IEEE P1752.2 Open Mobile Health

Cardio-Respiratory Subgroup

March 3, 2022 16:00 UTC

IEEE P1752.2 Open Mobile Health Cardiorespiratory Subgroup Agenda

Attendance, review of prior minutes

Cardiorespiratory subgroup's scope (and summary of topical areas)

Topical presentations

- Use Case: Respiratory / COPD
- Overview of clinical monitoring of cardiorespiratory health existing standards

Tasks: Discussion of next steps

Other business

- Repository of references, resources, drafts.
- Discussion of regular monthly meeting time preferences
- Other

IEEE P1752.2 Open Mobile Health Main Group -> Cardiorespiratory Subgroup

Scope

This standard defines specifications for standardized representations for mobile health data and metadata for a set of health measures pertaining to cardiovascular and respiratory measures. Mobile health data encompasses personal health data collected from sensors and mobile applications.

Purpose

The purpose is to provide standard semantics to enable meaningful description, exchange, sharing, and use of mobile health data pertaining to cardiovascular and respiratory health measures. Data and associated metadata need to be sufficiently clear and complete to support analysis for a set of consumer health, biomedical research, and clinical care needs.

Stakeholders

Wearable device makers, medical device makers, health data aggregators, health information technology systems, health information infrastructure providers, mobile health app developers, biomedical researchers, clinicians, data scientists.

IEEE P1752.2 Open Mobile Health Cardio-Respiratory Subgroup

Scope

The P1752.2 Cardio–Respiratory (CR) Subgroup will review Open mHealth schemas related to CR measures and propose updates and additional schemas as needed. The scope includes but is not restricted to the following measures of CR health: blood pressure, heart rate, heart rate variability, RR interval, respiratory rate, and O2 saturation. The focus of this Subgroup's work is on modeling data pertaining to CR function, not on current or future individual devices or apps that measure various aspects of CR health.

Duties

By reviewing the clinical aspects of cardio-respiratory health and existing relevant devices and apps, the Subgroup shall deliver a list of common attributes as well as a list of clinically important attributes in the cardio-respiratory domain as scoped above. The Subgroup shall propose modified and new schemas relating to CR health, including examples as informed by use cases and the list of common and clinically important attributes. Finally, the Subgroup shall deliver a review of mappings and/or relationships to non-Open mHealth CR schemas.

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P1752.2 Cardio-Respiratory Subgroup *Tasks / Deliverables*

- 1. Deliver a list of common attributes as well as a list of clinically important attributes in the cardio-respiratory domain (*scoped as previously specified*).
- 2. Propose modified and new schemas relating to cardiorespiratory health, including examples as informed by use cases and the lists of common attributes and clinically important attributes.
- 3. Deliver a review of mappings and/or relationships to other existing cardiorespiratory schemas other than that of Open mHealth.



IEEE P1752 Working Group

Cardio-Respiratory Subgroup

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Chair: M. Sabarimalai Manikandan, Indian Institute of Technology Bhubaneswar

Topical Areas of Focus Review

Cardio-respiratory subgroup meeting held January 27, 2022:

- Blood pressure / hemodynamics
- Cardiac rhythm
- Plethysmography
- Respiratory measures
- Alignment with existing "ground truth" clinical data landscape

Others?

Step 1- For each topical area, interested experts to work on delivering lists for:

- → Common attributes in existing relevant devices and apps
- → Identify the most clinically important attributes

Step 2 - Define use cases based on this analysis

Schema Design Principals

Identify widely used clinical measures (also considering those most likely to use specific measures)

Consult with clinical experts: Identify most relevant distinctions to have for use of those measurements

Define use cases reliant on these measures in health delivery models enabled by the schemas

Apply insights to the design of corresponding schemas

Resource: https://www.openmhealth.org/documentation/#/schema-docs/schema-design-principles

Schedule for Future Meetings

Best time for a consistent and accessible regular monthly subgroup meeting?

