Making the Most of REDCap: Beyond the Basics

Presenter: Julissa Acevedo
Senior Systems Analyst / REDCap Administrator
Introduction
ACQUIRE DATA
Explore clinical data available for research and make a data request.

Clinical Research Data Warehouse
Cohort Discovery

ANALYZE DATA
We offer high-performance computing and advanced bioinformatics analysis for the most complex datasets.

Bioinformatics Core
High Performance Computing
Computing Resources

MANAGE DATA
Manage studies, surveys, and databases for research.

REDCap
Clinical Trials Informatics

STORE DATA
Our storage is secure, standards-compliant, and backed up daily.

CRI Data Storage

FIND A CUSTOM SOLUTION
Learn more about the CRI's tailor-made research solutions.

Custom Applications
REDCAP HISTORY

THEN

2004: Created at Vanderbilt
2006: Global consortium
2010: University of Chicago
2011: CRI created
2012: REDCap at UChicago

NOW

Worldwide:
- 4,000 institutions
- 135 countries
- 850,000 projects
- 1,200,000 users

UChicago:
- 5,800 projects
- 5,800 users
SEMINAR SERIES

Introduction to REDCap 11/19/19

Beyond the REDCap Basics 2/20/20

All About REDCap Surveys 4/14/20

http://cri.uchicago.edu/seminar-series/
TOPICS

- Longitudinal Data Collection
- Edit Data Dictionary
- Data Import Tool
- Data Exports, Reports, Stats
- User Rights, Roles, DAGs
- Advanced Features
- Smart Devices
- New Features!
- Help Resources
Longitudinal Data Collection
WHAT IS CLASSIC DATA COLLECTION?

Data Collection Instruments

Collected Once Over Time

Data Collection Instrument

- Demographics
- Baseline Data
- Month 1 Data
- Month 2 Data
- Month 3 Data
- Completion Data
**WHAT IS LONGITUDINAL DATA COLLECTION?**

**Data Collection Instruments**

<table>
<thead>
<tr>
<th>Data Collection Instrument</th>
<th>Baseline (1)</th>
<th>Visit 1 (2)</th>
<th>Visit 2 (3)</th>
<th>Visit 3 (4)</th>
<th>Final Visit (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline Data</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly Data</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Completion Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Repeatable Over Time (Events)
How to Enable Longitudinal Data Collection

1. **Enable Setting**

   - **Enable** Use surveys in this project?
   - **Disable** Use longitudinal data collection with defined events?

2. **Design Your Data Collection Instruments**
   - Add or edit fields on your data collection instruments. This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method).
   - Quick links: Download PDF of all instruments OR Download the current Data Dictionary.
   - Go to Online Designer or Data Dictionary.
   - You may also browse for pre-built data collection instruments in the REDCap Shared Library.
   - Have you checked the Check For Identifiers page to ensure all identifier fields have been tagged?

3. **Define Your Events and Designate Instruments for Them**
   - Create events for re-using data collection instruments and/or set up scheduling.
   - Go to Define My Events or Designate Instruments for My Events.
HOW TO ENABLE LONGITUDINAL DATA COLLECTION

1. Define events

2. Design your data collection instruments

- Add or edit fields on your data collection instruments. This can be done by either using the Online Designer (Microsoft Excel method) or by uploading a Data Dictionary (offline method).
- Quick links: Download data collection instruments or Download the current Data Dictionary

3. Define your events and designate instruments for them

- Create events for re-using data collection instruments and/or set up scheduling.

Go to Define My Events or Designate Instruments for My Events
HOW TO ENABLE LONGITUDINAL DATA COLLECTION

This application allows you to define 'events' for your project that allow for the utilization of data collection forms multiple times for any given project record (often used when collecting longitudinal data). An 'event' may be a temporal event in the course of your project, such as a participant visit or a task to be performed. After events have been defined, you will need to designate the data collection instruments that you wish to utilize for any or all events, thus allowing you to use a form for multiple events for the same project record. You may group your events into 'arms', in which you may have one or more arms/groups for your project. Each arm can have as many events as you wish. You may use the table below to create new events and/or arms, or modify existing ones. (One arm and one event will be initially defined as the default for all projects.)

