

OHDSI 2025 Year in Review

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Please share your reflections- comments, questions, highlights, lowlights, and other observations- on OHDSI in 2025

Nobody has responded yet.

Hang tight! Responses are coming in.

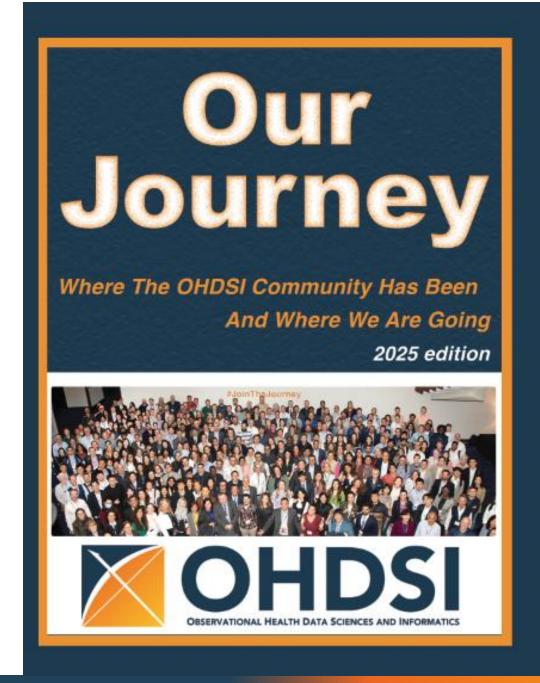




OHDSI's mission

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





OHDSI collaborators **OHDSI By The Numbers** • 4,833 collaborators • 88 countries • 9,417 followers on LinkedIn • 21 time zones • 6 continents • 1 community



Regional chapters and national nodes





























Republic of Korea





Taiwan



Node.....Lead(s)

Belgium Liesbet Peeters, Annelies Verbiest. Ilse Vermeulen Finland Eric Fey, Gustav Klingstedt Germany Ines Reinecke, Michele Zoch Hungary Zsolt Bagyura, Ágota Mészáros Italy Lucia Sacchi, Matteo Gabetta Netherlands Renske Los, Aniek Markus Norway...... Espen Enerly, Siri Larønningen Portugal Patricia Couceiro, Carmen Noqueira Spain.......Miquel Angel Mayer, Talita Duarte Salles Switzerland Olga Endrich, Karen Triep United Kingdom Dani Prieto-Alhambra

coming soon





Europe Symposium • July 5-7 • Hasselt, Belgium





UK Symposium • Sept. 26 • London









Global Symposium • Oct. 20-22 • New Brunswick, N.J.



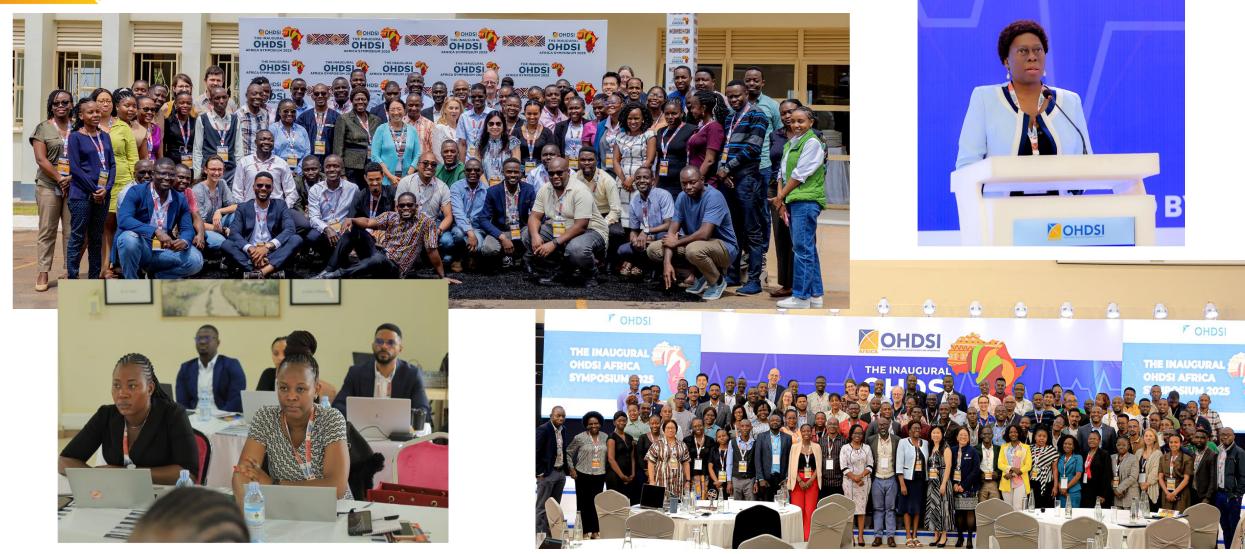


OMOP 4 Sweden • Nov. 5 • Stockholm, Sweden





Africa Symposium • Nov. 10-12 • Kampala, Uganda





Pan-Canadian OMOP Event Nov. 17-18 Toronto, Can.



