APAC Community Call

Jan-28-2021
Agenda

- Welcome
- Chapter introductions
- Review OHDSI OKR goals
- Review APAC goals
- 2021 OHDSI APAC community call schedule
- OHDSI Teams – OHDSI APAC
OHDSI APAC Chapters Introduction

- South Korea: 2014
- China: 2016
- Japan: 2019
- Australia: 2019
- Singapore: 2020
- Taiwan: 2020
Chapter Overview

• The first APAC Chapter

• **Goal**: Patients and clinicians and other decision-makers around the world use OHDSI tools and evidence everyday

• Over 100+ participants from academic, government, and industry

• Governing board with frequent meeting in different locations
History of Korean Chapter of OHDSI

- Korea joins OHDSI
  - 2014
- Launch of FEEDER-NET project
  - 2017
- 1st OHDSI Korea International Symposium
  - 2017
- OHDSI Korea Datathon
  - 2018
- OHDSI Korean Tutorial
  - 2019
- OHDSI Korea International Symposium 2019
  - 2019
- Translation of ‘The Book of OHDSI’
  - 2019

Prof Rae Woong Park (Ajou University) showed the first public Achilles webpage at the first OHDSI Face-to-Face meeting (Columbia University, October 2014)
The first COVID-19 CDM dataset: Participation of COVID-19 Study-a-thon

- South Korea decided to share the world's first de-identified COVID-19 nationwide patient data with domestic and international researchers.

- In the regular briefing on March 27 (Fri), the Central Disaster and Safety Countermeasures Headquarters (CDSCHQ) announced the launch of the Global Research Collaboration Project on COVID-19.

- Korea supported OHDSI COVID-19 study-a-thon by using nationwide COVID-19 dataset.
## Current Stage of OHDSI Korea Network

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**Summary of CDM DB in Korea**

- **Hospitals**: 40
- **Patients**: 59,555,471
2021 Goals

• Conversion of nationwide databases into OMOP-CDM and integrating the data between hospitals and nationwide claim data based on OMOP-CDM
• Provide more educational course
• Better standardization across Korean healthcare data holders
• Conducting more OHDSI studies
• Updating and converting data for extension modules including oncology, radiology and genomics.
OHDSI China
Chapter Overview

• **Goal**: To promote healthcare observational studies in China through data science and informatics approaches. More specifically:
  • Extend and customize OHDSI data science approaches (e.g., standards, knowledge bases, and software) to Chinese clinical data
  • Enable big data-based Investigation of important global healthcare problems by building large observational data networks in China
  • Promote international collaboration and education in biomedical informatics
  • 6 sub-groups (CDM/Vocabulary, Data Analysis, NLP, Software Tools, Privacy, Communications)
  • Over 500+ participants from academic, government, and industry
Past Activities

- **First Hackathon**
  - Shanghai
  - 85 participants

- **Zhi Jiang University**
  - Hangzhou
  - 30 participants

- **China Symposium**
  - Guangzhou
  - 180 participants

- **China Symposium**
  - Shanghai
  - 200 participants

- **Beijing Hackathon**
  - Beijing
  - 50 participants

- **Fudan Study-a-thon**
  - Shanghai
  - 80 participants

- **Tutorial**
  - Guangzhou
  - 60 Participants

- **China Symposium**
  - Hangzhou
  - 200 participants

- **China Symposium**
  - Shanghai
  - 200 participants

- **Beijing Hackathon**
  - Beijing
  - 50 participants
2020 Activities

China Vocabulary
- Led by IQVIA
- Fully released to Athena in October
- ICD10CN (34,491), NCCD (41,662), ICD9ProcCN (13,385), LOINC_CN

NMPA RWD Guidelines
- Lead by Dr. Mengchun Gong
- Reference EMA guidelines
- Referenced OMOP/OHDSI

APAC Hypertension Study
- Lead by Dr. Yuan Lu and Dr. Lei Liu
- Poster presented at US Symposium
- On-going study

China Vocabulary
- Lead by IQVIA
- Fully released to Athena in October
- ICD10CN (34,491), NCCD (41,662), ICD9ProcCN (13,385), LOINC_CN

Atlas Localization
- Lead by IQVIA
- Community reviewed
- To be released soon

Guangzhou Tutorial
- Guangzhou
- 4 hour session
- 80 participants

CHIP conference Tutorial
- Virtual
- 2 hour session

May

Book of OHDSI
- Led by Dr. Mengchun Gong
- PDF version available
- Hard copy in progress

July

NMPA RWD Guidelines
- Reference EMA guidelines
- Referenced OMOP/OHDSI

Aug

Oct

Oct

Oct

Oct

Nov
2021 Goals

• At least 2 more data assets in OMOP and ready to collaborate in research
• Train the trainers
• Provide more in-depth OMOP trainings in Chinese
  – Create exercise book complimentary to the Book of OHDSI
• Contribute to more studies
• Lead at least 1 international study
OHDSI Japan
OHDSI Japan
Established in Nov 2019!

