THEMIS Update

13-NOV-2018
Why have THEMIS WG?

- The **OMOP CDM** and **OMOP Vocabulary** creates a representation of source data that queries/tools can be run more or less blindly and still return the correct result.

- Achieving this allows developing standardized tools and methods and drive quality, reproducibility and efficiency, and thus gets us closer to fulfilling the OHDSI objectives.

- And it does really work. Except not quite 100%. There are still a good number of issues, which despite the CDM and vocabularies the exact choice of representing a clinical event or circumstance can be ambiguous, arbitrary, clumsy.
Open Community Standards Approach to Data Integrity & Reliable Evidence Generation

Standardized Structure (OMOP CDM) → Standardized Content (OMOP Vocab) → Standardized Conventions (THEMIS) → Standardized Analytics (OHDSI Tools)

203 shared conventions developed by the THEMIS workgroup

Person
- Observation_period: 8
- Visit_occurrence: 12
- Visit_detail: 12
- Condition_occurrence: 10
- Drug_exposure: 12
- Procedure_occurrence: 12
- Device_exposure: 9
- Measurement: 14
- Note: 5
- Note_NLP: 3
- Survey_conduct: 5
- Observation: 17
- Specimen: 1
- Fact_relationship: 1

Standardized health system data
- Location: 6
- Location_history: 6
- Care_site: 9
- Provider: 5

Standardized derived elements
- Condition_era: 3
- Drug_era: 8
- Dose_era: 4

Results Schema
- Cohort: 6
- Cohort_definition: 2

Standardized metadata
- CDM_source: 3
- Metadata: 1

Shared Elements:
- Observation_period
- Visit_occurrence
- Condition_occurrence
- Drug_exposure
- Procedure_occurrence
- Device_exposure
- Measurement
- Note
- Survey_conduct
- Observation
- Specimen
- Fact_relationship
- Location
- Location_history
- Care_site
- Provider
- Condition_era
- Drug_era
- Dose_era

OHDSI
OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS
CDM WG versus THEMIS

• CDM WG – change to the CDM
  – If you know exactly what you want to change to the CDM, then take it to the CDM working group

• THEMIS
  – Making change to how we use the CDM
  – Standardize the use of the CDM or the ETL
  – Not too sure what to do, should it be a change or should it be a ETL implementation standard
Where were we?

• F2F Kickoff – Symposium 2017
  – Created list of issues

• F2F March 2018
  – Reviewed all completed issues and agreed/disagree to proposals as one group

• V1.0.0 Release at Symposium 2018
  – New conventions are added the CDM Wiki
We are starting on the next release!
https://github.com/OHDSI/Themis
Anyone in the OHDSI community can propose an idea for change, with or without a solution!

https://github.com/OHDSI/Themis/issues
Wiki Landing Page


Join the discussion!