

2015 Defense Health Information Technology Symposium

Making the Connection: Social Media and Smart Phone Applications



“Medically Ready Force...Ready Medical Force”

DHA Vision



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



Solution Delivery Division



- **Mission:**

Deliver information technology solutions to the Military Health System through expert acquisition program management, process reengineering, training and integration activities in order to support and advance the delivery of healthcare to our patients.

- **Vision:**

To become the world class leader in health information technology solutions and integration.



Learning Objectives



1. Describe the importance of active consumer engagement
2. Identify how to survey the social media market
3. Describe "patient-facing" and connected health applications
4. Discuss the integration between social media and "apps"

Introduction to Connected Health Care



- Connected Health
 - ❑ Uses Technology to Deliver Care Remotely
 - ❑ Increase in Self-Care/Patient Empowerment
 - ❑ Increase in Remote Care
- Connected Health REQUIRES information technology
 - ❑ Transformative change: new standards, new workflows
 - ❑ Synchronous Care: real-time telemedicine
 - ❑ Asynchronous Care: more convenient; telemedicine at your time

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Why Do We Care?



- Less empowered, health-literate patients... More need for access... Less readiness...
- National Library of Medicine
 - 12% of Americans are Health Proficient
 - 36% are Limited in Health Literacy
- “Low health literacy is a major source of economic inefficiency in the US.”
 - \$106 BILLION lost annually (poor self-care, needless escalation of care)
 - Impact on readiness
- National Action Plan for Health Literacy
 - Disseminate existing communication tools and resources for patients

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Two Tools In This Lecture



- Social Media
 - Auditing
 - Information Delivery
 - Allows for better communication between the warfighter (and beneficiaries) and the primary care team
- Mobile Applications
 - Social Media
 - Connected Health Applications
 - Allows for more health-literate and health-empowered warfighters (and beneficiaries)

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- 28 yo M, AD USAF Staff Sergeant without any history/training in informatics, has been tasked with creating a “social media presence” by his SQ/ CC after being caught on Facebook during a walk through visit.
- Limiting the scope of this lecture
 - ❑ Social Media and Strengths/Weaknesses
 - ❑ Ethics/pitfalls behind it
 - ❑ How to incorporate it as a business/entity
- Absolutely Not Evidence Based!



Start By Seeking Help



- Our Story: Protagonist goes to his SGH to ensure his SQ/CC is aware; and gets in contact with PAO
- Step 1
 - ❑ Call for Help!
 - ❑ Not just for codes anymore!
- Get “Top Cover”
 - ❑ Consult your Public Affairs Office
 - ❑ Consult your Patient Advocate
 - ❑ Consult your Medical Technicians, Nurses, etc...



■ Step 2

□ What are your goals?

- Are you doing this to disseminate information? To whom?
- Are you doing this for clinic quality control?
- Make them concrete. Make them measurable. Make them achievable.



■ Our Story

Protagonist wants to do Information Delivery; Goal of 5 posts per week; 500 followers in a month

What's The Plan?



■ Step 4

□ How will you split the work?

- SQ/CC facilitates recruitment; enforcer
- NCOIC helps management, does recruitment work
- Tech does surveillance
- Doc does medical postings
- PAO manages problems; possibly helps recruit?

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Small Footprint



- Keep your footprint in 1-2 areas
 - ❑ Easy to get overwhelmed
- 3 main areas of work:
 - ❑ Recruitment
 - ❑ Content Management
 - ❑ Auditing
- Must be done in parallel
 - ❑ Recruitment is high work up front, tapers with periodic spikes
 - ❑ Auditing is high work up front, tapers, then has a progressively larger role

Recruitment



■ Get people to join

- ❑ Start with Clinic Staff: really good way to ensure your people have clean profiles
- ❑ Add it to existing processes (Inprocessing, TAPS)
- ❑ Add posters to all of the Waiting Rooms!
- ❑ Add links from Secure Messaging to relevant posts

■ Our Story

- ❑ Protagonist chooses only Facebook
- ❑ SQ/CC places him in in-process brief
- ❑ NCO manages certain posts; recruits AD population



Content Management



■ Make novel content

- Labor intensive
- Says exactly what you want it to
- “Custom” information: closures, activities

■ Link to existing content

- Ensure that the information is reliable and non-inflammatory; consider PAs helping
- Can be “recycled” to save work
- Start a post-bank

■ Be wary of non-medical personnel taking charge of medical content!

