

2016 Defense Health Information Technology Symposium

Mobilizing the Enterprise: The Future of mHealth in the MHS



“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”

Our Panelists



2016 Defense Health Information Technology Symposium

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Learning Objectives

- Discuss Enterprise mobile Health (mHealth) activities completed, underway, and planned
- Describe the Enterprise Mobile Way Forward across the Military Health System (MHS)
- Identify Enterprise Mobility Challenges inherent in the MHS
- Measure Organizational Success through discussing best practices and lessons learned in app development and mHealth research

Agenda

- Mobility Defined
- Enabling an MHS Enterprise Mobility Strategy
 - The Mobile Technology Working Group (MTWG)
 - Mobile Device Management Overview
 - Mobile App Development Overview
- National Center for Telehealth and Technology (T2) Best Practices and Lessons Learned
- Telemedicine & Advanced Technology Research Center (TATRC) mHealth Research and Lessons Learned
- Enterprise Mobility Challenges
- Questions/Panel Discussion

Mobility Defined

The world is adopting mobile technology *much faster* than the Department of Defense. It is *critical* for the Military Health System (MHS) to make inroads with mobile technologies going forward. The evolution of mobile technologies with the alignment of functional requirements is *key to achieving our goal*.

Mobility

“Work on the go”/Mobility Device and Application capabilities that will evolve the MHS Enterprise to where all personnel have the freedom to securely work at any location, on any device, across the MHS network.

Mobile Technology

Devices and applications that are intended to be used by mobile users.

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The Mobile Technology Work Group (MTWG)



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- Chartered July 2015 under Clinical Portfolio Management Board (CPMB)
- Mission to ***define an optimal Enterprise Mobility Way-Forward with emphasis on patient facing, joint & speed to market applications***
- Optimizing innovation, collaborative relationships, and focusing on full spectrum of mobility with a team comprised of:
 - All Service Components
 - Multiple DHA Directorates
 - DHMS Program Office
 - Theater Functional Working Group
- Strategy and DoD Directive Memo being developed based on validated functional and technical requirements to include necessary security and privacy guidance in development/management of mobile applications and device management

**Our Goal is Deliver a Joint Solution
that is Standardized, Centrally
Governed yet Locally Empowered**

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Mobile Device Management Overview



*“Work
on the
Go”*

*Mobile
Device
Management
Solutions*

Researching Enterprise MDM Platform Options

- Will support “Work on the Go” across the MHS
- Will allow the DHA to manage all devices, regardless of type, platform or ownership
- Must enable administrators to enroll devices in the enterprise environment
- Deep Dive Discussions are being conducted with DISA and multiple Industry-leading vendors

Ensuring DoD and Industry Best Practices

- Working to ensure DoD Enterprise Email (DEE) Integration Capabilities
- Access to Office 365 as well as Clinical and Business Applications

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Mobile App Development Overview



*Deployment of
MTWG-
Approved
Applications to
App Store and
user
community
using
developed
governance*

- Established a Standard Application Development Platform for creating mobile applications
- Reducing duplicative efforts and apps
- Creating standardization of branding, naming, and look/feel for patient and staff ease of discovery and use
- Establishing app vetting process to ensure privacy, security, and transparency

Health vs. Healthcare in terms of Mobile Application Development



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Health Apps

Provides health information to patients

Need to ensure data is accurate and maintained

Can help people manage their own health and promote healthy living

vs.

Healthcare Apps

Interactive between patient and provider

Can help people manage their own health and promote healthy living

May include the storage or transfer of PII/PHI

Poses a significant security risk

Patient Generated Data Policy/Standardization and Privacy Policy does not currently exist

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App Development Projects



Medical Treatment Facility (Navy Medicine)



Pregnancy From A to Z



Physical Therapy Treatment



En-Route Pain Management



Dream EZ (T2)

Changes in How We Work...