**STEP #1:**
To add new events below, provide an Event Name for that event, and then click the Add new event. Once events have been added, you can easily change their order by dragging and dropping the event using the up-down arrow icon on the far left for a given row in the table.

**STEP #2:**
Once you have defined your events on this page, you may navigate to the Designate Instruments for My Events page, where you may select which data collection instruments that you wish to utilize for each event you defined.
HOW TO ENABLE LONGITUDINAL DATA COLLECTION

Main project settings
- Enable Use surveys in this project?
- Disable Use longitudinal data collection with defined events?

Design your data collection instruments
Add or edit fields on your data collection instruments. This may be done by either using the Online Designer (online method) or by using the Data Dictionary (offline method). Quick links: 'Download PDF of all instruments', 'Check current Data Dictionary'.

Define your events and designate instruments for them
Create events for re-using data collection instruments and/or set up scheduling.

3 assign forms
HOW TO ENABLE LONGITUDINAL DATA COLLECTION

Since you have defined multiple events on the Define My Events page, you may now select which data collection instruments that you wish to utilize for each event by using the table below. This allows you to enter data on any data collection form multiple times for any given project record. Any and all data collection instruments can thus be used for any event defined.

Click the Begin Editing button to change the relationships below by designating which forms you wish to utilize for which events. When you are finished making changes, click the Save button to finalize your changes.

<table>
<thead>
<tr>
<th>Data Collection Instrument</th>
<th>Baseline (1)</th>
<th>Visit 1 (2)</th>
<th>Visit 2 (3)</th>
<th>Visit 3 (4)</th>
<th>Final Visit (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab Values</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Exit Interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Upload or download instrument mappings
DISPLAY AND REPORTING DIFFERENCES

**Classic Project:**

- One row per record

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>study_id</td>
<td>screening form fields</td>
<td>(month1 form fields)</td>
<td>(month2 form fields)</td>
<td>(month3 form fields)</td>
<td>(study completion form)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>100</td>
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<td>data</td>
<td>data</td>
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<tr>
<td>2</td>
<td>200</td>
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<td>data</td>
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<td>data</td>
<td>data</td>
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<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
</tr>
<tr>
<td>3</td>
<td>300</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
</tr>
</tbody>
</table>

**Longitudinal Project:**

- Multi rows per record

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>study_id</td>
<td>redcap_event_name</td>
<td>screening form fields</td>
<td>(monthly form fields)</td>
<td>(study completion form)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>100</td>
<td>screening</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>month1</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>month2</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>month3</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>completion</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>200</td>
<td>screening</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>200</td>
<td>month1</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>200</td>
<td>month2</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>200</td>
<td>month3</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>300</td>
<td>screening</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>300</td>
<td>month1</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td>data</td>
<td></td>
</tr>
</tbody>
</table>
REPEATING INSTRUMENTS

Enable optional modules and customizations

- Enable Repeating instruments
- Enable Auto-numbering for records
- Enable Scheduling module (longitudinal only)
- Enable Randomization module
- Enable Designate an email field to use for invitations to survey participants

Learn more

REDCap has the ability to repeat a data collection instrument or an entire event of instruments an unlimited number of times without having to specify the amount needed. This is sometimes called one-to-many data collection, in which a project can have one or more repeating parts. For example, if each record in a hypothetical project represents a person,
REPEATING INSTRUMENTS

- Classic Projects: Repeat Forms
- Longitudinal Projects: Repeat Forms and Events
- Survey Projects: Repeat Surveys
CLASSIC VS LONGITUDINAL DATA COLLECTION

CLASSIC
• Only uses instruments.
• Doesn’t use events.
• Create an instrument for each time point.
• Or use repeating instruments feature.

LONGITUDINAL
• Uses instruments.
• Uses events.
• Repeat instruments using events.
• Or use repeat instruments feature.

