OHDSI 2025 Mad Minutes/Final Logistics

OHDSI Community Call

Sept. 30, 2025 • 11 am ET

Upcoming Community Calls

Date	Topic
Sept. 30	OHDSI 2025 Poster Preview Mad Minutes / Symposium Logistics
Oct. 7	No Call – OHDSI Symposium
Oct. 14	Welcome to OHDSI
Oct. 21	Tribute to Andrew Williams/The Power of Collaboration
Oct. 28	Meet the Titans
Nov. 4	Collaborator Showcase Honorees
Nov. 11	TBA
Nov. 18	DARWIN EU 2025 Update

Three Stages of The Journey

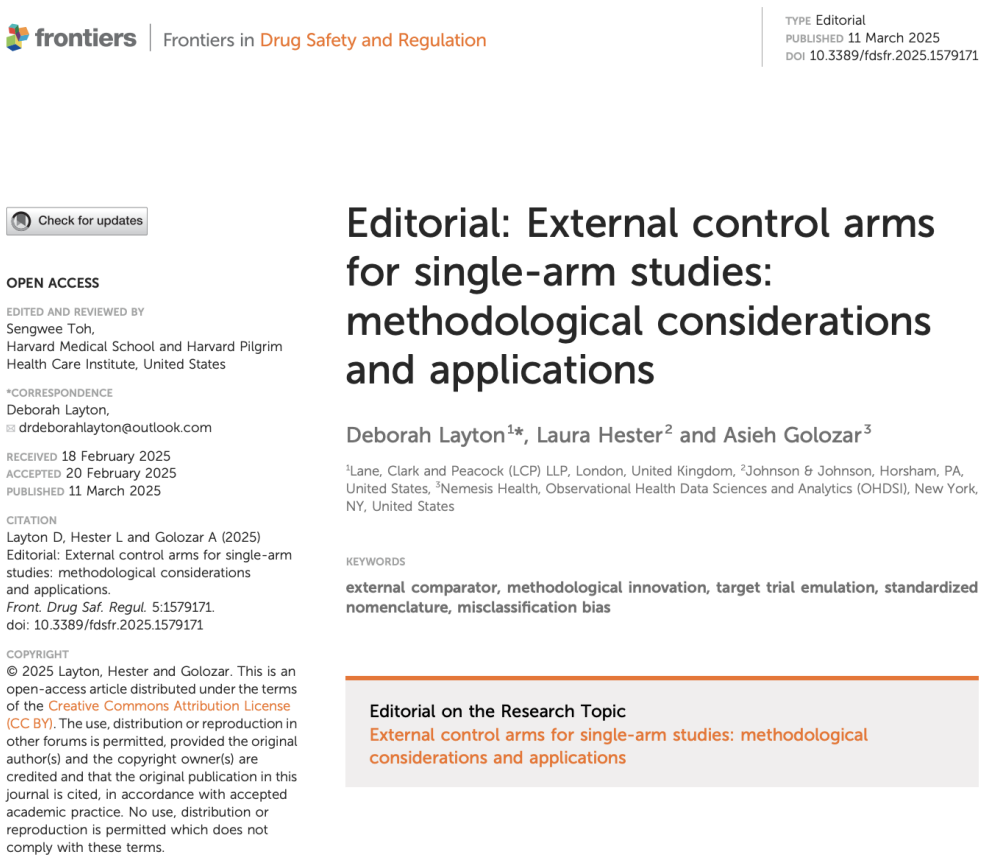
Where Have We Been?

Where Are We Now?

Where Are We Going?

OHDSI Shoutouts!

Congratulations to the team of **Deborah Layton, Laura Hester, and Asieh Golozar** on the publication of **Editorial: External control arms for single-arm studies: methodological considerations and applications** in *Frontiers in Drug Safety and Regulation.*



frontiers | Frontiers in Drug Safety and Regulation

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PUBLISHED 11 March 2025
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Check for updates

OPEN ACCESS

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Editorial: External control arms for single-arm studies: methodological considerations and applications

Deborah Layton[1]*, Laura Hester[2] and Asieh Golozar[3]

[1]Lane, Clark and Peacock (LCP) LLP, London, United Kingdom, [2]Johnson & Johnson, Horsham, PA, United States, [3]Nemesis Health, Observational Health Data Sciences and Analytics (OHDSI), New York, NY, United States

KEYWORDS

external comparator, methodological innovation, target trial emulation, standardized nomenclature, misclassification bias

Editorial on the Research Topic
External control arms for single-arm studies: methodological considerations and applications

OHDSI Shoutouts!

Congratulations to the team of **Fran Biggin, Laura M White, Quinta Ashcroft, Timothy Howcroft, Vishnu Vardhan Chandrabalan, Hedley Emsley, and Jo Knight** on the publication of **Density of routinely collected neurology data depends on patient visit type: an investigation using the observational medical outcomes partnership common data model** in *BMJ Neurology Open*.

Open access Original research

BMJ Neurology Open

Density of routinely collected neurology data depends on patient visit type: an investigation using the observational medical outcomes partnership common data model

Fran Biggin [1,2] Laura M White [2] Quinta Ashcroft,[2] Timothy Howcroft [2] Vishnu Vardhan Chandrabalan,[2] Hedley Emsley [1,2] Jo Knight[1,2]

To cite: Biggin F, White LM, Ashcroft Q, *et al*. Density of routinely collected neurology data depends on patient visit type: an investigation using the observational medical outcomes partnership common data model. *BMJ Neurology Open* 2025;**7**:e001202. doi:10.1136/bmjno-2025-001202

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ABSTRACT

Background The Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM) is a standardised framework for organising healthcare data. This study uses data in the OMOP CDM format to analyse information on neurology patients.

Methods Routinely collected data harmonised to OMOP at a large referral hospital in England were used. A study cohort was defined as patients who attended at least one neurology outpatient appointment between 01 April 2022 and 31 March 2023 (n=23 862). Data collected at all visits to the hospital made by this cohort between 01 April 2021 and 31 March 2024 were extracted. The cohort was then divided into four subcohorts according to appointment types attended: outpatient appointment(s) only (n=152); outpatient appointment(s) and inpatient stay(s) (n=2750); outpatient appointment(s) and emergency department attendance(s) (n=1658); outpatient appointment(s), inpatient stay(s) and emergency department attendance(s) (n=4199).

Results We found there to be more data available for patients who had at least one inpatient stay or emergency department attendance than for those with only outpatient appointments. Notably, an average of 0 out of 100 patients in the outpatient only subcohort had a record of a condition, compared with 100 out of 100 patients in the subcohort with outpatient appointments, emergency

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The Observational Medical Outcomes Partnership (OMOP) common data model (CDM) is being adopted by the National Health Service (NHS) to provide a uniform structure to the data within the NHS Secure Data Environments to support research. We know that outpatient coding is not mandated, so diagnoses at outpatient appointments are not regularly recorded in electronic health records.

WHAT THIS STUDY ADDS

⇒ We investigate the variable volume of data available for research through a secondary care dataset that has been converted to the OMOP CDM. We show that outpatients have far less data recorded than inpatients or patients attending ED, in terms of both volume and type of data.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study highlights the need for data systems such as Secure Data Environments to be based on data which are complete. We also highlight the importance of ensuring that data recording for outpatients is as complete as it is for inpatients and ED.

OHDSI Shoutouts!

Congratulations to the team of **Niaz Chalabianloo, Sheikh S. Abdullah, Mohammad Ali Omrani, Atefeh Jafari, Kamran Sedig, and Flory Tsobo Muanda** on the publication of **Enhancing adverse drug reaction data quality in Canada: A high-precision pipeline for medication name standardization and enrichment** in *PLOS One*.

PLOS ONE

RESEARCH ARTICLE

Enhancing adverse drug reaction data quality in Canada: A high-precision pipeline for medication name standardization and enrichment

Niaz Chalabianloo[1,2,3], **Sheikh S. Abdullah**[2,3,4,5], **Mohammad Ali Omrani**[1☯], **Atefeh Jafari**[3,6☯], **Kamran Sedig**[2,7], **Flory Tsobo Muanda**[1,3,6,8*]

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OPEN ACCESS

Citation: Chalabianloo N, Abdullah SS, Omrani MA, Jafari A, Sedig K, Muanda FT (2025) Enhancing adverse drug reaction data quality in Canada: A high-precision pipeline for medication name standardization and enrichment. PLoS One 20(9): e0331940. https://doi.org/10.1371/journal.pone.0331940

Editor: Yaser Mohammed Al-Worafi, University of Science and Technology of Fujairah, YEMEN

Received: June 7, 2025

Accepted: August 23, 2025

Published: September 25, 2025

Abstract

Background: The Canada Vigilance Adverse Reaction database is a vital pharmacovigilance tool, but its utility is severely limited by heterogeneity in medication nomenclature. A substantial portion (~36.8%) of unique drug name variants in the database lack any mapping to an active ingredient, representing a critical data quality gap that can mask important adverse drug reaction (ADR) signals.

