Asia Pacific State of the Community
OHDSI APAC Chapters Introduction

- South Korea (2014)
- China (2016)
- Japan (2019)
- Australia (2019)
- Singapore (2020)
- Taiwan (2020)
OHDSI Korea
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

1st OHDSI Korea International Symposium

2017

Korea joins OHDSI

Prof Rae Woong Park (Ajou University) showed the first public Achilles webpage at the first OHDSI Face-to-Face meeting (Columbia University, October 2014)

Launch of FEEDER-NET project

2018

OHDSI Korea Datathon

OHDSI Korean Tutorial

2019

Translation of ‘The Book of OHDSI’

OHDSI Korea International Symposium 2019

2019

OHDSI Korea International Symposium 2019
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

• Conducing more OHDSI studies

• Updating and converting data for extension modules including oncology, radiology and genomics.
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
  - May 2018

- **China Symposium**
  - Hangzhou
  - 200 participants
  - Oct 2017

- **Zhi Jiang University**
  - Hangzhou
  - 30 participants
  - Oct 2017

- **Beijing Hackathon**
  - Beijing
  - 50 participants
  - Dec 2017

- **China Symposium**
  - Shanghai
  - 200 participants
  - June 2018

- **Beijing Hackathon**
  - Xi'an
  - 80 participants
  - June 2018

- **China Symposium**
  - Shanghai
  - 200 participants
  - Oct 2018

- **Tutorial**
  - Guangzhou
  - 60 Participants
  - Aug 2018

- **Fudan Study-a-thon**
  - Shanghai
  - 80 participants
  - Oct 2018
2020 Activities

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

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

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

Guangzhou Tutorial
- Guangzhou
- 4 hour session
- 80 participants

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

CHIP conference Tutorial
- Virtual
- 2 hour session

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

July

Aug

Nov

Oct

Oct

Oct
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
Established in Nov 2019!

Members:
• Registered: 431
• Active: Small portion

https://www.ohdsi-japan.org/
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 9th 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
Taipei Medical University Clinical Research Database (TMUCRD)

**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

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.

OHDSI Asian-Pacific Network Research Project
The TMU research team has joined the Comparison of the Efficacy and Safety of Antihypertensive Agents project.
2021 Goals

Guidelines, Handbooks, Journals...

Educational Courses

Joint Research Projects
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
## Join Regional Break Outs

### OHDSI Chapter Breakout - China/Hong Kong
- **China OHDSI Overview (Chinese Vocabulary; Book Translation)**
  - Hua Xu, PhD
- **Applying the OMOP CDM to Heartbiliary Clinical Research**
  - Lei Liu, PhD
- **Database at Zhongshan Hospital, Fudan University**
  - Lei Feng, MD
- **Bipolar Study 1**
  - Yi Zhou, PhD
- **China OHDSI Community Engagement in South China**
  - Chun Hu, PhD
- **Pneumatics**
  - Hui Lu, PhD
- **COVID-19 and Cardiovascular**
  - Mengchun Gong, MD

### OHDSI Chapter Breakout - Korea
- **OHDSI Korea 2020 Update**
- **What’s going on in OHDSI Korea now?**
- **Expansion models of OMOP-CDM**
- **Challenges in OHDSI Korea**

### OHDSI Chapter Breakout - Singapore
- **Member Introduction**
- **Singapore Chapter Update**
- **Demo from KTPH & NUS DC Study**
- **Demo from NUHS for NUHS ALTAS Case Studies**
- **Presentation by HSA on Exploratory drug safety analyses following CDM conversion**
- **Panel Discussion**

### OHDSI Chapter Breakout - Australia
- **Introduction to OHDSI Australia**
  - Nicole Pratt, PhD
- **Introduction to panel on Data Quality Assessment**
  - Teng Liaw, MBBS, PhD, FRACGP, FACHI, FACMI, FIAHSH, Grad Dip AICD
- **DQA principles and practice**
  - Michael Kahn, MD, PhD
- **OHDSI DQ Dashboard and CDM-enabled DQA**
  - Claire Blacketer, MPH, PMP
- **White Bandicoot and generic (non-CDM) DQA**
  - Douglas Boyle, PhD
- **Partnership project on CDM versus non-CDM DQA**
  - Jitendra Jonmagaddala, MIS, PhD, FACHI
- **Panel Q&A session on DQA in the above context**
  - Teng Liaw, MBBS, PhD, FRACGP, FACHI, FACMI, FIAHSH, Grad Dip AICD
- **Networking/Poster session**
  - Douglas Boyle, PhD

### OHDSI Chapter Breakout - Japan
- **Japan Chapter Introduction**
  - Tatsuo Hiramatsu, MD, PhD
- **Teaching OHDSI within a University Course: Opportunities and Lessons Learned**
  - Jon Duke, MD, MS
- **EHDEN using OMOP**
  - Dani Prieto-Alhambra, MD, MSc(Oxf), PhD
- **COVID-19 Alpha Blocker Study**
  - Akihiko (Ak) Nishimura, PhD
- **Pros and Cons of Real World Evidence - What we expect from OHDSI - Data standard for collaboration to promote medical innovation**
  - Etzi Matsuki, MD, PhD, MPH
- **Towards the Integration of Japanese Terminologies Into OHDSI Standardized Vocabulary**
  - Kenichi Kohno, PhD
- **General Discussion**
  - Elzen Kimura, PhD, BM
- **OHDSI Chapter Breakout - Japan**
  - Tatsuo Hiramatsu, MD, PhD