DARWIN EU®
Progress and Roadmap

OHDSI Community Call
Sept. 5, 2023 • 11 am ET
## Upcoming Community Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 12</td>
<td>OHDSI 2023 Global Symposium Conference &amp; Activities Preview</td>
</tr>
<tr>
<td>Sept. 19</td>
<td>Journal Club: 11th Revision of the ENCePP Guide on Methodological Standards in Pharmacoepidemiology</td>
</tr>
<tr>
<td>Sept. 26</td>
<td>Publications Presentation</td>
</tr>
<tr>
<td>Oct. 3</td>
<td>Workgroup Reports, pt 1</td>
</tr>
<tr>
<td>Oct. 10</td>
<td>Workgroup Reports, pt 2</td>
</tr>
<tr>
<td>Oct. 17</td>
<td>Symposium Week! Final Logistics</td>
</tr>
<tr>
<td>Oct. 24</td>
<td>Welcome to OHDSI</td>
</tr>
</tbody>
</table>
Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
OHDSI Shoutouts!

Congratulations to the team of Torunn Sivesind, Ani Oganesyan, Grace Bosma, Camille Hochheimer, Lisa Schilling, and Robert Dellavalle on the publication of Prescribing Patterns of Dupilumab for Atopic Dermatitis in Adults: Retrospective, Observational Cohort Study in JMI R Dermatology.

**Prescribing Patterns of Dupilumab for Atopic Dermatitis in Adults: Retrospective, Observational Cohort Study**

Torunn E Sivesind1, MD; Ani Oganesyan2, BA; Grace Bosma3, MS; Camille Hochheimer4, PhD; Lisa M Schilling5,6, MD; Robert Dellavalle7, MD, PhD

1Department of Dermatology, University of Colorado School of Medicine, Aurora, CO, United States
2University of Colorado School of Medicine, Aurora, CO, United States
3Center for Innovative Design and Delivery, The Colorado School of Public Health, University of Colorado School of Medicine, Aurora, CO, United States
4Division of General Internal Medicine, University of Colorado School of Medicine, Aurora, CO, United States
5The Colorado School of Public Health, University of Colorado School of Medicine, Aurora, CO, United States
6Bombergol Dermatology, Denver, CO, United States

**Corresponding Author:**
Ani Oganesyan, BA
University of Colorado School of Medicine
13001 E 17th Pl
Aurora, CO, 80045
United States
Phone: 1 303 444 6460
Email: an.oganesyan@cuanschutz.edu

**Abstract**

**Background:** Atopic dermatitis (AD) is a common inflammatory disease caused by a type 2 T helper cell-mediated immune response to environmental antigens. Approximately 1 in 5 patients with AD presents with moderate to severe disease, and treatments approved by the Food and Drug Administration include emollients, topical glucocorticoids, and calcineurin inhibitors. Dupilumab, a fully human monoclonal antibody, improves AD via inhibition of interleukin-4 and interleukin-13.

**Objective:** Our aim was to characterize the prescriber pattern of dupilumab for AD in adults at a large university-affiliated health system.

**Methods:** A retrospective, observational cohort study was conducted using electronic data from the Observational Health Data Sciences and Informatics database, assessing data from the University of Colorado Medical Campus and its affiliates. The outcome measured was the prevalence of dupilumab prescribed for adults with AD (n=6421), between March 28, 2013, and March 28, 2021. We assessed whether the characteristics of patients who received dupilumab were different from those who did not. Each patient characteristic was assessed using a univariate logistic regression with the binary outcome of receiving or not receiving dupilumab.

**Results:** We found a population prevalence of 5.6% (6421/114,476) for AD in our cohort. Black patients with AD were more than twice as likely to have received dupilumab compared to White patients (odds ratio 2.532, 95% CI 1.58-3.9). Patients with a diagnosis of atopic neurodermatitis were approximately twice as likely to have received dupilumab compared to those with other diagnostic variants of AD (odds ratio 1.87, 95% CI 1.01-3.22)
MONDAY

Community Contribution to the OHDSI Vocabularies, User-Level QA and a New Entity Mapping System SSSOM

(Oleg Zhuk, Anna Ostropolets, Nicolas Matentzoglu, Melissa Haendel, Alexander Davydov, Christian Reich)
DARWIN EU®: Assessing the data quality at data partner onboarding

(Sofia Bazakou, Maxim Moinat, Anne van Winzum)
Drug utilisation of valproate-containing medicinal products in women of childbearing age

a network study part of DARWIN EU®

@PRESENTER Albert Prats-Uribe

Background
One barrier to scalability and reproducibility is the phenotyping of cohorts (surveys, outcomes of interest). The DARWIN EU/CC has created a repository of phenotyping elements that has regulations ready to be shared across the DARWIN EU/Data Partner network named DECK (DARWIN EU Cohort Knowledgebase). We have also created a process that guides researchers through the steps needed for the use, generation, enhancement, and storage of phenotypes based on the OHOP/CHM.