Methods: We developed, validated, and publicly released a high-precision, automated pipeline to standardize and enrich medication names. The pipeline employs a cascaded matching strategy that leverages the RxNorm and Observational Health Data Sciences and Informatics (OHDSI) vocabularies. Standardized names are assigned a RxNorm Concept Unique Identifier (RxCUI) and enriched with active ingredient data and Anatomical Therapeutic Chemical (ATC) classifications via RxNav APIs. The pipeline's accuracy was rigorously assessed by two independent experts on a balanced validation set of 200 cases.

OHDSI Shoutouts!

Congratulations to the team of **Florian Katsch, Ágota Mészáros, Tibor Héja, Rada Hussein and Georg Duftschmid** on the publication of **Semiautomatic mapping of a national drug terminology to standardised OMOP drug concepts using publicly available supplementary information** in *BMC Medical Research Methodology.*

Katsch *et al. BMC Medical Research Methodology* (2025) 25:213
https://doi.org/10.1186/s12874-025-02669-0

BMC Medical Research Methodology

RESEARCH Open Access

Semiautomatic mapping of a national drug terminology to standardised OMOP drug concepts using publicly available supplementary information

Florian Katsch[1,2*], Ágota Mészáros[3], Tibor Héja[4], Rada Hussein[2] and Georg Duftschmid[1]

Abstract

Background Mapping national drug terminologies to internationally recognized standards is essential for harmonising health data across regions and supporting secondary data use. In Austria, the national drug terminology lacks fine-granular mappings to RxNorm and RxNorm Extension (RxN/E), limiting its integration into the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM). This study aims to semiautomatically map Austria's national drug terminology to RxN/E, to enable improved interoperability and data standardisation for secondary use.

Methods We implemented a semiautomated mapping approach using public supplementary data to bridge the gap between national drug concepts and RxN/E concepts. Probabilistic matching and hierarchical refinement techniques were applied to derive finer-grained and more meaningful mappings than previously available ingredient level mappings via the Anatomical Therapeutic Chemical (ATC) classification. We linked our mappings to other available European drug mappings for a validation of our results.

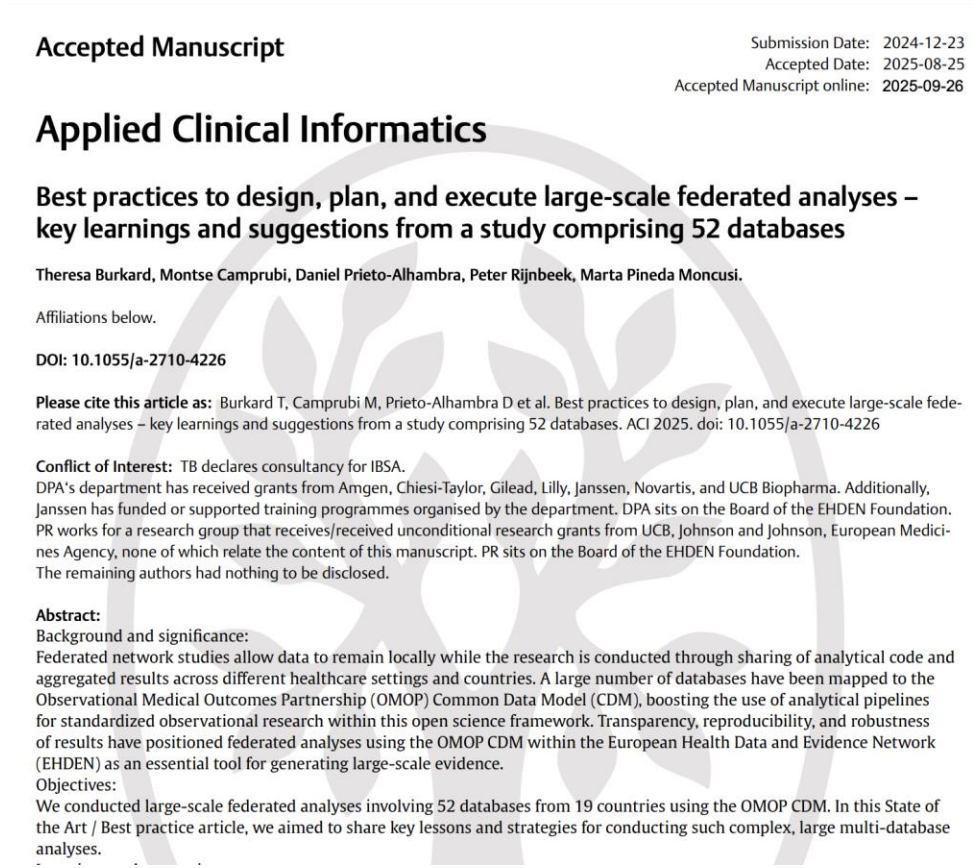
Results Our process successfully mapped 18,390 (95.42%) of Austria's 19,273 drug concepts to RxN/E, surpassing previous mappings that focused solely on ingredient-level relationships. Specifically, we mapped 73.65% of the concepts to more specific RxN/E targets, such as branded drug boxes and quantified clinical drugs. We identified multiple vocabulary inconsistencies, including duplications and erroneous relationships within RxN/E, which were documented for improvement. The results are disseminated as Usagi-formatted CSV files and HL7 FHIR ConceptMaps to encourage transparency, ease of use, and community-driven refinement.

Conclusions The presented mapping approach highlights the feasibility and utility of leveraging publicly available supplementary data to create mappings between national drug terminology and RxN/E. Our method yields fine-grained mappings, enabling precise and comprehensive drug data integration for secondary use.

Keywords Drug terminology mapping, OMOP, CDM, RxNorm, Usagi, Health data standardisation, Secondary use of health data

OHDSI Shoutouts!

Congratulations to the team of **Theresa Burkard, Montse Camprubi, Daniel Prieto-Alhambra, Peter Rijnbeek, and Marta Pineda Moncusi** on the publication of **Best practices to design, plan, and execute large-scale federated analyses – key learnings and suggestions from a study comprising 52 databases** in *Applied Clinical Informatics.*



Accepted Manuscript

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Applied Clinical Informatics

Best practices to design, plan, and execute large-scale federated analyses – key learnings and suggestions from a study comprising 52 databases

Theresa Burkard, Montse Camprubi, Daniel Prieto-Alhambra, Peter Rijnbeek, Marta Pineda Moncusi.

Affiliations below.

DOI: 10.1055/a-2710-4226

Please cite this article as: Burkard T, Camprubi M, Prieto-Alhambra D et al. Best practices to design, plan, and execute large-scale federated analyses – key learnings and suggestions from a study comprising 52 databases. ACI 2025. doi: 10.1055/a-2710-4226

Conflict of Interest: TB declares consultancy for IBSA.
DPA's department has received grants from Amgen, Chiesi-Taylor, Gilead, Lilly, Janssen, Novartis, and UCB Biopharma. Additionally, Janssen has funded or supported training programmes organised by the department. DPA sits on the Board of the EHDEN Foundation. PR works for a research group that receives/received unconditional research grants from UCB, Johnson and Johnson, European Medicines Agency, none of which relate the content of this manuscript. PR sits on the Board of the EHDEN Foundation.
The remaining authors had nothing to be disclosed.

Abstract:
Background and significance:
Federated network studies allow data to remain locally while the research is conducted through sharing of analytical code and aggregated results across different healthcare settings and countries. A large number of databases have been mapped to the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM), boosting the use of analytical pipelines for standardized observational research within this open science framework. Transparency, reproducibility, and robustness of results have positioned federated analyses using the OMOP CDM within the European Health Data and Evidence Network (EHDEN) as an essential tool for generating large-scale evidence.
Objectives:
We conducted large-scale federated analyses involving 52 databases from 19 countries using the OMOP CDM. In this State of the Art / Best practice article, we aimed to share key lessons and strategies for conducting such complex, large multi-database analyses.

OHDSI Shoutouts!

Congratulations to the team of **Radovan Tomasik, Simon Konar, Niina Eklund, Cäcilia Engels, Zdenka Dudova, Radoslava Kacova, Roman Hrstka, Petr Holub** on the publication of **Definitions to data flow: Operationalizing MIABIS in HL7 FHIR** in the *Journal of Biomedical Informatics*.

ELSEVIER

Journal of Biomedical Informatics
Available online 27 September 2025, 104919
In Press, Journal Pre-proof What's this?

Original Research

Definitions to data flow: Operationalizing MIABIS in HL7 FHIR

Radovan Tomasik [a b c], Simon Konar [b], Niina Eklund [c], Cäcilia Engels [d e], Zdenka Dudova [b], Radoslava Kacova [b a], Roman Hrstka [b], Petr Holub [f c]

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https://doi.org/10.1016/j.jbi.2025.104919 Get rights and content

Abstract

Objective

Biobanks and biomolecular resources are increasingly central to data-driven biomedical research, encompassing not only metadata but also granular, sample-related data from diverse sources such as healthcare systems, national registries, and research outputs. However, the lack of a standardised, machine-readable format for representing such data limits interoperability, data reuse and integration into clinical and research environments. While MIABIS provides a conceptual model for biobank data, its abstract nature and reliance on heterogeneous implementations create barriers to practical,

Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?

