OHDSI


# State of the OHDSI Community: Where have we been? Where are we going?

George Hripcsak MD MS

Director, Columbia University OHDSI Coordinating Center
Professor of Biomedical Informatics
Columbia University Irving Medical Center

# Welcome to OHDSI 2025!

# Thank you OHDSI 2025 Symposium Sponsors!








# Thank you to our inaugural OHDSI Advisory Board member

# Thank you for OHDSI 2025 Scientific Review Committee

- Adriana Campos
- Anna Ostropolets
- Anum Minhas
- Asieh Golozar
- Ben Hamlin
- Ben Martin
- Bill Baumgartner
- Christophe Lambert
- Chungsoo Kim
- Clair Blacketer
- Daniel Nugroho
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- Nicole Pratt
- Patrick Ryan
- Paul Nagy
- Regan Harle
- Rupa Makadia
- Sarah Seager
- Seng Chan You
- Shanshan Lin
- Summera Zhou
- Thamir Alshammari
- Tina Parciak
- Yudha Saputra
- Zhen  Lin

Please stand!

# Thank you to those who made today happen

- Elisse Katzman
- Craig Sachson
- Ann Marshak
- Anita Barrett
- Angely Arriaza Portillo
- Sofia Ellis-Chin
- Charika Johnson
- Ilse Vermeulen
- Patrick Ryan
- OHDSI Steering Workgroup
- Adit Anand
- Tara Anand
- James Baker
- Cindy Chen
- Fangyi Chen
- Yilu Fang
- Poonanakarn Panjasriprakarn
- Sandy Yang

Please stand!

# Congratulations, 2025 Titan Award nominees!

Agnes Kiragga • Akihiko Nishimura • Alexey Manoylenko • ALS TDI's Real World Evidence Team • Andrew Williams • Andrew Kanter • Aniek Markus • Anna Ostropolets • Anthony Sena • Asieh Golozar • ATLAS Development Team • Ben Martin • Bill O'Brien • Bingyu Zhang • Carlos Diaz • Chungsoo Kim • Christopher Knoll • Clair Blacketer • Craig Sachson • Critical Path Institute's Data Science and Data Engineering team • Cynthia Sung • Daniel Prieto-Alhambra • DARWIN-EU Team • Data4Life Team • Dave Kern • Davera Gabriel • Department of Biomedical Systems Informatics, Yonsei University College of Medicine • Deran Mckeen • Diane Corey • Egill Fridgeirsson • Eric Fey • Evanette Burrows • Eye Care and Vision Research WG • FHIR to OMOP WG • Freija Descamps • German Soto • Greg Klebanov • Hannah Lee • Harry Reyes Nieva • HealthPartners Institute • Henrik John • Ian Braun • Ilse Vermeulen • IQVIA OMOP DARWIN Team • IQVIA OMOP Productized Analytics Team • James Gilbert • Jamie Weaver • Jared Houghtaling • Jason Hsu • Jenna Reps • Jiwon Um • Joel Swerdel • John Gresh • Justin Bohn • Katia Verhamme • Lars Halvorsen • Liesbet Peeters • Lotte Geys • Maarten van Kessel • Marc Suchard • Marti Catala Sabate • Martijn Schuemie • Marty Alvarez • Maxim Moinat • Michael Matheny • Michel Walravens • Mike Pauley • Milou Brand • Mitchell Conover • Mukkesh Kumar • OHDSI Belgium Team • Patricia Mabry • Patrick Ryan • Pavan Sudhakar • Peter Hoffmann • Peter Rijnbeek • Polina Talapova • Renske Los • REWARD Team • Richard Boyce • Roger Carlson • Sam Patnoe • SciForce Team • Treatment Patterns Team • Vaccine Vocabulary Team • Will Roddy

Please stand!

# A moment of silence for those not with us today

Jamie Weaver

Andrew Williams

# OHDSI's mission

To improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care

# OHDSI's values

- **Innovation**: Observational research is a field which will benefit greatly from disruptive thinking. We actively seek and encourage fresh methodological approaches in our work.
- **Reproducibility**: Accurate, reproducible, and well-calibrated evidence is necessary for health improvement.
- **Community**: Everyone is welcome to actively participate in OHDSI, whether you are a patient, a health professional, a researcher, or someone who simply believes in our cause.
- **Collaboration**: We work collectively to prioritize and address the real world needs of our community's participants.
- **Openness**: We strive to make all our community's proceeds open and publicly accessible, including the methods, tools and the evidence that we generate.
- **Beneficence**: We seek to protect the rights of individuals and organizations within our community at all times.

# Our Journey

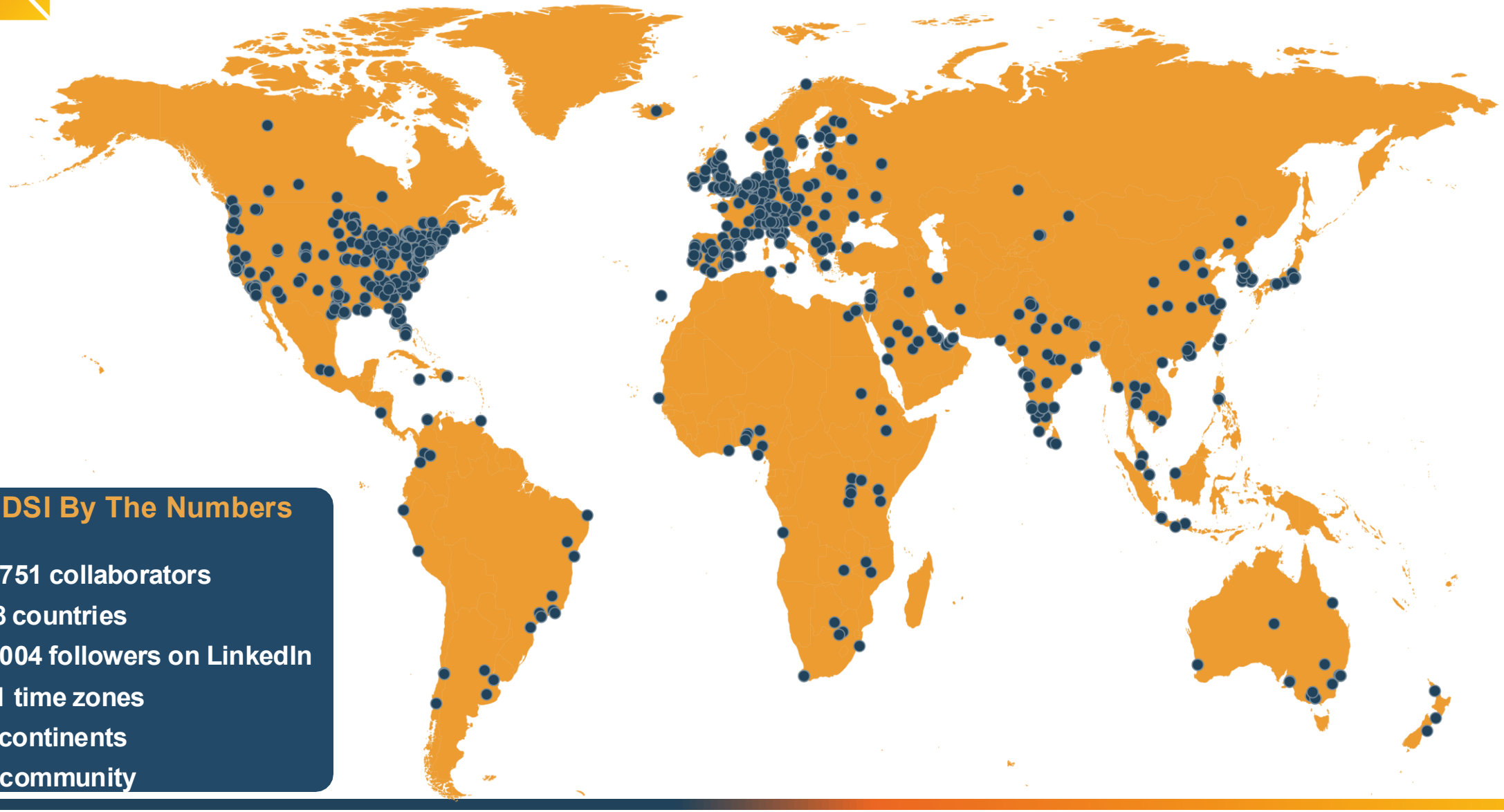
*Where The OHDSI Community Has Been*
*And Where We Are Going*

