Introduction to REDCap

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THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES | CENTER FOR RESEARCH INFORMATICS
Introduction
WHAT IS REDCAP?

**Web-based software** used to create and manage research databases and participant surveys.

**Developed as a tool** to help researchers collect and manage data effectively and responsibly.
REDCAP HISTORY

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

NOW
Worldwide:
6,361 institutions
151 countries
1.7M projects
2.4M users
UChicago:
13,469 projects
9,972 users
**SEMINARS TOPICS**

**Project Setup**
- Creating a Project
- Adding and Editing Fields
- Optional Modules and Customizations
- Testing your Project
- Moving to Production

**Using Surveys**
- Creating Surveys
- Sending and Tracking Surveys
- Survey Features

**Applications & Tools**
- Data Import Tool
- Data Exports
- Smart Devices
- User Rights and DAGs
- Help Resources
Project Setup
**WHAT ARE THE ADVANTAGES?**

| Accessible      | • web-based access (on and off campus)  
|                 | • access for multi-site collaborations |
| Customizable    | • fast and flexible to design          
|                 | • modifications at anytime            |
| Accurate        | • ensures consistent and accurate data entry |
|                 | • data quality checks to look for errors |
| Secure          | • user authentication against BSDAD or UCHAD |
|                 | • nightly backups, weekly vulnerability scans |
| Free!           | • includes training, design guidance, troubleshooting |
HOW TO FIND REDCAP

cri.uchicago.edu

redcap.uchicago.edu

NEW USERS:
Log in with either your BSDAD or UCHAD account (use only one account). If you do not have either account, a sponsor may request an account for you by filling out the CRI Collaborator Account Request Form. Please follow up with our CRI Help Desk on this request. Also, CNET accounts DO NOT allow access to REDCap.

EXTERNAL ACCOUNTS:
To request accounts for external collaborators from other institutions, fill out the CRI Collaborator Account Request Form. Please follow up with our CRI Help Desk on this request.

ADDING A USER TO A PROJECT:
Please do not add the user's email address to the project's User Rights page, as this will not work. The user first needs to log into REDCap to register their account. You can then add them to your project's User Rights page at that point. Contact the CRI REDCap Administrator for further help.

SUSPENDED ACCESS:
If REDCap states your account is suspended upon log in, contact the CRI REDCap Administrator to have your access unsuspended. Access is suspended after one year of no login activity.

PASSWORD HELP:
If you need password help, contact the appropriate help desk below and ask for a password reset for either your BSDAD, UCHAD, or CRI collaborator account:

<table>
<thead>
<tr>
<th>BSDAD/UCHAD Accounts</th>
<th>CRI Collaborator Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSDAD Service Desk</td>
<td>CRI Help Desk</td>
</tr>
<tr>
<td><a href="mailto:helpdesk@bsdad.uchicago.edu">helpdesk@bsdad.uchicago.edu</a></td>
<td><a href="mailto:access@cri.uchicago.edu">access@cri.uchicago.edu</a></td>
</tr>
<tr>
<td>773-702-3456</td>
<td>773-834-8475</td>
</tr>
</tbody>
</table>

Please log in with your username and password. If you are having trouble logging in, please contact University of Chicago REDCap Support.
LOGGING INTO REDCAP

Log In

THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES

NEATEST FEATURES: REDCap was upgraded on 8/10/21 to version LTS 11.1.7. Details of the newest features and improvements can be found here.

COVID RESOURCES: We want to encourage and support your use of REDCap for COVID-19 related research, tracking, and monitoring. Visit our resources page for more information.

ELECTRONIC CONSENT: Use of Electronic Consent (e-consent) has been approved by the BSD Office of Clinical Research. Visit our e-consent page for more information.

REQUESTING HELP: If you need help with REDCap functionality, contact the UChicago REDCap Administrator. Please do not use REDCap Messenger to request help, as those messages will not be forwarded to the REDCap help ticketing system.

NEW USERS: Log in with either your BSDAD or UCHAD account (use only one account). CNetID accounts DO NOT allow access to REDCap.

EXTERNAL ACCOUNTS: To request accounts for users from external collaborating institutions, fill out the BSDIS Collaborator Account Request Form. The BSDIS Help Desk will follow up on this request.

GRANTING USER PROJECT ACCESS: Please do not add the user’s email address to your project’s User Rights page, as this will not work. The user first needs to log into REDCap to set up their profile. You will then be able to grant them access via your project’s User Rights page.

SUSPENDED ACCESS: If REDCap states your account is suspended upon log in, contact the UChicago REDCap Administrator to have your access unsuspended. Access is auto-suspended after one year of no login activity.

