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://ieee-sa.imeetcentral.com/omh/folder/WzIwLDEwMjY4MDg1XQ/.
  --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:
<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of Questionnaire</th>
<th>To be drafted by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Stanford Sleepiness Scale (SSS)</td>
<td>Banu</td>
</tr>
<tr>
<td>2</td>
<td>Epworth Sleepiness Scale</td>
<td>Banu Drafted by Simona (Available in imeet)</td>
</tr>
<tr>
<td>3</td>
<td>Karolinska Sleepiness Scale</td>
<td>Banu</td>
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<tr>
<td>4</td>
<td>Pittsburgh Sleep Quality Index (PSQI)</td>
<td>Banu</td>
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<tr>
<td>5</td>
<td>Insomnia Severity Index (ISI)</td>
<td>Charlotte</td>
</tr>
<tr>
<td>6</td>
<td>OSA Berlin Questionnaire</td>
<td>Stephanie</td>
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<tr>
<td>7</td>
<td>Stop-Bang Questionnaire</td>
<td>Stephanie</td>
</tr>
<tr>
<td>8</td>
<td>Restless Legs Syndrome Diagnostic Index (RLS-DI)</td>
<td>Stephanie</td>
</tr>
<tr>
<td>9</td>
<td>Narcolepsy</td>
<td>Banu</td>
</tr>
<tr>
<td>10</td>
<td>Functional Outcomes of Sleep Questionnaire</td>
<td>Charlotte</td>
</tr>
</tbody>
</table>
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/WzIwLDExNjM1MTQwXQ
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://ieee-sa.imeetcentral.com/omh/folder/WzIwLDEwMjY4MDgwXQ

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

https://ieee-sa.imeetcentral.com/omh/folder/WzIwLDExNjM1MTQwXQ
Quantitative Schema Task Group Updates
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://ieee-sa.imeetcentral.com/omh/folder/WzIwLDEwMjY4MDc4XQ

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

https://ieee-sa.imeetcentral.com/omh/folder/WzIwLDExNDI3OTI4XQ
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