*2025 edition*


OHDSI

OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS

# OHDSI collaborators



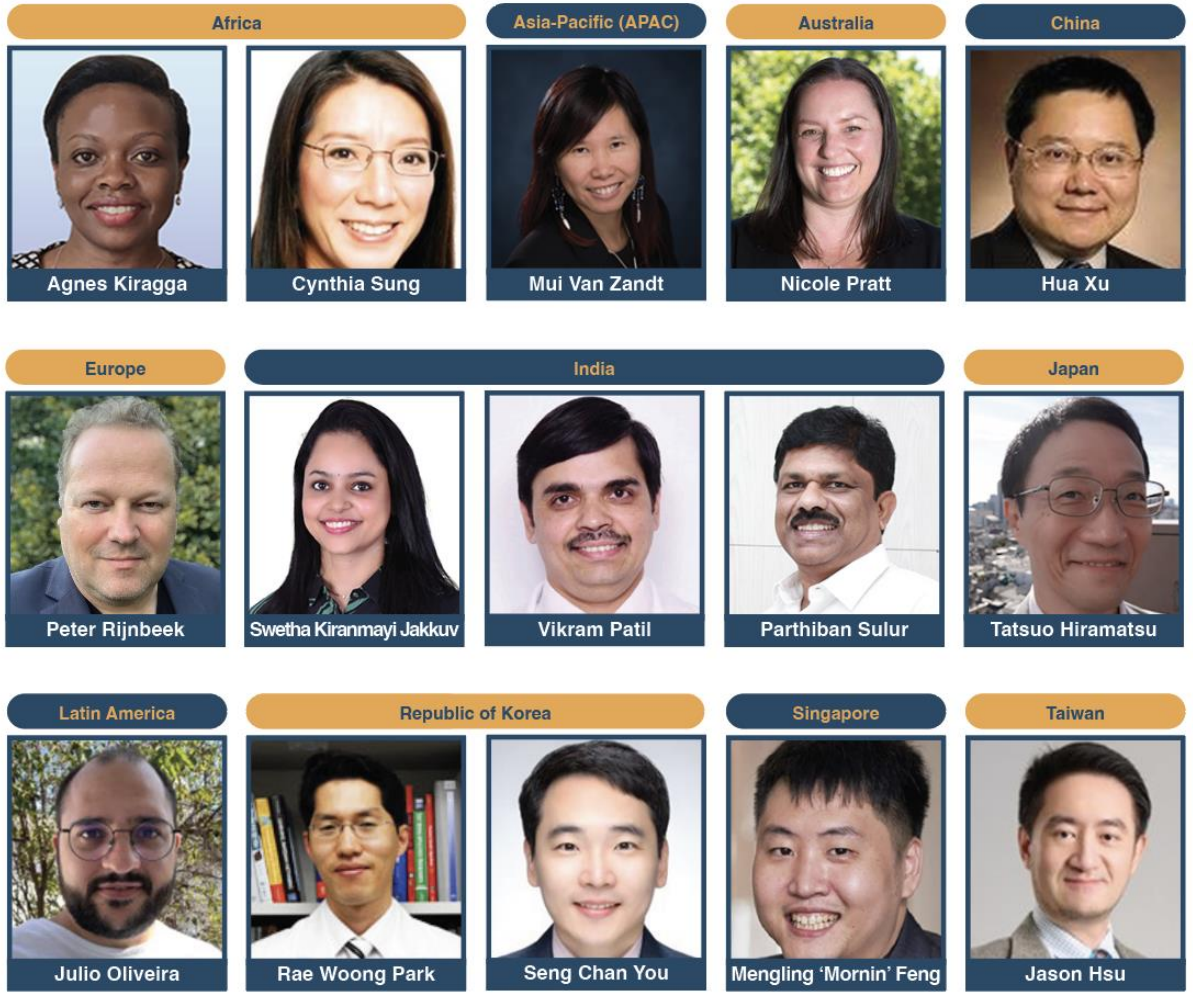
**OHDSI By The Numbers**

- 4,751 collaborators
- 88 countries
- 9,004 followers on LinkedIn
- 21 time zones
- 6 continents
- 1 community

Join the Journey at https://ohdsi.org/

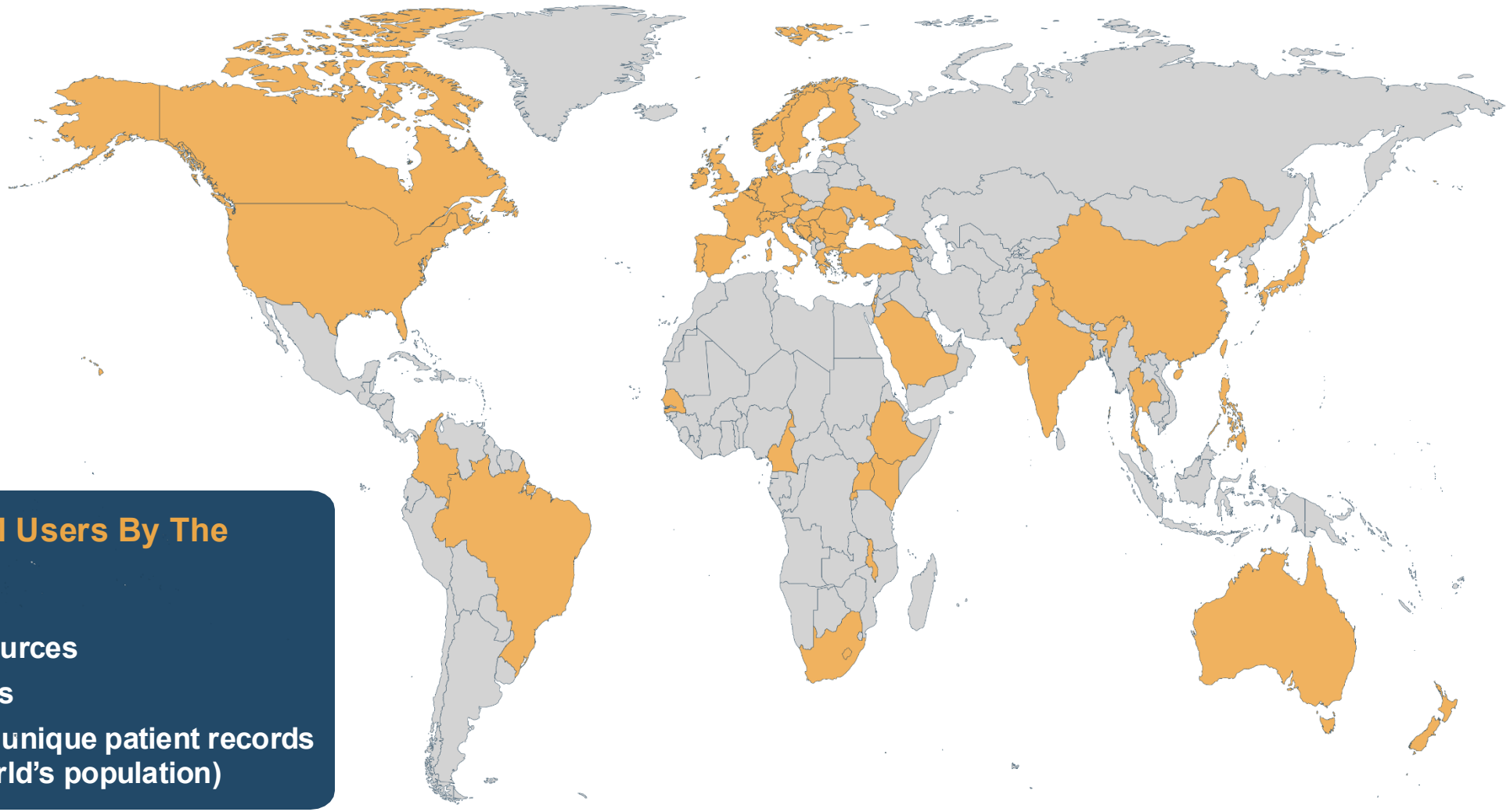
# Workgroups led by community

# Regional chapters and national nodes




| Node | Lead(s) |
|---|---|
| **Belgium** | Liesbet Peeters, Annelies Verbiest, Ilse Vermeulen |
| **Denmark** | Ismail Gögenur, Martin Høyer Rose, Andreas Weinberger Rosen |
| **Estonia** | Raivo Kolde, Sulev Reisberg |
| **Finland** | Eric Fey, Gustav Klingstedt |
| **Germany** | Ines Reinecke, Michele Zoch |
| **Greece** | Anastasia Farmaki, Pantelis Natsiavas,Grigoris Papapostolou |
| **Hungary** | Zsolt Bagyura, Ágota Mészáros |
| **Ireland** | Aedin Culhane, Mark Lawler, Catherine Mahoney |
| **Israel** | Chen Yanover |
| **Italy** | Lucia Sacchi, Matteo Gabetta |
| **Luxembourg** | Claudine Backes, Andreas Kremer, Maria Quaranta |
| **Netherlands** | Renske Los, Aniek Markus |
| **Norway** | Espen Enerly, Siri Larønningen |
| **Portugal** | Patricia Couceiro, Carmen Nogueira |
| **Spain** | Miguel Angel Mayer, Talita Duarte Salles |
| **Switzerland** | Olga Endrich, Karen Triep |
| **United Kingdom** | Dani Prieto-Alhambra |
| ***coming soon*** | *Austria, Sweden* |

