

The role of national initiatives in supporting sustainability, collaboration, and growth of OHDSI

Overview

Dani	OHDSI UK: from a LoI to a mature national node
Ed	Establishing the HERON-UK for sustainable research using the OMOP CDM in the UK
Jenny	Real World Use of OMOP at an NHS Teaching Hospital - Barts Health
Nuria	Using national data elements in international network studies
Cesar	From Bottom-Up Momentum to Institutional Support: Building Sustainable OHDSI Participation in Latin America
Melanie	Harmonizing Heterogeneity: How National Nodes and Use Case Diversity Inform Global OHDSI Standards



OHDSI UK: from a LoI to a mature national node

Dani Prieto-Alhambra, MD PhD FISPE

University of Oxford

In May 2023 …

Prof Daniel Prieto-Alhambra
Health Data Sciences, Botnar Research Centre
University of Oxford

Re: Application for the formation of a UK national OHDSI node

Dear European OHDSI Co-ordination Center,

I am writing to express our interest to create the OHDSI UK Node, co-ordinated in first instance from the University of Oxford by Professor Daniel Prieto-Alhambra, and including all the below members.

As you are aware, the United Kingdom has a total of 22 Data Partners in the EHDEN network and 7 EHDEN-certified SMEs. The UK scientific network is dynamic and well funded, with numerous initiatives in the fields of health informatics, health data sciences, pharmacoepidemiology, and related areas.

Many UK partners have made substantial contributions to recent EHDEN- and OHDSI-sponsored research, and key national players like Health Data Research UK and the National Institute for Health and Care Excellence (NICE) are increasingly interested in the use of OMOP for federated analytics nationally.

Inaugural meeting – Sep 2023

- First ever meeting, in Oxford
- Still part of EHDEN (the project)
- Already sponsored by HDRUK
- Lots TBC (see agenda)
- Plans for our first Study-A-Thon!

Venue: Jacqueline Du Pre building, Saint Hilda's College, Oxford, UK

Date: September 15th, 2023

PRELIMINARY AGENDA

Time	Topic	Speaker
9.00-9.30h	**Registration**	
9.30-10.00h	**OMOP in the UK: how did we get here?**	Ed Burn
10.00-11.00h	**Lightning presentations by Data Partners**	TBC
11.00-11.30h	***Networking coffee***	
11.30-12.30h	**Lightning presentations by UK-based SMEs**	TBC
12.30-13.30h	***Networking lunch break and posters***	
13.30-14.00h	**EHDEN's sustainability: EHDEN Foundation**	Dani Prieto-Alhambra
14.00-15.00h	**OHDSI UK: how to make a difference? Presentations by key national stakeholders**	TBC
15.00-15.30h	***Networking tea break***	
15.30-17.00h	**Planning the first OHDSI UK Study-a-thon** *[Closed agenda: potential OHDSI UK Study-a-thon participants only]*	TBC
17.00h	**Adjourn**	

Inaugural year – 2023

- Already designed for (scientific) impact!

ORIGINAL ARTICLE OPEN ACCESS

Time Series Methods to Assess the Impact of Regulatory Action: A Study of UK Primary Care and Hospital Data on the Use of Fluoroquinolones

Yuchen Guo[1] | Berta Raventós[2,3] | Martí Català[1] | Leena Elhussein[1] | Kim López-Güell[1] | Eng Hooi Tan[1] | Albert Prats-Uribe[1] | Daniel Dedman[4] | Wai Yi Man[1] | Hezekiah Omulo[1] | Antonella Delmestri[1] | Jennifer C. E. Lane[5,6] | Usama Rahman[5,6] | Xavier L. Griffin[5,6] | Chuang Gao[7] | Christian Cole[7] | Patrick Batty[4] | John Connelly[4] | Helen Booth[4] | Alison Cave[4] | Katherine Donegan[4] | Daniel Prieto-Alhambra[1,8] | Edward Burn[1] | Annika M. Jödicke[1]

[1]Centre for Statistics in Medicine, University of Oxford, Botnar Research Centre, Oxford, UK | [2]Fundació Institut Universitari per a la Recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol), Barcelona, Spain | [3]Universitat Autònoma de Barcelona, Bellaterra (Cerdanyola del Valles), Barcelona, Spain | [4]Medicines and Healthcare Products Regulatory Agency, London, UK | [5]Barts Bone and Joint Health, Queen Mary University of London, London, UK | [6]Barts Health NHS Trust, NHS Trust, London, UK | [7]Health Informatics Centre, School of Medicine, University of Dundee, Dundee, UK | [8]Medical Informatics Department, Erasmus Medical Center University, Rotterdam, The Netherlands

Correspondence: Daniel Prieto-Alhambra (daniel.prietoalhambra@ndorms.ox.ac.uk)

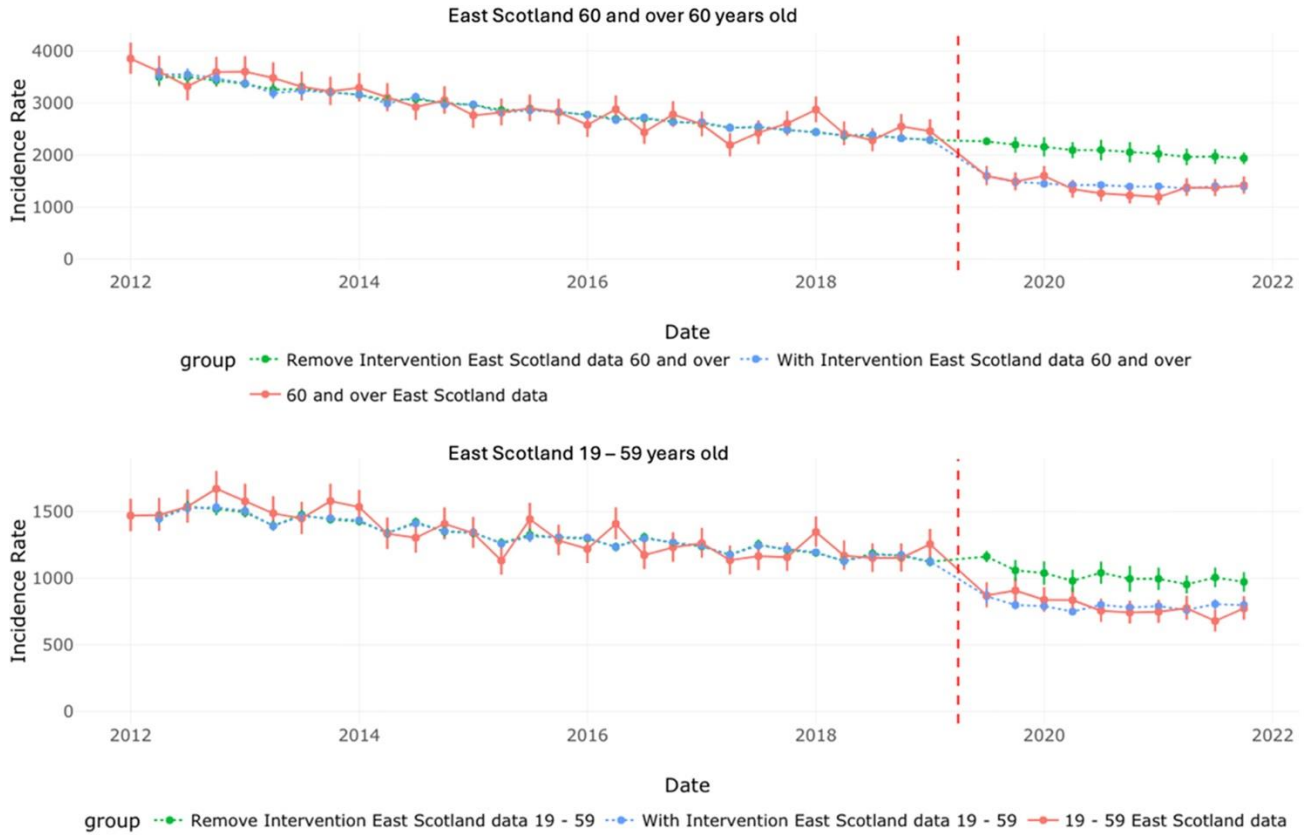
Received: 28 March 2024 | **Revised:** 22 July 2024 | **Accepted:** 16 September 2024

Funding: The research was partially supported by the National Institute for Health Research (NIHR) Oxford Biomedical Research Centre (BRC) and by the UK Medicines and Healthcare Products Regulatory Agency (MHRA). Daniel Prieto-Alhambra is funded through an NIHR Senior Research Fellowship (Grant number SRF-2018-11-ST2-004). Christian Cole and Chuang Gao were funded by the UKRI Strategic Priority Fund (SPF) – Alleviate Pain Data Hub (MR/W014335/1).

Keywords: autoregressive integrated moving average | fluoroquinolones | impact | interrupted time series | regulatory interventions | risk minimisation measures | segmented regression

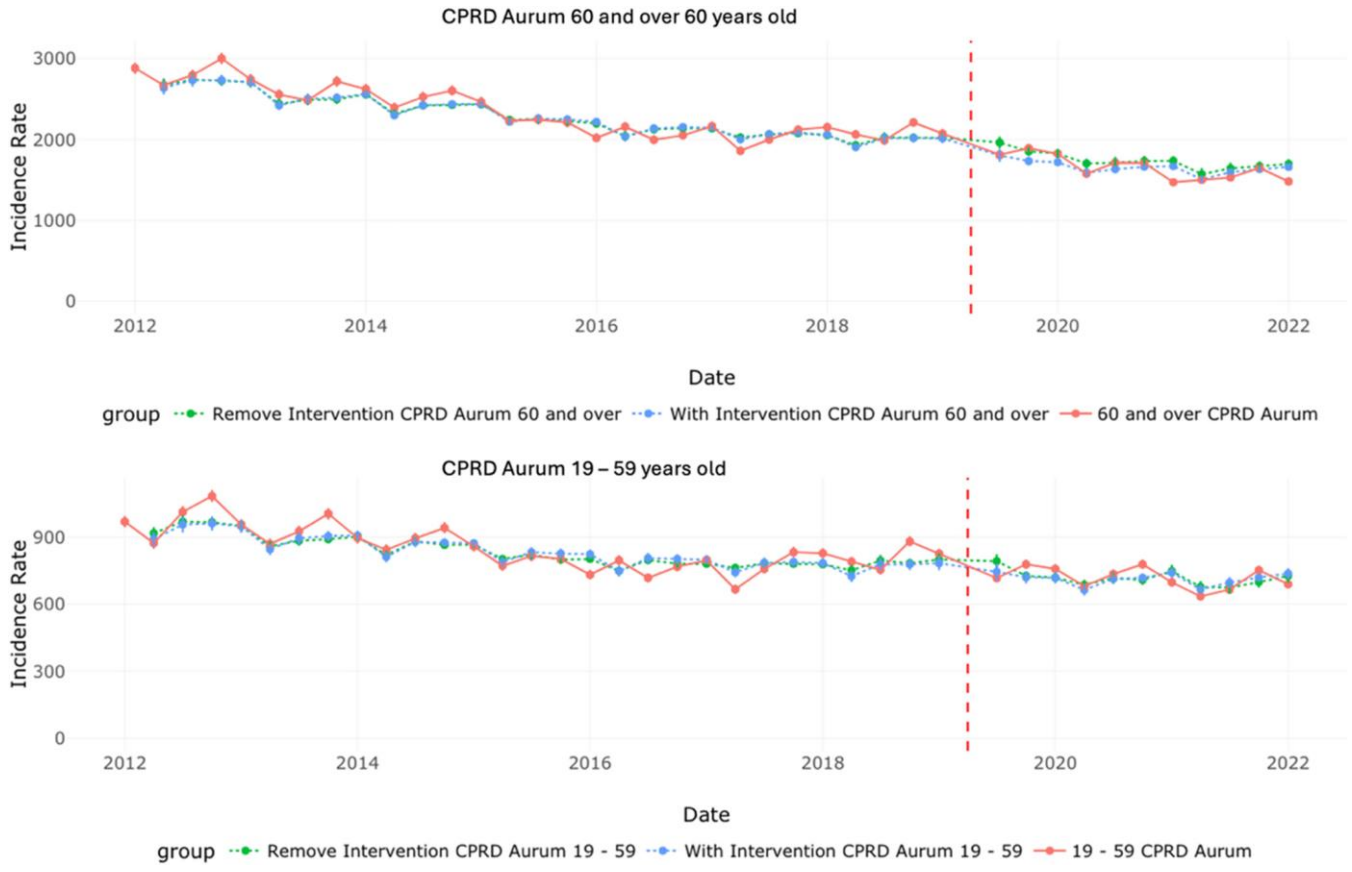
Inaugural year – 2023

- Already designed for (scientific) impact!



Inaugural year – 2023

- Already designed for (scientific) impact!



Inaugural year – 2023

- And reaching (regulatory) impact!

Therapeutic Innovation & Regulatory Science (2026) 60:1–7
https://doi.org/10.1007/s43441-025-00854-3

DIA

ANALYSIS

Check for updates

A Regulatory Perspective on a UK Federated Data Network for Medicines and Medical Devices: Lessons from a 'Study-A-Thon'

Helen P. Booth[1] · John Connelly[1] · Daniel Dedman[1] · Katherine Donegan[1] · Alison Cave[1]

Received: 27 March 2025 / Accepted: 29 July 2025 / Published online: 19 August 2025
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Abstract
Internationally, medical regulators are seeking to make better use of real-world data (RWD) to support their decision making. While the UK National Health Service collects population-wide cradle-to-grave data, challenges remain around siloing, interoperability and access to data across different care settings. In 2023, a `Study-A-Thon' was held to explore how mobilisation of a UK distributed data network might be used to generate real-world evidence (RWE) for regulatory purposes by increasing availability of RWD in a timely manner. Two research questions focusing on high-priority data gaps (medical devices and secondary care prescribing) were selected as case studies to support this work. This paper summarises details of the Study-A-Thon and discusses key learnings for the UK's Medicines and Healthcare products Regulatory Agency (MHRA), UK stakeholders and international partners to reflect on when developing and implementing RWD strategies. Shortcomings of the data are discussed, such as a lack of follow-up for patients across care settings and the need to develop common data models to capture relevant information on medical product utilisation. The importance of local data and clinical expertise for success is highlighted, from encouraging better data collection at point of care through to appropriate interpretation of results. Successful delivery of results for both studies supports the view that, with further development, a UK federated data model could enhance national regulatory decision-making across the product lifecycle.

