



# Data Import/Export and Reports

Managing data in REDCap

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YALE UNIVERSITY  
SCHOOL OF  
MEDICINE

# Introduction and Learning Objective

- Understand instrument-level data viewing and export rights
- Learn how to set up a custom data report in REDCap with filters
- Understand how to export data to statistical packages
- Know how to import data to a REDCap project
- Learn what an Application Programming Interface (API) is

# Instrument Level Data Viewing and Export Rights

# Instrument-level Data Export Rights

Options for data export rights for EACH data collection instrument:

## Privileges for Viewing and Exporting Data

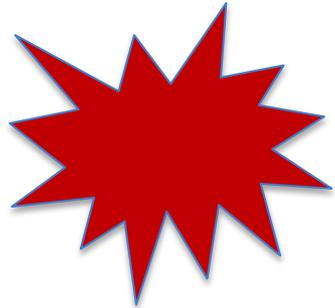
Data Viewing Rights pertain to a user's ability to view or edit data on pages in the project (e.g., data entry forms, reports). Users with 'No Access' Data Viewing Rights for a given instrument will not be able to view that instrument for any record, nor will they be able to view fields from that instrument on a report. Data Export Rights pertain to a user's ability to export data from the project, whether through the Data Exports page, API, Mobile App, or in PDFs of instruments containing record data. Note: Data Viewing Rights and Data Export Rights are completely separate and do not impact one another.

	Data Viewing Rights				Data Export Rights			
	No Access (Hidden)	Read Only	View & Edit	Edit survey responses	No Access	De-Identified*	Remove All Identifier Fields	Full Data Set
Demographics	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Age Screener	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Preliminary Screen (survey)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Outcome of Preliminary Screen	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Medical History (survey)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

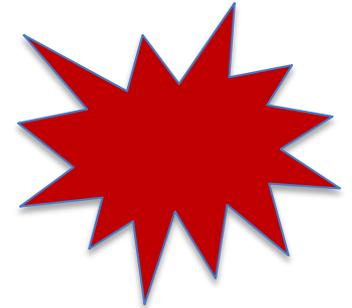
→ Match a user's Data Exports Rights with their Data Viewing Rights!

→ Granular control of who can export data from your project.

# Instrument-level Data Viewing and Export Rights



Where is my new instrument?



## Production Project:

- When adding a new form to a project *that's been put into production*, no users will initially have access to data viewing and data export rights for that new instrument.
- Remember to give you AND your users rights to the new instrument after the production changes have been approved.

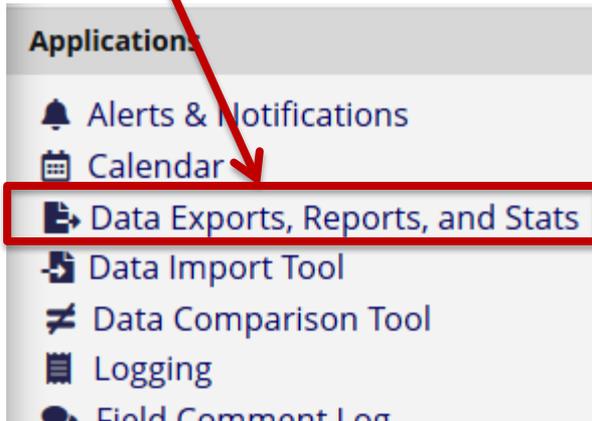


Questions?

# Reports

# Data Exports, Reports, and Stats

how-to  
video



Applications

- Alerts & Notifications
- Calendar
- Data Exports, Reports, and Stats**
- Data Import Tool
- Data Comparison Tool
- Logging
- Field Comment Log

## Data Exports, Reports, and Stats

 [VIDEO: How to use Data Exports, Rep](#)

[+ Create New Report](#)

[My Reports & Exports](#)

[Other Export Options](#)

This module allows you to easily view reports of your data, inspect plots and descriptive statistics of your data, data to Microsoft Excel, SAS, Stata, R, or SPSS for analysis (if you have such privileges). If you wish to export you view it as a report, then Report A is the best and quickest way. However, if you want to view or export data from instruments (or events) on the fly, then Report B is the best choice. You may also create your own custom report (if you have such privileges) in which you can filter the report to specific fields, records, or events using a vast array of filter you get the exact data you want. Once you have created a report, you may view it as a webpage, export it out to a file format (Excel, SAS, Stata, SPSS, R), or view the plots and descriptive statistics for that report.