Upcoming Workgroup Calls

Date	Time (ET)	Meeting
Tuesday	12 pm	ATLAS/WebAPI
Wednesday	8 am	Psychiatry
Wednesday	9 am	Health Economics and Value Assessment (HEVA)
Wednesday	11 am	Common Data Model
Thursday	8 am	Medical Devices
Thursday	11 am	Themis
Thursday	11 am	Industry
Thursday	12 pm	Methods Research
Thursday	2 pm	Early-Stage Researchers
Thursday	7 pm	Dentistry
Friday	10 am	Transplant
Friday	10 am	GIS-Geographic Information System
Friday	11:30 am	Steering

Tutorials Homepage

OHDSI Tutorials

Education is at the heart of OHDSI's mission, and these tutorials showcase the community's commitment to sharing knowledge. Developed and taught by OHDSI faculty, they highlight tools, standards, and best practices that empower collaborators at every level to engage in open science and generate reliable evidence.

2025 Global Symposium (Oct. 7-9, videos will be posted when available)

An Introduction to the Journey from Data to Evidence Using OHDSI

The journey from data to evidence can be challenging alone, but it is greatly enabled through community collaboration. In this half-day tutorial, we will introduce newcomers to OHDSI. Specifically, registrants will learn about the tools, practices, and open-science approach to evidence generation that the OHDSI community has developed and evolved over the past decade.

Faculty: Erica Voss, Yong Chen, Katy Sadowski, Nicole Pratt, Roger Carlson, Chongliang (Jason) Luo

Using the OHDSI Standardized Vocabularies for Research

In this tutorial, students will learn how to take advantage of the OHDSI standardized vocabularies as an analytic tool to support your research, including searching for relevant clinical concepts, navigating concept relationships, creating concept sets and understanding source codes that map within these expressions. Students will also learn where the OHDSI standardized vocabularies are used throughout OHDSI's standardized analytic tools.

Faculty: Anna Ostropolets, Vlad Korsik, Polina Talapova, Masha Khitrun

Population-Level Effect Estimation Applications to Generate Reliable Real-World Evidence

Population-level effect estimation—causal inference methods for comparative effectiveness and safety surveillance—enables researchers to understand how exposure to medical interventions are expected to impact health outcomes. In this tutorial, students will learn how to design causal inference studies and how to apply tools (such as CohortMethod) and practices (such as objective diagnostics) developed by the OHDSI community to ensure the evidence generated is reliable.

Faculty: George Hripcsak, Martijn Schuemie, Linying Zhang, Tara Anand

Developing and Evaluating Your Extract, Transform, Load (ETL) Process to the OMOP Common Data Model

In this tutorial, students will learn about the tools and practices developed by the OHDSI community to support the journey to establish and maintain an ETL to standardize your data to OMOP CDM and enable standardized evidence generation across a data network.

Faculty: Clair Blacketer, Karthik Natarajan, Evanette Burrows, Max Adulyanuksol, Maxim Moinat

Clinical Characterization Applications to Generate Reliable Real-World Evidence

Clinical characterization—descriptive statistics to summarize disease natural history, treatment utilization, and outcome incidence—are at the heart of many real-world data applications, including study feasibility and quality improvement. In this tutorial, students will learn how to design and implement observational network studies for characterization, and how to apply tools and practices developed by the OHDSI community to ensure the evidence generated is reliable.

Faculty: Patrick Ryan, Aniek Markus, Hsin Yi "Cindy" Chen, Azza Shoaibi

Patient-Level Prediction Applications to Generate Reliable Real-World Evidence

Patient-level prediction—the use of machine learning to train, test, and apply predictive models for disease interception and precision medicine—offers the potential to personalize healthcare by enabling individualized risk prediction based on personal health history. In this tutorial, students will learn how to apply tools and practices developed by the OHDSI community, including the PatientLevelPrediction HADES R package, to design and implement network studies capable of learning and externally validating prediction models, and how to apply these models to your population.

2024 Global Symposium

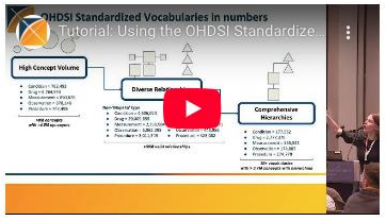
An Introduction to the Journey from Data to Evidence Using OHDSI

Faculty: Daniel Prieto-Alhambra, Jenna Reps, Mui Van Zandt, Erica Voss, Linying Zhang

Developing and Evaluating Your Extract, Transform, Load (ETL) Process to the OMOP CDM

Faculty: Clair Blacketer, Evanette Burrows, Melanie Philofsky, Katy Sadowski

Using the OHDSI Standardized Vocabularies for Research



Faculty: Anna Ostropolets, Vlad Korsik, Azza Shoaibi, Polina Talapova, Oleg Zhuk

So, You Think You Want To Run an OHDSI Network Study?

Faculty: Yong Chen, Benjamin Martin, Nicole Pratt, Anthony Sena, Andrew Williams, Seng Chan You

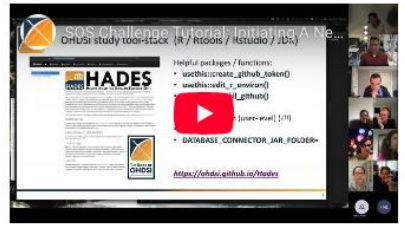
2023 Global Symposium

Introduction to OHDSI

Faculty: Erica Voss, Christian Reich, Fan Bu, Martin Lavallee, Marc Suchard

2023 SOS Challenge: Focusing On The Full Process Of Leading A Network Study

Initiating A Network Study

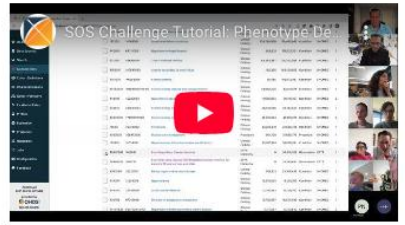


Faculty: Marc Suchard

Data Diagnostics

Faculty: Clair Blacketer, Mui Van Zandt, Sarah Seager

Phenotype Development: Outcome Design



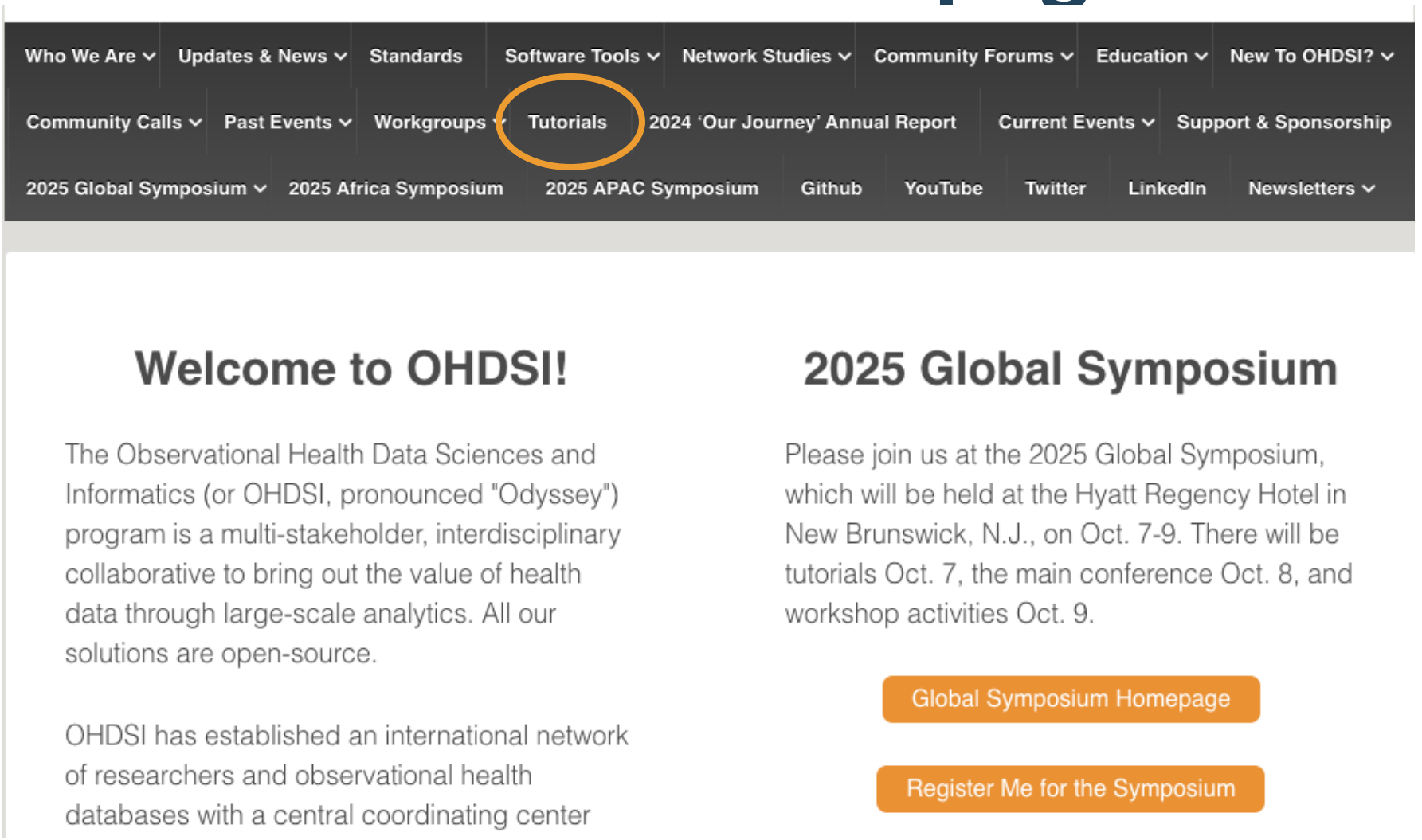
Faculty: Anna Ostropolets

Phenotype Development: Exposure Design

Faculty: Christian Reich

ohdsi.org/tutorials

Tutorials Homepage



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Canadian OMOP CDM Engagement Event: Nov 17–18

Join us in Toronto on **November 17–18, 2025**, for the first pan-Canadian event to bring stakeholders from across Canada who are engaged in OMOP CDM transformations and research. The event will advance efforts to establish a Canadian OHDSI node and provide an opportunity to connect, collaborate, and gain insights into Canada's OMOP landscape.

