DataDirect 2.2 User Guide

DataDirect Overview

- DataDirect is an application that allows users to create queries using data submitted to MPOG for quality improvement (QI) and research purposes.

- It contains multiple filters that can help easily identify a cohort of patients and access data following appropriate approvals.

- Researchers can use DataDirect to identify patient, case, and institution counts for the cohort they are interested in studying.

- Quality Champions can generate a list of patients to audit outcomes or processes of case. As an example, the Quality Champion for the site may be interested in identifying patients who received reversal for neuromuscular blockade and compare that to institution reintubation rates to identify if any correlation exists.

Gaining DataDirect Access

- DataDirect contains a limited dataset. Protected Health Information is excluded except for dates of service.

- However, because DataDirect may contain information regarding hospital level quality indicators (i.e. hospital mortality), approval from the appropriate hospital department (i.e. Quality or Health Information Management) is required.

- To gain access to DataDirect, an authorization form must be completed. This process is automated via signNow. The link to the form can be found here: MPOG DataDirect Affidavit

- Please complete the form and enter your Authorized Hospital Leader's email where indicated. This signature is required for **all** requests.

Creating a Query

When creating a query, there are three modes you can choose from.

○ Cohort Only - only generating case counts for a research project ⓘ
○ Quality Report - downloading MPOG data for a QI project ⓘ
○ Research - downloading MPOG data for a research project ⓘ

- **Cohort Only**
  - Generates a *count* to rapidly determine feasibility of a research or QI project. There is no ability to download data, and no additional approval (e.g. Institutional Review Board) is required for access.
  - Public dissemination of counts (e.g. journal publication, conference abstract, invited talk, social media post, etc.) is NOT allowed. However, counts may be used as preliminary data for multicenter PCRC proposals, and/or shared solely with authorized individuals (see MPOG DataDirect Affidavit).
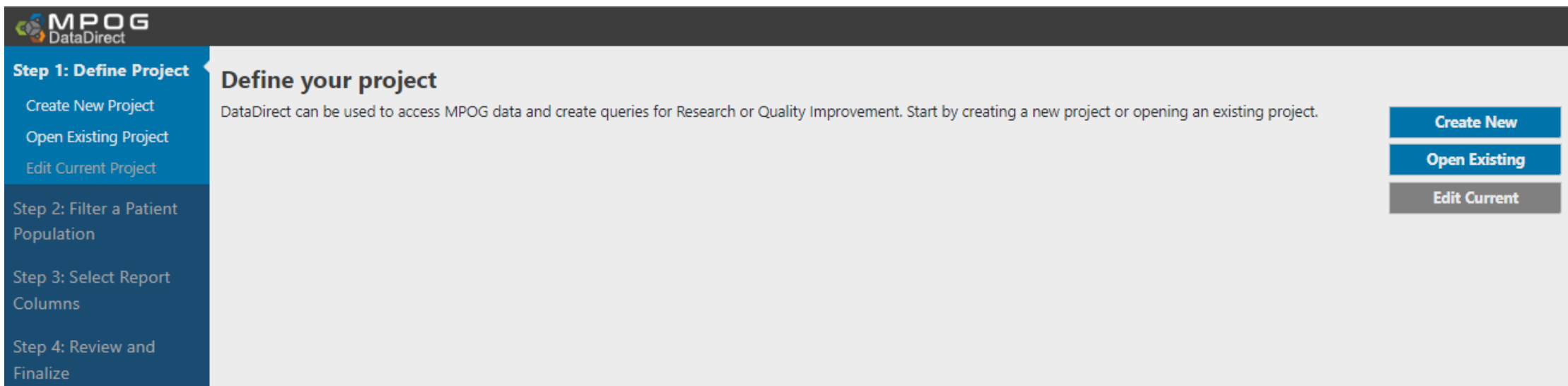
- **Quality Report**
  - Generates a cohort count, data query, and case list for a specific site. Although DataDirect will display final case counts, institutions will remain anonymized.

