OHDSI/OMOP Research Spotlight

OHDSI Community Call

June 30, 2026 • 11 am ET

Upcoming Community Calls

Date	Topic
June 30	OMOP & OHDSI Research Spotlight
July 7	Preview of ATLAS 3.0
July 14	Workgroup Spotlight: Health Systems, NLP
July 21	Workgroup Spotlight: TBA
July 28	OHDSI Newcomer Introductions

Three Stages of The Journey

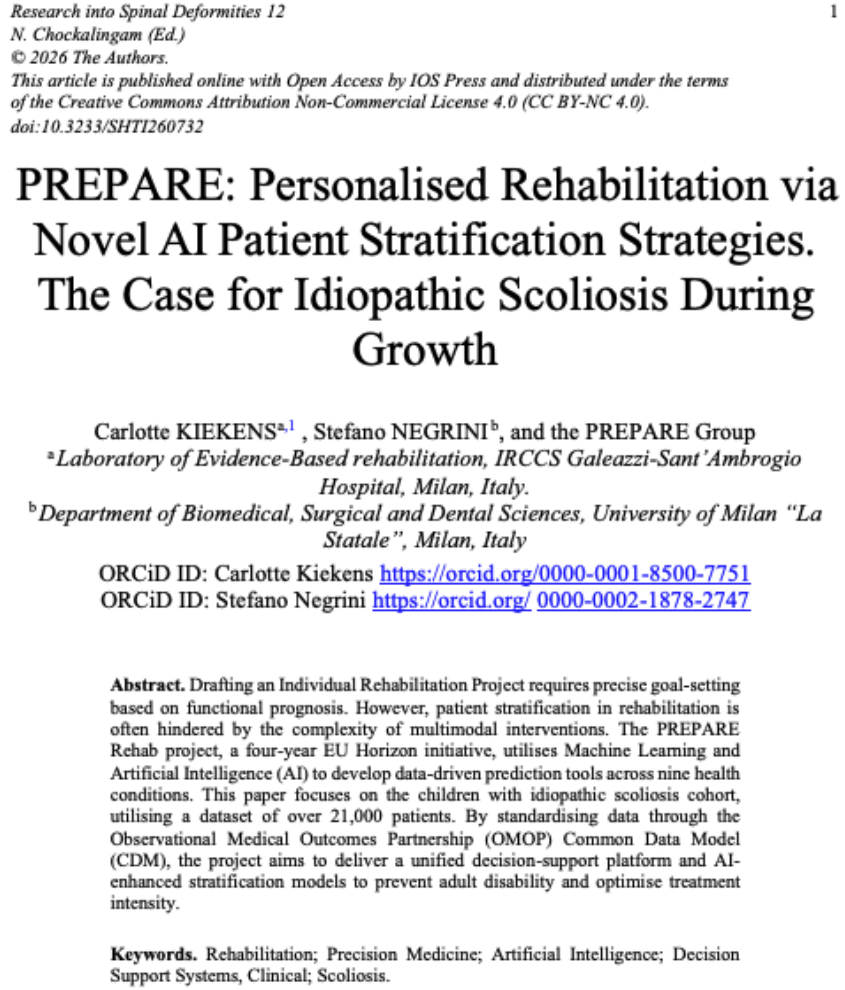
Where Have We Been?

Where Are We Now?

Where Are We Going?

OHDSI Shoutouts!

Congratulations to the team of **Carlotte Kiekens, Stefano Negrini, and the PREPARE Group** on the recent publication of **PREPARE: Personalised Rehabilitation via Novel AI Patient Stratification Strategies. The Case for Idiopathic Scoliosis During Growth** in *Volume 337 of Studies in Health Technology and Informatics: Research into Spinal Deformities 12*.



Research into Spinal Deformities 12
N. Chockalingam (Ed.)

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PREPARE: Personalised Rehabilitation via Novel AI Patient Stratification Strategies. The Case for Idiopathic Scoliosis During Growth

Carlotte KIEKENS[a,1] , Stefano NEGRINI[b], and the PREPARE Group
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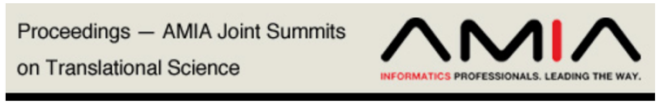
Abstract. Drafting an Individual Rehabilitation Project requires precise goal-setting based on functional prognosis. However, patient stratification in rehabilitation is often hindered by the complexity of multimodal interventions. The PREPARE Rehab project, a four-year EU Horizon initiative, utilises Machine Learning and Artificial Intelligence (AI) to develop data-driven prediction tools across nine health conditions. This paper focuses on the children with idiopathic scoliosis cohort, utilising a dataset of over 21,000 patients. By standardising data through the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM), the project aims to deliver a unified decision-support platform and AI-enhanced stratification models to prevent adult disability and optimise treatment intensity.

Keywords. Rehabilitation; Precision Medicine; Artificial Intelligence; Decision Support Systems, Clinical; Scoliosis.

OHDSI Shoutouts!

Congratulations to the team of **Adit Anand, Yilu Fang, Chunhua Weng, and Karthik Natarajan** on the recent publication of **Completeness of Common Data Elements for Breast Cancer Clinical Trials in Observational Databases** in *Proceedings — AMIA Joint Summits on Translational Science.*



AMIA Jt Summits Transl Sci Proc. 2026 Jun 1;2026:41–46.

Completeness of Common Data Elements for Breast Cancer Clinical Trials in Observational Databases

Adit Anand [1], Yilu Fang [1], Chunhua Weng [1], Karthik Natarajan [1]

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Abstract

Clinical trials serve as a gold standard for data that shapes the healthcare landscape in oncology, but variance in clinical trial eligibility criteria presents challenges for using the data in downstream applications. Identifying common data elements (CDEs) present in cancer trials' eligibility criteria is critical to achieve standardized representations of healthcare data and thus develop trial recruitment tools that generalize to oncology. In this study, we curate a set of CDEs contained in the eligibility criteria of breast cancer clinical trials and evaluate their completeness across different observational databases represented in the Observational Medical Outcomes Partnership (OMOP) Common Data Model. We show that between

OHDSI Shoutouts!

