

**CohortsExport:**  
A Shiny app to explore  
and export data from the  
OMOP Common Data  
Model

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**INTRO:**

- One of the first and fundamental steps in observational research is defining suitable cohorts of patients with shared characteristics of interest. Being able to explore raw data of patients belonging to those cohorts could be helpful for researchers to verify whether a cohort definition meets the needs of their clinical questions.

**METHODS**

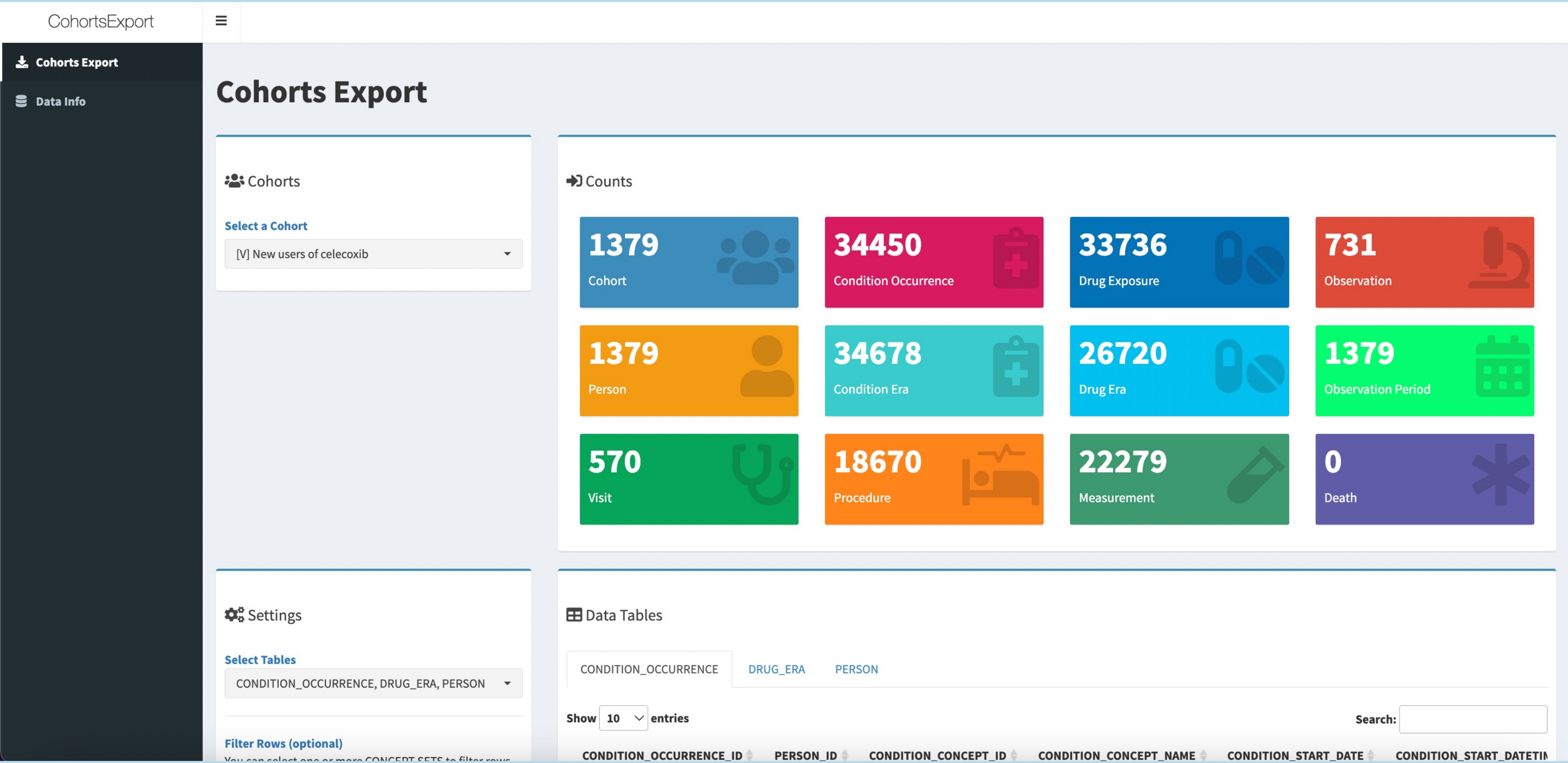
1. *CohortsExport* is a Shiny app built using the open-source packages and tools developed by the R/Shiny community, as well as tools developed by the OHDSI community
2. Requires access to a database containing data in OMOP format
3. Uses HADES packages to connect to database platforms, to retrieve cohort definitions and concept sets from ATLAS, and to query the database