- **Research**
  - Allows for cohort identification across all sites and downloading sample data from your site only.
  - Public dissemination of single-center study findings (e.g. journal publication, conference abstract, invited talk, social media post, etc.) must be first approved by your Authorized Hospital Leader (see MPOG DataDirect Affidavit).

Step 1: Define Project
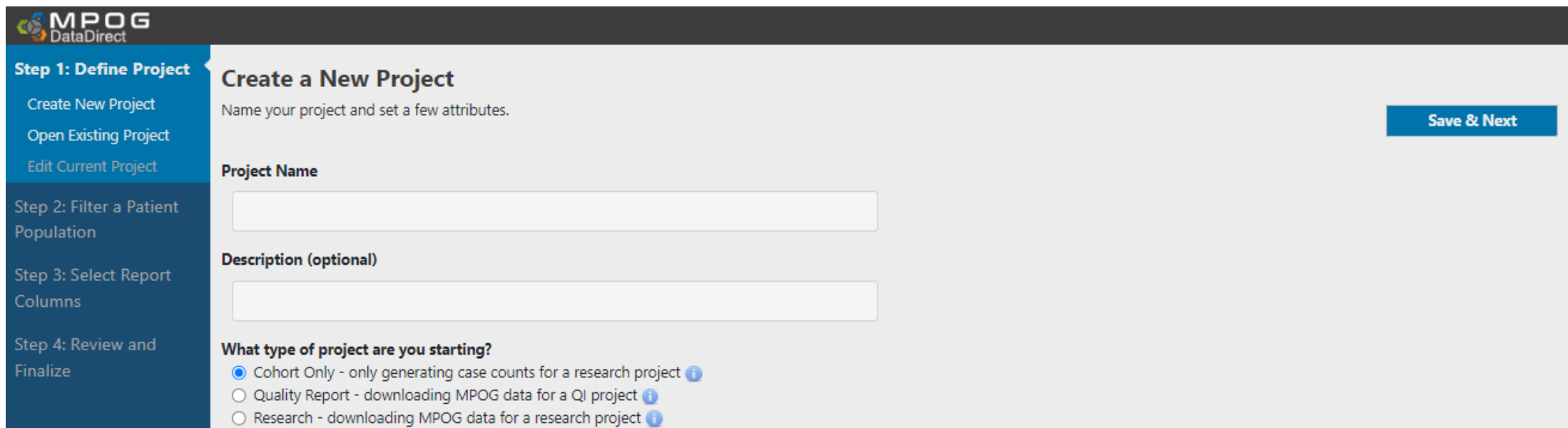
- Choose from **Create New, Open Existing,** or **Edit Current**

➢ Step 1: Creating a New Query

- Enter a name, description (optional), and select a type of project.

Filtering data

- Each filter can be **individually selected** by clicking the **+** symbol to the right of the item name.

- Once added to the filtering algorithm, additional specifications, such as ranges or categories, may be added to the filter.

Step 2: Filter Patient Population

- Next, apply filters to define your cohort and return only cases that you're interested in. The available filters are listed on the left sidebar while the size of your cohort will be dynamically updated on the right.

Filter: Population

- This section begins to narrow the population of cases for your project. Additionally, based on the type of project and your role, you may be able to choose cases for your institution or for all institutions in MPOG. Please select the most relevant starting population if differing from the default.

Filter: Demographics

- Patient characteristics from administrative registration systems. Data is mostly case-level and reflects the most recent value for a given patient (e.g. BMI), regardless of time period specified in Cases.

Filter: Cases

- Perioperative case characteristics from the clinical documentation and professional fee billing systems. Some patient characteristics (ASA status) may change from one case to another and reflect the information known at the time of that case.

➢ Filter: Diagnoses

- MPOG derives diagnoses information from professional billing sources, discharge diagnoses codes, or clinician entered information in the health record. In this section you will primarily see Elixhauser Comorbidities. However, MPOG has also derived other diagnoses from diagnoses codes or clinician entered data.

Use this section to narrow your cohort to the specific diagnoses you are interested in.