Members:
• Registered: 431
• Active: Small portion
Past Activities

1st Meeting
June 20th, 2019

2nd Meeting
Sep 5th - 6th, 2019

Mini-meet #1
Oct 29, 2019

3rd Meeting
Nov 19th, 2019

Mini-meet #2
Dec 17, 2019

Main attendee affiliations:
University hospitals, Pharmaceutical companies, IT vendors, Data vendors
2020 Activities

1. Monthly Meetings
   - Evening conferences once a month

2. Book of OHDSI Translation
   - Slack site for translation project

3. Establish Japan Platform
   - Collaborator recruitment
   - Data holders
   - OMOP supporters
   - ETL platform
   - Administrative claims data
   - “Deep” data from EMR and department systems
   - Vocabulary mapping
     - Japan standards to OMOP standards
2021 Goals

• **Initiate a network research**
  – OMOP domestic data
  – Feasibility in terms of data existence
  – Research Questions from Japanese Researchers
  – Imagine OHDSI network researchable study design
  – Participate in other network researches to gain experience
  – Start a domestic preliminary research
  – Expand it to the global research
OHDSI Australia
Chapter Overview

- Applied to be a Chapter in December 2019
- First Chapter meeting Monday 9\textsuperscript{th} Dec 2019
- 84 members

OHDSI Board:

Teng Liaw
Jitendra Jonnagaddala

Nicole Pratt
Ty Stanford

Dougie Boyle
Roger Ward

www.ohdsi-australia.org
2020 Activities

Webinar Series

• “The long and winding path to data standardization in OMOP”
  Mui Van Zandt OHDSI Asia Pacific

• “The Transformational Data Collaboration (TDC): Supporting the uplift of clinical data sets for research in Australia”
  A/Prof Douglas Boyle and A/Prof Nicole Pratt

• “European Health Data & Evidence Network”
  Nigel Hughes, Scientific Director

• Digital Health CRC webinar
  Associate Professor Nicole Pratt

OMOP Mapping

• EMRs
  • UNSW ePBRN (18 GPs & Hospitals)
  • Victoria (120 practices, several million patients)
  • NPS MedicineWise MedicineInsight database (700+ GP systems)
  • Cerner-based hospital EMR warehouses
    • CERNER2OMOP
    • CaVa

• Claims
  • Pharmaceutical Benefits Scheme 10% Sample dispensed medicines
  • Department of Veterans’ Affairs Claims Data

Network Collaboration

• OHDSI COVID-19 study-a-thon
• OHDSI Symposium 2020
• OHDSI APAC research study on hypertension
• International Population Data Linkage Network Conference
• Multiple Research Grant proposals to support quality assurance, terminology mapping and OMOP conversion in Australia

https://ohdsi-australia.org/events.html

www.ohdsi-australia.org
2021 Goals

• **Focus on Data Quality/Interoperability**
  – Keynote speakers @ OHDSI Australia Breakout
    • Clair Blacketer
    • Michael Khan

• **Extend OHDSI CDM-based data quality assessments**
  – “White bandicoot” tool

• **Mapping Australia’s metadata and ontologies** for national health & welfare metadata standards
  – Sustainable conformance to data quality and interoperability standards

• **Promote the conversion of datasets to the OMOP CDM** to facilitate participation in network studies

• **Activate community collaboration on phenotyping**
OHDSI Singapore
Overview of OHDSI Singapore

- The chapter was setup in Jan 2020.
- As of Nov 2020, we have more than 30 members from major healthcare institutes across the nation
- Meeting every 2 months to discuss on diverse topics: ETL, Vocabulary mapping, project presentations and collaboration opportunities etc.

Adoption of OMOP CDM

National University Health System
- Mapped all EMR data of over 300K inpatients between 2015-2018
- Deployed the ALTAS platform to enable physicians to create and explore cohorts on the pilot data

Khoo Teck Puat Hospital, Health Science Authority and National University of Singapore
- Mapped EHR data from 2011 to 2018 of 290K patients to OMOP-CDM standard.
- The 1st SG integrated research dataset for chronic disease that comprise of patients’ full follow up EMR data, survey data on social status and ~omics data
Recent Activities

**OHDSI US Symposium**
- 2 posters on treatment pathways and integration of EHR and survey data
- Selva, founding team member, instructor in OMOP CDM and Standardized Vocabulary Tutorial