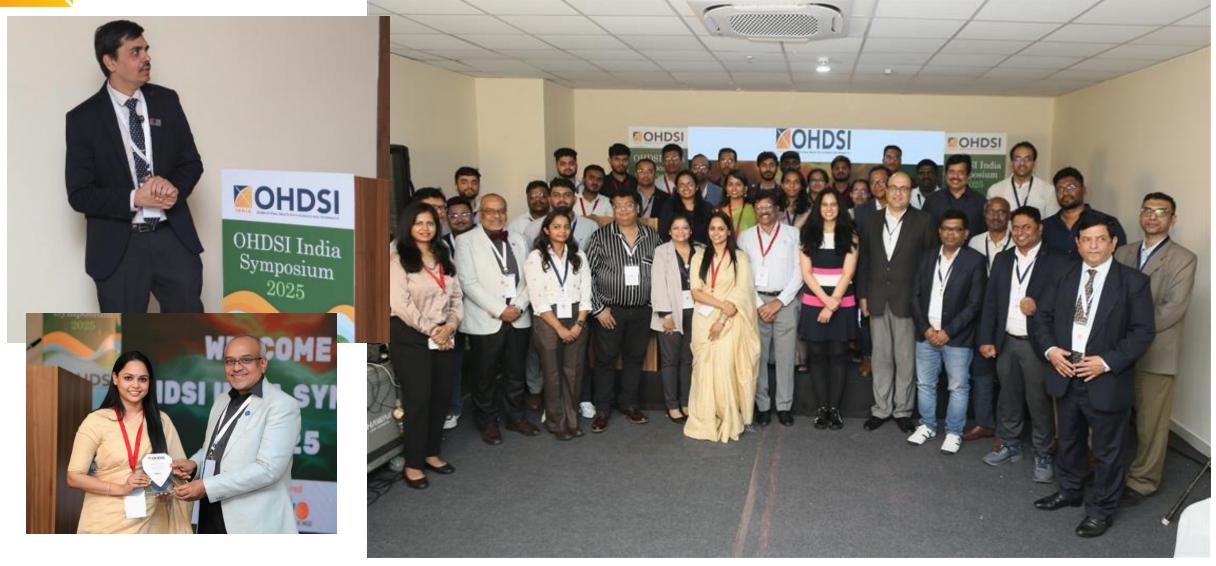








India Symposium • Dec. 2 • Bangladore, India

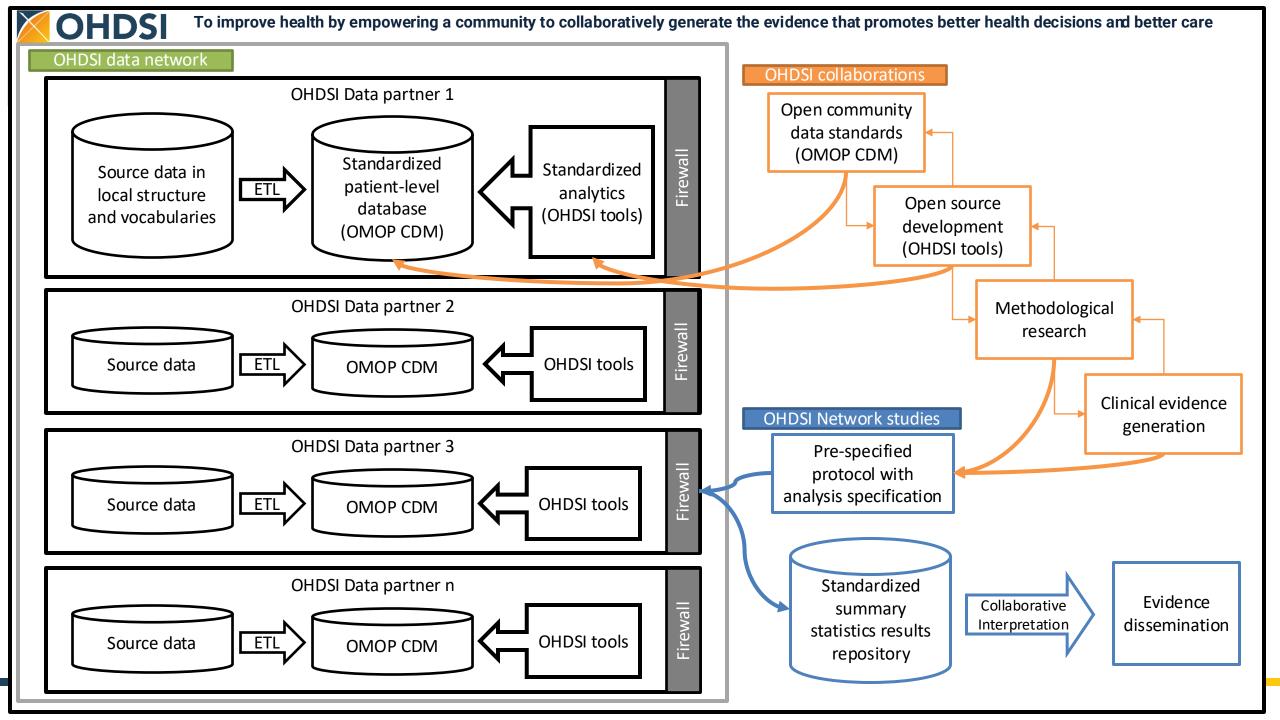




APAC Symposium • Dec. 5-7 • Shanghai, China

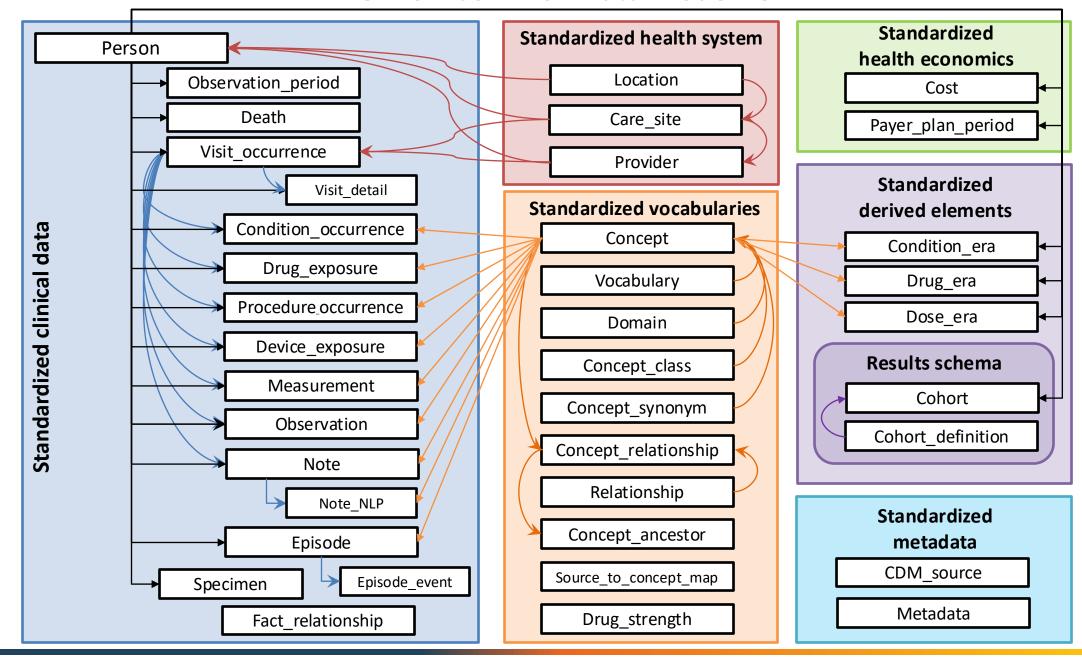








OMOP Common Data Model v5.4



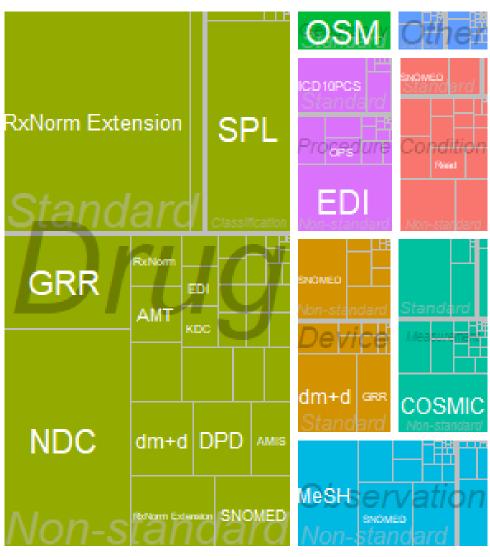


OMOP Common Data Model adoption





OHDSI standardized vocabularies

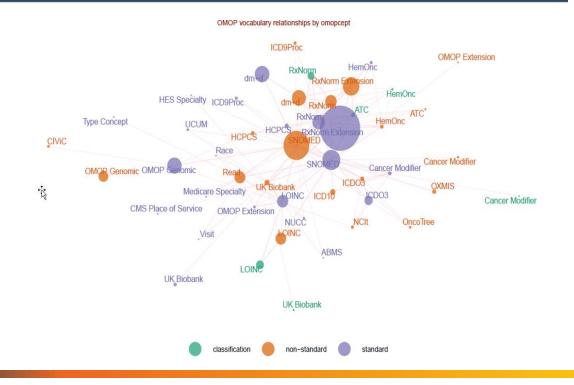


OHDSI Vocabularies By The Numbers

as of August 2025 release

- 11,804,307 concepts
- 87,948,636 concept relationships
- 3,784,263 standard concepts971,914 classification concepts
- 101,696,159 ancestral relationships
- 145 vocabularies
- 6,028,711 concept synonyms

