

Data Quality Dashboard Used to Improve the Quality of the EHDEN Network

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INTRO:

- The European Health Data & Evidence Network (**EHDEN**) is developing an observational research ecosystem based on federated data to enable better health outcomes (figure 1).
- Through transformation to the OMOP Common Data Model (CDM), studies can be performed that rely on the standard data structure.
- 25 data partners (DPs) were awarded a grant to convert to the OMOP CDM.
- We used the opportunity to understand how the Data Quality Dashboard (DQD) can be used to improve the quality of a network of databases.

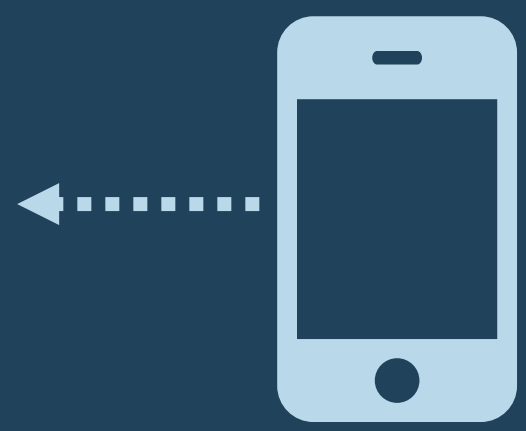
METHODS

- Each completed DP was required to run the DQD at least twice as they moved their data through the Data Conversion Pipeline (figure 1).
- The DQD results from the first and last run were compared.
- The difference in data quality passes between first and last run were quantified.

RESULTS:

- All 9 completed DPs showed improvement in the number of checks that passed between the first and last run, for the checks in common between the two (figure 3)
- The DQD highlighted issues related to the conversion to the OMOP CDM and issues with the source data that would not have been identified otherwise.
- DPs were able to participate in the inaugural Evidence-A-Thon and focus on the science because of their efforts to fix the issues highlighted by the DQD.

The Data Quality Dashboard improves data networks by exposing issues in both the source and standardized data.



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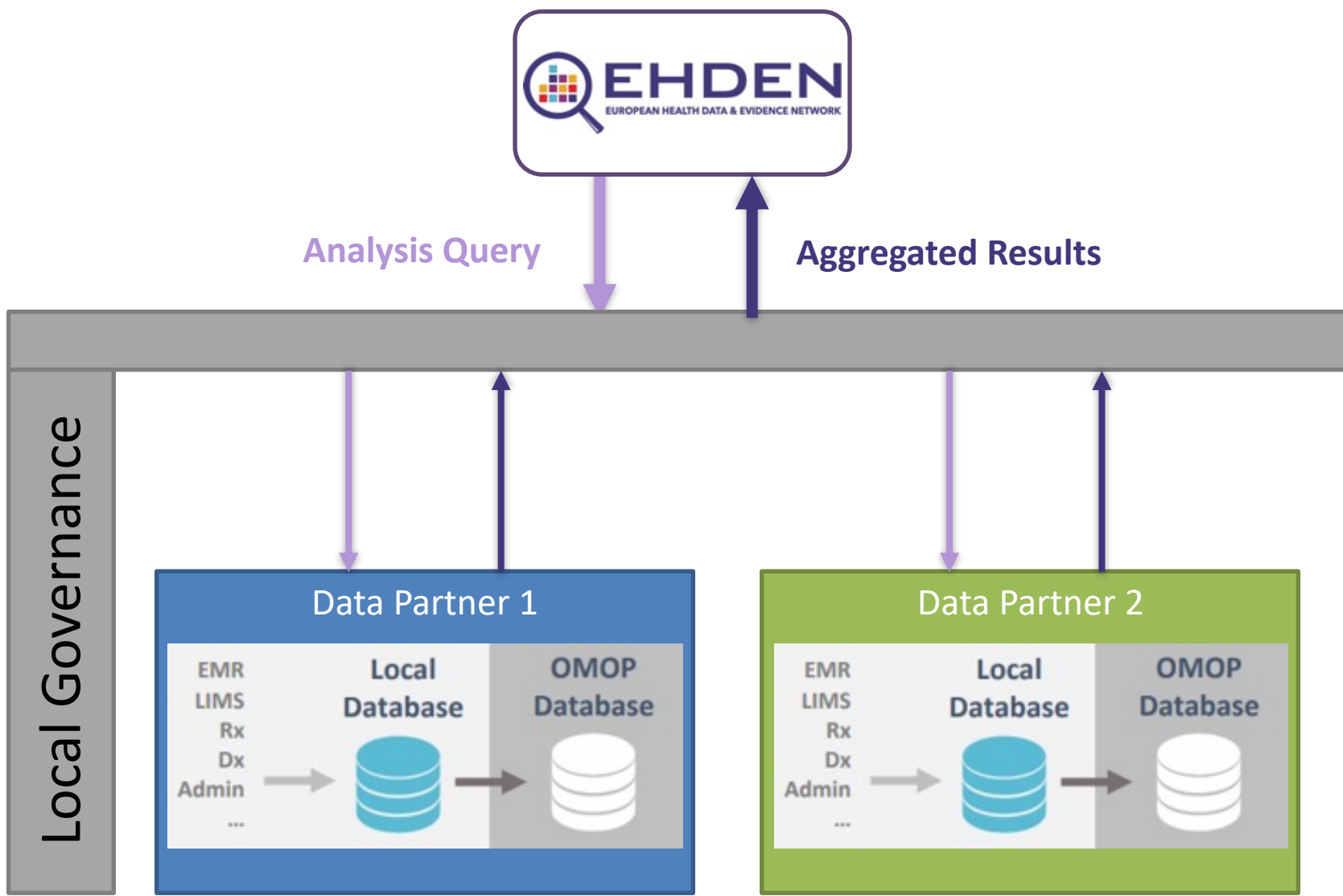