RESULTS
The process starts with the submission of a Phenotype Proposal Form with a well-structured clinical description and a well-constructed strategy to drive the concept set creation and the logic needed concept creation.

After assessing the feasibility of identifying such a clinical entity, the next step is to check whether the requested phenotype exists already in the phenotype library, or if it needs to be created from scratch.

In case that a comparable phenotype already exists, the next step is to decide whether it is suitable for the proposed use, or if it needs to be modified, and how. Depending on the answer to these questions, a phenotype can be reused as is or can be modified or adapted for the proposed new use. In case a phenotype needs modifications, the resulting new version will be evaluated, and it will be stored in DECK.

CONCLUSION
A standardised procedure for creating, evaluating, and storing phenotypes has been created for DARWIN EU, alongside a phenotype library, i.e. DECK, that will be updated regularly as new phenotypes are added or removed. To utilise this process we are creating a web tool that follows the process and guarantees scalability, reproducibility, and ease of use for concept sets and cohorts created and facilitates version control, user management.

Albert Prats-Uribe, Martí Català, Katia M Verhamme, Maria de Ridder, Carlen Reyes, Talita Duarte-Salles, Peter Rijnbeek, Edward Burn, Daniel Prieto-Alhambra, Annika M. Jödicke
Are scaphoid fractures osteoporotic?

(Yonathan Schwarcz, Chen Yanover, Inbal Goldshtein)

Methods

All n = 1,810,653 individuals aged 50+ on January 2010 (index date) were followed until MOF occurrence or end of observation. Incidence density rates of 3 sub-groups with prior fractures (non, minor and major osteoporosis) were compared to the overall population after age and sex standardization. Poisson regression models included person time as offset and controlled for recency of prior fracture exposure and for Townsend deprivation index.

Limitation: The absence of bone mass density data may confound the results. Fracture classification was based mainly on location, and could not be fully ascertainment due to non-availability of event circumstances or imaging.
Software demonstration for PatientProfiles: an R package for patient characterisation based on pre-defined phenotypes and cohorts

(Mike Du, Yuchen Guo, Kim Lopez-Guell, Xintong Li, Nuria Mercade Besora, Daniel Prieto-Alhambra, Edward Burn, Marti Catala)
OHDSI Shoutouts!

Any shoutouts from the community? Please share and help promote and celebrate OHDSI work!

Do you have anything you want to share? Please send to sachson@ohdsi.org so we can highlight during this call and on our social channels. Let’s work together to promote the collaborative work happening in OHDSI!
Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
## Upcoming Workgroup Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (ET)</th>
<th>Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>12 pm</td>
<td>Common Data Model Vocabulary Subgroup</td>
</tr>
<tr>
<td>Wednesday</td>
<td>2 am</td>
<td>Methods Research</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7 am</td>
<td>Medical Imaging</td>
</tr>
<tr>
<td>Wednesday</td>
<td>8 am</td>
<td>Psychiatry</td>
</tr>
<tr>
<td>Wednesday</td>
<td>12 pm</td>
<td>Health Equity</td>
</tr>
<tr>
<td>Thursday</td>
<td>9 am</td>
<td>Medical Devices</td>
</tr>
<tr>
<td>Thursday</td>
<td>9:30 am</td>
<td>Themis</td>
</tr>
<tr>
<td>Thursday</td>
<td>12 pm</td>
<td>Methods Research</td>
</tr>
<tr>
<td>Thursday</td>
<td>1 pm</td>
<td>OMOP CDM Oncology Vocabulary/Development Subgroup</td>
</tr>
<tr>
<td>Thursday</td>
<td>7 pm</td>
<td>Dentistry</td>
</tr>
<tr>
<td>Friday</td>
<td>9 am</td>
<td>Phenotype Development &amp; Evaluation</td>
</tr>
<tr>
<td>Friday</td>
<td>9 am</td>
<td>GIS – Geographic Information System General</td>
</tr>
<tr>
<td>Friday</td>
<td>11 pm</td>
<td>China Chapter</td>
</tr>
<tr>
<td>Monday</td>
<td>10 am</td>
<td>Healthcare Systems Interest Group</td>
</tr>
<tr>
<td>Monday</td>
<td>11 am</td>
<td>Early-Stage Researchers</td>
</tr>
<tr>
<td>Monday</td>
<td>6 pm</td>
<td>OMOP &amp; FHIR</td>
</tr>
<tr>
<td>Tuesday</td>
<td>9 am</td>
<td>OMOP CDM Oncology Genomic Subgroup</td>
</tr>
</tbody>
</table>
# Global Symposium Conference Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 - 8:30 am</td>
<td>Symposium Registration, Lite Breakfast Buffet, All-Day Exhibits</td>
</tr>
<tr>
<td>8:30 - 9:30 am</td>
<td>State of the Community: OHDSI - Where have we been? Where are we going? George Hripcausk, Columbia Univ.</td>
</tr>
<tr>
<td>9:30 - 10:30 am</td>
<td>OHDSI Community Networking</td>
</tr>
<tr>
<td>10:30 am - 12:00 pm</td>
<td>Plenary: Improving the reliability and scale of case validation</td>
</tr>
<tr>
<td>12:00 pm - 1:00 pm</td>
<td>Buffet Lunch</td>
</tr>
</tbody>
</table>

