



# APAC Community Call

October 17, 2024




# Agenda

- OHDSI News
- Community-wide ETL Project Status Update



# OHDSI News

- 2024 Q3 APAC Newsletter has been released!
  - All OHDSI APAC Teams members receive the newsletter by default
  - Subscribe at <http://eepurl.com/h5vaxr>
  - See past issues at <https://us11.campaign-archive.com/home/?u=9fd2c51dcb85a036e9c357e36&id=7186729aed>



**2024 Q3 APAC Newsletter**

This edition of the OHDSI APAC Newsletter features a publication in *The Lancet Psychiatry*, the ongoing community-wide ETL project, 2024 APAC Symposium updates, a new APAC study and more!

#OHDSI APAC #JoinTheJourney

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### Community Updates

Where Have We Been?

► An APAC study has been published in *The Lancet Psychiatry*


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#### Psychotropic drug prescribing before and during the COVID-19 pandemic among people with depressive and anxiety disorders: a multinational network study

Hao Luo\*, Yi Chen\*, Sijia Li, Wailu C, Y Liu, Carmen Olga Torre, Joseph Hayes, Ivan C, H Lam, Xiaoyu Lin, Can Yin, Stephen Farlin, Dave M Kern, Dong Yun Lee, Rie Woong Park, Joo-Won Jang, Catherine S L Chan, Jing Li, Sarah Seeger, Kenneth K C Moir, Ian C K Wong

**Summary**  
**Background** People with mental health conditions were potentially more vulnerable than others to the neuropsychiatric effects of the COVID-19 pandemic and the global efforts taken to contain it. The aim of this multinational study was to examine the changes in psychotropic drug prescribing during the pandemic among people with depressive and anxiety disorders.

**Methods** This study included electronic medical records and claims data from nine databases in six countries (France, Germany, Italy, the UK, South Korea, and the USA) of patients with a diagnosis of depressive or anxiety disorders between 2016 and 2021. The outcomes were monthly prevalence rates of antidepressant, antipsychotic, and anxiolytic drug prescribing. The associations between the pandemic and psychotropic drug prescribing were examined with interrupted time series analyses for the total sample and stratified by sex and age group. People with lived experience were not involved in the research and writing process.



*Lancet Psychiatry* 2024; 11: 807-817  
Published Online  
September 3, 2024  
[https://doi.org/10.1016/S2215-0366\(24\)00245-1](https://doi.org/10.1016/S2215-0366(24)00245-1)  
See Comment page 777  
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Department of Social Work and



# OHDSI News

- 2024 OHDSI APAC Symposium: Collaborator Showcase
  - 41 record-breaking abstracts were submitted at this year's symposium!
  - Review by October 24, notification of acceptance will go out by October 31
- 2024 OHDSI Global Symposium
  - OHDSI APAC Workgroup breakout session taking place on October 24, 8-10 a.m. at Garden State B, Main Level
  - Final decision on abstracts will be made during this breakout session



# APAC Community-wide ETL Project

Project Status Update



# Announcements

- Extension of project duration
  - Project team has decided to extend the project duration for one more sprint
  - Sprint 6 will be 3 weeks to maintain the cadence of scientific forums
  - New project closeout date is November 7



