients and providers are provided with a secure and private setting.

(2) Arrangements have been made for appropriate clinical support, including access by local emergency services, should the need arise.

(3) The facilities and providers meet applicable current telecommunication and technology guidelines of the American Telemedicine Association at www.americantelemed.org. Examples of such guidelines include the American Telemedicine Association "Telemedicine Standards & Guidelines" (Reference (ae)) and American Telemedicine "Practice Guidelines for Videoconferencing-Based Tele-mental Health" (Reference (af)).

c. Alternative Arrangements. Alternatives to the requirements of section 6 of enclosure 4 require approval of ASD(HA).

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