<table>
<thead>
<tr>
<th>Data Collection Instrument</th>
<th>Baseline (1)</th>
<th>Visit 1 (2)</th>
<th>Visit 2 (3)</th>
<th>Visit 3 (4)</th>
<th>Final Visit (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline Data</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month 1 Data</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month 2 Data</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month 3 Data</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Completion Data</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Edit Data Dictionary via Excel
EDITING YOUR INSTRUMENTS: TWO METHODS

Design your data collection instruments

Add or edit fields on your data collection instruments. This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). Quick links: Download PDF of all instruments OR Download the current Data Dictionary

Go to Online Designer or Data Dictionary

You may also browse for pre-built data collection instruments in the REDCap Shared Library

Have you checked the Check For Identifiers page to ensure all identifier fields have been tagged?
This module will allow you to create new data collection instruments/surveys or edit existing ones. Changes may be made by either using the Online Designer or Upload Data Dictionary (see tabs above), in which you may use either method or both. The Online Designer may help you get some initial fields/forms built quickly or to make quick edits, but using the Data Dictionary file may be more helpful if you will be adding a large number of fields for this project.

This module may be used for making changes to the project, such as adding new fields or modifying existing fields, by using an offline method called the Data Dictionary. The Data Dictionary is a specifically formatted CSV (comma delimited) file within which you may construct your project fields and afterward upload the file here to commit the changes to your project.

Click the 'Browse' or 'Choose File' button below to select the file on your computer, and upload it by clicking the 'Upload File' button. Once your file has been uploaded, changes will NOT immediately be made but will be displayed and checked for errors to ensure that all the formatting in your Data Dictionary is correct before official changes are made to the project. **Snapshot note:** A snapshot of your project's current Data Dictionary will be created automatically during the Data Dictionary upload process before committing the new Data Dictionary. The snapshot can later be accessed and downloaded from the Project Revision History page.

**Need some help?**
If you wish to view an example of how your Data Dictionary may be formatted, you may download the Data Dictionary demonstration file, or you may view the Data Dictionary Tutorial Video (10 min). For help setting up your Data Dictionary, you may also see the instructions listed on the Help & FAQ.

**Steps for making project changes:**
1.) Download the current Data Dictionary
2.) Edit the Data Dictionary (see the Help & FAQ for help)
3.) Upload the Data Dictionary using the form below
4.) The changes will be made to the project after the Data Dictionary has been checked for errors

**Upload your Data Dictionary file** (CSV file format only)
Format for min/max validation values for date and datetime fields: MM/YY/YYYY or YYYY-MM-DD

[Upload File]
STEPS FOR DATA IMPORT TOOL

DOWNLOAD from REDCap to Excel

EDIT in Excel

UPLOAD from Excel to REDCap
1. Uploading a new data dictionary replaces the old one. It does not append to the current one. **Always upload the old dictionary with your new changes – not just your changes!**

2. Data dictionary version history is automatic for projects in Production Mode, but it is not automatic for projects in Development Mode. **Take “snapshots” often in Development Mode!**

3. If your project has special characters, such as Spanish (á, é, í, ó, ú, ñ), Excel will jumble them. **Use Google Sheets to preserve the characters!**
GOOD USES FOR UPDATING VIA DATA DICTIONARY

1. **Divide** an instrument into two, or vice versa, **join** several instruments into one instrument.

2. Make copies of instruments or fields in **batch**.

3. Turn radio buttons into a **matrix** field by adding a Matrix Group Name, or vice versa, turn a matrix field back into a radio, dropdown, or checkbox field by removing the Matrix Group Name.

4. Apply **changes to many fields** for branching logic, required fields, custom alignment, etc.
The Online Designer will allow you to make project modifications to fields and data collection instruments very easily using only your web browser. NOTE: While in development status, all field changes will take effect immediately in real time.

**Data Collection Instruments**

<table>
<thead>
<tr>
<th>Instrument name</th>
<th>Fields</th>
<th>View PDF</th>
<th>Instrument actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab Values</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Completion</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Add new instrument:**
- **Create** a new instrument from scratch
- **Import** a new instrument from the official REDCap Shared Library or external libraries
- **Upload** instrument ZIP file from another project/user

**Within same project**

**Across different projects**
Data Import Tool
DATA COLLECTION TYPES

- Online data entry
  - Add / Edit Records
  - Record Status Dashboard

- Excel data import
  - Data Import Tool
  - Applications:
    - Calendar
    - Data Exports, Reports, and Stats
    - Data Comparison Tool
    - Logging
    - Field Comment Log
    - File Repository
    - User Rights and DAGs
    - Record Locking Customization
    - E-signature and Locking Mgmt
    - Data Quality
    - API and API Playground
    - REDCap Mobile App
    - UChicago Advanced Features
    - UChicago Support Website
DATA IMPORT TOOL

Data Import Tool

This module may be used for importing data into this project from a CSV (comma delimited) file or alternatively from an XML file in CDISC ODM format. Below are the steps you will need to follow in order to import your data successfully into this project.