### My Reports & Exports

	Report name	View/Export Options
A	<b>All data</b> (all records and fields)	<a href="#">View Report</a> <a href="#">Export Data</a> <a href="#">Stats &amp; Charts</a>
B	<b>Selected instruments and/or events</b> (all records)	<a href="#">Make custom selections</a>
1	Demographics	<a href="#">View Report</a> <a href="#">Export Data</a> <a href="#">Stats &amp; Charts</a>
<a href="#">+ Create New Report</a>		

# Reports

**My Reports & Exports**

	Report name	View/Export Options
<b>A</b>	<b>All data</b> (all records and fields) <ul style="list-style-type: none"><li>○ Good for exporting all data</li><li>○ Not good for projects with lots of data, events</li></ul>	<a href="#">View Report</a> <a href="#">Export Data</a> <a href="#">Stats &amp; Charts</a>  Select one or more instruments/events below for all records. <b>Instruments</b> -- All instruments -- Screening Form Study Visit Form Blood Draw Form Day 1 Task  AND <b>Events</b> -- All events -- Flu Clinic Day 1 Day 2-4 Blood Draw Day 7 Blood Draw  <a href="#">View Report</a> <a href="#">Export Data</a> <a href="#">Stats &amp; Charts</a>  - OR - <a href="#">+ Create report</a> based on the selections above
<b>B</b>	<b>Selected instruments and/or events</b> (all records) <ul style="list-style-type: none"><li>○ Good for selecting subset of instruments and/or events</li><li>○ Good for further refinement</li></ul>	

# How to create custom reports

+ Create New Report

**+ User Access:** Choose who can edit and view this report

**View Access:** Choose who sees this report on their left-hand

All users - OR -  Custom user access (Choose specif

**Edit Access:** Choose who can edit, copy, or delete this repo

All users - OR -  Custom user access (Choose specif

**Fields to include in report**  Add all fields from selected instrument:

Field 1	Instrument
id "Participant ID code"	

**Filters (optional)**

Filter 1
Type variable name or field label

**Order the Results (optional)**

First by
id "Participant ID code" <input type="button" value="AB"/>

# Custom Reports

## Step 1: Naming and Access

<b>Name of Report:</b>	<input type="text" value="Participants who have completed the study"/>
<b>Set as "public":</b>	Enabling this feature below will auto-generate a public link for viewing the report without needing to log in to REDCap. <input type="checkbox"/> <b>Report is publicly viewable by anyone with the public link</b>
<b>Description (optional):</b> Displayed on page below report name	<div style="border: 1px solid #ccc; padding: 5px;"><p>Paragraph <span>▼</span> <span>—</span> <b>B</b> <i>I</i> <u>U</u> <a href="#">🔗</a> <code>&lt;/&gt;</code>       <span>↶</span> <span>↷</span></p><p>                                       </p></div>

# Custom Reports

## Step 2: Field Selection

STEP 2

Fields to include in report + Quick Add Add all fields from selected instrument: -- choose instrument --

Field	Field Name	Instrument
Field 1	id "Participant ID code"	Instr...
Field 2	Type variable name or field label	Instr...

**+ Quick Add**

To quickly add or remove fields for this report, check or uncheck their associated checkbox below. The fields will \*automatically\* be added/removed from the report as you check/uncheck them. The fields will be added to the end of the report as they are checked.

	Screening Form ( <a href="#">Select All</a> / <a href="#">Deselect All</a> )
<input checked="" type="checkbox"/>	id "Participant ID code"
<input type="checkbox"/>	screendate "Date of screening"
<input type="checkbox"/>	intid_scr "Interviewer ID"
<input type="checkbox"/>	inc_consent "Able to understand and provide informe..."
<input type="checkbox"/>	inc_health "In general good health as determined by t..."
<input type="checkbox"/>	inc_agegroup "Either 21-40 years old or 65 years and ..."

Total fields selected: 1 Close

Three ways to select fields to include in the report:

- Dropdown
- By instrument
- Quick Add

# Custom Reports

## Step 2: Field Selection...options

### Additional report options (optional)

- Include the Data Access Group name for each record (if record is in a group)?
- Include the survey identifier field and survey timestamp field(s)?
- Combine checkbox options into single column of only the checked-off options (will be formatted as a text field when exported to stats packages)
- Include the repeating instance fields (`redcap_repeat_instrument`, `redcap_repeat_instance`) in the report and data export?
- Remove line breaks/carriage returns from all text data values (only applicable for CSV Raw and CSV Label data exports)

In the report header, display the field label, variable, or both (not applicable for exports)?

In the report's data, display the field label, raw data value, or both for multiple choice fields (not applicable for exports)?

# Custom Reports

## Step 3: Filters for Classic projects

### Example 1: Classic project (non-longitudinal)

1. Data arranged by records, with one row per record.
2. Choose the field and specify the operator and value for the first filter.
3. Select And/Or for the next filter
4. Choose field and specify the operator and value for the next filter

**STEP 3**

Show data for all repeating instruments/events for each record returned ?

[? How to use filters and AND/OR logic](#)

**Filters (optional)**

		Operator / Value		
<b>Filter 1</b>	consent_form_complete "Complete?" <input type="button" value="ABX"/>	=	Complete	<input type="button" value="X"/>
AND <input type="button" value="v"/>				
<b>Filter 2</b>	part_9_survey_completion_complete " <input type="button" value="ABX"/>	=	Complete	<input type="button" value="X"/>
AND <input type="button" value="v"/>				
<b>Filter 3</b>	-- select a field -- <input type="button" value="ABX"/>			

Switch format: [Use advanced logic](#)

**TIP:** Use [X-instance] Smart Variables to filter repeating data.

- Show only repeating instance data: [current-instance] <> ""
- Show only the first repeating instance: [current-instance] <> "" and [current-instance] = [first-instance]

