2024 Winter Vocabulary Release

OHDSI Community Call
March 5, 2024 • 11 am ET
# Upcoming Community Calls

<table>
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<td>Mar. 5</td>
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<td>Mar. 12</td>
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<td>Mar. 19</td>
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<td>Recent OHDSI Publications</td>
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<td><strong>coming in April</strong></td>
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@OHDSI
www.ohdsi.org
#JoinTheJourney
March 5: Vocabulary Release Update

Alexander Davydov
Director, Lead of Medical Ontologies
Odysseus Data Services

Oleg Zhuk
Vocabulary Technical Lead
Odysseus Data Services

Anna Ostropolets
Associate Director, Observational Health Data Analytics
Janssen Research and Development

Christian Reich
CEO
Odysseus Data Services

This call will also include a closing presentation on Phenotype Phebruary 2024.

Thank you to everybody who joined in this community activity!
Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?
Congratulations to the team of Aniek F Markus, Peter R Rijnbeek, Jan A Kors, Edward Burn, Talita Duarte-Salles, Markus Haug, Chungsoo Kim, Raivo Kolde, Youngsoo Lee, Hae-Sim Park, Rae Woong Park, Daniel Prieto-Alhambra, Carlen Reyes, Jerry A Krishnan, Guy G Brusselle, and Katia MC Verhamme on the publication of Real-world treatment trajectories of adults with newly diagnosed asthma or COPD in BMJ Open Respiratory Research.
OHDSI Shoutouts!

Congratulations to the team of Behzad Naderalvojoud, Catherine Curtin, Chen Yanover, Tal El-Hay, Byungjin Choi, Rae Woong Park, Javier Gracia Tabuenca, Mary Pat Reeve, Thomas Falconer, Keith Humphreys, Steven M Asch, and Tina Hernandez-Boussard on the publication of Towards global model generalizability: independent cross-site feature evaluation for patient-level risk prediction models using the OHDSI network in *JAMIA*.
Congratulations to the team of Star Liu, Asieh Golozar, Nathan Buesgens, Jody-Ann McLeggon, Adam Black, and Paul Nagy on the publication of A framework for understanding an open scientific community using automated harvesting of public artifacts in JAMIA Open.
Epidemiology and Psychiatric Sciences

cambridge.org/eps

Original Article

Cite this article: Chai Y et al. (2024) Incidence of mental health diagnoses during the COVID-19 pandemic: a multinational network study. Epidemiology and Psychiatric Sciences; 33, 11:1-11; https://doi.org/10.1017/epi.2024.00081

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Revised: 27 December 2023
Accepted: 20 January 2024

Keywords: COVID-19; mental health; OHDSI; CMOP; omics; diagnostics; SARS-CoV-2

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Incidence of mental health diagnoses during the COVID-19 pandemic: a multinational network study

Yi Chai1,2, Kang K. C. Man3,4, Hao Luo2,5,6, Carmen Olga Torre1,7,8, Yun Kwok Wing9, Joseph F. Hayes, David P. J. Osborn, Wing Chung Chang, Xiaoyu Lin, Can Yin, Esther W. Chan, Ivan C. H. Lam, Stephen Fortin, David M. Kern, Dong Yun Lee, Rae Woong Park, Jae-Won Jang, Jing Li, Sarah Seager, Wallis C. Y. Lau, and Ian C. K. Wong1