To register: Eventbrite (space is limited)

Questions: georgina.archbold@hdrn.ca

The Center for Advanced Healthcare Research Informatics (CAHRI) at Tufts Medicine welcomes:

Tiffany Callahan, PhD

Senior Machine Learning Research Scientist at SandboxAQ

'Agentic Mixture-of-Workflows for Multi-Modal Chemical Search'

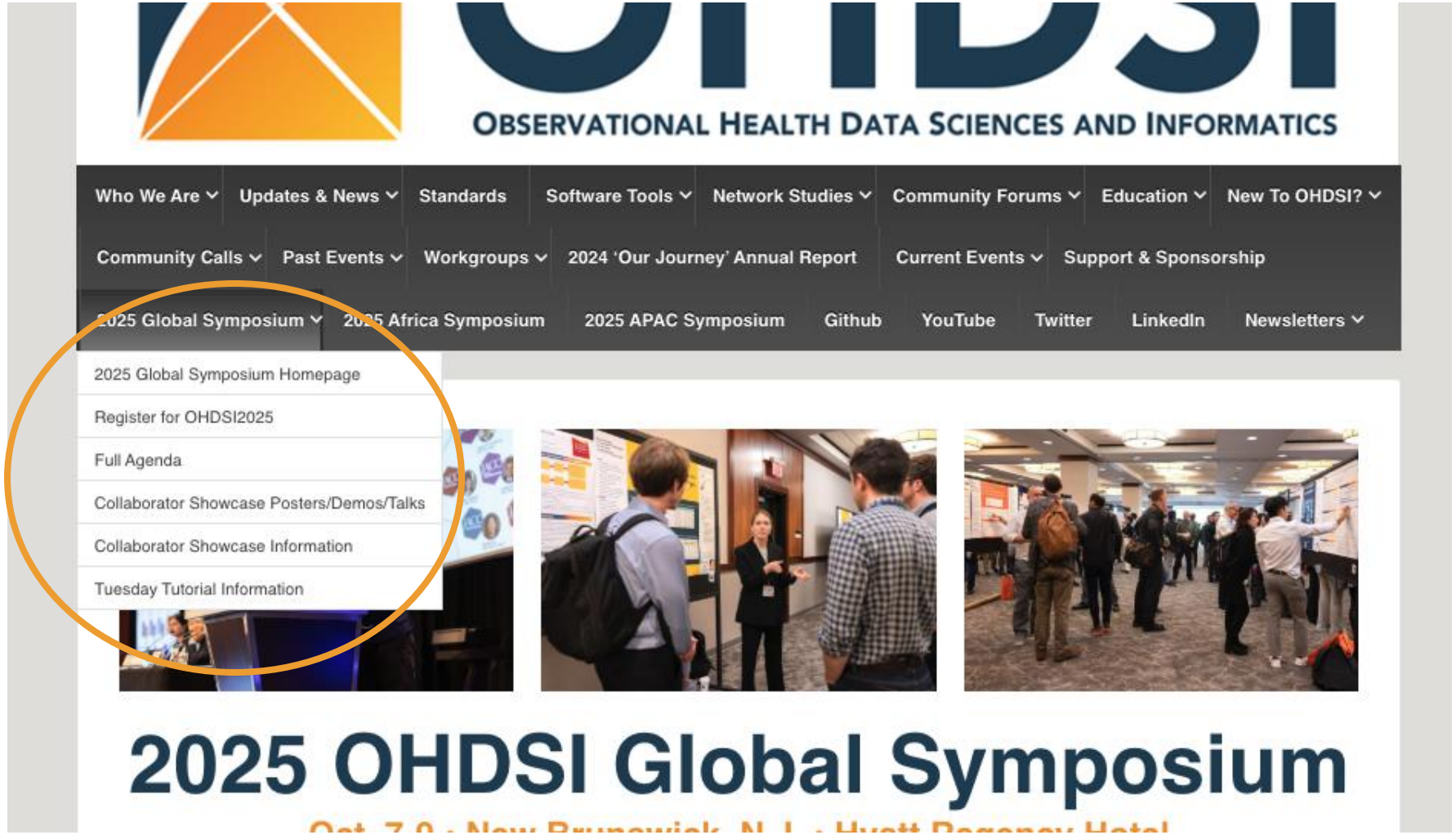
October 30, 2025, 11am-12pm EDT

Virtually via Zoom

Please contact Marty Alvarez at malvarez2@tuftsmedicalcenter.org for calendar invite or questions.

TuftsMedicine
Tufts Medical Center

Global Symposium: Oct. 7-9



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Global Symposium: Oct. 7-9

Agenda ·

Time (ET)	Session/Topic
7:00 am - 8:00 am	Lite Breakfast ar
8:00 am - 12:00 pm	*Introductory Tut* An Introduction t Faculty: Erica Vo Pennsylvania; K of South Australi Vocabulathon 20 Lead: Alexander
12:00 pm - 1:00 pm	Buffet Lunch for
1:00 pm - 5:00 pm	*Advanced Tutori* Developing and to the OMOP Co Faculty: Clair Bl University; Evan Mahidol Universi Using the OHDSI Faculty: Anna O Data Services; P Clinical Characte Evidence Faculty: Patrick Hsin Yi "Cindy" Population-Level Real-World Evid Faculty: George Johnson; Linyin Columbia Univer Patient-Level Pre Evidence Faculty: Jenna R Ross Williams, E
5:00 pm - 6:00 pm	Collaborator Sho
6:00 pm - 8:00 pm	Networking Rece

Agenda · Wednesday, Oct. 8

Time (ET)	Topic
7:00 am - 8:00 am	Lite Breakfast and Registration, Exhibits
7:15 am - 7:45 am	Newcomer Orientation Paul Nagy, Johns Hopkins University
8:00 am - 9:00 am	State of the Community: Welcome to OHDSI George Hripcsak, Columbia University
9:00 am - 9:30 am	Group Networking Activity
9:30 am - 10:15 am	Collaborator Showcase Poster/Software Demo Session #1
10:15 am - 12:00 pm	Plenary: Why network studies are necessary to improve trust in evidence Martijn Schuemie, Johnson & Johnson; Asieh Golozar, Nemesis Health; Cindy Cai, Johns Hopkins University; Patrick Ryan, Johnson & Johnson, Columbia University
12:00 pm - 1:00 pm	Buffet Lunch, Exhibits
1:00 pm - 2:00 pm	Plenary: Reflections on the evolution of pre- and postmarket safety review in CDER over 3 decades Judy Racoosin, US Food and Drug Administration (retired)
2:00 pm - 2:45 pm	Collaborator Showcase Lightning Talk Session #1 Moderator: Harry Reyes Nieva, Columbia University Bridging Standards: Creating OMOP data via Fast Healthcare Interoperability Resources (FHIR) and Health Information Networks Stephanie Hong, Johns Hopkins University OMOP Waveform Extension: A Schema for Integrating Physiological Signals and Derived Features into the OMOP CDM Jared Houghtaling, Tufts University Improving VSAC to OMOP Mapping Using LLM Assisted Curation Robert Barrett, Johns Hopkins University Evaluating the effectiveness of using Large Language Models for the development of concept sets Joel Swerdel, Johnson & Johnson Validating a Scalable Approach to Data Fitness-for-Use: Database Diagnostics Applied to LEGEND-T2DM Clair Blacketer, Johnson & Johnson