# Custom Reports

## Step 3: Filters for Longitudinal projects

### Example 2: Longitudinal project

1. Data arranged by events, with one row per event.
2. Choose the *event and the field* before specifying the operator and value for the first filter.
3. Optional: use advanced logic to set up more complex filters

**STEP 3**

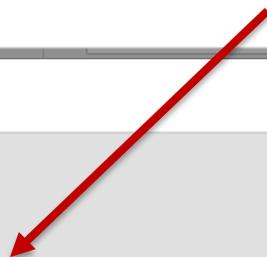
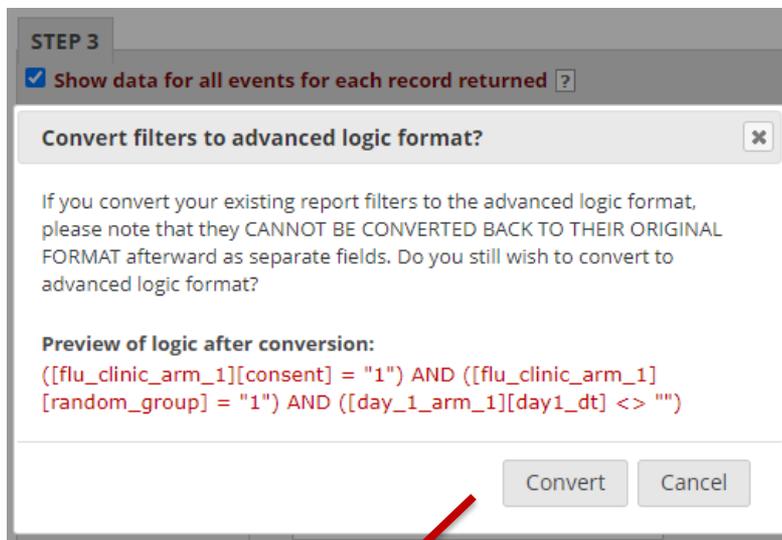
Show data for all events for each record returned ? [How to use filters and AND/OR logic](#)

**Filters (optional)** **Operator / Value**

<b>Filter 1</b>	consent "Did participant consent?" <input type="checkbox"/> RBX	=	Yes	×
	in Flu Clinic			
AND				
<b>Filter 2</b>	random_group "Randomization Group" <input type="checkbox"/> RBX	=	High dose quadrival	×
	in Flu Clinic			
AND				
<b>Filter 3</b>	day1_dt "Visit date" <input type="checkbox"/> RBX	not =	<input type="text"/> M-D-Y	×
	in Day 1			
AND				
<b>Filter 4</b>	Type variable name or field label <input type="text"/> <input type="button" value="v"/>	=	<input type="text"/>	
	in All events			

# Custom Reports

## Step 3: Filters for Longitudinal projects



STEP 3

Show data for all events for each record returned ?

▼ Filters (optional)

**Advanced filter logic:** (e.g., [age] > 30 and [sex] = "1") [How do I use special functions?](#)

[([flu\_clinic\_arm\_1][consent] = "1") AND ([flu\_clinic\_arm\_1][random\_group] = "1") AND ([day\_1\_arm\_1][day1\_dt] <> "")]

Switch format: [Use simple logic \(choose fields from list\)](#)

# Custom Reports

## Step 3: Filters for Longitudinal projects

### STEP 3

Show data for all events or repeating instruments for each record returned ?

Participant ID code id	Event Name redcap_event_name	Date of screening screendate	Did participant consent? consent	Sex at Birth dem_sex	Randomization Group random_group	Visit date day1_dt
<a href="#">15</a>	Flu Clinic	01-30-2022	Yes (1)	Female (0)	High dose quadrivalent (1)	
<a href="#">15</a>	Day 1					06-30-2022
<a href="#">15</a>	Day 2-4 Blood Draw					

### STEP 3

Show data for all events or repeating instruments for each record returned ?

Participant ID code id	Event Name redcap_event_name	Date of screening screendate	Did participant consent? consent	Sex at Birth dem_sex	Randomization Group random_group	Visit date day1_dt
<a href="#">15</a>	Flu Clinic	01-30-2022	Yes (1)	Female (0)	High dose quadrivalent (1)	
<a href="#">15</a>	Day 1					06-30-2022

# Custom Reports

## Step 3: Filters for Repeating forms

Repeating form:

1. Use [X-instance] Smart Variables to filter repeating data
2. Show only the last repeating instance:  
[current-instance] = [last-instance]
3. Show only repeating instance data: [current-instance] <> ""

Example: Include only last instance of call log in the report

### STEP 3

Show data for all repeating instruments/events for each record returned ?

