10-Minute Tutorials

OHDSI Community Call
June 21, 2022 • 11 am ET
## Upcoming OHDSI Community Calls

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#OHDSI2022 Collaborator Showcase

It is Collaborator Showcase Submission Week!

All submissions for poster presentations, software demos and/or lightning talks are due no later than 8pm (EST) on **Friday, June 24**.

www.ohdsi.org/ohdsi2022collaboratorshowcase
Welcome to OHDSI!

The Observational Health Data Sciences and Informatics (or OHDSI, pronounced "Odyssey") program is a multi-stakeholder, interdisciplinary collaborative to bring out the value of health data through large-scale analytics. All our solutions are open-source.

www.ohdsi.org/ohdsi2022collaboratorshowcase
#OHDSI2022 Collaborator Showcase

**2022 OHDSI Collaborator Showcase**

**Oct. 14 - Bethesda North Marriott Hotel & Conference Center**

The Submission Deadline for the 2022 Collaborator Showcase is Friday, June 24 at 8 pm ET.

Thank you for your interest in the 2022 OHDSI Collaborators Showcase! We are delighted that you are considering joining our research community and presenting your work at this year’s symposium showcase. The OHDSI Symposium will be held online Oct. 14-16, 2022 at the Bethesda North Marriott Hotel & Conference Center, and the collaborator showcase will take place during the main symposium on Oct. 14.

OHDSI’s mission is to improve health by empowering a community to collaboratively generate evidence that promotes better health decisions and better care. We encourage you to submit your work for consideration in the collaborator showcase.

**Once again, we are inviting collaborations to participate in the Collaborator Showcase for this year’s 2022 OHDSI Symposium. Collaborators will have the opportunity to submit their work for poster presentations, and talks, and software demonstrations.**

**Topics of interest include:**
- Observational data standards and management
- Methodological research
- Open-source analytics development
- Clinical research from OHDSI’s analytic use cases
- Clinical characterization
- Population-level estimation
- Patient-level prediction
- Community development

**SHOWCASE STRUCTURE**

The showcase will be structured to highlight posters, talks, and software demonstrations.

We are currently working out all the details for the 2022 OHDSI Symposium. Please continue to check our community calls (Posters, Lunch), our website and social platforms, as well as emails from OHDSI Events manager, to learn more about the showcase and other events taking place this year!

**Tips:** A poster preparation for the symposium is an excellent opportunity to share your research with an audience from around the world. Please ensure you title your poster clearly and include all relevant details.

**Webpage:** The traditional poster template is available here.

**The Idea Diamond poster template is available here.**

**Contact:**
- Fax: (312) 696-9810
- Email: info@ohdsi.org

**Website:**
- www.ohdsi.org
- www.ohdsi.org/ohdsi2022collaboratorshowcase

**Submission Instructions**

A brief report submission template can be found from Submission, Template. The submission document can be uploaded as a Microsoft Word document by clicking on the link and selecting (File) > (Download As) → Microsoft Word (docx).

Each presenting author should upload their document as a PDF. The submission must meet the following guidelines:

- Maximum 100 words (excluding references/abstracts)
- Maximum 1 MB
- Clearly state the name of the poster authors and the title in the text or image that will appear on the presentation (please do not include titles or degrees/credentials included)
- Have the following components: Title, Background, Methods, Results, Conclusions
- Graphs and tables are recommended (maximum 10 suggested style is landscape)
- Unpublished in the peer-review or presentation of the line of submission, papers are acceptable

**Eligible for a 3-minute poster**

If a poster is selected for a 3-minute presentation, the author(s) will be invited to submit a 5-minute video presentation (no slides) to the video showcase. The video should be submitted no later than October 1, 2022.

To submit your work, the presenting author (or representative) needs to present at the OHDSI Symposium in person if their work is selected. Your document should be saved as a PDF using the following naming convention, where the "presentation" and "name" components to the name of the presenting author and "My" should include keywords that summarize the title: _presentationname_<name>_My_2022.pdf

As we have done over the last fourteen years, we strongly encourage all showcase participants create a video about their work that is shared on the OHDSI social platforms following the symposium. The video must be in high format, under 2:00 in size and under 1 MB. The videos will be due prior to the symposium’s end. Please reach out to the OHDSI staff if you have any questions.

**Important Dates**

- All symposium can be found on the OHDSI web site.
- All symposium will be reviewed by the OHDSI Scientific Review Committee between June 23-27, 2022.
- Your abstract is selected to present your work for the 2022 Symposium Collaborator Showcase, you will be notified via email by October 1, 2022.
- Please fill out the Call for Interest (OCS) form below to begin the submission.