...Changes in How We Communicate

Better Patient Care

93% of Physicians believe that Mobile Health Apps Can Improve Patients' Health and Outcomes



“Healthcare on the Go”

70% of Physicians Use Their Smartphones to Research Medications



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The National Center for Telehealth and Technology (T2)



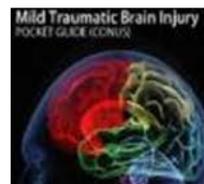
- The National Center for Telehealth and Technology (T2) a Component Center of the DoD's Defense Centers of Excellence (DCoE) for Psychological Health & Traumatic Brain Injury joined DHA in February 2016
- T2 brings eight years of maturity in mobile application innovation, development, testing and implementation
 - Patient Focus - Self Awareness, Management and *Treatment?*
 - Provider Focus – Decision Support & Resilience
 - Patient Provider Interface – Collaboration & Decision Input
- As a CoE, T2 focuses on policy, gap analyses, knowledge management & translation, research and user experience

T2 Mobile Applications



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Application Development Best Practices and Lessons Learned



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- Goal - Trusted, Unbiased Expertise
- Shared Services organizations such as Centers of Excellence ensure appropriate prioritization, coordination and implementation of organizational high value mobile products
- Clinician driven and managed, multidisciplinary development environment, integrated IT collaboration
- Parallel Processes: **Ongoing** Sustainability, Business Case, Regulations, Standards, Policy and Requirements/Gap Analyses
- Development and Maintenance of Evidence-Based Clinical Practice Guidelines for Mobile

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U.S. Army MRMC Telemedicine & Advanced Technology Research Center (TATRC)



*Innovation
Focused on
Readiness,
Access to Care
and
Healthcare
Delivery*

- Utilizes technical innovations for the benefit of military medicine by developing, demonstrating and integrating across a variety of technology portfolios including:
 - Telehealth
 - Medical Simulation & Training
 - Health IT
 - Medical Robotics
 - Command & Control
 - Computational Biology
 - Mobile Solutions
- Sponsors bottom-up innovation through limited technology demonstrations focused on readiness, access to care, and healthcare delivery

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TATRC's Mobile Health Innovation Center



*Researching
Emerging
Mobile
Technologies to
Enhance
Quality of Life
for our Soldiers,
Airmen and
Marines*

- Serves as an Innovation Center of Excellence
- Evaluates mobile health technologies and networks
- Provides subject matter expertise and a unique laboratory environment for intramural and extramural research activities
- Supports Service Members, beneficiaries, patients and Role 1 (first responders) through Role 4 (definitive health care facilities) of the military health care system prior to enterprise-wide deployment

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- **Mobile Application/System Engagement**

- Research Focus on Service Members as mobile users connected to Care Team members
 - Examine associations between SM and their engagement with mHealth app/systems
 - Examine associates between Care Team members and their engagement with mHealth app/systems
- Efficacy of mHealth
- Return on Investment for mHealth



*Utilizing Secure
mHealth
Messaging to
Geographically
Dispersed
Patients to
Improve
Communication
Rates*

mCare Mobile Application Pilot Research

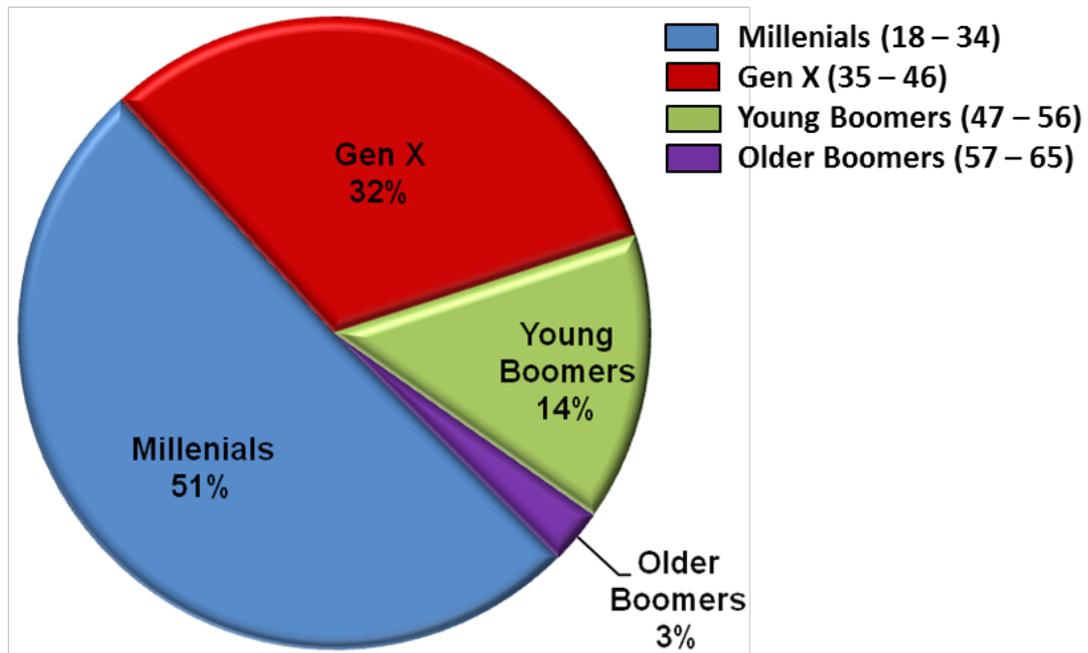
- Conducted a pilot mobile health project to determine the requirements for coordination of care for "Wounded Warriors" using mobile messaging

