

OHDSI Spain Study-a-thon: Enabling Federated Research through the Characterisation of 15 OMOP CDM Databases covering more than 55 million Patients

A Federated Characterization of the OHDSI Spanish Node: A Study-a-thon to Map the National Real-World Data Landscape

Background: Spain has a decentralised health system with rich RWD assets. While many sites have mapped to OMOP CDM, there is no consolidated inventory. Within Spain, the OHDSI Spanish Node, coordinated by Hospital del Mar and IDIAP Jordi Gol, has emerged as a collaborative forum to align methods, share ETL and vocabulary expertise, and promote re-use of open analytics. The OHDSI Spanish Node organised a Study-a-thon (Nov. 2025) to create a federated, consistent characterisation of these databases to improve feasibility assessments and multicenter collaboration.

Results

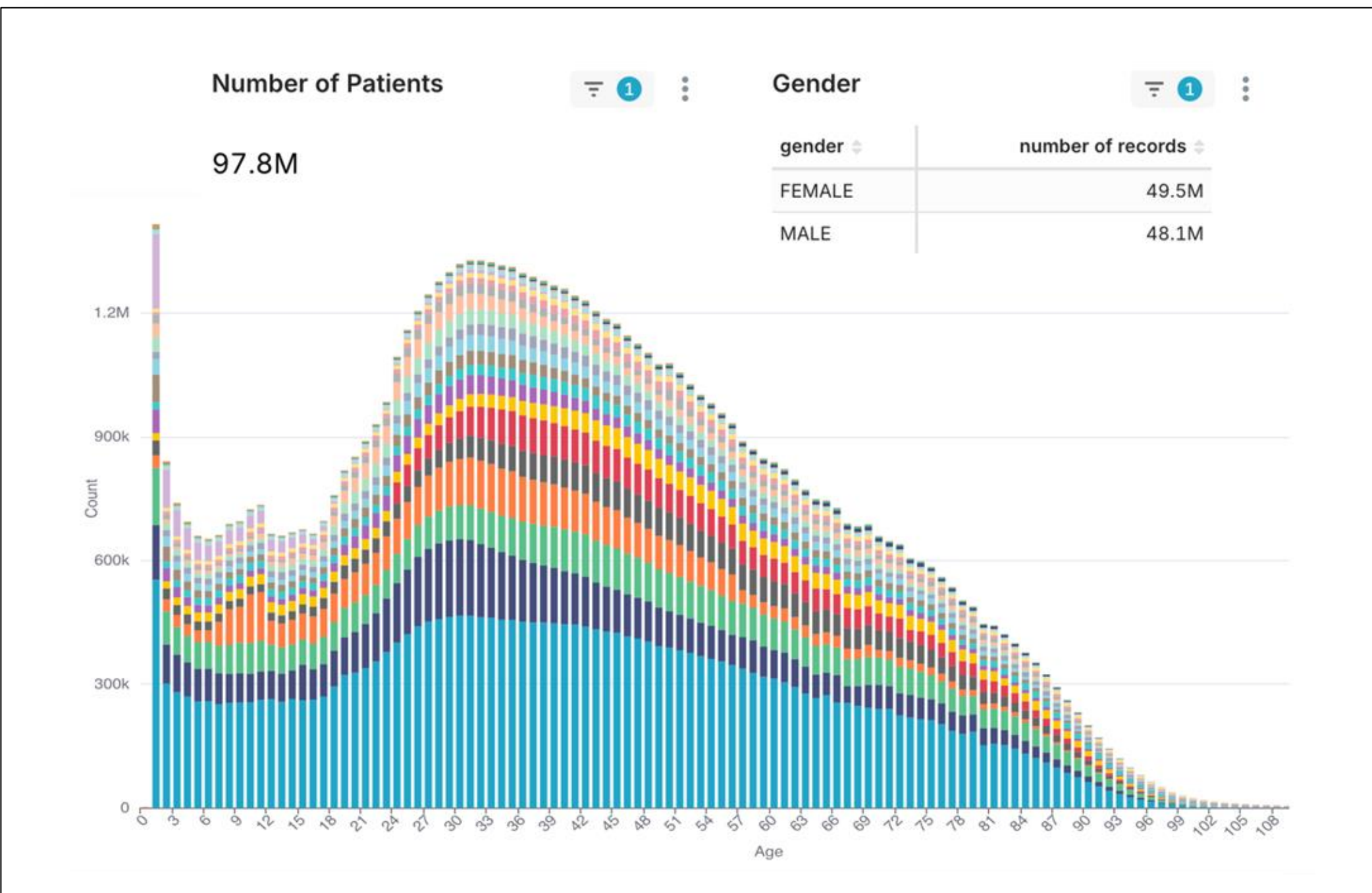
Scale: The node integrates over 15 institutions across 7 autonomous communities.

Population: Coverage ranges from hospital-specific data (0.39M) to national primary care data (BIFAP: 30.3M).