If you need additional assistance, please email us at symposium@ohdsi.org.
Three Stages of The Journey

Where Have We Been?
Where Are We Now?
Where Are We Going?
Congratulations to the team of Jiayi Tong, Chongliang Luo, Md Nazmul Islam, Natalie E. Sheils, John Buresh, Mackenzie Edmondson, Peter A. Merkel, Ebbing Lautenbach, Rui Duan and Yong Chen on the publication of Distributed learning for heterogeneous clinical data with application to integrating COVID-19 data across 230 sites in Digital Medicine.

INTRODUCTION
Starting from the 2010s, the adoption of Electronic Health Record (EHR) systems grows rapidly in the United States. A large range of detailed clinical data, including medications, laboratory test results, disease status, and treatment outcomes, are available to facilitate research. The real-world data (RWD), including EHRs, claims, and billing data among others, have become an invaluable data source for comparative effectiveness research (CER) during the past few years. The RWD stored electronically in the EHR systems from multiple clinical sites provides a large sample size of the population compared to a single site study. Analysis using large populations can benefit the accuracy in estimation and prediction. The integration of research networks into the EHR systems allows rapid translation of research findings into evidence-based healthcare delivery, improving appropriate patient outcomes, consistent with the idea of a learning health system.

In the past few years, several successful networks have been founded and become beneficial to multicenter research. One of them is the Cooperative Health Data Science and Informatics (COHSI) consortium. OHDSI was founded for the primary purpose of developing specifications that could be shared across multiple sites. OHDSI developed the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM) for data standardization. The OMOP allows each institution to transform the local EHR data to the CDM’s standards. This procedure makes it feasible for the researchers to develop methods that can be simultaneously applied to the datasets from many institutions. The conversion and standardization of the data pediatric health systems in the US. Collecting clinical information from millions of children, PEDSnet offers the capacity to conduct multicenter pediatric research with broad real-world evidence. Other significant efforts include Sentinel System, which is a multi-site network of a national electronic system for monitoring performance of FDA-released medical products, and the Consortium for Clinical Characterization of COVID-19 by EHR HHE, which is an international consortium for electronic health record (EHR) data-driven studies of the COVID-19 pandemic, among others.

In multi-center studies, maintaining privacy of patient data is a major challenge. Due to data privacy policies, direct sharing of patient-level data, especially demographic, countability, and outcome data, is restricted and limited to practice. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) introduced a primary rule to regulate use of protected health information (PHI) often found in EHRs, requiring de-identification of PHI before use in biomedical research. In light of patient privacy concerns, many multicenter studies currently conduct analyses by combining available summary statistics through meta-analysis. While relatively simple to use, meta-analysis has been shown to result in biased or imprecise estimation in the context of rare outcomes, as well as with smaller sample sizes. With recent advances in statistical and methodological approaches, algorithms have been developed and considered in studies with multi-site data. In these distributed algorithms, a model estimation process is decomposed into smaller computational tasks that are
OHDSI Shoutouts!

OHDSI Shoutouts!

Congratulations to the team of Yongseok Mun, ChulHyoung Park, Da Yun Lee, Tong Min Kim, Ki Won Jin, Seok Kim, Yoo-Ri Chung, Kihwang Lee, Ji Hun Song, Young-Jung Roh, Donghyun Jee, Jin-Woo Kwon, Se Joon Woo, Kyu Hyung Park, Rae Woong Park, Sooyoung Yoo, Dong-Jin Chang & Sang Jun Park on the publication of Real-world treatment intensities and pathways of macular edema following retinal vein occlusion in Korea from Common Data Model in ophthalmology in Scientific Reports.

Real-world treatment intensities and pathways of macular edema following retinal vein occlusion in Korea from Common Data Model in ophthalmology

Yongseok Mun1*, ChulHyoung Park1*, Da Yun Lee1, Tong Min Kim1, Ki Won Jin1, Seok Kim1, Yoo-Ri Chung1, Kihwang Lee1, Ji Hun Song1, Young-Jung Roh1, Donghyun Jee1, Jin-Woo Kwon1, Se Joon Woo1, Kyu Hyung Park1, Rae Woong Park1, Sooyoung Yoo1, Dong-Jin Chang1 & Sang Jun Park1.

