



# HMA-EMA Real-World Data Catalogues

## Data sources in a CDM: 53% of which OMOP: 72%

### Landscape of CDM-mapped real-world data sources in the HMA-EMA Catalogues of real-world data sources and studies, with a special interest in OMOP

#### Background

The HMA-EMA real-world data (RWD) Catalogues are a public repository of RWD sources and studies from across the globe that support discoverability, transparency and use of RWD to investigate disease epidemiology and medicines evaluation.

#### Objectives

1. Characterise availability of data sources mapped to a common data model (CDM)
2. Characterise extent of CDM use in studies
3. Quantify Extract Transformation Load (ETL) conversion status
4. Quantify completeness of key CDM/ETL metadata elements

#### Methods

Descriptive analysis of the RWD Catalogues using metadata related to CDMs for both data sources and studies, with a focus on the Observational Medical Outcomes Partnership (OMOP) CDM (data cut-off: 6 February 2026).

## Results

### Data sources

Among 271 data source records, 144 (53%) indicated conversion to  $\geq 1$  CDM and 125 (46%) were mapped to OMOP, the most frequently reported CDM.

Figure 1. Recorded CDM mappings among data sources (N = 174). Data sources converted to multiple CDMs contribute to multiple mappings.

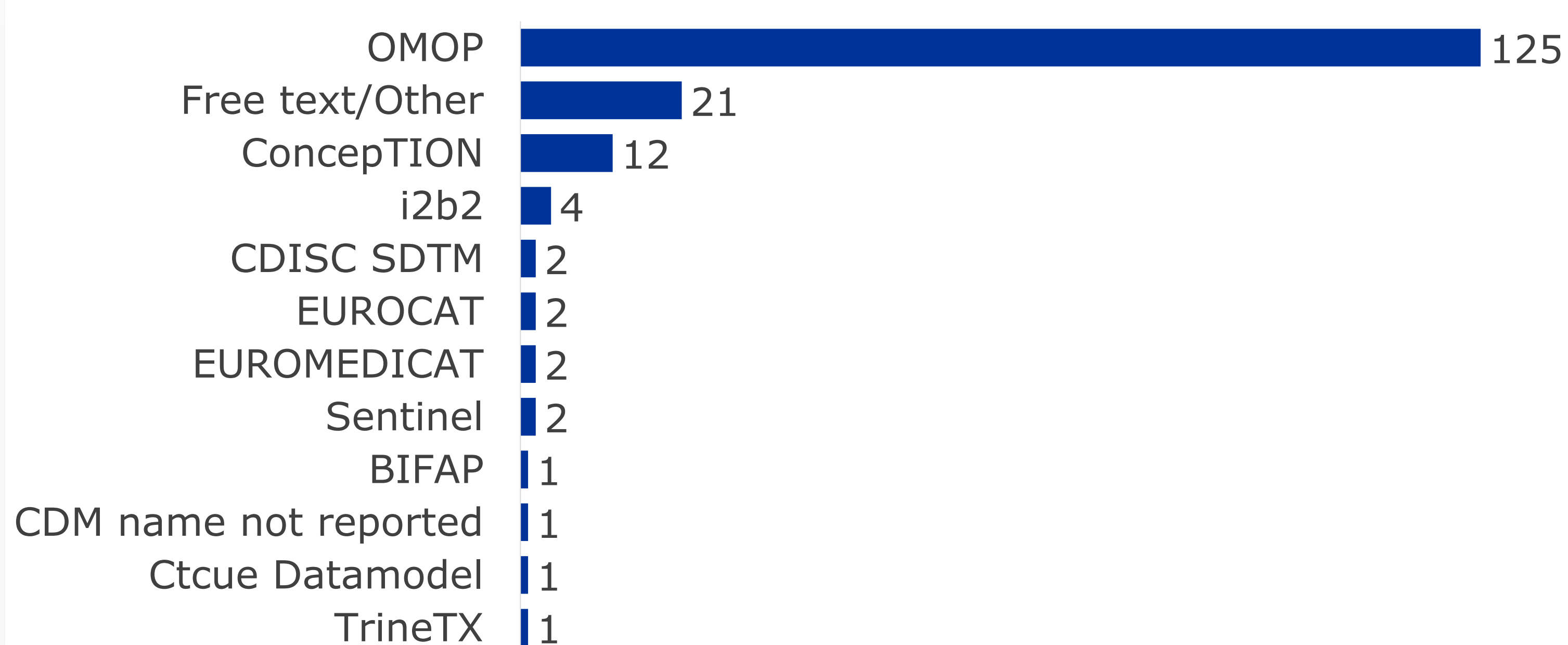
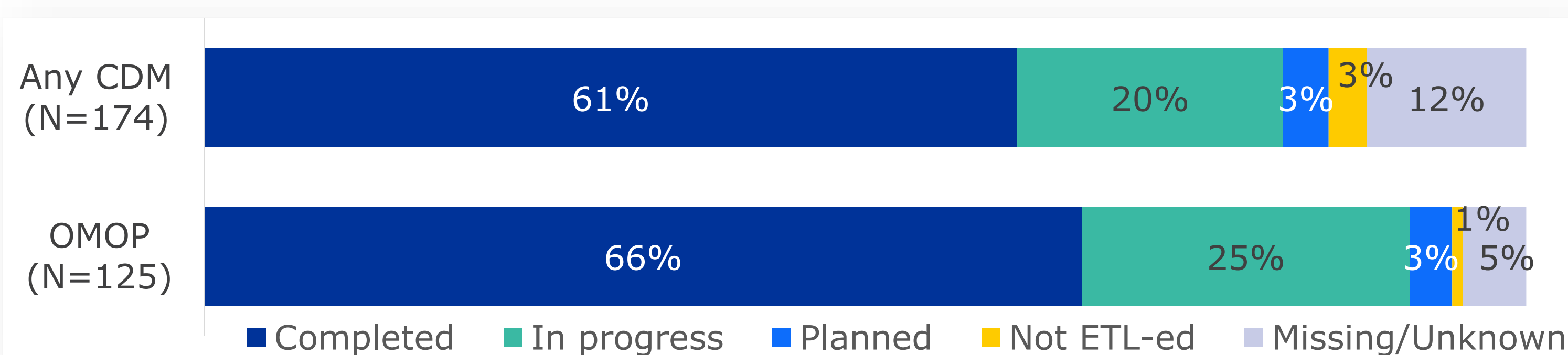