Congratulations to the team of **Taona P Haderlein, Claudia Der-Martirosian, Wyatt P Bensken, and Robert Schuff** on the recent publication of **OMOP common data model transformation: leveraging a nationwide: Community-based health care database to support AI/ML research** in *JAMIA*.

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Article Contents
Abstract

JOURNAL ARTICLE CORRECTED PROOF

OMOP common data model transformation: leveraging a nationwide community-based health care database to support AI/ML research Get access

Taona P Haderlein, PhD, MA, Claudia Der-Martirosian, PhD, Wyatt P Bensken, PhD, Robert Schuff, MS

Journal of the American Medical Informatics Association, ocag087, https://doi.org/10.1093/jamia/ocag087

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Abstract

Objective

To demonstrate a large-scale EHR data transformation to the Observational Medical Outcomes Partnership (OMOP) Common Data model in the OCHIN network to support AI/ML analyses within the AIM-AHEAD national research consortium. We highlight customized workflows and infrastructure development processes designed to support OCHIN database use by AI/ML researchers of varied academic backgrounds and skillsets.

Materials and methods

Automated and manual mappings were used to ingest and transform OCHIN's i2b2-formatted database to the OMOP Common Data Model.

OHDSI Shoutouts!

Congratulations to the team of **Jacqueline Honerlaw, Yuk-Lam Ho, Michael Murray, Francesca Fontin, Edward Zielinski, Ashley Galloway, Vasa Curcin, Martin Chapman, Wei-Qi We, Azza Shoaibi, Gowtham Rao, and Kelly Cho** on the recent publication of **Evaluating the feasibility of the CIPHER metadata framework towards building a conceptual phenotype standard** in *JAMIA Open*.

JAMIA Open, 2026, 9(3), ooag120
https://doi.org/10.1093/jamiaopen/ooag120
Brief Communications

AMIA OXFORD

Evaluating the feasibility of the CIPHER metadata framework towards building a conceptual phenotype standard

Jacqueline Honerlaw, RN, MPH[1,2,*], Yuk-Lam Ho, MPH[1,2,3], Michael Murray, MS[1,2], Francesca Fontin, MPH[1,2], Edward Zielinski, MS[1,2], Ashley Galloway, MPH[1,2], Vasa Curcin, PhD[4], Martin Chapman, PhD[4], Wei-Qi Wei, MD, PhD[5], Azza Shoaibi, PhD, BPharm[6], Gowtham Rao, MD, PhD[6], Kelly Cho, PhD, MPH[1,2,3,7]

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Abstract

Objective: **Phenotype libraries accelerate health research through the reuse of algorithms. However, multiple libraries exist with differing metadata standards. We describe the integration of libraries using shared conceptual standards to harmonize definitions.**

Materials and Methods: **We identified a pilot set of definitions from the Observational Health Data Sciences and Informatics (OHDSI), Phenotype Knowledgebase (PheKB), and Health Data Research UK (HDR UK) phenotype libraries. Metadata were mapped to the Centralized Interactive Phenomics Resource (CIPHER) standard, integrated into the CIPHER library, and validated.**

Results: **Twenty-seven phenotypes from OHDSI, 25 from PheKB, and 25 from HDR UK were mapped to the CIPHER standard and are available at https://phenomics.va.ornl.gov/.**

Discussion: **We demonstrate the feasibility of integrating metadata across phenotype repositories and illustrate the CIPHER standard as a suitable initial framework for a global conceptual metadata model.**

Conclusion: **Harmonizing phenotype metadata across libraries allows the reuse of definitions throughout the entire health data community.**

Key words: electronic health records, phenomics, algorithms, library

OHDSI Shoutouts!

Congratulations to the team of **Seung-Hyo Hong, Nahyun Jeong, Jae-Woo Park, Jinsung Kim, and Seok-Jae Ko** on the recent publication of **Trends and seasonal variation in the incidence and prevalence of irritable bowel syndrome in Korea: a multicenter OMOP CDM study** in *Frontiers of Public Health*.

frontiers in Public Health

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Check for updates

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Trends and seasonal variation in the incidence and prevalence of irritable bowel syndrome in Korea: a multicenter OMOP CDM study

Seung-hyo Hong[1], Nahyun Jeong[2], Jae-Woo Park[1,3,4], Jinsung Kim[1,2,4] and Seok-Jae Ko[1,3,4*]

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Background: Irritable bowel syndrome (IBS) is a prevalent functional gastrointestinal disorder. Despite revisions of diagnostic criteria, studies applying the Rome IV criteria in Korea are limited. Environmental factors such as climate and season have been suggested to influence the epidemiology of IBS; however, their associations remain unexplored.
Methods: We analyzed the prevalence and incidence of IBS in Korea from 2019 to 2023 using clinical data from eight nationwide hospitals converted to the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM). Stratified analyses were conducted by year, month, sex, and age. Seasonal variations were examined in relation to meteorological factors, including temperature and humidity.
Results: Both the prevalence and incidence of IBS decreased during the study period. Females consistently showed higher rates than males, although the sex gap in incidence narrowed over time. The highest incidence rates were observed in individuals aged ≥65 years and those aged 15–19 years. Seasonal variation was evident, with peak incidence in autumn, followed by summer, significantly correlating with humidity and temperature.
Conclusion: This multicenter study highlights sex- and age-specific differences in IBS epidemiology in Korea and demonstrates significant seasonal associations with meteorological factors. These findings underscore the need for large-scale, prospective surveys and public health strategies to address the IBS burden.

OHDSI Shoutouts!

Congratulations to the team of **Clemens Rieder, Aleh Zhuk, Ahmed Said, Andrea S Becker-Pennrich, Konstantin Dietz, Jan Bělohlávek, Jeffrey Geppert, Christopher Horvat, Ryan P Barbaro, Joseph E Tonna, Steven A Conrad, Lars Mikael Broman, Christian Reich, Clair Blacketer, Daniel Brodie, Peta M A Alexander, and Dominik J Hoechter** on the recent publication of **Expanding the OMOP common data model to support extracorporeal life support research** in *JAMIA Open*.