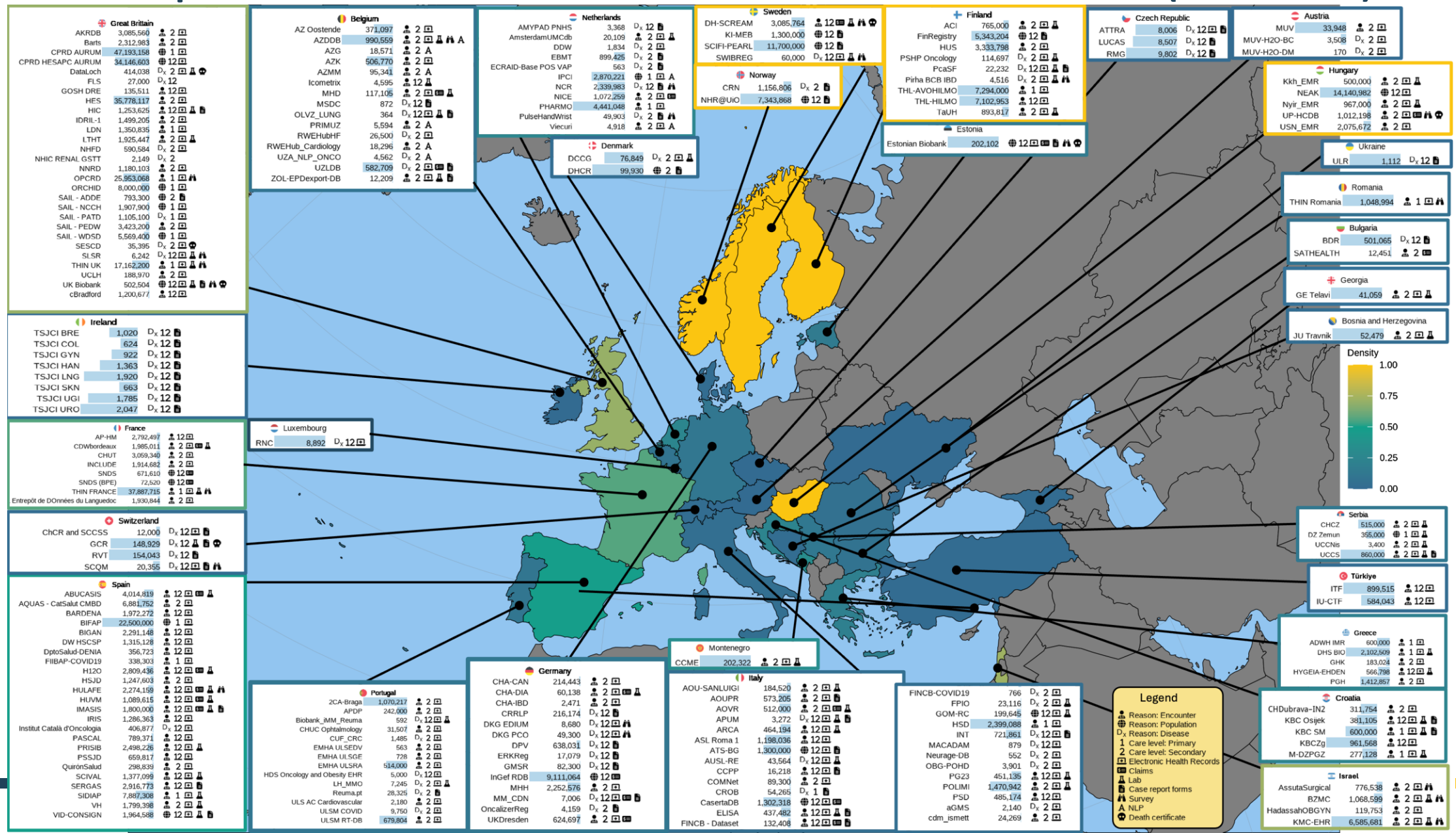
# OMOP Common Data Model adoption



**OMOP CDM Users By The Numbers**

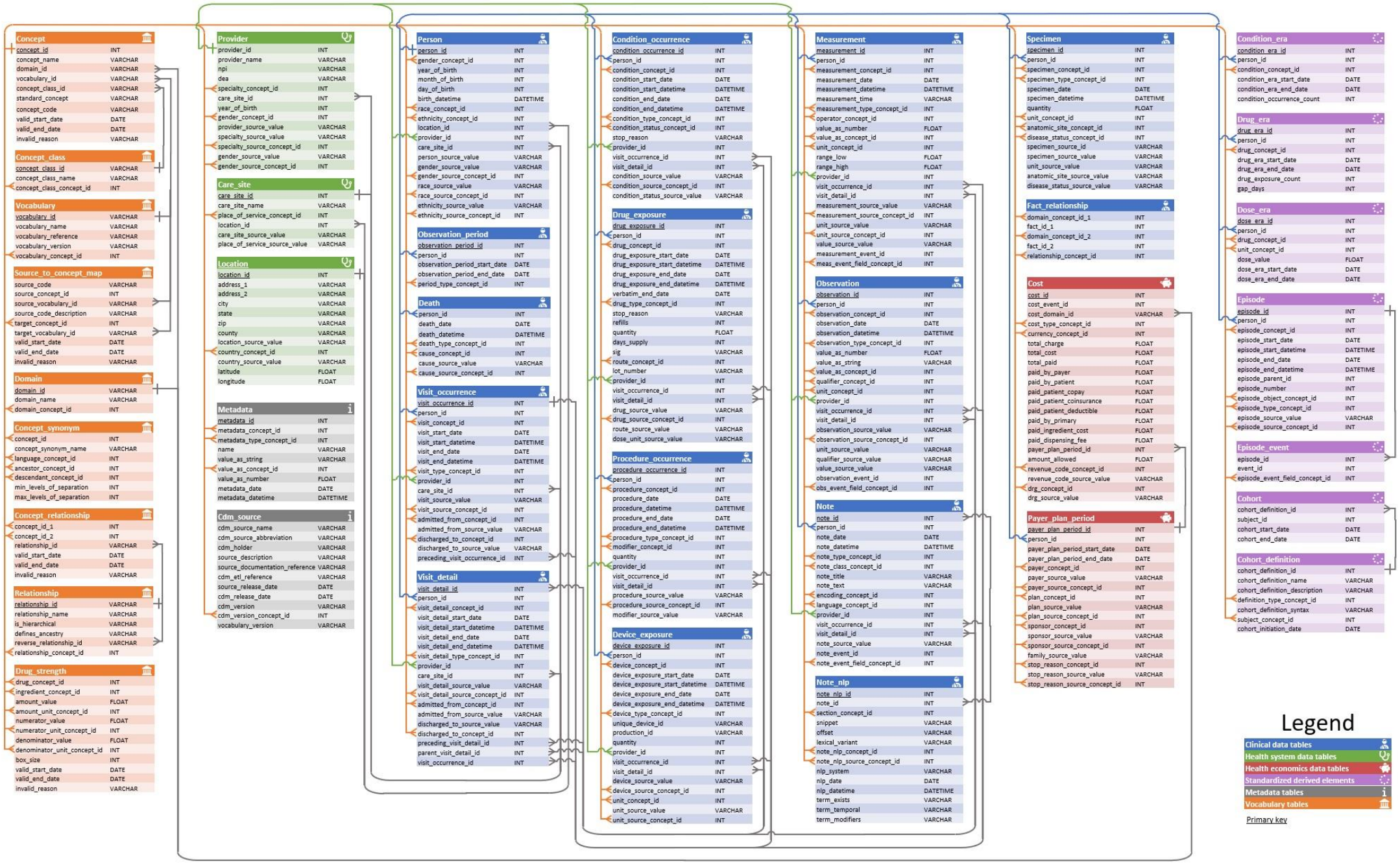
- 544 data sources
- 54 countries
- 974 million unique patient records (12% of world's population)