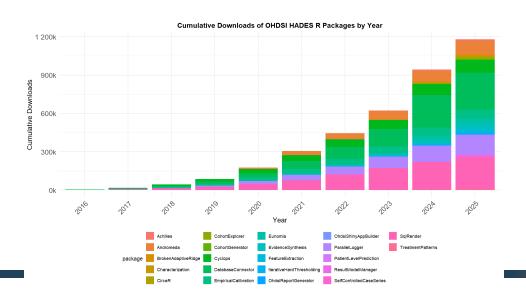
- 43 domains
- 1 Shared Resource to Enable Data Standards





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	V5.7.2	Frank DeFalco	CRAN
Andromeda	V3.2.1	Martijn Schuemie	CRAN
Bisto	V3.9.Z	Martijn Schuemie	GitHub
BrokenAdaptiveRidge	V1.7.1	Marc Suchard	CRAN
Caor	y2.1.0	Martin Lavallee	GitHub
Characterization	y2,2.0	Jenna Reps	CRAN
CirceR	v1.3.3	Chris Knoll	CRAN
Cohortbiagnostics	¥3,4,2	Jamie Gilbert	GitHub
CohortExplorer	90.L0	Gowtham Rao	CRAN
CohortGenerator	vil. 12.3	Anthony Sena	CRAN
Cohortincidence	94.1.0	Chris Knoll	GitHub
CohortMethod	V5.5.D	Martijn Schuemie	GitHub
Cyclons	v3.6.0	Marc Suchard	CRAN
DatabaseConnector	v6.4.0	Martijn Schuemie	CRAN
DataQualityQashboard	V2.7.0	Katy Sadowksi	GitHub
DeepPatientLevelPrediction	v2.2.0	Egill Fridgeirsson	GitHub
EmpiricalCalloration	∨3.1.¢	Martijn Schuemie	CRAN
EnsemblePatientLevelPrediction	vt.12	Jenna Reps	GitHub
Eunomia	V2.1.0	Frank DeFalco	CRAN
EvidenceSynthesis	v1.0.0	Martijn Schuemie	CRAN
FeatureExtraction	VX 11.6	Ger Inberg	CRAN
nydra	+0.40	Anthony Sena	Deprecated
terativeHardThresholding	v1.03	Marc Suchard	CRAN
Kesper	40.21	Anna Ostropolets	GitHub
MethodEvaluation	v2.40	Martijn Schuemie	GitHub
OndsiReportGenerator	¥1.1.1	Jenna Reps	CRAN
OhdySharing	50 £ 2	Lee Evans	Gittiub
OhdsShinvApoBuilder	V1.0.0	Jenna Reps	CRAN
OhdsShinyModules	v3.30	Jenna Reps	GitHub
ParallelLogger	v3.50	Martijn Schuemie	CRAN
PatientLevelPrediction	v6 50	Egill Friogeirsson & Jenna Reps	CRAN
Phenotypetilbrary.	V3.38.0	Gowtham Rao	GitHub
Phenological	v2.2.15	Joel Swerdel	GitHub
ResultModelManager	H111	Jamie Gilbert	CRAN
ROhds/WebApi	v1.33	Gowtham Rao	GitHub
SelfControlledCaseSeries	v6.10	Martijn Schuemie	CRAN
SelfControlledCohort	v1.60	Jamie Gilbert	GitHub
ShinyAppBuilder	v2.20	Jenna Reps	Deprecated
SqiRender	v1,19.3	Martijn Schuemie	CRAN
Strategus	VIAL	Anthony Sena	GitHub
TreatmentPatterns	v2.1.1	Maarten van Kessel	CRAN

The open-source tools that empower OHDSI research are not only available to the community, but they are DEVELOPED by the community. We thank the many developers

who empowe initiatives around the world!





