All events take place at the Grand Ballroom Level - Exhibits will be available throughout the day.

---

**Panel: Lessons learned from OHDSI network studies**

Presenters:
- Insights from LEGEND-T3DM Marc Suchard, Univ. of California-Los Angeles
- Intravital anti-VEGF and risk of kidney failure: A Sisyphus Challenge Study Cindy X Cal, Johns Hopkins Univ.
- Fluoroquinolones and the risk of aortic aneurysm: A Sisyphus Challenge study Sang Chan Yoo, Yonsei Univ.
- Lessons learned applying the Stratageme framework across the OHDSI network Anthony Sera, Johnson & Johnson

Moderator: Barath Seeger, IQVIA

**Collaborator Showcase, Lightning Talk Session #1: Data Standards and Methods Research**

- Mapping of Critical Care EHR Flowsheet data to the OMOP CDM via SSJOM (Polina Tsypos, BioForm)
- Paving the way to estimate daily dose in OMOP CDM for Drug Utility Studies in DARWIN EU (Theresa Barkard, Univ of Oxford)
- Generating Synthetic Electronic Health Records in OMOP using GPT (Chao Peng, Columbia Univ.)
- Comparing concepts extracted from clinical Dutch text to conditions in the structured data (Tom Seinen, Erasmus MC)
- Finding a constrained number of predictor phenotypes for multiple outcome prediction (Jenna Reps, Johnson & Johnson)

Moderator: Davide Gabriel, Johns Hopkins University

**Collaborator Showcase, Poster / Demo Session #1**

- Poster walk leads:
  - Data standards: Mu Van Zandi, IQVIA
  - Methods research: Christophe Lambert, Univ. of New Mexico
  - Open-source development: Paul Nagy, Johns Hopkins Univ.
  - Clinical applications: Kristin Kostka, Northeastern University

Poster walk leads: Melanie Philofsky, Odysseus Data Services, Andrew Williams, Tufts Univ., Neelak Alpakan, Accenture, Hannis Pizzaghi, Children’s Hospital of Pennsylvania

---

**Collaborator Showcase, Lightning Talk Session #2: Methods Research and Clinical Applications**

- Synthesizing Evidence for Rare Events: a Novel Zero-Inflated Bivariate Model to Integrate Studies with Double-Zero Outcomes Lu Lu, Univ. of Pennsylvania
- Patient's outcomes after endoscopic retrograde cholangiopancreatography (ERCP) using reproducible duodenoscopy: a descriptive study using real-world data (Jessica Marayama, Precision Data)
- Quantification of Racial Differences in Post-acute Sequele of SARS-CoV-2 infection (PASC) in Children: an EHR-Based Cohort from the RECOVER Program (Bingyu Zhang, Univ. of Pennsylvania)
- Eye Care and Vision Research Workgroup: First Year Update (Michelle Hribar, National Institutes of Health – National Eye Institute)

Moderator: Atif Adam, IQVIA

**Closing session: Scaling community, scaling collaboration**

- Title Awards
- Group Photos

Presenter: Patrick Ryan, Johnson & Johnson, Columbia Univ.