Research Results / Lessons Learned:

- Monitored patient use of mCare app via appointment reminders, health and wellness tips, announcements in order to determine whether it improved communication rates
- Concluded that mCare pilot project demonstrated the feasibility and administrative effectiveness of a scalable mHealth application using secure mobile messaging and information exchanges, including personalized patient education

Mobile Health Research: Lessons Learned

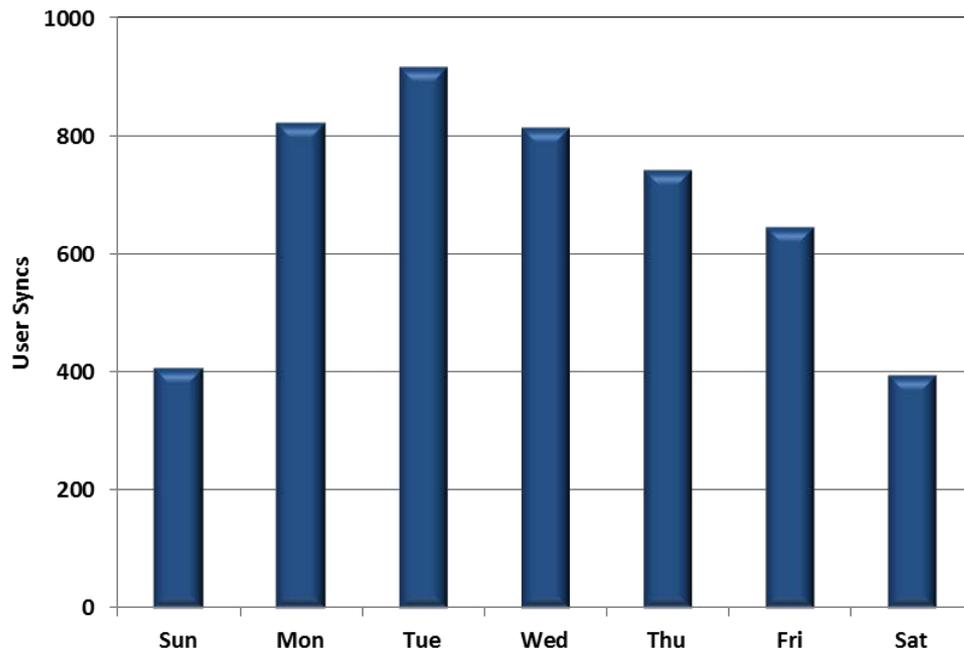
Demographics of mobile users



- Mobile users age range between 18-65
- Half of the mobile users are 35+

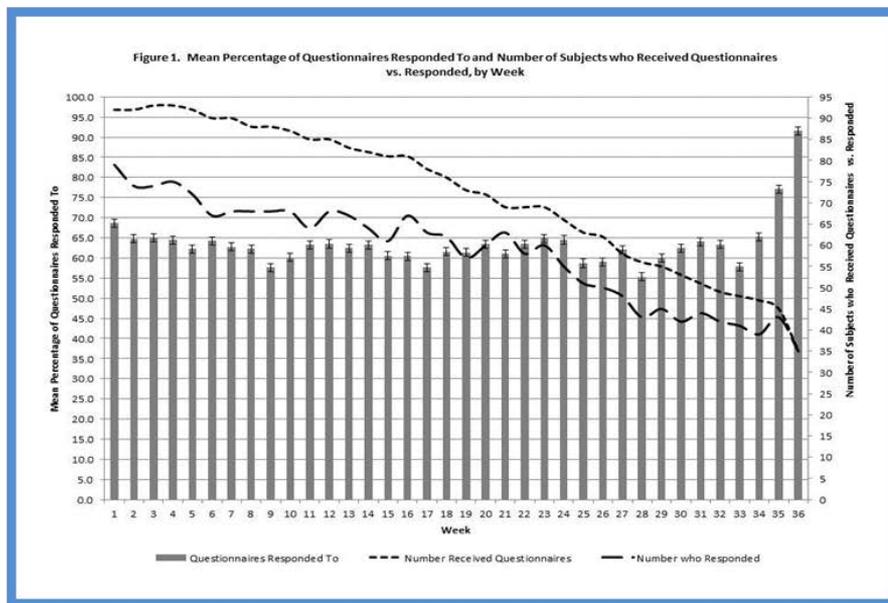
Mobile Health Research: Lessons Learned

Average Mobile Utilization by Day of Week



- Highest Engagement on Tuesdays
- Lowest Engagement on Weekends
- Peak Time of Engagement:
 - 10 am (local time) M-F
 - 11 am (local time) Weekends

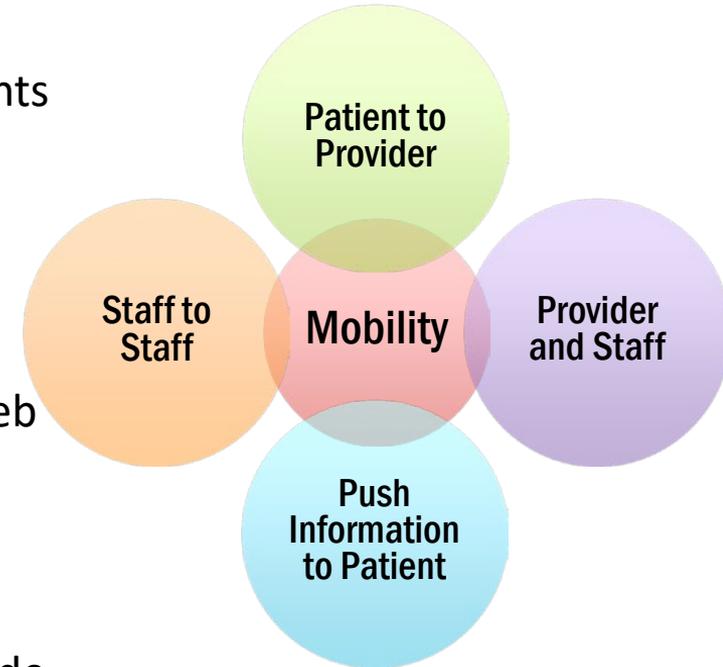
Response Rates by Week



- Response rate to mobile questionnaires over a sustained time period > 60%
- Mean timeframe to respond is less than 10 hours

Enterprise Mobility Challenges

- **Health Apps**
 - Quick wins that provide health information to patients
 - Need to ensure data is accurate and maintained
 - Pose various privacy and security issues
- **Not All Systems Built for Mobility**
 - Backend access to data
 - Not all applications designed to have Responsive Web Design – don't translate easily
- **Competing Interest**
 - Need for an Enterprise Approach
 - Leverage Services' Innovative Development to provide opportunity for joint applications



- **Deliver Enterprise Mobility Strategy and Solution**
 - ✓ Joint Solution
 - ✓ Standardized
 - ✓ Locally Empowered
- **Best Business Practices/Lessons Learned**
 - ✓ Patient/User Experience
 - ✓ Transparency
 - ✓ Leverage Existing Infrastructure and Initiatives

Questions?

Don't Forget to Visit
Kiosk #13

in the

MHS Pavilion (Booth 417)
for More Information and
Live Demonstrations!



Please complete your evaluations!





**Feel Free to Contact
the
DHA mHealth Team
at:**

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