

IEEE P1752.2 CardioRespiratory Measures Subgroup

Minutes of conference call held on October 27, 2022

Conference call started at 15:00 UTC (8:00 AM Pacific Time) on IEEE Webex

Attendance: 6 Attendees

Simona	Carini	UCSF / OmH
Kevin	Clark	Biomedicine domain champion, NSF
M. Sabarimalai	Manikandan	Indian Inst of Technology Palakkad
Paul	Petronelli	PALM Associates
Josh	Schilling	Vibrent Health
Paul	Steiner	Dartmouth College

Agenda:

- Attendance and introductions
- Prior minutes - *posted*
- Presentation “Recovery from Physical Activity - The Cardiorespiratory Response and Mobile Health Use Cases” - Part 2
- Other business:
 - Collaborations / stakeholder engagement s/p HRX
 - Proposal: Cardiorespiratory schema vision statement – value proposition (P. Petronelli)
 - Discuss shift of regular monthly meeting time
 - Next monthly meeting

Building from the prior topical discussion regarding cardiorespiratory metrics relevant to physical activity and recovery from physical activity, another way to consider the role of the cardiorespiratory schemas was considered from the vantage of different general use cases that fall within different cardiorespiratory domain paradigms.

First, a presentation was shared to summarize work underway by the American Heart Association (AHA) and the Physical Activity Alliance (PAA) within the operational structure of the HL7-FHIR organization to produce the “Physical Activity Implementation Guide” (ref <https://build.fhir.org/ig/HL7/physical-activity/measure.html#base>), and the stated purpose of that work*. In brief, the AHA in 2017 had come out with a position statement recommending, along with clinical vital signs, a periodic overall summary assessment of fitness and physical activity, given the demonstrable salutary health impact and prognostic value of exercise. To facilitate the higher level elements that characterize and quantify exercise, the role of the P1752.2 cardiorespiratory schema could be to provide standardized component building blocks to facilitate that. While the HL7-FHIR communication and interoperable functionality focuses primarily on data sharing within the context of healthcare systems, P1752 data schemas may facilitate a lightweight standardized semantic interoperability across broader data source paradigms that would prove useful to the HL7-FHIR Physical Activity specification. Similarly, we cited the role of exercise stress testing protocols recognized by the AHA and the American College of Cardiology (ACC) for assessment of cardiovascular, cardiorespiratory, and functional health. Again, similar standardized component building blocks could be combined to facilitate descriptive and analytic characterization of stress testing data. Finally, we also discussed recovery from exercise, and its valuable clinical and prognostic role, citing robust older clinical work out of the Cleveland Clinic.

With these different general use cases, we discussed the relevance and variation of the different cardiorespiratory domain paradigms in which they most commonly would be perceived to fall, which pointed up for the value of having the P1752.2 cardiorespiratory schemas as focused on fundamental data metric building blocks from which higher level data elements then could be constructed in support of efforts such as those described above. Utilizing this approach then enable the possibility of data contextuality – if data overall (not just cardiorespiratory) is being collected and characterized using available Open mHealth schemas, then multivariate analyses of such information may be facilitated.

Our next meeting item was a proposal for a value proposition about the work of the P1752.2 cardiorespiratory subgroup, which would facilitate our stakeholder outreach efforts for engagement. This proposal was well-received, and interest in contributing to this was voiced by numerous meeting participants. Our initial intent will be to produce a 1 page summary of the purpose and value of the P1752.2 cardiorespiratory schema work, to include an emphasis on contextuality enabled by the Open mHealth effort as a whole. Adding to that value statement would be a summary of an existing entities that have prioritized interest and support for this work (for instance, interest and support from NIH in the past for Open mHealth was noted). The value proposition may be useful in supporting further stakeholder engagement, and also be helpful in consideration of the main working group's interest in consideration of a summary summit of sorts that would target engagement with perceived key stakeholders.

Our last item of discussion was about future meeting times. The 4th Thursday of the month conflicts with some of the widely observed holidays, including Thanksgiving next month. A proposal was discussed instead to move the meeting to the 3rd Thursday of each month, as well as to shift the time to 9:00 Pacific Time to accommodate subgroup members present today – unanimous agreement was obtained.

Action Items:

- Continuation (part 2) of presentation “Recovery from Physical Activity - The Cardiorespiratory Response and Mobile Health Use Cases”.
- Other use case proposals fitting the Health Care paradigm: Volunteers requested.
- Proposal for orientation meeting for targeted stakeholders to win awareness and committed engagement.
- Next meeting: 9:00 AM Pacific Time on Thursday, November 17, 2022 (*please note that daylight savings time will have ended earlier in November*)

* *The most recent meeting of that working group was held on October 25, 2022, and was attended by one of our members for the purpose of learning more about the progress being made on that work, and its comprehensiveness and degree of data granularity.*

Next meeting: November 17, 2022 at 16:00 UTC (9:00 AM Pacific Time)
Minutes taken by Paul Steiner (Dartmouth)