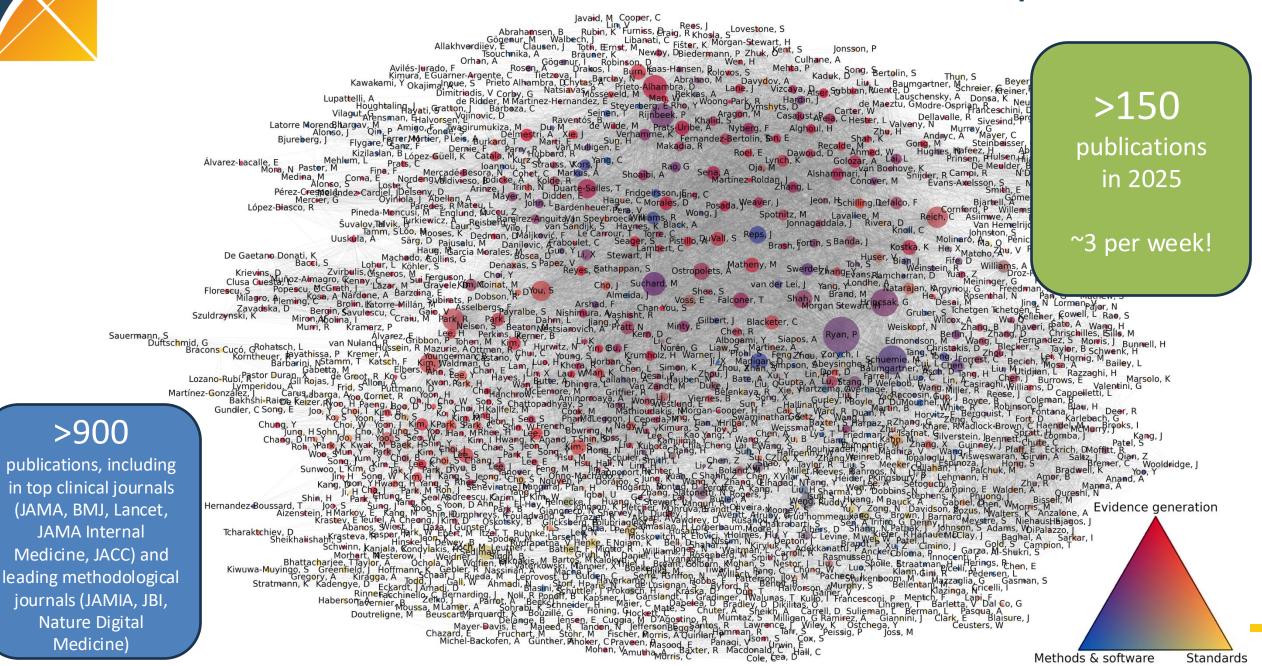






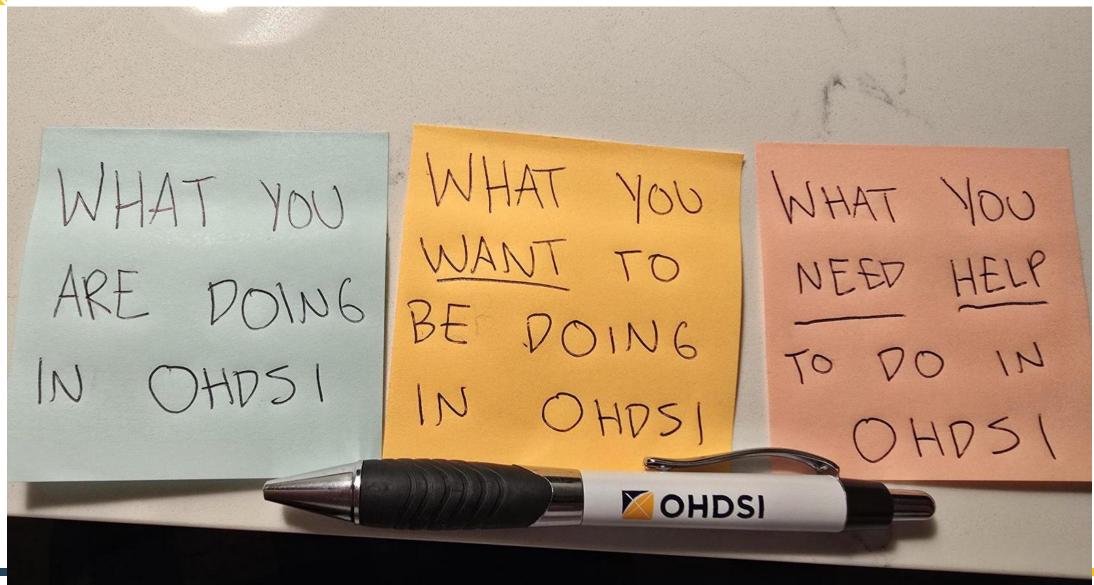


OHDSI collaborations in scholarship





2025 Global Symposium post-its





WHAT YOU ARE DOING IN OHDSI METHODS RESEARCH IN EXPLORING HETEROGENIETY ACROSS THE OHDSI EVIDENCE NETWO -Patrick, USA Tyan Cohding



WHAT YOU WANT TO BE POING IN OHDSI BUILD THE WORLD'S PHARMACOVIGILANCE SYSTEM FOR ALL PRUGS AND ALL HEALTH OUTCOMES - Patrick, USA - Tyan B. ohdsi. org



WHAT YOU NEED HELP TO DO IN OHDSI NEED MORE PATA PARTNERS TO ZOIN THE OHOS! EUPENCE NETWORK TO IMPROVE PRECISION AND ACCURACY OF OUR EVIDENCE FROM STUDIES
-Patrick, USA -Tyan @ dhdsi. as















Dentistry
Workgroup
is cool ?

Julie

Juliechal23

Agmail.

Learn about the medical imagina Julie Cha 123 Dgmail.com





MATTHEW MCD ERMOTT mm 66 77 @ cumc. columbia. edy DESIGN PREDICTION TASKS & TRAZN MANY AI ALGORITHMS MATTHEW MCD ERMOTTS MM6677 @ Cumc, columbia, edu DESIGN PREDICTION TASKS & TRAZN MANY AI ALGORITHMS

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TASKS & TRAIN

MANY AI ALGORITHMS



Scheduled nap time during Symposium



CONDUCTIONORSE

NETWORK STUBBES

SYMPOSITY (- HAWAII

Calex.asiinue@gilead.a.)