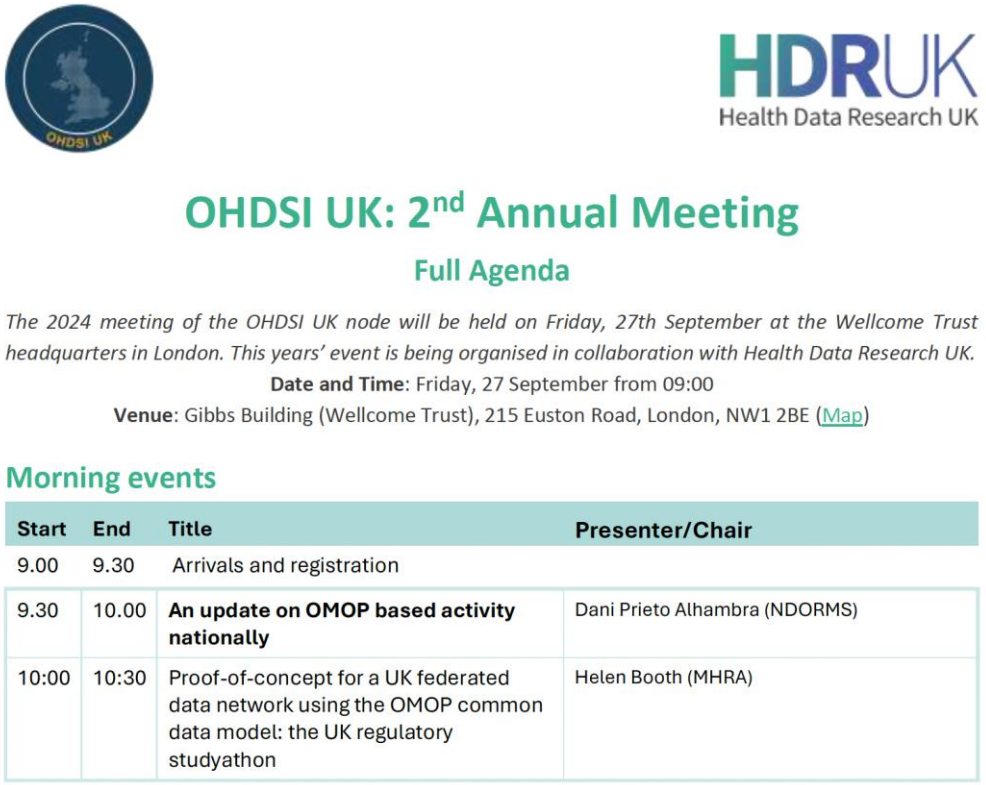
Inaugural year – 2023

Abstract

Internationally, medical regulators are seeking to make better use of real-world data (RWD) to support their decision making. While the UK National Health Service collects population-wide cradle-to-grave data, challenges remain around siloing, interoperability and access to data across different care settings. In 2023, a `Study-A-Thon' was held to explore how mobilisation of a UK distributed data network might be used to generate real-world evidence (RWE) for regulatory purposes by increasing availability of RWD in a timely manner. Two research questions focusing on high-priority data gaps (medical devices and secondary care prescribing) were selected as case studies to support this work. This paper summarises details of the Study-A-Thon and discusses key learnings for the UK's Medicines and Healthcare products Regulatory Agency (MHRA), UK stakeholders and international partners to reflect on when developing and implementing RWD strategies. Shortcomings of the data are discussed, such as a lack of follow-up for patients across care settings and the need to develop common data models to capture relevant information on medical product utilisation. The importance of local data and clinical expertise for success is highlighted, from encouraging better data collection at point of care through to appropriate interpretation of results. Successful delivery of results for both studies supports the view that, with further development, a UK federated data model could enhance national regulatory decision-making across the product lifecycle.

2024! The Terrible-2 toddler is growing fast…

- We created a logo
- 2nd Annual Meeting, already hosted (generously) by HDRUK in Euston Rd, London
- 99 f2f attendees
- Regular online HDRUK OMOP SIG meetings
- Making impact shine!



HDRUK
Health Data Research UK

OHDSI UK: 2nd Annual Meeting

Full Agenda

The 2024 meeting of the OHDSI UK node will be held on Friday, 27th September at the Wellcome Trust headquarters in London. This years' event is being organised in collaboration with Health Data Research UK.

Date and Time: Friday, 27 September from 09:00

Venue: Gibbs Building (Wellcome Trust), 215 Euston Road, London, NW1 2BE (Map)

Morning events

Start	End	Title	Presenter/Chair
9.00	9.30	Arrivals and registration	
9.30	10.00	**An update on OMOP based activity nationally**	Dani Prieto Alhambra (NDORMS)
10:00	10:30	Proof-of-concept for a UK federated data network using the OMOP common data model: the UK regulatory studyathon	Helen Booth (MHRA)

2024! The Terrible-2 toddler is growing fast

- Lots of science
  - *Clinical Applications*
  - *Software Demos*
  - *NHS SDEs and the promise of conversion to OMOP*
  - … a proper OHDSI meeting ☺

Start	End	Title	Presenter/Chair
13.30	14.30	**Guest Speakers: The future of OMOP in the UK**	Chaired by Paola Quattroni (EACTS)
13:30	13:50	The Future of OMOP across the NHS Research Secure Data Environment Network	Phil Waywell (NHSE Data for R&D Programme)
13:50	14:10	Our Future Health: A new prospective cohort study to prevent, detect, and treat diseases	Julia Lanoue, Ben Cairns (Our Future Health)
14:10	14:30	Discussion	
14.30	15.00	Coffee break, posters, and software demos	
15.00	16.00	**Lightning talks 2: Open-Source Software** *Brief presentations from submitted abstracts*	Chaired by: Jennifer Lane (Barts) and Marta Alcalde (NDORMS)
1.		Cohort Discovery and the OMOP Common Data Model in the United Kingdom	Bradley Kirby (HDR UK)
2.		Enhancing Hematologic Oncology Data Capture in the OMOP CDM: Methodological Advances and Challenges	Clara L. Oeste (LynxCare)
3.		Visualising OMOP concept relationships with omopcept	Andy South (UCLH)
4.		Cloud-based, Automated Solution to Transforming Clinical Datasets to the OMOP CDM	Abigail Carter (Genomics England)
5.		Adoption of the OMOP Common Data Model in the UK	Alex Knight (HDR UK)
6.		Standardisation of Multi-Agency Data to the OMOP-Common	Rachel Sippy (Cambridge)

2025 – CONSOLIDATION

Despite a weak start of the day …



2025 – CONSOLIDATION
Meeting again at Wellcome Trust, London

- 2nd consecutive meeting hosted by HDRUK
- 198 people registered (but ~150 attendees)
- First presentation of the NHDRS

OHDSI UK: 3rd Annual Meeting

Full Agenda

The 2025 meeting of the OHDSI UK node will be held on Friday, 26th September at the Wellcome Trust headquarters in London. This years' event is being organised in collaboration with Health Data Research UK.

Date and Time: Friday, 26 September from 09:00

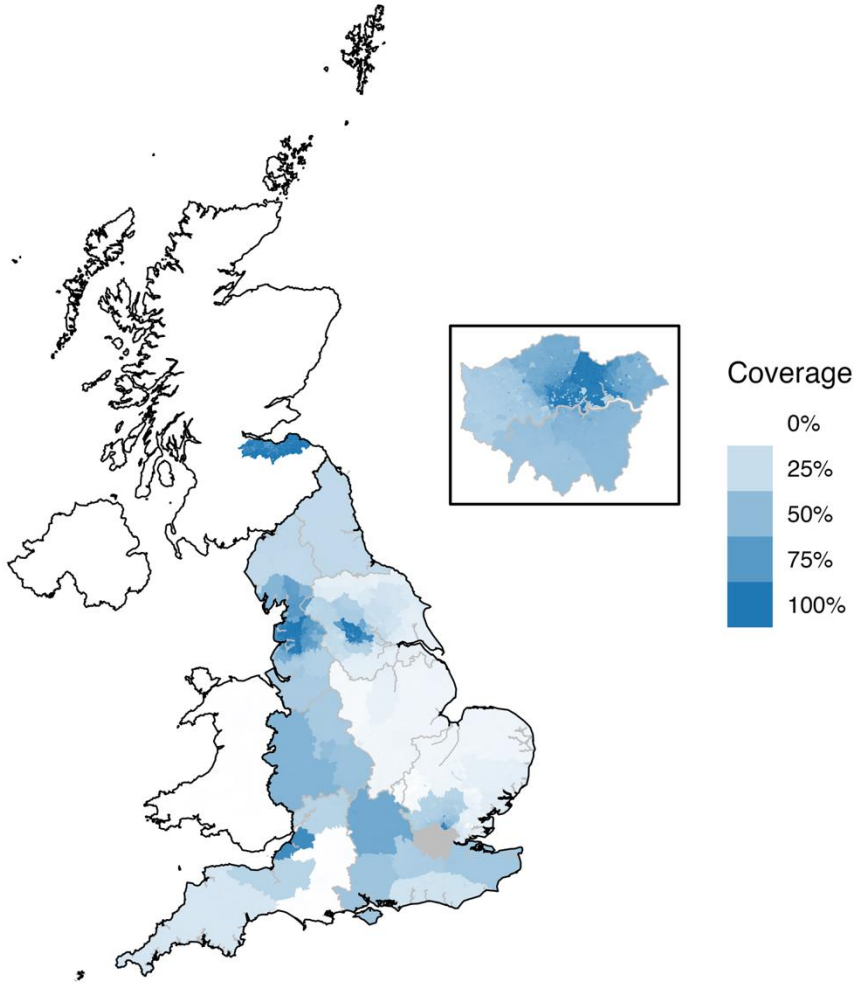
Venue: Gibbs Building (Wellcome Trust), 215 Euston Road, London, NW1 2BE (Map)

Morning sessions

Start	End	Title	Presenter/Chair
9.00	9.30	Arrivals and registration	
9.30	9.40	Welcome and Introduction	Andrew Morris
9.40	10.00	An update on OMOP CDM based activity in the UK and Europe	Alex Knight and Daniel Prieto-Alhambra
10:00	10:30	Health Data Research Service	Jennifer Boon (DHSC)

2025 – CONSOLIDATION
Achievements

- Again, lots of science, incl Clinical apps as well as Software Demos
- **Big Impacts:**
  - NHS dm+d Refresh via OHDSI Community Contribution
  - Consolidation of HERON-UK
    - 7 Data Partners, 56+m people
    - Completion of proof-of-concept studies



2025 – CONSOLIDATION

Whatsapp from Patrick in 2024: “you did not take a picture?”



2026 – ON THE ROAD
Meeting at the University of Nottingham



OHDSI UK Meeting 2025 (Nottingham):

- 171 attendees
- 54 abstracts submitted

14:30	15:30	**Lightning Talks 2 – Clinical Applications.** Chair: Usama Rahman (Barts)	Auditorium
6.	Transforming the Breast Cancer Now Biobank Data into the OMOP Common Data Model	Maryam Abdollahyan (Barts Cancer Institute)	
7.	Five Cohorts, One Model: Harmonisation of 17.5 Million UK Births for Federated Maternal and Child Health Research	Michael Seaborne (Swansea University)	
8.	Leveraging the OMOP Common Data Model as a foundation for federated analytics across three UK TRE nodes: Insights from CONNECT-AF	Fatemeh Torabi (University of Cambridge)	
9.	Representing oncology survey data in the OMOP Common Data Model: an EORTC quality of life use case	Charlotte Moss (King's College London)	
10.	Building a Federated OMOP CDM Framework for Age-Standardised Characterisation of AML Subtypes in Ireland.	David Akwuru (University of Limerick)	



Establishing HERON-UK for sustainable research using the OMOP CDM in the UK

Ed Burn,

University of Oxford

OHDSI UK and HERON-UK

OHDSI UK

- Aim: community-building in the UK
- Organise annual conference and three online quarterly calls to share progress and lessons learnt, updates on research, etc
- Based on goodwill and shared interests

HERON-UK

- Aim: establish a sustainable research network in the UK
- Coordinate network studies
- Ensure consistency across data partners
- Conduct network studies
- Funded studies (for data partners and coordinating centre)

HDR UK funded One-Year pilot



News Announcement

New Real-World Evidence Network Co-ordination Centre for the UK

WP 1: DATA NETWOK

Onboarding data partners to network, ensuring readiness to perform network studies.

WP 2: PILOT STUDIES

Demonstrate the value of the network and identify gaps in data and tooling.

WP 3: SUSTAINABILITY

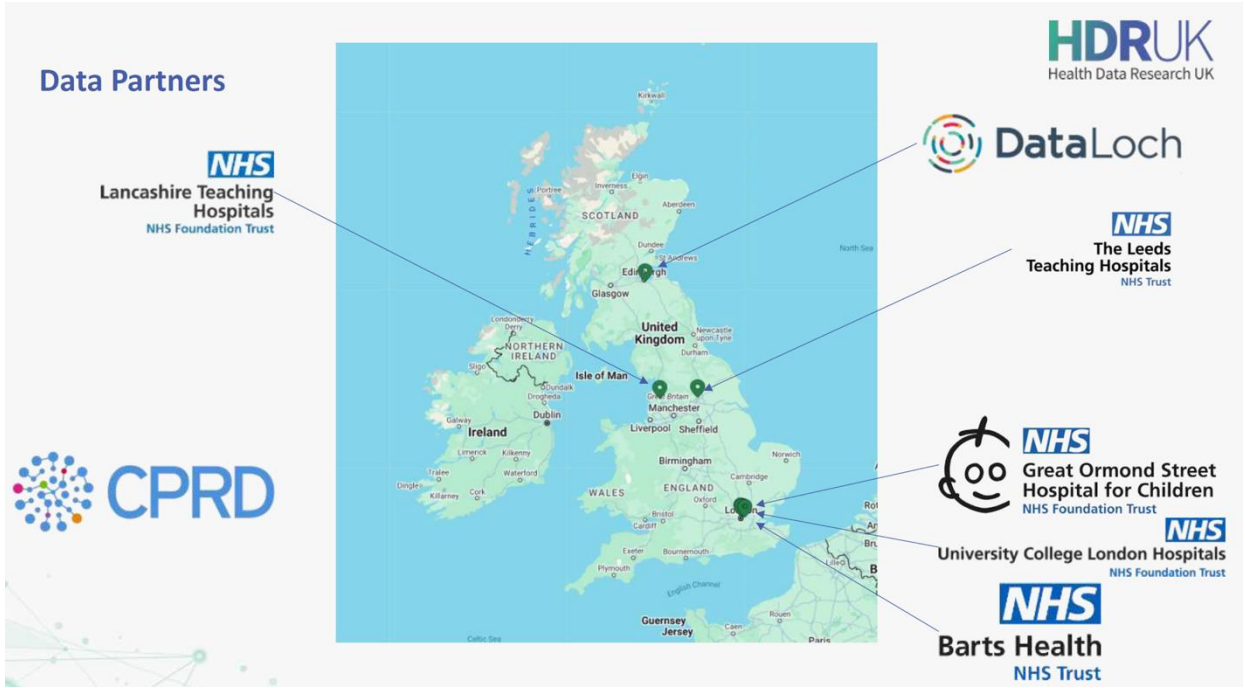
Oversee pilot and identify opportunities to secure the sustainability of the network beyond the pilot phase.