Post-Bank?



Content	Link	Last Date Posted	Statement	Intended Audience
Vaccines: Sci-Show Video	http://www.youtube.com/watch?v=Rzxr9FeZf1g	2/21/2015	Great Video; discusses anti-vaccine movement without blaming!	Pediatrics

- Use this to save and recycle posts!
- Post at “Peak Times”
 - Facebook: 1-4 PM; not on weekends
 - Twitter: 1-3 PM; worst daily after 8 PM
- Our story
 - Tech posts everything and manages the bank
 - NCO writes posts on hours and closures as they happen
 - Doc writes items from familydoctor.org, YouTube... during peak hours

■ Varying ways to do Quality Control

- Letting Customers Control the Brand; High-Vis
 - Survey and Reply!
 - ▷ Labor Intensive
 - ▷ Replying can be very tricky
 - i.e. TSWF on milsuite
- Controlling the Brand Yourself
 - Turn off Public Posting; only allow private messages
 - Look for “inflammatory postings” in other areas
 - Safety Message is needed in medical settings

- Have you met your goals?
 - ❑ Is it worthwhile?
 - ❑ What is your stop-point, if any?
 - ❑ What can you do better?
 - ❑ Moving the goal-posts?
- Protagonist gets his goal of 500 users (by clinic staff and their family)
 - ❑ Decides he wants to shoot for a total of 100+ users
 - ❑ Leverages info-blasts via Secure Messaging to increase traffic
- Who will carry the torch?

Medical Applications



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Disclaimer



- Many of these apps are NOT FDA approved
- Apps market rapidly changes
- Small amount of Evidence Basis – no integration in our clinical practice guidelines
- Many apps are PATIENT FACING, as opposed to CONNECTED
- Future state = Connected

Social Media Applications

- Nearly every Social Media Platform has an “app.”
 - Facebook
 - Patientslikeme
 - Twitter
 - Pinterest
 - Tumblr
- Some are primarily app-based
 - Instagram
 - What’s-app
- Milsuite?



- Healthkit/Google-Health
 - ❑ Transformative: Central/interoperable portable health data-bank
 - ❑ Previous “Health Vaults” have failed: this is an evolution offering portability and interoperability
- Interoperability with PATIENT OWNED data
 - ❑ Health Apps
 - ❑ Personal medical devices
 - ❑ EHRs: Epic, Cerner
 - ❑ Insurance Carriers
- Open for development – but beware: many third party developers don’t understand HIPAA

Modern EHRs tie to Apps

■ Major EHRs are now app-available

- ❑ Cerner: HealthyNow
- ❑ Epic: MyChart
- ❑ Mayo Clinic

■ Bi-Directionality with the Patient Portal

- ❑ Patient can view appointments, lab data, information
- ❑ Patient can upload information (like weight, BP, exercise)
- ❑ Asynchronous: Can be used to streamline clinic processes!
- ❑ No infrastructure for kiosks needed!

■ Blood Pressure Monitoring (Qardio)

- ❑ 24h monitoring is more sensitive and specific than clinic monitoring
 - Proper BP care is cost saving
- ❑ Unclear if patient directed BP monitoring is comparable to 24h monitoring
- ❑ Primary Care DOES NOT KNOW how to interpret these

■ Weight

- ❑ Streamlines clinic check-in
- ❑ Requires more than PCM; also requires nutrition + fitness

Two-sides to Medical Devices



- 1-Lead EKG Monitoring (i.e. rhythm strip)
 - ❑ Possible savings on ambulatory event monitoring
 - ❑ MANY MORE events will be noted; unclear if finding these will lead to longer life
 - ❑ Possibility of treating benign events without saving lives
- Ultrasound (future state)
 - ❑ Definite military applications; clear reduction in imaging costs
 - ❑ No image storage compatability
- All of these will require FDA approval