Time (ET)	Topic
2:45 pm - 3:30 pm	Collaborator Showcase Poster/Softwar
3:30 pm - 4:15 pm	Collaborator Showcase Poster/Softwar
4:15 pm - 5:00 pm	Collaborator Showcase Lightning Talk Moderator: Ben Martin, Johns Hopkins Causal Inference with Multi-Modal Four Anti-VEGF Injections in Diabetic Macul Linying Zhang, Washington University LATTE: A One-shot Lossless Algorithm with Application to Alzheimer's Disease Repurposing Using Decentralized Data Lu Li, University of Pennsylvania From Data Quality to Clinical Quality – Generation Dashboarding Georgina Kennedy, Ingham Institute fo Heterogeneity of Treatment Effects Acr Classes in Type 2 Diabetes: Extension Hsin Yi "Cindy" Chen, Columbia Univer DARWIN EU® – A multi-national networ study of the effect of doxycycline versu suicidality in individuals with acne Katia Verhamme, Erasmus MC
5:00 pm - 6:00 pm	Titan Awards, Wednesday Closing Acti Patrick Ryan, Johnson & Johnson, Col Columbia University; Marc Suchard, UCL
6:00 pm - 6:15 pm	Group Photo
6:15 pm - onward	Free Time

* agenda is subject to change

Agenda · Thursday, Oct. 9

Time (ET)	Meetings
7:00 am - 8:00 am	Lite Breakfast, Exhibits
8:00 am - 10:00 am	Session 1 of Workgroup Activities Featuring: Africa Chapter, APAC Chapter, Medical Imaging, GIS - Geographic Information System, HADES Hackathon, Oncology, Common Data Model, ATLAS/WebAPI, Phenotype Development and Evaluation, Dentistry, and Latin America
10:00 am - 10:30 am	Break, Exhibits
10:30 am - 12:30 pm	Session 2 of Workgroup Activities Featuring: Perinatal and Reproductive Health, Industry, Natural Language Processing, GIS - Geographic Information System, HADES Hackathon, Oncology, Common Data Model, ATLAS/WebAPI, Phenotype Development and Evaluation, Early-Stage Researchers, and Vocabularies
12:30 pm - 1:30 pm	Buffet Lunch and Exhibits
1:30 pm - 3:30 pm	Session 3 of Workgroup Activities Featuring: Surgery and Perioperative Medicine, Rare Diseases, Medical Devices, Psychiatry, HADES Hackathon, Health Equity, Evidence Network Data Partners, Eyecare and Vision Research, Women of OHDSI, CDM Survey
3:45 pm - 5:00 pm	Workgroup Summary

* agenda is subject to change

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Global Symposium: Oct. 7-9

OHDSI

2025 Collaborator Showcase Presenters

October 7 – Pre Showcase - 6:00pm-8:00pm

October 8 – Collaborator Showcase

9:30am-10:15am, 2:45pm-3:30pm, 3:30pm-4:15pm

Community Building (#s 1-8)

1	Building the OHDSI Evidence Network – A Global, Open, Federated Collaboration	Clair Blacketer, Haeun Lee, Benjamin Martijn, Burrows, Ben Gerber, Pantelis Natsiavas, Aar Vadsariya, Hanieh Razzaghi, Paul Nagy
2	Characterizing the OHDSI Evidence Network – A Global Snapshot of Real-World Data Partners	Clair Blacketer, Evanette Burrows, Ben Gerbe Huser, Paul Nagy
3	Australian Health Data Evidence Network (AHDEN): Building a National Data Infrastructure for Standardised, Federated Health Data Research	Roger Ward, Nicole Pratt, Graeme Hart, Ilan Clair Sullivan, Blanca Gallego Luxan, Georgin
4	Progress and Challenges of the OHDSI Africa Chapter	Cynthia Sung, Agnes Kiragga, David Amadi, Yohannes Amare, Onana Akoa Anciet, Paulin Daniel Ankrah, Alex Asiimwe, Chidi Asuzu, To Bhattacharjee, Adam Bouras, Geert Byttebier Coorevits, Kluivert B. Duah, Luc Baudoin Fank Fourie Yacob Gebretensae, Jay Greenfield, La Halvorsen, Jared Houghtaling, Katherine Joh Andrew S. Kanter, Johnblack Kabukye, Mack Charlie Maere Maureen Ng'etich, Michael Oc Ogoe, Bolu Oluwalade, James Orwa, Nahend Garbya, Amelia Taylor, Marleen Temmermar Marc Twagirumukiza, Mirjam van Reisen, Ils Michel Walravens, Andrew Williams
5	From Fragmentation to Federation: A Multi-Partner OMOP Implementation in Uganda Enabling Global Real-World Evidence Generation	Francis Kanyike, Annet Nanungi, Harriet Dick Adam, James Brash, Thu Do, Caroline Otike, Bogart, Alex Asiimwe, Mui Van Zandt, Cissy Mutuluuza
6	OHDSI India Digital Health CoE and National Registry Pilots	Swetha, Parthi, Louis, Vikram, Anurag, Rintu
7	Data Coordinating Center for the OHDSI Ophthalmic Network: A Proposal for the NEI OHDSI Challenge	Michelle R. Hribar, Mohammad Adibuzzaman Brinks, Aiyin Chen, David Huang, Hiroshi Ishikawa, Yali Jia, Elizabeth Silbermann, Xubo Song, Ou Tan

Software Demonstrations (#s 501-516)

501	dqdbt: Continuous Data Quality Testing for OMOP ETL with dbt	Katy Sadowski, Lawrence Adams, Thomas Wylie
502	Summarizing FHIR® to OMOP Transformation Exceptions using Generative AI	Ron Sweeney, Hannah Kimura, Qi Li
503	Usagi-on-the-Web: A Cloud-Based Collaborative Platform for Vocabulary Mapping	Natthawut Adulyanukosol
504	Advancing Electronic Clinical Quality Measure (eCQM) Interoperability: Model Context Protocol (MCP)-Orchestrated CQL-to-OMOP Translation	Star Liu, Robert B Barrett, Kyle Zollo-Venecek, Benjamin Riesser, Benjamin Martin
505	Federated Platform for Clinical Data Mediation: Enhancing Interoperability with OMOP and NLP	Mónica Arrúe, María Quijada, Paula Chocrón, Josep Cordón, Gabriel de Maeztu
506	Enhancing OMOP Concept Mapping in Data2Evidence: A Comparative Study of Full-Text and Semantic Search	Zhi Min, Peter Hoffmann
507	The OMOP Annotator: A Database Agnostic Tool for Reviewing and Augmenting the Patient Record	Amy Yates, Erik Benton, Izabelle Humes, Matthew Lawhead, Heath Harrelson, Imogen Bentley, Rumel Mahmood, William Hersh, Steven Bedrick
508	Automated OMOP Concept Mapping Using Multi-Agent Large Language Models and Graph-Enhanced Semantic Retrieval	Adil Ahmed, Selvin Soby, Boudewijn Aasman, Parsa Mirhaji
509	EHR Browser: A Web Tool to Explore OMOP-CDM Health Records by Concept Hierarchy, Mappings, and Temporal Trends	Veronica Lorenzini, Javier Gracia-Tabuenca, Nicola Cerioli, FinnGen, Mary Pat Reeve
510	Advances in ARES: Evolving Observational Data Management and Systematic Review Capabilities	Frank DeFalco, Evanette Burrows, Clair Blacketer, Mikhail Iontsev
511	DarwinBenchmark: Evaluating cohort generation and analytics in OMOP CDM databases	Ioanna Nika, Maxim Moniat, Guido van Leeuwen, Ross Williams

Lightning Talks and Lightning Talk Posters (#s 601-610)

601	Bridging Standards: Creating OMOP data via Fast Healthcare Interoperability Resources (FHIR) and Health Information Networks	Stephanie Hong, Thanaphop Na Nakhonphanom, Andrew Laitman, Matthew Owens, Anne Bailey, Bryan Laraway, Tanner Zhang, Yvette Chen, Richard Moffitt, Rob Schuff, Tursynay Issabekova, Christopher Chute, Josh Lemieux, Melissa Haendel, William Hogan, Emily Pfaff, Shahim Essaid
602	OMOP Waveform Extension: A Schema for Integrating Physiological Signals and Derived Features into the OMOP CDM	Jared Houghtaling, Polina Talapova, Brian Gow, Manlik Kwong, Andrew J King, Benjamin Moody, Mike Kriley, Tom Pollard, Andrew E. Williams
603	Improving VSAC to OMOP Mapping Using LLM Assisted Curation	Robert Barrett, Star Liu, Kyle Zollo-Venecek, Benjamin Riesser, Benjamin Martin
604	Evaluating the effectiveness of using Large Language Models for the development of concept sets	Joel Swerdel, Dmytro Dymshyts, Anna Ostropolets, Azza Shoaibi, Patrick Ryan, Martijn Schuemie
605	Validating a Scalable Approach to Data Fitness-for-Use: Database Diagnostics Applied to LEGEND-T2DM	Clair Blacketer, Patrick B. Ryan, George Hripcsak, Marc Suchard, Fan Bu, Can Yin, Martijn J. Schuemie, Peter R. Rijnbeek
606	Causal Inference with Multi-Modal Foundation Models: A Case Study of Anti-VEGF Injections in Diabetic Macular Edema	Siqi Sun, Cindy X. Cai, Ruochong Fan, Saiyu You, Diep Tran, P. Kumar Rao, Marc A. Suchard, Yixin Wang, Linying Zhang
607	LATTE: A One-shot Lossless Algorithm for Federated Target Trial Emulation with Application to Alzheimer's Disease and Related Dementia Drug Repurposing Using Decentralized Data	Lu Li, Qiong Wu, Yiwen Lu, Kyra S. O'Brien, Bingyu Zhang, Ting Zhou, Jiayi Tong, Dazheng Zhang, Yuqing Lei, Huilin Tang, Yun Lu, David Asch, Yong Chen
608	From Data Quality to Clinical Quality – Episodes as Enablers for Next Generation Dashboarding	Georgina Kennedy, Shalini Vinod, Gui Mei Xiong, Nasreen Kaadan, Merran Findlay, April Matt, Marnie Harris, Arya Shinde, Shuang Liang, Carolyn Mazariego, Tim Churches, Louisa Jorm, Victoria Bray, Angela Berthelsen, Phan Sayaloune, Geoff Delaney
609	Heterogeneity of Treatment Effects Across Nine Glucose-Lowering Drug Classes in Type 2 Diabetes: Extension of the LEGEND-T2DM Network Study	Hsin Yi Chen, Thomas Falconer, Anna Ostropolets, Tara V. Anand, Xinzhuo Jiang, David Dávila-García, Linying Zhang, Ruochong Fan, George Hripcsak
610	DARWIN EU® - A multi-national network cohort and self-controlled case series study of the effect of doxycycline versus active comparators on the risk of suicidality in individuals with acne	Nicholas B. Hunt, Guido J. van Leeuwen, Maarten van Kessel, Anna Palomar-Cros, Antonella Delmestri, Agustina Giuliodori, Talita Duarte Salles, Mandickel Kamtengeni, Ross D. Williams, Daniel Prieto Alhambra, Katia Verhamme