Data partner call



- Data partners required to have **already** mapped to the OMOP CDM
- Data partners selected by panel including MHRA, UKHSA, NICE, and patient representatives

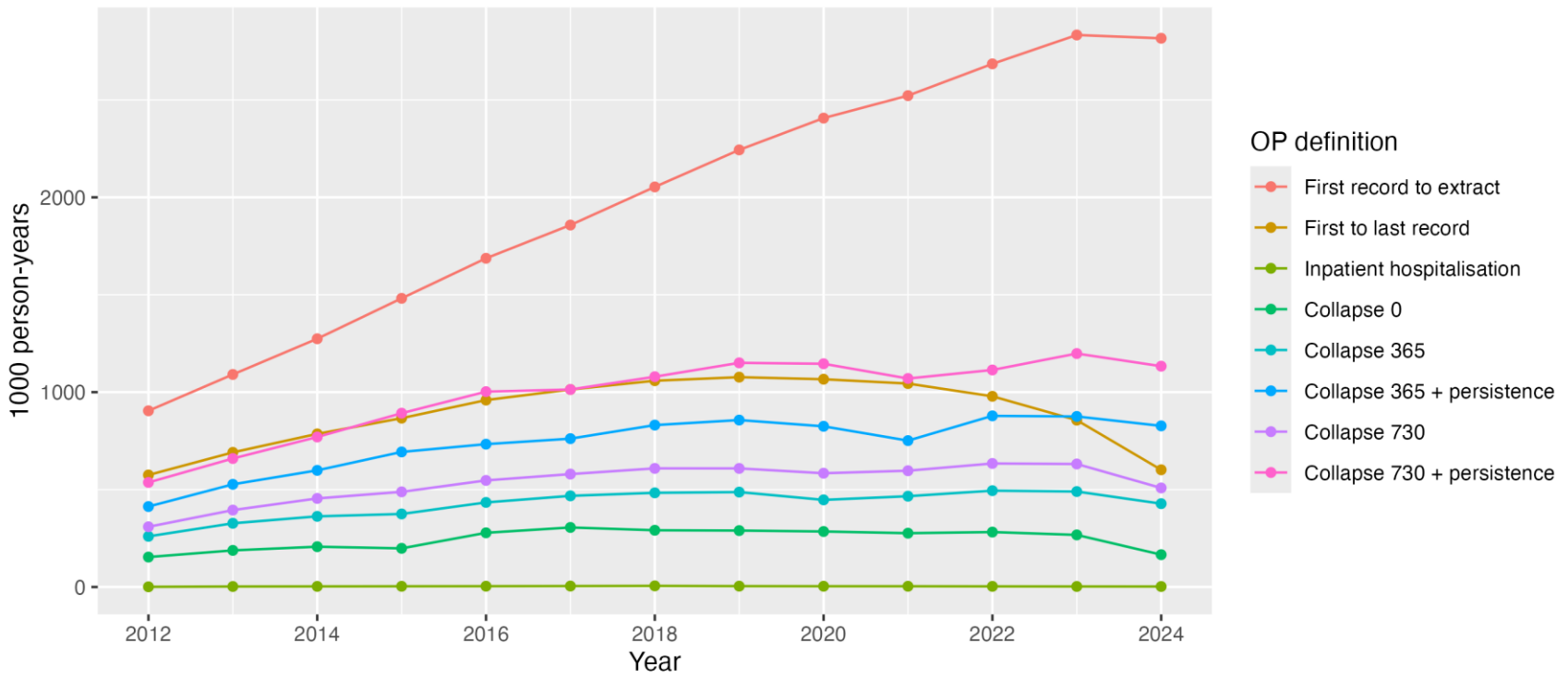
HEalth Data Research OMOP Network (HERON-UK)



	Population
CPRD AURUM	49,359,991
Barts Health	3,212,801
Lancashire Teaching Hospitals	1,533,222
University College London Hospitals	1,379,618
Great Ormond Street Hospital for Children	204,159
The Leeds teaching hospitals	1,475,561
DataLoch NHS Lothian	413,971
HERON-UK	**57,579,323***

***Overlap between patients in English hospital data and CPRD Aurum can be expected**

Ensuring consistency: observation periods



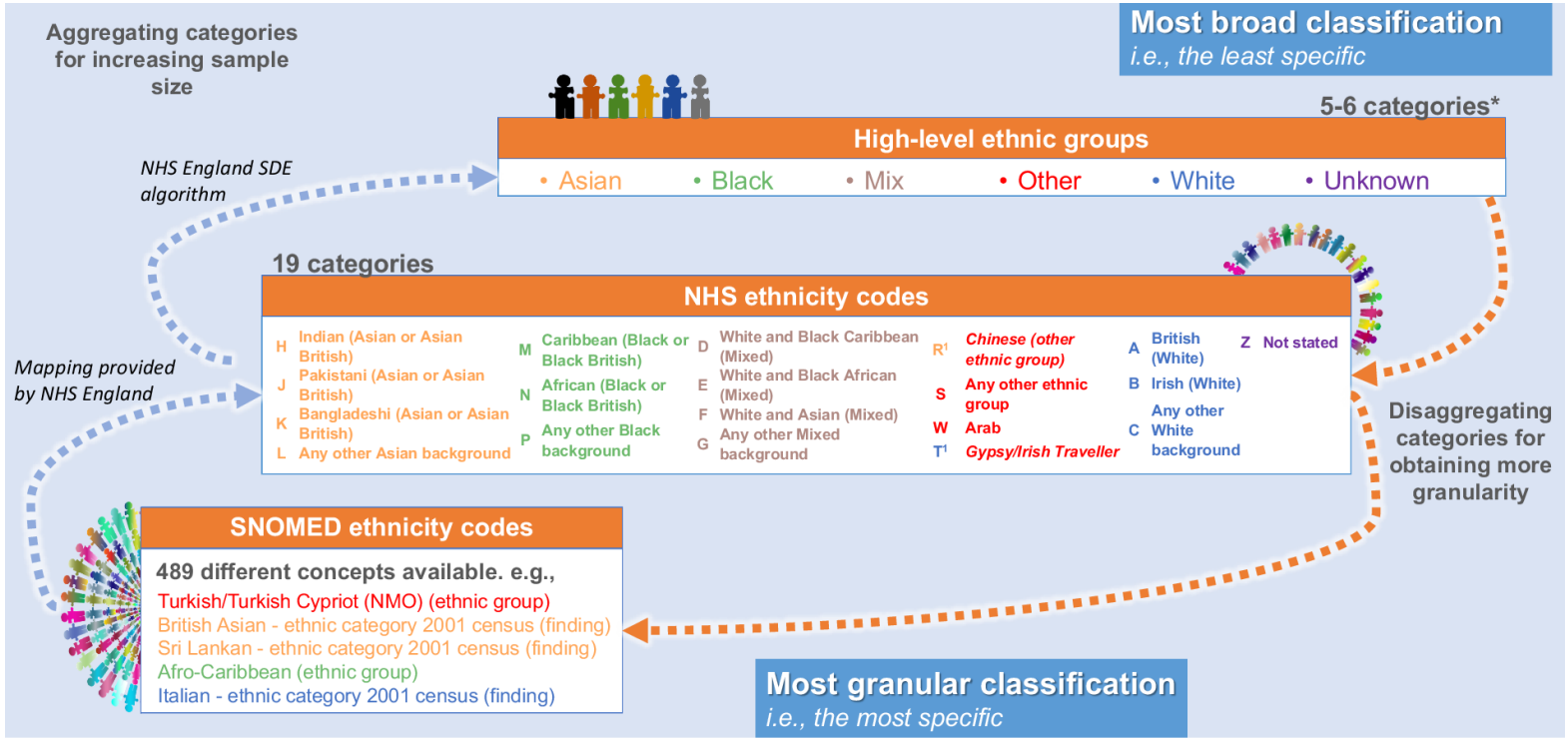
- Different observation period definitions can have sizeable impact
- HERON-UK hospitals now use the same definition (can be changed on a study-by-study basis)

Ensuring consistency: NHS ethnicities

Ethnicity data resource in population-wide health records: completeness, coverage and granularity of diversity

Marta Pineda-Moncusí, Freya Allery, Antonella Delmestri, Thomas Bolton, John Nolan, Johan H. Thygesen, Alex Handy, Amitava Banerjee, Spiros Denaxas, Christopher Tomlinson, Alastair K. Denniston, Cathie Sudlow, Ashley Akbari, Angela Wood, Gary S. Collins, Irene Petersen, Laura C. Coates, Kamlesh Khunti, Daniel Prieto-sAlhambra & Sara Khalid ✉ on behalf of the CVD-COVID-UK/COVID-IMPACT Consortium

Scientific Data **11**, Article number: 221 (2024) | Cite this article

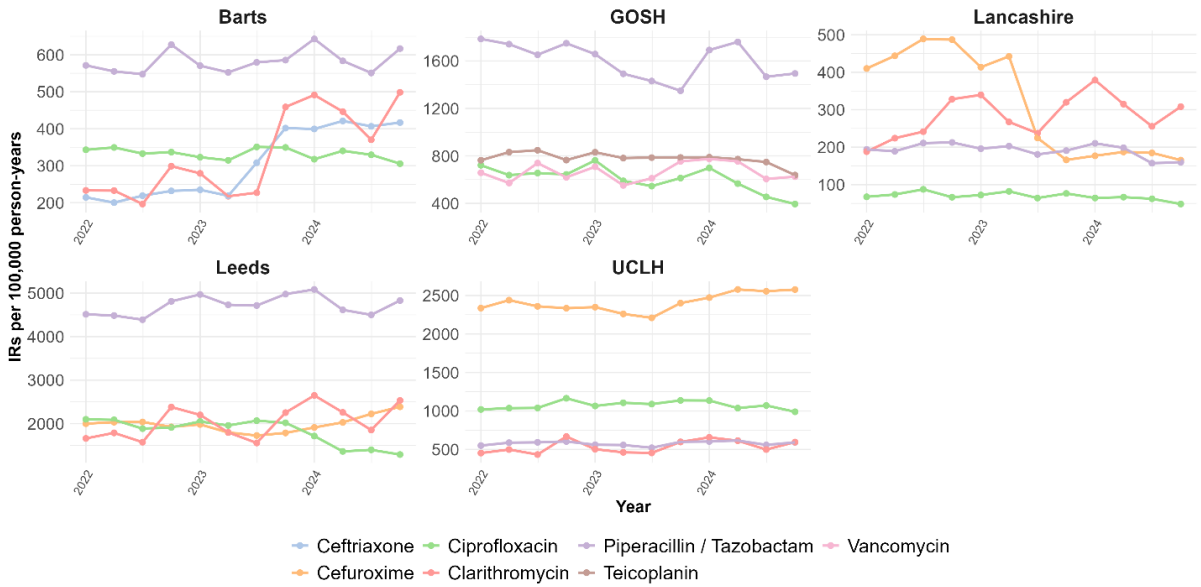


- NHS ethnicities now added to the OMOP CDM vocabularies
- High-level ethnic groups are now mapped to “race_concept_id” in the person table (NHS ethnicity codes in source value)

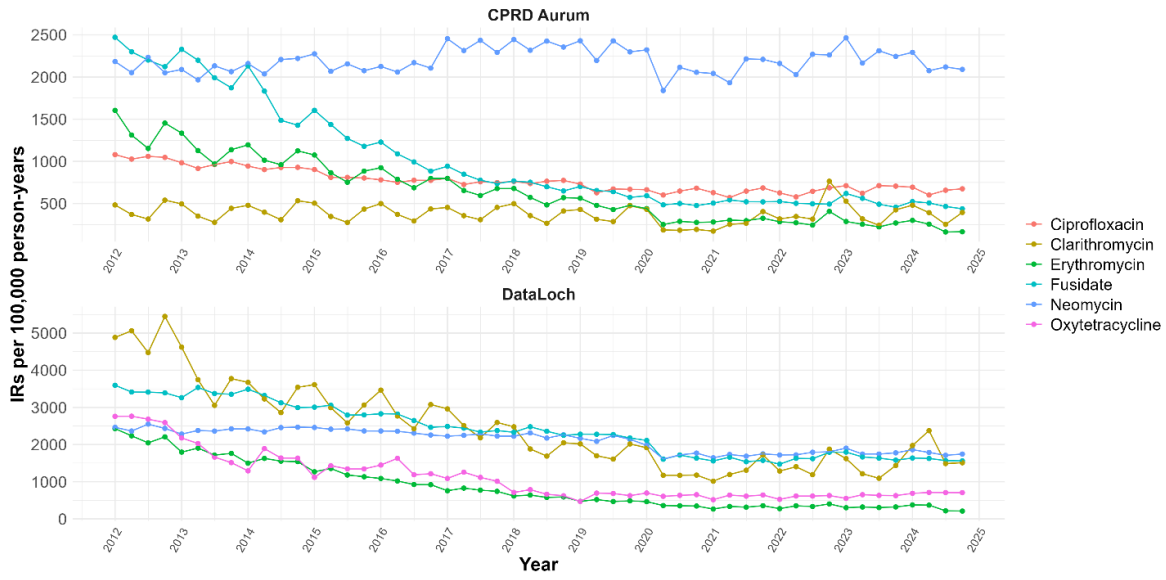
Conducting network studies: antibiotics

Quarterly incidence rates of the five most used Watch antibiotics across hospital databases