# European Health Data & Evidence Network (EHDEN)

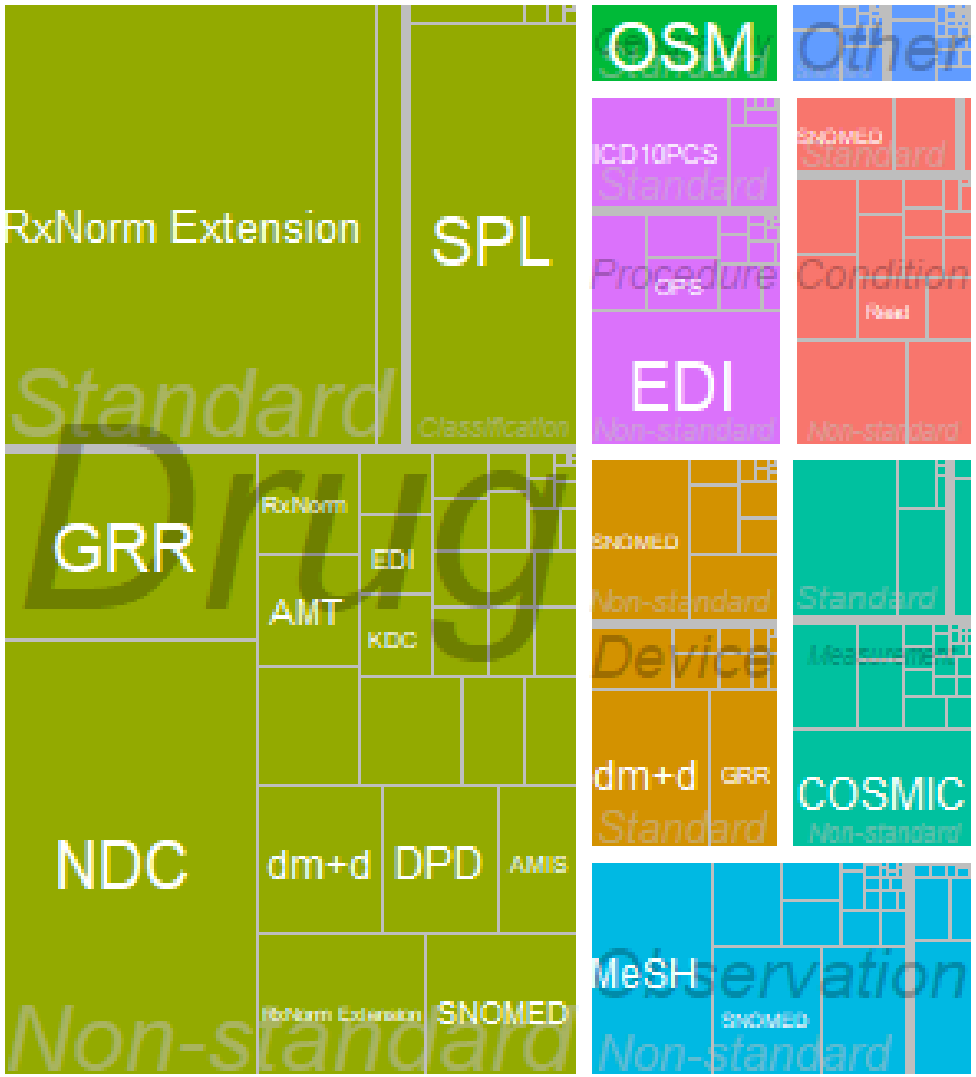



Blacketer
JMIR
2025

# OMOP Common Data Model 5.4



# OHDSI standardized vocabularies

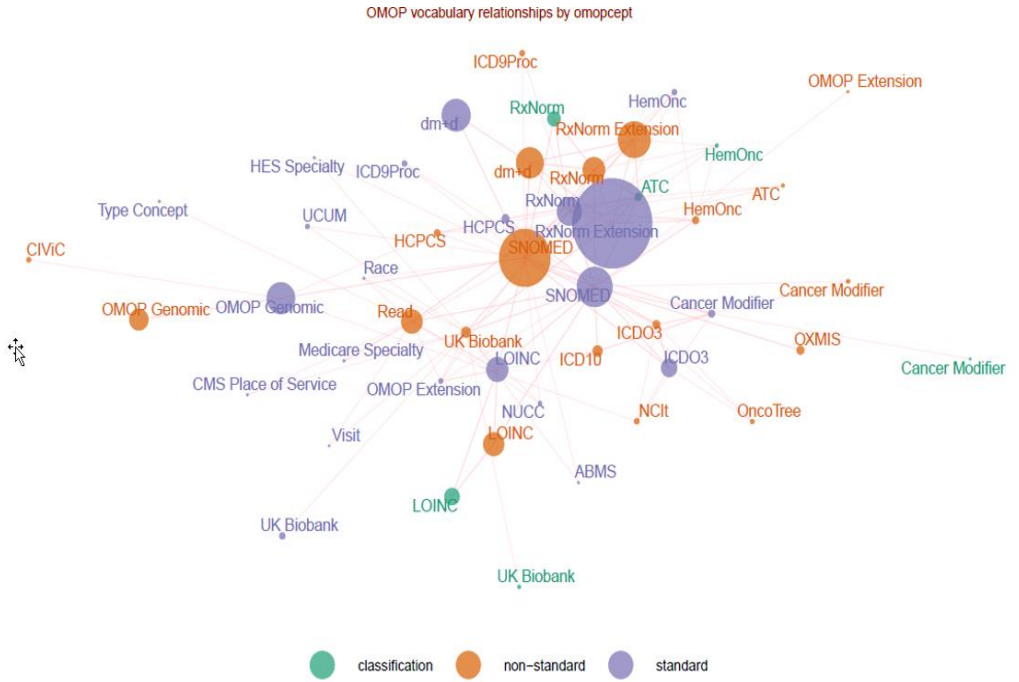



## OHDSI Vocabularies By The Numbers

*as of August 2025 release*

- 11,804,307 concepts
  - 3,784,263 standard concepts
  - 971,914 classification concepts
- 145 vocabularies
- 43 domains
- 87,948,636 concept relationships
- 101,696,159 ancestral relationships
- 6,028,711 concept synonyms

**1 Shared Resource to Enable Data Standards**

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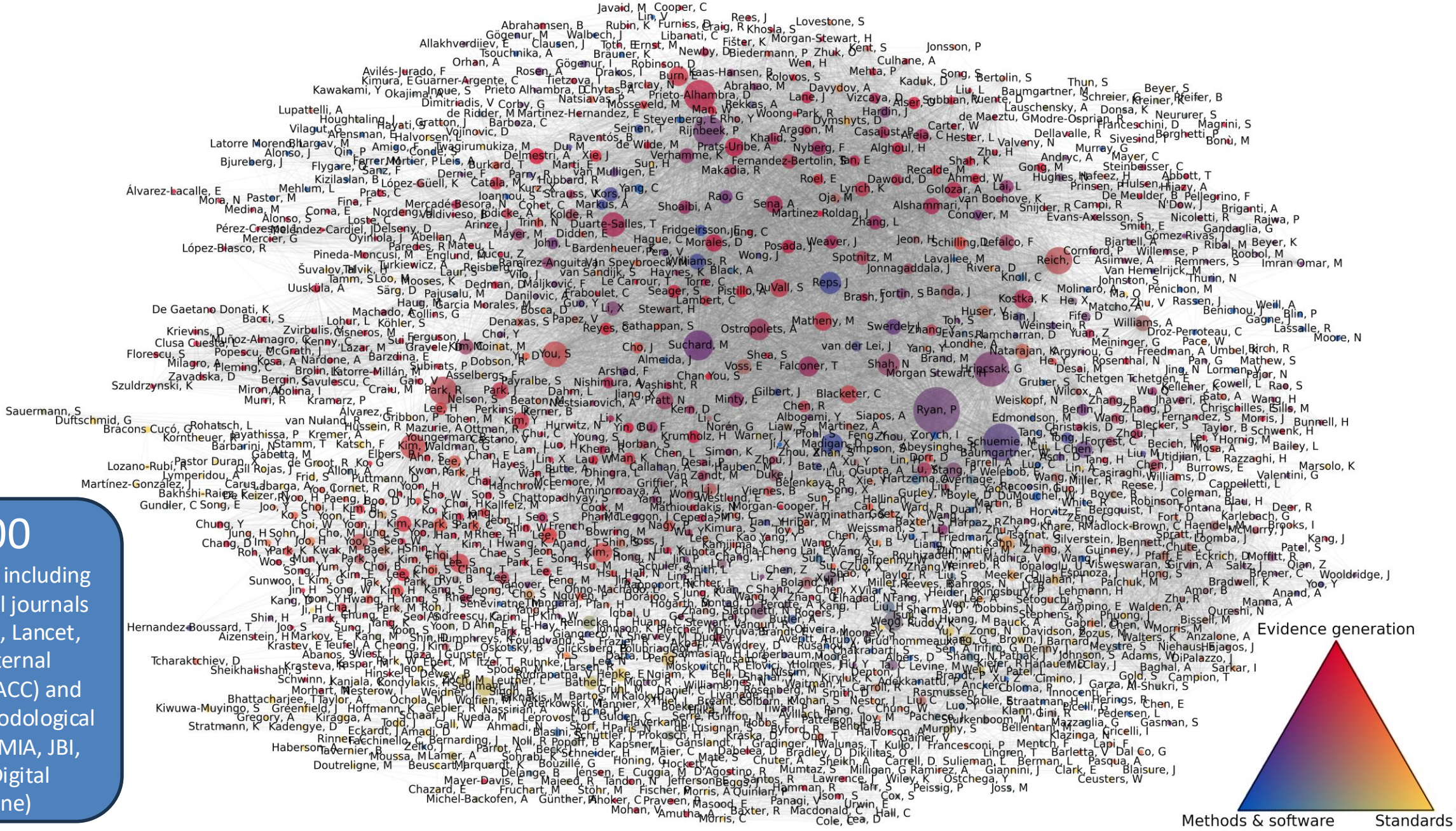
# OHDSI collaborations in scholarship



**>900**

publications, including in top clinical journals (JAMA, BMJ, Lancet, JAMA Internal Medicine, JACC) and leading methodological journals (JAMIA, JBI, Nature Digital Medicine)

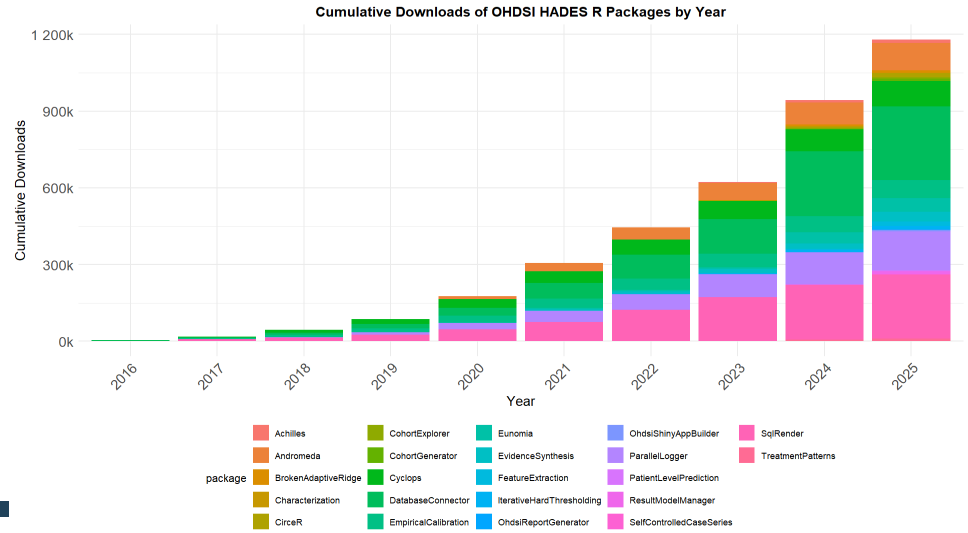
# Book of OHDSI

## Christian Reich and Sarah Seager

Adam Kiehl
Albert Prats Uribe
Alicia Abellan
Alison Callahan
Andrew Williams
Anna Ostropolets
Anne Martel
Anthony Sena
Asieh Golozar
Asiyah Lin
Azza Shoaibi
Blake Dewey
Charles Bailey
Clair Blacketer
Cynthia Sung
Daniel Smith
Danielle Boyce
Davera Gabriel
David Vizcaya
Egill Fridgeirsson
Emma Bollig
Eric N. Brown
Feng Mengling
Gabriel Salvador
Gord Mawdsley
Gowtham Rao
Gregory Klebanov
Hamed Abedtash
Hanieh Razzaghi
James Brown
Jen Wooyeon Park
Jennifer Granick
Joel Swerdel
Julie Cha
Kaveri A. Thakoor
Konstantin Iaroshovets
Kristin Kostka
Kyulee Jeon
Louisa H. Smith
Loyd Wayde Shipman
Manlik Kwong
Marc Suchard
Martijn Schuemie
Melanie Philofsky
Michael Hardisty
Michael Matheny
Michel J.F. Walravens
Mike Hamidi
Nicole Gerlanc
Paul Nagy
Pratyush Rai
Rakesh Babu
Regan Harle
Robert Koski
Rupa Makadia
Seng Chan You
Stephanie Leonard
Teri Sippel Schmidt
Vishwanath H. Prathikanti
Will Beasley