**RESULTS**

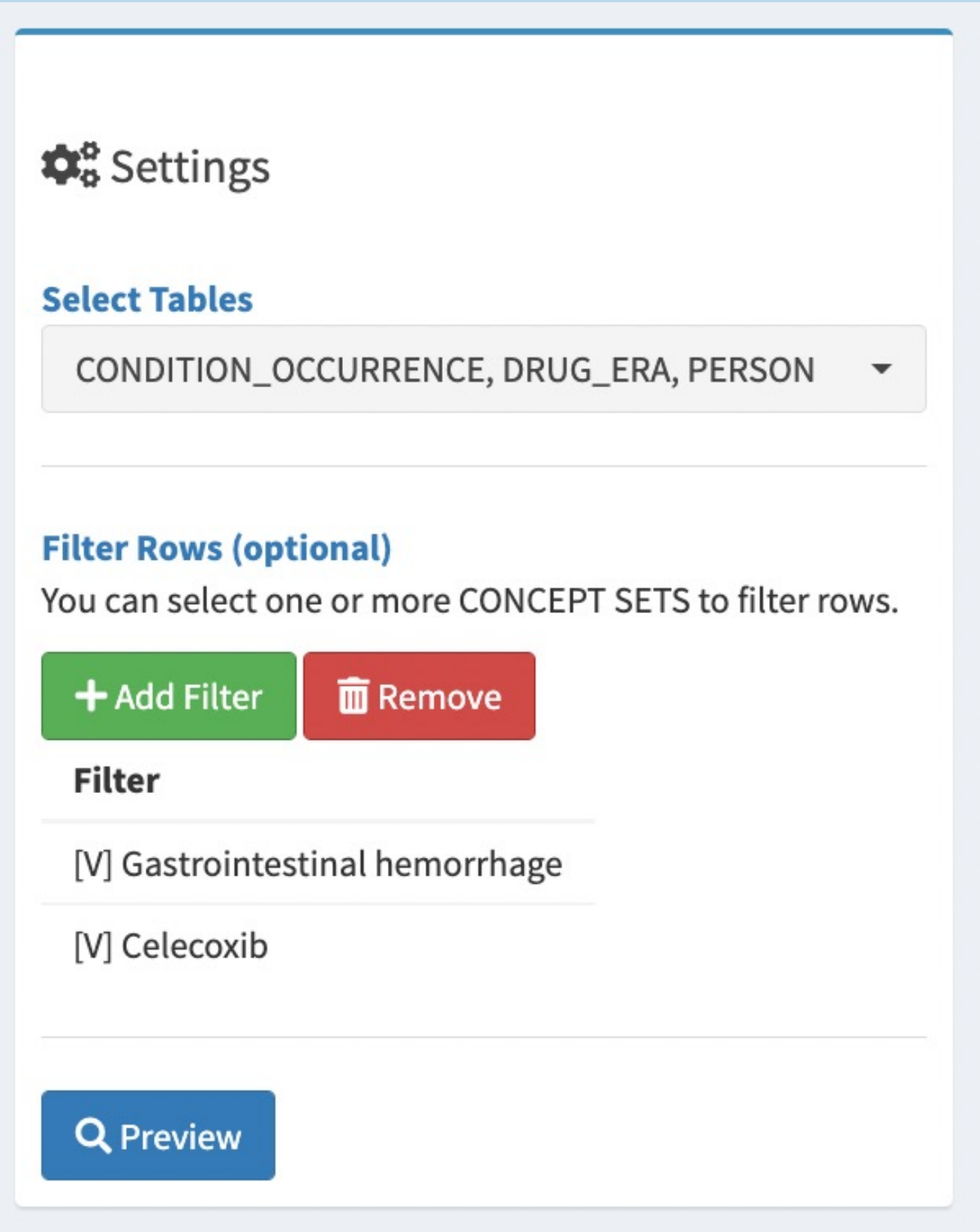
- The Shiny app provides an interface to select a cohort and visualize record count for the main CDM tables
- User can select tables to export and, optionally, filter them using concept sets
- The app shows a preview of the data and allows the user to apply an additional filter on each table to add/remove columns from the output
- User can export and download data in different formats (currently Microsoft Excel, R, SAS, SPSS and Stata)