# Announcements



## Congratulations, 2024 Titan Award nominees!

Alexander Davydov • **Andrew Kanter** • Anna Ostroplets • **Anthony Sena** • April Olympians Team • **Asieh Golozar** • Ben Martin • **Benjamin Viernes** • Christopher Mecoli • **Cindy Cai** • Clair Blacketer • **Cynthia Sung** • Daniel Morales • **Danielle Boyce** • DARWIN EU Development Team • **Elisse Katzman** • Evanette Burrows • **Eye Care and Vision Research Workgroup** • Frank DeFalco • **George Hripcsak** • Greg Klebanov • **Henrik John** • Hsin Yi Chen • **J Swetha Kiranmayi** • **Jack Janetzki** • **James Weaver** • Jared Houghtaling • **Jen Park** • Joel Swerdel • **John Gresh** • **Jung Ho Kim** • **Justin Manjourides** • Kyle Zollo-Venecek • **Liesbet Peeters** • Linying Zhang • **Louis Hendricks** • Maarten van Kessel • **Manlik Kwong** • Marc Suchard • **Marta Pineda-Moncusi** • Marti Catala Sabate • **Martijn Schuemie** • Martin Lavalley • **Maxim Moinat** • Michael Gurley • **Michael Matheny** • Michel Walravens • **Michelle Hribar** • Minnesota EHR Consortium Health Trends Across Communities Project Team • **Montse Camprubi** • **Mengling 'Mornin' Feng** • **Natthawut 'Max' Adulyanukosol** • **OHDSI APAC ETL Team** • **OHDSI Standardized Vocabularies Team** • Oleg Zhuk • **Parthiban Sulur** • Polina Talapova • **Qi Yang** • Renske Los • **Rich Boyce** • Robert Koski • **Robert Miller** • Roger Carlson • **Scott DuVall** • Thamir Alshammary • **Theresa Burkard** • Thomas Falconer • **Tom Seinen** • Vishnu Chandrabalan • **Vlad Korsik** • Will Kelly • **Zhen Lin**



**ETL Team**







# Team **Leads** and Members

- **Evelyn Goh**
- **Satish Kumar Anbazhagan**
- **Steven Yong**
- **Jiawei Qian**
- **Afreen Chitwadgi Sikandara**
- **Nongnaphat Wongpiyachai**
- Sornchai Manoson
- Chinapat Onprasert
- Alicia Koh
- Pattarachai Roongsritong
- Hengxian Jiang
- Erwin Tantoso
- Brandan Tan
- Sukatat Leknimit
- YZ Lim
- MC Chow
- Gyeol Song



# Brief Recap - 1

- Two ETL Teams structured based on language of choice – Sql / Python
- Environment – Google Cloud Platform
- Source data formatted in CSV – available in GCP bucket & Postgres cloudsql
- Development Infrastructure – 2 VMs (n2d-standard-2) & Postgres Cloudsql
- SSH access provided to each ETL member and development will only happen on the VM in compliance with DUA



## Brief Recap - 2

- Github Pull requests – Collaborative development & Version control
- Python based framework created for ease of development and reproducible execution on different environments
- OMOP Schemas created for development
- Github ETL Specs – Data Analysis Team
- Source\_to\_concept\_map table for mapping non-standard codes – Vocab Team



# Progress Overview (Sprint 1 to 5)

## To do

condition\_era

drug\_era

## Nearing completion

condition\_occurrence

observation

drug\_exposure

measurement

## In review

procedure\_occurrence

note

## Done

person

care\_site

provider

death

visit\_occurrence

visit\_detail

specimen

observation\_period

device\_exposure

In White - **Tables populated in OMOP Schema**

\*\*\*Location table: Lack of source data for mapping



# Modus operandi

- Complete ETL for 15 tables based on the ETL Specs. i.e, hold off on dependencies as the 1st draft
- Parallel Clarifications with Data Analysis / Vocab / Data Owner
- [Document ETL Assumptions](#) / decisions
- Work with Quality Assurance team on spotting the issues and attempting to fix them
- Enable OHDSI Constraints
- Execute the complete ETL pipeline on a new OMOP Schema



# Next Steps

- Extend 1 more Sprint
- Complete
  - Mapping logic for the last few tables
  - Dependencies for all tables
  - Incoming DQD issues
  - Testing the whole ETL pipeline