ALEX ASIIMUR

Next OHDSI global Symposium in Hawaii bbb Hawaii bbb

NEED HELP
FUNDING OHDSI
EG, ADVISORY BOARD
MEMBERS
hripsak@columbia
GeorpHuipsak@columbia



What GPT and I did together

- I read and scanned 732 post-its
- Wrote a R script to read the post-it images and perform OCR for text extraction and color recognition using GPT4.1
- Prompted GPT5.1 to give summary of themes from all of your statements of what you ARE doing, WANT to be doing, and NEED HELP to do
- I edited (lightly) the GPT summary for presenting here today



1. OMOP CDM Expansion & Data Network Growth

Across all prompt types, one of the strongest themes is a desire to:

- Bring more data partners into the network
- Improve ETL pipelines, data quality, and standardization
- Increase expertise in OMOP vocabularies, mappings, and tools
- Support organizations converting their first dataset to OMOP

Shared Community Need:

Hands-on support for CDM conversion, quality assessment, vocabularies, and sustaining new data nodes.



2. AI, Machine Learning, and GenAI in OHDSI

A strong cluster focuses on:

- Using AI/ML for prediction, phenotyping, clustering, and causal inference
- Applying GenAl for study design, evidence summarization, and automation
- Building capacity for responsible AI in health research

Shared Community Need:

Training, best practices, example pipelines, and guidance on integrating AI methods with OHDSI tools.



- 3. Methods Research: Causal Inference, RWE, and Study Design Many statements emphasize:
- Advanced methods development (doubly robust estimation, trajectories, temporal models)
- Improving RWE credibility and supporting regulatory-grade studies
- Strengthening large-scale network study pipelines

Shared Community Need:

Methodologic mentoring, shared code libraries, and more cross-project collaboration on study design execution.



4. Education, Community Learning, and Capacity Building

A major cluster captures interest in:

- Learning how to "do OHDSI" tools, methods, ETL, network studies
- Building local training programs at universities and institutions
- Developing curricula and workshops for new users
- Mentoring and pairing novices with experienced contributors

Shared Community Need:

Structured education pathways, starter kits, and mentorship programs.



5. Expansion into Specialized Clinical Domains

Many notes name domain areas participants currently work in or want to expand into, including:

- Psychiatry
- Oncology
- Cardiology
- Genomics
- Rare disease
- Eye care / ophthalmology
- Pharmacy / medication safety
- Social determinants of health
- Claims + EHR hybrid datasets

Shared Community Need:

Domain-specific phenotypes, expert-led working groups, and reference study packages.



6. Phenotyping, Concept Sets, and Vocabulary Challenges

A dense cluster centers on:

- Creating reliable, scalable phenotypes
- Sharing and improving concept sets
- Learning vocabulary structure (SNOMED, RxNorm, LOINC, ATC)
- Needing help interpreting mapping decisions

Shared Community Need:

A more curated phenotype library, clearer vocab guidance, and community review workflows.



7. Infrastructure, Tools, and Analytics Workflows

Participants frequently mention:

- Improving analytic environments (preferably open-source, cloud-based)
- Deploying ATLAS, HADES, Arachne, or local alternatives
- Wanting smoother pipelines for ETL → DQ → study execution
- Better onboarding to OHDSI tooling

Shared Community Need:

Hands-on support installing tools, plus cloud-based templates and managed environments.



8. Collaboration, Governance, and Funding

A recurring meta-theme:

- Desire for more collaboration across institutions, especially internationally
- Interest in joint grant-writing
- Need for support navigating data governance, sharing rules, and IRB processes

Shared Community Need:

Facilitation of cross-site working groups, templates for governance, and mechanisms for funded collaboration.



What people are currently doing

- OMOP conversions + early network studies
- Methods development
- Domain-specific analyses
- Teaching or learning OHDSI foundational skills

What people WANT to be doing

- Advanced analytics (AI/ML, causal inference, trajectories)
- Larger network studies
- Contributing phenotypes and methods
- Engaging in international collaboration
- Establishing local OHDSI hubs

Where people NEED HELP

- Vocabularies + concept sets
- ETL and data quality
- Study execution (ATLAS/HADES)
- Methods mentoring
- Concrete examples and reproducible code



Workgroups led by community



@ www.ohdsi.org/workgroups



Workgroup leader year-in-review summary

- What were your workgroup's Objectives and Key Results (OKRs) for 2025?
- How well did your workgroup accomplish its OKRs?
- What was your workgroup's main accomplishment in 2025?
- What was your workgroup's main miss in 2025?
- What lessons learned from your workgroup would you like to share with the community in terms of ways of working (good, bad, or indifferent)?
- Does your workgroup intend to continue in 2026? [All n=28 respondents said 'yes']
- What can the OHDSI Steering WG be doing to help you?