Hospital databases

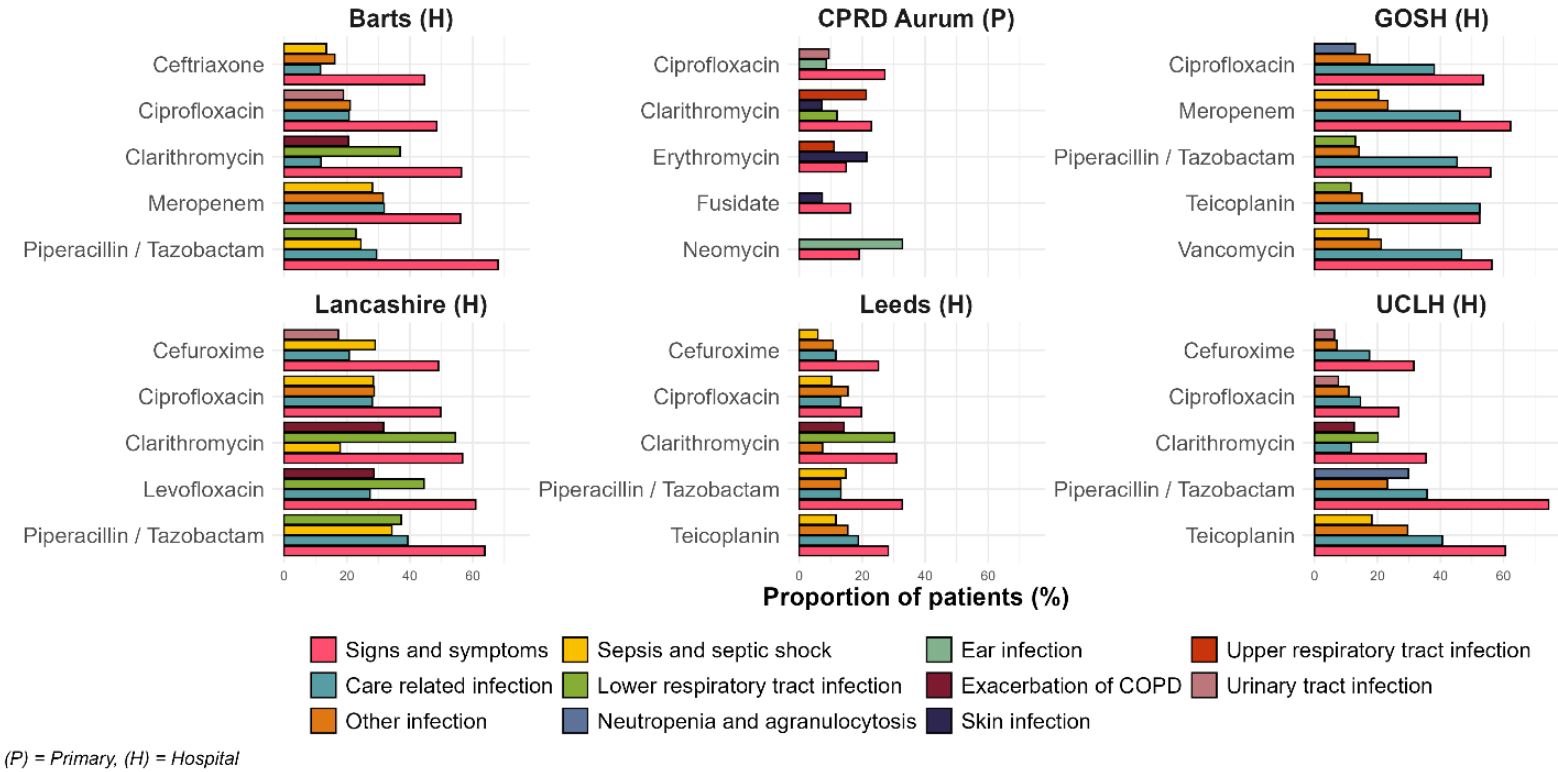


Outpatient databases



Conducting network studies: antibiotics

The four most frequent conditions of interest recorded in patients in the 14 days prior and 14 days after top five Watch antibiotics across databases



(P) = Primary, (H) = Hospital

Challenges and opportunities in the UK

OMOP CDM data standardistaion in the UK

- Data in the UK increasingly being mapped to the OMOP CDM

> **NHS Research SDE Network agrees to adopt common data model**

- But,
  - duplication of effort (limited sharing of ETL pipelines),
  - mapped data not ready for research (data quality/ inconsistency),
  - data that has been mapped is generally underutilised with researchers not asking for data in the OMOP CDM format

Trusted research environments

- Researchers in the UK increasingly access health data via trusted research environments (TREs) and NHS secure data environments (SDEs)
- TREs are similarly going to have an important role of the European Health Data Space
- Characteristics of TREs
  - Tighter restrictions around the software that can be installed
  - Study results need to be sent for output checking
  - Researchers paying variable cloud computing costs

Next steps for HERON-UK

- Further improvements in consistency across datasets
  - Measurement standardisation, visit detail table, health economic variables and so on
- Continued development of TRE-ready software
- Conducting a broad range of studies
  - Inequalities in diagnosis and treatment of aortic stenosis
  - Treatment adherence after MI/stroke
  - Safety and effectiveness of medical devices



Real World Use of OMOP at an NHS Teaching Hospital - Barts Health

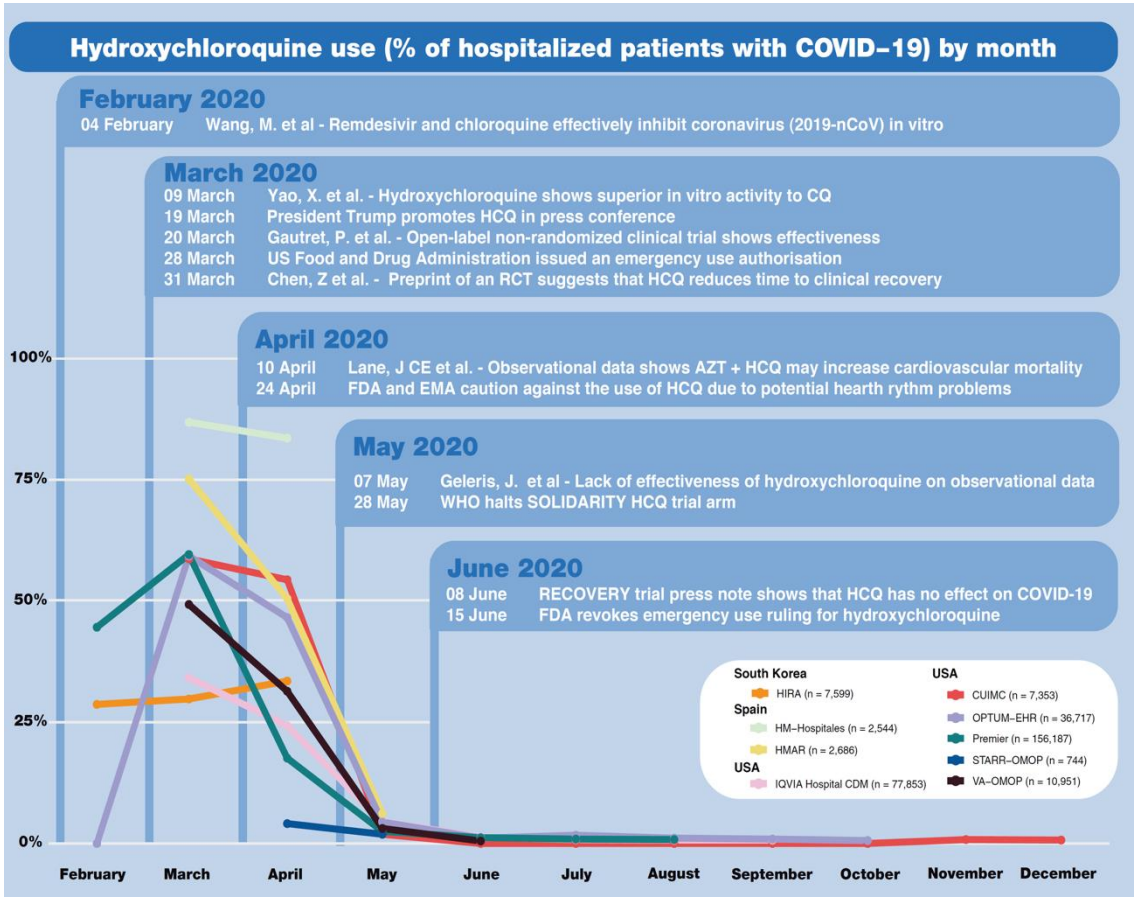
Dr Jennifer Lane
NIHR Clinical Lecturer, Trauma & Orthopaedics
Barts & the London, UK

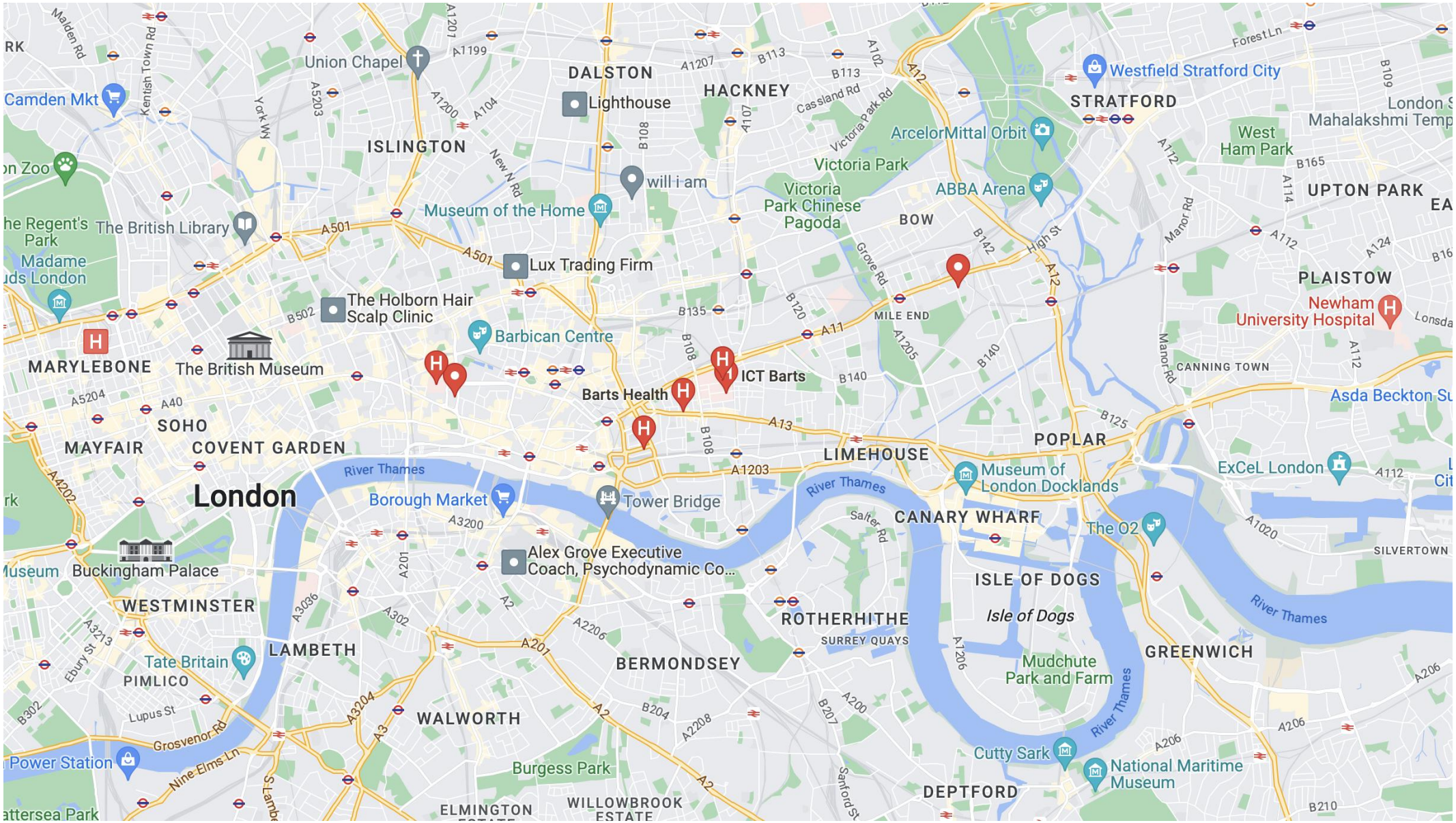
OHDSI history

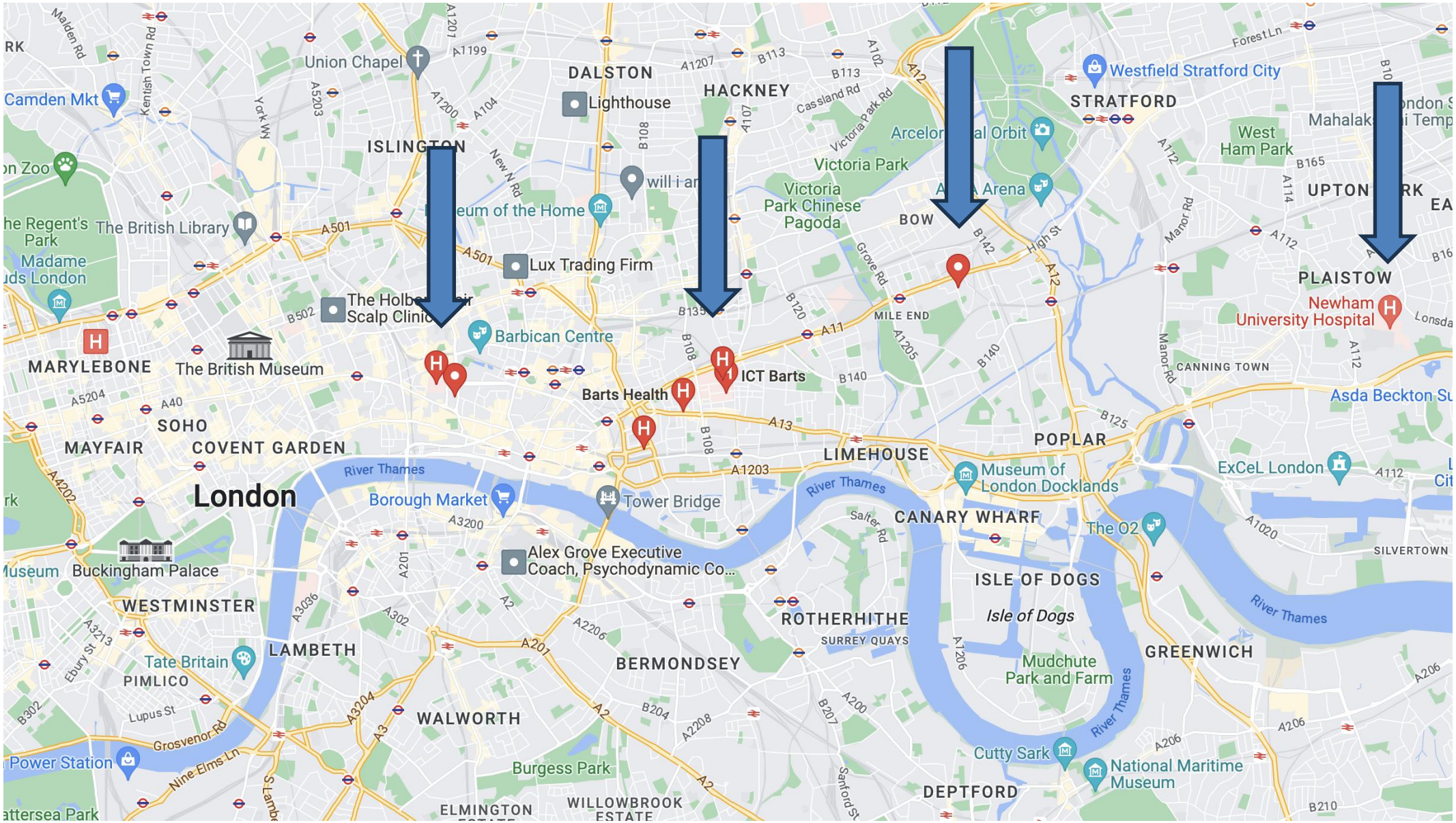









Union Chapel
DALSTON
Lighthouse
HACKNEY
Westfield Stratford City
STRATFORD
Camden Mkt
ISLINGTON
ArcelorMittal Orbit
West Ham Park
UPTON PARK
will i am
Victoria Park
Victoria Park Chinese Pagoda
ABBA Arena
BOW
Museum of the Home
The British Library
Lux Trading Firm
The Holborn Hair Scalp Clinic
Barbican Centre
PLAISTOW
Newham University Hospital
MILE END
MARYLEBONE
The British Museum
ICT Barts
Barts Health
CANNING TOWN
Asda Beckton
SOHO
MAYFAIR
COVENT GARDEN
POPLAR
LIMEHOUSE
River Thames
London
Borough Market
Tower Bridge
Museum of London Docklands
ExCeL London
CANARY WHARF
The O2
Alex Grove Executive Coach, Psychodynamic Co...
Buckingham Palace
ISLE OF DOGS
SILVERTOWN
WESTMINSTER
ROTHERHITHE
Isle of Dogs
SURREY QUAYS
LAMBETH
Tate Britain
PIMLICO
BERMONDSEY
Mudchute Park and Farm
GREENWICH
WALWORTH
Power Station
Burgess Park
Cutty Sark
National Maritime Museum
DEPTFORD
ELMINGTON
WILLOWBROOK ESTATE