#### ▼ Filters (optional)

Advanced filter logic:

(e.g., [age] > 30 and [sex] = "1")

[How do I use special functions?](#)

[current-instance] = [last-instance] and [current-instance] <> ""

# Custom Reports

## Step 3: Filters for Repeating forms

Filter=[current-instance]=[last-instance]

Record ID recordid	Repeat Instrument redcap_repeat_instrument	Repeat Instance redcap_repeat_instance	Contact Attempt Date cont_dt	Contact Method cont_method	Outcome cont_outcome
<u>1</u>					
<u>1</u>	Outreach Log	3	02-13-2024	Phone call (1)	Voicemail full (3)
<u>2</u>					
<u>3</u>					
<u>4</u>					
<u>5</u>					
<u>6</u>					
<u>6</u>	Outreach Log	2	11-29-2023	Phone call (1)	Left VM (2)

Filter=[current-instance]=[last-instance] and [current-instance]<> ""

Record ID recordid	Repeat Instrument redcap_repeat_instrument	Repeat Instance redcap_repeat_instance	Contact Attempt Date cont_dt	Contact Method cont_method	Outcome cont_outcome
<u>1</u>	Outreach Log	3	02-13-2024	Phone call (1)	Voicemail full (3)
<u>6</u>	Outreach Log	2	11-29-2023	Phone call (1)	Left VM (2)
<u>10</u>	Outreach Log	1	02-06-2024	Email (2)	Sent email (6)

# Custom Reports: Live Filters

- Dynamically filtering data in real time
- Fields that can be used for live filters: record id, multiple choice fields, events or data access group.

⚡ Live Filters (optional)		Live exc Eve
Live Filter 1	[Events] ▼	
Live Filter 2	-- select a field -- ▼	
Live Filter 3	-- select a field -- ▼	

# Custom Reports: Live Filters

('records' = total available data across all designated events)

Live filters: [ Events ] v

Subject ID subjectid	Event Name redcap_event_name	Date of Insomnia Severity Index isi_date	1. Difficulty falling asleep isi1	2. Difficulty staying asleep isi2	3. Problems waking up too early isi3	4. How SATISFIED/DISSATISFIED are you with your CURRENT sleep pattern? isi4	5. How NOTICEABLE to others do you think your sleep problem is in t ... ring the quality of your life? isi5
<a href="#">51</a>	V0						
<a href="#">51</a>	V1						
<a href="#">51</a>	V2	09-14-2020	Mild (1)	Mild (1)	Mild (1)	Moderately Satisfied (2)	Somewhat (2)
<a href="#">51</a>	V3						
<a href="#">51</a>	V4	01-27-2021	None (0)	Mild (1)	None (0)	Very Satisfied (0)	A Little (1)

# Custom Reports: Live Filters

('records' = total available data across all designated events)

Live filters: V4 ▼ [Reset](#)

Report execution time: 0 seconds

Subject ID subjectid	Event Name redcap_event_name	Date of Insomnia Severity Index isi_date	1. Difficulty falling asleep isi1	2. Difficulty staying asleep isi2	3. Problems waking up too early isi3	4. How SATISFIED/DISSATISFIED are you with your CURRENT sleep pattern? isi4	5. How NOTICEABLE to others do you think your sleep problem is in t ... ring the quality of your life? isi5
<a href="#">51</a>	V4	01-27-2021	None (0)	Mild (1)	None (0)	Very Satisfied (0)	A Little (1)
<a href="#">231</a>	V4	05-10-2021	Moderate (2)	Moderate (2)	Moderate (2)	Satisfied (1)	Not at all Noticeable (0)

Questions?

# Data Export

# Data Export Formats

 Export Data

Data can be exported to Excel, SAS, R, SPSS, STATA, XML.

- Options to remove identifiers from data export.

Select your export settings, which includes the export format (Excel/CSV, SAS, SPSS, R, Stata) and if you wish to perform de-identification on the data set.

**Choose export format**

 CSV / Microsoft Excel (raw data)

 CSV / Microsoft Excel (labels)

 SPSS Statistical Software

 SAS Statistical Software

 R Statistical Software

 Stata Statistical Software

 CDISC ODM (XML)

**De-identification options (optional)**

The options below allow you to limit the amount of sensitive information that you are exporting out of the project. Check all that apply.

**Known Identifiers:**

Remove all tagged Identifier fields (tagged in Data Dictionary)

Hash the Record ID field (converts record name to an unrecognizable value)

**Free-form text:**

Remove unvalidated Text fields (i.e. Text fields other than dates, numbers, etc.)

Remove Notes/Essay box fields

**Date and datetime fields:**

Remove all date and datetime fields

— OR —

Shift all dates by value between 0 and 364 days (shifted amount determined by algorithm for each record) [What is date shifting?](#)

Also shift all survey completion timestamps by value between 0 and 364 days (shifted amount determined by algorithm for each record)

[Deselect all options](#)

**Apply live filters?**

One or more live filters have been selected on this report. Do you wish to apply the live filters to the data export, thus producing the same data set that you currently see displayed on the report?

**Apply live filters selected on this report**

**Advanced data formatting options**

**Set CSV delimiter character**

Set the delimiter used to separate values in the CSV data file (only valid for CSV Raw Data and CSV Labels export formats):

**Force all numbers into a specified decimal format?**

You may choose to force all data values containing a decimal to have a specified decimal character (comma or period/full stop). This will be applied to all calculations and number-validated text values in the export file.

**NOTE:** Your data formatting selections above will be remembered in the future and will be pre-selected upon your next export.

# Exporting data to statistical program

When exporting data to statistical program, REDCap will generate a syntax file and a CSV data file!