Figure 1: The EHDEN Network

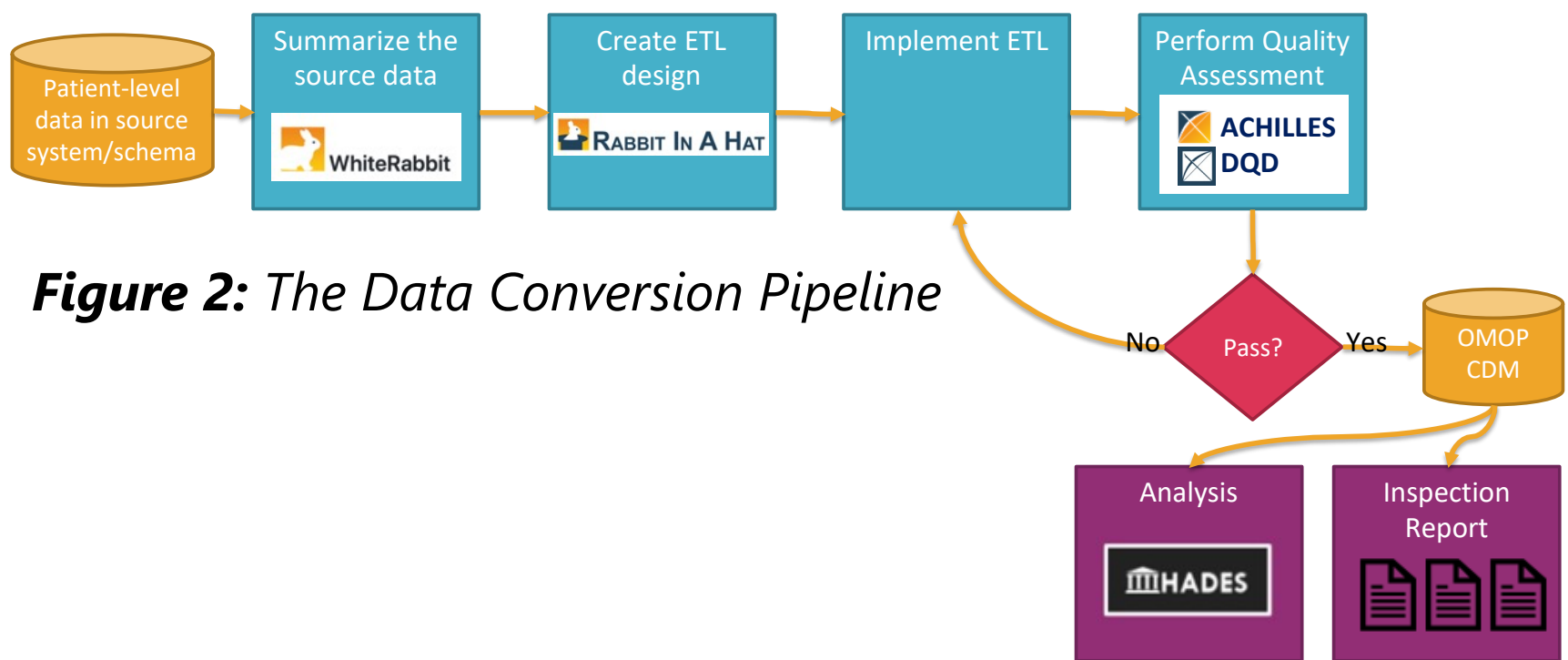


Figure 2: The Data Conversion Pipeline

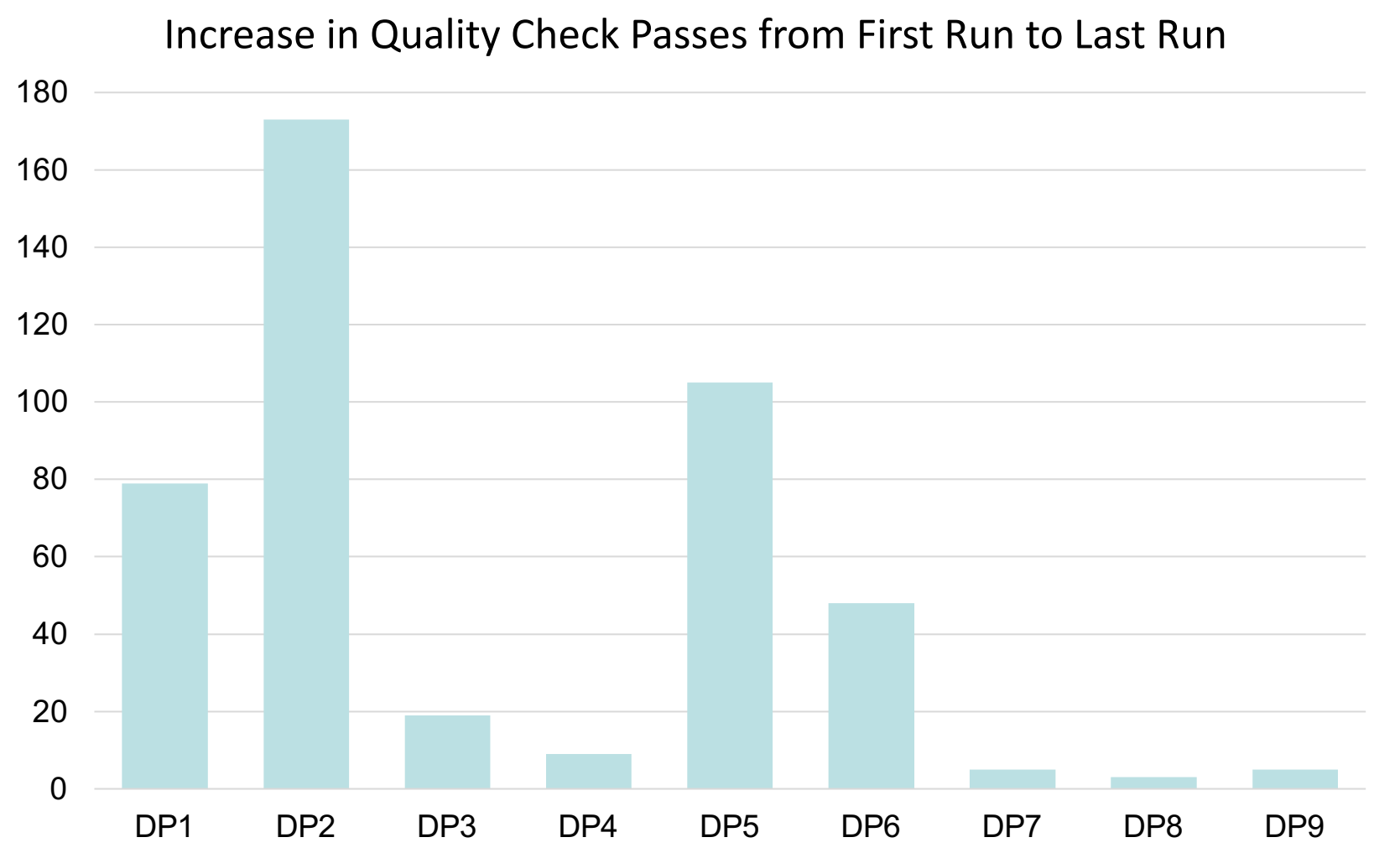


Figure 3: Increase in data quality check passes from the first run to the last run of the DQD.

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