Despite many studies, optimal treatment sequences or intervals are still questionable in retinal vein occlusion (RVO) macular edema. The aim of this study was to examine the real-world treatment patterns of RVO macular edema. A retrospective analysis of the Observational Medical Outcomes Partnership Common Data Model, a distributed research network, of four large tertiary referral centers (n = 9,202,032) identified 2286 eligible. We visualized treatment pathways (prescription volume and treatment sequence) with sunburst and Sankey diagrams. We calculated the average number of intravitreal injections per person in the first and second years to evaluate the treatment intensities. Bevacizumab was the most popular first-line drug (80.9%), followed by triamcinolone (15.1%) and dexamethasone (2.28%). Triamcinolone was the most popular drug (8.08%), followed by dexamethasone (5.09%) in patients who began treatment with anti-vascular endothelial growth factor (anti-VEGF) agents. The average number of intravitreal injections per person decreased in the second year compared with the first year. The average number of injections per person in the first year increased throughout the study. Bevacizumab was the most popular first-line drug and steroids were considered the most common as second-line drugs in patients first treated with anti-VEGF agents. Intensive treatment patterns may cause an increase in intravitreal injections.
OHDSI Shoutouts!

Congratulations to the team of Sooyoung Yoo, Eunsil Yoon, Dachung Boo, Borham Kim, Seok Kim, Jin Chul Paeng, Ie Ryung Yoo, In Young Choi, Kwangsoo Kim, Hyun Gee Ryoo, Sun Jung Lee, Eunhye Song, Young-Hwan Joo, Junmo Kim, and Ho-Young Lee on the publication of Transforming Thyroid Cancer Diagnosis and Staging Information from Unstructured Reports to the Observational Medical Outcome Partnership Common Data Model in Applied Clinical Informatics.
Congratulations to the team of Cynthia Yang, Ross Williams, Joel Swerdel, João Rafael Almeida, Emily S. Brouwer, Edward Burn, Loreto Carmona, Katerina Chatzidionysiou, Talita Duarte-Salles, Walid Fakhouri, Antje Hottgenroth, Meghna Jani, Raivo Kolde, Jan A. Kors, Lembe Kullamaa, Jennifer Lane, Karine Marinier, Alexander Michel, Henry Morgan Stewart, Albert Prats-Uribe, Sulev Reisberg, Anthony Sena, Carmen Torre, Katia Verhamme, David Vizcaya, James Weaver, Patrick Ryan, Daniel Prieto-Alhambra, and Peter Rijnbeek on the publication of Development and external validation of prediction models for adverse health outcomes in rheumatoid arthritis: A multinational real-world cohort analysis in Seminars in Arthritis and Rheumatism.
OHDSI Shoutouts!
OHDSI Shoutouts!

Congratulations to the team of Anna Ostropolets, Patrick Ryan, Martijn Schuemie and George Hripcsak on the publication of Characterizing Anchoring Bias in Vaccine Comparator Selection Due to Health Care Utilization With COVID-19 and Influenza: Observational Cohort Study in JMIR Public Health and Surveillance.

Original Paper

Characterizing Anchoring Bias in Vaccine Comparator Selection Due to Health Care Utilization With COVID-19 and Influenza: Observational Cohort Study

Anna Ostropolets1, MD; Patrick B Ryan2, PhD; Martijn J Schuemie3, PhD; George Hripcsak1,4, MD

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2Epidemiology Analytics, Janssen Research and Development, Titusville, NJ, United States
3Medical Informatics Services, New York-Presbyterian Hospital, New York, NY, United States

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Email: gih3@columbia.edu

Abstract

Background: Observational data enables large-scale vaccine safety surveillance but requires careful evaluation of the potential sources of bias. One potential source of bias is the index date, selection procedure for the unvaccinated cohort or unvaccinated comparison time (“anchoring”).

Objective: Here, we evaluated the different index date selection procedures for 2 vaccinations: COVID-19 and influenza.

Methods: For each vaccine, we extracted patient baseline characteristics on the index date and up to 60 days prior and then compared them to the characteristics of the unvaccinated patients indexed on (1) an arbitrary date or (2) a date of a visit. Additionally, we compared vaccinated patients indexed on the date of vaccination and the same patients indexed on a prior date or visit.

Results: COVID-19 vaccination and influenza vaccination differ drastically from each other in terms of the populations vaccinated and their status on the day of vaccination. When compared to indexing on a visit in the unvaccinated population, influenza vaccination had markedly higher covariate proportions, and COVID-19 vaccination had lower proportions of most covariates on the index date. In contrast, COVID-19 vaccination had similar covariate proportions when compared to an arbitrary date. These effects attenuated, but were still present, with a longer look-back period. The effect of day 0 was present even when the patients served as their own controls.