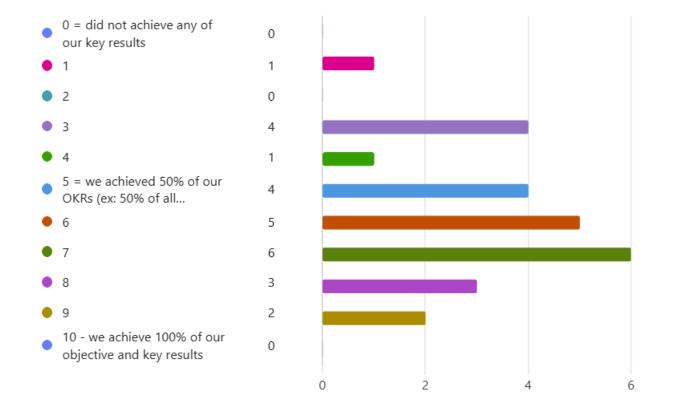


Workgroup leader year-in-review summary

4. How well did your workgroup accomplish its OKRs? On a scale from 0 = did not a chieve any of our OKRs; 10 = we achieve 100% of our OKRs

(guidance: score each O based on average of KRs achieved, then average across O s)

More details





Workgroup leader year-in-review summary: What OHDSI Workgroups Accomplished in 2025

A. Maturing Technical Assets and Standards

- Improving vocabulary quality, processes, and documentation
- Advancing **ETL guidance**, including examples, templates, and shared artifacts
- Moving forward on **Themis conventions**, domain reviews, and issue consolidation
- Creating or updating analytics code, pipelines, and reusable tools

This indicates that the OHDSI technical stack continues to harden, becoming more robust and easier for newcomers to adopt.

B. Deepening Global Community Engagement

- Growing international participation
- Training, onboarding, and outreach activities
- Building bridges with external communities (e.g., openEHR, regulators, trialists)

This shows OHDSI's continued scaling as a global open-science ecosystem.

C. Launching or Advancing Collaborative Initiatives

- Developing shared testbeds (e.g., clinical trials datasets)
- Standardizing evaluation frameworks
- Running working sessions, workshops, and structured collaboration processes
- Producing educational materials or documentation

The sense is that OHDSI is increasingly organizing around "shared work" rather than discussion alone.



Workgroup leader year-in-review summary: Opportunities for Improvement

A. Insufficient Dedicated Technical Contribution

- Lack of engineers / developers
- Few people able to commit regular time
- Volunteers with limited bandwidth

This is the **single most universal pain point**.

- B. Slow Progress Due to Limited Participation or Follow-Through
- Meetings with good attendance but few people doing work between meetings
- Difficulty sustaining momentum
- Dependence on a few highly active individuals

This reflects a volunteer-driven model struggling at OHDSI's scale.

C. Lack of Clear Ownership, Roadmaps, and Execution Structure

- Ambiguous roles
- No "product owner" for key deliverables
- Overly broad scopes
- Fragmentation of similar efforts across groups

This signals a need for more intentional governance and operating models.

D. Insufficient Standardized Processes

- Missing unified conventions
- No central repository for certain artifacts
- Difficulty coordinating across related workgroups (e.g., vocab + Themis + data standards)

This limits the ability to build **repeatable**, **reproducible**, **sharable** work products.



Workgroup leader year-in-review summary: What's Needed (from the Steering WG?)

A. Strategic Direction & Prioritization

- Clearer global OHDSI priorities
- A shared roadmap that aligns workgroups
- Guidance on where to focus limited resources

Groups want top-down direction—not to constrain them, but to empower them.

- B. Help with Participation, Recruitment, and Visibility
- Publicizing workgroup activities
- Helping attract contributors with needed skills
- Coordinated onboarding pathways for new members

The community needs **better talent matching** and **pipeline building**.

C. Support for Cross-Group Coordination

- Mechanisms to align with related groups
- Shared communication channels for dependencies
- Avoiding duplicated or conflicting work

There is a strong desire for OHDSI to function more as an **integrated ecosystem**.

- D. More Dedicated Technical / Engineering Support
- Developer time
- Data engineering support
- Hands-on help for code review, pipeline building, vocab work, etc.

This echoes the earlier theme of technical workforce constraints.



Workgroup leader year-in-review summary: What This Means for OHDSI's Future Direction

A. OHDSI is transitioning from community-driven innovation to infrastructure-scale reliability.

From "Groups experimenting and exploring"

Toward "Groups producing durable shared infrastructure."

This requires new support structures in governance, engineering, and execution.

B. The greatest bottleneck is no longer ideas—it is operational capacity.

Workgroups know what needs to be done.

They struggle with:

- Execution capacity
- Sustained ownership
- Technical staffing
- Cross-group integration

This implies OHDSI must invest in **program management + engineering** to unlock impact.

C. Workgroups want stronger alignment and intentional coordination.

- They are willing to collaborate
- They need mechanisms to do it efficiently
- They want OHDSI leadership to orchestrate shared priorities

OHDSI is ready for a more structured operating model.

D. The community is energized and expanding globally, but needs infrastructure to scale.

With growing international engagement and new partnerships:

- The opportunity is huge
- But without platformization and coordination, scale will slow progress

If OHDSI builds the scaffolding, the community can build the future.