- Begin typing the desired diagnosis name (or associated ICD-9 and ICD-10 codes) into the Diagnosis Code field. ICD-10 codes were required as of October 1, 2015, therefore historical data may only include ICD-9 codes.

- If you are interested in capturing diagnosis data for a case that occurred before this date, please choose both ICD-9 and ICD-10 codes. Select the codes you desire, then click **Save changes**
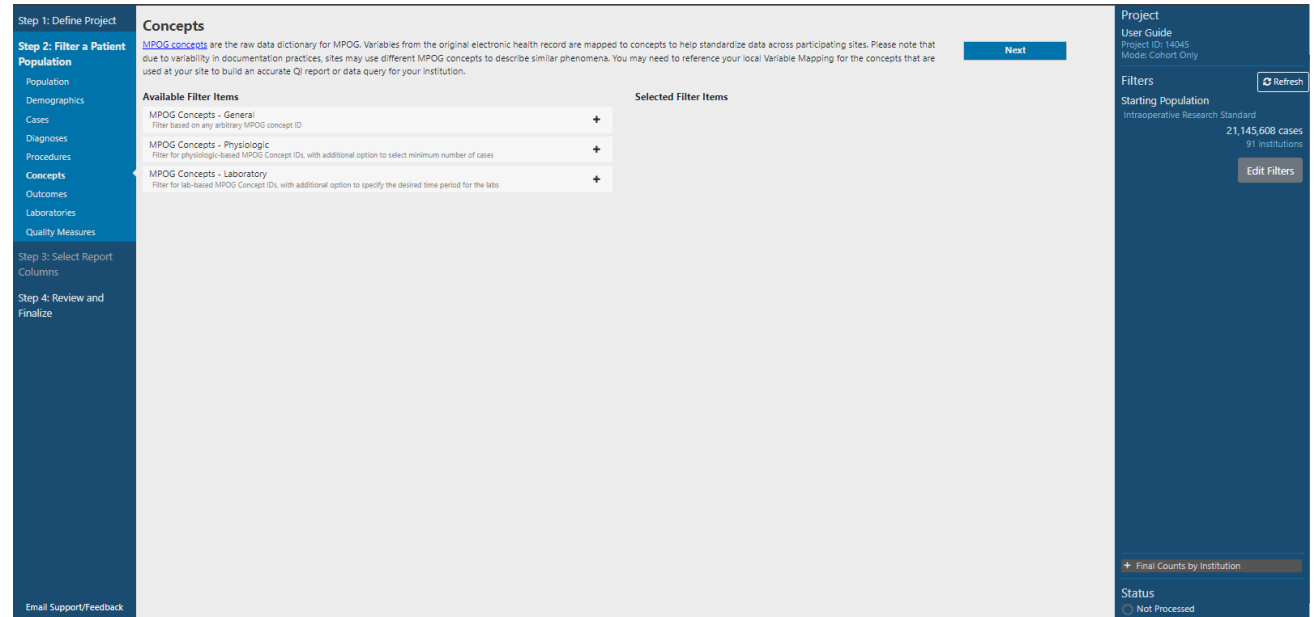
Filter: Procedures

- Perioperative procedures activity identified using Current Procedure Terminology (CPT) codes, professional fee charges, or using free text procedure descriptions.

Contact: support@mpog.zendesk.com

➤ Filter: Concepts

- **MPOG concepts** are the raw data dictionary for MPOG. Variables from the original electronic health record are mapped to concepts to help standardize data across participating sites. Please note that due to variability in documentation practices, sites may use different MPOG concepts to describe similar phenomena.

You may need to reference your local Variable Mapping for the concepts that are used at your site to build an accurate QI report or data query for your institution.

Contact: support@mpog.zendesk.com

➤ Filter: Outcomes

- Clinical outcomes derived from Electronic Health Record and Administrative Data.

Filter: Laboratories

- Laboratory values in this screen are curated lab phenotypes, available for the most common labs and use cases. These are distinct from the Laboratory Concepts that can be selected from the Concept screen include all MPOG laboratory data.