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https://doi.org/10.1093/jamiaopen/ooag112
Research and Applications

AMIA OXFORD

Expanding the OMOP common data model to support extracorporeal life support research

Clemens Rieder, MD[1], Aleh Zhuk, MD, DESAIC[2,3,4], Ahmed Said, MD, PhD[5], Andrea S. Becker-Pennrich, MSc, MA[1,6], Konstantin Dietz, MD[1], Jan Bělohlávek, MD, PhD[7], Jeffrey Geppert, EdM, JD[8], Christopher Horvat, MD, MHA[9], Ryan P. Barbaro, MD, MS[10], Joseph E. Tonna, MD, MS, FCCM, FACEP[11,12], Steven A. Conrad, MD, PhD, MCCM, FELSO, FAMIA[13], Lars Mikael Broman, MD, PhD[14,15], Christian Reich, MD, PhD[2,3], Clair Blacketer, MPH, PMP[2,16], Daniel Brodie, MD, PhD[17], Peta M.A. Alexander, MBBS, FRACP, FCICM[18,19], Dominik J. Hoechter, MD*[,1]

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Abstract

Objective: **Despite the increased availability of electronic health records, open-source standardized data collection to facilitate high-resolution data during extracorporeal life support (ECLS) is lacking. This project aimed to assess the Observational Medical Outcomes Partnership Common Data Model (OMOP CDM) for interoperability to store data sufficiently generated in the context of ECLS and to develop a custom data model expansion in case the OMOP CDM proved insufficient.**

OHDSI Shoutouts!

Congratulations to the team of **Jason Patterson, Elise Minto, Maura Beaton, Adit Anand, Mark Velez, Paul Harris, George Hripcsak, and Karthik Natarajan** on the recent publication of **A comparison of Fast Healthcare Interoperability Resources and Observational Medical Mutcomes Partnership electronic health record data within the All of Us Research Program** in *JAMIA*.

Journal of the American Medical Informatics Association, 2026, 1–12
https://doi.org/10.1093/jamia/ocag095
Research and Applications

AMIA OXFORD

A comparison of Fast Healthcare Interoperability Resources and Observational Medical Mutcomes Partnership electronic health record data within the *All of Us* Research Program

Jason Patterson, MS[1,‡], Elise Minto, MS[1,‡], Maura Beaton, MS[1], Adit Anand, MS[1], Mark Velez, MS[1], Paul Harris, PhD, FACMI, FIAHSI[2], George Hripcsak, MS, MD[1], Karthik Natarajan, PhD[1,*]

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Abstract

Objective: **This study compares the contents of two data standards; the Observational Medical Outcomes Partnership (OMOP) and Fast Healthcare Interoperability Resources (FHIR), highlighting their strength and weaknesses and serve as an initial step toward understanding how each standard supports secondary data analysis.**

Materials and Methods: **Participant electronic health record data in both OMOP and FHIR formats from the *All of Us* Research Program (AoURP) were compared, including codeable event volume, healthcare encounters, and person timelines. A phenotype-based assessment was also conducted using Type-II Diabetes Mellitus (T2DM).**

Results: **Among 29 512 participants identified with overlapping FHIR and OMOP data, Median codeable event counts were comparable between FHIR and OMOP within the *Measurement* (OMOP = 846; FHIR = 832), *Drug* (OMOP = 92; FHIR = 90), and *Observation* (OMOP = 65; FHIR = 100) domains, but were higher in OMOP within the *Condition* (OMOP = 258; FHIR = 11) and *Procedure* (OMOP = 72; FHIR = 4) domains. Within the T2DM cohort, OMOP contained more data, except for medications. Very few participants had encounters in FHIR (1.5%) relative to OMOP (97.0%). On average, only 15.9% of visit dates overlapped in both standards, with most visit dates occurring only in OMOP (65.3%) or only FHIR (18.4%).**

Discussion: **Data in OMOP showed a higher volume of observation and procedure codeable events, reported encounters, and T2DM symptoms, complications, and comorbidities. FHIR data was able to capture data across multiple providers and health systems.**

Conclusion: **Based on AoURP data, both standards were shown to support healthcare data capture, although OMOP shows greater utility for research purposes as its extract, transform, and load process enables more flexible data capture relative to extracting data from FHIR payloads. FHIR, however, captures patient-level data from beyond the health system and can thus be used to supplement OMOP.**

Key words: data comparison; FHIR; OMOP; EHR.

Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?

Upcoming Workgroup Calls

Date	Time (ET)	Meeting
Wednesday	1 pm	Tidy R Programming
Thursday	10 am	Africa Chapter
Thursday	10 am	ATLAS/WebAPI
Thursday	10 am	Rehabilitation
Thursday	11 am	Industry
Thursday	11 am	Themis
Thursday	12 pm	Medical Devices
Thursday	12 pm	Methods Research
Thursday	1 pm	Oncology Vocabulary/Development Subgroup
Thursday	2 pm	Early-Stage Researchers
Monday	10 am	Healthcare Systems Interest Group

APAC Symposium: Nov. 13-15

The 2026 APAC Symposium will be held Nov. 13-15 at Yonsei University in Seoul, South Korea.

Nov. 13: Main Conference
Nov. 14: Tutorials, Datathon
Nov. 15: Datathon Team Activities

Registration will open soon, and the showcase submission deadline is August 17 at 8 pm ET.

ohdsi.org/APAC2026

2026 OHDSI Global Symposium

Registration is OPEN for the **2026 OHDSI Global Symposium**, which will be held Oct. 20-22 in New Brunswick, N.J., USA.

Oct. 20: Tutorials
Oct. 21: Plenaries, Showcase
Oct. 22: Workgroup Activities

ohdsi.org/OHDSI2026

2026 OHDSI Global Symposium

There will be space at the Global Symposium for all **OHDSI Chapters and/or Nodes** to present a poster on accomplishments. Feel free to re-share any poster from the 2026 Europe Symposium.

