

## 2016 Defense Health Information Technology Symposium

# Providing Telehealth Services and Improving Access to Care Using Health Information Technology



*“Medically Ready Force...Ready Medical Force”*

**“A joint, integrated, premier system of health, supporting those who serve in the defense of our country.”**



***“Medically Ready Force...Ready Medical Force”***

# Learning Objectives

- Define the seven telehealth initiatives prioritized in the Military Health System (MHS) Telehealth (TH) Working Group (WG) Goals, Objectives, and Implementation Plan
- Describe information technology (IT) equipment and support requirements necessary to support the seven prioritized telehealth initiatives
- Describe Research and Development (R&D) initiatives related to telehealth in operational environments

# Agenda

- Telehealth Overview
  - Definition and Value Proposition
  - Vision and Mission
  - Goals and Objectives
- Information Technology: Enabling Telehealth
- Current and Future Telehealth Research

# TH Work Group (WG) Members and SMEs



2016 Defense Health Information Technology Symposium

The WG consists of voting and consulting members, as well as ad hoc SMEs.

## VOTING MEMBERS

USA	Dr. Colleen Rye (Chair)
USN	CAPT Valerie Riege
USAF	Lt Col Antonio Eppolito
DHA	CDR William Satterfield

## CONSULTING MEMBERS

DCoE-T2	Dr. Grady; Dr. Adler
DHA NCR	COL Lederer
DHA HIT	Mr. Goodge
HRPO	Dr. Zebrowski
TATRC	COL Kral

## AD HOC SMES

USAF MSgt Hudon	DHA (Logistics) Ms. Blair
USAF Ms. Varian	DHA (Logistics) Mr. Boals
USAF Mr. Delphin	DHA-NCR Mr. Arida
USAF (PACS) Mr. Baker	DHA-NCR Lt Col Nelson
USAF (Rad) Lt Col Unsell	DHA-NCR COL Murphy
USA Mr. Putnam	DHA-NCR MAJ Murray
USA Ms. Henderson	DHA-NCR MAJ Provela
USA (PACS) Dr. Weiser	DHA-NCR MAJ Soto
DHA MAJ Faust	DHA (PCMH) Ms. Julian
DHA (Rad) Mr. Shamashair	DHA (PCMH) Ms. Ugalde
DHA Mr. Kress	DHA (Rad) Dr. Jalal
DHA: Mr. West	DHA (R&D) Dr. Brix
DHA Ms. Mattingly	DHA (RM) LTC Richards
DHA Mr. Cotton	HA Dr. Matteson
DHA (Contracting) Mr. Lewis	HA Mr. Chan
DHA (Edu & Training) COL Hutchins	HA Mr. Poling
DHA (Facilities) Lt Col Woosley	USN CDR Preeyer
DHA (Facilities) Mr. Harmon	USN CDR Loe
DHA (Facilities) Ms. Haley	USN Ms. Lann
DHA HIT Mr. Abidi	USN Ms. McCaffrey
DHA HIT Mr. Jacobs	USN (Rad) CDR Mullens
DHA HIT Ms. Newton	TATRC Ms. Little
DHA HIT: Mr. Abbott	TATRC Mr. Manemeit
DHA (JCIDS) Mr. Harris	TATRC Dr. McVeigh
DHA (JCIDS) Mr. MacBride	USAMITC Mr. Andrew

*“Medically Ready Force...Ready Medical Force”*

# Background: Defining telehealth for the MHS

- The use of telecommunications and information technologies to provide health assessment, treatment, diagnosis, intervention, consultation, supervision, education, and information across distances
- Telehealth is leveraged to provide world-class care across the globe including deployed locations for service members, family members, retirees, and other eligible beneficiaries