Filter: Quality Measures

- MPOG Quality Improvement measure data, derived from Electronic Health Record and Administrative Data. Please review specification before selecting a measure from the list.

Edit Filters

- This allows you to rearrange the order in which filters are applied to the cohort.

- Please note that individual **filters** are joined to one another using **"and"** logic. Therefore, cases must meet **all** filter criteria in sequential order to be included in the cohort.

- To rearrange the filter order, click the **Edit Filters** button in the right-side panel. A brief on-screen guide will pop-up that details the functionality. This guide can also be viewed via the **Guide** button within the **Edit Filters** section.
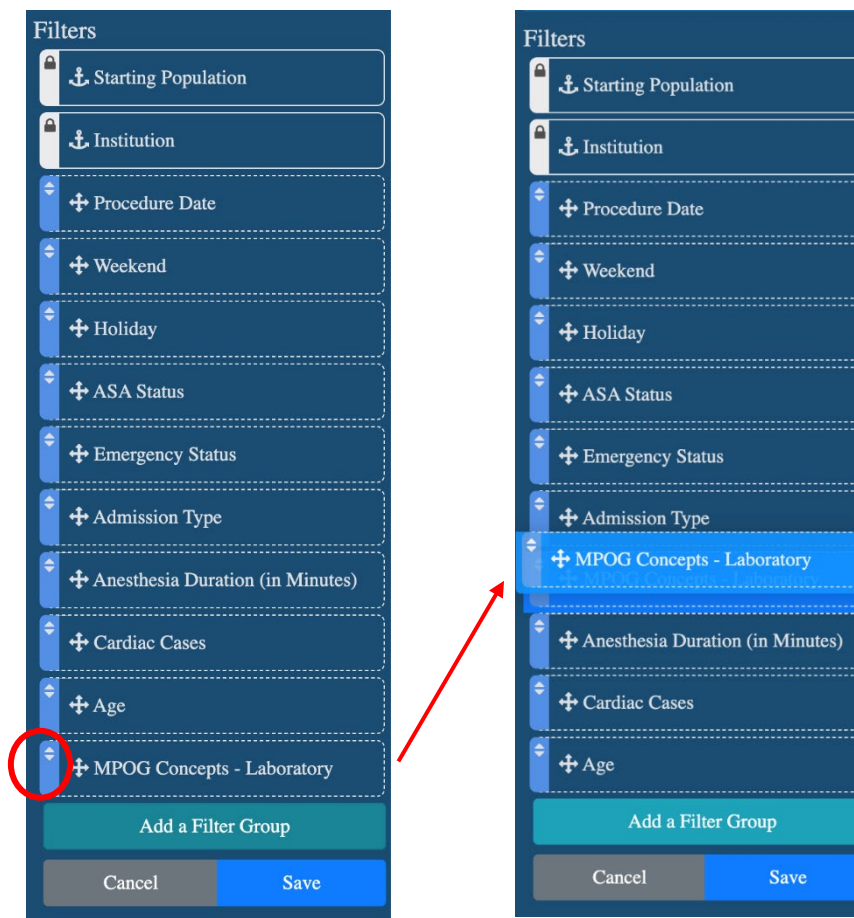
➤ Adding filter groups

- Users can also add **filter groups** to combine individual filters using **"or"** logic from within the **Edit Filters** screen.

- Cases meeting **any** of the criteria within a **filter group** are included in the cohort.

- To add a **filter group**, click the **Add a Filter Group** button at the bottom or drag and drop a filter (using the ✥ symbol) next to another filter.