1Centre for Safe Medication Practice and Research, Department of Pharmacology and Pharmacy, LKL Faculty of Medicine, The University of Hong Kong, Hong Kong 2The Hong Kong Jockey Club Centre for Suicide Research and Prevention, The University of Hong Kong, Hong Kong 3Research Department of Practice and Policy, UCL School of Pharmacy, London, UK 4Laboratory of Data Discovery for Health (LDDH), Hong Kong Science Park, Hong Kong 5Department of Social Work and Social Administration, The University of Hong Kong, Hong Kong 6Tai Po Centre on Aging, The University of Hong Kong, Hong Kong 7Real World Data Sciences, Bosch, Helinew Garten City, UK 8School of Science and Engineering, University of Groningen, Groningen, The Netherlands 9Li Chia King Family Sleep Assessment Unit, Department of Psychiatry, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong 10Division of Psychiatry, University College London, London, UK 11Crimson and Huntington HHS Foundation Trust, London, UK 12Department of Psychiatry, School of Clinical Medicine, UCL Faculty of Medicine, The University of Hong Kong, Hong Kong 13State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong, Hong Kong 14Real World Solutions, IQVIA, Durham, NC, USA 15The University of Hong Kong, Shenzhen Institute of Research and Innovation, Shenzhen, Guangdong, China 16Observation Health Data Analytics, Johnson Research & Development, Titusville, NJ, USA 17Department of Epidemiology, Johnson Research & Development, Titusville, NJ, USA 18Department of Biomedical Informatics, Johns Hopkins University School of Medicine, Baltimore, MD, USA 19Department of Nursing, Kangju National University Hospital, Kangju National University School of Medicine, Chuncheon, South Korea

Abstract

Aims. Population-wide restrictions during the COVID-19 pandemic may create barriers to mental health diagnosis. This study aims to examine changes in the number of incident cases and the incidence rates of mental health diagnoses during the COVID-19 pandemic.

Methodology. By using electronic health records from France, Germany, Italy, South Korea and the UK and claims data from the US, this study conducted interrupted time-series analyses to compare the monthly incident cases and the incidence of depressive disorders, anxiety disorders, alcohol misuse or dependence, substance misuse or dependence, bipolar disorders, personality disorders and psychoses diagnoses before January 2017 to February 2020 and after (April 2020 to the latest available date of each database [up to November 2021]) the introduction of COVID-related restrictions.

Conclusion. The introduction of COVID-related restrictions may have had a significant impact on mental health diagnosis rates, with notable increases in diagnoses of some mental health conditions during the pandemic.
OHDSI Shoutouts!

Congratulations to the team of Quentin Marcou, Laure Berti-Equille, and Noël Novelli on the publication of Creating a computer assisted ICD coding system: Performance metric choice and use of the ICD hierarchy in the Journal of Biomedical Informatics.

Abstract

Objective:

Machine learning methods hold the promise of leveraging available data and generating higher-quality data while alleviating the data collection burden on healthcare professionals. International Classification of Diseases (ICD) diagnoses data, collected globally for billing and epidemiological purposes, represents a valuable source of structured information. However, ICD coding is a challenging task. While numerous previous studies reported promising results in automatic ICD classification, they often describe input data specific model architectures, that are heterogeneously evaluated with different performance metrics and ICD code subsets.
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>Time (ET)</th>
<th>Meeting</th>
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<td>12 pm</td>
<td>CDM Vocabulary Subgroup</td>
</tr>
<tr>
<td>Wednesday</td>
<td>8 am</td>
<td>Psychiatry</td>
</tr>
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<td>Wednesday</td>
<td>7 pm</td>
<td>Medical Imaging</td>
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<td>Thursday</td>
<td>9:30 am</td>
<td>Themis</td>
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<td>Thursday</td>
<td>11 am</td>
<td>Industry</td>
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<tr>
<td>Thursday</td>
<td>12 pm</td>
<td>Methods Research</td>
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<tr>
<td>Thursday</td>
<td>1 pm</td>
<td>OMOP CDM Oncology Vocabulary/Development Subgroup</td>
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<tr>
<td>Thursday</td>
<td>7 pm</td>
<td>Dentistry</td>
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<td>Friday</td>
<td>9 am</td>
<td>Phenotype Development &amp; Evaluation</td>
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<td>Friday</td>
<td>10 am</td>
<td>GIS – Geographic Information System</td>
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<td>Friday</td>
<td>11:30 am</td>
<td>Steering Group</td>
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<tr>
<td>Friday</td>
<td>10 pm</td>
<td>China Chapter</td>
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<tr>
<td>Monday</td>
<td>9 am</td>
<td>Vaccine Vocabulary</td>
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<tr>
<td>Monday</td>
<td>10 am</td>
<td>Healthcare Systems Interest Group</td>
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<tr>
<td>Monday</td>
<td>11 am</td>
<td>Early-Stage Researchers</td>
</tr>
<tr>
<td>Tuesday</td>
<td>9 am</td>
<td>OMOP CDM Oncology Genomic Subgroup</td>
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The 2024 OHDSI Global Symposium will be held Oct. 22-24 at the Hyatt Regency Hotel in New Brunswick, NJ.