**Networking Reception and Exhibits**

- 7:00 pm - 8:00 pm OHDSI Got Talent!
Global Symposium Weekend Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Friday, Oct. 20</th>
<th>Saturday, Oct. 21</th>
<th>Sunday, Oct. 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am</td>
<td>Registration/Lite Breakfast</td>
<td>Lite Breakfast</td>
<td>Lite Breakfast</td>
</tr>
<tr>
<td>8:30 am</td>
<td>Welcome to OHDSI2023: State of the Community</td>
<td>Intro to OHDSI Tutorial &amp; OHDSI Workgroup Activities</td>
<td>OHDSI collaborative workshop: HowOften (part 2)</td>
</tr>
<tr>
<td>9:30 am</td>
<td>Community Networking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30 am</td>
<td>Plenary Session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Buffet Lunch</td>
<td>Buffet Lunch + Collaborator Showcase: Posters &amp; Demos</td>
<td>Buffet Lunch + Collaborator Showcase: Posters &amp; Demos</td>
</tr>
<tr>
<td>1:00 pm</td>
<td>Panel: Network Studies</td>
<td>OHDSI collaborative workshop: HowOften (part 1)</td>
<td>OHDSI workgroup activities</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Collaborator Showcase: Lightning Talks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:45 pm</td>
<td>Collaborator Showcase: Posters &amp; Demos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:30 pm</td>
<td>Collaborator Showcase: Lightning Talks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:15 pm</td>
<td>Collaborator Showcase: Posters &amp; Demos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 pm</td>
<td>Closing Talk &amp; Titan Awards</td>
<td>Free time</td>
<td>We’ll see you again in 2024!</td>
</tr>
<tr>
<td>6:00 pm</td>
<td>Networking Reception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 pm</td>
<td>OHDSI Got Talent!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*This agenda is tentative and subject to change.*
Global Symposium

Friday, October 20 - Sunday, October 22
Hilton East Brunswick Hotel and Meeting Center

Friday, October 20
7:00 - 9:00 AM: Grand Ballroom Registration/Light Breakfast
8:00 - 9:00 AM: Welcome to OHDSI2023
9:00 - 10:00 AM: State of the Community
10:00 - 11:00 AM: Community Networking/ Meet the Mentors
11:00 - 12:00 PM: Plenary Session
12:00 - 1:00 PM: Buffet Lunch
1:00 - 2:00 PM: Panel: Network Studies
2:00 - 3:00 PM: Collaborator Showcase - Posters and Software Demonstrations
3:00 - 4:00 PM: Collaborator Showcase - Lightning Talks
4:00 - 5:00 PM: Collaborator Showcase - Posters and Software Demonstrations
5:00 - 6:00 PM: Closing Talks

Saturday, October 21
8:00 - 9:00 AM: Grand Ballroom
9:00 - 10:00 AM: Introduction to OHDSI Tutorial
10:00 - 11:00 AM: Industry Specific Interest
11:00 - 12:00 AM: Oncology
12:00 - 1:00 AM: HADES
1:00 - 2:00 PM: CDM/Network Data Quality
2:00 - 3:00 PM: Health Equity
3:00 - 4:00 PM: Phenotype Evaluation
4:00 - 5:00 PM: Medical Imaging
5:00 - 6:00 PM: Natural Lang. Processing

Sunday, October 22
8:00 - 9:00 AM: Grand Ballroom
9:00 - 10:00 AM: Industry Specific Interest
10:00 - 11:00 AM: Psychiatry
11:00 - 12:00 AM: Healthcare Systems
12:00 - 1:00 PM: Collaborator Showcase (and buffet lunch)
1:00 - 2:00 PM: Vocabulary
2:00 - 3:00 PM: HADES
3:00 - 4:00 PM: NL7 PHR-OMOP Consortium
4:00 - 5:00 PM: Education
5:00 - 6:00 PM: Medical Devices
6:00 - 7:00 PM: Eye care & Vision Research
7:00 - 8:00 PM: ISPE-RWE For Pharmaceutical
Global Symposium

Oct. 20-22 • East Brunswick, NJ, USA
Hilton East Brunswick Hotel & Executive Meeting Center

bit.ly/OHDSI2023Registration
The Journey Newsletter (September 2023)

The 2023 OHDSI Global Symposium agenda is now available and includes sessions focused on improving the reliability and scale of case validation, lessons learned from OHDSI network studies, and recent research advances within the OHDSI community. Register now for the Oct. 20-22 event at the Hilton East Brunswick Hotel & Executive Meeting Center! This newsletter also looks at the latest release of OHDSI Standardized Vocabularies, the OMOP CDM database survey, a new collaborator spotlight, and plenty more! #JoinTheJourney