- Use demonstrates a small, but statistically-significant increase in health activities, and some resultant decrease in weight
- Various brands/levels of monitoring
 - ❑ Fitbit, Jawbone, Garmin, Basis
 - ❑ Steps, Pulse-rate, Perspiration, Temperature – military application
 - ❑ General view of sleep – possible impact on health/VA benefits
 - ❑ GPS – can be problematic; OPSEC!
- iPhone6 + Droids are now mini-wearables: Mapmyrun
- Doesn't fit into Primary Care clinical practice guidelines

National Center For Telehealth & Technology Applications



■ ACT Coach

- ACT helps you live with unpleasant thoughts and feelings without avoiding them or being controlled by them.

■ Breathe2Relax

- Breathe2Relax is a portable stress management tool. Breathe2Relax is a hands-on diaphragmatic breathing exercise.



- Increased Health Literacy => Empowered Patients
- Empowered Patients can guide proper care, but if improperly empowered can create poor care
- Web-MD
 - Provides answers to needed questions
 - Reinforces patient compliance, medical care, self-care
 - Can prompt escalations of care
 - Can cause inappropriate self-care
 - 5 minutes of online research IS NOT a medical degree
 - No incentive for self-care; Incentives abound for seeking medical care

- Apps that interface with providers and patients
- Liberate Health
 - Robust Disease-library: Abdominal Pain to Asthma
 - Patient Education
 - Patient Action: pre-made disease Journals, fitness trackers
 - Provider Accessible
- Does not yet integrate with EHR
- Does not yet integrate with Health-kit/Google-fit

Connected Health Business Models



- Limited to Concierge Medicine
- Hellohealth
 - ❑ NYC based – uses social media and various platforms to provide 24/7 clinical decision support
- It is clear that we're moving more towards
 - ❑ Asynchronous Health Delivery
 - ❑ Tele-health Support
 - ❑ Patient/Provider Convenience
- Unclear if it will lead to savings
- Unclear if it will lead to improvements in population health

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Conclusion



- Connected Health Concepts
- Integration of Social Media
 - Auditing
 - Information Delivery
- Patient Facing Applications
 - Integration Apps
 - PHR Apps
 - Devices
 - Fitness Apps
 - Connected Health Applications

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Questions?

Share your research ideas with us at:
www.health.mil/ITideaChallenge



For more information please

- Stop By: **DHITS Exhibit Booth #317 Stations 1-5**
- Email: IATDD@dha.mil
- Visit: www.health.mil/IATDD