- Please note that any empty filter groups will be ignored.
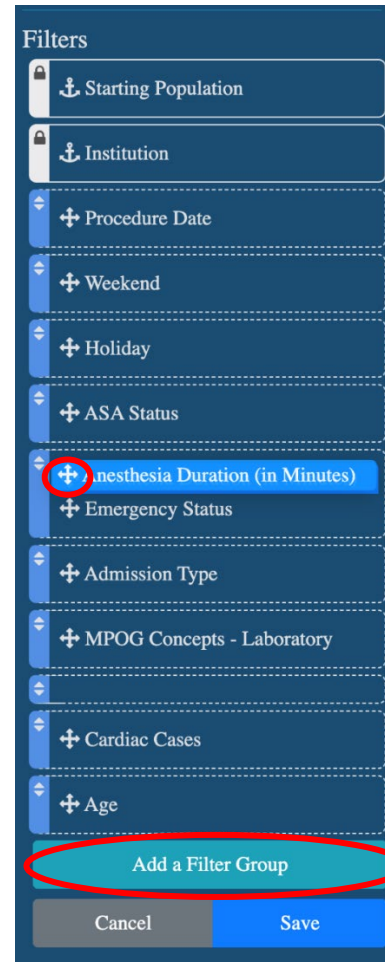
➢ Reordering a filter

- A **filter** can be rearranged by dragging and dropping the **light blue bar** or the ⬍ symbol located to the left of the filter name.

- Please note that any filter displayed with a lock (🔒) and anchor (⚓) cannot be reordered.

Individual Filters vs. Filter Groups

This query uses **individual filters** to combine procedure text and procedure codes using "**and**" logic → cases need to meet **both filter** criteria to be included

This query utilizes the **filter group** to combine procedure text and procedure codes using "**or**" logic → cases can meet **either filter** criteria to be included
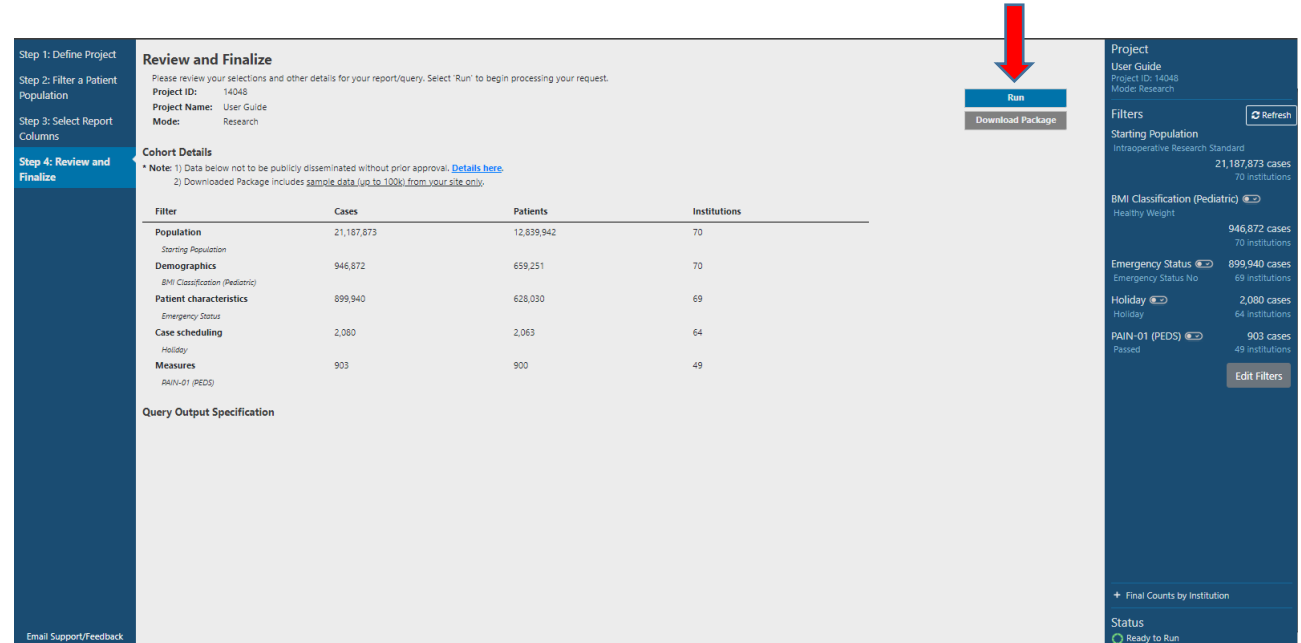
Step 3: Select Report Columns

- Now that you've chosen which cases should be included, you will need to define which data elements should be returned in the result set. This includes pre-computed MPOG Phenotypes and raw MPOG Concepts.