OHDSI Videocast: Symposium Agenda, Vocabularies, CDM Survey

In the latest On The Journey video, Patrick Ryan and Craig Bashon go through the agenda for the 2023 OHDSI Global Symposium mini conference. They also reflect on the summer release of the OHDSI standardized vocabularies, and they discuss the OMOP CDM database survey, as well as other key deadlines in September. (If video does not appear, click ‘view this email in your browser’)

Community Updates

Where Have We Been?
- The Summer 2023 OHDSI Standardized Vocabulary Release was announced during the Aug. 26 community call, and it included a discussion on the seven vocabularies (CPT4, LOINC, NDC, Reform, RfNorm Extension, SPL and WANDG) that are either being refreshed or updated. There was also a look ahead to the February 2024 update, which is planned to include work on SNOMED and ICD-10, among others.
- All presentations from the both the 2023 Europe and Asia-Pacific Symposia have been posted to the OHDSI homepage and YouTube channel. Both hompages also include links to the posters from their respective collaborator showcases, as well as the tutorials hosted at both symposiums.

Where Are We Now?
- Our community is working to identify all of the global databases that have standardized their data to the OMOP CDM. If your institution holds such data, please fill out this OHDSI survey. If you do so by Sept. 8, your place in the next version of the Our Journey annual report will be ensured.
- As discussed during the Aug. 15 community call, the OHDSI community is looking for community-contributed phenotypes to be used during the How2Get large-scale incidence characterization workshop at the Global Symposium. Please contribute phenotypes that we can use as target or outcome cohorts in the analysis. More information is available here, and all phenotypes are due by Sept. 15.
- The Titan Awards honor individuals, teams and institutions who have made significant contributions over the previous year towards advancing OHDSI’s mission: vision and values, and they are presented during the Global Symposium closing talk. Nominations are open for OHDSI’s seven Titan Award categories, but please submit them before the Sept. 15 deadline.

Where Are We Going?
- The 2023 OHDSI Global Symposium will be held Oct. 20-22, 2023, in East Brunswick, New Jersey, USA, at the Hilton East Brunswick Hotel & Executive Meeting Center. Registration is open for this event; at your time of registration, please choose which weekend activities (tutorial, work group meetings, etc.) you would like to join.

2023 Global Symposium Agenda Announced

The 2023 OHDSI Global Symposium agenda is now available and highlights the most diverse agenda in our event history. More than 36 community members from around the world will help put together an event that will include a plenary on "Improving the reliability and scale of case validation," a panel session on "Lessons learned from OHDSI network studies," 10 lightning talks, a look at the state of the OHDSI community, and plenty more.

A record-setting amount of collaborator showcase submissions will be shared throughout the weekend. There will be multiple poster/ demos sessions and lightning talks during the main conference, but there will also be poster sessions throughout the weekend as well.

Please join us Oct. 20-22 at the Hilton East Brunswick Hotel & Executive Meeting Center in East Brunswick, NJ, USA for our first OHDSI Symposium!

September Newsletter

mailchi.mp/ohdsi/september2023

Publications


www.ohdsi.org #JoinTheJourney
Collaborator Spotlight: Asiyah Lin

Dr. Asiyah Lin is a passionate community builder, thinker, mentor, and a senior data scientist/oncologist with a diverse interdisciplinary background in medicine, immunology, molecular biology, medical informatics, and e-commerce entrepreneurship. She studied Pediatrics and Molecular Immunology from Tongji Medical College at Wuhan, China. She obtained her PhD degree from the Kobe University Medical School in Kobe, Japan. She completed her post-doc training with Dr. Yongqun "Oliver" He’s lab in University of Michigan. After that, she started her journey with the US federal agencies at the FDA and NIH. She is now working as a consultant as well as an independent contractor to serve the NIH and other organizations for data science strategies and oncology development.

Asiyah initiated the Medical Device WG together with Yoltech Huser in the fall of 2019 with a goal of growing a community for all people who are interested in using and expanding OHDSI tools and standards for medical device related research.

Asiyah discusses her career journey, some of the exciting breakthroughs in the area of biomedical ontology, the collaboration between OHDSI and the FDA, and more in the latest edition of the Collaborator Spotlight.

You originally studied medicine, so what first inspired your interest in data science and informatics?