Please email symposium@ohdsi.org if you are interested.

ohdsi.org/OHDSI2026

2026 OHDSI Symposium Jam Session

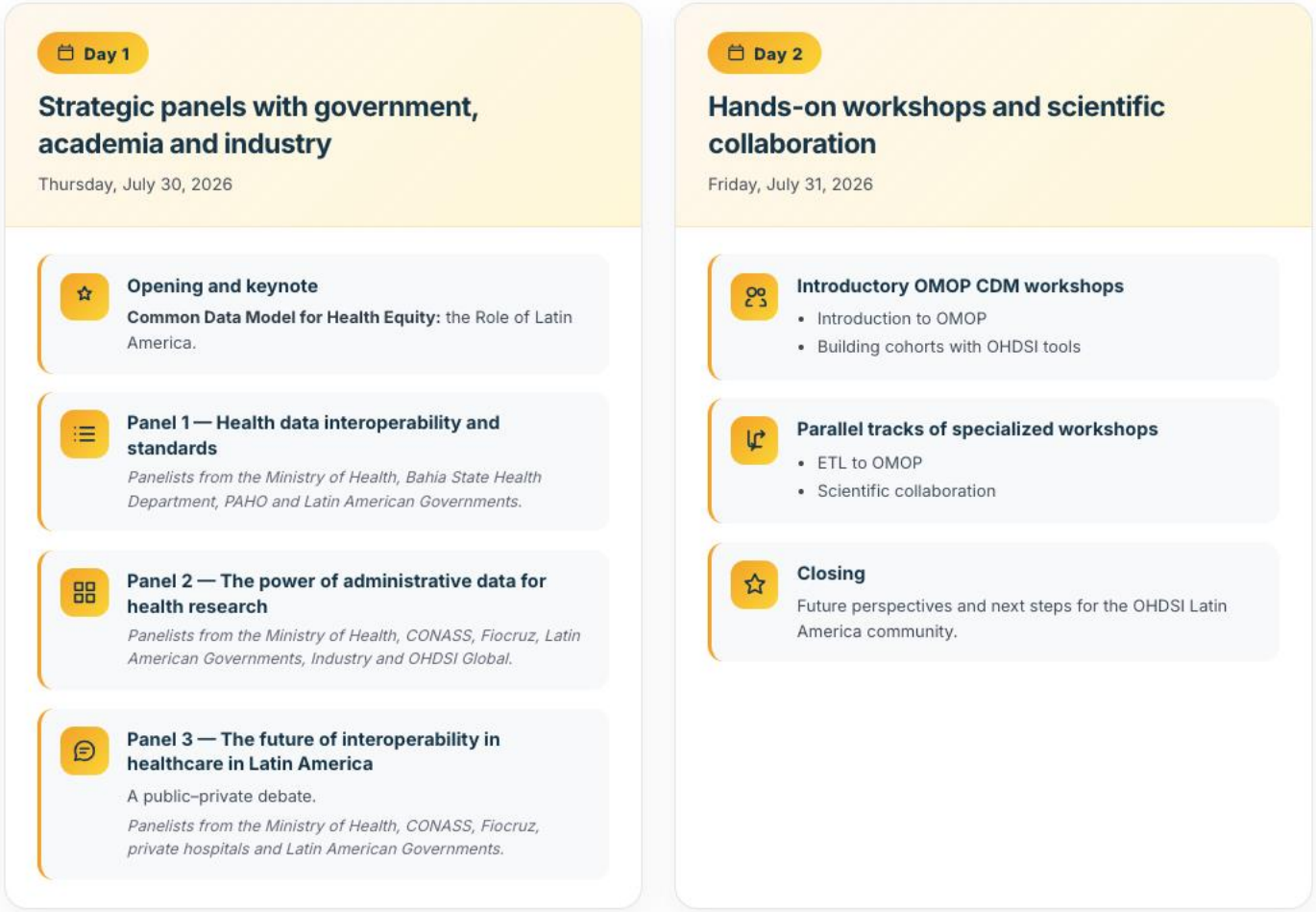
Whether you are an amateur hobbyist, a seasoned pro, an instrumentalist, or a vocalist, our very first OHDSI Jam Session is open to everyone. We'll do some free-form improvisation, but we will also vote on a few songs ahead of time so everyone has a chance to practice.

The Gear: The organizers will provide a backline with amplifiers, drums, and microphones.
Your Instruments: We encourage you to bring your own gear! If you're open to letting fellow community members plug in or play your instrument, please let us know.
The Vibe: Low pressure, high energy, and entirely collaborative.
Want to join?

Let us know if you're thinking about participating so we can coordinate the song list and gear!

First Latin America Symposium – July 30-31

Registration is open for the first OHDSI Latin America Symposium, taking place July 30-31 in Salvador, Brazil.



ohdsilatam.org

OHDSI Summer School at Columbia

The second-annual OHDSI Summer School in New York City was held in late June, and an international cohort of learners traveled the path from learning about observational research to performing their own network studies within one week.

Oxford Summer School in RWE

Oxford University also welcomed a cohort of learners to discovery the possibilities using real-world data, OMOP, and the OHDSI way of generating reliable and robust real-world evidence.

Thank you to the faculty at both Columbia and Oxford for welcoming new collaborators to our community.

Wanted: HADES Developers

Help wanted - developers for HADES shiny viewer

Developers

jreps 5d

We have a set of R packages for developing modular shiny apps to explore the standardized results returned via HADES packages.

- OhdsiShinyAppBuilder - this builds the shiny app and defines what modules to include (e.g., cohort exporer, characterization, estimation, …)
- OhdsiShinyModules - the main shiny code for the key HADES packages are here
- OhdsiReportGenerator - this is a set of SQL that pulls out friendly data.framas with the results

However, there is a lot of potential for improvements in these packages including (but not limited to):

- adding bookmarking to the URL for easy sharing (Chapter 11 Bookmarking | Mastering Shiny)
- improving display time (improving data extraction speed)
- improving the UI

If you are a developer with knowledge or interest in R or shiny or web development/design and UI and want to help out with HADES development please post below or message me.