PASSWORD HELP: Passwords cannot be reset in REDCap. Please contact the following help desks depending on your account type:

- BSDAD or UCHAD accounts: visit the UCMIT Password Reset Self-Service site. If you need further help, email UCMIT at ucmitserviceodesk@uchicagomedicine.org or call 773-702-3456.
- t.cri or t-9 accounts: visit the BSDIS Password Reset Self-Service site (choose the BSDAD domain). If you need further help, email BSDIS at bsdis@bsd.uchicago.edu or call 773-834-4000.

Please log in with your user name and password. If you are having trouble logging in, please contact SEE HELP SECTION ABOVE.

Username:  
Password:  
Log In
ACCESS EXPLAINED

- PROJECT A
  - USER 1
  - USER 2
  - USER 3
- PROJECT B
- PROJECT C
Welcome to REDCap!

REDCap is a mature, secure web application for building and managing online surveys and databases. Using REDCap's stream-lined process for rapidly developing projects, you may create and design projects using 1) the online method from your web browser using the Online Designer; and/or 2) the offline method by constructing a 'data dictionary' template file in Microsoft Excel, which can be later uploaded into REDCap. Both surveys and databases (or a mixture of the two) can be built using these methods.

REDCap provides automated export procedures for seamless data downloads to Excel and common statistical packages (SPSS, SAS, Stata, R), as well as a built-in project calendar, a scheduling module, ad hoc reporting tools, and advanced features, such as branching logic, file uploading, and calculated fields.

Learn more about REDCap by viewing a brief summary video (4 min). If you would like to view other quick video tutorials of REDCap in action and an overview of its features, please see the Training Resources page.

Please note that any publication that results from a project utilizing REDCap should cite grant support (NIH CTSA UL1 TR000430).

NOTICE: If you are collecting data for the purposes of human subjects research, review and approval of the project is required by your Institutional Review Board.

If you require assistance or have any questions about REDCap, please contact University of Chicago REDCap Support.

REDCap Features

- **Build online surveys and databases quickly and securely** - Create and design your project rapidly using secure web authentication from your browser. No extra software is required.
- **Fast and flexible** - Conception to production-level survey/database in less than one day.
- **Export data to common data analysis packages** - Export your data to Microsoft Excel, PDF, SAS, Stata, R, or SPSS for analysis.
- **Ad Hoc Reporting** - Create custom queries for generating reports to view or download.
- **Scheduling** - Utilize a built-in project calendar and scheduling module for organizing your events and appointments.
- **Easily manage a contact list of survey respondents or create a simple survey link** - Build a list of email contacts, create custom email invitations, and track who responds, or you may also create a single survey link to email out or post on a website.
### REDCap Training Videos

**Just Getting Started?**
Explore these overviews of fundamental concepts and features.

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Watch Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief Overview</td>
<td>A quick summary of what REDCap is and what it can do.</td>
<td>4 minutes</td>
</tr>
<tr>
<td>Detailed Overview</td>
<td>This video provides an overview of basic functions and features within a REDCap project. It will serve as a starting point for learning about the basic concepts of REDCap, what REDCap projects are, how to create them, and how to use them.</td>
<td>14 minutes</td>
</tr>
<tr>
<td>Data Entry Overview</td>
<td>A focused exploration of basic data entry workflow. Suitable for training data entry staff.</td>
<td>19 minutes</td>
</tr>
</tbody>
</table>

**Building a Project**
Learn how to build and modify data collection instruments.

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Watch Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Instrument Development</td>
<td>An introduction to the Online Designer and Data Dictionary methods of instrument development.</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Online Designer</td>
<td>This online tool is the quickest and most intuitive method for making instrument modifications.</td>
<td>5 minutes</td>
</tr>
</tbody>
</table>
CREATE A PROJECT

Create a new REDCap Project

You may begin the creation of a new REDCap project on your own by completing the form below and clicking the Create Project button at the bottom.

Project title:

Purpose of this project:
How will it be used?

---- Select One ----

Project notes (optional):
Comments describing the project’s use or purpose that are displayed on the My Projects page.

Start project from scratch or begin with a template?

