



OHDSI Phenotype Library (2022 Refresh!)

OHDSI Community Call Update
July 19th, 2022



PhenotypeLibrary: What's new for 2022

- Responsible Workgroup:
 - Phenotype Development and Evaluation Workgroup.
 - *OKR: Release an initial operational framework on how individual contributors may collaborate and use the OHDSI Phenotype Library resource by July 2022*
- Resources:
 - Atlas <https://atlas-phenotype.ohdsi.org>
 - Repository of definitions (HADES)
 - <https://github.com/OHDSI/PhenotypeLibrary>
 - Network study
 - <https://github.com/ohdsi-studies/PhenotypeLibraryDiagnostics/>
 - Results viewer
 - <https://data.ohdsi.org/PhenotypeLibrary> (expected ~ August 1st, 2022)



Responsible Workgroup

- **Phenotype Development and Evaluation Workgroup**

Mission: We improve the quality and reliability of the evidence generated from observational data, by advancing the science of phenotype development and evaluation.

Meetings: Every 2nd and 4th Friday at 9am EST

Responsibilities – Library life-cycle

1. Define the minimum standard for Phenotypes in Phenotype Library.
2. Manage a community submission process.
3. Perform Scientific peer review in a public forum.
4. Publish and maintain the OHDSI Phenotype library repository of cohort definitions.
5. Execute OHDSI PhenotypeLibrary network study and publish results.
6. Develop material for peer reviewed scientific publications on the phenotypes.

July 8th 2022



Community submissions

- A submission is complete if:
 - Clinical Description
 - with required sections is posted on forums.ohdsi.org
 - Overview, Presentation, Assessment, Plan, Prognosis, Disqualifier, Strengtheners, Logic Description
 - Literature Review
 - with references to key phenotype algorithms and a summary of their salient features.
 - Logic Description
 - that may be translated to Atlas cohort definitions (if rule-based phenotype)
 - Your recommended cohort definitions (≥ 1)
 - Having followed OHDSI Best practices and gone thru development/evaluation iteration
 - Published Cohort Diagnostics output on one or more data sources
 - PheValuator and other evaluation/validation metrics as applicable.
 - Discuss your evaluation/validation findings on forums.ohdsi.org
 - Insights on sensitivity, specificity and index date misclassification errors
 - Attach 'CohortDefinitionSet' R object.
 - For importing into atlas-phenotype.ohdsi.org

PhenotypeFebruary



Scientific peer review in public forum

- If submission is complete the workgroup will
 - Import into atlas-phenotype.ohdsi.org and gets assigned a cohort id.
 - This is immutable, persistent and permanent – like OMOP concept id.
 - Volunteer peer reviewer will be assigned –
 - Moderated public review on forums.ohdsi.org
 - Reviewer rubric: to recommend acceptance
 - Is clinical description clear and has the essential components?
 - Does logic description align with clinical description
 - Does the cohort definition match the logic description
 - Is the evaluation as reported by the submitter observable in the cohort diagnostics output.
 - Is the evaluation valid – sensitivity errors, specificity errors, index date misclassification.
 - Where any validation estimates provided by PheValuator or other methods.
 - Has the definition been used in a network study. Can the definition have been used in a network study



Acceptance and promotion to OHDSI Phenotype library

- Accepted cohorts are published
- Version controlled
- Id for cohort definitions are guaranteed to be immutable
- HADES - May be referenced by other OHDSI R Packages.
- Referenced in external publication.

PhenotypeLibrary 3.1.2 Reference Articles ▾ Changelog

PhenotypeLibrary

Introduction

PhenotypeLibrary is a repository to store the content of the [OHDSI Phenotype Library](#) (Library). These phenotype/cohort definitions have under gone an OHDSI best practice Phenotype Development and Evaluation Process by the [OHDSI Phenotype Development and Evaluation Work group](#) (work group). This [Work group](#), through a OHDSI community wide collaboration effort, evaluates and maintains cohort definitions in an [Atlas instance](#). Definitions that have graduated through this process are published in this repository, and are thus considered high quality cohort definitions.

cohortId's in this repository are persistent (similar to OMOP Concept Id) i.e. once published it maybe expected to stay the same between releases of the Phenotype library (i.e. backward compatible). Version numbers in this repository follows [HADES](#) convention, and changes (addition or deletions) are reported as [News](#). [Work group](#) will be responsible to maintain a cadence for the cohort life cycle - including deprecation and additions.



Publish scientific work

- Publish referenceable scholarly work on
 - OHDSI Process and best practices
 - Referenceable cohort definitions