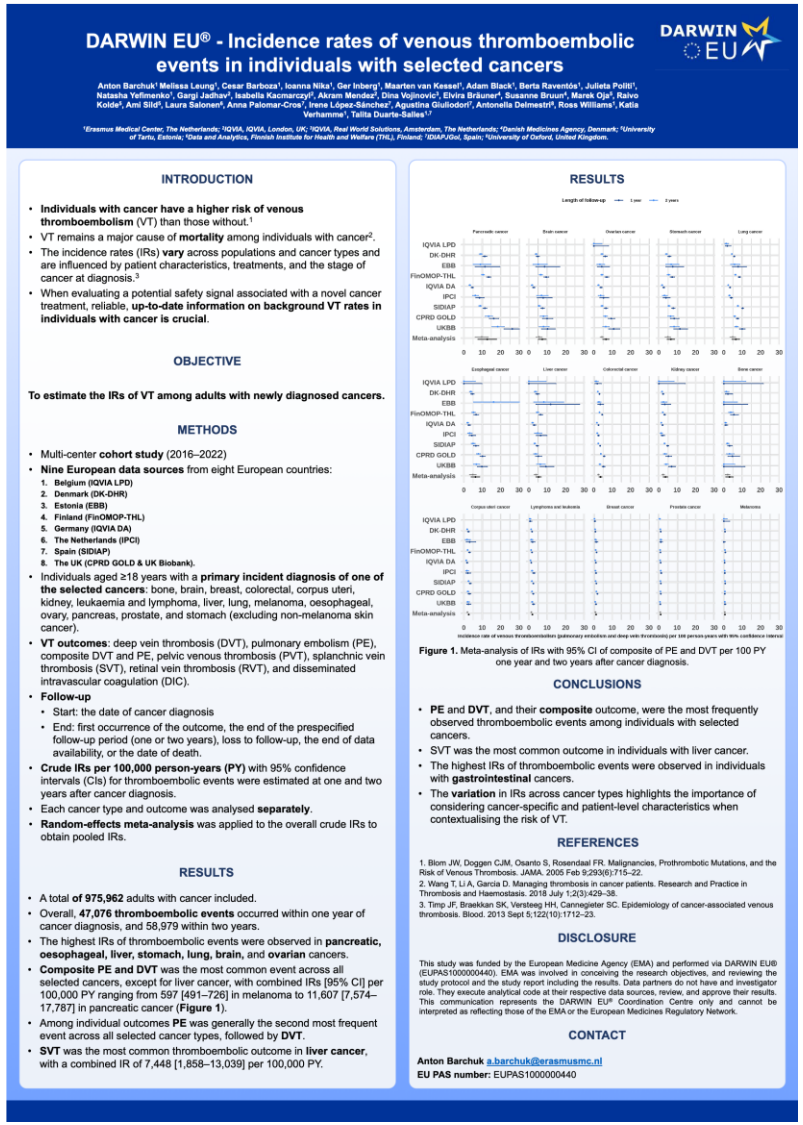
I'm planning to set up regular meetings for this work group.

#OHDSISocialShowcase This Week

Monday

DARWIN EU® - Incidence rates of venous thromboembolic events in individuals with selected cancers

(Anton Barchuk, Melissa Leung, Cesar Barboza, Ioanna Nika, Ger Inberg, Maarten van Kessel, Adam Black, Berta Raventós, Julieta Politi, Natasha Yefimenko, Gargi Jadhav, Isabella Kacmarczyl, Akram Mendez, Dina Vojinovic, Elvira Bräuner, Susanne Bruun, Marek Oja, Raivo Kolde, Ami Sild, Laura Salonen, Anna Palomar-Cros, Irene López-Sánchez, Agustina Giuliodori, Antonella Delmestri, Ross Williams, Katia Verhamme, Talita Duarte-Salles)



DARWIN EU® - Incidence rates of venous thromboembolic events in individuals with selected cancers

Anton Barchuk[1] Melissa Leung[1], Cesar Barboza[1], Ioanna Nika[1], Ger Inberg[1], Maarten van Kessel[1], Adam Black[1], Berta Raventós[1], Julieta Politi[1], Natasha Yefimenko[1], Gargi Jadhav[2], Isabella Kacmarczyl[2], Akram Mendez[2], Dina Vojinovic[3], Elvira Bräuner[4], Susanne Bruun[4], Marek Oja[5], Raivo Kolde[5], Ami Sild[5], Laura Salonen[6], Anna Palomar-Cros[7], Irene López-Sánchez[7], Agustina Giuliodori[7], Antonella Delmestri[8], Ross Williams[1], Katia Verhamme[1], Talita Duarte-Salles[1,7]

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INTRODUCTION

- **Individuals with cancer have a higher risk of venous thromboembolism** (VT) than those without.[1]
- VT remains a major cause of **mortality** among individuals with cancer[2].
- The incidence rates (IRs) **vary** across populations and cancer types and are influenced by patient characteristics, treatments, and the stage of cancer at diagnosis.[3]
- When evaluating a potential safety signal associated with a novel cancer treatment, reliable, **up-to-date information on background VT rates in individuals with cancer is crucial**.

OBJECTIVE

To estimate the IRs of VT among adults with newly diagnosed cancers.

METHODS

- Multi-center **cohort study** (2016–2022)
- **Nine European data sources** from eight European countries:
  1. **Belgium (IQVIA LPD)**
  2. **Denmark (DK-DHR)**
  3. **Estonia (EBB)**
  4. **Finland (FinOMOP-THL)**
  5. **Germany (IQVIA DA)**
  6. **The Netherlands (IPCI)**
  7. **Spain (SIDIAP)**
  8. **The UK (CPRD GOLD & UK Biobank).**
- Individuals aged ≥18 years with a **primary incident diagnosis of one of the selected cancers**: bone, brain, breast, colorectal, corpus uteri, kidney, leukaemia and lymphoma, liver, lung, melanoma, oesophageal, ovary, pancreas, prostate, and stomach (excluding non-melanoma skin cancer).
- **VT outcomes**: deep vein thrombosis (DVT), pulmonary embolism (PE), composite DVT and PE, pelvic venous thrombosis (PVT), splanchnic vein thrombosis (SVT), retinal vein thrombosis (RVT), and disseminated intravascular coagulation (DIC).
- **Follow-up**
  - Start: the date of cancer diagnosis
  - End: first occurrence of the outcome, the end of the prespecified follow-up period (one or two years), loss to follow-up, the end of data availability, or the date of death.
- **Crude IRs per 100,000 person-years (PY)** with 95% confidence intervals (CIs) for thromboembolic events were estimated at one and two years after cancer diagnosis.
- Each cancer type and outcome was analysed **separately**.
- **Random-effects meta-analysis** was applied to the overall crude IRs to obtain pooled IRs.

