OHDSI Europe Community Calls

January 2026

Theme: European projects using OMOP

Call details

- Thursday January 8, 2026 at 1PM CET
- > 90 online participants
- Watch online recording: https://www.youtube.com/watch?v=0hE7SMTS7Bg&t=18s

Key takeaways

- OMOP is being used as an **end-to-end backbone**, supporting workflows from data ingestion and cohort definition to clinical validation and decision support.
- Large European projects are increasingly operating in **federated setups**, with OMOP enabling cross-site analyses without centralizing sensitive data.
- Genomics, rehabilitation, and stroke care present very different challenges, yet all benefit from **standardized data structures** and **reusable definitions**.
- **Patient-reported outcomes** and **long-term follow-up data** are becoming central components of OMOP-based analyses, especially in rehabilitation and chronic care.
- The maturity of these projects signals a shift toward OMOP-supported tools that are designed for **real-world clinical use**, not only for research.

Executive summary

The January 2026 OHDSI Europe Community Call highlighted how large European research initiatives are using the OMOP Common Data Model to operationalize real-world data across genomics, rehabilitation, and stroke care.

Two recent European publications were highlighted, one reporting on OMOP-based analyses across multiple Israeli databases, and another exploring the role of data standardization in decentralized healthcare systems such as Italy, in the context of the European Health Data Space:

- Berger O, Menashe S, Damti Geva S, Yakubov R, Ben Yehuda M, Peleg M, Talisman R. Lipomas are associated with a higher prevalence of metabolic syndrome components: a multicenter cross-sectional study. Front Endocrinol (Lausanne). 2025 Dec 2;16:1721570. doi: 10.3389/fendo.2025.1721570. PMID: 41409612; PMCID: PMC12705395.
- Murgia Y, Gazzarata R, Ciampi M, Sicuranza M, Cirillo F, Esposito C, Maggi N, Balestra G, Sacchi L, Giacomini M. The challenges of national health data ecosystems in feeding the European health data space: the Italian example. Front Med (Lausanne). 2025 Dec 8;12:1644719. doi: 10.3389/fmed.2025.1644719. PMID: 41438153; PMCID: PMC12719427.

Next, the session featured in-depth project presentations from TeamPerMed, PREPARE, and UMBRELLA, each illustrating different but complementary uses of OMOP in complex, multi-partner settings.

TeamPerMed: From biobank research to clinical genomics in Estonia

Kerli Mooses presented TeamPerMed, a European “Teaming for Excellence” project designed to accelerate the translation of genomics into routine healthcare in Estonia. The project builds on the Estonian Biobank, which covers roughly 20 percent of the national population and links long-term electronic health records with extensive genetic data, including genotyping, sequencing, metabolomics, and survey data.

A key challenge addressed by TeamPerMed is moving beyond research-grade analyses toward standardized, scalable clinical services such as polygenic risk score based screening and pharmacogenomics. The project focuses on streamlining the full pipeline, from data collection and phenotype definition to clinical validation, regulatory approval, and integration into decision support systems. OMOP is used as a unifying data layer across this pipeline, enabling reusable cohort definitions, consistent outcome evaluation, and easier replication of analyses across other biobanks and countries.

PREPARE: Personalizing rehabilitation through federated real-world data

Lisa Hoogendam and Ruud Selles introduced PREPARE, a Horizon Europe project aiming to improve personalization of rehabilitation care using real-world data and predictive

modeling. Rehabilitation is inherently complex, involving multimodal treatments, long care trajectories, and strong influence from social and behavioral factors. PREPARE addresses this complexity by developing prediction and stratification models that support shared decision making between clinicians and patients.

The project brings together nine rehabilitation datasets from multiple European countries, covering diverse conditions such as hand and wrist disorders, osteoarthritis, scoliosis, vascular disease, and hypertension. These datasets are being mapped to the OMOP CDM and analyzed in a federated infrastructure. OMOP supports harmonized cohort definitions, reuse of outcome measures including patient-reported outcomes, and cross-site model development. The resulting prediction models will be embedded in a clinical decision support tool that is designed with regulatory requirements in mind.

UMBRELLA: Integrating data across the full stroke care pathway

The UMBRELLA project, part of the Innovative Health Initiative, focuses on improving stroke care across the entire care pathway, from emergency response and acute treatment to rehabilitation and long-term follow-up. Stroke care is highly time-sensitive and involves many different professionals, data sources, and technologies, making data fragmentation a major barrier to optimization.

UMBRELLA aims to harmonize and integrate stroke-related data from multiple clinical centers and industry partners using a federated approach. OMOP provides the common structure needed to standardize heterogeneous clinical data while allowing data to remain at local sites. This enables the development of AI-based decision support tools that can support coordinated care, improve outcomes, and reduce societal costs, without compromising data privacy or security.

Closing reflection

Together, these projects show how OMOP is increasingly used as foundational infrastructure in large European initiatives that aim to deliver clinical, organizational, and societal impact. Rather than focusing solely on data harmonization, OMOP is being embedded directly into pipelines for model development, clinical validation, and decision support, supporting a shift from exploratory research toward implementation-ready solutions.