Tentative symposium format:
- **Oct. 22** – tutorials
- **Oct. 23** – plenaries, collaborator showcase
- **Oct. 24** – workgroup activities
Registration is now OPEN for the **2024 OHDSI Europe Symposium**, which will be held June 1-3 in Rotterdam, Netherlands.

**June 1** – tutorial/workshop

**June 2** – tutorial/workshop

**June 3** – main conference
Collaborator Spotlight: Ross Williams

Ross Williams is a scientific researcher working in the group of Dr. Peter Rijnbeek at Erasmus MC, where he is part of the Health Data Science group. His main focus is creating tools and analysis methods to develop personalised medical risk prediction. His specific areas of interest are on the external validation of prediction models, net benefit assessment and techniques for temporal health data analysis. He co-leads both the Patient Level Prediction workgroup and the Early-Stage Researcher workgroup.

A 2021 Titan Award honoree, Ross obtained his PhD at Erasmus University Medical Center (2023) and his MSc (2017) in Data Science from King’s College London. He previously obtained his BSc in Physics and Philosophy from the same institution. Before starting work at Erasmus MC he spent time working on a Marie Curie scholarship on the TRANSACT project under the EU FP7 initiative.

Ross discusses his career journey, how observational data impacts prediction models, the opportunities for junior researchers in OHDSI, and plenty more in the latest edition of the Collaborator Spotlight.

Can you discuss your career journey and your major research focuses?

My career started by studying Physics and Philosophy as an undergraduate. This in a roundabout way led to an interest in machine learning and specifically machine learning for healthcare. Following my BSc I spent a year working in Brno, Czech Republic, doing NMR spectroscopy. Whilst there I first encountered the use of machine learning in healthcare. That focused on using either image or spectral data for outcome prediction. This lead to doing an MSc in Data Science during which I created several prediction models based on clinical trial data. A major pain of this was the lack of interoperability, which even in this small data environment took up the majority of my time.

[Link to Spotlight: Ross Williams]
March Newsletter – On The Journey

The Journey Newsletter (March 2024)

OHDSI workgroups present opportunities for all community members to find a home for their talents and passions, and make meaningful contributions. Over the last months, more than 30 workgroups highlighted their individual missions and goals for 2024. We also engaged in a third Phenotype Preheary, where we worked to advance the science of phenotyping using four community-voted use cases. Read about both, information regarding two 2024 OHDSI symposiums, eleven February publications, and more! #JoinTheJourney

Community Updates

Where Have We Been?

- Thirty-one OHDSI workgroups shared their mission and 2024 objectives and key results (OKRs) during February community calls. Our workgroups are always seeking new collaborators to further our impact on healthcare. Learn more on our new workgroup homepage, and if you see something that intrigues you, please use this form to join the team.
- During Phenotype Preheary, the community investigated four phenotypes (Alzheimer’s Disease, pulmonary hypertension, major depression disorder and pulmonary arterial hypertension) while also focusing on advancing the science of phenotyping. Conversations and updates from the month are available on the event homepage, and there will be a wrap-up presentation during the March 6 community call.

Where Are We Now?

