Mobile Health (MH) Working Group – Projects Update

HL7 September 2019 WGM
By Matthew Graham (Mayo Clinic)

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Mobile Health Work Group
Co-Chairs

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MH Sessions

- **Wednesday Q1 – Introduction & Overview**
  - State of Mobile Health
  - Connectathon Update – Keith Boone
- **Wednesday Q2 – Project Updates**
- **Wednesday Q3 – Mobile Health Data Exchange Standards**
  - ONC/NIH All of Us Project – Keith Boone / Christina Caraballo
  - AMA Integrated Health Model Initiative (IMHI) Self Measured BP
- **Thursday Q1 & Q2 – cMHAFF Working Session**
Mobile Health - Projects

- Consumer Mobile Healthcare Application Functional Framework (cMHAFF)
- School Healthcare Information Framework utilizing Technology (SHIFT)
- Mobile Health App Data Exchange
Consumer Mobile Healthcare Application Functional Framework (cMHAFF)

Mobile Health
September 2019
HL7 Atlanta GA WGM

cMHAFF Project (HL7 Confluence)
cMHAFF Scope and Goals

- Provide a framework for assessment of the **common foundations** of mobile health apps
  - Product Information (disclosures/transparency)
  - Security
  - Privacy / consent / authorization
  - Risk assessment/analysis
  - Data access privileges
  - Data exchange / sharing
  - Usability & Accessibility

- Assessment could include attestation, endorsement, testing, voluntary or regulatory-driven certification

- Out of scope: specific clinical content or functionality
Why cMHAFF? What’s the Need?

- **Target Audience:** mobile health app developers needing guidance on building apps
- **Beneficiaries:** consumers, providers, caregivers
- **Consumers** need protection, transparency and assurance regarding mobile apps. Some examples:
  - What does the app **do**? What **evidence** supports it?
  - What **security** protections exist behind that “cloud?”
  - Who can the app **share** data with?
  - What does the app **know** about me (location, microphone, camera, contacts, etc.), and what can it **do** on my device?
  - Can I **access** my app data like I can under HIPAA?
CMHAF Policy Guidance & Collaborations

- Review of GDPR constraints
- Submission of CMHAF related comments to the ONC Interoperability Standards Advisory
- Meeting with the University of Arkansas Medical Sciences
- Meeting with the All of Us research project ONC/NIH
CMHAFF Next Steps

- CMHAFF to Normative PSS Approved
- Continued development of the CMHAFF Web Guide (https://cmhaff.healtheservice.com)
- Documentation of CMHAFF Piloting findings
- Participation with the Mobile Health Data Exchange project and connectathon
CMHAF Pilots

- Children’s Hospital of Philadelphia
  - Pilot completed – April 2019
  - Debrief meeting with CHOP team - April 2019

- Children’s Health Fund – HRSA HITEQ
  - Pilot in progress

- Universitair Medisch Centrum Groningen
  - Pilot in progress
HRSA HITEQ Children’s Health Fund

- Mapping CMHAFF recommendations to CHF health app decision tree
- Still piloting, but getting close
- Scoring and mLabel app under development
GSD App evaluation: an application for the use of individual patients with hepatic GSD and their caregivers.
- The GSD App allows patients to support their dietary management provided by health care professionals, under normal circumstances and illness, by monitoring and sharing home site collected data with health care professionals.

Frank Ploeg, in cooperation with the lead developer/owner Bas te Boekhorst, went through the conformance statements published in the HL7_CMHAFF_R1_STU_2018JUN version of the cMHAFF standard.
- The conformance statements were extracted from STU cMHAFF standard document and published in a spreadsheet for purpose of assessing and scoring. See Assessment spreadsheet on confluence
Children’s Hospital of Philadelphia

- Used CMHAFF to test validation of the My CHOP patient navigation app
- Pilot conducted between March – April 2019
- CHOP Team found it valuable as a tool for reviewing their health app requirements and considering current maturity.
- Opened new considerations in understanding how to manage nulls, scoring across domains, and some statements that may be too prescriptive.
Sample of U.S. Policies & Guidelines Assessed

- Health Insurance Portability and Accountability Act
- FDA Playbook on Medical Device Cybersecurity
- NIST Special Publication: 1800-1
- FTC Cross-Device Tracking Considerations
- FTC Guidance for mHealth Developers
CMHAFF Web Guide!

Check out our first draft of the CMHAFF web guide and pilot site at: https://cmhaff.healtheservice.com
Sample of European Guidelines Assessed

- French mHealth Good Practice Guidelines
- German Mobile Health Assessment Criteria
- Andalusian App Recommendations
- U.K. PAS277 Quality Criteria
- Finland PHR Cert Criteria
- Other EU initiatives
School Healthcare Information Framework utilizing Technology (SHIFT)

- New Mobile Health Project White Paper /PSS
- Birds of a Feather Session – Tuesday 5:15 PM – L501
- SHIFT Project (HL7 Confluence)
The scope of the SHIFT Project is to create a Framework that addresses the needs of various stakeholders who are involved in the health and well-being of students to facilitate learning and activities in the school environment. The White Paper envisions the set of healthcare standards that will support the Framework.
Mobile Health App Data Exchange Project Scope

- The initial scope of this project is to analyze variation in FHIR data exchanged from mobile health apps and devices for personal health information. Because mobile health apps and devices can convey a wide variety of data including hundreds of different kinds of measurements, this project will first look at a limited scope of data, including vital signs, physical activity, sleep and blood sugar.
Mobile Health App Data Exchange Project

- Connectathon Update - Participation
  - Continua
  - AMA Self Measured Blood Pressure
  - Georgia Tech mFHIR

- Next Steps
  - Define opportunities for collaboration HL7 WG, Vitals Project, etc.

- Weekly Meetings - TBD
Meetings / Questions

- Mobile Health Fridays – Weekly Meeting
  - Every Friday at 11 am EST
- cMHAFF Project – Weekly Meeting
  - Every Thursday at 3 pm EST
- SHIFT Project – Weekly Meeting
  - TBD
- Mobile Health App Data Exchange
  - TBD