Blood Pressure Schema

Build - Initial Steps

**Blood Pressure**
- Systolic, diastolic
- Cardiodynamics

Informed by “use cases” across paradigms

Dependencies?
Extensibility intent?
“Measure twice, cut once”

Atomicity
80/20 Rule
Modeling of Time
… and all the other schema design principals

**Modalities:**
- Conventional blood pressure measurements
- Cuffless blood pressure measurements

**Related Content Possibilities?**
- Perfusion state
- Cardiodynamics
Blood Pressure Schema

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**Dependencies?**
- Extensibility intent?
  - “Measure twice, cut once”

**Atomicity**
- 80/20 Rule
- Modeling of Time
  - … and all the other schema design principals

Participants for Blood Pressure Schema Writing Subgroup?

**NHLBI Workshop** (March 29, 2023):
*Transforming Hypertension Diagnosis and Management in the Era of AI*

**IEEE EMBS** (May 3-5, 2023):
*Second Annual Cardiovascular Health Tech Conference*
Rhythm Schema

*Proposed Structure - 3*

- **Electrical Systoles**
  - **Pulse**
    - **Pulse Dynamics**
      - **Rhythm**
  - **Blood Pressure**
    - Systolic, diastolic
    - Cardiodynamics
  - **Respiratory**
    - Ventilatory dynamics
    - Gas Exchange
    - Anomalies
Rhythm Schema

Proposed Structure - 3

Electrical Systoles

Pulse

Pulse Dynamics

Rhythm

Blood Pressure

Cardiodynamics

Respiratory

Autonomics

Neuroendocrine
IEEE 1752 Standard for Mobile Health Data

Expansion of Mobile Health Data overlapping into the Digital Biomarker Space...

Wearables & ext. detectors

Apps

Internal/implant sensors*

Wearables

Apps

Implantables

{ PHR, EHR, AI & DL }
Impactful Healthcare

Relevance

Morbidity & mortality
... WHO category of highest consequence

Preventative medicine
... overall intervention of highest impact

Health economics
... as yet unmet need:
→ semantic interoperability
→ contextuality

Cardiovascular disease #1
- cerebrovascular
- heart failure
- dysrhythmias

Physical activity & mvt
- CR fitness*

Apps
- Wearables & ext. detectors
- Internal/implant sensors*

CR fitness*

Hypertension

Impactful Healthcare

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Hypertension
Timeline / Stakeholder Engagement

- MedTech Industry
- Data Industry
- Advocacy Organizations
- Professional Organizations

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<td>IEEE EMBS Conference</td>
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