- Registration is now open for the 2024 OHDSI Europe Symposium, which will be held June 1-3 in Rotterdam, Netherlands. The main conference will be held Monday, June 3, on the Steen Drup Rotterdam, and submissions for the collaborator showcase are being accepted until March 15.
- James Weaver, an Associate Director of Observational Health Data Analytics at Janssen Research and Development, will speak during a panel session on Current Approaches for Distributed Analytics on Thursdays, March 14 (1 pm ET) during a Health Data Research Network Canada event. This will be a virtual conversation; more information and a registration link are available here.
- More than 50 members of our global community volunteered to join the 2024 Scientific Review Committee to help prepare for the Global Symposium (more on that next). We had a record-breaking number of showcase submissions last year, and we are excited for the possibilities this year. Our first meeting will be March 7.

Workgroup Homepage

Join A Workgroup

OHDSI workgroups present opportunities for all community members to find a home for their talents and passions, and make meaningful contributions. Each year, our workgroups evaluate their objectives and key results (OKRs) for the upcoming year, and they share them with the global community during February mailings.

It was exciting to see the wide range of objectives set throughout OHDSI’s 30+ workgroups, some of which have existed for many years, and some of which are in its earliest days. Whether veteran or new, each workgroup always welcomes new collaborators, from those who want to be active Day 1 to those who simply want to join and learn.

Our new OHDSI workgroup homepage features all of the new OKRs for our workgroups. If you see one (or more) that fits your talents, passions or interests, please use the link below to join the workgroup.

February Publications


New Workgroups Homepage

OHDSI Workgroups

OHDSI's central mission is to improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care. We work towards that goal in the areas of data standards, methodological research, open-source analytics development, and clinical applications.

Our workgroups present opportunities for all community members to find a home for their talents and passions, and make meaningful contributions. We are always looking for new collaborators. Learn more about these workgroups by checking out this page.

See an area where you want to contribute? Please Join The Journey!

Join A Workgroup   Workgroup Meeting Schedule

Get to Know the OHDSI Workgroups

Asia-Pacific (APAC)

CDM Vocabulary Subgroup

ATLAS/ WebAPI

Common Data Model

Dentistry

AfricA Charter
APAC
ATL-Modeling
Clinical Trials
Common Data Model
CDM Vocabulary Subgroup
Dentistry
Early-Stage Research
Electronic Health Record
Eco-Care & Vision Research
FHRS and OHDSI
Generative AI in Healthcare (GAIN)
Geospatial
Graduate Information System
Health Equity
Healthcare Providers
Industry
Latin America
Medical Devices
Medical Imaging
Minority Health
Natural Language Processing
Scientific Data Quality
Occupation
Open-Source Community
Patient-Level Prediction
Population Health
Pharmaceutical Health
Prevention Development & Evaluation
Psychology
Radiology
Shaking Group
Symmetry and Physics
Vaccines
Therapeutics

CDM - Common Data Model

Common Data Model

The CDM workgroup exists to maintain and improve the use of the OHDSI Common Data Model to make it the primary standardized health data model in the world. We encourage everyone in the OHDSI community to provide guidance on data standards and best practices.

ATLAS - Atlas of Learning Ana

Common Data Model

Dentistry

ATLAS - Atlas of Learning Ana

Common Data Model

Dentistry

Dentistry
Implementing a common data model in ophthalmology: Comparison of general eye examination mapping to standard OMOP concepts across two major EHR systems

(Justin C. Quon, William Halfpenny, Cindy X. Cai, Sally L. Baxter, Brian C. Toy)

MONDAY

Background

- Increasing utilization of electronic health records has highlighted data standardization as an increasingly important objective.
- One challenge associated with data standardization is that EHR implementations differ across institutions, resulting in limited interoperability due to variations in data structures and terminology.
- In ophthalmology, the specialized eye exam findings pose an additional challenge.

- The Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM) harmonizes disparate source data into standard vocabulary concepts with consistent and unambiguous interpretations.
- Previous studies have demonstrated significant coverage gaps by the OMOP CDM in all areas of the general eye examination of the Epic Foundation EHR.