Union Chapel
DALSTON
Lighthouse
HACKNEY
ISLINGTON
Camden Mkt
Westfield Stratford City
STRATFORD
Victoria Park
Victoria Park Chinese Pagoda
BOW
West Ham Park
UPTON
PLAISTOW
Newham University Hospital
The British Library
Madame Tussauds London
Lux Trading Firm
Barbican Centre
MARYLEBONE
The British Museum
MILE END
ICT Barts
Barts Health
CANNING TOWN
SOHO
MAYFAIR
COVENT GARDEN
LIMEHOUSE
POPLAR
River Thames
London
Borough Market
Tower Bridge
Museum of London Docklands
ExCeL London
CANARY WHARF
The O2
Buckingham Palace
WESTMINSTER
Alex Grove Executive Coach, Psychodynamic Co...
ISLE OF DOGS
Isle of Dogs
ROTHERHITHE
SURREY QUAYS
LAMBETH
Tate Britain
PIMLICO
BERMONDSEY
Mudchute Park and Farm
GREENWICH
WALWORTH
Burgess Park
Cutty Sark
National Maritime Museum
DEPTFORD
ELMINGTON
WILLOWBROOK ESTATE
SILVERTOWN
Asda Beckton



Barts Health NHS Trust



Barts Health NHS Trust

Including

St Bartholemews- Royal London Hospital – Whipps Cross – Mile End- Newham



Specialist services

Cardiac/Cancer/
Renal/ Paediatrics



Ortho/ICU/ Major trauma

Level 1 Trauma centre

Ortho:

100,000 patients per year

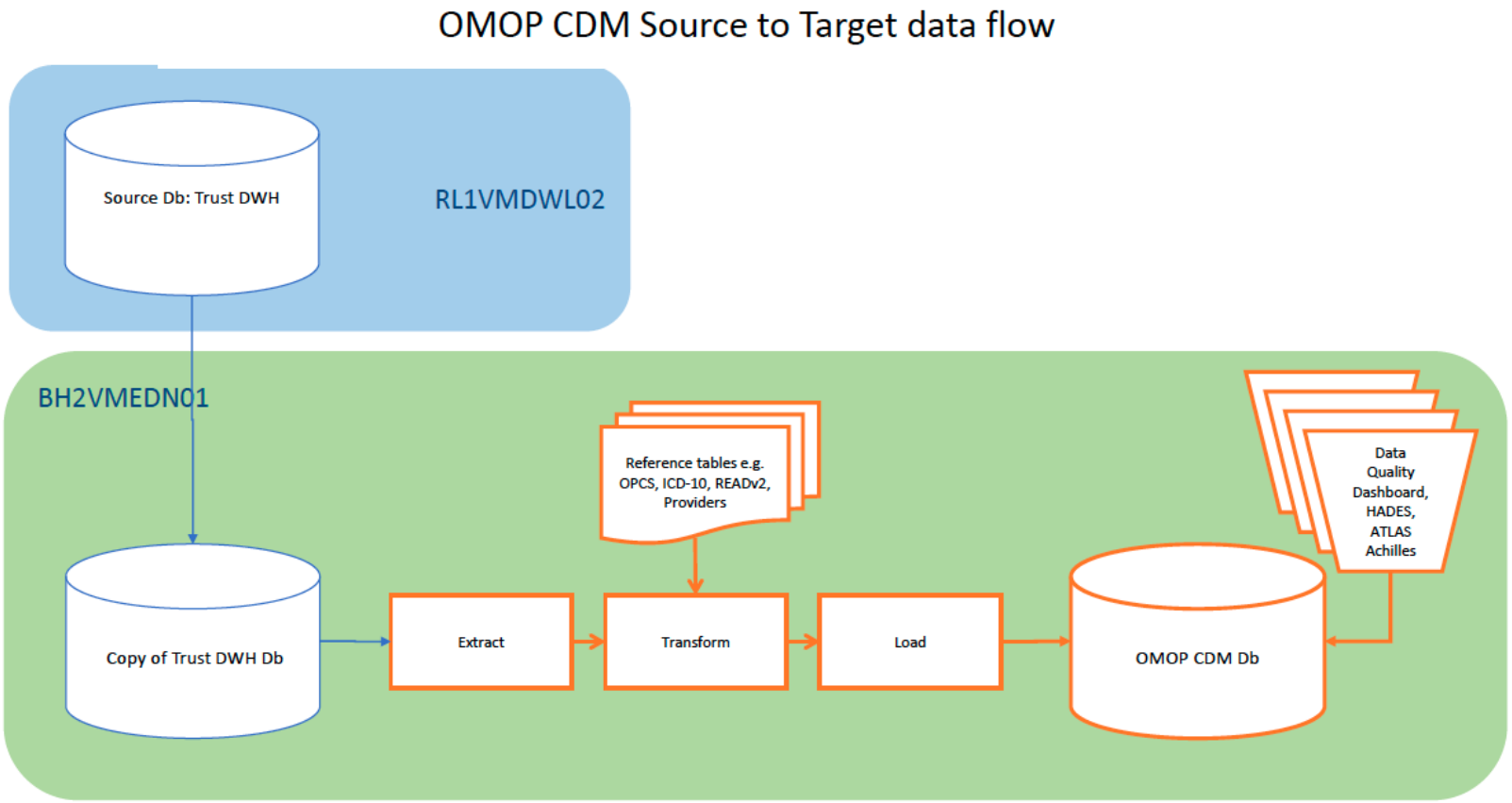
10,000 procedures



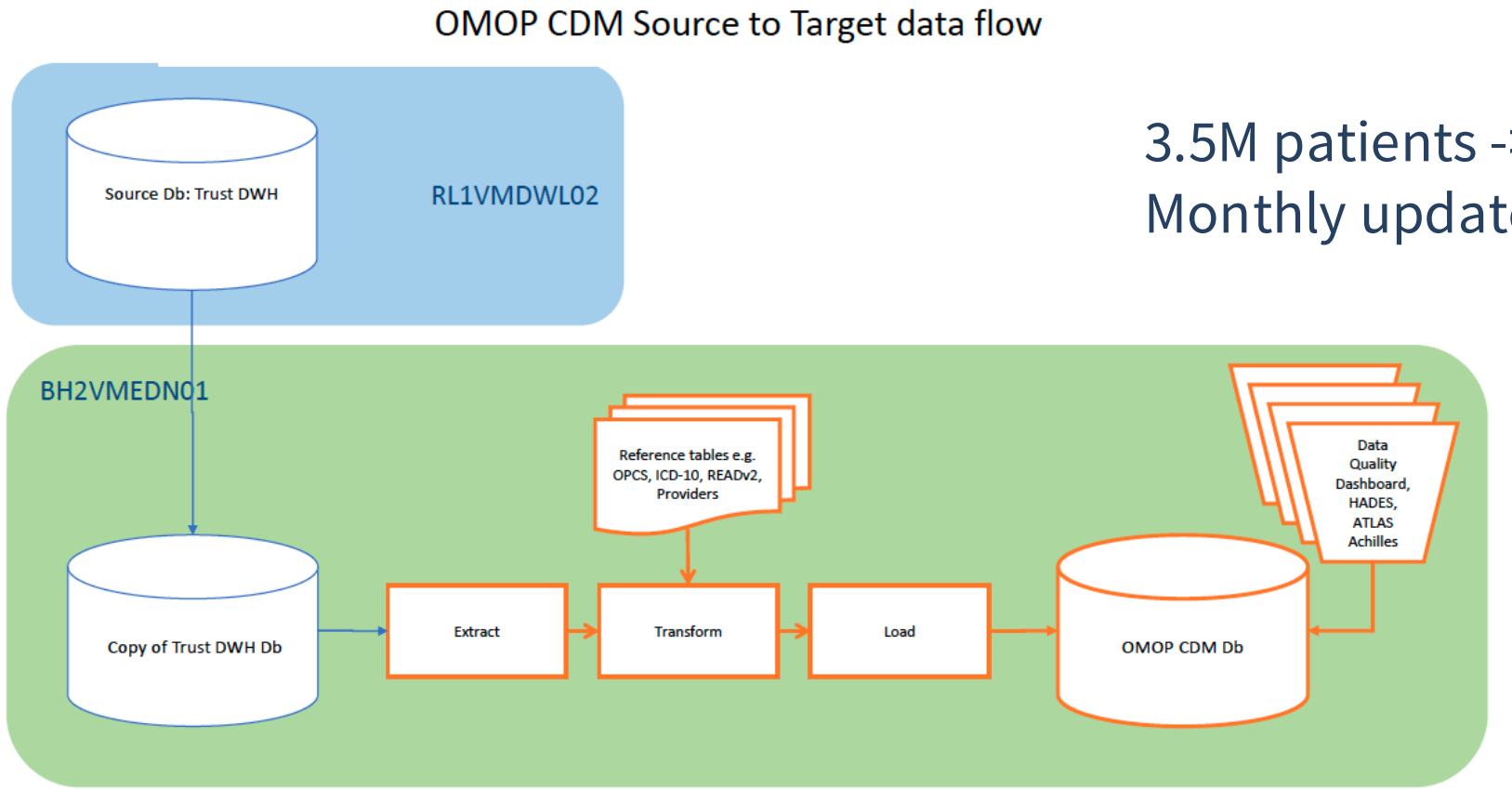
QMUL

Barts & the London Medical (& dental) School

EHDEN Grant for mapping



EHDEN Grant for mapping



3.5M patients -> 6M in 2027
Monthly updates

How have we used it?



Benchmarking: HDRUK UK data network



HDRUK
Health Data Research UK

health data sciences

NICE
National Institute for Health and Care Excellence



NHS
Great Ormond Street Hospital for Children
NHS Foundation Trust

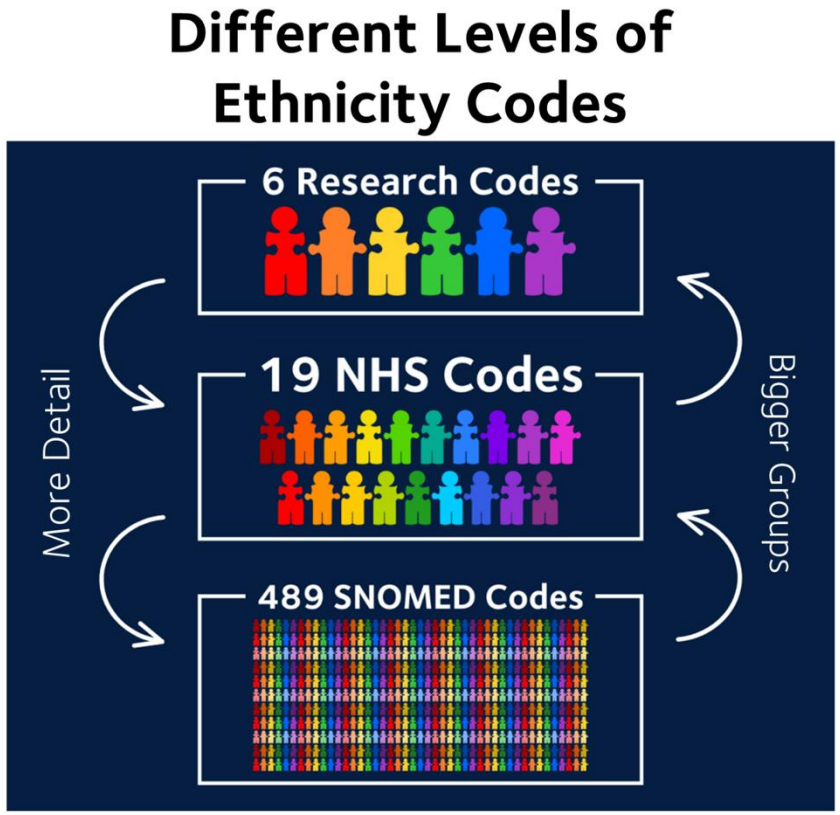
NHS
Lancashire Teaching Hospitals
NHS Foundation Trust

NHS
Barts Health
NHS Trust

NHS
University College London Hospitals
NHS Foundation Trust

NHS
The Leeds Teaching Hospitals
NHS Trust

Representing our population

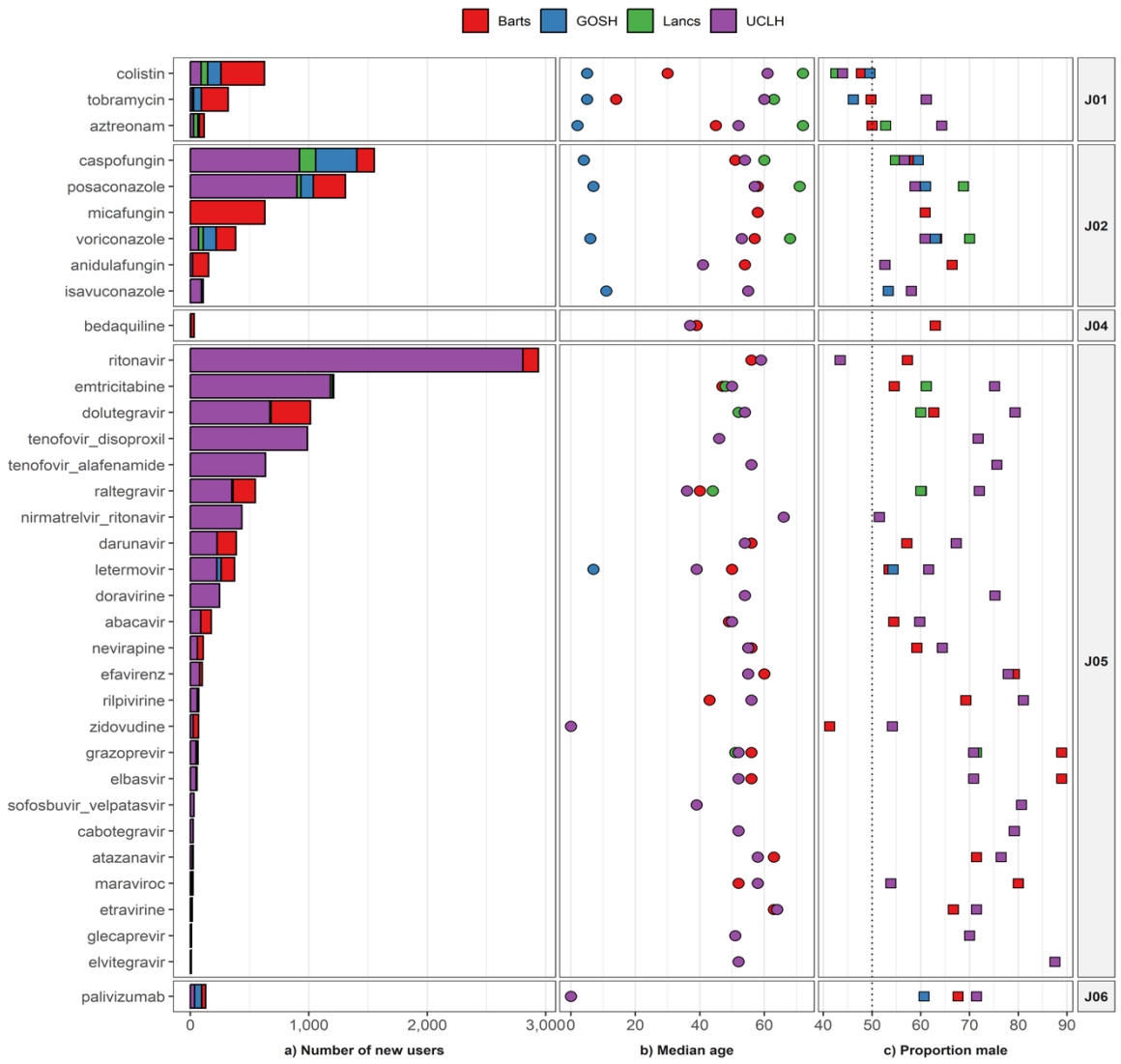


IMD quintile	Barts N	Barts %	UCLH (N)	UCLH (%)
1	675694	23	226384	17
2	1177000	40	404973	31
3	527592	18	300776	23
4	341594	12	213498	16
5	236293	8	165038	13