Table 1. Completeness of CDM/ETL metadata among CDM-converted data sources.

Field	Value	Any CDM N=174	OMOP N=125
ETL status (B7.1)	Planned / In progress / Completed / Not ETL-ed	88%	95%
ETL CDM version (B7.3)	Version in string format	70%	82%
ETL frequency (B7.5)	Expressed in months	63%	70%
ETL specifications (B7.4)	Resources describing mapping of data sources to CDM	22%	15%

Figure 2. ETL status of CDM-converted data sources and OMOP subset.



#### Conclusion

- **Data sources:** Over half of data source records capture CDM conversion information, with OMOP being by far the most frequently reported model, used by nearly three quarters of CDM-harmonised sources. Key metadata related to the CDM are frequently populated, whereas ETL specifications less often, which may limit transparency of CDM mapping implementation.
- **Studies:** In post-launch records, the RWD Catalogues make it possible to identify CDM and OMOP-based studies, with nearly a quarter indicating CDM use.

#### References

1. European Medicines Agency. List of metadata for the HMA-EMA Catalogues of real-world data sources and studies. 2022. Available from: [https://www.ema.europa.eu/en/documents/other/list-metadata-hma-ema-catalogues-real-world-data-sources-studies\\_en.pdf](https://www.ema.europa.eu/en/documents/other/list-metadata-hma-ema-catalogues-real-world-data-sources-studies_en.pdf)
2. OHDSI. OHDSI/OMOP Research Spotlight [Presentation slides]. 2025. Available from: <https://www.ohdsi.org/wp-content/uploads/2025/12/Dec2-OHDSI-Intro-Slides.pdf>
3. Kotsioli ES, S.; Deli, K.C.; Alcini, P. Searching the HMA-EMA Real-World Data Catalogues: Insights into Common Data Models. OHDSI Europe Symposium 2025; Hasselt, Belgium 2025.

### Studies

Among 525 post-launch study records, 120 (23%) indicated use of a CDM. CDM-related metadata were introduced with the launch of the Catalogues in 2024; therefore, detailed reporting is assessed in post-launch study records.