# Open-source software development

- HADES is an ecosystem of 41 R packages to support standardized analytics  for the OMOP CDM and across OHDSI network
- OHDSI CRAN packages (n=22) have been downloaded >1m times




| Package | Version | Maintainer(s) | Availability |
|---|---|---|---|
| Achilles | v1.7.2 | Frank DeFalco | CRAN |
| Andromeda | v0.6.1 | Martijn Schuemie | CRAN |
| BigKnn | v1.0.2 | Martijn Schuemie | GitHub |
| BrokenAdaptiveRidge | v1.0.1 | Marc Suchard | CRAN |
| Capr | v2.1.0 | Martin Lavallee | GitHub |
| Characterization | v2.2.0 | Jenna Reps | CRAN |
| CirceR | v1.3.3 | Chris Knoll | CRAN |
| CohortDiagnostics | v3.4.2 | Jamie Gilbert | GitHub |
| CohortExplorer | v0.1.0 | Gowtham Rao | CRAN |
| CohortGenerator | v0.12.2 | Anthony Sena | CRAN |
| CohortIncidence | v4.1.0 | Chris Knoll | GitHub |
| CohortMethod | v5.5.0 | Martijn Schuemie | GitHub |
| Cyclops | v3.6.0 | Marc Suchard | CRAN |
| DatabaseConnector | v6.4.0 | Martijn Schuemie | CRAN |
| DataQualityDashboard | v2.7.0 | Katy Sadowksi | GitHub |
| DeepPatientLevelPrediction | v2.2.0 | Egill Fridgeirsson | GitHub |
| EmpiricalCalibration | v3.1.4 | Martijn Schuemie | CRAN |
| EnsemblePatientLevelPrediction | v1.3.2 | Jenna Reps | GitHub |
| Eunomia | v2.1.0 | Frank DeFalco | CRAN |
| EvidenceSynthesis | v1.0.0 | Martijn Schuemie | CRAN |
| FeatureExtraction | v3.11.0 | Ger Inberg | CRAN |
| Hydra | v0.4.0 | Anthony Sena | Deprecated |
| IterativeHardThresholding | v1.0.3 | Marc Suchard | CRAN |
| Keeper | v0.2.1 | Anna Ostropolets | GitHub |
| MethodEvaluation | v2.4.0 | Martijn Schuemie | GitHub |
| OhdsiReportGenerator | v1.1.1 | Jenna Reps | CRAN |
| OhdsiSharing | v0.2.2 | Lee Evans | GitHub |
| OhdsiShinyAppBuilder | v1.0.0 | Jenna Reps | CRAN |
| OhdsiShinyModules | v1.3.0 | Jenna Reps | GitHub |
| ParallelLogger | v3.5.0 | Martijn Schuemie | CRAN |
| PatientLevelPrediction | v6.3.0 | Egill Friogeirsson & Jenna Reps | CRAN |
| PhenotypeLibrary | v1.16.0 | Gowtham Rao | GitHub |
| Phyloepator | v2.2.15 | Joel Swerdel | GitHub |
| ResultModelManager | v0.5.12 | Jamie Gilbert | CRAN |
| ROhdsiWebApi | v1.3.3 | Gowtham Rao | GitHub |
| SelfControlledCaseSeries | v6.1.0 | Martijn Schuemie | CRAN |
| SelfControlledCohort | v1.6.0 | Jamie Gilbert | GitHub |
| ShinyAppBuilder | v2.2.0 | Jenna Reps | Deprecated |
| SqlRender | v1.16.3 | Martijn Schuemie | CRAN |
| Strategus | v1.4.1 | Anthony Sena | GitHub |
| TreatmentPatterns | v3.1.1 | Maarten van Kessel | CRAN |

# Upcoming events

## Join Us At The Inaugural OHDSI Africa Symposium

**Nov. 10-12, 2025 • Joint Clinical Research Centre (JCRC) & Mestil Hotel Kampala**





The inaugural OHDSI Africa Symposium will be held in Kampala at the Joint Clinical Research Centre (JCRC) and Mestil Hotel. Our community is delighted to introduce a new face-to-face opportunity in Africa, where OHDSI is growing at an exciting pace. We hope you will join us for this historical moment.

The first OHDSI Africa symposium will be hosted by JCRC and will begin with a dedicated one-day training course at JCRC, followed by a two-day main conference at Mestil hotel. Below are some important dates for you to save to your calendar:

**Collaborator Showcase**
- Submissions deadline: September 10
- Submissions review: September 11-30
- Notification of acceptance: October 5

**Symposium**
- Tutorial: November 10 at JCRC
- Main conference: November 11-12 at Mestil Hotel

**Mestil Hotel Accommodations**
**Booking Code:** JCRC
**Booking Link:** https://direct-book.com/properties/MestilDIRECT?promotion_code=JCRC25

## 2025 OHDSI APAC Symposium

**December 6-7 • Shanghai Jiao Tong University, China**

The 2025 OHDSI APAC Symposium will be held in Shanghai, China at the Shanghai Jiao Tong University featuring a 1-day tutorial and a 1-day main conference. Here are some important dates for you to save to your calendar:

**Collaborator Showcase**

# Support The Journey

**The OHDSI community comprises a global team of volunteers who collaborate together using open-source tools and share best practices to support our shared mission of generating real-world evidence that promotes better health decisions and better care.**

**In order to foster growth in our community, the OHDSI Coordinating Center at Columbia University has created a sponsorship program and an advisory board. These programs allow both corporations and individuals to make meaningful contributions in support of OHDSI's central coordinating activities. Any amount of support enhances both our community and our mission.**

**If you are interested, please reach out to sponsorship@ohdsi.org.**

## Coordinating Center Support

- Provides central shared infrastructure and coordinates community activities to enable collaborations that advance OHDSI's mission
- Leads Steering Workgroup to provide guidance and support to enable the community to collaboratively generate evidence and the scientific work products necessary to generate evidence
- Supports current OHDSI leaders (workgroups, regional chapters, network studies, etc.) to achieve their objectives by communicating ongoing activities and successful accomplishments, encouraging participation and collaboration throughout the community, and empowering future leaders
- Maintains infrastructure and provides support to connect collaborators with collaboration opportunities
- Encourages more visitors to become collaborators
- Provides open access to OHDSI evidence and work products, including:
  - Distributing standardized vocabularies
  - Supporting open-source software with permissive licenses
  - Encouraging open sharing of study design and implementation
  - Maintaining open access to study results

## Advisory Board

Columbia University recently created the Advisory Board of Columbia OHDSI program.

The goal of the OHDSI Advisory Board is to ensure OHDSI operates according to the established values, vision, and mission. A seat on this board costs $100,000 per year. These funds are used to support costs associated with running OHDSI, including but not limited to programming and knowledge engineering support for the OHDSI vocabulary, cloud service management, data analytics, and the annual OHDSI conference. OHDSI Advisory Board members advise on OHDSI planned activities including vocabulary priorities, annual research initiatives, and tool development. **We thank Amgen for being the first member of our Advisory Board.**

**If you are interested in learning more or in joining the board, please email George Hripcsak: hripcsak@columbia.edu.**

## Coordinating Center Responsibilities

**Steward open community data standards**

*- vocabularies*
*- OMOP CDM*
*- support adoption in large multi-center initiatives*
*- foster external collaborations (HL7)*

**Enable open-source development**

*- host servers to enable development and continuous tool testing*
*- GitHub repo support*
*- support ATLAS demo*
*- create central infrastructure*

**Facilitate methods research & clinical applications**

*- host ATLAS collaboration environment*
*- support Evidence Network and ongoing network studies*
*- lead studies and develop tools*

**Encourage open sharing & evidence dissemination**

*- host OHDSI RShiny servers for open sharing of results (more than 230 Shine applications, including LEGEND)*
*- built results.ohdsi.org*

**Foster collaboration & empower community**

*- host and fund annual Global Symposium*
*- maintain forums, MS Teams*
*- facilitate weekly community calls, website, all other communications*