**OHDSI APAC Symposium**
- Participated in APAC Hypertension network study
- Member in APAC Symposium Core Planning team

**OHDSI Europe Symposium**
- Participated in network research with UNSW, Australia, and co-authored a poster on Phenotyping validation across AUS and SG

**AMIA**
- Participated in network research with 5 other sites and co-authored a poster on Lab threshold study
Looking into the future

- National Data Sharing Platform
  - Ministry of Health is planning to build a data sharing platform using OMOP CDM to support national level research studies involving multiple institutes
  - Our SG Chapter is being engaged as the technical advisors for the initiatives

- Network research
  - Execute the collaboration projects in pipeline.
OHDSI Taiwan
Chapter Overview

• **Goal**: to link all units in Taiwan and integrate with OHDSI Global Headquarters and the other OHDSI regional chapters in the world.
• Research platform across universities and hospitals in Taiwan.

**OHDSI Taiwan**
Established in Taipei Medical University by Professor Jack (Yu-Chuan) Li, Professor Usman Iqbal and Professor Marc Hsu

**Initial Organizers of OHDSI Taiwan**
• Jack (Yu-Chuan) Li
• Usman Iqbal
• Marc Hsu
• Jason C. Hsu
• Alex PA. Nguyen
• Iris Lin
• Cherry Peng

**OHDSI Taiwan Contact**
Jason C. Hsu, PhD
E-mail: jasonhsu@tmu.edu.tw
**2020 Activities**

**Taipei Medical University Clinical Research Database (TMUCRD)**

**EMR Integration**
Integration of 3 affiliated hospitals to form TMUCRD since 2015

**Data Completion**
The overall time interval of the data covered by TMUCRD is 1998-2020, and since 2008, the database also covers the complete data of the three hospitals.

**Data Linkage**
The data content covered includes 10 categories, 60 data tables, and 2,355 fields. The various data tables were linked to each other.

**APAC Symposium**
Marc Hsu and Jason C. Hsu have jointly drafted an introduction to the establishment and management of TMCRD, which will be shared in 2020 OHDSI APAC Symposium via poster presentation.

**TMU OMOP-CDM**
TMU Office of Data Science held the OHDSI-OMOP CDM kick-off meeting on September 2020, to start the data bridging platform between TMUCRD and OHDSI-CDM.

**OHDSI Technical Guidance**
OHDSI Taiwan also invited OHDSI headquarters to conduct a technical guidance
2020 Activities

Participation in International Research Projects

**OHDSI Asian-Pacific Network Research Project**
The TMU research team has joined the Comparison of the Efficacy and Safety of Antihypertensive Agents project.

**DOAC Project**
The TMU team is expected to join the OHDSI global collaborative research project on the benefits of anticoagulant drugs (DOAC Project).

**Global Lecture**
Ian Wong (Professor of School of Pharmacy, University College London, UK) gave a transnational online lecture on October 22, 2020.

**OHDSI APAC Steering Committee**
OHDSI Taiwan has participated in OHDSI APAC Steering Committee Meeting discussions every month.

**TMU OHDSI Poster**
TMU has produced a poster for the 2020 OHDSI APAC Symposium, and has widely promoted it and invited friends to participate actively.
2021 Goals

Guidelines, Handbooks, Journals...

Educational Courses

Joint Research Projects
An organizing framework

• Objective: Ambitious goal of what is to be achieved
• Key Result: Specific measurable to benchmark and monitor how we get to the objective
OHDSI in 2021

Objective:
Generate and disseminate real-world evidence about the 3 substantial public health issues: COVID-19, type 2 diabetes, and health inequalities.

Key Results:
– 3 fully-reproducible study packages executed across at least 20 OHDSI data partners
– 10 publications accepted in journals with impact factor > 10
– 10 uses of OHDSI results by external stakeholders that demonstrate influence in policy or clinical decision-making
OHDSI in 2021

Objective:
Build an international medical product safety surveillance system that provides all stakeholders access to evidence about the incidence and risk of outcomes associated with drug exposure

Key Results:
– Population-level effect estimation and characterization results generated for 500 drugs and 500 outcomes across 20 databases
– 100 organizations with at least 1 active user
– 10 regulatory actions taken as a result of OHDSI system
OHDSI in 2021

Objective:
Enable a community to generate real-world evidence using OHDSI tools and scientific best practices

Key Results:
– 100 organizations have a fully-operational technical infrastructure (CDM + ATLAS + HADES) sufficient to perform local analyses
– 1000 researchers complete RWE curriculum through EHDEN Academy
– 100 publications generated using and citing OHDSI tools
APAC Community 2021 Goals

• Enabling APAC community to better understand the OHDSI ecosystem in order to collaborate in more observational research
  – Education programs across regions
  – OMOP conversions
  – Collaborative publications