The objectives of this study are to:

1. Investigate concept coverage of the standard “model experience” Cerner Millennium EHR and compare these findings with Epic Foundation EHR to determine shared areas of poorly represented EHR concepts.
2. Identify opportunities for improving representation of clinically relevant ophthalmology source data in the OMOP CDM.

Methods

- Source data elements were extracted from the ophthalmology examination PowerForms of the default Cerner Model Experience implementation of the Cerner Millennium EHR.
- All source data elements were mapped to the semantically closest standard concept in the OMOP CDM using the Automated Terminology Harmonization, Extraction, and Normalization for Analytics (ATENA) web application and the Daikon software tool, which suggests target concepts based on lexical similarity.
- All mappings were classified into one of four categories:
  - Exact: no loss or addition of information
  - Wider: target standard concept lost information compared to source data
  - Narrower: target standard concept included additional information
  - Unmatched: no standard concept in OMOP CDM that adequately represents the source data.

- There were exact mappings in the OMOP CDM for only 25.9% (318/1242) of Cerner and 25.4% (317/1268) of Epic source data elements.
- Imprecise (not exact) mappings spared all areas of the general eye examination for both EHR systems.
- Most mappings were wider with loss of clinical granularity, accounting for 49.4% (312/635) of Cerner and 49.9% (348/698) of Epic mappings.

- A key discrepancy between Epic and Cerner mappings was the proportion of wider mappings that were missing laterality (75.4% of wider mappings in Epic, and 38.6% for the Cerner EHR).
- This discrepancy was due to differences in vocabularies for target standard concepts.
- Epic mappings preferred SNOMED terms (90% of data elements excluding unmatched terms).
- Cerner mappings preferred LOINC concepts, which were missing laterality in less than 10% of mapped Cerner concepts.
- This difference is mainly due to whether laterality was pre-coordinated in the standard concept or left as a post-coordination modifier.

- During the mapping process, inconsistencies in how the OMOP CDM handles semantically equivalent standard concepts were discovered.
  - For example, the data left eye (OP had semantically equivalent mappings to both SNOMED and LOINC, but intracocular pressure of left eye (SNOMED) and left eye intracocular pressure (LOINC) were listed as two distinct concepts in the same domain.
  - Another example of an inconsistency in the OMOP CDM is that LogMAR visual acuity left eye is classified in the [observation] table, but there exists another distinct concept for Visual acuity-log MAR eye – left in the [measurement] domain.

Conclusions

- We demonstrate that the OMOP CDM has coverage gaps for all areas of the general eye examination, which may limit its utility in clinical practice and research.
- Suggestions for improving concept coverage and efficiency of data access may include (1) adding more clinical granularity to standard concepts, (2) standardizing pre-coordination or post-coordination for laterality, (3) ensuring that semantically equivalent concepts have unambiguous mappings, and (4) harmonizing the storage location of eye examination data.
Measuring Study Potential Through the Use of Data Diagnostics

**Presenter:** Clair Blacketer

**Intro:**
- The Data Diagnostics tool assesses database feasibility using pre-computed summary statistics and user-defined criteria.
- This analysis examined one of the four SOS challenge studies and how well data diagnostics performed.
- We evaluated the performance of Data Diagnostics in the SOS challenge study “Risk of kidney failure associated with intravascular endothelial growth factor (anti-VEGF)” comparing its output with study diagnostics.

**Methods:**
1. The SOS study compared reinfarction, albuminuria, and bevacizumab to estimate the risk of kidney failure after intravitreal anti-VEGF.
2. Prior to submitting OHDSI data partners (DP) ran the study. Data Diagnostics was run to identify databases that would be the best fit.
3. The databases identified then ran the full study, which also included study diagnostics.
4. We characterized which databases ran the three study questions and which passed study diagnostics.

**Results:**
- 31 databases were assessed for study potential for albuminuria vs bevacizumab and the kidney failure outcomes.
- Of the 15 that ran the study, 14 were identified as having all required elements and one was not. Of those, 10 ran study diagnostics and 6 passed (Table 1).
- For all three study questions, every database that passed study diagnostics first passed Data Diagnostics.
- DP1 did not pass Data Diagnostics for two of the study questions and also did not pass study diagnostics.