***“Medically Ready Force...Ready Medical Force”***

- **Improves readiness** by providing access to care at duty locations , by extending to the point of injury in real time. Telehealth supports provider proficiency by allowing MHS providers to treat patients with a greater range of conditions.
- **Improves population health** by supplying relevant health feedback to patients and providers through the use of health monitoring and enhanced communications and enabling healthy behaviors, specifically to prevent development of illness or to reduce the consequences of having an illness.
- **Improves health outcomes** by enhancing capability of primary care providers through consultation/education (provider to provider) and extending access to specialty services for patients in remote locations (provider to patient)
- **Can lower healthcare costs** in certain circumstances by cross-leveling care capacity, avoiding costly healthcare interventions such as visits or admissions, reducing the need to refer out to the private sector and travel to receive care from specialists (provider to provider; provider to patient)

# Telehealth: Vision and Mission



2016 Defense Health Information Technology Symposium

- **Vision** | Where it makes sense, the Military Health System will leverage telehealth to increase readiness, enhance experience of care, reduce per capita cost, and improve population health.
- **Mission** | Where it makes sense, the Military Health System will incorporate telehealth modalities across the telehealth domains (provider to patient; provider to provider; patient to system) to provide medical capability to remote and operational areas and locations where the patient and/or the provider is outside traditional care settings.

*“Medically Ready Force...Ready Medical Force”*

# Telehealth: Our Goals



Defense Health Agency

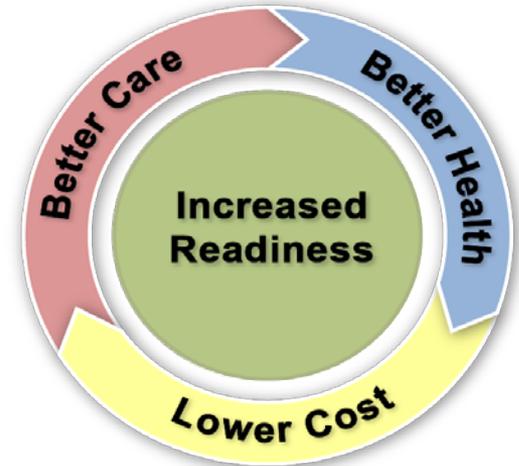
2016 Defense Health Information Technology Symposium

**GOAL 1: Leverage Telehealth to Empower Patients to Manage Their Health**

**GOAL 2: Enable Providers to Deliver the Right Care at the Right Place at the Right Time**

**GOAL 3: Identify, Select, and Implement Best Value Telehealth Solutions**

**GOAL 4: Deliver Telehealth Solutions to Support Mission Readiness and Operational Medical Capabilities**



**MHS Quadruple Aim**

*“Medically Ready Force...Ready Medical Force”*

# Telehealth: Our Objectives



2016 Defense Health Information Technology Symposium

## Leverage TH to Empower Patients to Manage Their Health

1. Develop remote health monitoring

## Enable Providers to Deliver The Right Care at the Right Place at the Right Time

2. Implement TH at patients' locations (primary care)
3. Explore use of TH at patients' locations (specialty care)
4. Implement enterprise ECHO Telementoring Program
5. Execute planning for clinical VTC & peripherals
6. Advance use of teleradiology

## Identify, Select, and Implement Best Value TH Solutions

*All proposed solutions for each TH Objective will be identified, selected, and implemented to result in best value to the MHS*

## Deliver TH Solutions to Support Mission Readiness and Operational Medical Capabilities

7. Enhance and mature a single asynchronous teleconsultations capability for providers in both garrison and operational environments

***“Medically Ready Force...Ready Medical Force”***

- The goals and activities of telemedicine and health IT are complementary and synergistic
- Telemedicine is a method of delivering health care that makes use of health information technologies to accomplish its goals
- Conversely, health information technologies are an enabling component to the delivery of health services over distances, providing fundamental tools and systems

# Information Technology: Defining Telehealth for IT

The use of medical information exchanged from one site to another via electronic communications to improve a patient's clinical health status.