Conclusions: Patient baseline characteristics are sensitive to the choice of the index date. In vaccine safety studies, unexposed index event should represent vaccination settings. Study designs previously used to assess influenza vaccination must be reevaluated for COVID-19 to account for a potentially healthier population and lack of medical activity on the day of vaccination.
Congratulations to our longtime collaborator and Australia chapter lead Nicole Pratt, who was recently announced as one of eight new ISPE Fellows for 2022!
OHDSI Shoutouts!

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

Have a study published? Please send to sachson@ohdsi.org so we can share 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

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<th>Meeting</th>
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<tr>
<td>Tuesday</td>
<td>1 pm</td>
<td>Common Data Model</td>
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<tr>
<td>Wednesday</td>
<td>12 pm</td>
<td>Latin America</td>
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<tr>
<td>Thursday</td>
<td>12 pm</td>
<td>FHIR and OMOP Oncology Subgroup</td>
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<td>Thursday</td>
<td>1 pm</td>
<td>OMOP CDM Oncology Vocabulary/Development Subgroup</td>
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<td>Thursday</td>
<td>6 pm</td>
<td>FHIR and OMOP Terminologies Subgroup</td>
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<td>Friday</td>
<td>9 am</td>
<td>GIS – Geographic Information System Development</td>
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<td>Friday</td>
<td>10 am</td>
<td>Phenotype Development and Evaluation</td>
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<td>Friday</td>
<td>10:30 am</td>
<td>Clinical Trials</td>
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<tr>
<td>Tuesday</td>
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[www.ohdsi.org/upcoming-working-group-calls](http://www.ohdsi.org/upcoming-working-group-calls)
2022 European Symposium

Symposium Agenda June 24th, 2022
Theatre at the Steam Ship Rotterdam

Time Description
8:00 – 9:00 Registration and Coffee
9:10 – 9:40 Welcome to the European OHDSI Journey
Speaker: Peter Jbnheke, PhD, Chair. Department of Medical Informatics Erasmus MC

Panel discussion.

时间 描述
8:00 – 9:00 注册和咖啡
9:10 – 9:40 欢迎参加欧洲OHDSI旅程
演讲者：Peter Jbnheke, PhD, 哈尔滨医科大学及药事系系主任

圆桌讨论。

www.ohdsi-europe.org/symposium-2022
Hello friends with EHR data,

One of the Healthcare Systems group’s objectives this year is “To provide support for transforming source EHR data to the CDM”. Currently, we provide support through answering questions on the forums and during our regularly scheduled work group meetings. Another product we would like to provide to the community is a central repository of different OMOP sites, their underlying EHR system, and attributes. This will allow new OHDSI collaborators to find and reach out to sites with similar infrastructure, EHR systems, and/or research goals. Participating in this survey does NOT commit you to being a mentor, providing your ETL script, or even answering your email. However, we hope you embrace the spirit of our open source community and contribute to the cause. We all learn as we OMOP our data. I’ve been very active in the OHDSI community and digging deep into EHR data for 8 years, and I still learn something new every day. But I think all persons in any field of science continue to learn because science is continually evolving. Here’s the link to the google form.
Job Openings

Odysseus Data Services recently announced two openings, one for an epidemiologist and one for a data scientist.

Check out the links on the community calls page or reach out to a member of the Odysseus team to learn more!
Job Openings

There is a new opening for a Postdoctoral Data Scientist within Dani Prieto-Alhambra’s team at the University of Oxford.

This person would be involved with the work happening around both DARWIN EU and EHDEN.

The application deadline is June 27, and more information and the application link will be posted on the community calls page.
Professor Peter Rijnbeek announced an opening for an epidemiologist to work with his team at Erasmus MC.

This position will be responsible for all aspects of observational research including protocol writing, input in the statistical analysis plan, study execution, interpretation of results and report/manuscript writing.

The application deadline is July 8, 2022.
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 21: 10-Minute Tutorials

PheValuator
Presenter: Joel Swerdel • Associate Director, Johnson & Johnson

PheKnowLater
Presenter: Tiffany Callahan • Postdoctoral Research Fellow, Columbia Univ.

Patient-Level Prediction
Presenter: Jenna Reps • Associate Director, Johnson & Johnson

CAPR
Presenter: Martin Lavallee • Data Scientist, Odysseus Data Services