Please complete your evaluations

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Questions



www.tswf-mhs.com

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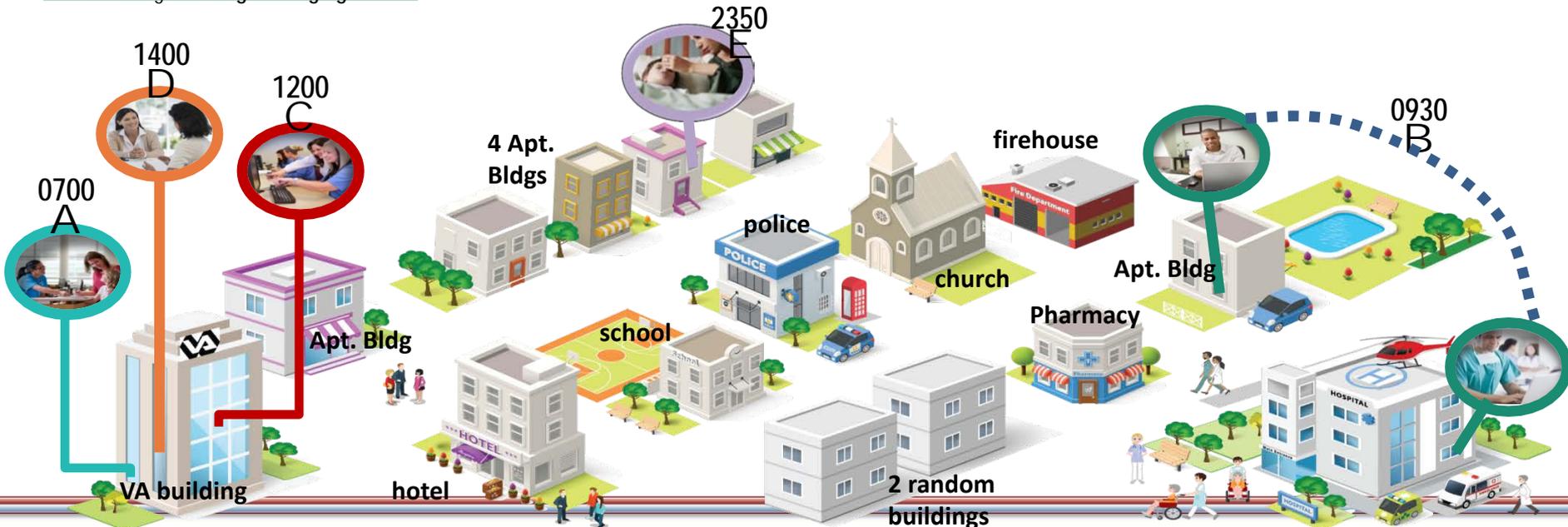
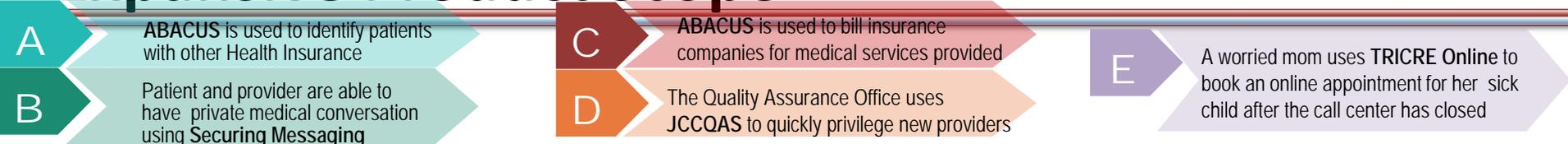
Back-up Slides



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Expansive Product Scope



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Find the Users!

■ Step 3

□ Where are your users?

- Go to an “auditing” site: www.socialmediamention.com
- Type in a variety of search terms to find out what people use
- Expect to find nothing. Protagonist didn't.



Choose Your Communication Style



■ Based on your goals

- ❑ Surveillance/Quality Control
- ❑ Information Dissemination

■ Base your privacy/post settings on your goals

- ❑ Quality Control – be in control of your brand!



Our Story: Protagonist used settings that only allowed approved postings to be visible on the “wall”

Influencers



- 2% of users generate 80% of the traffic

- Know who they are
- Respond to them
- Consider even being PROACTIVE!

- Dark Side

- They can be hired
- Only want this for items that should be FAR-REACHING (i.e. recruitment, or public safety)

- Patientslikeme
 - www.patientslikeme.com
- Started by the brother of a patient with ALS
 - Used analytics on free text “big data” to come up with a very accurate predictor of ALS flares
- Could find and address misconceptions on health prior to it becoming an issue
- Could do post-market surveillance

Patient Facing Applications



- Social Media Applications
- Personal Medical Devices
- Fitness Apps (Wearables)
- Meditation Apps
- Patient Education
- Connected Health
- Novel Business Models

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Problems with Social Media



- Social Media has several vulnerabilities when tagged on a Smartphone
 - ❑ Disclosure of location via GPS
 - ❑ Personal Social Media Presence
 - ❑ OPSEC
 - ❑ Personal/Professional appearance become pushed forward
 - ❑ Providers friending patients on Social Media has been deemed unethical by the Journal of Medical Ethics
 - ❑ Friending enlisted is unclear
 - ❑ Errors of Representation: Be careful that you don't accidentally portray the military!
- Yet, 70% of the military uses it. A lot.
- WE NEED TO WIDELY DISSEMINATE AND TRAIN