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Africa Symposium: Nov. 10-12

The first-ever OHDSI Africa Symposium will be held Nov. 10-12 in Kampala, Uganda, at the Joint Clinical Research Centre (JCRC) and Mestil Hotel. The event will begin with a dedicated one-day training course at JCRC, followed by a two-day main conference at the Mestil Hotel.

ohdsi.org/africa2025

APAC Symposium: Dec. 6-7

The 2025 OHDSI APAC Symposium will be held Dec. 6-7 in Shanghai, China at the Shanghai Jiao Tong University. It will feature a 1-day tutorial and a 1-day main conference.

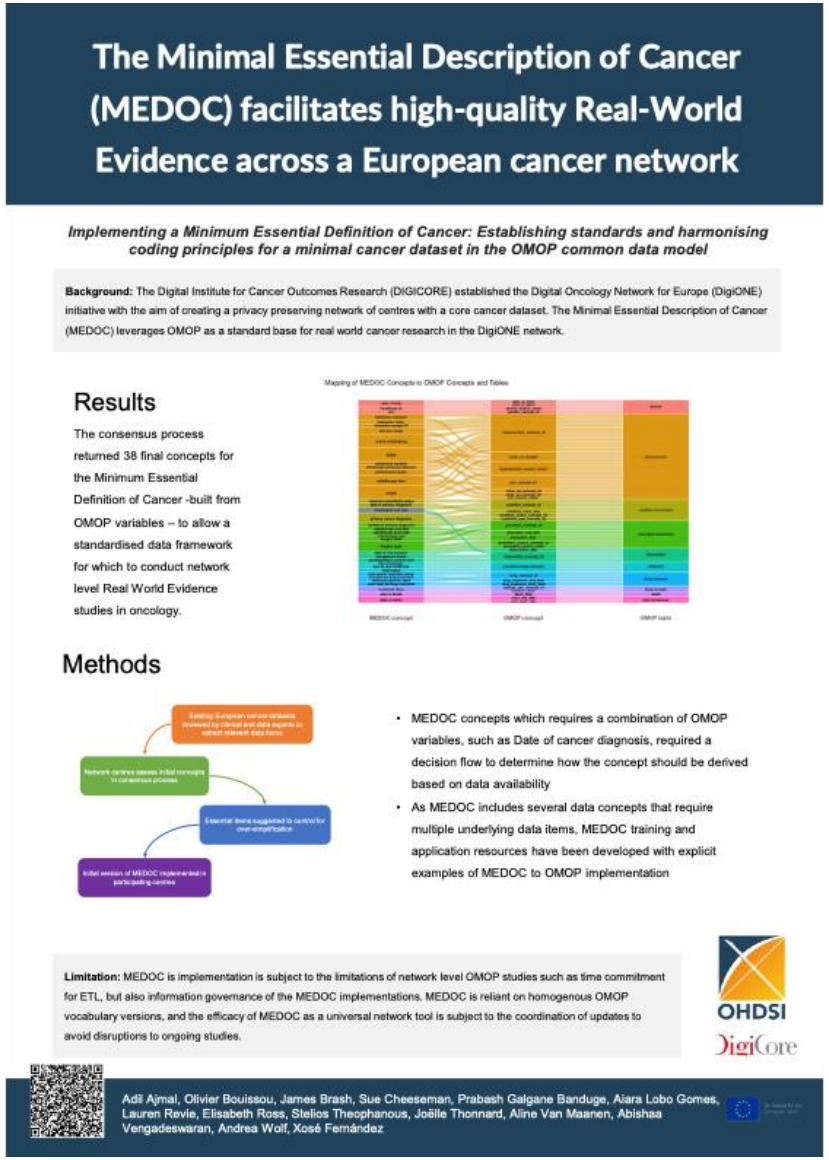
ohdsi.org/apac2025

#OHDSISocialShowcase This Week

Monday

Implementing a Minimum Essential Definition of Cancer: Establishing standards and harmonising coding principles for a minimal cancer dataset in the OMOP common data model

(Adil Ajmal, Olivier Bouissou, James Brash, Sue Cheeseman, Prabash Galgane Banduge, Aiara Lobo Gomes, Lauren Revie, Elisabeth Ross, Stelios Theophanous, Joëlle Thonnard, Aline Van Maanen, Abishaa Vengadeswaran, Andrea Wolf, Xosé Fernández)

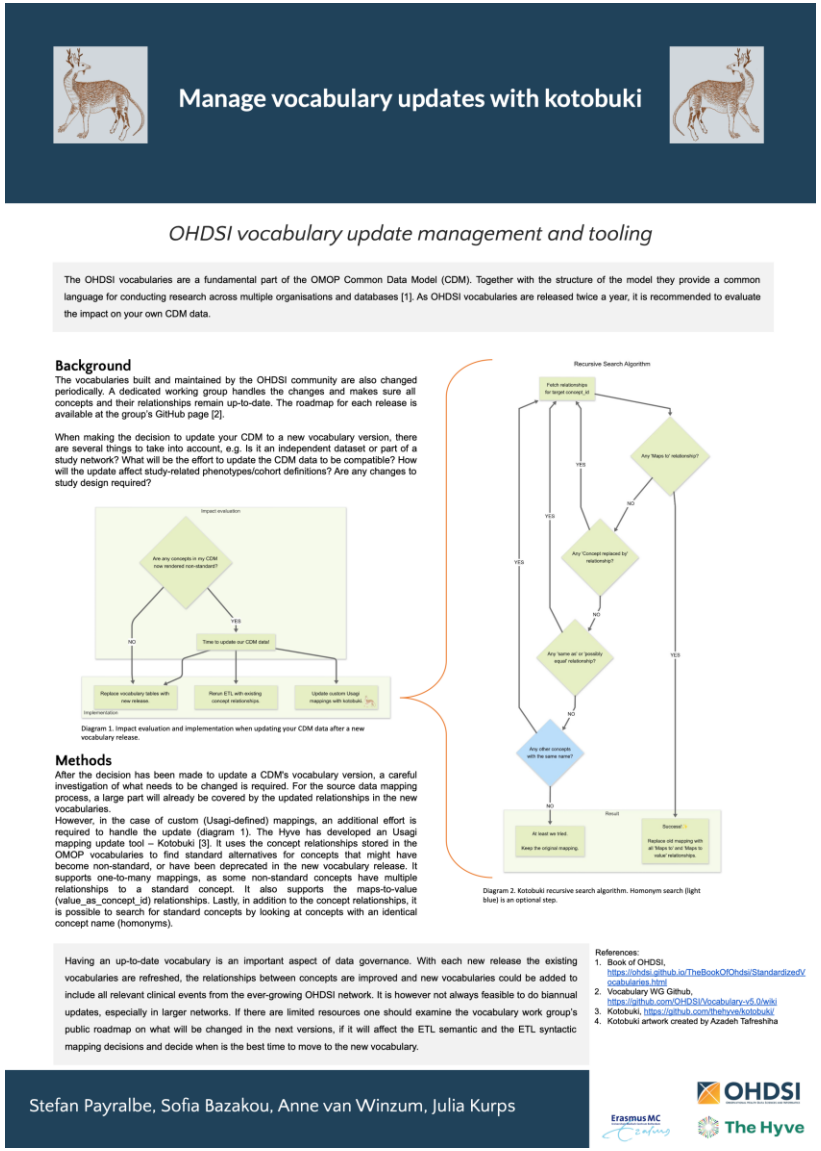


#OHDSISocialShowcase This Week

Tuesday

OHDSI vocabulary updates with kotobuki

(Sofia Bazakou, Stefan Payrable, Julia Kurps, Anne van Winzum)

