

OHDSI NLP Workgroup Updates

July 19, 2022 Hua Xu



OHDSI NLP Workgroup - Objectives

Promote the use of textual information from electronic health records (EHRs) for observational studies under the OHDSI umbrella

- 1. Develop methods and tools to represent and process clinical text
- 2. Conduct cross-institutional studies utilizing textual data in EHRs
- 3. Disseminate best practice of using textual data for real world evidence generation



OHDSI NLP Workgroup – Meeting schedule



Second Wednesday of every month @ 2 PM - 3 PM ET



Wiki page: https://www.ohdsi.org/web/wiki/doku.php?id=projects:workgroups:nlp-wg GitHub repository: https://github.com/OHDSI/NLPTools



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OKRs for 2022

- Objective 1: revise representation of textual data in OMOP CDM (Note_NLP) and develop user guide
- 2. Objective 2: develop multiple NLP tools to extract, transform, and load textual data into Note_NLP
- 3. Objective 3: conduct at least two multi-site clinical studies that utilize both structured and textual data
- 4. Objective 4: continuous community engagement



Objective 1: revise representation of textual data in OMOP CDM (Note_NLP) and develop user guide

Completed:

- Submitted a paper on representing and utilizing clinical text for observational studies
- Submitted a proposal to the CDM WG for modifications to the Note_NLP table

In the pipeline:

 Schema for intermediate tables to store modifiers, note types and additional NLP features



Objective 2 : develop multiple NLP tools to extract, transform, and load textual data

Key results:

Task	Q1 2022	Q2 2022	Q3 2022	Q4 2022
At least four NLP tools that can directly generate Note-NLP outputs (Hongfang, Tim, Paul, Hua)	Tool 1	Tool 2	Tool 3	Tool 4
Sample scripts for transferring data from Note_NLP table to clinical event tables (Vipina)	Publish on NLP GitHub			
Tool to normalize "note_type" (Karthik)	Define representation	Develop program	Publish on NLP GitHub	Feedback and revise
Release a new version of Ananke (Juan)			Present at symposium	



Objective 3: conduct at least two multi-site clinical studies that utilize both structured and textual data

In progress:

- 1. Characterizing Post-Acute Sequelae of SARS-CoV-2 (PASC) Infection
 - 4 sites



Objective 4: continuous community engagement

Key results:

- Monthly meetings
- Invited presentations
- Project-specific meetings
- Forum QA on NLP implementation