**Coordinating Center Costs: >$1M annually**

# OHDSI 2025 Symposium agenda today

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

| Time (ET) | Topic |
|---|---|
| 2:45 pm - 3:30 pm | Collaborator Showcase Poster/Software Demo Session #2 |
| 3:30 pm - 4:15 pm | Collaborator Showcase Poster/Software Demo Session #3 |
| 4:15 pm - 5:00 pm | Collaborator Showcase Lightning Talk Session #2<br>Moderator: Ben Martin, Johns Hopkins University<br>Causal Inference with Multi-Modal Foundation Models: A Case Study of Anti-VEGF Injections in Diabetic Macular Edema<br>Linying Zhang, Washington University in St. Louis<br>LATTE: A One-shot Lossless Algorithm for Federated Target Trial Emulation with Application to Alzheimer's Disease and Related Dementia Drug Repurposing Using Decentralized Data<br>Lu Li, University of Pennsylvania<br>From Data Quality to Clinical Quality – Episodes as Enablers for Next Generation Dashboarding<br>Georgina Kennedy, Ingham Institute for Applied Medical Research<br>Heterogeneity of Treatment Effects Across Nine Glucose-Lowering Drug Classes in Type 2 Diabetes: Extension of the LEGEND-T2DM Network Study<br>Hsin Yi "Cindy" Chen, Columbia University<br>DARWIN EU® – A multi-national network cohort and self-controlled case series study of the effect of doxycycline versus active comparators on the risk of suicidality in individuals with acne<br>Katia Verhamme, Erasmus MC |
| 5:00 pm - 6:00 pm | Titan Awards, Wednesday Closing Activity<br>Patrick Ryan, Johnson & Johnson, Columbia University; George Hripcsak, Columbia University; Marc Suchard, UCLA |
| 6:00 pm - 6:15 pm | Group Photo |
| 6:15 pm - onward | Free Time |

# OHDSI 2025 Symposium agenda tomorrow Workgroups

| Start | End | THURSDAY, OCT. 9 WORKGROUP SCHEDULE | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 | 8:00 | Lite Breakfast and Exhibits | | | | | | | | | | |
| 8:00 | 9:00 | Africa Chapter | APAC Chapter | Medical Imaging | Geographic | HADES | Atlas | Common | Oncology | Phenotype | Dentistry Workgroup | Latin America |
| 9:00 | 10:00 | | | | | | | | | | | |
| 10:00 | 10:30 | 30-Minute Break | | | | | | | | | | |
| 10:30 | 11:30 | Perinatal & Reproductive Health | Industry Workgroup | Early-Stage Researchers | Information System | Hackathon | WebAPI | Data Model | Workgroup | Evaluation | Vocabularies | Natural Language Processing |
| 11:30 | 12:30 | | | | | | | | | | | |
| 12:30 | 13:30 | Buffet Lunch and Exhibits | | | | | | | | | | |
| 13:30 | 14:30 | Surgery & Perioperative Medicine | Eyecare & Vision Research | Medical Devices | Psychiatry Workgroup | HADES Hackathon | Health Equity | Evidence Network Data Partners | Rare Disease | Women of OHDSI | CDM Survey | |
| 14:30 | 15:30 | | | | | | | | | | | |
| 15:30 | 16:30 | Workgroup Summary Session - Regency Ballroom | | | | | | | | | | |
| 16:30 | 17:00 | | | | | | | | | | | |

# Don't forget to vote

## BEST CONTRIBUTION TO THE SHOWCASE VOTING FORM

**SCAN QR CODE FOR IMPORTANT LINKS:**

**OHDSI SYMPOSIUM AGENDA**

**SCHEDULE OF EVENTS**

**COLLABORATOR SHOWCASE HANDOUT & DIAGRAMS**

**THURSDAY WORKGROUP DIAGRAMS**

**BEST CONTRIBUTION TO THE SHOWCASE VOTING FORM**

**SYMPOSIUM EVALUATION FORM**

# Truth in Science

- Truth in science has been a common topic in the news recently. OHDSI was founded to promote truth in science and trust in results. What are the ingredients that lead to truth? Here is what I came up with. Some are for science in general, and some are more specific to observational research.

# Desire

- You have to desire truth to obtain it. If you don’t want the truth, then science will do nothing for you.

# Doubt

- Even if you desire truth, if you think you already have it, then you are done. Science cannot help you unless you doubt your own position and are open to other conclusions.

# Temptation

- Human nature and the unconscious mind being what they are, if you make cheating possible, you will do it. Only through pre-specification of the design of the experiment can you avoid the temptation of embarking on an iterative tour straight to your original suspicion or hope.

# Judgment

- Every step of an experiment should be judged for accuracy and reliability through diagnostics, replacing mere assertion of competence.

# Generosity

- You must share your data, your methods, and your software so that others can replicate the experiment.

# Perspective

- An important way to tell if this experiment is true is to try different data, approaches, context, methods, and related hypotheses to study the operating characteristics of your study and triangulate to a more stable result.

# Reach

- In medicine, you need to account for variation in the human population and reach around the world to uncover true differences.

# Honesty

- You can’t just publish your positive results or they become valueless because others won’t know how many experiments it took to get this one, undermining the logic of statistical inference. You must also disclose the results of your diagnostics.

# Truth in Science

- This may seem too high a bar for practical science. For whatever reason, the first four people who popped into my mind were: George Washington, who despite his involvement in slavery, stepped away from a third term as president and set the pace for a new nation that would become a world leader; Martin Luther King, Jr. for his pursuit of truth and fairness despite the sacrifice; Mahatma Gandhi and his satyagraha, or devotion to truth; and, more recently, Pope Francis for the direction he set.
- The toughest part of truth in science is not about the science.

# Civil court

- Trademark infringement
- Science versus debate

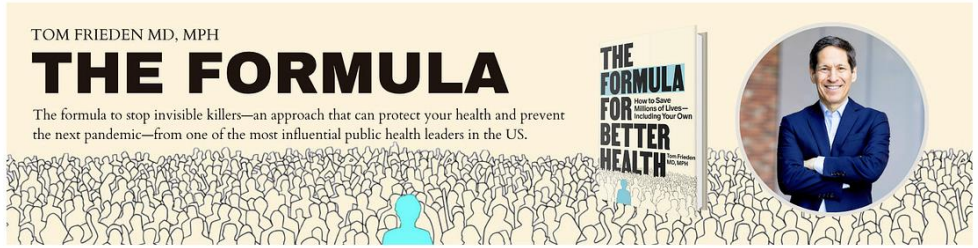
# Climate debate

- Use the same tactic in climate
- Show legitimate flaws in an argument
  - E.g., that something is unsettled
- Then use debate to push forward a side, not backed by science

# Diuretics in hypertension

- In 2023, presented the story of hydrochlorothiazide (HCTZ) versus chlorthalidone
  - HCTZ favored as effective with few side effects
  - Chlorthalidone longer lasting, more potent
    - Effort to bring chlorthalidone back
    - Limit grants to chlorthalidone, indirect meta-analysis
  - 2020 OHDSI LEGEND study shows equal effectiveness and HCTZ safer
    - Letter by Tom Frieden and others dispute it
  - 2022 VA RCT confirms OHDSI
    - 4 other large-scale observational studies agree
  - The research field largely ignores the RCT, saying it must be flawed
    - UpToDate favors chlorthalidone

# Diuretics in hypertension: you can convince people




## How to Know What's Most Likely to Save Lives

A window into the challenge of technical rigor

TOM FRIEDEN
JUL 9

READ IN APP

Some researchers insist that randomized controlled trials are the gold standard of evidence.

They're wrong.

RCTs are great, but for many health questions, an RCT isn't practical and isn't the most reliable source of knowledge. RCTs can't measure outcomes that require many years of follow-up. For rare diseases, there aren't enough patients. An RCT from years ago might not apply today.

RCTs not gold standard of evidence

I was especially interested in a study launched by the U.S. Veterans Administration: a cluster-randomized trial comparing chlorthalidone to hydrochlorothiazide. It was clever, well-designed, and had the potential to settle the question as the first-ever direct comparison of the two drugs. I waited years for the results, fully expecting it would confirm our position.

But it didn't.

The trial showed no difference—not in survival, not in rates of heart attack or stroke. I was glad we had always qualified our recommendation, noting that chlorthalidone *might* be better, but that the evidence wasn't definitive.

Then I spoke to one of the best hypertension experts in the world. He dismissed the trial. He pointed out limitations—including trial duration, crossover design, maybe underpowering—and stood by his view that chlorthalidone was better. Our team looked at the data carefully. Another large study, involving hundreds of thousands of patients, also found no difference. Our conclusion? If chlorthalidone were much better, that difference likely would have shown up even with the study weaknesses.

OHDSI

Bottom line: We still don't know for sure which is better, but we no longer recommend chlorthalidone over hydrochlorothiazide. The evidence just isn't strong enough.