RESULTS

- A total **of 975,962** adults with cancer included.
- Overall, **47,076 thromboembolic events** occurred within one year of cancer diagnosis, and 58,979 within two years.
- The highest IRs of thromboembolic events were observed in **pancreatic, oesophageal, liver, stomach, lung, brain,** and **ovarian** cancers.
- **Composite PE and DVT** was the most common event across all selected cancers, except for liver cancer, with combined IRs [95% CI] per 100,000 PY ranging from 597 [491–726] in melanoma to 11,607 [7,574–17,787] in pancreatic cancer (**Figure 1**).
- Among individual outcomes **PE** was generally the second most frequent event across all selected cancer types, followed by **DVT**.
- **SVT** was the most common thromboembolic outcome in **liver cancer**, with a combined IR of 7,448 [1,858–13,039] per 100,000 PY.

RESULTS

Figure 1. Meta-analysis of IRs with 95% CI of composite of PE and DVT per 100 PY one year and two years after cancer diagnosis.

CONCLUSIONS

- **PE** and **DVT**, and their **composite** outcome, were the most frequently observed thromboembolic events among individuals with selected cancers.
- SVT was the most common outcome in individuals with liver cancer.
- The highest IRs of thromboembolic events were observed in individuals with **gastrointestinal** cancers.
- The **variation** in IRs across cancer types highlights the importance of considering cancer-specific and patient-level characteristics when contextualising the risk of VT.

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DISCLOSURE

This study was funded by the European Medicine Agency (EMA) and performed via DARWIN EU® (EUPAS1000000440). EMA was involved in conceiving the research objectives, and reviewing the study protocol and the study report including the results. Data partners do not have and investigator role. They execute analytical code at their respective data sources, review, and approve their results. This communication represents the DARWIN EU® Coordination Centre only and cannot be interpreted as reflecting those of the EMA or the European Medicines Regulatory Network.

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EU PAS number: EUPAS1000000440

#OHDSISocialShowcase This Week

Tuesday

DARWIN EU® - Drug Utilisation Study of terbinafine-containing products

(Ellen Gerritsen, Gargi Jadhav, Akram Mendez, Anna Palomar Cros, Antonella Delmestri, Antea Jezidžić, Agustina Giuliodori Picco, Elvira Bräuner, Irene López Sánchez, Ivan Pristaš, Jakov Vuković, Karlo Pintarić, Laura Granés, Marko Čavlina, Marta Pineda Moncusí, Susanne Bruun, Laura Salonen, Anamaria Jurčević, Katia Verhamme, Natasha Yefimenko, James Brash, Dina Vojinovic)

DARWIN EU® - Drug Utilisation Study of terbinafine-containing products

Ellen Gerritsen[1], Akram Mendez[2], Gargi Jadhav[3], Elvira Bräuner[4], Susanne Bruun[5], Marko Čavlina[6], Antonella Delmestri[4], Agustina Giuliodori Picco[3], Laura Granés[3], Antea Jezidžić[6], Anamaria Jurčević[6], Irene López Sánchez[3], Anna Palomar Cros[3], Marta Pineda Moncusí[4], Karlo Pintarić[6], Ivan Pristaš[6], Laura Salonen[7], Jakov Vuković[6], Katia Verhamme[4], Natasha Yefimenko[4], James Brash[2], Dina Vojinovic[1]

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BACKGROUND

Terbinafine is an antifungal drug indicated for the treatment of superficial mycoses, available in both oral and topical formulations.[1,2] Real-world evidence on its utilisation is essential for monitoring prescribing practices, clinical characteristics, and potential safety concerns, including antifungal resistance.[3]

OBJECTIVES

This study aimed to describe the incidence and patterns of terbinafine use, characterise the clinical profiles of patients receiving the medication, and explore treatment pathways across Europe.

MATERIALS AND METHODS

Study design: A retrospective cohort study.

Data sources:

All data sources previously mapped their data to the OMOP Common Data Model (CDM).

Study population: For incidence analyses, the study population included all individuals present in the data source during the study period and with at least one year of data visibility prior to the index date. For characterisation, drug utilisation, and treatment patterns, the study population included individuals with a first recorded prescription of a terbinafine-containing product during the study period, with at least one year of data visibility prior to treatment initiation and no recorded use in the 180 days preceding treatment initiation.

Study period: 2015 – 2024.

Drugs of interest: Terbinafine for topical use and for systemic use.

Conditions of interest: Dermatophytosis (Tinea infections), such as Tinea corporis (Ringworm of the body), Tinea cruris, Tinea pedis (Athlete's foot), Tinea manuum, Tinea capitis, Tinea barbae, and Tinea unguium (Onychomycosis (nail)), and other fungal infections, such as Cutaneous candidiasis, Sporotrichosis, and Pityriasis versicolor.

Data analysis: Monthly and annual incidence rates of terbinafine use were estimated as treatment initiations per 1,000 person-years among eligible individuals, overall and stratified by age and sex. The analyses were based on OMOP CDM mapped data using the *IncidencePrevalence* R package. Characteristics of terbinafine initiators and drug utilisation were assessed using *CohortCharacteristics* and *DrugUtilisation* R packages on OMOP CDM mapped data. The treatment pattern following the first recorded terbinafine prescription was visualised by Sunburst plots, stratified by type of dermatophytosis, using the *TreatmentPatterns* R package.

RESULTS

Across six European data sources, 1,230,556 individuals initiated terbinafine treatment between 2015 and 2024. Monthly and annual incidence rates ranged from approximately 1 to over 10 initiations per 1,000 person-years, with clear seasonal peaks during warmer months and a transient decline in 2020, likely reflecting the COVID-19 pandemic (**Figure 1**, **Figure 2**). Incidence was highest in Nordic sources (FinOMOP-THL and DK-DHR), followed by NAJS, SIDIAP, and CPRD GOLD, and lowest in IQVIA DA Germany (**Figure 1**, **Figure 2**). Older adults (≥66 years) consistently exhibited the highest incidence rates, followed by adults aged 19–65 years and children/adolescents. Males generally had higher incidence than females, except in NAJS, where females predominated.

Figure 1. Monthly incidence of terbinafine use across six European data sources (2015–2024).

Figure 2. Annual incidence of terbinafine use across six European data sources (2015–2024).