**NOTICE:**
This project is currently in Development status. **Real data should NOT be entered** until the project has been moved to Production status.

- **CSV import**
- **CDISC ODM (XML) import**

**Instructions:**

1. Click the link below to download your data import template as a CSV (comma delimited) file. Save it locally to your computer and then open it to begin filling it with the data you wish to import.
   - Download your Data Import Template (with records in rows)
   - OR
   - Download your Data Import Template (with records in columns)

2. In each column of the Data Import Template file that you downloaded, place the data for each record that you wish to import. Once all your data has been added, save the file.
   - Be sure not to change the Variables/Field Names in the file or an error may occur.
   - Also, for all of the 'dropdown' or 'radio' fields in the project, you must make sure that the numerical value (rather than the text value) is entered in those cells, or else it cannot be processed.
   - Any empty rows or columns in the file can be safely deleted before importing the file. Doing this reduces the upload processing time, especially for large projects.

3. Click the 'Browse' or 'Choose File' button below to select the file on your computer, and upload it by clicking the 'Upload File' button.

4. Once your file has been uploaded, the data will NOT be immediately imported but will be displayed and checked for errors to ensure that all the data is in correct format before it is finally imported into the project.

**Record format:** The file to be uploaded has its records stored as separate rows.

**Format for date and datetime values:** MM/DD/YYYY or YYYY-MM-DD

**Allow blank values to overwrite existing saved values?** No, ignore blank values in the file (default)

- **Upload your CSV file:**
- **Upload File**
STEPS FOR DATA IMPORT TOOL

DOWNLOAD the Data Import Template

TRANSFER your data to the Data Import Template

UPLOAD the Data Import Template

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study ID</td>
<td>Gender</td>
</tr>
<tr>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>101</td>
</tr>
<tr>
<td>3</td>
<td>102</td>
</tr>
<tr>
<td>4</td>
<td>103</td>
</tr>
<tr>
<td>5</td>
<td>104</td>
</tr>
<tr>
<td>6</td>
<td>105</td>
</tr>
</tbody>
</table>

**Choices (one choice per line)**

0, Female
1, Male

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>study_id</td>
<td>gender</td>
</tr>
<tr>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>101</td>
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<td>102</td>
</tr>
<tr>
<td>4</td>
<td>103</td>
</tr>
<tr>
<td>5</td>
<td>104</td>
</tr>
<tr>
<td>6</td>
<td>105</td>
</tr>
</tbody>
</table>
CAUTION!

1. Don’t change the **variable names** on the template. They must match the project's variable names.

2. For all discrete fields, upload the **numerical value** (rather than the label value).

3. **Empty** rows or columns should be deleted before importing the file to reduce the processing time.

4. For **large files**, it’s recommended you import a few variables at a time. The entire template doesn’t need to be imported all at once.
Data Exports, Reports, and Stats
This module allows you to easily view reports of your data, inspect plots and descriptive statistics of your data, as well as export your data to Microsoft Excel, SAS, Stata, R, or SPSS for analysis (if you have such privileges). If you wish to export your *entire* data set or view it as a report, then Report A is the best and quickest way. However, if you want to view or export data from only specific instruments (or events) on the fly, then Report B is the best choice. You may also create your own custom reports below (if you have such privileges) in which you can filter the report to specific fields, records, or events using a vast array of filtering tools to make sure you get the exact data you want. Once you have created a report, you may view it as a webpage, export it out of REDCap in a specified format (Excel, SAS, Stata, SPSS, R), or view the plots and descriptive statistics for that report.
EXPORT OPTIONS

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)

- 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)

Additional export options

- Export survey identifier field and survey timestamp field(s)

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):

<table>
<thead>
<tr>
<th>Delimiter</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>, (comma)</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Format</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Report Folders are a way to organize your reports by putting them into groups. You may create new folders below and then assign reports to them on the right. A report can be assigned to multiple folders at the same time. To reorder your folders, you can drag and drop them in the left-hand table. Note: All users in this project will be able to see the folders so long as they have 'View Access' to at least one report in the folder.