*-American Telemedicine Association*



# Information Technology: Key Terms and How They Relate to Telehealth Technologies



2016 Defense Health Information Technology Symposium

## Why invest in telehealth?

### Use Cases



Diagnosis and Treatment



Professional Consultation



Monitoring and Care Coordination

## What are the applications?

### Modalities



Real-time Virtual Visits



Remote Patient Monitoring



Asynchronous Store-and-Forward

## How is telehealth offered?

### Platforms



Telephonic



Web-based



Mobile, Smart Device



Kiosk



Bluetooth-Enabled Peripheral Devices

*“Medically Ready Force...Ready Medical Force”*



## IT Infrastructure

- Broadband wired network
- Network management system
- Integrated enterprise EMR



## Telemedicine Equipment

- Computers, laptops, tablets, or mobile carts
- Audiovisual equipment (e.g., webcams, videoconference)
- Digital enabled medical equipment, peripheral devices



## Data Management Systems

- Expanded memory and processing capabilities
- Data mapping across multiple sources
- Analytic reporting (e.g., geospatial tracking)



## Staffing and Personnel Support

- Technical expertise for deployed technologies
- Help desk/support hotline
- Administrative support for licensing, credentialing

# Research & Development: Current Telehealth Research



2016 Defense Health Information Technology Symposium

- Telehealth 2.0; Preserving Continuity of Behavioral Health Clinical Care to Patients Using Mobile Devices
- Enhancing mHealth Technology in the PCMH Environment to Activate Chronic Care Patients
- Prototype Generic Behavior Change Coach Application for Weight Loss, Smoking Cessation, and Medication Management Using Transtheoretical Change Model
- Rx3: Rehab, Refit, Return to Duty Mobile Health Project
- Fit for Performance Mobile Health Project
- Mobile Health Communication Service for Personalized Cancer Survivorship Plans
- Medical Cloud Connectivity for Combat Casualty Care (MC5)
- Vital-signs monitoring for hemorrhage detection
- Sleep and cognitive performance (mobile application)
- Enroute Medical Care Secure Wireless Connectivity & Cross Domain Solution
- Ultra Wideband wireless integration of patient monitors & Medic EUD for Special Operations Forces
- Ultraviolet Communications for Medical Apps
- Medical Image Compression for low communication environments
- And much, much more!



***“Medically Ready Force...Ready Medical Force”***

# Research & Development: Future Concepts of Interest

- Supporting/enabling pre-hospital prolonged field care
- Synchronous/Asynchronous teleconsultation (ongoing)
- Synchronous telemedicine (ongoing); inter and intra-Theater operations
- Supporting medical operations in constrained environments; operating in mega-cities
- Supporting/enabling extended medical evacuation missions
- Autonomous devices
- Medical robotics
- Unmanned evacuation platforms; enabling remote patient monitoring and care en-route
- Improving viability of CASEVAC (non-MEDEVAC) to support mission commanders
- Visibility, tracking, and “shaping” of CASEVAC missions to support medical regulating
- Service member sensor data integration with other platforms
- Behavioral assessments of technology implementation; acceptance rates, push-back, etc.
- Patient acceptance of mobile interactions; what works and what doesn’t?
- Remote patient monitoring; enabling remote care
- And so much more...

# Research & Development: Supporting Current Operations



Defense Health Agency

2016 Defense Health Information Technology Symposium

- teleBH program
- AKO asynchronous teleconsultation portal
- Synchronous teleconsultation (VC3 and others?)

# Key Takeaways...

## Telehealth

- Requires support and involvement across the MHS
- Supports the MHS' Quadruple Aim
- Serves as a force multiplier
- Addresses capability gaps (personnel & expertise)
- Enhances project medical support where none currently exists
- Augments set of health IT solutions available to healthcare providers, worldwide

# Questions / Discussion



Defense Health Agency

2016 Defense Health Information Technology Symposium



***“Medically Ready Force...Ready Medical Force”***

# Evaluations



Defense Health Agency

2016 Defense Health Information Technology Symposium

Please complete your evaluations

# Contact Information

## CDR William Satterfield

- Program Management Officer, Telehealth and Telementoring Condition-Based Specialty Care, Clinical Support Division, Defense Health Agency
- [william.a.satterfield.mil@mail.mil](mailto:william.a.satterfield.mil@mail.mil)