1. Download and save both files to a common location;
2. Follow the instructions on the data export page to add the location of the CSV data file to the syntax file;
3. Run the code to import the data to the statistical program



### SAS Statistical Software

Download and save both files on the right to a common location. Double-click the syntax file to open it in SAS. In the syntax editor in SAS, enter the full path of the data CSV file on your computer into the second line of the .sas syntax file. For example, you will need to add something similar to the red text seen below. Your file name and folder path will look different from the example below. Once you have completed these steps, choose Run (or Run-->Submit) from the top menu options in SAS to load the data.

```
%let csv_file = 'MyProject_DATA_NOHDRS.csv';
```

The code above should be changed to something like the following:

```
%let csv_file = '/Users/JoeUser/Documents/MyProject_DATA_NOHDRS.csv';
```

OR

```
%let csv_file = 'C:\Users\JoeUser\Desktop\MyProject_DATA_NOHDRS.csv';
```

Click icon(s) to download:



Send file?

# Data Export Files

Whenever an export is created, your export is saved in the File Repository

**Applications**

- Project Dashboards
- Alerts & Notifications
- Multi-Language Management
- Calendar
- Data Exports, Reports, and Stats
- Data Import Tool
- Data Comparison Tool
- Logging and Email Logging
- Field Comment Log
- File Repository**

## All Files

Name

- Data Export Files
- PDF Survey Archive

## All Files / Data Export Files

Name	Size	Time of Export	Comments
 TestProjectNeuroQOL_DATA_2023-04-24_1338.csv	0.2 KB	04/24/2023 1:38pm	Data export file created by bt24 on 2023-04-24-13-38-34

Showing 1 to 1 of 1 entries

Previous 1 Next

# Stats and Charts

# Stats and Charts

Report name: View/Export Options

A **All data** (all records and fields)

**height < 150**

**DISPLAY OPTIONS**

Optional: Select a record to overlay onto the plots below

-- select record --

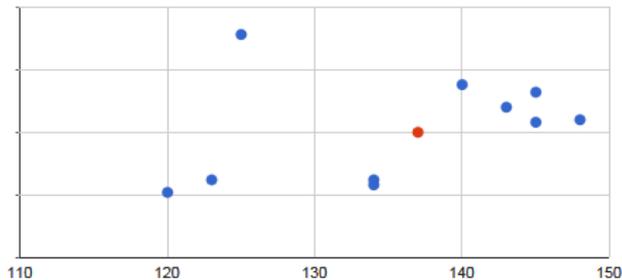
Viewing options:

**Height** [Refresh Plot](#)

Total Count (N)	Missing	Unique	Min	Max	Mean	StDev	Sum	Percentile						
								0.05	0.10	0.25	0.50 Median	0.75	0.90	0.95
10	0 (0.0%)	8	120.00	148.00	135.70	10.13	1,357.00	121.35	122.70	127.25	137.00	144.50	145.30	146.65

Lowest values: 120, 123, 125, 134, 134

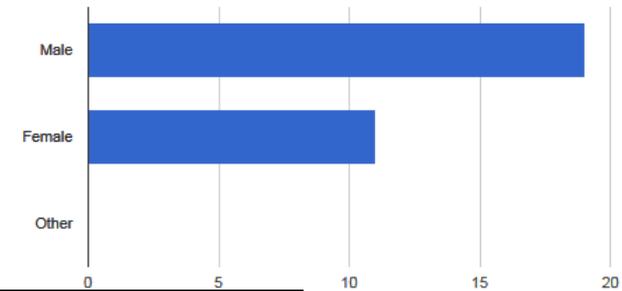
Highest values: 140, 143, 145, 145, 148



**Gender** [Refresh Plot](#) | [View as Bar Chart](#)

Total Count (N)	Missing	Unique
30	0 (0.0%)	2

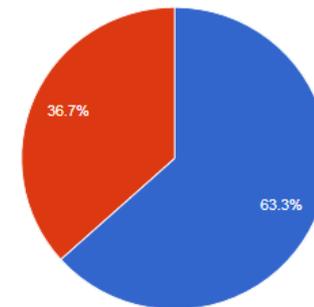
Counts/frequency: **Male** (19, 63.3%), **Female** (11, 36.7%), **Other** (0, 0.0%)



**Gender** [Refresh Plot](#) | [View as Pie Chart](#)

Total Count (N)	Missing	Unique
30	0 (0.0%)	2

Counts/frequency: **Male** (19, 63.3%), **Female** (11, 36.7%), **Other** (0, 0.0%)



# Using Aggregate Functions in Reports

# What are Aggregate Functions

## [⚡] Smart Variables

Smart Variables			
Name of Smart Variable	Description	Example of Usage	
		Example input	Example output
<b>Aggregate Functions, Charts, and Tables</b> (also known as Smart Functions, Smart Charts, and Smart Tables)		<a href="#">VIDEO: How to use Smart Charts, Functions, and Tables (14 min)</a>	
<b>[aggregate-min : fields : parameters]</b>	The minimum value of a field across all records in the project (including all events and/or repeating instances in all records). Multiple fields may be used and must be comma-separated.	[aggregate-min:age]	13
		[aggregate-min:age,participant_age,other_age]	7
<b>[aggregate-max : fields : parameters]</b>	The maximum value of a field across all records in the project (including all events and/or repeating instances in all records). Multiple fields may be used and must be comma-separated.	[aggregate-max:age]	95
<b>[aggregate-mean : fields : parameters]</b>	The mean/average value of a field across all records in the project (including all events and/or repeating instances in all records). Multiple fields may be used and must be comma-separated.	[aggregate-mean:age]	100.1
<b>[aggregate-median : fields : parameters]</b>	The median value of a field across all records in the project (including all events and/or repeating instances in all records). Multiple fields may be used and must be comma-separated.	[aggregate-median:age]	57