Figure 3. Recorded CDM name among studies using data sources converted to a CDM (Total N=120)

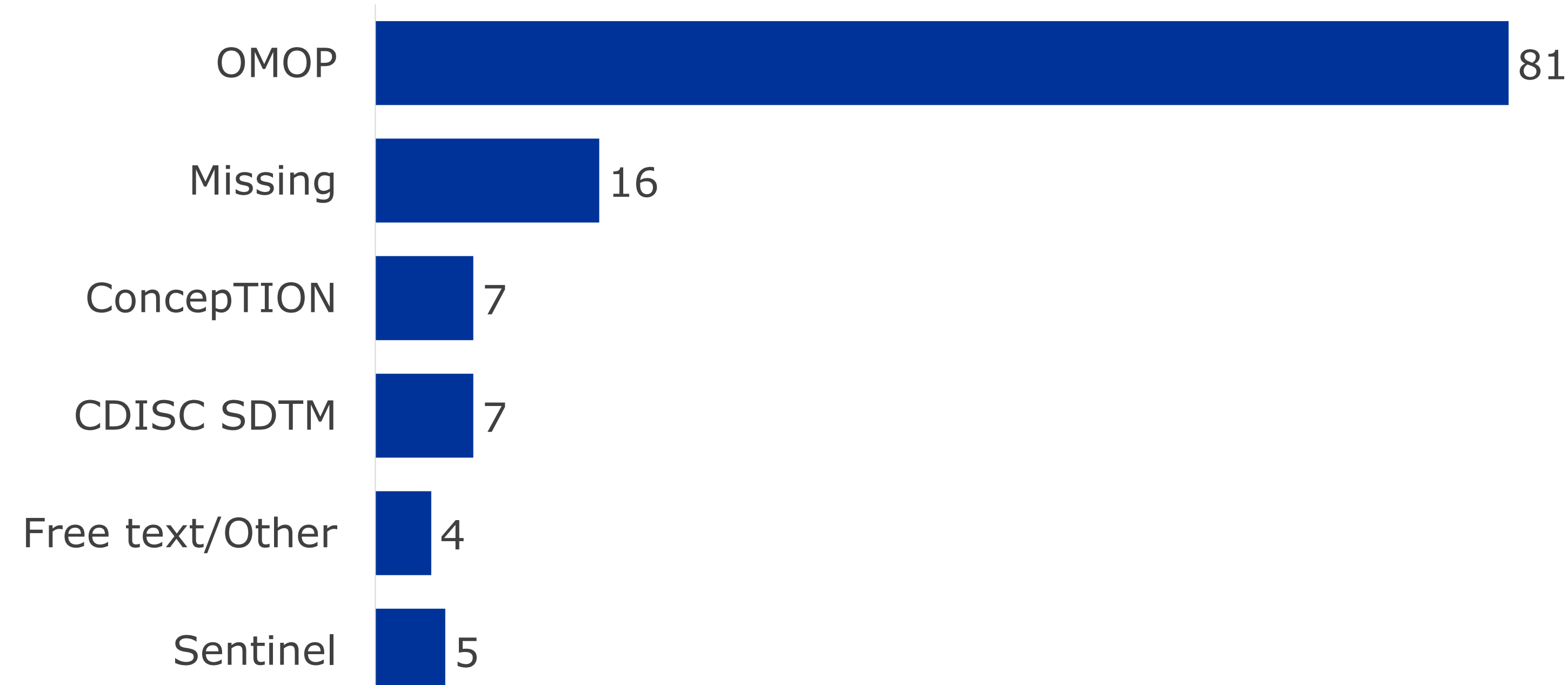


Table 2. Studies indicating CDM use, stratified by registration period.

Metric	Post-launch
Total studies	525
Studies indicating use of CDM-converted data (any CDM)	120
% indicating CDM use	23%
Studies indicating OMOP	81

Table 3. Completeness of study level CDM descriptors among studies using data sources converted to a CDM (N = 120).

Field	Value	Populated within CDM-based studies
CDM name (F4.2)	Predefined names or free text	87%
CDM mapping version (F4.3)	Version in string format	53%

#### References

1. European Medicines Agency. List of metadata for the HMA-EMA Catalogues of real-world data sources and studies. 2022. Available from: [https://www.ema.europa.eu/en/documents/other/list-metadata-hma-ema-catalogues-real-world-data-sources-studies\\_en.pdf](https://www.ema.europa.eu/en/documents/other/list-metadata-hma-ema-catalogues-real-world-data-sources-studies_en.pdf)
2. OHDSI. OHDSI/OMOP Research Spotlight [Presentation slides]. 2025. Available from: <https://www.ohdsi.org/wp-content/uploads/2025/12/Dec2-OHDSI-Intro-Slides.pdf>
3. Kotsioli ES, S.; Deli, K.C.; Alcini, P. Searching the HMA-EMA Real-World Data Catalogues: Insights into Common Data Models. OHDSI Europe Symposium 2025; Hasselt, Belgium 2025.