More information about MPOG Phenotypes is available here.

➤ Step 4: Review and Finalize

- Please review your selections and other details for your report/query. Select **Run** to begin processing your request.

- When the query is done running, an auto-generated email is sent.
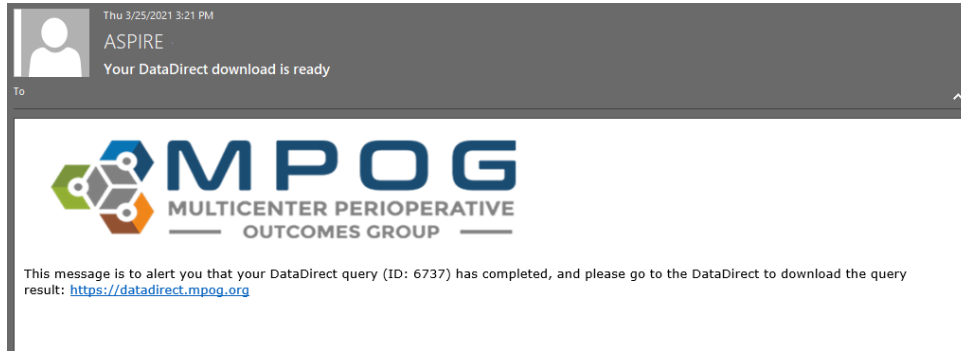
- Click the **Download Package** button to proceed to the attestation screen.

- After specifying filename, completing attestations and password-protecting the Excel Spreadsheet, click the **Download Package** button.