My mom is a retired librarian. When I was in high school, I spent my summers reading the books from A to Z in her library. Although I studied medicine, I've been always interested in learning about computers and informatics. I went to computer training classes outside of school to learn. I was working in a dot com startup company in China after I finished my master’s degree in Immunology. This startup company accelerated my understanding of the web, internet, and business. I am a curious, motivated self-learner and doer. I am always curious about learning new skills and technologies. I started with self-learned bioinformatics during my master’s years in China. After the start-up experience, I then joined the PhD program in Japan for medical informatics. Along with years of working experience, the interest just naturally grow while the technology is advancing. However, I have a passion in getting data ready for AI/ML, because we spent 60-80% of the time preparing data for the next step. If we can reduce that time, how wonderful will the science and research be?

www.ohdsi.org

@OHDSI

#JoinTheJourney

ohdsi.org/spotlight-asiyah-lin
OMOP CDM Survey 2023

Please fill in the responses below for **each database** at your institution that has been converted to the OMOP Common Data Model. This information will be used to build our list of databases currently using the OMOP CDM and Standard Vocabularies. Our most recent list can be found on pages 46-47 of the 2022 Our Journey publication. **If you would like to be included in the 2023 edition of Our Journey be sure to fill out the survey by September 8th!**

OHDSI will not use your contact information for any purpose other than to inquire about your responses or if you select “yes” as the answer to the final question about your interest in your database becoming a network study candidate. To be compliant with GDPR, your name and email will not be shared.
Sept. 8: OMOP CDM Survey – be in the next Our Journey!

What does it take to be an OHDSI data partner? Anyone with access to observational data can standardize their dataset in the OMOP Common Data Model, apply OHDSI’s open-source tools, and participate in collaborative research.

Who has already joined the journey and adopted the OMOP CDM? There are currently 455 datasets, including 374 electronic health records, 44 legislative and 36 administrative claims sources, that come from 41 different countries. Together, these datasets represent more than 926 million unique patient records, approximately 12% of the world’s population.

#JoinTheJourney
HowOften: Community contributions wanted

Friends:

As we discussed on the 20June2023 and 15August2023 community calls, @hrpcs and I would like to encourage our community to think big and collaborate together in an effort toward large-scale incidence characterization. HowOften is be a community-wide study to define a broad set of target cohorts T that'll serve as denominators, and another broad set of outcome cohorts O that'll serve as numerators. And for a defined list of time-at-risk windows (e.g. 30d, 1yr, all-time), stratified by age/sex/index year, we will compute the incidence of O in T for all T-O combinations within each database in our participating network, and then meta-analyze the results to produce composite summaries.

As with all OHDSI network studies, we will use GitHub to share study materials, including protocol and source code, which should be based where possible off of existing HADES packages. And we intend to make the full resultset publicly available through an interactive website, likely initially taking advantage of the RShiny modules built by the HADES team as part of the Strategus workflow. As we’ve seen with prior OHDSI work, background incidence rates can be used for a wide range of clinical applications, including providing disease natural history, providing context for pharmacovigilance by quantifying the magnitude of risk for known effects, and reporting digital quality measures (see @bnhamlin 's talk here).
Titan Award Nominations Are Open!

To recognize OHDSI collaborators (or collaborating institutions) for their contributions towards OHDSI’s mission, the OHDSI Titan Awards were introduced at the 2018 Symposium and have been handed out at the Global Symposium each year since.

bit.ly/2023TitanNominations
Europe Symposium Presentations Are Posted!

Presentations

Journey of OHDSI: Where have we been and where we can go together?

Speaker: Patrick Ryan, PhD, Janssen Research and Development, Department of Biomedical Informatics, Columbia University Medical Center

European Initiatives Using the OMOP CDM

Moderator: Renske Los, PhD, Assistant Professor of Medical Informatics, Department of Medical Informatics, Erasmus MC

2. Harmonizing rare cancer data: lessons learned in EURACAN – Speaker: Maaike van Swieten, IOHA
3. HONEUR: Building a federated network in haematology – Speaker: Michel van Spelboeck, Janssen Pharmaceuticals
4. PIONEER and OPTIMA, two EU-Funded big data projects led by the European Association of Urology – Speaker: Monique Rossouw, Professor Decision Making in Urology, Erasmus MC
5. Panel Discussion and Q&A

Closure

Closing Remarks (Peter Rijnbeek, OHDSI |

Peter Rijnbeek — with a little bit of help — provides the closing remarks for the 2023 OHDSI Europe Symposium.