**STEP 1: Create Folders**

My Report Folders

**STEP 2: Assign Your Reports To Folders**

Select reports below to add to this folder:
- MedRec
- Third breast cancer
- Second breast cancer
- PathList
- Velos Report
- MRN and Name

Reports:
- 1) MedRec
- 2) Third breast cancer
- 3) Second breast cancer
- 4) PathList
- 5) Velos Report
- 6) MRN and Name
- 7) DMHTN

My Reports
- 1) Age
- 2) Race
- 3) Time

view for all users
User Rights
This page may be used for granting users access to this project and for managing the user privileges of those users. You may also create roles to which you may assign users (optional). User roles are useful when you will have several users with the same privileges because they allow you to easily add many users to a role in a much faster manner than setting their user privileges individually. Roles are also a nice way to categorize users within a project. In the box below you may add/assign users or create new roles, and the table at the bottom allows you to make modifications to any existing user or role in the project, as well as view a glimpse of their user privileges.

**Add new users:** Give them custom user rights or assign them to a role.
- Add new user
- Assign new user

**Create new roles:** Add new user roles to which users may be assigned.
- Enter new role name

### Current Users

<table>
<thead>
<tr>
<th>Role name</th>
<th>Username</th>
<th>Expiration</th>
<th>Data Access Group</th>
<th>Project Design and Setup</th>
<th>User Rights</th>
<th>Data Access Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>jacevedo (Julissa Acevedo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This page may be used for granting users access to this project and for managing the user privileges of those users. You may also create roles to which you may assign users (optional). User roles are useful when you will have several users with the same privileges because they allow you to easily add many users to a role in a much faster manner than setting their user privileges individually. Roles are also a nice way to categorize users within a project. In the box below you may add/assign users or create new roles, and the table at the bottom allows you to make modifications to any existing user or role in the project, as well as view a glimpse of their user privileges.

<table>
<thead>
<tr>
<th>Role name (click role name to edit role)</th>
<th>Username or users assigned to a role (click username to edit or assign to role)</th>
<th>Expiration (click expiration to edit)</th>
<th>Project Design and Setup</th>
<th>User Rights</th>
<th>Data Access Groups</th>
<th>Data Export Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>jacevedo (Julissa Acevedo)</td>
<td>never</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Full Data Set</td>
</tr>
<tr>
<td>Data Entry</td>
<td>t.cri.redcap2 (Jane Doe)</td>
<td>never</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>De-Identified</td>
</tr>
<tr>
<td></td>
<td>t.cri.redcap3 (Sam Lee)</td>
<td>never</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
DATA ACCESS GROUPS

This page may be used for granting users access to this project and for managing the user privileges of those users. You may also create roles to which you may assign users (optional). User roles are useful when you will have several users with the same privileges because they allow you to easily add many users to a role in a much faster manner than setting their user privileges individually. Roles are also a nice way to categorize users within a project. In the box below you may add/assign users or create new roles, and the table at the bottom allows you to make modifications to any existing user or role in the project, as well as view a glimpse of their user privileges.

**Add new users:** Give them custom user rights or assign them to a role.
- Add new user
- Add with custom rights
- Assign new user
- Assign to role

**Create new roles:** Add new user roles to which users may be assigned.
- Enter new role name
- Create role

<table>
<thead>
<tr>
<th>Role name</th>
<th>Username or users assigned to a role</th>
<th>Expiration</th>
<th>Data Access Group</th>
<th>Project Design and Setup</th>
<th>User Rights</th>
<th>Data Access Groups</th>
<th>Data Export Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>jacevedo (Julissa Acevedo)</td>
<td>never</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Full Data Set</td>
</tr>
<tr>
<td>Data Entry</td>
<td>t.cri.redcap2 (Jane Doe)</td>
<td>never</td>
<td>Rush</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>De-Identified</td>
</tr>
</tbody>
</table>
Advanced Features
ADVANCED FEATURES

Main project settings
- Use surveys in this project?
- Use longitudinal data collection with defined events?