**Discussion:**
- Data Diagnostics was able to consistently and accurately identify databases with the potential to generate evidence using only aggregate summary statistics.
- Additional study diagnostics are needed to determine if the evidence generated is reliable.

**Conclusion:**
- Clair Blacketer, Frank DeFalco
Utilizing Graph Embeddings for Multiple Sclerosis Disease Modifying Therapy Adverse Events (Jason Patterson)

**Background**
Multiple sclerosis (MS) is one of the leading causes of disability among young adults. Currently, the administration of disease modifying therapy (DMT) through immunosuppressive drugs is the front-line management strategy for the disease. However, the use of higher efficacy DMT frequently leads to the occurrence of adverse drug events (ADE), and risks must be assessed when selecting treatment.

ADE knowledge predominantly originates from clinical trials and post-market surveillance via the Federal Adverse Events Reporting Service (FAERS). However, both methods are limited to population-level statistics and fail to address ADE risk on an individual level.

In this work, we use sequences of OMOP medical concepts from electronic health records (EHRs) to create individual-level predictive models for ADE occurrence related to MS DMT. With the aid of Graph Convolutional Networks (GCNs), we also created a novel method for explaining the output of the predictive model in terms of feature importance. We attempted to address gaps in other EHR ADE prediction methods, includingitten to the time-varying nature of EHR data, stringent feature selection methods, and failure to address causation.

**Methods**

**A. ADE Knowledge Graph**

**B. GCN Training and Concept Embeddings Extract**

**C. ADE Predictive Models and Explanation Engine**

**Results**

**D. Evaluation of ADE Model Performances**

**Conclusions**
We trained 56 ADE prediction models with various levels of performance. Some, particularly those for blood disorders, had high levels of calibration and discriminative ability. Furthermore, our novel model explanation method utilized a knowledge graph to highlight OMOP concepts that were important to prediction.

Future work will be required to further explore temporal windows of ADE occurrences beyond a generic 3-year window used here. Additionally, we will need a more formal evaluation method for model explanations.
Comorbidity Co-occurrence in Women with Endometriosis: A Retrospective Matched Cohort Study

(Tamar Zelovich, Vered Klatman-Mayer, Chen Yanover)

**INTRO:**
Endometriosis (endo) is a chronic, gynecological, multi-systemic, inflammatory, and estrogen-dependent disease that affects 10% of women.

**METHODS:**
Study population: Females, aged 14-50 years, diagnosed with endometriosis or adenomyosis.

Comparison group:
Age-matched females, not (ever) diagnosed with endo.

Data source:
IQVIA Medical Research Data (IMRD) contains longitudinal non-identified patient electronic healthcare records (EHR) collected from UK General Practitioner (GP) clinical systems incorporating data from THIN, a Cegedim database.

Statistical analysis:
For each comorbidity:
1. Compare its prevalence in the endo and non-endoe cohorts.
2. Measure discrepancy using Standardized Mean Differences (SMD; values >0.1 considered meaningful); assign an adjusted P-value (values <0.05 considered significant).

**CONCLUSIONS:**
Increased risk of comorbidities in endometriosis patients
Potential mechanisms:
1. Misdiagnosis of endometriosis-like symptoms
2. Enhanced health surveillance
3. Shared or related physiological mechanism, e.g., inflammatory response elicited by endometriosis, higher sensitivity to hormone fluctuation