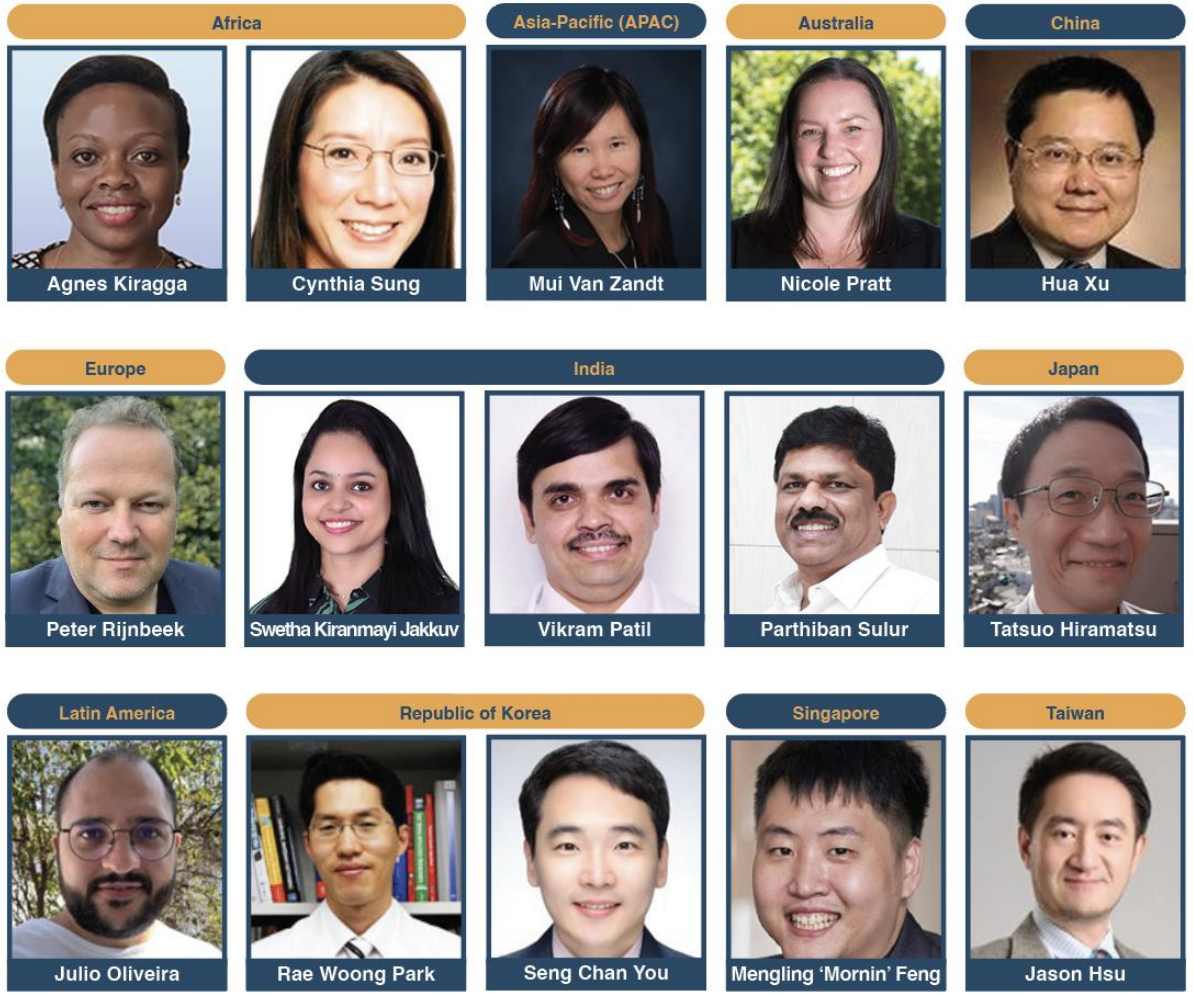
# Truth in Science

- OHDSI's job is not to debate or try to convince those who don't want the truth
- OHDSI's job is to supply truth to those who want to know, so they can bolster their arguments and win debates
- Eventually, truth wins

# Truth in Science

- As long as OHDSI exists, it will stand for truth.

# International leaders

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| **Denmark** | Ismail Gögenur, Martin Høyer Rose, Andreas Weinberger Rosen |
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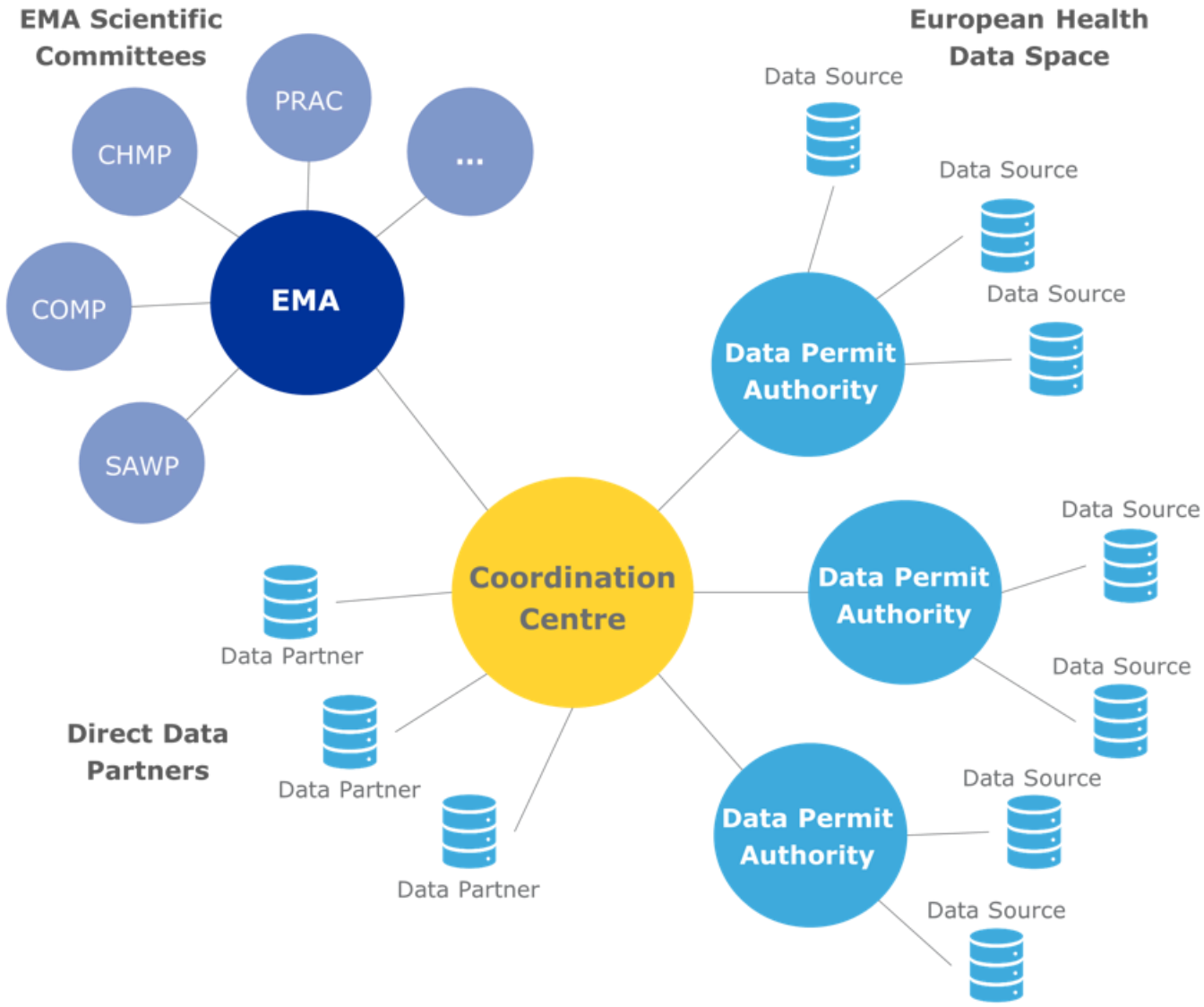
| **Switzerland** | Olga Endrich, Karen Triep |
| **United Kingdom** | Dani Prieto-Alhambra |
| ***coming soon*** | *Austria, Sweden* |

# Peter Rijnbeek – DARWIN-EU

# Data Analysis and Real World Interrogation Network (DARWIN EU®)

A paradigm shift for the use of real-world health data for regulatory purpose in the EU

DARWIN EU® is a federated **network** of **data**, **expertise** and **services** that supports better decision-making throughout the product lifecycle by generating reliable **evidence from real world healthcare data**