New User Profiles: Anti-infective

Medicines & Healthcare products Regulatory Agency

HERON-UK



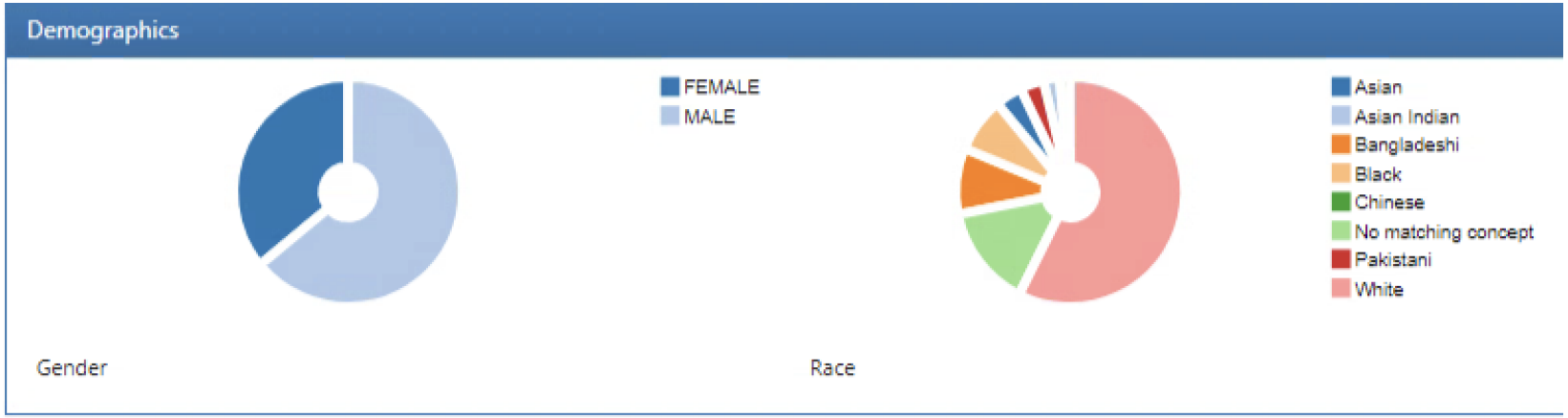
Scaphoid Fractures and Health Equity

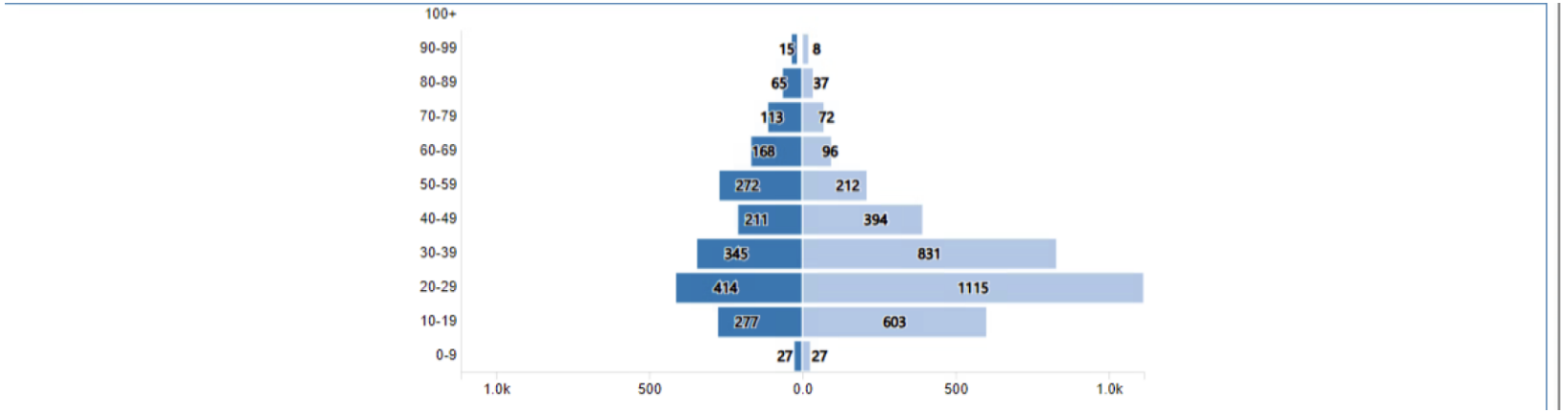
- Common hand fracture; missed injury = significant litigation
- After clinical case- explored potential disparity
- Scaphoid cohorts defined and coded (Snomed)
- *10y ‘good data’*



Inequity in injury presentation & outcome

2 minutes and 53 seconds run time for the whole study





Total 9748 cases

2.1M patients
1040 cases





2.6M patients
5306 cases

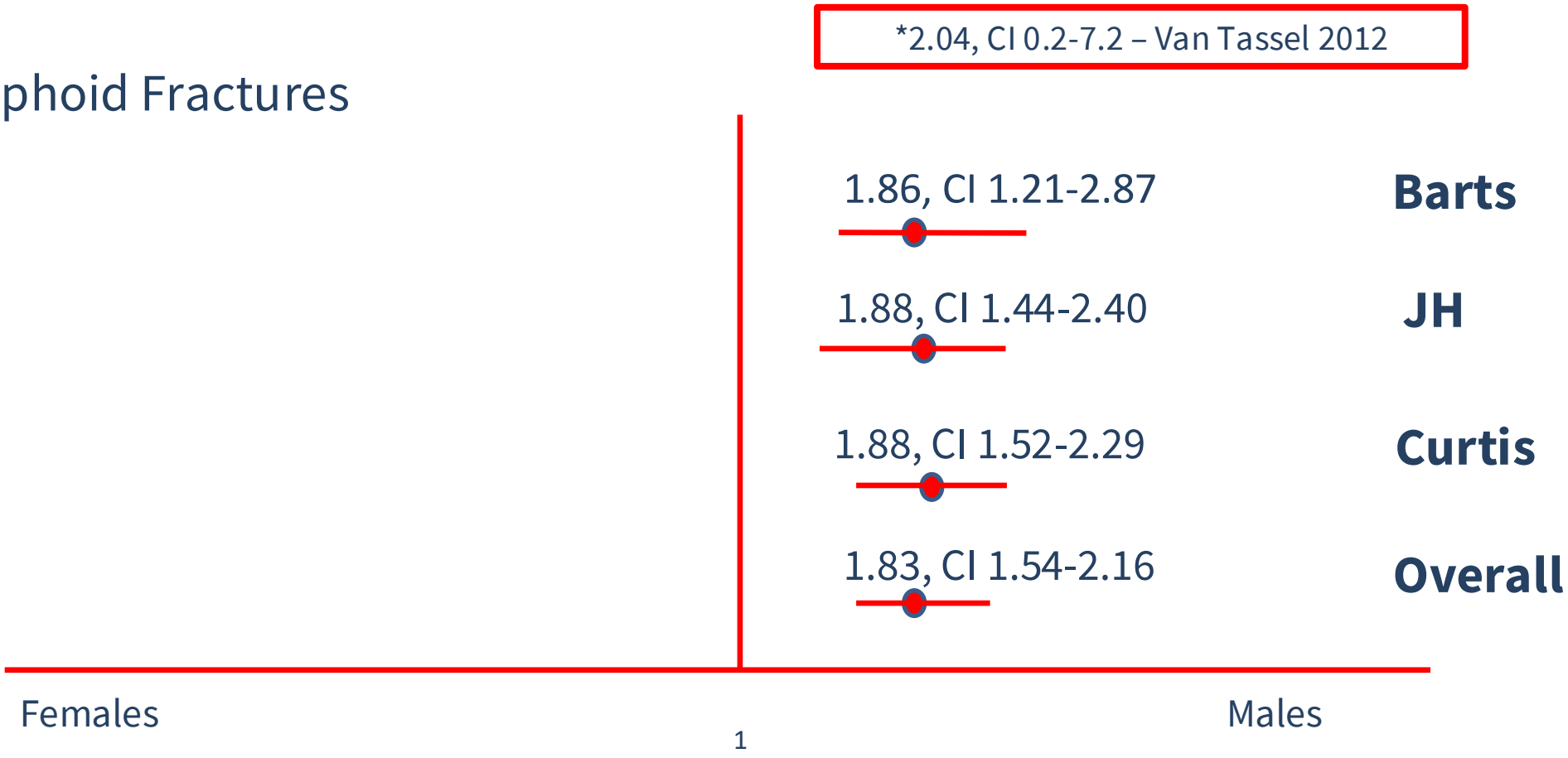


4.1M patients
3402 cases

~ 8.8M patients

Stratified Rate Ratios

Sex – Scaphoid Fractures



Stratified Rate Ratios

Sex – Scaphoid Fracture Non-Union



Almost 5 x more likely

RR 5.33, 95% CI 3.04-8.66



NHS Barts Health NHS Trust

Almost 3 x more likely

JOHNS HOPKINS MEDICINE

RR 2.66, 95% CI 1.15-5.25

CURTIS NATIONAL HAND CENTER

Almost 2 x more likely

JOHNS HOPKINS MEDICINE

RR 2.01, 95% CI 0.55-5.13

Alerting the Surgical audience

ELSEVIER

The Journal of Hand Surgery

Volume 50, Issue 3, March 2025, Pages 363-367



The Hand Surgery Landscape

Observational Health Data Science and Informatics and Hand Surgery Research: Past, Present, and Future

Richard Hum MS [*], Jennifer CE. Lane DPhil, FRCS (T&O) [†], Gongliang Zhang PhD, MS [‡ §], Ruud W. Selles PhD [‖ ¶], Aviram M. Giladi MD, MS [‡]

Show more

Future Directions



Medical Device surveillance

First Do No Harm

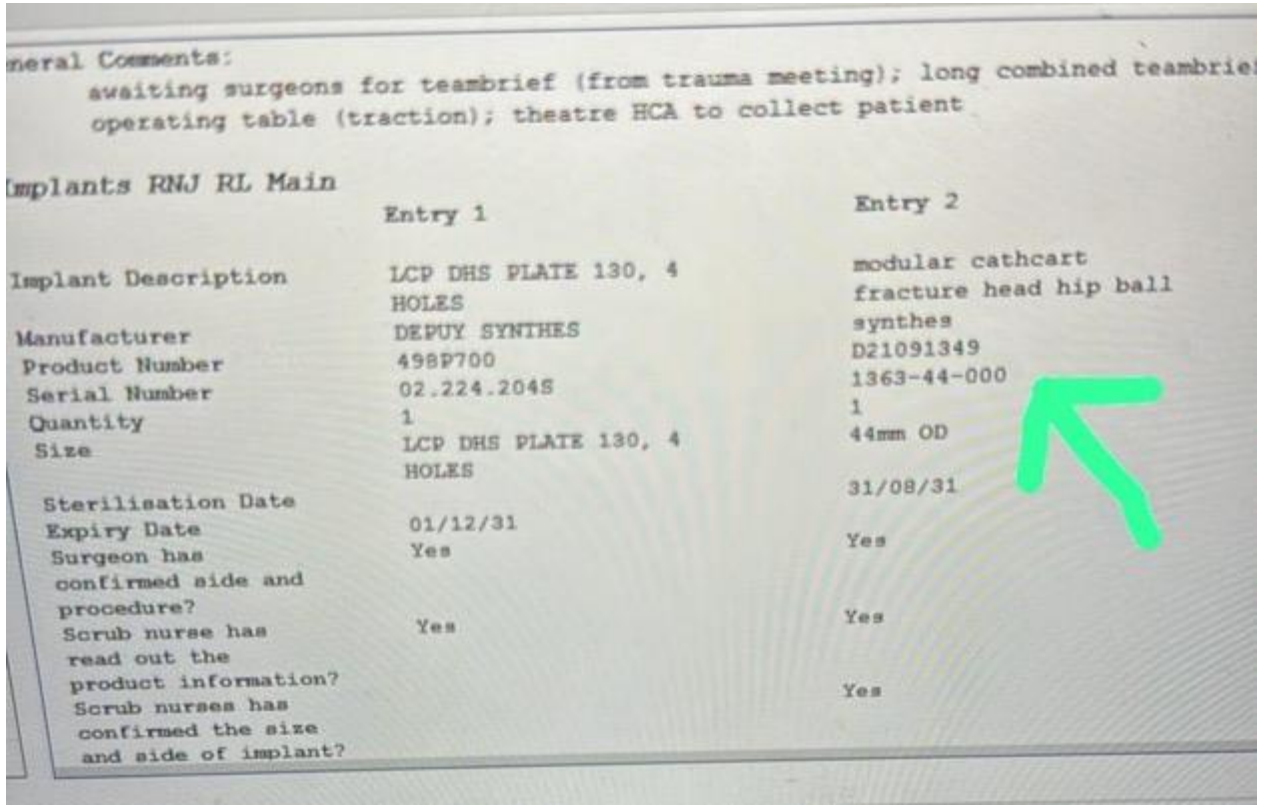
The report of the Independent Medicines and Medical Devices Safety Review





