

# Make in-house OMOP conversions more reliable, reusable and cost-effective with the IQVIA™ OMOP Converter

*Automation of the OMOP conversion process using an end-to-end software tool*

## OMOP CONVERSIONS CAN BE HARD

Observational data such as that in EHRs and claims databases has the potential to contribute to research, to better health decisions and patient outcomes. However, the disparate nature of those databases makes virtually all patient data assets unique and one-off. There are often also privacy concerns regarding data access by individuals who are not involved in the health care provision.

Converting observational data to the OMOP format results in harmonization of data, reducing or eliminating some of those challenges; and enabling systematic and collaborative research.

Whilst having data in OMOP format brings enormous benefits and opportunities for research, the path to getting there is often hard, unreliable and time-consuming. Conversion projects are highly technical, with mostly non-reusable and non-scalable scripts, making projects slow and expensive. Open-source tools exist for some steps, but they don't have a consistent user experience, can be complex to use, are not connected to each other and have no common technology.

## THE OFF-THE-SHELF SOFTWARE SOLUTION

The IQVIA™ OMOP Converter is a software tool that semi-automates the conversion of structured data to the OMOP format. It takes users from importing their data asset to completing field mappings and re-using mappings for data refreshes; from running conversions to checking results and exporting the OMOPed data. All on the same interface, requiring little technical knowledge; deployed on-premise or on a private cloud.

It presents an option for you to complete OMOP conversions in-house and maximize value from data assets you own or purchase, if your organization is OMOP-knowledgeable but lacks technical expertise or funds to contract vendors.

Compared to traditional conversion processes, the IQVIA™ OMOP Converter facilitates conversions that are more transparent, reusable, reliable and cost-effective. Hence, it lowers the threshold for joining OMOP-based research, and it lowers the cost of maintaining high-quality OMOPed datasets.



### Transparency

- The visual interface guides users through the different actions.
- Data validation is shared in real time.
- Users can see a conversion as it is happening and know which errors occur, so they can act quickly.



### Reliability

- Guard rails help users validate their actions and reduce errors.
- Table-by-table conversion allows users to catch errors early.
- Audit trail and error logs help issue troubleshooting.



### Reusability

- Mappings can be copied across different OMOP CDM versions and different data asset releases, ensuring users don't have to start from scratch every time.



### Cost-effectiveness

- Faster, with fewer people involved (particularly technical experts) than in traditional conversion projects.

The IQVIA™ OMOP Converter is backed by real experience – IQVIA is a leading expert in converting data globally; it is the only CRO significantly active in any OMOP network; and its OMOP leadership includes renowned OHDSI contributors and one of its founders.

## HIGH-LEVEL FUNCTIONALITY

The IQVIA™ OMOP Converter aims to emulate the workflow of a traditional conversion project. One notable difference is that the ETL specification document is no longer an input for developer work, but an iterative output of the mappings that are completed interactively on screen.

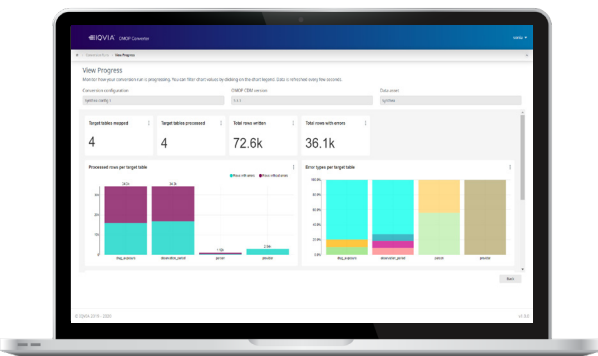
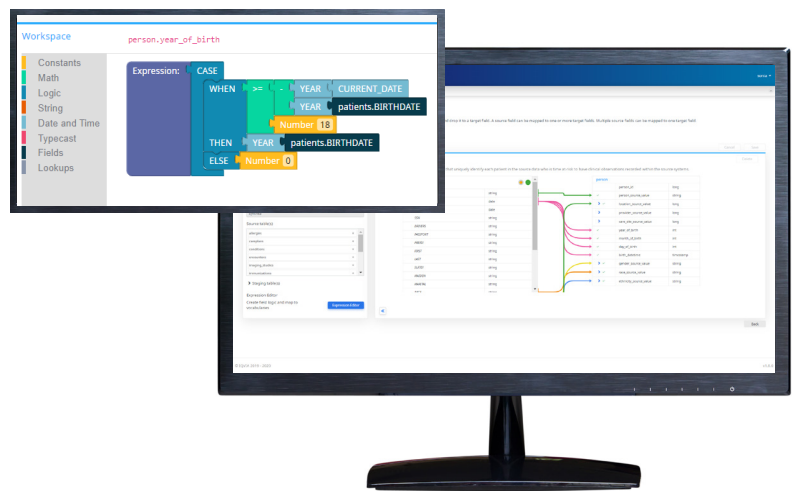
The tool supports OMOP CDM v5.2 and v5.3.1. Support for v6 and CDM extensions (e.g., Oncology and Clinical Trials) will follow.

### Pre-processing

- Import data assets
- Review/confirm inferred data schema
- Profile data
- Sample data

### Mapping

- Map source to target tables (many to one)
- Map source to target fields (many to many)
- Define target field logic
- Create lookups, staging tables, filters and joins
- Import source-to-concept-map files
- Manage vocabularies
- View ETL specification document



### Conversion

- Run a conversion for full or sample datasets
- View progress for a conversion run
- Stop a conversion run early if errors reported
- Export OMOPed data

### Dashboards

- View conversion run results, overall and per target table
- View summary and statuses for all conversion runs
- Export charts for offline review and further analysis



**CONTACT US**  
[OHDSI\\_OMOP@iqvia.com](mailto:OHDSI_OMOP@iqvia.com)  
[iqvia.com/OHDSI-OMOP](http://iqvia.com/OHDSI-OMOP)