GPT's deep research on OHDSI in 2025

- I asked GPT5.1 to do deep research to create its own year-inreview for OHDSI in 2025.
- Based on its report, I asked it to create a top 10 list of most impactful accomplishments



10. Global proliferation of regional nodes and national OMOP initiatives 2025 saw a surge of national and regional OHDSI efforts: UK, Sweden, Canada, and others held dedicated symposia or national engagement events to build OMOP-based infrastructures and communities, signaling a shift from isolated pilots to coordinated national strategies built on OHDSI standards and tools



9. Expansion of OMOP CDM into new domains

Community-driven extensions brought ICU/critical care, perinatal, and imaging data into OMOP, plus work on mapping waveforms and AI-derived imaging features. This broadened the kinds of clinical questions OHDSI can answer, moving beyond "classic" claims/EHR data

10. Global proliferation of regional nodes and national OMOP initiatives



8. Methodological advances in calibrated, federated causal inference

New work on negative-control—based calibration, Bayesian evidence synthesis, and one-shot federated target trial emulation improved the robustness of effect estimation across decentralized data, directly addressing bias and heterogeneity in observational RWE

- 9. Expansion of OMOP CDM into new domains
- 10. Global proliferation of regional nodes and national OMOP initiatives



7. First-ever OHDSI Africa Symposium

The inaugural **OHDSI Africa Symposium** in Uganda established a new continental chapter, delivered a full-day tutorial plus 2-day conference, and seeded an African research network around OMOP and OHDSI tools—hugely expanding OHDSI's reach into low- and middle-income health systems.

- 8. Methodological advances in calibrated, federated causal inference
- 9. Expansion of OMOP CDM into new domains
- 10. Global proliferation of regional nodes and national OMOP initiatives



6. Maturation of the HADES ecosystem and new orchestration tools

Key HADES packages were upgraded and new tools (e.g., orchestration frameworks like Strategus) emerged, making it dramatically easier to design, execute, and share complex network studies reproducibly across many data partners.

- 7. First-ever OHDSI Africa Symposium
- 8. Methodological advances in calibrated, federated causal inference
- 9. Expansion of OMOP CDM into new domains
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5. Strengthening and tooling around standardized vocabularies

Major vocabulary work—such as improved mappings for national drug terminologies and projects like ontology-based vaccine mappings and vocabulary versioning—advanced semantic interoperability, making it easier for new countries and disease areas to join the network with high-quality concept alignment.

- 6. Maturation of the HADES ecosystem and new orchestration tools
- 7. First-ever OHDSI Africa Symposium
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4. High-impact network studies answering urgent drug safety questions

Multi-database OHDSI studies in 2025 tackled pressing safety issues, including GLP-1 agonists and serious adverse events, and other pharmacovigilance questions across >10–14 databases worldwide, directly supporting regulatory and clinical decision-making

- 5. Strengthening and tooling around standardized vocabularies
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3. Consolidation of OHDSI Europe as a regulatory-grade RWE engine

The OHDSI Europe Symposium ("Join the Network: Advancing Real-World Evidence in Europe") highlighted tight integration with DARWIN EU and European Health Data Space plans, cementing OMOP/OHDSI as core infrastructure for EMA and national regulators to generate decision-grade evidence

- 4. High-impact network studies answering urgent drug safety questions
- 5. Strengthening and tooling around standardized vocabularies
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Letterman's GPT's Top Ten List:

Most impactful accomplishments by the OHDSI community in 2025

2. 2025 OHDSI Global Symposium as a truly global hub

The Global Symposium in New Brunswick gathered hundreds of collaborators from six continents, showcased >100 projects, and emphasized "building trust in evidence" through open, reproducible methods and global collaboration, including the Titan Awards recognition of key contributors.

- 3. Consolidation of OHDSI Europe as a regulatory-grade RWE engine
- 4. High-impact network studies answering urgent drug safety questions
- 5. Strengthening and tooling around standardized vocabularies
- 6. Maturation of the HADES ecosystem and new orchestration tools
- 7. First-ever OHDSI Africa Symposium
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Letterman's GPT's Top Ten List:

Most impactful accomplishments by the OHDSI community in 2025

1. Launch and rapid growth of the OHDSI Evidence Network

A formal, public-facing network of OMOP CDM data partners was launched and rapidly expanded, reaching dozens of databases across 4 continents, many with tens of millions of patients each. This created a coordinated global substrate for large-scale, federated evidence generation

- 2. 2025 OHDSI Global Symposium as a truly global hub
- 3. Consolidation of OHDSI Europe as a regulatory-grade RWE engine
- 4. High-impact network studies answering urgent drug safety questions
- 5. Strengthening and tooling around standardized vocabularies
- 6. Maturation of the HADES ecosystem and new orchestration tools
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Letterman's GPT's Top Ten List:

Most impactful accomplishments by the OHDSI community in 2025

- 1. Launch and rapid growth of the OHDSI Evidence Network
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- 3. Consolidation of OHDSI Europe as a regulatory-grade RWE engine
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Nobody has responded yet.

Hang tight! Responses are coming in.