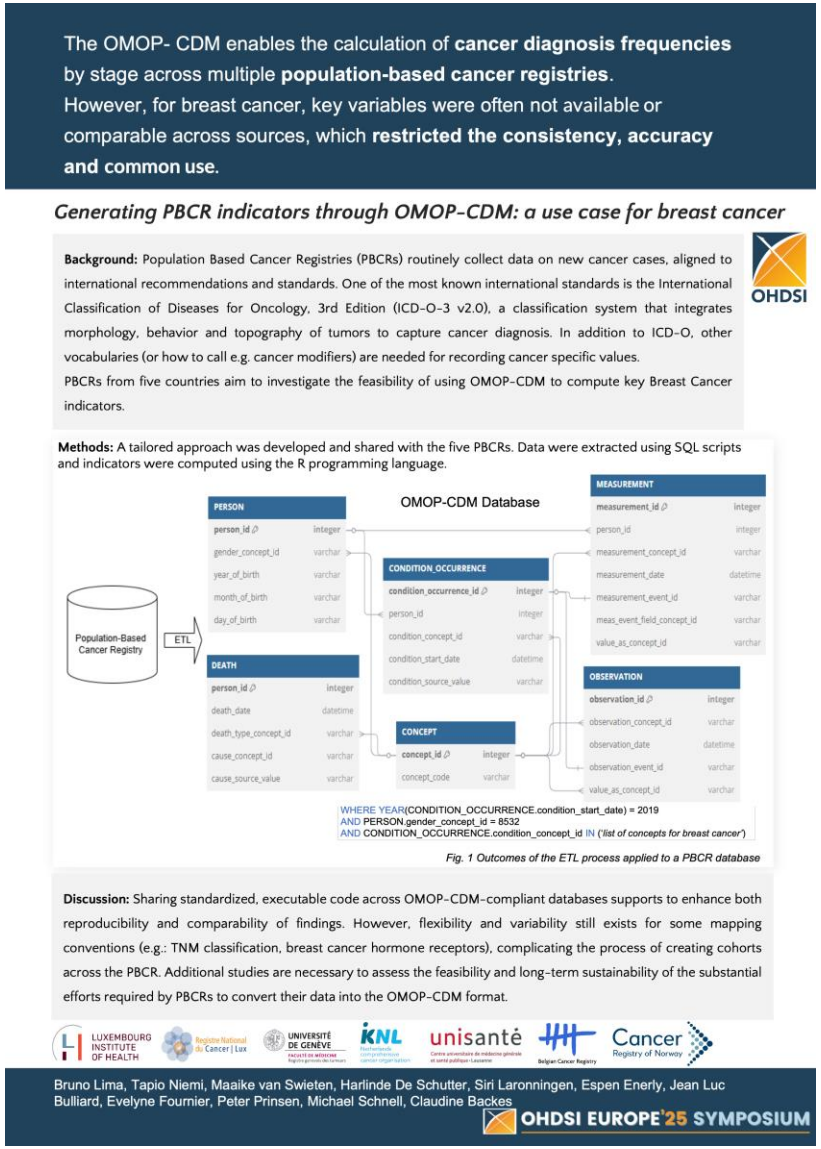


#OHDSISocialShowcase This Week

Wednesday

Generating PBCR indicators through OMOP-CDM: a use case for breast cancer

(Bruno Lima, Tapio Niemi, Maaike van Swieten, Harlinde De Schutter, Siri Laronningen, Espen Enerly, Jean Luc Bulliard, Evelyne Fournier, Peter Prinsen, Michael Schnell, Claudine Backes)

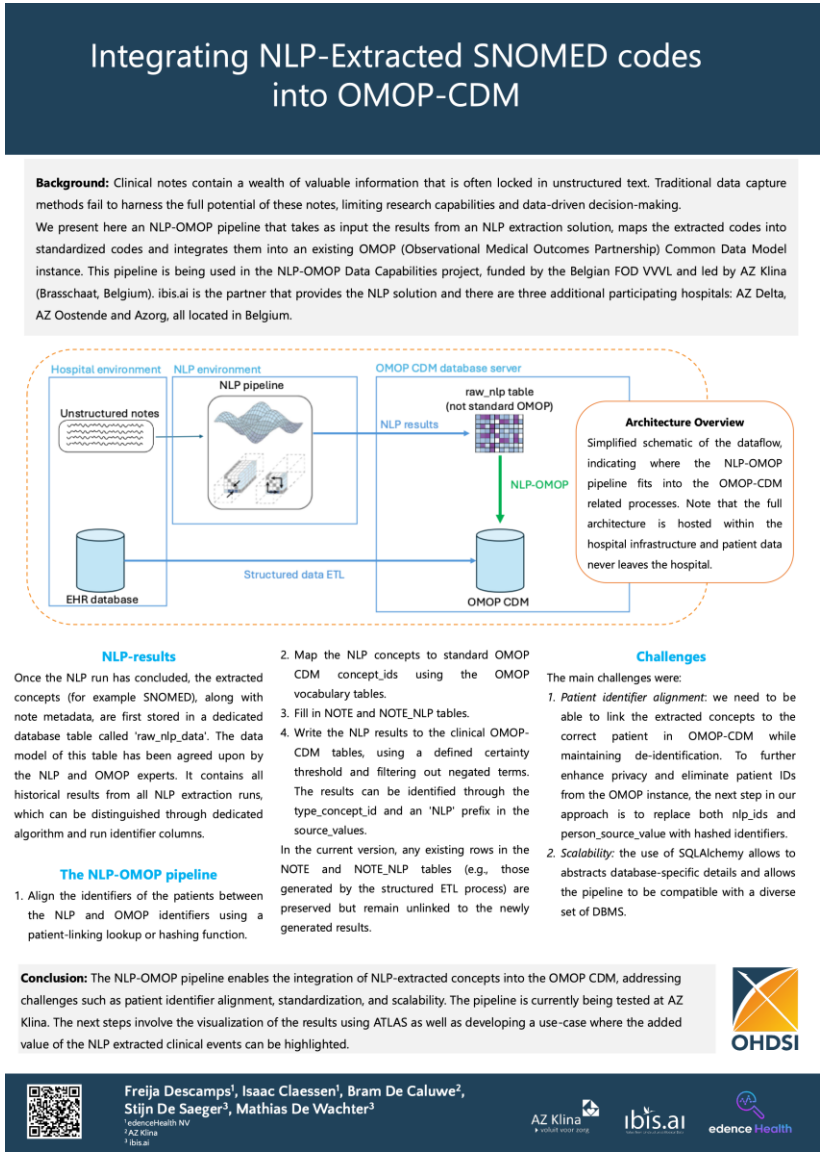


#OHDSISocialShowcase This Week

Thursday

Integrating NLP-Extracted SNOMED codes into OMOP-CDM_BCA

(Freija Deschamps, Isaac Claessen, Bram De Caluwe, Stijn De Saeger, Mathias De Wachter)



Integrating NLP-Extracted SNOMED codes into OMOP-CDM

Background: Clinical notes contain a wealth of valuable information that is often locked in unstructured text. Traditional data capture methods fail to harness the full potential of these notes, limiting research capabilities and data-driven decision-making.
We present here an NLP-OMOP pipeline that takes as input the results from an NLP extraction solution, maps the extracted codes into standardized codes and integrates them into an existing OMOP (Observational Medical Outcomes Partnership) Common Data Model instance. This pipeline is being used in the NLP-OMOP Data Capabilities project, funded by the Belgian FOD VVVL and led by AZ Klina (Brasschaat, Belgium). ibis.ai is the partner that provides the NLP solution and there are three additional participating hospitals: AZ Delta, AZ Oostende and Azorg, all located in Belgium.

NLP-results

Once the NLP run has concluded, the extracted concepts (for example SNOMED), along with note metadata, are first stored in a dedicated database table called 'raw_nlp_data'. The data model of this table has been agreed upon by the NLP and OMOP experts. It contains all historical results from all NLP extraction runs, which can be distinguished through dedicated algorithm and run identifier columns.

The NLP-OMOP pipeline

1. Align the identifiers of the patients between the NLP and OMOP identifiers using a patient-linking lookup or hashing function.
2. Map the NLP concepts to standard OMOP CDM concept_ids using the OMOP vocabulary tables.
3. Fill in NOTE and NOTE_NLP tables.
4. Write the NLP results to the clinical OMOP-CDM tables, using a defined certainty threshold and filtering out negated terms. The results can be identified through the type_concept_id and an 'NLP' prefix in the source_values.

In the current version, any existing rows in the NOTE and NOTE_NLP tables (e.g., those generated by the structured ETL process) are preserved but remain unlinked to the newly generated results.

Challenges

The main challenges were:

1. *Patient identifier alignment*: we need to be able to link the extracted concepts to the correct patient in OMOP-CDM while maintaining de-identification. To further enhance privacy and eliminate patient IDs from the OMOP instance, the next step in our approach is to replace both nlp_ids and person_source_value with hashed identifiers.
2. *Scalability*: the use of SQLAlchemy allows to abstracts database-specific details and allows the pipeline to be compatible with a diverse set of DBMS.