- Download the Excel Spreadsheet.
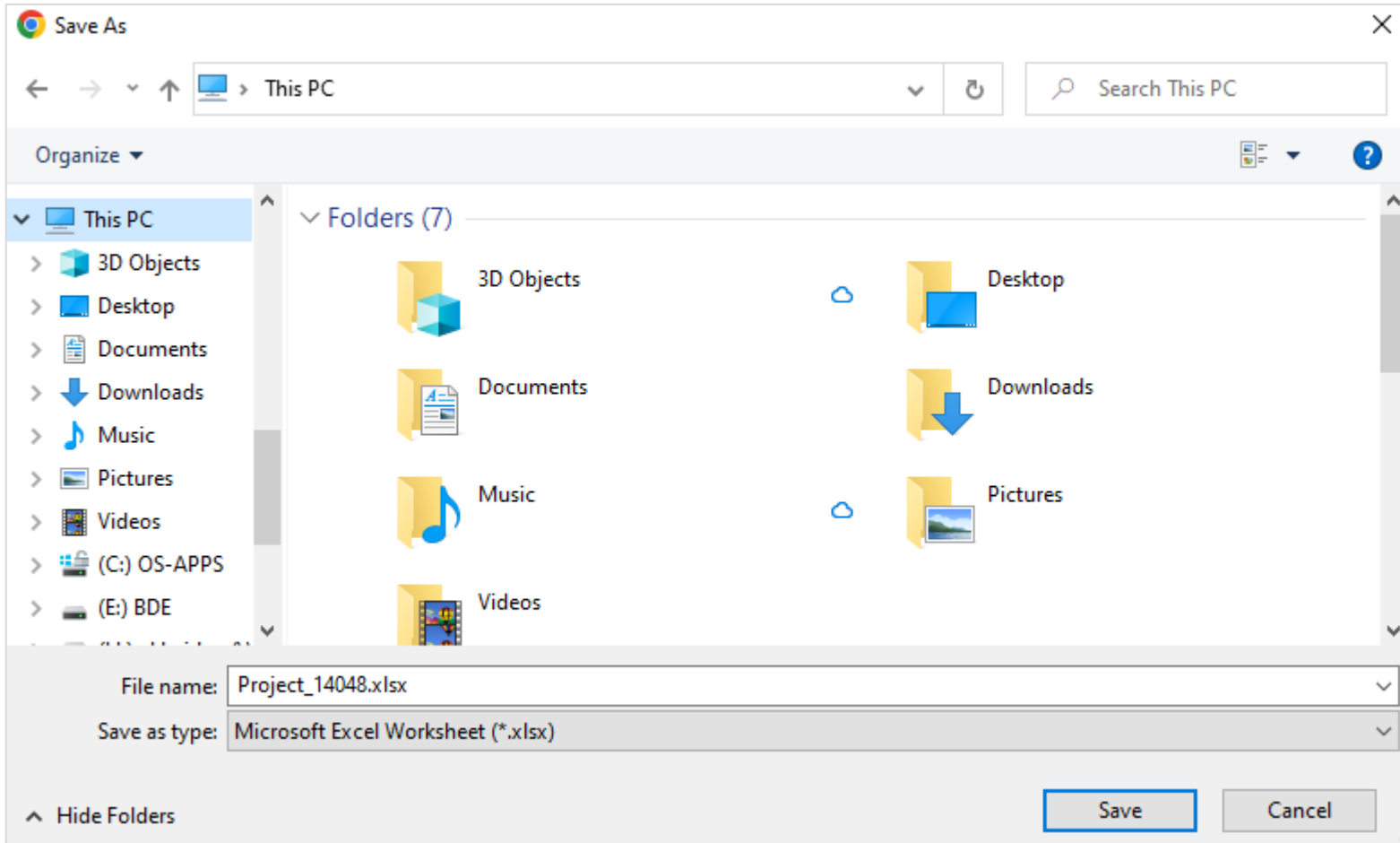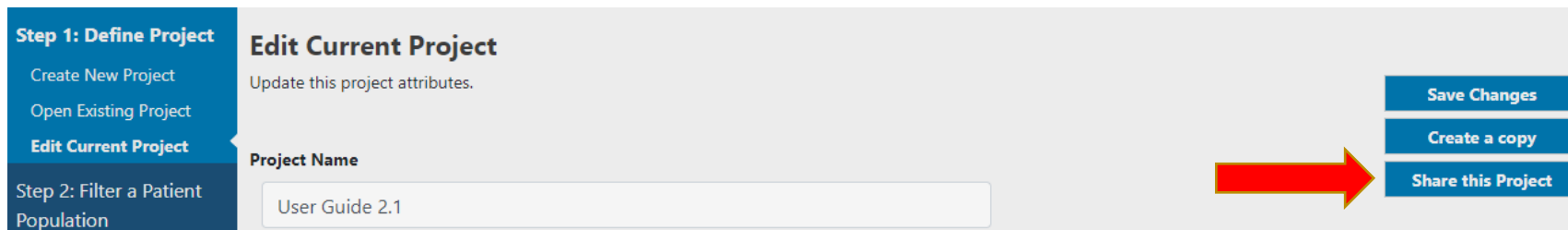
- Enter the password previously set to view the spreadsheet.

Password	?	×
'Project_14048.xlsx' is protected.		
Password: [ ]		
OK	Cancel	
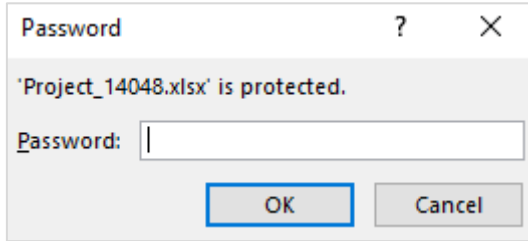
- A summary of the data, and characteristics of the data queried, are among the tabs available in the Excel Spreadsheet.

- Due to row limits in Excel, results that exceed 1 million rows are split into multiple numbered tabs.

- These results will need to be merged into a single file using a text editor to have complete data.

➢ Sharing DataDirect Queries

- Click **Edit Current** (Step 1), then click **Share this Project**

Click the **Share** button after selecting a user