Collaborator Showcase: Rapid-Fire Presentations

Moderator: Katia Verhamme, MD, Associate Professor of Use and Analysis of Observational Data, Department of Medical Informatics, Erasmus MC, Rotterdam

6:44 – Tools for the collaborative maintenance of national vocabularies and mappings (Speaker: Javier Gracia-Tabarca)
6:50 – Implementation of the ARES application to monitor network-wide data quality and mapping coverage for 16 unique OMOP sources across Europe (Speaker: Jared Houghtaling)
12:11 – Multi-site Cost-effectiveness and Markov Chain analysis of heart failure (Speaker: Markus Haug)
16:41 – Deep Learning Companion (Speaker: Henrik John)
27:34 – Supporting pharmacovigilance signal validation and prioritization with analyses of routinely collected health data – lessons learned from an EHRA network study (Speaker: Judith Brand)
30:04 – Pattern of long COVID symptoms and conditions: clustering analysis based on large multinational cohorts as part of an EHRA Study A-Throm (Speaker: Mirti Catala Sabala)
42:36 – Evaluation of treatment effect heterogeneity in the LEGEND-Hypertension study (Speaker: Alexandros Rekikas)
48:36 – Characteristics and outcomes of over a million inflammatory bowel disease subjects in seven countries: a multinational cohort study (Speaker: Chen Yanover)
57:13 – Prediction of 30-day, 90-day and 1 year mortality after colorectal cancer surgery using a data-driven approach (Speaker: Ismail Gögür)

Real-World Evidence in Medicines Regulation

Moderator: Dani Prieto-Alhambra, PhD, Professor of Pharmacoeconomic and Device Epidemiology at Oxford University

1:20 – Development (Speaker: Ed Burn)
1:24 – Study Operations (Speaker: Katia Verhamme)
20:17 – The SIDAP experience as Data Partner in DARWIN EUH (Speaker: Taitts Duarte-Salles)
30:34 – Drug utilisation of widespread-containing medicinal products in women of childbearing age: a network study part of DARWIN EUH (Speaker: Lohman Alinez)
47:53 – Panel Q&A session
APAC Symposium Presentations Are Posted!

Welcome, Keynote

Speaker: Nicole Pratt (President OHDSI Australia Chapter, University of South Australia) and Patrick Ryan (Vice President, Observational Health Data Analytics, Janssen Research and Development)

Research Study Presentation: Fluoroquinolones antibiotics and the risk of aortic aneurysm and dissection – A study of 12 million patients

Speaker: Jack Janetzki (University of South Australia)

Panel Discussion: Regulators, Clinicians and Consumers

Panelists: Grant Pegg (Regulator), Seng Chan You (Policymaker/ Clinician), Anne McKenzie (Consumer), Yong Chen (Researcher)

Transforming health: What do regulators, clinicians, and consumers really want to know about healthcare and how can OHDSI help?

Speaker: Asinhol Golozar (Vice President, Global Head of Data Science at Opyns Data Services, Inc, Professor of the Practice & Director of Clinical Research at the OHDSI Center, Northeastern University)

OMOP/FHIR: challenges of each model and how the collaboration can resolve those challenges

Speaker: Graham Grace (Principal at Health Intersections Pty Ltd)

OMOP Oncology: Paving the Way for Patient-Centric Cancer Care

Speakers: Kim Curran (Data Science Manager, Medinio Foundation) & Georgina Kennedy (Singapore Institute for Applied Medical Research)

Lightning Talks

OMOP APAC 2023 Lightning Talks

SYDNEY, AUSTRALIA 13-14 JULY 2023

Panel Discussion with APAC Regional... 0:10 – Quota Data Vault: Laying the Foundation for an Open Science System with OMOP Data Catalogue Speaker: Cindy Ho (Singapore) 4:40 – Establishment of Evidence Sharing Network Through Common Data Model for Chinese Clinical Research: an Overview Speaker: Lei Liu (China) 11:08 – Internationalization Efforts for Real-World Evidence Creation at Core Hospitals for Clinical Research in Japan Speaker: Yoshinori Aoyagi (Japan) 17:21 – Successes and Challenges of a Multi-State Electronic Medical Record (EMR) to OMOP Conversion Project Speaker: Roger Ward (Australia) 20:54 – The association of short-, medium- and long-term cardiovascular sequelae with COVID-19 infection: a multinational pilot study Speaker: Ivan Lam (Hong Kong) 28:56 – Comparative Risk of Neuropsychiatric Events in Levodopa/ Dopamine Receptor antagonists versus Inhaled Corticosteroids in Children with Asthma Speaker: Subin Kim (Korea) 34:20 – Prediction of Dementia Incidence among patients with Type 2 Diabetes Speaker: Thanh Phuoc Phan (Taiwan)

Regional Chapter Panel + Closing Talk

Panel: We have the ingredients, now let’s generate evidence!