# Using Aggregate Functions in Report

<b>Name of Report:</b>	<input type="text" value="Demographic Report"/>
<b>Set as "public":</b>	Enabling this feature below will auto-generate a public link for viewing the report without needing to log in to REDCap. <input type="checkbox"/> <b>Report is publicly viewable by anyone with the public link</b>
<b>Description (optional):</b> Displayed on page below report name	<div style="border: 1px solid #ccc; padding: 5px;"><p>Paragraph <span style="font-size: 0.8em;">v</span> <span style="font-size: 0.8em;">—</span> <b>B</b> <i>I</i> <u>U</u> </p><p> </p><div style="border: 2px solid red; padding: 5px;"><p><b>Number of patients:</b> [aggregate-count:record_id]</p><p><b>Mean age:</b> [aggregate-mean:age]</p><p>[stats-table:age]</p></div></div>

# Using Aggregate Functions in Report

## Demographic Report

**Number of patients: 8**

**Mean age: 46.67**

	Count	Missing	Unique	Min	Max	Mean	Median	StDev	Sum
Age	6	2	3	30	60	46.67	50	13.66	280

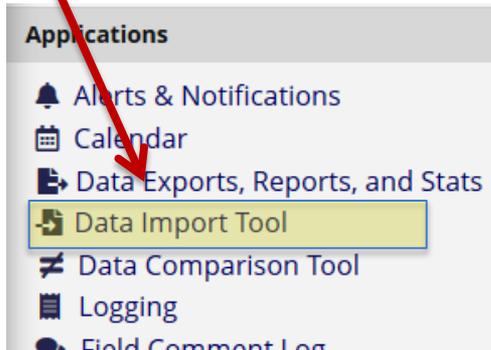
[Export table \(CSV\)](#)

Record ID record_id	Event Name redcap_event_name	Age age	Gender gender	Race race	Contact Method (Check all that apply)		
					Phone contact_method__1	Email contact_method__2	Mail contact_method__3
<u>1</u>	Event 1	30	Female (1)	White (5)	Checked (1)	Checked (1)	Checked (1)
<u>2</u>	Event 1	30	Male (2)	Black or African American (4)	Checked (1)	Checked (1)	Unchecked (0)
<u>3</u>	Event 1	50	Female (1)	Native Hawaiian or Other Pacific Islander (3)	Checked (1)	Checked (1)	Checked (1)
<u>4</u>	Event 1	60	Male (2)	Asian (2)	Checked (1)	Checked (1)	Checked (1)
<u>5</u>	Event 1		Female (1)	American Indian/Alaska Native (1)	Checked (1)	Checked (1)	Checked (1)
<u>6</u>	Event 1		Male (2)	Asian (2)	Unchecked (0)	Checked (1)	Checked (1)
<u>7</u>	Event 1	50	Female (1)	Native Hawaiian or Other Pacific Islander (3)	Checked (1)	Checked (1)	Checked (1)
<u>8</u>	Event 1	60	Male (2)	Asian (2)	Checked (1)	Checked (1)	Checked (1)

QUESTIONS?

# Data Import

1. Download data import template from the data import page.



## Instructions:

- 1.) You may import a modified version of a CSV data export file, or you can obtain a blank CSV data import template that you can save locally and add data that you wish to import. [Download your Data Import Template](#). Also download with other delimiters: [Semicolon \(;\)](#), [Tab](#) (with records in row format), or alternatively download the template with records in [column format](#). Also download with other delimiters: [Semicolon \(;\)](#), [Tab](#).
  - 2.) Add data to the file, and save it. Be sure the Variables/Field Names are not changed or an error may occur. All multiple choice fields (e.g., dropdown, radio) must have the raw coded value (rather than the choice label) entered in those cells, or else it cannot be processed. These coded values can be found in the [Codebook](#).
  - 3.) Choose your upload settings below, and select the data file located on your device. Then click the 'Upload File' button to begin the upload process. The data file will be checked for errors to ensure that all the data is in the correct format before it is fully imported into the project. By default, the data will be imported in real time; however, you may choose to import the data using a background process in which you will be notified via email once your data has been successfully imported.
-  **TIP:** If importing repeating instances for a repeating event or repeating instrument, you may [auto-number the instances](#) by providing a value of 'new' for the 'redcap\_repeat\_instance' field in the dataset you are importing. This is useful because it allows you to import such data without the need to determine how many instances already exist for a given repeating event/instance prior to the import.

# How to import data to project

2. Insert the data for each record that you wish to import into the template. Once all your data has been added, save the file.

→ All multiple-choice fields (e.g., dropdown, radio) must have the raw coded value (rather than the choice label)

→ Checkbox fields

When is the best time to reach you?