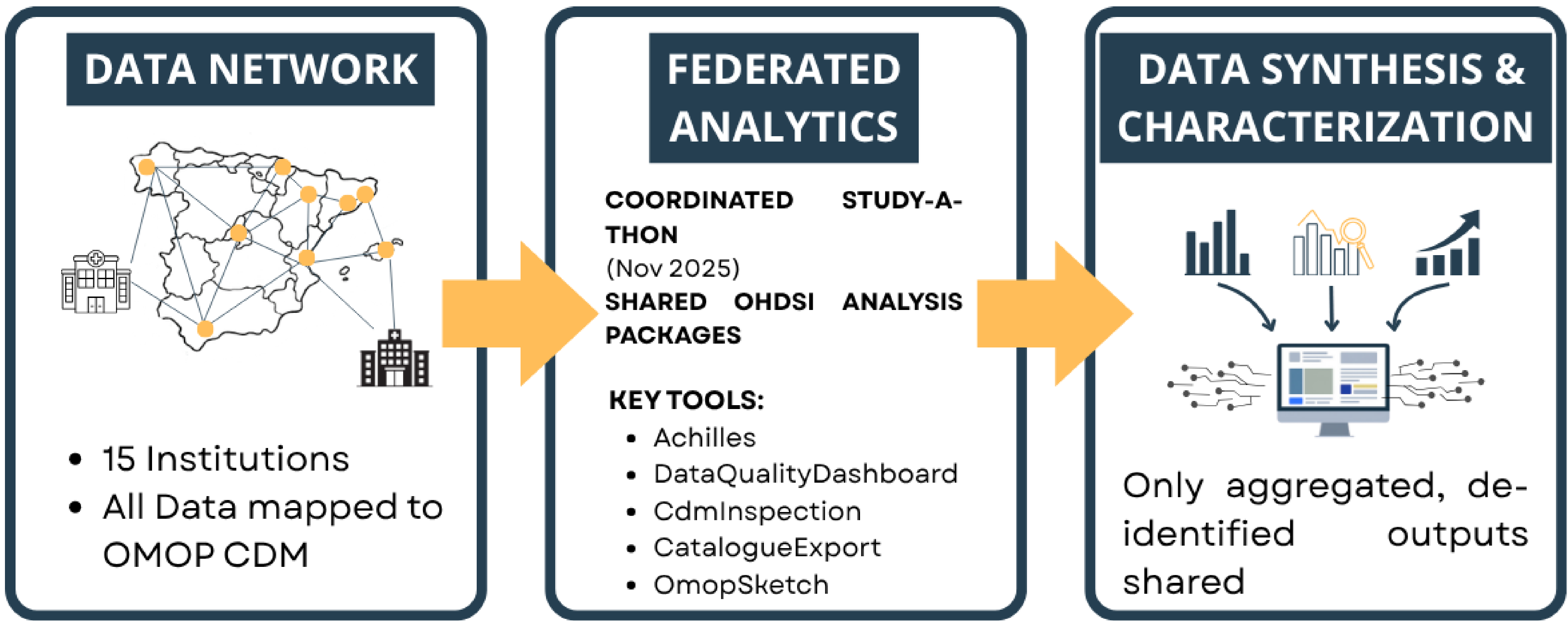
Harmonization: Each site executed a common analysis pipeline (Achilles, DQD, OmopSketch) to generate:

- Standardised Metadata Snapshots.
- Temporal trends by clinical domain.
- Clinical domain coverage and data quality summaries.

Institution	Type of data	Patients
Althaia Xarxa Assistencial Universitària de Manresa	Hospital	0.39M
Servicio Navarro de Salud (BARDENA)	Hospital and Primary care	1.97M
BIFAP- Agencia Española de Medicamentos y Productos Sanitarios	Primary care	30.3M
Fundació Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)	Primary care and hospital	8.89M
Hospital del Mar and Hospital del Mar Research Institute	Hospital and Primary care	1.79M
Hospital Universitario 12 de Octubre	Hospital	2.29M
Hospital Universitario de Bellvitge	Hospital	0.5M
Hospital Universitari Vall d'Hebron	Hospital	2.1M
Hospital Universitario Virgen Macarena	Hospital	1.1M
Institut d'Investigació i Innovació Parc Taulí (I3PT)	Hospital	1.3M
Instituto Aragonés de Ciencias de la Salud (IACS)	Hospital and Primary care	2.39M
Institut de Recerca Sant Joan de Déu	Hospital	0.7M
Institut d'Investigació Sanitària de les Illes Balears (IdISBa)	Hospital and Primary Care	1.89M
Instituto de Investigación Sanitaria La Fe de Valencia (IIS La Fe)	Hospital	2.46M



Methods



Conclusions

This ongoing study has established a structured baseline for the Spanish Node, fostering synergies between national (OmicSpace, OHSIRIS, VHTeDades) and international (OHDSI, EHDEN and DARWIN EU) initiatives. Next steps: to publish the full sites characterisation and the expansion of the federated network to support multi-site epidemiologic studies.



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