Design your data collection instruments & enable your surveys
Add or edit fields on your data collection instruments (survey and forms) either using the Online Designer (online method) or by uploading a design (off-line method). You may then enable your instruments to be used as surveys.

Quick links: Download PDF of all instruments OR Download the current survey.

Applications
- Calendar
- Data Exports, Reports, and Stats
- Data Import Tool
- Data Comparison Tool
- Logging
- Field Comment Log
- File Repository
- User Rights and DAGs
- Record Locking Customization
- E-signature and Locking Mgmt
- Data Quality
- API and API Playground
- REDCap Mobile App
- External Modules

How To: Advanced Coding
How To: Calculations
How To: Survey Wizard
How To: Adding Users
UChicago REDCap Website
SMART VARIABLES

You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the Field Types video (4 min).

Field Type: Descriptive Text (with optional Image/Video/Video)

Field Label: This record was entered by [record-dag-label]

Variable Name: dag

Optional file attachment, image, audio, or video:

Embed an external video (provide video URL)


Display format of video: ○ Inline ○ Inside popup
PIPING

before

How much do you love ______ ice cream?

setup

How much do you love [ice_cream] ice cream?

after

How much do you love Chocolate ice cream?
**ACTION TAGS**

**Edit Field**

You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the Field Types video (4 min).

**Field Type:** Yes - No

**Question Number (optional)**

**Field Label**

Did participant qualify for study?

**Variable Name** (utilized in logic, calcs, and exports)

qualify

**How to use** SMART VARIABLES / Pipping

**Required?**

No 

**Identifier?**

No 

**Choices (not modifiable)**

1, Yes 

0, No

**Action Tags / Field Annotation** (optional)

@HIDDEN-SURVEY

Learn about @ Action Tags / Field Annotation

**Field Note** (optional)

Small reminder text displayed underneath field

**Custom Alignment** Right / Vertical (RV)

Align the position of the field on the page

**Learn about** using Field Annotation

**action tags list**
REDCap is compatible with tablets and smart phone (iOS and Android).

Simply navigate to https://redcap.uchicago.edu/
MOBILE APP

Offline Data Collection
(no/poor internet connectivity)

REDCap
App Store
Google play
MOBILE APP - PROCESS

1. Create Project (REDCap)
2. Download App (Device)
3. Download Project (App)
4. Collect Data (App)
5. Sync Data (App to REDCap)
6. Update Project (App)
MOBILE APP - SETUP

Demo Project

REDCap Mobile App

- Set Up Project
- Dashboard
- All App Activity
- App Data Dumps
- App Logs

VIDEO: Mobile App Overview  
VIDEO: Mobile App Project Setup  
VIDEO: Installing the Mobile App

What is the REDCap Mobile App?

The REDCap Mobile App is an app that can be installed on an Android or iOS tablet or mobile device so that data may then be collected in an offline fashion on that device. At some point later on, it may then be synced back to this project on the REDCap server. The app is most useful when data collection will be performed where there is no Internet service (e.g., no WiFi or cellular service) or where there is unreliable Internet service.

Once a user in this project is given 'REDCap Mobile App' privileges, they can navigate to the mobile app page on the left-hand menu and use it to set up this project inside the mobile app on their device. Once the mobile project is set up on the device, the user can collect data (which is stored locally on the device), and then at some point, sync that data back to this project on the REDCap server.

STEP 1: Download the app on your device

You must first download the REDCap Mobile App on your iOS, Android, or BlueStacks (Android emulator) device by clicking the appropriate icon below, or alternatively, if you are not currently on a mobile device, you can search the App Store or Google Play Store for 'REDCap' on your mobile device to find the app there to download. The app is available for the following platforms: iOS 6.0 or later (iPhone 4 and up, iPad 2 and up) and Android 4.3 or later (phones and tablets).
New Features!
**ALERTS & NOTIFICATIONS**

Demo Study

**Alerts & Notifications**

The Alerts & Notifications feature allows you to construct alerts and send customized email notifications. These notifications may be sent to one or more recipients and can be triggered or scheduled when a form/survey is saved and/or based on conditional logic whenever data is saved or imported. When adding/editing an alert, you will need to:
1. Set how the alert gets triggered,
2. Define when the notification should be sent (including how many times), and
3. Specify the recipient, sender, message text, and other settings for the notification.