# Export patient-level data from the OMOP CDM.

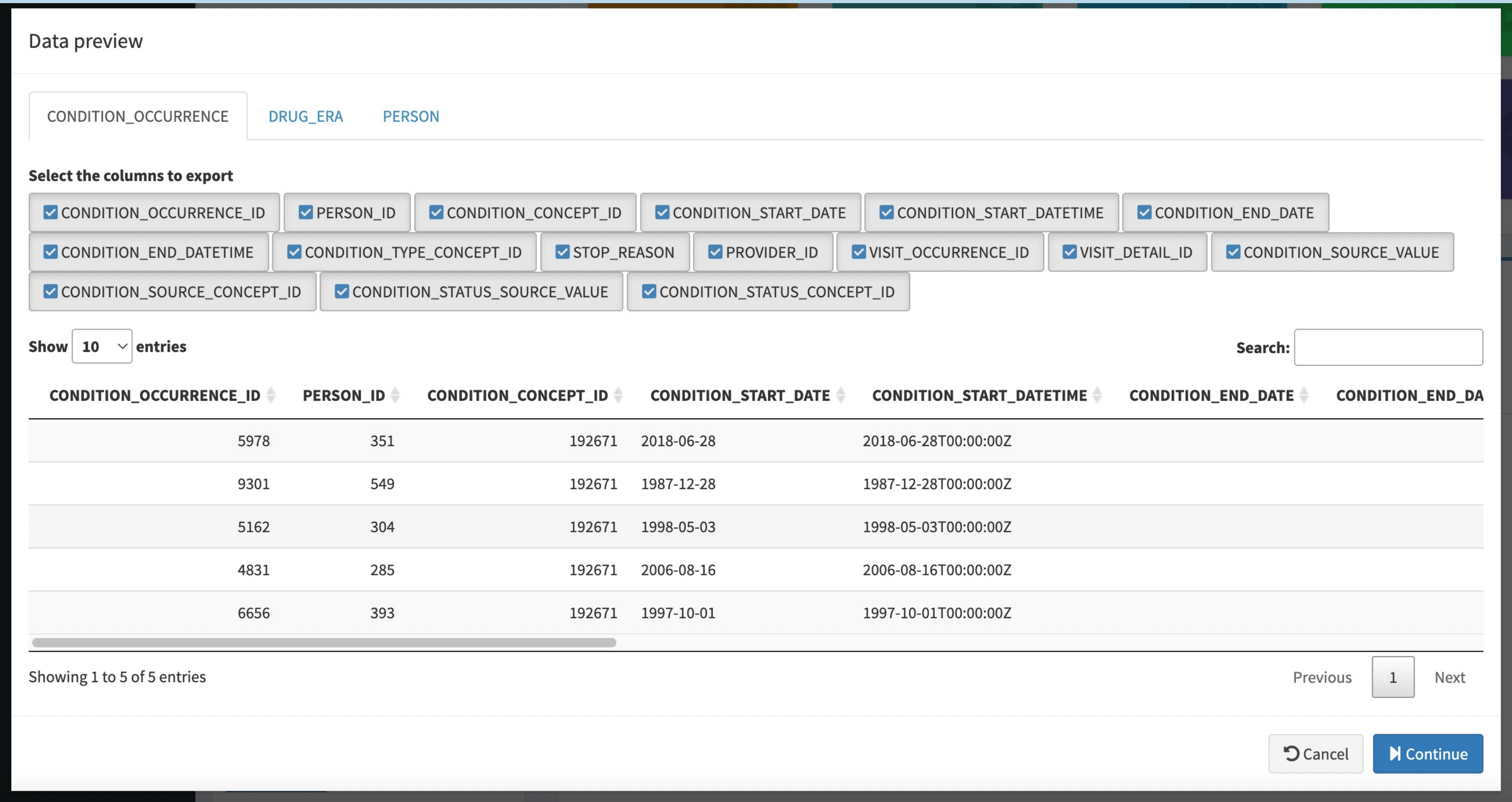


**Figure 1.** Main window of the *CohortsExport* app. First, the user selects a cohort and then the record count for the main CDM tables are shown.



**Figure 2.** Example of export settings. Here the user selects the tables to export and, optionally, one or more concept sets to filter them.

**Figure 3.** Example of *Data preview* dialog box. The dialog box shows as many tabs as the selected tables and, for each one of these, the user can add/remove each single column from the output.



**Figure 4.** Available export formats



**More about the app**  
In the *Data Tables* box the user can see a preview of the data to be exported. Additional columns have been added beside each "*concept\_id*" column making explicit the concept name, to help researchers and improve readability.

Data Tables			
CONDITION_OCCURRENCE DRUG_ERA PERSON			
Show	10	entries	Search:
CONDITION_OCCURRENCE_ID	PERSON_ID	CONDITION_CONCEPT_ID	CONDITION_CONCEPT_NAME
4483	263	4112343	Acute viral pharyngitis
4981	293	378001	Concussion with no loss of consciousness
5153	304	257012	Chronic sinusitis
5655	334	40481087	Viral sinusitis
5977	351	40481087	Viral sinusitis
6500	384	40481087	Viral sinusitis
6815	403	40481087	Viral sinusitis
7139	419	78272	Sprain of wrist
7471	439	4112343	Acute viral pharyngitis
7803	455	78272	Sprain of wrist

**Future developments**

- Login page
- Integrate the WebApi/ATLAS user permissions
- Save cohort definitions and export settings for reproducibility
- Export patient-level data grouped by visit ID
- Additional filters (e.g., date range, ...)

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