

REDCap2OMOP:

A platform for ETLing
REDCap projects into the
OMOP CDM

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INTRO:

- Many REDCap projects want to convert their data to the OMOP CDM to make their REDCap data comparable to other data assets and use OHDSI's ready-made suite of analytic tools and methods libraries.
- The CCC19² registry has developed an open source MIT-licensed platform, REDCap2OMOP³, to handle the conversion of REDCap data to the OMOP CDM.

METHODS

The REDCap2OMOP platform consists of two primary components;

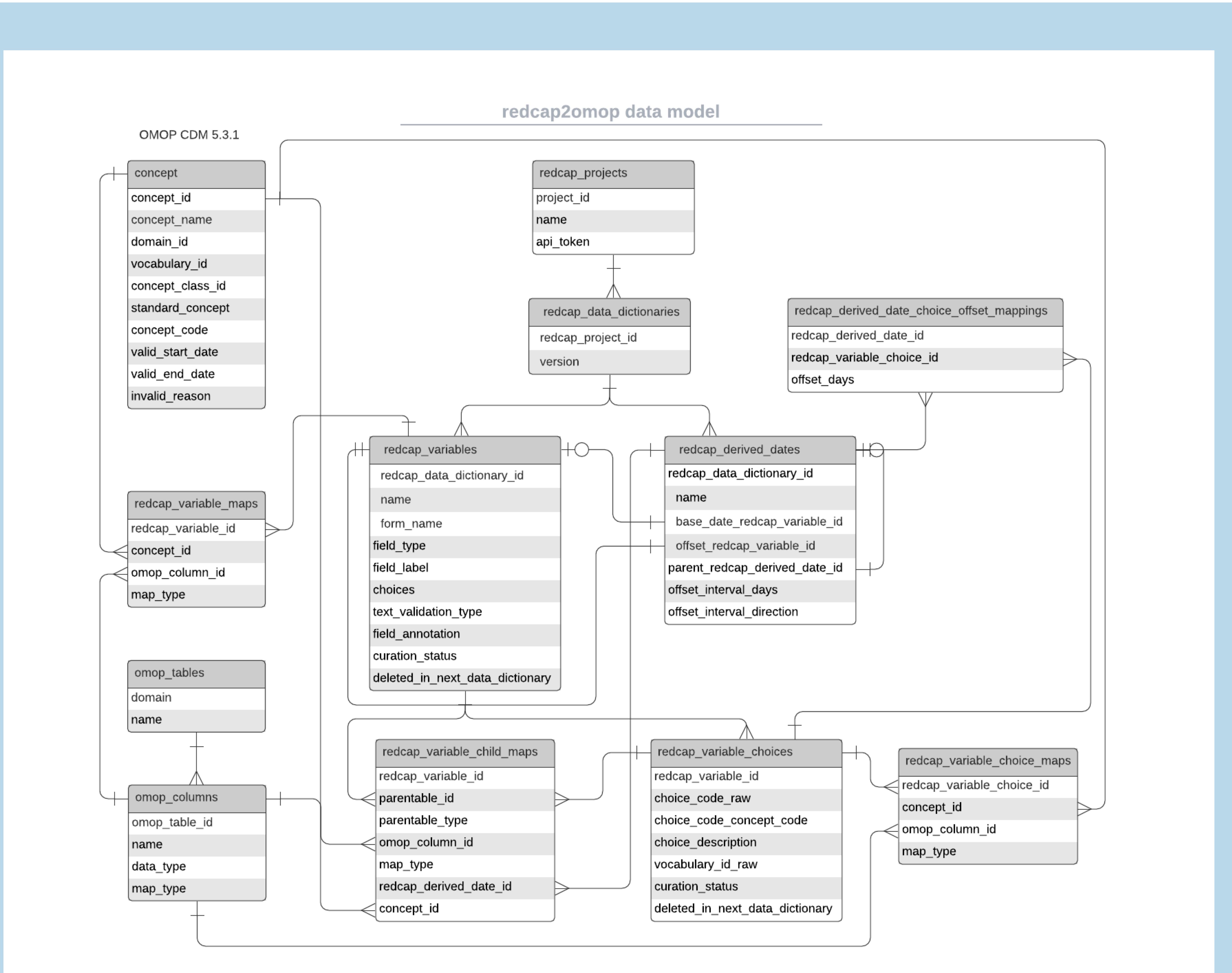
1. A browser-based interface (**Curator**) for managing REDCap data dictionary versions, OMOP vocabulary mappings and time point designations.
2. ETL code (**Converter**) that applies these mappings and designations to a REDCap data export to populate an OMOP 5.3.1 instance.