- Morning
- Afternoon
- Evening
- Anytime

EC	ED	EE	EF
contact_best__1	contact_best__2	contact_best__3	contact_best__4
1	0	0	1

# How to import data to project

3. Delete any empty columns or rows to save processing time.
4. Follow the instructions to upload the file.

The screenshot shows the 'Import Data' settings in REDCap. It includes several configuration options:

- Choose an import option:** A dropdown menu set to 'Import in real time' with a help icon.
- Select your CSV data file:** A 'Choose File' button and the text 'No file chosen'.
- Display the data comparison table?:** A dropdown menu set to 'Yes, display uploaded data prior to importing' with a help icon.
- Auto-number/overwrite record IDs?:** A dropdown menu set to 'No, use the record name provided' with a help icon.
- Overwrite data with blank values?:** A dropdown menu set to 'No, ignore blank values in the file' with a help icon.
- File format settings:**
  - CSV delimiter of data file: A dropdown menu set to 'Comma (,)'.
  - Format for date/datetime values: A dropdown menu set to 'MM/DD/YYYY or YYYY-MM-DD'.
  - Records in file are formatted as: A dropdown menu set to 'Rows'.

At the bottom left, there is a green 'Upload File' button with a cloud icon.

# How to import data to project

## New Feature: Import as background process

- Useful for larger files but will take longer to import.
- You will receive an email once the import is completed.
- If errors occur, you can view them and re-download the data that failed to import and fix the errors.

 Choose an import option

Import as background process (better for large data sets) ?

 CSV import

 CDISC ODM (XML) import

 View background imports

Show  entries

 Refresh table

<input checked="" type="checkbox"/> Status	🕒 Upload Time	🕒 Completion Time	📄 Original Filename	👤 Uploader	📄 Records Provided	📄 Records Imported	🕒 Total Import Time (minutes)	🚨 Errors
⏸ Queued	03-03-2025 09:52		LANTERNStudy_DATA_2025-01-31_0957.csv	jrt52	1294	0	< 1	0

Halt import

Showing 1 to 1 of 1 entries

Previous

1

Next

# How to import data to project

- Once the file is uploaded, the data will be displayed and checked for errors before it is imported.

✔ Your document was uploaded successfully and is ready for review.

You are now required to view the Data Display Table below to approve all the data before it is officially imported into the project. Follow the instructions below.

## Instructions for Data Review

The data you uploaded from the file is displayed in the Data Display Table below. Please inspect it carefully to ensure that it is all correct. After reviewing it, **click the 'Import Data' button at the bottom of this page** to import this data into the project.

### KEY for Data Display Table below

Black text = New Data

Gray text = Existing data (will not change)

(Red text) = Data that will be overwritten

### DATA DISPLAY TABLE

record_id	redcap_event_name	subjectid	sex	phone
6 (new record)	event_1_arm_1	700	1	(203) 777-7777

Do you wish to import the new data (displayed above) into the project?  
(Click the button below to import the data.)

**Import Data**

[Cancel](#)

# Data Import: Longitudinal Projects

## Longitudinal projects

- Must include 'redcap\_event\_name' field in your data import file. A list of unique event names can be found on the define my event page.
- redcap\_event\_name can be found on the 'Define My Events' page

Define My Events

	Event #	Days Offset	Offset Range Min / Max	Event Name	Custom Event Label (optional)	Unique event name (auto-generated)
 	1	1	-0/+0	Event 1		event_1_arm_1
 	2	2	-0/+0	Event 2		event_2_arm_1
 	3	3	-0/+0	Event3		event3_arm_1

	A	B	C	D	E	F	G
1	record_id	redcap_event_name	age	screening_sex	race	test_date1	test_form_complete
2	5	event_1_arm_1	50	2	5	3/18/2020	2

# Data Import: Repeating forms

## Repeating forms

- Must include 'redcap\_repeat\_instrument' and 'redcap\_repeat\_instance' fields in the import file.
- Repeat instrument name can be found in the codebook and the repeat instance is the instance number of your data.

Codebook:

#	Variable / Field Name	Field Label <i>Field Note</i>
Instrument: <b>Test form</b> (test_form)		
	1 record_id	Record ID

CSV file to be imported:

	A	B	C	D	E	F	G	H	I
	record_id	redcap_event_name	redcap_repeat_instrument	redcap_repeat_instance	age	screening_sex	race	test_date1	test_form_complete
1			test_form	2	50	2	5	3/18/2020	2

# Data Import: Repeating forms

If importing repeating instances for a repeating event or repeating instrument, you may auto-number the instances by providing a value of 'new' for the 'redcap\_repeat\_instance' field in the dataset you are importing.

- This is useful because it allows you to import such data without the need to determine how many instances already exist for a given repeating event/instance prior to the import.

# Data Import: Data Access Groups

## Data Access Groups

When importing new record, you can assign data access groups to your records. Include the 'redcap\_data\_access\_group' field with your data import. A list of data access group names can be found on the data access group page.



