

Quality assessment of vaccine concepts in OMOP common data model

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INTRO

Vaccination against communicable diseases is one of the pillars of a modern healthcare system and has contributed to longer, healthier lives for people around the world.

Given their widespread use and broad efficacy, there is significant interest in conducting vaccine-related health outcomes research.

In order to ensure reliable and reproducible analyses from observational clinical data, we performed a careful examination and evaluation of vaccine-related concepts in OMOP vocabularies using three different vaccines.

We identified several issues that could impact the quality of vaccine-related health outcomes study using OMOP CDM.

We believe that it is impactful to document and communicate such findings with the OHDSI community in the hopes of identifying opportunities for future improvement.

A review of vaccine concepts in OMOP vocabularies identified several issues that could impact the quality of vaccine-related health outcomes study using OMOP CDM.



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<https://www.ohdsi.org/2020-global-symposium-showcase-26/>

RESULTS

Procedure codes are mapped to other domains in OMOP CDM

Inappropriate mapping from non-standard concepts to standard concepts

Unclear hierarchy of standard concepts

Complex naming conventions for standard concepts

Frequent vocabulary changes

DISCUSSION

Revisit the vaccine concept mappings

Recommend concept sets for vaccine

Monitor the impact of vocabulary changes

Archive historical versions of vocabularies

Provide additional trainings