# Impact: Report on regulatory-led studies using real-world data, June2025


**2022**
**4** studies initiated

**2023**
**19** studies initiated

**2024**
**47** studies initiated

**2025**
**~100** studies initiated

**30 Data Partners** as of Feb 2025 (~ +10 by end of Feb 2026) in **16 European countries**

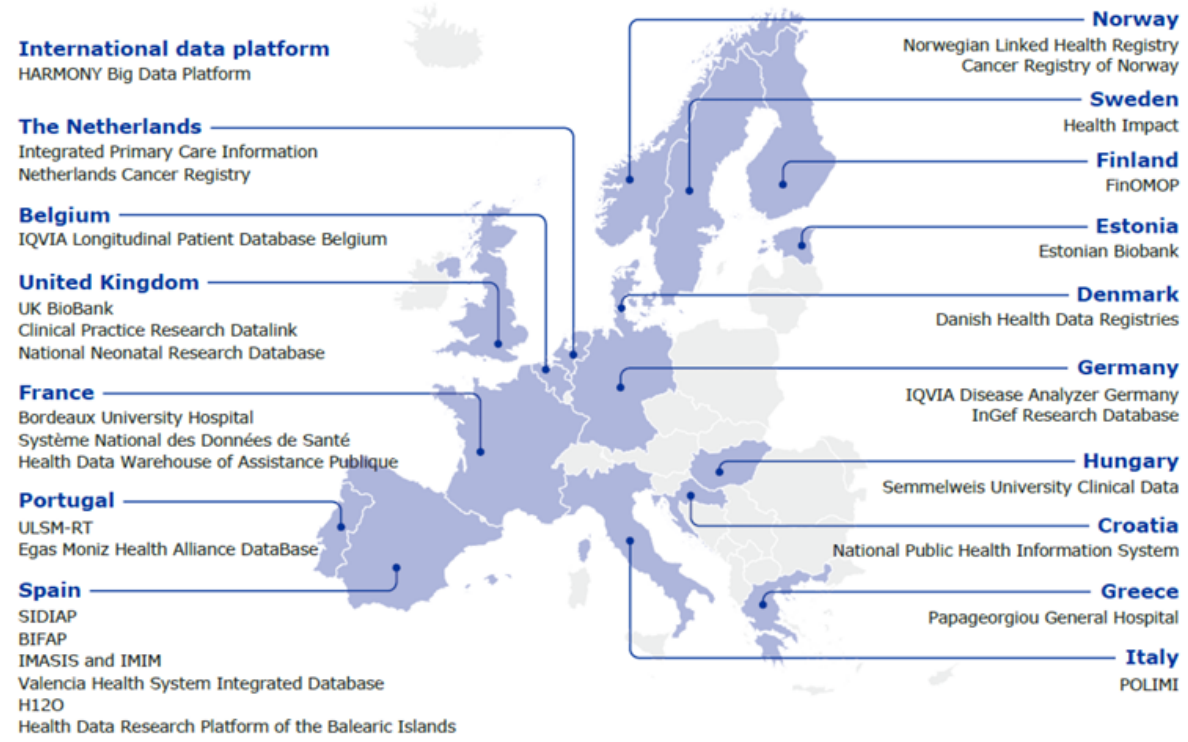



Figure 11 DARWIN EU Network as of February 2025

https://www.ema.europa.eu/en/about-us/how-we-work/data-regulation-big-data-other-sources/real-world-evidence

# Liesbet Peeters – OHDSI Europe

OHDSI EUROPE SYMPOSIUM 2025


https://drive.google.com/file/d/1_4Tb5EQiKq9D2uLndya8YA37HqxRH6tv/view

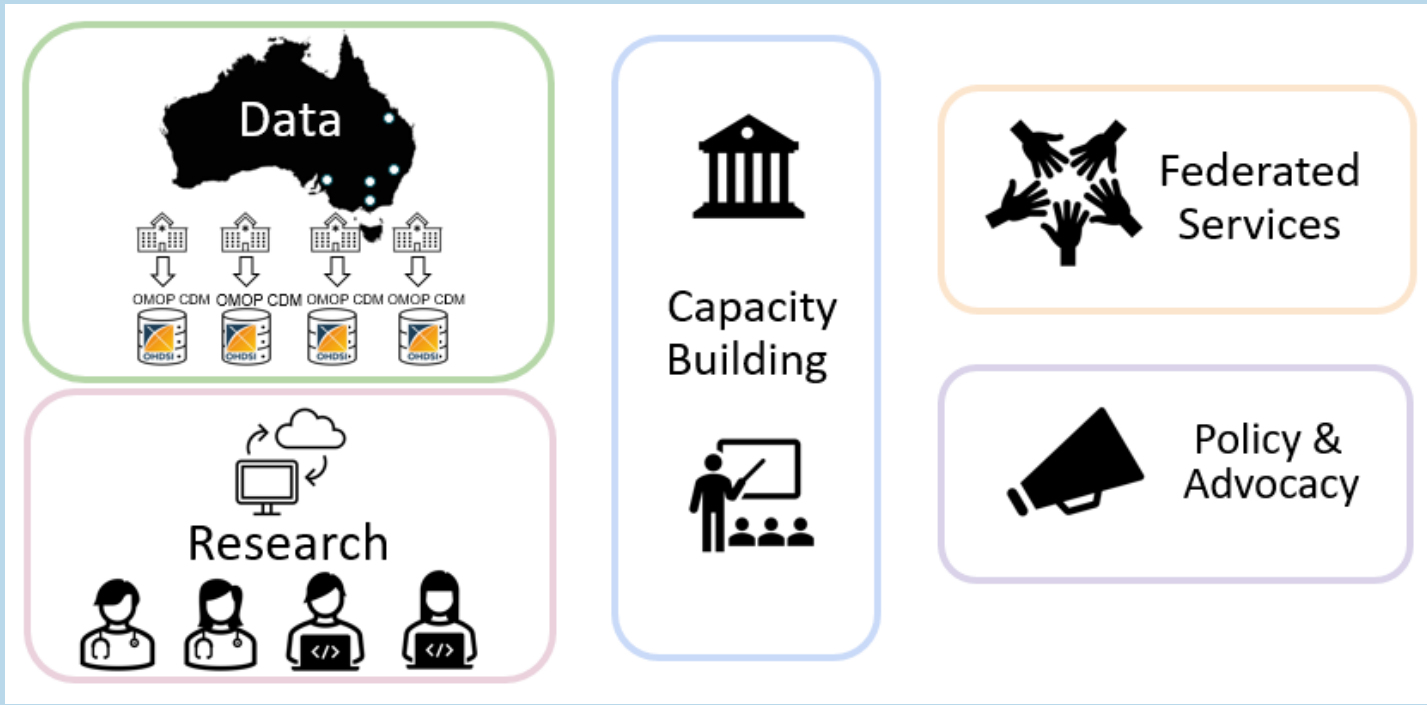
# Nicole Pratt – AHDEN

# AHDEN

## The Australia Health Data Evidence Network


Supporting the transformation of hospital-based Electronic Medical Record (EMR) data to the OMOP CDM

Enabling researchers to generate insights efficiently without compromising data security or privacy




Building a national data infrastructure for standardised, federated health data research

Australian Research Data Commons

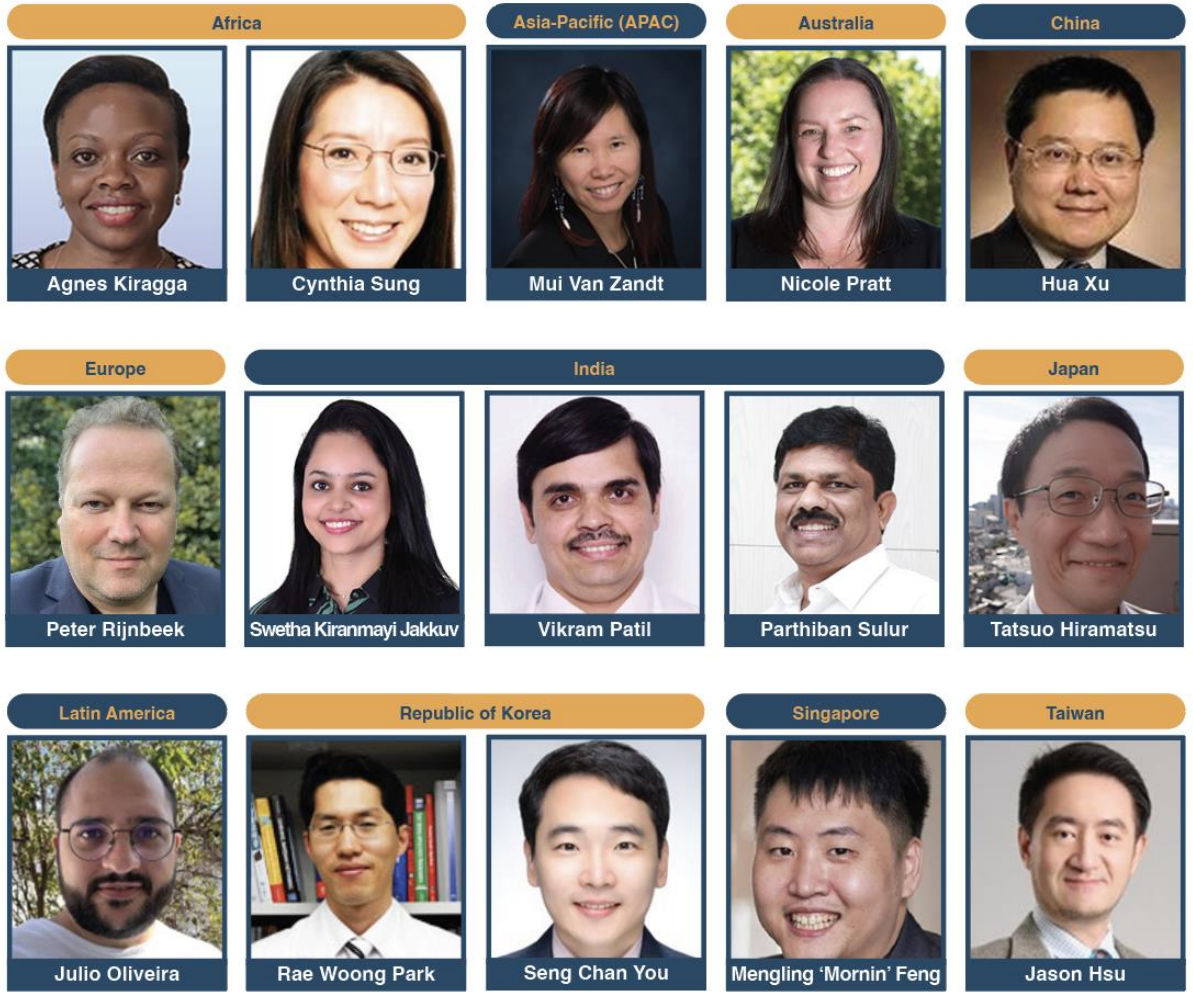
Australian Government

NCRIS National Research Infrastructure for Australia

ARDC is enabled by NCRIS

https://ardc.edu.au/project/australian-health-data-evidence-network-ahden/

# International leaders

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