**RESULTS:**

<table>
<thead>
<tr>
<th>Comorbidity</th>
<th>N</th>
<th>Endo</th>
<th>Non-endo</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergy</td>
<td>26,605</td>
<td>4,997</td>
<td>3,867</td>
<td>0.11</td>
</tr>
<tr>
<td>Mast Cell</td>
<td>3,083</td>
<td>(19%)</td>
<td>(15%)</td>
<td>0.2</td>
</tr>
<tr>
<td>Anemia</td>
<td>184,795</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Autoimmune Nervous System Disorders</td>
<td>341,288</td>
<td>5,921</td>
<td>4,263</td>
<td>0.3</td>
</tr>
<tr>
<td>Fatigue, Asthenia</td>
<td>606,663</td>
<td>10,360</td>
<td>7,171</td>
<td>0.3</td>
</tr>
<tr>
<td>Female Infertility</td>
<td>119,378</td>
<td>4,061</td>
<td>1,477</td>
<td>0.3</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>28,706</td>
<td>783</td>
<td>(2.9%)</td>
<td>(1.4%)</td>
</tr>
<tr>
<td>Inflammatory Bowel Disease</td>
<td>64,579</td>
<td>1,320</td>
<td>802</td>
<td>0.1</td>
</tr>
<tr>
<td>Migraine + Headache</td>
<td>741,920</td>
<td>11,821</td>
<td>8,274</td>
<td>(31%)</td>
</tr>
<tr>
<td>Pelvic Inflammatory Disease</td>
<td>205,747</td>
<td>4,514</td>
<td>2,479</td>
<td>(9.3%)</td>
</tr>
<tr>
<td>Uterine Fibroids</td>
<td>53,236</td>
<td>2,907</td>
<td>627</td>
<td>(2.4%)</td>
</tr>
</tbody>
</table>

Adjusted P-value for all presented comorbidities <0.001

**LIMITATIONS:**
Rare diseases may be underdiagnosed → undetected in data

**FUTURE PLANS:**
- Data-driven risk analysis of all occurring condition groups
- Compare endo to other diseases

**POTENTIAL IMPACT:**
- Better understanding of disease mechanism
- Shorter diagnosis times for endometriosis and comorbidities
- Support preventive medicine in endo and related comorbidities
- Insights into how endometriosis affects women’s overall health
FRIDAY
Ulysses: Introducing a workflow R package for assisting in the development of OHDSI studies

(Martin Lavallee, Asieh Golozar)
Opening: Biomedical Informatics Data Scientist at Stanford

Biomedical Informatics Data Scientist
1.0 FTE • Full time • Day - 08 Hour • R2335119 • Hybrid • 84866 IT RESEARCH • Technology & Digital Solutions • 455 Broadway, REDWOOD CITY, California

If you’re ready to be part of our legacy of hope and innovation, we encourage you to take the first step and explore our current job openings. Your best is waiting to be discovered.

Day - 08 Hour (United States of America)

This is a Stanford Health Care job.

A Brief Overview

The Biomedical Informatics Data Scientist will partner with researchers and clinicians to enable effective and efficient use of data and resources available via Stanford’s research clinical data repository (STARR) including the Electronic Health Records in the OMOP Common Data Model, radiology and cardiology imaging data and associated metadata, and new data types as they get integrated along with their databases and respective cohort query tools and interfaces e.g., OHDSI ATLAS. This individual will enable researchers to maximize their understanding, interpretation and use of these clinical and research tools for more informed and productive research, clinical trials, patient care and quality outcome projects.

Clean, extract, transform and analyze various kinds of clinical data to create analysis-ready datasets that follow the FAIR (Findable, Accessible, Interoperable and Re-useable) principles. Partner with researchers and clinicians to enable effective and efficient use of Stanford Clinical data and resources for the advancement of research and the educational mission.
The Zhang Lab at Washington University School of Medicine in St. Louis has one postdoc/senior data analyst position to work on causal machine learning and responsible AI for reliable real-world evidence generation.

