

P1752 Sleep Schema Subgroup Meeting

Sponsored by IEEE Engineering in Medicine & Biology (EMB) Standards Committee

- 7 May 2019
- Teleconference

Attendance

- **Put your name and affiliation in the chat window for attendance today.**
- If you are joining only via phone, please email charlotte.chen@philips.com with “P1752 Sleep Schema Subgroup call” as subject
- The document shows attendance is under <https://ieeesa.imeetcentral.com/omh/folder/WzlwLDEwMjY4MDg1XQ/>.
 - If you attended the call, please verify that your name is listed
 - If you name is not listed, either edit the document above or email charlotte.chen@philips.com

Agenda

1. Attendance
2. Modified timelines
3. Update from the qualitative schema task group
4. Update from quantitative schema task group
5. Action Items
6. Q&A

Sleep Schema Subgroup Deliverables

- **Clinically important sleep attributes**
- **Common sleep attributes of the existing relevant devices and apps**
- **Standard Comparison Report (Review and mapping)**
- **Proposed sleep schemas (modified and new) and use cases (quantitative and qualitative)**
 - (1) Quantitative Measurement Schemas (including macrostructure, microstructure and etc.)
 - (2) Qualitative Measurement Schemas (including subjective sleep experience, other sleep related phenomena and etc.)

Timeline for Stage2 Remaining Work

- Complete reviewing Quantitative Sleep Schemas on **March 21, 2019**
- Complete drafting Qualitative Measure Schema Development by **May 12, 2019**

- Complete addressing comments for Quantitative Sleep Schemas by **May 12, 2019**
- Complete reviewing Qualitative Measure Schemas by **May 31, 2019**

- Validate Quantitative Schemas by **May 31, 2019**
- Validate Qualitative Measure Schemas by **June 14, 2019**

Qualitative Schema Task Group Updates (Banu)

Status

- Follow up of meeting held on April 2, 2019
 - Process of drafting survey schemas
 - Working Members: Charlotte Chen, Banu Rekha, Stephanie Battista, Simona Carini
 - List of draft questionnaires newly added:
 - Narcolepsy & OSA Stop Bang
 - List of drafted questionnaires:


P1752 Sleep WG

Qualitative Sleep Measures - Drafting of Schemas

Choice of Questionnaire

S.No	Name of Questionnaire	To be drafted by
1	The Stanford Sleepiness Scale (SSS)	Banu
2	Epworth Sleepiness Scale	Drafted by Simona (Available in imeet)
3	Karolinska Sleepiness Scale	Banu
4	Pittsburgh Sleep Quality Index(PSQI)	Banu
5	Insomnia Severity Index (ISI)	Charlotte
6	OSA Berlin Questionnaire	Stephanie
7	Stop-Bang Questionnaire	Stephanie
8	Restless Legs Syndrome Diagnostic Index (RLS-DI)	
9	Narcolepsy	Banu
10	Functional Outcomes of Sleep Questionnaire	Charlotte

 Draft Completed

 Pending

List of drafted schemas ready to be reviewed:

- SSS
- Epworth Sleepiness Scale
- KSS
- PSQI
- Stop-Bang
- Narcolepsy
- FOSQ

<https://ieee-sa.imeetcentral.com/omh/folder/WzlwLDExNjM1MTQwXQ>

Next Steps

- Drafting RLS – DI :

Concern: It is partly answered by the subject and partly answered by the physician

Expert advice from Dr. White : Contact the author of the questionnaire (copyright)

- Copyright checking: ISI (waiting on response)
- Get review ready: OSA Berlin questionnaire
- Complete addressing the suggestions / comments from sleep subgroup
- Validate the entire set of questionnaires and submit for approval

Link to the drafted qualitative schemas and sample data (scratch pad):

<https://ieeesa.imeetcentral.com/omh/folder/WzlwLDEwMjY4MDgwXQ>

Link to the drafted qualitative schemas and sample data (ready for review):

<https://ieeesa.imeetcentral.com/omh/folder/WzlwLDEwNjM1MTQwXQ>

Quantitative Schema Task Group Updates

Schema Content

- According to Open mHealth, each schema includes at least the following sections:
 - schema header (“reference” section: SNOMED, LOINC, RxNORM, or UCUM)
 - “definitions”
 - “properties”
 - “required”
- Suggest the following:
 - Start with these fields for developing a new schema;
 - During schema development, we could create new/modify existing fields as needed;

Schema Review/Modification Progress

List of reviewed & revised schemas and sample data:

- ambient_light
- ambient_sound
- apnea_hypopnea_index
- deep_sleep_percentage
- light_sleep_percentage
- sleep_body_movement
- sleep_onset_latency
- arousal_index
- wake_after_sleep_onset
- ambient_temperature
- sleep_episode

List of remaining schemas to be revised:

- sleep_stages
- snore_count
- time_in_bed
- total_sleep_time

Link to the drafted quantitative schemas and sample data (scratch pad):

<https://ieeesa.imeetcentral.com/omh/folder/WzlwLDEwMjY4MDc4XQ>

Link to the drafted quantitative schemas and sample data (review folder):

<https://ieeesa.imeetcentral.com/omh/folder/WzlwLDEwNDI3OTI4XQ>

Action Items

- By May 12, 2019:
 - Finish revising the quantitative schemas
 - Finish drafting subjective schemas
- Validate quantitative schemas (joint effort)
- Continue reviewing qualitative schemas and sample data (call for more people to participate)



Future Meetings

- Continue with Tuesdays at 8:30 AM Pacific / 11:30 AM Eastern
- Upcoming meetings
 - June 4, 2019

Adjournment