Conclusion: The NLP-OMOP pipeline enables the integration of NLP-extracted concepts into the OMOP CDM, addressing challenges such as patient identifier alignment, standardization, and scalability. The pipeline is currently being tested at AZ Klina. The next steps involve the visualization of the results using ATLAS as well as developing a use-case where the added value of the NLP extracted clinical events can be highlighted.

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Freija Descamps[1], Isaac Claessen[1], Bram De Caluwe[2], Stijn De Saeger[3], Mathias De Wachter[3]
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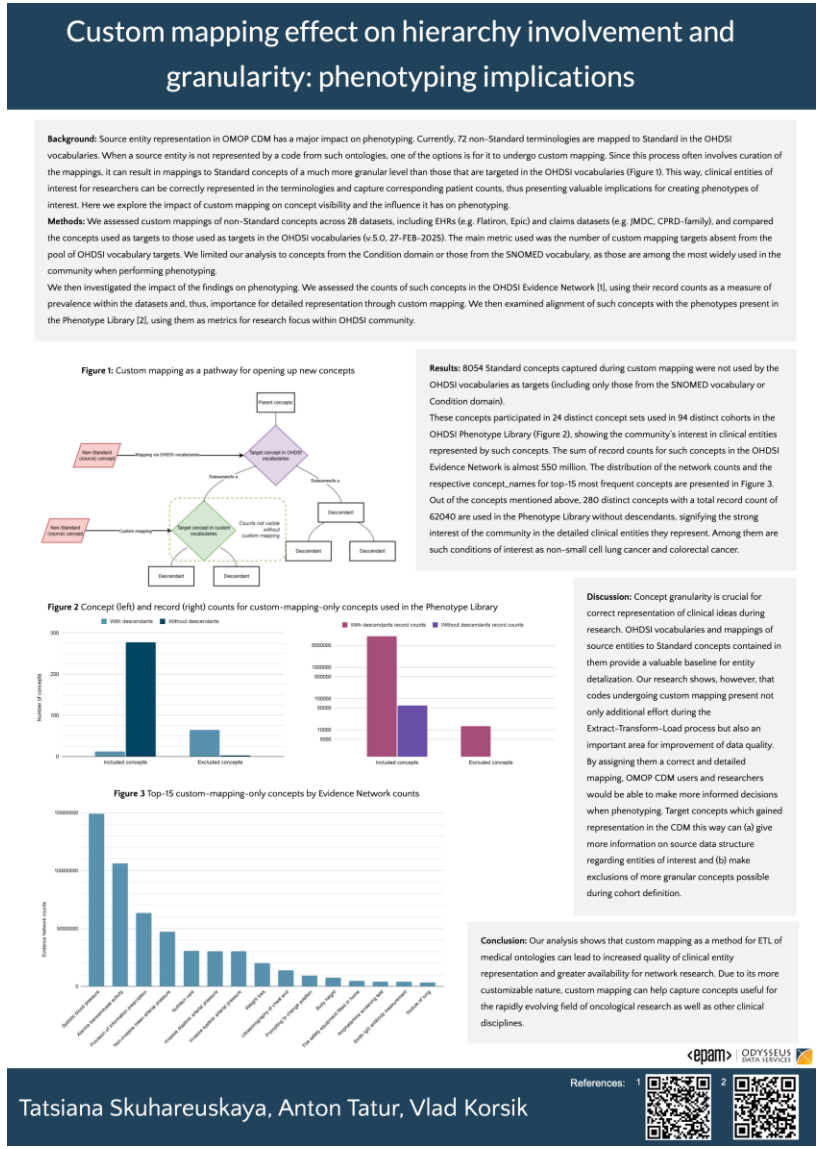
AZ Klina ibis.ai edence Health

#OHDSISocialShowcase This Week

Friday

Custom mapping effect on hierarchy involvement and granularity: phenotyping implications

(Tatsiana Skuhareuskaya, Anton Tatur, Vlad Korsik)



Custom mapping effect on hierarchy involvement and granularity: phenotyping implications

Background: Source entity representation in OMOP CDM has a major impact on phenotyping. Currently, 72 non-Standard terminologies are mapped to Standard in the OHDSI vocabularies. When a source entity is not represented by a code from such ontologies, one of the options is for it to undergo custom mapping. Since this process often involves curation of the mappings, it can result in mappings to Standard concepts of a much more granular level than those that are targeted in the OHDSI vocabularies (Figure 1). This way, clinical entities of interest for researchers can be correctly represented in the terminologies and capture corresponding patient counts, thus presenting valuable implications for creating phenotypes of interest. Here we explore the impact of custom mapping on concept visibility and the influence it has on phenotyping.

Methods: We assessed custom mappings of non-Standard concepts across 28 datasets, including EHRs (e.g. Flatiron, Epic) and claims datasets (e.g. JMDC, CPRD-family), and compared the concepts used as targets to those used as targets in the OHDSI vocabularies (v.5.0, 27-FEB-2025). The main metric used was the number of custom mapping targets absent from the pool of OHDSI vocabulary targets. We limited our analysis to concepts from the Condition domain or those from the SNOMED vocabulary, as those are among the most widely used in the community when performing phenotyping.

We then investigated the impact of the findings on phenotyping. We assessed the counts of such concepts in the OHDSI Evidence Network [1], using their record counts as a measure of prevalence within the datasets and, thus, importance for detailed representation through custom mapping. We then examined alignment of such concepts with the phenotypes present in the Phenotype Library [2], using them as metrics for research focus within OHDSI community.

Figure 1: Custom mapping as a pathway for opening up new concepts

Results: 8054 Standard concepts captured during custom mapping were not used by the OHDSI vocabularies as targets (including only those from the SNOMED vocabulary or Condition domain).

These concepts participated in 24 distinct concept sets used in 94 distinct cohorts in the OHDSI Phenotype Library (Figure 2), showing the community's interest in clinical entities represented by such concepts. The sum of record counts for such concepts in the OHDSI Evidence Network is almost 550 million. The distribution of the network counts and the respective concept_names for top-15 most frequent concepts are presented in Figure 3. Out of the concepts mentioned above, 280 distinct concepts with a total record count of 62040 are used in the Phenotype Library without descendants, signifying the strong interest of the community in the detailed clinical entities they represent. Among them are such conditions of interest as non-small cell lung cancer and colorectal cancer.

Figure 2 Concept (left) and record (right) counts for custom-mapping-only concepts used in the Phenotype Library

Figure 3 Top-15 custom-mapping-only concepts by Evidence Network counts

Discussion: Concept granularity is crucial for correct representation of clinical ideas during research. OHDSI vocabularies and mappings of source entities to Standard concepts contained in them provide a valuable baseline for entity detalization. Our research shows, however, that codes undergoing custom mapping present not only additional effort during the Extract-Transform-Load process but also an important area for improvement of data quality. By assigning them a correct and detailed mapping, OMOP CDM users and researchers would be able to make more informed decisions when phenotyping. Target concepts which gained representation in the CDM this way can (a) give more information on source data structure regarding entities of interest and (b) make exclusions of more granular concepts possible during cohort definition.

Conclusion: Our analysis shows that custom mapping as a method for ETL of medical ontologies can lead to increased quality of clinical entity representation and greater availability for network research. Due to its more customizable nature, custom mapping can help capture concepts useful for the rapidly evolving field of oncological research as well as other clinical disciplines.

Tatsiana Skuhareuskaya, Anton Tatur, Vlad Korsik

References: 1 2

Where Are We Going?

Any other announcements of upcoming work, events, deadlines, etc?

Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?

Mad Minutes

Dmytro Dymshyts (148): Evaluating the OHDSI Phenotype library concept sets using Large Language Models
Qingrui (Carrie) Wang (115): Automated Anatomical Identification and Standardization for Medical Images
Gabriel Salvador (403): Replicating Alzheimer's Research using standardized phenotyping with the OMOP common data model imaging extension
Melanie Philofsky (141): Maximizing EHR Semantic Meaning for Rare Diseases Utilizing a Direct Mapping Strategy
Erik Benton (507): OMOP Annotator: A Database agnostic tool for reviewing and augmenting the patient record
Niko Möller-Grell (310): Agentic conversation on OMOP CDM: the OMCP-A2A foundation library
Jared Houghtaling (602): OMOP Waveform Extension: A Schema for Integrating Physiological Signals and Derived Features into the OMOP CDM
Jen Park (113): Real-World Implementation of the Medical Imaging CDM: An Alzheimer’s Disease Use Case
Robert Barrett (603): Improving VSAC to OMOP Mapping Using LLM Assisted Curation
Christelle Xiong (205): AgentDose: Towards Accurate and Scalable Steroid Dose Extraction in OMOP Using NLP Parsers and LLM Agents

The weekly OHDSI community call is held every Tuesday at 11 am ET.

Everybody is invited!

Links are sent out weekly and available at:

ohdsi.org/community-calls-2025