Medicines & Healthcare products Regulatory Agency

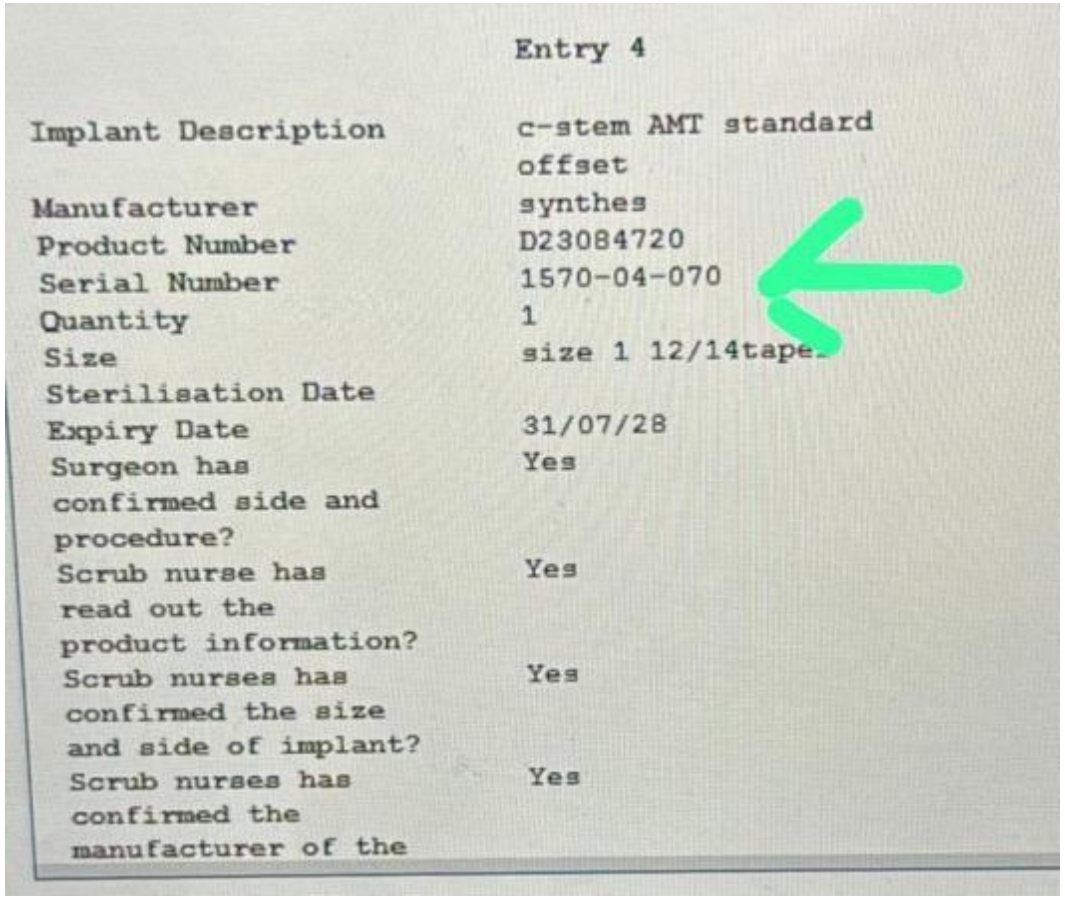
Identifying devices: source data



neral Comments:
awaiting surgeons for teambrief (from trauma meeting); long combined teambrie
operating table (traction); theatre HCA to collect patient

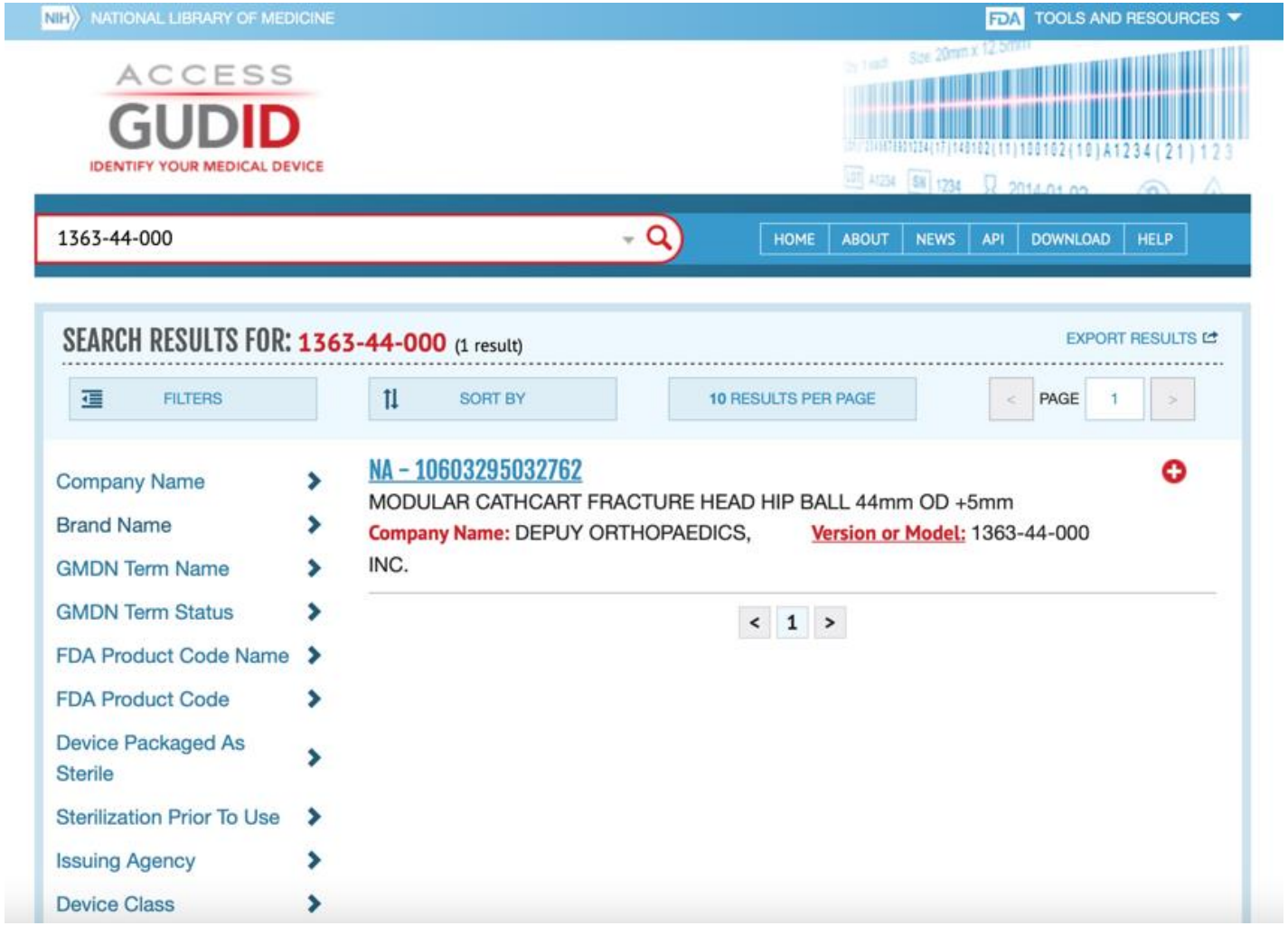
Implants RNJ RL Main

	Entry 1	Entry 2
Implant Description	LCP DHS PLATE 130, 4 HOLES	modular cathcart fracture head hip ball
Manufacturer	DEPUY SYNTHES	synthes
Product Number	498P700	D21091349
Serial Number	02.224.204S	1363-44-000
Quantity	1	1
Size	LCP DHS PLATE 130, 4 HOLES	44mm OD
Sterilisation Date		31/08/31
Expiry Date	01/12/31	
Surgeon has confirmed side and procedure?	Yes	Yes
Scrub nurse has read out the product information?	Yes	Yes
Scrub nurses has confirmed the size and side of implant?		Yes



	Entry 4
Implant Description	c-stem AMT standard offset
Manufacturer	synthes
Product Number	D23084720
Serial Number	1570-04-070
Quantity	1
Size	size 1 12/14tape
Sterilisation Date	
Expiry Date	31/07/28
Surgeon has confirmed side and procedure?	Yes
Scrub nurse has read out the product information?	Yes
Scrub nurses has confirmed the size and side of implant?	Yes
Scrub nurses has confirmed the manufacturer of the	Yes

Identifying devices: UDI



Improved phenotyping; improving process & design





NHS
Health Research Authority

East Midlands - Derby Research Ethics Committee
2 Redman Place
London
EC20 1JQ

11 May 2026 revised letter of the13 April 2026

Dr Jennifer Lane
Barts Health NHS Trust
Blizard Institute
4 Newark Street
London
E1 2AT

Dear Dr Lane

Title of the Database: **Barts Health OHDSI Database**

Big Thanks to Collaborators

Ben Eaton, Surjeet Janjuha, Usama Rahman, Hiba Junaid, Ruzena Uddin, Xavier Griffin, Rafael Henkin

EHDEN

HDRUK

HERON UK Partners

University of Oxford

Johns Hopkins

Curtis Hand Center







Thank you

Jennifer.lane@qmul.ac.uk

health data sciences

JOHNS HOPKINS MEDICINE

NIHR | Barts Biomedical Research Centre





USING NATIONAL DATA ELEMENTS IN INTERNATIONAL NETWORK STUDIES

Núria Mercadé Besora,
University of Oxford

OUTLINE

NDORMS
NUFFIELD DEPARTMENT OF ORTHOPAEDICS, RHEUMATOLOGY AND MUSCULOSKELETAL SCIENCES
Medical Sciences Division

HOME ABOUT NEWS EVENTS RESEARCH OUR TEAM STUDY WITH US JOBS GET INVOLVED

/ Our Team / Nuria Mercade Besora



Contact information

Email
nuria.mercadebesora@ndorms.ox.ac.uk

Nuria Mercade Besora

- **DPhil student** in the Health Data Sciences group, University of Oxford.
- **Thesis focus:** Using observational healthcare data to evaluate the safety and effectiveness of medicines during pregnancy, with a particular focus on vaccines.
- **OHDSI involvement:** Contributed to the development of OMOP-based R packages within the DARWIN-EU and OHDSI.

OMOP Perinatal Expansion Table

Expanding the OMOP Common Data Model to Support Perinatal Research in Network Studies

Alicia Abellan, Edward Burn, Nhung T. H. Trinh, Theresa Burkard, Alison Callahan, Sergio Fernández-Bertolín, Eimir Hurley, Clara Rodriguez, Elena Segundo, Daniel R. Morales, Hedvig M. E. Nordeng, Talita Duarte-Salles ... See fewer authors

First published: 14 February 2025 | https://doi.org/10.1002/pds.70106 | VIEW METRICS

SIDIAP (Catalonia, Spain)

NLHR (Norway)

Maternal Table

CDM field	Optional fields
Required fields	pregnancy_folic
person_id	pregnancy_number_fetuses
pregnancy_id	pregnancy_art
pregnancy_start_date	pre_pregnancy_bmi
pregnancy_end_date	pregnancy_marital_status
gestational_length_in_day	pregnancy_number_liveborn
pregnancy_outcome	prev_pregnancy_parity
pregnancy_mode_delivery	prev_pregnancy_gravidity
pregnancy_single	prev_livebirth_number
	prev_still_misc_number
	prev_top_number
	pregnancy_outcome_source_value
	pregnancy_mode_delivery_source_value

Infant Table

CDM field
Required fields
pregnancy_id
infant_id
Optional fields
birth_outcome
birth_weight
birth_con_malformation
birth_sga
birth_fgr
birth_apgar

Structured pregnancy and infant table to facilitate perinatal research with OMOP

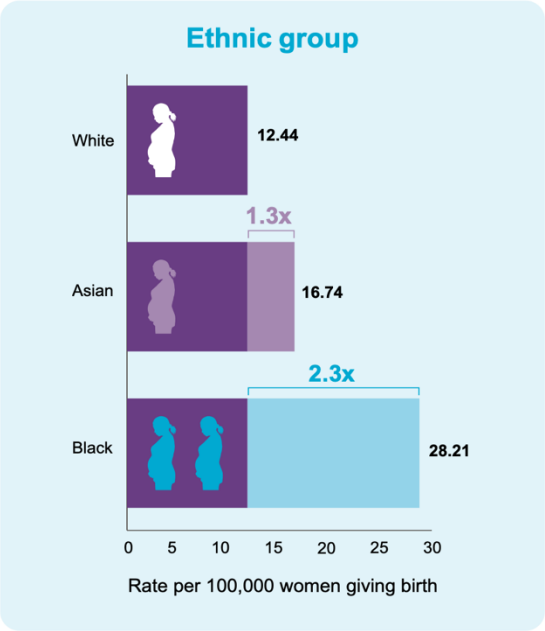
Data Source in the Network

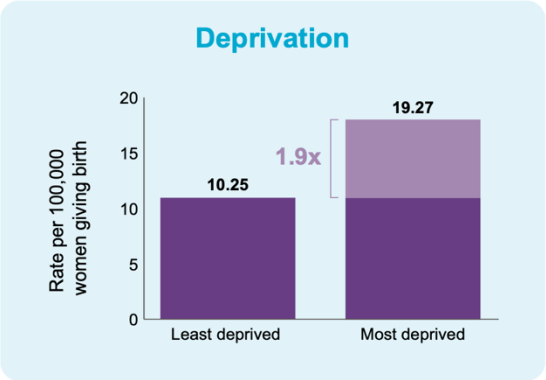
	CPRD GOLD	SIDIAP	NLHR@UiO	SCIFI-PEARL
Country	 The United Kingdom	 Spain (Catalonia)	 Norway	 Sweden
Type of data	Electronic Health Records	Electronic Health Records	Nationwide linked Registries	Nationwide linked Registries
Healthcare setting	Primary care	Primary care database + linkage to hospital discharge data	Primary and secondary care	Secondary care
Pregnancy data source	Matcho et al. Algorithm (2019)	Sexual and Reproductive Health Care Units	Medical Birth Registry of Norway (≥12 gestational weeks)	National Birth Registry (≥22 gestational weeks)

Why do socio-demographic variables matter?

Continued inequalities in maternal mortality

MBRRACE-UK 2025 Report





Known inequalities in pregnancy outcomes

Socioeconomic status and *ethnicity / migration background* can help:

- describe population differences
- understand health inequalities
- account for differences between populations

But these are defined, recorded, and mapped differently across countries/data sources

How can we incorporate them into international network studies?