RESULTS

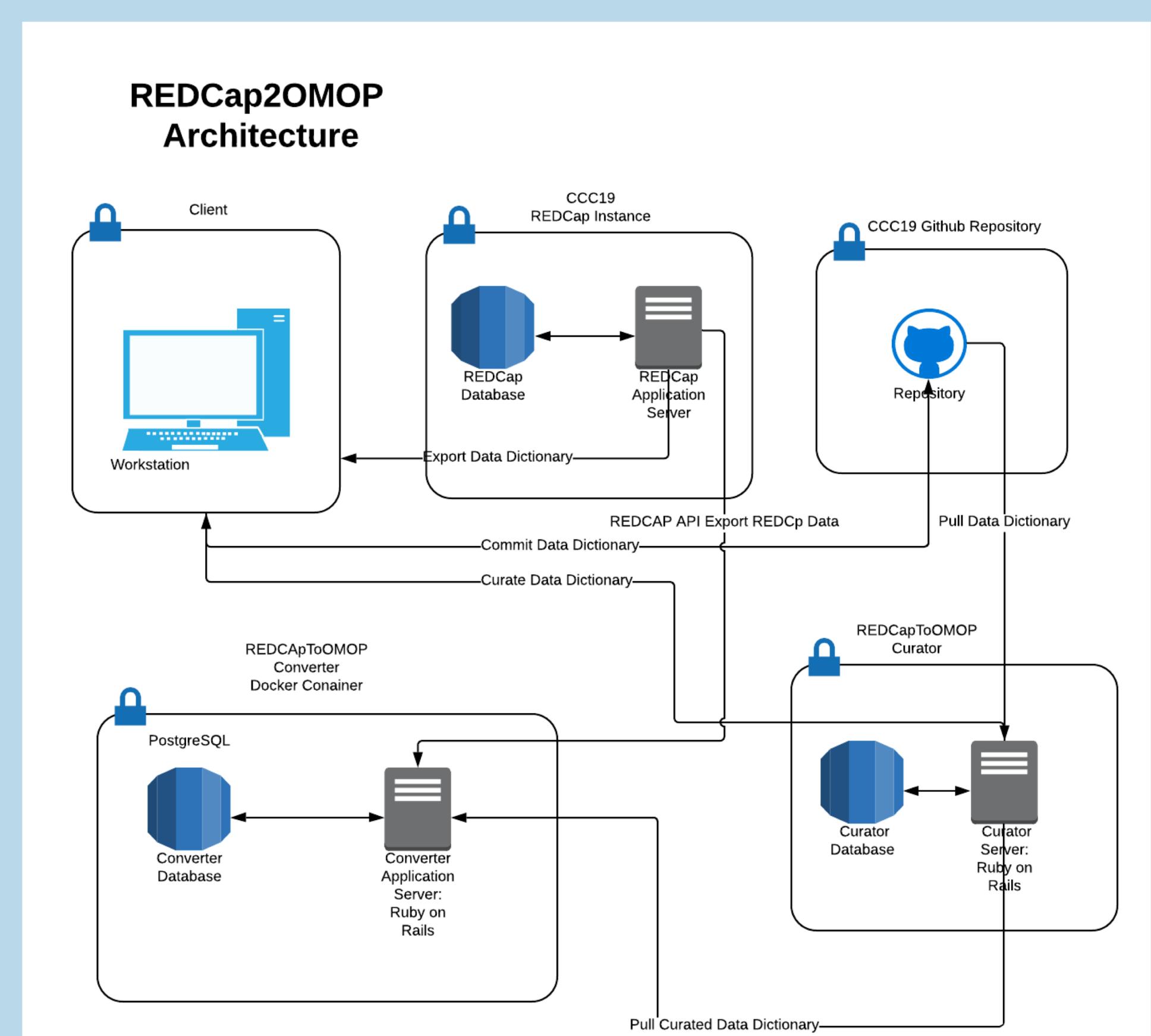
- Curator** ingests data dictionary versions, computes a delta, creates a new version if necessary, migrates prior mappings and supports the curation of new items in a user interface.
- Converter** pulls the curated mappings from **Curator** via a RESTful API, imports REDCap data from a REDCap project via the REDCap API and uses the mappings to ETL into an OMOP 5.3.1 instance.

Footnotes

1. REDCap Research Electronic Data Capture <https://www.project-redcap.org/>
2. The COVID-19 and Cancer Consortium: <https://ccc19.org/>
3. REDCap2OMOP: <https://github.com/NUARIG/redcap2omop>



Take a picture to download the full paper



ETL Logic

- People, Providers and Death are handled separately. Must have enough variables to create people.
- Clinical Domain entities built from REDCap Variable or REDCap variable choices mapped to standard concepts. Subsidiary columns handled by child maps.
- CC19 REDCap project does not support dates. Derived date logic was added.
- REDCap Variable map types:
 - OMOP Column
 - OMOP concept
 - OMOP concept choice
- REDCap Variable Choice map types:
 - OMOP concept

Take away

The REDCap2OMOP platform provides for a robust solution to the challenge of managing the ETL of evolving REDCap projects across newly published versions of REDCap data dictionaries to the OMOP CDM.

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