HL7 Mobile Health
Projects Overview

Mobile Health Work Group
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Mobile Health Work Group
Co-Chairs

- Gora Datta  goracal2cal.com
- Matt Graham  graham.matthew@mayo.edu
- Nathan Botts  nathanbotts@westat.com
- Harry Rhodes  harry.rhodes@ahima.org

Interim Co-Chair

- Mlynda Owens  Mlynda.owens@cognosante.com
Mobile Health Projects

- Mobile Framework for Healthcare Adoption of Short-Message Technologies (mFHAST)
- Consumer Mobile Health Application Functional Framework - cMHAFF
- Mobile Health Application Interoperability Review (FHIRframe – Phase 0)
Mobile Framework for Healthcare Adoption of Short-Message Technologies (mFHAST)

Nathan Botts, PhD, MSIS
Senior Study Director
Center for Health Information Technology
WESTAT
NathanBotts@westat.com
mFHAST Goal

To provide standards for communicating health services through short messages (e.g. SMS, Twitter, etc.)
Short-message Basics

- “Short-Message” encompasses the realm of technologies related to SMS, text messages, instant messages, Twitter, iMessage, USSD, etc.
- Messages composed of approximately 140-160 characters
- Estimated that upwards of 200,000 SMS messages are sent every second
- Low-cost, low infrastructure, low learning-curve
Multiple global short-message studies have reported success in improving health outcomes and activities related to:

- Smoking cessation
- Diabetes
- Weight management
- HIV
- Medication adherence
- Appointment attendance
SMS Use Case - Immunization

STEP 1

Children

Immunization

Health Worker

STEP 2

Immunization Coverage Report Through SMS

STEP 3

Immunization Report Aggregator

STEP 4

General Public

STEP 5

Survey Coverage Verification

Immunization Supervisor

STEP 6

Verification Report (RCS) Through SMS

Reference: http://www.nip.org.np
Short-message Barriers

- Ad-hoc implementations
- Lack of interoperability Standards
- Security/Privacy/Consent
- Message size
- Stateless (at its most basic implementation)
- Cost of message
- Governmental and organizational policy and barriers
Consumer Mobile Health Application Functional Framework (cMHAFF)

Tim McKay, Ph.D., CISSP
Kaiser Permanente
Nathan Botts / Gora Datta
cMHAFF – Project Scope

- Define security, privacy and data standards for secure mobile health applications (apps).
- Provide industry guidance and common methods to enable the development of mobile health smartphone apps targeted to healthcare consumers/citizens.
- Provide a framework for security, privacy and the integration of data generated from apps into PHR and EHR systems as well as into other types of data repositories (e.g., personal data stores, population care systems).
- Standards will not address the content of such apps.
cMHAFF - Project Need

• Standards for consumer smartphone health apps:
  • Focus on:
    • Security, Privacy, Data Controls
  • Allow for:
    • personal data tracking using mobile devices
    • integration of patient-sourced information into a person’s record of care
    • clinical decision making using reliable, relevant information

The proposed project will develop a framework against which Mobile Health Smartphone-based apps can be certified for conformance.
Limited Project Scope

- Limited by initial set of use cases
- Focus on limited problem domain.
- Future iteration to add more use cases.
January 2016 Ballot

- Very positive and constructive feedback for a Comment-Only ballot
- Finishing Ballot Reconciliation
MH Listserv Discussions

- ONC API Task Force Recommendations
- Mobile Health WG members providing comment on ONC API Task Force and relationship to cMHAFF project.
- FTC Definitions of PHI and PII
- Mobile Application Management & Security
- Comment on ONC 2016 Standards Advisory (ISA)
Mobile Health Application Interoperability Review (FHIRframe – Phase 0)

Dr. Christopher C. Doss
Associate Professor,
cdoss@ncat.edu

Presented by Matthew Graham
graham.matthew@mayo.edu
Mobile Healthcare Data Interoperability – Project Need

- Expansive wave of healthcare devices are coming to consumer market.
- Consumer healthcare devices used to capture and exchange medical data and events.
- Lack of common data standards for data exchange to support mobile application development.
- The project will identify the current state of device APIs.
Strategy

- The project will on environmental literature survey of current APIs and standards
- Identify current state of healthcare device APIs.
- Identify current APIs for exchanging data with EHR and PHR systems.
- Look at FHIR Argonaut Project as core set of resources for data interoperability
- Project will leverage university students as a educational engagement opportunity.
Current State Mobile Health APIs

- Glucose Meter
- Ultrasound Device
- EKG Monitor
- Insulin Pump

Many Device Interface APIs

Transport Layer

Many Mobile Platforms

Mobile Application

Smart Device

Mobile Application

Mobile Application

Mobile Application

Transport Layer

EHR

PHR

Proprietary EHR/PHR APIs
Resources...

- Mobile Health Alliance
  www.mhealthalliance.org/

- Continua Health Alliance
  http://www.continuaalliance.org/about-continua

- PWC white paper – Touching lives through mobile health

- Programmable Web
  http://www.programmableweb.com/
Mobile Health Friday Calls

**Dates:** Every Friday

**Time:** 11:00 AM Eastern U.S.

- Mobile Health Wiki page
  
THANK YOU!

Questions?