Panelists: APAC Regional Chapter leads (seated left to right): Nicole Pratt, Australia; Jason Hsu, Taiwan; Tatsuo Hirose, Japan; Seng Chan You, Korea; Lei Liu, China; Mengling ‘Momo’ Peng, Singapore.

39:37 – Closing. Nicole Pratt and Patrick Ryan
ParallelLogger

Introduction
Support for parallel computation with progress bar, and option to stop or proceed on errors. Also provides logging to console and disk, and the logging persists in the parallel threads. Additional functions support function call automation with delayed execution (e.g., for executing functions in parallel).

Features
- Functions for parallel computation.
- Functions for logging, including automated logging for errors and warnings.
- Functions used for automating analyses.

Examples
OHDSI HADES releases: CohortMethod 5.1.0

CohortMethod

CohortMethod is part of HADES.

Introduction

CohortMethod is an R package for performing new-user cohort studies in an observational database in the OMOP Common Data Model.

Features

- Extracts the necessary data from a database in OMOP Common Data Model format.
- Uses a large set of covariates for both the propensity and outcome model, including for example all drugs, diagnoses, procedures, as well as age, comorbidity indexes, etc.
- Large scale regularized regression to fit the propensity and outcome models.
- Includes function for trimming, stratifying, matching, and weighting on propensity scores.
- Includes diagnostic functions, including propensity score distribution plots and plots showing covariate balance before and after matching and/or trimming.
- Supported outcome models are (conditional) logistic regression, (conditional) Poisson regression, and (conditional) Cox regression.
OHDSI HADES releases: PatientLevelPrediction 6.3.5

PatientLevelPrediction

PatientLevelPrediction is part of HADES.

Introduction

PatientLevelPrediction is an R package for building and validating patient-level predictive models using data in the OMOP Common Data Model format.


The figure below illustrates the prediction problem we address. Among a population at risk, we aim to predict which patients at a defined moment in time (t = 0) will experience some outcome during a time-at-risk. Prediction is done using only information about the patients in an observation window prior to that moment in time.

Observation Window                  Time-at-risk
OHDSI HADES releases: PheValuator 2.2.10

PheValuator

PheValuator is part of HADES.

Introduction

The goal of PheValuator is to produce a large cohort of subjects each with a predicted probability for a specified health outcome of interest (HOI). This is achieved by developing a diagnostic predictive model for the HOI using the PatientLevelPrediction (PLP) R package and applying the model to a large, randomly selected population. These subjects can be used to test one or more phenotype algorithms.

Process Steps

The first step in the process, developing the evaluation cohort, is shown below:

**Step 1: Develop Evaluation Cohort from Diagnostic Predictive Model**
Opening: Postdoctoral Associate/Data Analyst

Job Description:
We are seeking a talented and dedicated Postdoctoral Associate/Data Analyst to join our dynamic team. In this role, you will play a pivotal part in advancing our mission of improving health outcomes through data-driven research. You will have the opportunity to work with diverse healthcare datasets, develop innovative analytical methods, and collaborate with experts in the field.

The Postdoctoral Associate/Data Analyst should possess significant experience in R and RStudio, with specific expertise in database management using PostgreSQL—critical requirements within the OHDSI network. Your responsibilities will include assisting the Principal Investigator (Dr. Yaan Lu from Yale University) and Co-investigator (Drs. Marc Suchard from UCLA) in creating the analytic tool stack and performing related analyses.

Key Responsibilities:
- Collaborate with multidisciplinary teams to design and execute data analysis projects.
- Develop and implement statistical and machine learning models for healthcare data.
- Perform data extraction and preprocessing tasks to prepare datasets for analysis.
- Conduct exploratory data analysis and visualization to extract insights from healthcare data.
- Assist in the development and maintenance of OHDSI’s open-source tools and resources.
- Communicate findings and insights through reports, presentations, and publications.
- Stay up-to-date with the latest advancements in data science and healthcare informatics.

Email: y.lu@yale.edu
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?
Sept. 5: DARWIN EU® Progress and Roadmap

**Peter Rijnbeek**
Professor of Medical Informatics and Chair, Department of Medical Informatics, Erasmus MC

**Katia Verhamme**
Associate Professor of Use and Analysis of Observational Data, Department of Medical Informatics, Erasmus MC

**Ed Burn**
Senior Researcher in Epidemiology and Health Economics, University of Oxford