OHDSI in 2024:
Where can we go together?
OHDSI’s mission

To improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care
To improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care.
Large-Scale Evidence Generation and Evaluation in a Network of Databases (LEGEND)

Patrick Ryan, Martijn Schuemie, Marc Suchard
on behalf of the LEGEND team
OHDSI Symposium
12 October 2018

https://www.youtube.com/watch?v=so5gsCl7CU4
Objective Diagnostics:
A pathway to provably reliable evidence

Martijn Schuemie
Observational Health Data Analytics, Johnson & Johnson Biostatistics, UCLA

OHDSI Symposium 2022

Pre-specification of a systematic approach

Traditional observational study:
- Define research question
- Generate evidence
- Interpret study reliability
- Interpret study results

LEGEND Hypertension:
- Define research question
- Generate evidence
- Interpret study reliability
- Interpret study results
- Use study evidence

New recommendation:
- Define research question
- Generate evidence
- Interpret study reliability
- Interpret study results

Ad-hoc, expert-driven
Pre-specified systematic approach

https://www.youtube.com/watch?v=DJZP5z6r-QE
Pre-specification of a systematic approach

Traditional observational study:

1. Define research question
2. Generate evidence
3. Interpret study reliability
4. Interpret study results

LEGEND Hypertension:

1. Define research question
2. Generate evidence
3. Interpret study reliability
4. Interpret study results

New recommendation:

1. Define research question
2. Generate evidence
3. Interpret study reliability
4. Interpret study results

Future:

1. Define research question
2. Generate evidence
3. Interpret study reliability
4. Interpret study results

Ad-hoc, expert-driven
Pre-specified systematic approach

Use study evidence
“I think as a community we have done an amazing job in standardization, standardization through a common data model, standardization of tools that will execute this data model, and it makes these types of studies much easier...

We have **abjectly failed** on the next step, and that's providing standardized tools that allow us to synthesize and then deliver this evidence in a way that's actionable not only in our community, but across healthcare and clinical practice in general.”

https://www.youtube.com/watch?v=jNrCMyXkg9c

OHDSI Symposium 2023
Three Circles of the Hedgehog Concept

What Are You Deeply
Passionate About?

What You Can
Be The Best In
The World At

What Drives Your
Economic Engine
What Are We Deeply Passionate About?

Nobody has responded yet.

Hang tight! Responses are coming in.
Exercise

• Name a drug that we think patients deserve reliable evidence about
• Name an adverse event that we think patients deserve reliable evidence about

• Do patients deserve to know:
  – What is the incidence of adverse event amongst new users of drug?
  – Does exposure to drug cause adverse event?
  – What is the probability that I have adverse event after initiating drug, given my medical history?
Large-scale analysis

• Characterization
  – HowOften: https://results.ohdsi.org/app/08_HowOften_George
  – Comparator selector: https://data.ohdsi.org/ComparatorSelectionExplorer/

• Patient-level Prediction
  – WhatI'llhappen: https://results.ohdsi.org/app/04_WhatI'llHappenToMe

• Population-level Estimation
  – LEGEND results:
    • Hypertension: https://data.ohdsi.org/LegendBasicViewer/
    • Type 2 diabetes: https://data.ohdsi.org/LegendT2dmClassEvidenceExplorer/
  – LEGEND Med Central: https://data.ohdsi.org/LegendMedCentral/
Evidence dissemination opportunities

- Standardized output of analytics
  - Finalize/document Strategus results model to enable generation of:
    - Protocol
    - Results tables and graphs
    - Publication
  - Develop/test alternative dissemination models
    - Interactive visualizations (Rshiny)
    - Periodic reports/presentations for key stakeholders

- Disseminate more evidence!
2024 Resolution:
1) All workgroup leaders will provide their purpose and 2024 Objectives and Key Results by end of January
2) All workgroups will present on a community call in February to encourage participation
Breadth and depth: where can OHDSI make an impact?

- Anesthesiology
- Cardiology
- Dermatology
- Digestive/liver disease
- Emergency Medicine
- Endocrinology
- Hematology
- Infectious disease
- Neurology
- Nephrology
- Obstetrics/Gynecology
- Oncology

- Ophthalmology
- Otolaryngology
- Orthopedic surgery
- Palliative care
- Pediatrics
- Pulmonary
- Psychiatry
- Rheumatology
- Radiology
- Rehabilitation and regenerative medicine
- Surgery
- Urology
Community collaboration events

In-person events:

• OHDSI Europe, Rotterdam, NL, June 1-3

• OHDSI Global, New Brunswick, NJ, USA, October 22-24

• OHDSI APAC, Singapore, December 6-9
When poll is active respond at PollEv.com/patrickryan800

What collaboration activities should we pursue in 2024 together?

Nobody has responded yet.

Hang tight! Responses are coming in.
Support The Journey

OHDSI Sponsorship Helps Provide A Foundation For Our Global Research Efforts

The OHDSI Central Coordinating Center provides support for our open-source community and its mission to improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care. OHDSI collaborates in all aspects of the journey from data to evidence, including open community data standards, open-source software development, open methodological research, and open network clinical research.

Collectively, thousands of OHDSI collaborators contribute their time and expertise to the community to advance the mission. The OHDSI central coordinating center assumes the costs associated with central infrastructure and community coordination, which currently exceeds $1 million/year.

What Does The OHDSI Coordinating Center Do, And How Does Your Sponsorship Impact OHDSI's Future? (George Hripcsak)

For more information, contact sponsorship@ohdsi.org

https://ohdsi.org/sponsorship/