Among terbinafine initiators, the median age ranged from 47 to 57 years, with adults representing the majority and older adults accounting for up to 31%. Dermatophytosis was the most frequently recorded indication, particularly onychomycosis, although the proportion of other indication codes varied substantially across sources. Comorbidity profiles at the time of initiation were dominated by fungal and dermatological conditions, with chronic conditions such as hypertension and diabetes also common, especially in older adults. Treatment patterns showed that most patients initiated terbinafine as monotherapy, with topical formulations for superficial tinea infections and systemic therapy for onychomycosis. Sequential switching was observed in a substantial proportion of individuals, typically involving transitions to other topical or systemic antifungal agents. No coded evidence of terbinafine resistance was identified during the study period.

CONCLUSIONS

Incidence rates of terbinafine use across Europe were generally low to moderate, with clear seasonal variation and a temporary decline during the COVID-19 pandemic. Older adults and males had the highest incidence, although sex differences varied by country. Most terbinafine initiators were adults, with dermatophytosis, particularly onychomycosis, being the most common indication. Treatment was predominantly monotherapy, with topical terbinafine used for superficial infections and systemic therapy for onychomycosis. A substantial proportion of individuals continued with additional antifungal treatment. No coded evidence of antifungal resistance was identified. These findings highlight the widespread use of terbinafine in Europe and underscore the value of real-world data for monitoring utilisation patterns. Ongoing surveillance is warranted to detect emerging trends, support regulatory decision-making, and inform strategies to optimise antifungal stewardship and patient care.

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DISCLOSURE

This study was funded by the European Medicines Agency (EMA) and performed via DARWIN EU® (EUPAS1000000790). EMA was involved in conceiving the research, objectives, and reviewing the study protocol and the study report including the results. Data partners do not have an investigator role. They execute analytical code at their respective data sources, review, and approve their results. This communication represents the DARWIN EU® Coordination Centre only and cannot be interpreted as reflecting those of the EMA or the European Medicines Regulatory Network.

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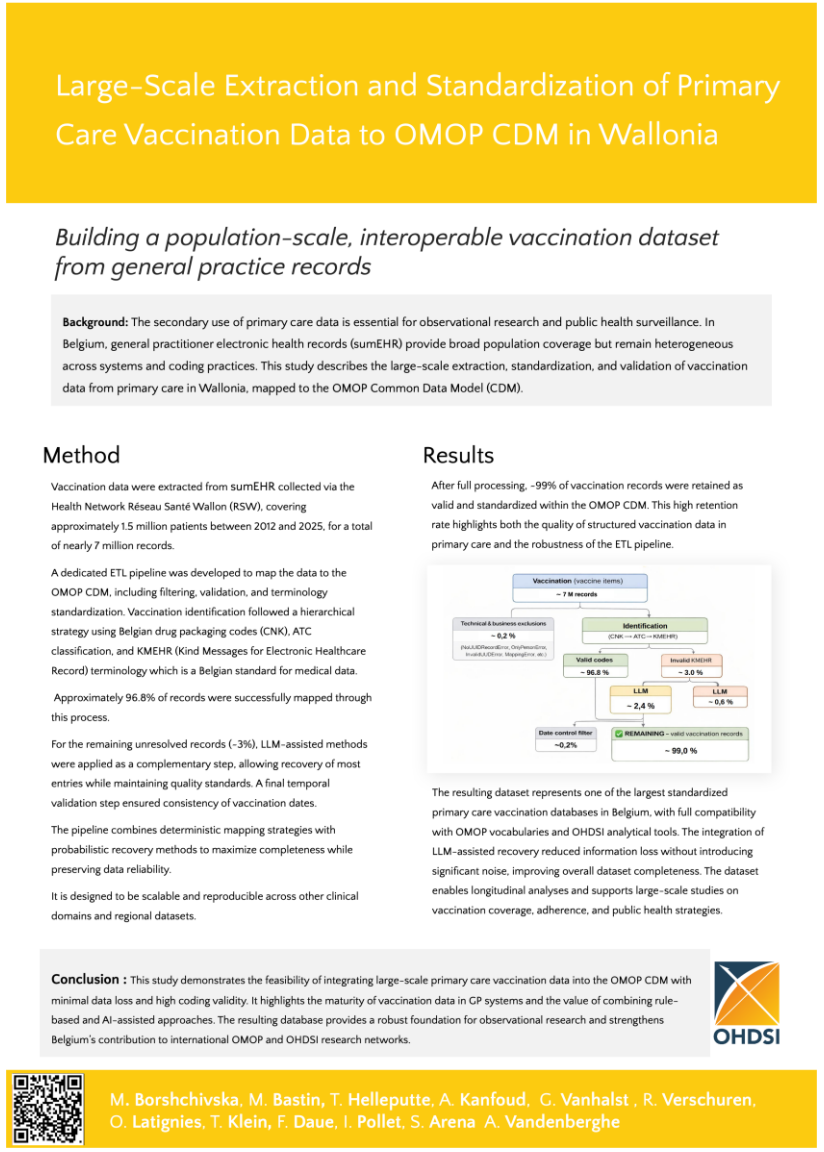
#OHDSISocialShowcase This Week

Wednesday

Large-Scale Extraction and Standardization of Primary Care Vaccination Data to the OMOP Common Data Model in Wallonia, Belgium

(M. Borshchivska, T.Helleputte, A. Kanfoud, G. Vanhalst, R. Verschuren, T. Klein, O. Latignies, F. Daue, A. Vandenberghe, I. Pollet, S. Arena)



Large-Scale Extraction and Standardization of Primary Care Vaccination Data to OMOP CDM in Wallonia

Building a population-scale, interoperable vaccination dataset from general practice records

Background: The secondary use of primary care data is essential for observational research and public health surveillance. In Belgium, general practitioner electronic health records (sumEHR) provide broad population coverage but remain heterogeneous across systems and coding practices. This study describes the large-scale extraction, standardization, and validation of vaccination data from primary care in Wallonia, mapped to the OMOP Common Data Model (CDM).

Method

Vaccination data were extracted from sumEHR collected via the Health Network Réseau Santé Wallon (RSW), covering approximately 1.5 million patients between 2012 and 2025, for a total of nearly 7 million records.

A dedicated ETL pipeline was developed to map the data to the OMOP CDM, including filtering, validation, and terminology standardization. Vaccination identification followed a hierarchical strategy using Belgian drug packaging codes (CNK), ATC classification, and KMEHR (Kind Messages for Electronic Healthcare Record) terminology which is a Belgian standard for medical data.