• More details at https://linyingzhang.com
  o Postdoc: https://linyingzhang.com/files/Postdoc.pdf
  o Data analyst: https://linyingzhang.com/files/Analyst.pdf
• If interested, please send CV and cover letter to linyingz@wustl.edu
Opening: Epidemiology UX/Web Design Intern at J&J

**Epidemiology UX/Web Design Intern**

**JOB TITLE**  
Epidemiology UX/Web Design Intern

**FUNCTION**  
Career Programs

**SUB FUNCTION**  
Non-LDP Intern/Co-Op

**LOCATION**  
Raritan, New Jersey, United States

**DATE POSTED**  
Jan 19 2024

**REQUISITION NUMBER**  
2406163977W

**DESCRIPTION**

Janssen Research & Development, LLC., a division of Johnson & Johnson's Family of Companies is recruiting for Epidemiology UX/Web Design Intern. This position is a member of the Observational Health Data Analytics (OHDA) team. OHDA's mission is to improve the lives of individuals and quality of healthcare by efficiently generating real-world evidence from the world's observational health data, transparently disseminating evidence-based insights to real-world decision-makers, and objectively advancing the science and technology behind reliable data-driven decision-making.
Opening: Three Positions at Gilead

Sr. Director, Head of Data Office

Job Description:
As a Senior Director in our Data Office, you will play a pivotal role in shaping and executing our data strategy. In this leadership position, you will oversee and drive activities related to data sharing, governance, and access across the organization. Working closely with cross-functional teams, you will define and implement data acquisition policies and practices, ensuring the efficient and effective use of data to support our scientific and business objectives.

Director, Data Acquisition - Clinical Data Science

Director, Data Acquisition - Clinical Data Science

This role reports to the Head of Gilead data office, RWE Generation, Clinical Data Science and is based at different Gilead sites. This individual has responsibility for acquiring all data across clinical, development, medical affairs function and Gilead affiliates. This individual will work in close collaboration with the Development organization, Commercial, Procurement, Medical Affairs, IT, and other functions at Gilead in implementing data acquisition processes and is expected to operate with a "one Gilead" mindset & play a key role in the global Gilead Data Office set up.

Director, RWE - Data Science - OHDSI

Responsibilities:
Collaborate with researchers and data scientists to understand project requirements and translate them into OHDSI-compatible solutions. Work with databases, ensuring data integrity and optimization for OHDSI-related queries and analyses. Perform data analyses in OHDSI-related tools like ATLAS. Customize and extend OHDSI tools and applications to meet specific project needs. Collaborate with cross-functional teams to troubleshoot and resolve technical issues related to OHDSI implementations. Stay informed about OHDSI community updates, best practices, and emerging trends in observational health data research. Contribute to the development and documentation of data standards and conventions within the OHDSI community.
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?
Closing

Assess heterogeneity in phenotype definitions, representations, and evaluation methods across published observational studies for four clinical conditions.
Phenotype Phebruary 2024 in numbers

- 4 condition phenotypes discussed
- 93 clinical studies identified and reviewed
- 1 Atlas and CD demo
- 30 Cohort definitions built and publicly shared
- 3 shiny apps with full cohort diagnostics on results.ohdsi.org
- 8784 Incidence rate estimates
- 40 collaborators interacted in the posts, conducted LR, built cohorts, or attended calls
- 1 AMIA submission in the pipeline

https://www.ohdsi.org/phenotype-phebruary-2024/

Phenotype Phebruary content location:
https://ohdsiorg.sharepoint.com/:f:/s/Workgroup-PhenotypeDevelopmentandEvaluation/EmBu-iRmhfBCoNFgAKGPrMBTIkwzk1YsJEN40mgjSPQ?e=UyuT0s

http://results.ohdsi.org/app/18_PhenotypePhebPah
http://results.ohdsi.org/app/17_PhenotypePhebMdd
http://results.ohdsi.org/app/16_PhenotypePhebAlzh
Main findings

As we reviewed papers for 4 outcomes over the last 4 weeks, we saw tremendous variance in phenotype algorithms.

Heterogeneity of the algorithms impacted incidence of \(~2-40x\) and measurement error with substantial differences in sensitivity and specificity.
The weekly OHDSI community call is held every Tuesday at 11 am ET.

Everybody is invited!

Links are sent out weekly and available at: ohdssi.org/community-calls