Data Access Groups	Users in group	Number of records in group	Unique group name (auto-generated) ?	Group ID number ?	Delete group?
test1		1	test1	2292	✗
test2		1	test2	2293	✗

	A	B	C	D	E	F	G	H
1	record_id	redcap_event_name	redcap_data_access_group	age	screening_sex	race	test_date1	test_form_complete
2	2292-1	event_1_arm_1	test1	50	2	5	3/18/2020	2

QUESTIONS?

# REDCap API

## (Application Programming Interface)

- REDCap API is an interface that allows external applications to connect to REDCap remotely
- Can be used for automated data imports/exports from a specified REDCap project
- API Token
  - Rather than using username/passwords, the REDCap API uses tokens as a means of secure authentication.
  - A token must be included in every API request.
  - Each user will have a different token for each REDCap project to which they have access.
  - Enable API Export/Import rights before requesting API token.

 API

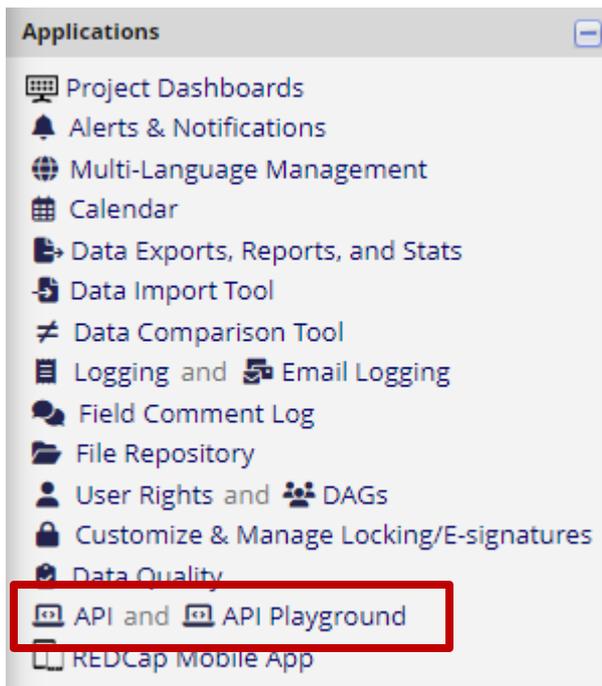
[What is the REDCap API?](#)

API Export

API Import/Update

# REDCap API: API Playground

The API playground is an interface that lets you experiment with the REDCap API without writing code.



- You can explore all the different API methods and their various options to customize a given API request
- You may even execute a real API request and see the exact response that REDCap returns from the request
- Example codes can be downloaded from API documentation page

# Resources on REDCap@Yale Website

<https://portal.redcap.yale.edu/resources/frequently-asked-questions>



[HOME](#) [GET HELP](#) [ABOUT US](#) [RESOURCES](#) [CONTACT US](#)

[HOME](#) > [RESOURCES](#) > [FAQS](#)

## Frequently Asked Questions

## Features-Advanced

- ▶ Alerts and Notifications
- ▼ API

[What is REDCap API?](#)

[How do I set up an API to export data to SAS?](#)

[How do I set up an API to export data to R?](#)

[How do I request an API Token?](#)

QUESTIONS?

# Thank You!

Further Questions: Contact us at  
[REDCap@yale.edu](mailto:REDCap@yale.edu)

# Extra Slides

# Other Export Options

- Export entire project as REDCap XML file (containing metadata & data)
- ZIP file of uploaded files (all records)
- PDF of data collection instruments containing saved data (all records)

Below are some additional export options that are available for your project. Instructions for each type of export are provided. You may click the corresponding icon on the right to download the file for each.

#### **Export entire project as REDCap XML file (containing metadata & data)**

The entire project (all records, events, arms, instruments, fields, and project attributes) can be downloaded as a single XML file, which is in CDISC ODM format (ODM version 1.3.1). This XML file can be used to create a clone of the project (including its data, optionally) on this REDCap server or on another REDCap server (it can be uploaded on the Create New Project page). Because it is in CDISC ODM format, it can also be used to import the project into another ODM-compatible system.



#### **ZIP file of uploaded files (all records)**

Uploaded files for all records in this project may be downloaded in a single ZIP file. This file contains any files uploaded for 'File Upload' fields/questions on a survey or data entry form. The ZIP file will contain a folder of all the files organized by record name and variable/field name and also contains an index.html file that serves as a table of contents for all the files. After downloading the ZIP file, extract all the files/folders to a directory on your local computer, after which you may double-click the index.html file inside to view a listing of the files using your web browser, or you may view the files directly by looking in the 'documents' folder. Click the icon to the right to begin downloading the ZIP file.



*Note: If your project has a large amount of 'File Upload' fields/questions or records/responses, the resulting ZIP file may be very large in file size. Please be patient if the file takes time to download.*

#### **PDF of data collection instruments containing saved data (all records)**

The data for all records in this project may be downloaded in a single PDF file. This file contains the actual page format as you would see it on the data entry page or survey and includes all data for all records for all data collection instruments. Click the icon to the right to begin downloading the file. Also, you may optionally click the Compact option to download a PDF that excludes fields that have no data saved and excludes unselected multiple choice options. (Note: Section headers and descriptive fields will still be included.)



*Note: If your project has a large amount of fields/questions or records/responses, the resulting PDF file may be very large both in file size and in page length. Please be patient if the file takes time to*