Approximately 96.8% of records were successfully mapped through this process.

For the remaining unresolved records (~3%), LLM-assisted methods were applied as a complementary step, allowing recovery of most entries while maintaining quality standards. A final temporal validation step ensured consistency of vaccination dates.

The pipeline combines deterministic mapping strategies with probabilistic recovery methods to maximize completeness while preserving data reliability.

It is designed to be scalable and reproducible across other clinical domains and regional datasets.

Results

After full processing, ~99% of vaccination records were retained as valid and standardized within the OMOP CDM. This high retention rate highlights both the quality of structured vaccination data in primary care and the robustness of the ETL pipeline.

The resulting dataset represents one of the largest standardized primary care vaccination databases in Belgium, with full compatibility with OMOP vocabularies and OHDSI analytical tools. The integration of LLM-assisted recovery reduced information loss without introducing significant noise, improving overall dataset completeness. The dataset enables longitudinal analyses and supports large-scale studies on vaccination coverage, adherence, and public health strategies.

Conclusion : This study demonstrates the feasibility of integrating large-scale primary care vaccination data into the OMOP CDM with minimal data loss and high coding validity. It highlights the maturity of vaccination data in GP systems and the value of combining rule-based and AI-assisted approaches. The resulting database provides a robust foundation for observational research and strengthens Belgium's contribution to international OMOP and OHDSI research networks.

OHDSI

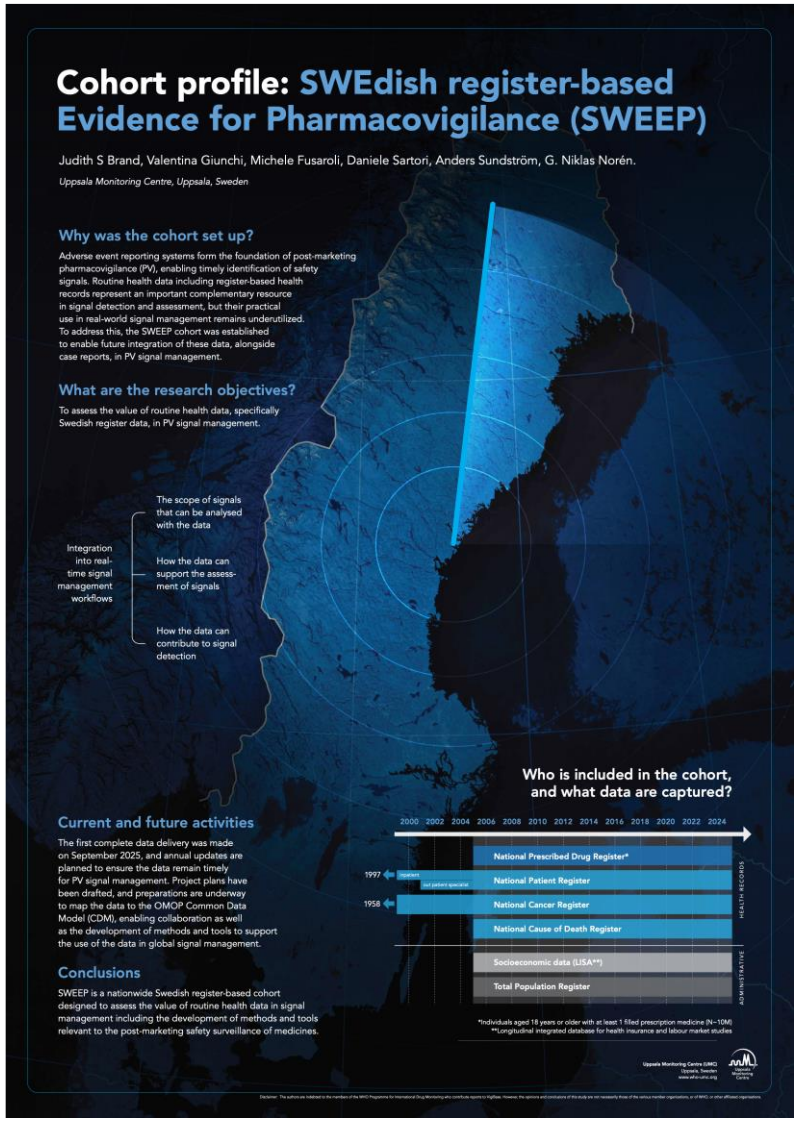
M. Borshchivska, M. Bastin, T. Helleputte, A. Kanfoud, G. Vanhalst , R. Verschuren, O. Latignies, T. Klein, F. Daue, I. Pollet, S. Arena A. Vandenberghe

#OHDSISocialShowcase This Week

Thursday

Cohort profile: SWEdish register-based Evidence for Pharmacovigilance (SWEEP)

(Judith S Brand, Valentina Giunchi, Michele Fusaroli, Daniele Sartori, Anders Sundström, G. Niklas Norén)



#OHDSISocialShowcase This Week

Friday

An Iterative Annotation Pipeline for Building Clinical Datasets and Training Information Extraction Models: The PREPARE Project

(Erik Calcina, Erik Novak, Lucia Pepa, Maria Gabriella Ceravolo, REPARE Project Group)

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?

June 30: OHDSI/OMOP Research Spotlight

Brenda Yankam

Postdoctoral Researcher, Ruhr University Bochum

Evaluating the impact of OMOP-CDM on data quality insight generation
In respiratory disease management (*Frontiers in Big Data*)

Chungsoo Kim

Assistant Professor, Department of Biomedical Informatics, Ajou University

Real-world evidence for comparative safety of second-line antihyperglycemic agents
in older adults with type 2 diabetes (*Nature Communications*)

Fleur Vereijken

PhD Student, Erasmus MC

Loss function influence on hyperparameter optimization for observational healthcare prediction models (*JAMIA*)

Charles Bailey

Associate Professor of Pediatrics (Oncology), Children's Hospital of Philadelphia

Beyond Missingness: Systematizing Methods for Comprehensive Data Fitness Assessment
in Clinical Research (*Journal of Medical Internet Research*)

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-2026

Find your workgroup.

Fuel our mission.

ohdsi.org/workgroups