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Fitness Apps

- Small non-replicated trials demonstrated small patient outcomes
 - ❑ Usually require larger systems to help
- Several types of Fitness Apps:
 - ❑ Fitness Tracking/Fitness Coaching: Mapmyrun, Endomondo, Strava, 7-minute work-outs
 - ❑ Nutrition Tracking/Coaching: Noom, Mapmyrun, Myfitnesspal
 - ❑ Varying levels of interoperability:
 - Fitbit links to Myfitnesspal, not HealthKit
 - Mapmyrun+ links to Healthkit and Basis
- Unclear how this will affect care?
 - ❑ Profiles/MEB? Would monitoring these dis-incentivize fitness apps?
 - ❑ How much is the PCM's role to change behavior v. Command v. Self?



Meditation Apps

- Exciting
- Clear applications for PTSD/military medicine
- Unclear evidence...
- Eventually they'll need to be regulated
- Some are exciting
 - Omvana detects “stress” via heart rate without matching activity, then coaches you.
- Some are horrible
 - One shows “a special shade of blue that will calm you”

What I Should Be Careful With?



- Having too Grand of a Personal Social Media Presence
 - ❑ Remember OPSEC
 - ❑ Personal/Professional Appearance
 - ❑ Friending Patients on Social Media has been deemed unethical by the Journal of Medical Ethics
 - ❑ Beware of Fraternization
 - ❑ Errors of Representation
 - Be careful not to portray the military in a bad light

Example



■ Tri-Service Workflow on Milsuite:

- ❑ Users can link from the forms
- ❑ Clinical Systems Trainers train the link
 - i.e. part of an existing process

■ Quality Control

- ❑ Let users give us feedback

■ Information

- ❑ Disseminate high value information
- ❑ Hub-and-spoke model

What It Looks Like



- Version 1Q2015

ard. Tabs with © are information only tabs.

TSWF MDET/As-U-Type Tool

Return to TSWF-Navigator

MilSuite Feedback

TSWF Resources

Screening tab

Army: Per Army guidance, providers screen 100% of their patients for Ebola
Air Force/Navy: Ebola screening is based on clinical judgment and local MTF guidance

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Group Overview



Home of the Tri-Service Workflow Team. Start a new discussion to post feedback, ideas, or problems with the TSWF forms. Follow us on Twitter @TSWFTeam. "Standardize to Optimize"

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- patient education
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Form	Version
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TSWF-BH Spec	1Q2015
TSWF-Peds (Age Spec.)	12.11.06
TSWF-Peds Gen.	12.11.06
TSWF-Procedures	1Q2015
TSWF-Metabolic	1Q2015
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Change to Assessment Learning Needs

There is a question that has been raised in regards to the Learning Needs Assessment in the TSWF. How can we get the Learning Needs Assessment questions change to reflect the questions that need to be addressed according to PC.02.03.01? In AHLTA there are the standard questions that are to be asked but there is nothing addressed about the patients desire and motivation to learn. When you look at the Learning Needs Assessment in Essentris there are only four questions and the patients desire and motivation to learn is addressed. So do we need to submit a change request to have these questions changed or updated? We have a questionnaire built that will address it but it does not appear in the TSWF unless we build an As-U-Type. I have enclosed screen shots of the questions in both Essentris and AHLTA and also included the PC.02.03.01 standard. Please any assistance will be appreciated.



Donna Moen Mar 18, 2015 12:18 PM (in response to Darrell Cruce)

Re: Change to Assessment Learning Needs

Dear Darrell,
I have forwarded your inquiry to add Learning Needs Assessment for our AIM forms. I hope to have a response to you soon.
Thank you for your feedback. We also want to make you aware of our new website at www.tswf-mhs.com. Please visit and give us your input.
Sincerely,
Donna Moen RN
TSWF Feedback Response Team.

Actions ▾

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Christi McIntosh posted 1 week ago

The bi-weekly TSWF Leadership Meeting Cancelled for Friday, 13 Mar 2015. The next meeting will be held on 27 Mar as scheduled.