For the message, you may utilize customized options such as rich text, the piping of field variables (including Smart Variables), and uploading multiple file attachments.

While similar in many respects to Automated Survey Invitations, Alerts & Notifications allow for greater complexity and have more capabilities. For example, alerts apply to both data entry forms and surveys, and they also allow for more options regarding who can be the recipient of a notification (project users, survey participants, etc.).

To get started with creating alerts, click the 'Add New Alert' button to view all the settings that must be defined for a given alert. Once an alert has been created, it immediately becomes active and may be triggered at any time thereafter. If you would like to remove or stop using an alert, see the Options->Deactivate Alert setting, which will prevent the alert from being triggered anymore. It may also be re-enabled at any time, in which case it becomes immediately active again. To view all notifications that have already been sent or will be sent in the future, you may view the Notification Log tab.

- **My Alerts**
- **Notification Log**

**need**

**project setup**

**rights**
MISSING DATA CODES

Project Setup > Enable optional modules > Additional Customizations

Additional customizations

**Missing Data Codes: Set up your missing data codes for this project**
Fields that have a blank/missing value may be marked with a custom 'Missing Data Code' to note why the value is blank. These missing codes may be used to aid in data analysis by specifying why a field lacks a value. To enable this feature below, enter both the codes AND their labels for all the categories of missing data that you wish to use in this project. The missing codes should be coded just like the choices of a multiple choice field with code + comma + label, in which the codes can only have letters, numbers, dots, dashes, and underscores (e.g., '-999, Not asked' or 'UNK, Unknown'). If no codes are entered, this feature will remain disabled.

Read more detailed instructions.

**Missing Data Codes**
NI, No information

**Add code from standardized list of missing data codes (optional suggestions):**
- Add NI No information
- Add INV Invalid
- Add UNK Unknown
- Add NASK Not asked
- Add ASKU Asked but unknown
- Add NAV Temporarily unavailable

choose and add codes
Previously...

You may add a new project field to this data collection instrument by completing the form on this page. For information, you may view the Field Types video (4 min).

Field Type: Multiple Choice - Radio Buttons [Single Answ]

Question Number (optional)
Displayed only on the survey page

Field Label
I encourage my child to look forward to the meal.

<em><font color="green">Animo a mi hijo(a) para que este emocionada para la comida.</font></em>

<em><font color="blue">J'encourage mon enfant à attendre avec impatience le repas.</font></em>

Today...

You may add a new project field to this data collection instrument by completing the form on this page. For information, you may view the Field Types video (4 min).

Field Type: Multiple Choice - Radio Buttons [Single Answ]

Question Number (optional)
Displayed only on the survey page

Field Label
I encourage my child to look forward to the meal.

<em>Animo a mi hijo(a) para que este emocionada para la comida.</em>

<em>J'encourage mon enfant à attendre avec impatience le repas.</em>
 HELP RESOURCES

redcap@rt.cri.uchicago.edu
ADDITIONAL HELP

http://cri.uchicago.edu/redcap/

The CRI is proud to offer REDCap, a self-managed, secure, web-based solution designed to support data collection strategies for research studies.
ADDITIONAL HELP

http://cri.uchicago.edu/redcap-training/

The CRI offers an array of online resources to help you use REDCap better.

Here you'll find:

- training videos
- training manuals
- advanced features
- quick tips
- frequently asked questions

NEED ADDITIONAL HELP?

If you have any further questions about using REDCap's features or are still unsure how best to design your project, the CRI's REDCap Administrator will gladly schedule an office hours session with you, free of charge.

OFFICE HOURS
The CRI’s offices in Peck are located in suite N161.

This suite is in the N corridor on the first floor of the Medical Center. If you are coming from the Wyler entrance, take the C corridor to head toward N; if you enter from Ellis, take the P corridor.

When you enter the N corridor, walk straight until you reach a glass door.

Once you go through the glass door, you’ll find the door to the CRI suite to your left.
NEXT SEMINAR

Making the Most of REDCap: All About Surveys

- Thursday, April 14\textsuperscript{th}, 2020
- KCDB 1103
- Time TBD
- [https://cri.uchicago.edu/seminar-series/](https://cri.uchicago.edu/seminar-series/)