Study Example - Socioeconomic status

	CPRD GOLD	SIDIAP	SCIFI-PEARL	NLHR
Data source information	**Townsend depravation index;** Deciles (1 = least deprived)	**MEDEA depravation index;** Quintiles (1 = least deprived) + rural category	**Family income** adjusted by people in the house. Variable registered yearly.	Not recorded in source data

Study Example - Socioeconomic status

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Mapping	**Measurement** table
	`concept_id = 715996`
	(Townsend deprivation index)
	`value_as_number`
		Observation table
		`concept_id = 0`
		`observation_source_value = "qmedea11"`
		`value_as_number`
			Observation table
			`concept_id = 4076114`
			(Household income)
			`value_as_number`	

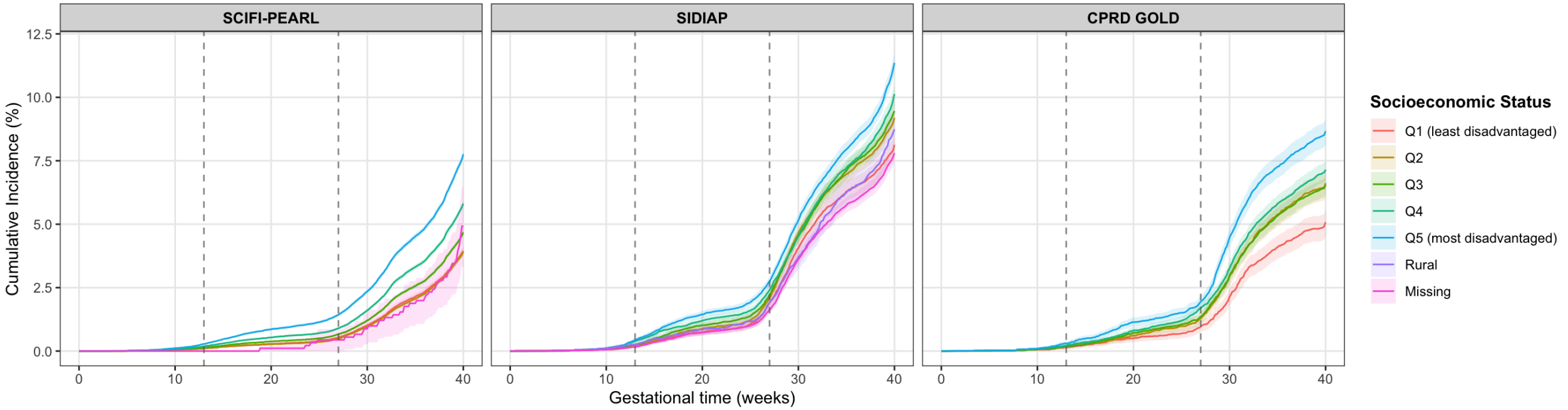
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		`value_as_number`
			Observation table
			`concept_id = 4076114`
			(Household income)
			`value_as_number`	

Harmonisation	Townsend deciles collapsed into quintiles (Q1 = D1–D2, …, Q5 = D9–D10)	MEDEA categories retained as five deprivation levels; rural category retained separately	Population-wide income quintiles derived from 2020 household income; participants classified using 2020 income (2021 if unavailable), otherwise missing	

Study Example - Socioeconomic status



Cumulative Incidence of **Gestational Diabetes Mellitus** during the first 40 gestational weeks of pregnancy stratified by **Socioeconomic Status.**

Study Example - Ethnicity

	CPRD GOLD	SIDIAP	SCIFI-PEARL	NLHR
Data source information	**Ethnicity:** Black, Asian, White, Mixed, Other	**Nationality**	**Region of birth**	**Region of birth**

Study Example - Ethnicity

	CPRD GOLD	SIDIAP	SCIFI-PEARL	NLHR
Data source information	**Ethnicity:** Black, Asian, White, Mixed, Other	**Nationality**	**Region of birth**	**Region of birth**

Mapping	**Person** table
	`race_concept_id`
		Observation table
		`concept_id = 4087925`
		(Ethnicity / related nationality data)
		`value_as_string`
			Observation table
			`concept_id = 4197735`
			(Country of birth)
			`value_as_string`
				Not mapped

Study Example - Ethnicity

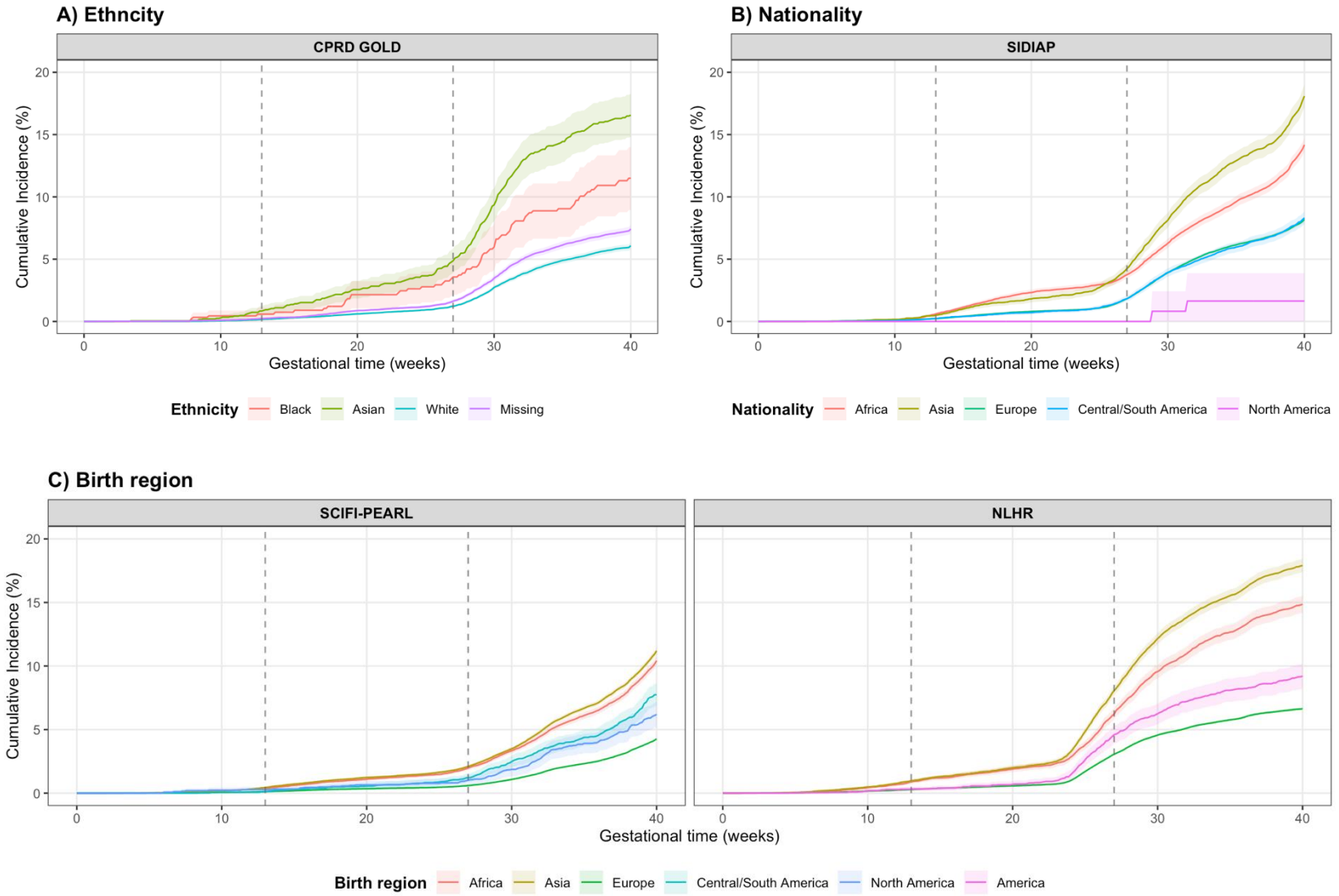
	CPRD GOLD	SIDIAP	SCIFI-PEARL	NLHR
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			`concept_id = 4197735`
			(Country of birth)
			`value_as_string`
				Not mapped

Harmonisation	Ethnicity retained in its native categories; not harmonised with nationality/region of birth	Grouped into broader geographic regions: Europe, Asia, Oceania, North America, Central/South America, Africa		Region of birth temporarily added to the pregnancy extension table. Groups: Europe, Asia, Oceania, America, Africa Future mapping will align with SCIFI-PEARL.

Study Example - Socioeconomic status

Cumulative Incidence of **Gestational Diabetes Mellitus** during the first 40 gestational weeks of pregnancy stratified by **ethnicity** (CPRD GOLD), **nationality** (SIDIAP), and **birth region** (SCIFI-PEARL and NLHR).



What did we learn?

DEFINE

Why do we need the variable?

UNDERSTAND

How is it recorded and mapped locally?

DECIDE

What should we harmonise or preserve?

DOCUMENT

Definitions, transformations and limitations.

How far should we harmonise?

What's the analytical purpose?

Research question and analytical purpose determine the level of harmonisation needed

Source-Specific	Partially harmonised	Fully harmonised
Keep variables in their original form	Common framework, retaining some source-specific details	Same definition across data sources

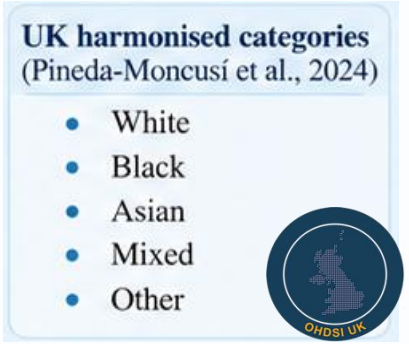
Descriptive comparison →
Greater harmonisation to compare across data sources

Propensity Score model →
Source-specific may be sufficient

Risk Prediction→
Depends on the intended generalisability of the model

What's the network context?

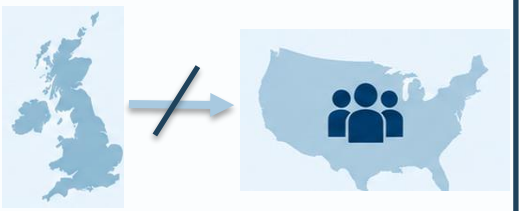
Classification reflects local populations and priorities, and can differ across countries and data sources



UK OHDSI node **harmonised ethnicity** mapping across data sources using high-level categories consistent with SNOMED codes and what's recorded in NHS data

International challenge

Relevant high-level categories in the UK might not reflect important distinctions elsewhere (e.g. Hispanic in the U.S.)



THANK YOU !!

nuria.mercadebesora@ndorms.ox.ac.uk

UNIVERSITY OF OXFORD

NDORMS
NUFFIELD DEPARTMENT OF ORTHOPAEDICS, RHEUMATOLOGY AND MUSCULOSKELETAL SCIENCES

OHDSI
OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS



From Bottom-Up Momentum to Institutional Support: Building Sustainable OHDSI Participation in Latin America

Julio Oliveira – jb@precisiondata.com.br
OHDSI Latin America Chapter | Precision Data

Overview

- Bottom-up OMOP adoption driven by researchers, technical teams, and individual organizations
- Unequal access to funding and specialized expertise, with local institutions often dependent on central bodies
- Central priorities shape the pace of local action, limiting capacity to pursue additional research initiatives
- Emerging local groups are building autonomy and advancing OMOP despite these constraints
- Regional collaboration and national nodes can connect local momentum with institutional support
- Sustainable growth requires investment in distributed capacity alongside national coordination

Limited Resources : **Labor**

Data Professionals

- The region has a shortage of professionals specialized in modern Data & Analytics platforms
- Very few are interested and specialize in health sector (such as OMOP-CDM)
- They are attracted to industry verticals with more financial resources: fintech and e-commerce

Epidemiologists

- Great preference for working in multinational companies
- Many good epidemiologists are in the pharmaceutical industry in business positions due to the lack of good opportunities for scientific production.

Challenges for the Private Sector



Internal fragmentation



High implementation cost



Ongoing maintenance



Specialized expertise required



Delayed return on investment



Pressure for efficiency and cost control



Need for speed in innovation

Value of OMOP for Private Healthcare



Interoperability & data integration



International comparability



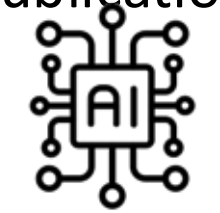
Research & publicatio n



Negotiatio n power



Data monetization



Foundation for AI

From Local Initiative to Sustainable Adoption

Latin America's OMOP adoption is advancing through local initiative. Sustaining this momentum requires institutional support that strengthens local capacity and autonomy:

- **Invest in people and continuity:** specialized training, shared tools, and resources for implementation and maintenance.
- **Connect local efforts:** national nodes and regional collaboration can share expertise, reduce duplicated work, and expand research opportunities.
- **Demonstrate value early:** focused use cases should deliver measurable gains in research, interoperability, and innovation.
- **Turn progress into sustained commitment:** align researchers, technical teams, and decision-makers around clear priorities, realistic timelines, and continued investment.

Each successful project should strengthen the teams, infrastructure, and partnerships needed for the next one.

Build capacity locally. Collaborate regionally. Generate evidence with global relevance.




Julio Oliveira
Valentina Martuf...
Veiga, Cassia
André Quadros (DASA)
Alayne Magalhães Trindade Domingues Yamada
Konishi, Sandra Tiemi
Isa Lima dos Santos Antunes
Pablo Guerrero
Renata Ferreira
Daniela Mayumi
Inga Dutra
Ever Augusto Tunes Silva
Everlas Pelegrineli Zaidan
Juan Manuel Racosta
Mariana Roriz
Sancho Xavier
Gabriel Muller (HMV)
Mônica Costa Barros








RWE Day
PRECISION DATA
cubo itaú


Bootcamp
IA, RWE e OMOP
PRECISION DATA
Bootcamp
IA, RWE e OMOP


1º SIMPÓSIO AMÉRICA LATINA
OHDSI 2026


Debate


1º SIMPÓSIO AMÉRICA LATINA
OHDSI 2026
CIENCIA DE DATOS PARA LA EQUIDAD EN LA SALUD
CIÊNCIA DE DADOS PARA A EQUIDADE NA SAÚDE
DATA SCIENCE FOR HEALTH EQUITY
OHDSI
cidacs
FIOCRUZ Bahia
CNPq
MSD
SENAI CIMATEC
FIEB



Harmonizing Heterogeneity: How National Nodes and Use Case Diversity Inform Global OHDSI Standards

Melanie Philofsky RN MS

Director Clinical Informatics

RWE Innovation Labs

EPAM Systems

Bridging Local Realities to Global Horizons



Building Momentum: Advancing UK initiatives, sustainability, and national growth.

The Core Paradox: Bringing order to healthcare data chaos while preserving local clinical value.

The Reality of Heterogeneity: Navigating diverse systems, data models, and clinical workflows across national nodes.

Nodes: Testing Grounds for Global Standards



- Grassroots Testing Grounds
- Collaborative Tool & Methods Development
- Global Impact

From Local Data Coding to Global Standards



Embracing Use Case & Data Source Diversity

Broad Spectrum of Data: Balancing EHR, claims, registries, genomics and more.

Testing the Limits: Diverse use cases push our models to be more adaptive.

Core Takeaway: A robust data solution must accommodate multi-faceted real-world environments.



Themis: Standards & Community Governance



The Themis framework is strict, yet flexible to maintain sustainable growth

Harmonizing Heterogeneity for Global Sustainability




OHDSI
OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS

Questions?