# Vocabulary Mapping Team





# ETL Vocab Mapping Team Updates

Name of the file	Approx # of fields to be mapped	Assigned to	Remarks
intraop_aimsvitals_vitalcode	42	Pei Liying	Completed
intraop_drugdrug_group1	33	wong.LeongHui	Completed
intraop_drugmed_group1	276	wong.LeongHui	Completed
intraop_nurvitals_group1	45	Lakshmi	Completed
intraop_operation_group1.xlsx	2000+	Pei Liying Matsumoto Tanaka Qi Elizabeth Asif Syed Keiko Asao	Dr. Matsumoto - Completed Dr. Tanaka - Completed Pei Liying - Completed Asif Syed - Completed Qi - Completed Elizabeth - In Progress Keiko - In Progress
postop_clindoc_group1.xlsx	39	Qi	Completed
postop_info_group1.xlsx	1120	wong.LeongHui	Completed
postop_lab_testdesc.xlsx	24	Lakshmi	Completed
postop_labmicro_antibioticname	49	Do not map	
postop_labmicro_microresultedproceduredescription	21		
postop_labmicro_organismdescription	104		
postop_labsall_group1	62	Lakshmi	Completed
postop_pacu_group1	50	Kosuke Tanaka	Completed
postop_renal_group1	8	Syed Asif A	Completed
preop_char_allergyinformation	237	Lakshmi	Completed
preop_char_gender	2	Qi	Completed
preop_char_race	4	Qi	Completed
preop_lab_prepoplabetstdescription	24	Lakshmi	Completed
preop_radiology_procedurename	77	Qi	Awaiting Completion
Surgical Speciality	50+	Lakshmi	Completed

\*Expecting to complete before next sprint meeting





# Quality Assurance Team





# Sprint Status

- DQD has been set up on both VMs
- R script created for running DQD
- DQD test run on both VMs.



# Sprint Status

- Documented SQL errors and conformance failures of DQD results
- Failed checks related to \*\_concept\_id columns are known issues, related to the in-progress work
- Executed checks twice with and without filters
- Filtered DQD results pass 96%



# Unfiltered Results

DataQualityDashboard Version: 2.6.1

Results generated at 2024-10-15 09:14:09 in 4 mins

	Verification				Validation				Total			
	Pass	Fail	Total	% Pass	Pass	Fail	Total	% Pass	Pass	Fail	Total	% Pass
Plausibility	505	8	513	98%	291	0	291	100%	796	8	804	99%
Conformance	870	56	926	94%	137	8	145	94%	1007	64	1071	94%
Completeness	437	15	452	97%	15	2	17	88%	452	17	469	96%
Total	1812	79	1891	96%	443	10	453	98%	2255	89	2344	96%

1160 out of 2255 passed checks are Not Applicable, due to empty tables or fields.

39 out of 89 failed checks are SQL errors.

Corrected pass percentage for NA and Errors: 96% (1095/1145).



# Filtered Results

## Tables Excluded

- COHORT, COHORT\_DEFINITION
- CONCEPT, VOCABULARY, CONCEPT\_ANCESTOR, CONCEPT\_RELATIONSHIP, CONCEPT\_CLASS, CONCEPT\_SYNONYM, RELATIONSHIP, DOMAIN
- MEASUREMENT, DRUG\_EXPOSURE, CONDITION\_ERA, DRUG\_ERA, PROCEDURE\_OCCURRENCE

## DATA QUALITY ASSESSMENT

### PASAR

DataQualityDashboard Version: 2.6.1

Results generated at 2024-10-15 13:36:37 in 2 mins

	Verification				Validation				Total			
	Pass	Fail	Total	% Pass	Pass	Fail	Total	% Pass	Pass	Fail	Total	% Pass
Plausibility	225	2	227	99%	207	0	207	100%	432	2	434	100%
Conformance	690	24	714	97%	111	0	111	100%	801	24	825	97%
Completeness	347	9	356	97%	11	0	11	100%	358	9	367	98%
Total	1262	35	1297	97%	329	0	329	100%	1591	35	1626	98%

770 out of 1591 passed checks are Not Applicable, due to empty tables or fields.

4 out of 35 failed checks are SQL errors.

Corrected pass percentage for NA and Errors: 96% (821/852).

Desc	Count
Sql Errors	4
Known errors related to _concept_id column	21
Others	10
Total	35



## Next steps

- Review comments provided by the teams on the existing failed checks
- To document and analyze remaining failed checks related to completeness and plausibility



**Thank you!**