- Create an empty project (blank slate)
- Upload a REDCap project XML file (CDISC ODM format)
- Use a template (choose one below)

Choose a project template (comes pre-filled with fields, forms/surveys, and other settings)

<table>
<thead>
<tr>
<th>Select template</th>
<th>Template title (sorted by title)</th>
<th>Template description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Demography</td>
<td>Contains a single data collection instrument to capture basic demographic information.</td>
<td></td>
</tr>
<tr>
<td>Classic Database</td>
<td>Contains six data entry forms, including forms for demography and baseline data, three monthly data forms, and concludes with a completion data form.</td>
<td></td>
</tr>
<tr>
<td>Human Cancer Tissue Biobank</td>
<td>Contains five data entry forms for collecting and tracking information for cancer tissue.</td>
<td></td>
</tr>
<tr>
<td>Longitudinal Database (1 arm)</td>
<td>Contains nine data entry forms (beginning with a demography form) for collecting data longitudinally over eight different events.</td>
<td></td>
</tr>
</tbody>
</table>

- Create Project
- Cancel
PROJECT SETUP STEPS

Training Project

[Image of REDCap interface showing project setup steps]

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

- 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

- Enable optional modules and customizations
  - Repeatable instruments
  - Auto-numbering for records
  - Scheduling module (longitudinal only)
  - Randomization module
  - Designate an email field for sending survey invitations

Completed steps 1 of 7
**STEP 1: MAIN PROJECT SETTINGS**

- Modify project title, purpose, etc.
- Enable surveys
- Enable longitudinal data collection
**STEP 2: DATA COLLECTION INSTRUMENTS**

- **Online Designer**
- **Data Dictionary** *
- **Shared Library (Global)**
- **Special Features** *
  - Smart Variables
  - Piping
  - Action Tags

* (covered in next seminar)
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.
RECORD IDENTIFIER

Ready to add fields

You may now begin adding fields to your data collection instrument below using the Online Designer. Alternatively, you may build your fields in the Data Dictionary (offline method) by clicking its tab above.

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 page allows you to build and customize your data collection instruments one field at a time. You may add new fields or edit existing ones. New fields may be added by clicking the Add Field buttons. You can begin editing an existing field by clicking on the Edit icon. If you decide that you do not want to keep a field, you can simply delete it by clicking on the ✗ Delete icon. To reorder the fields, simply drag and drop a field to a different position within the form below. NOTE: While in development status, all field changes will take effect immediately in real time. Are you using Action Tags yet? If not, learn about Action Tags here.

Variable: record_id

Record ID

NOTE: The field above is the record ID field and thus cannot be deleted or moved. It can only be edited.

Add Field  Add Matrix of Fields
FIELD TYPES

Variable: record_id

Record ID

NOTE: The field above is the record ID field and thus cannot be deleted or moved. It can only be edited.

Add Field

Add Matrix of Fields

Add New 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:

---- Select a Type of Field ----
Text Box (Short Text, Number, Date/Time, ...)
Notes Box (Paragraph Text)
Calculated Field
Multiple Choice - Drop-down List (Single Answer)
Multiple Choice - Radio Buttons (Single Answer)
Checkboxes (Multiple Answers)
Yes - No
True - False
Signature (draw signature with mouse or finger)
File Upload (for users to upload files)
Slider / Visual Analog Scale
Descriptive Text (with optional Image/Video/Audio/File Attachment)
Begin New Section (with optional text)
FIELD DESIGN

Add New 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: Text Box (Short Text, Number, Date/Time, ...)

Field Label

What is your birthdate?

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

Variable Name: dob

Enable auto naming of variable based upon its Field Label?

Validation? (optional)

How to use: Smart Variables, Piping, Field Embedding

Validation Type: Date (M-D-Y)

Minimum:

Maximum:

Action Tags / Field Annotation (optional)

Required?*  No  Yes

* Prompt if field is blank

Identifier?  No  Yes

Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment

Align the position of the field on the page

Field Note (optional)

MM/DD/YYYY

Small reminder text displayed underneath field

Save  Cancel
How often do you eat the following flavors of ice cream?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strawberry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vanilla</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter Pecan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mint Chocolate Chip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• pencil = edit
• documents = copy
• green arrows = branching logic
• document w/arrow = move
• red x = delete
Branching Logic

Variable: fav_ice_cream

What is your favorite ice cream?
- Chocolate
- Strawberry
- Vanilla
- Other

If other, please specify:

Drag-N-Drop Logic Builder

Field choices from other fields
(record_id = (define criteria)
first_name = (define criteria)
fav_ice_cream = Chocolate (1)
fav_ice_cream = Strawberry (2)
fav_ice_cream = Vanilla (3)
fav_ice_cream = Other (4)
my_first_instrument_complete = Incomplete (0)
my_first_instrument_complete = Unverified

Show the field ONLY if...
- ALL below are true
- ANY below are true

fav_ice_cream = Other (4)
STEP 3: OPTIONAL MODULES & CUSTOMIZATIONS

- Repeatable Instruments*
- Auto-numbering IDs
- Scheduling (Longitudinal)*
- Randomization*
- Designate an email for survey invitations*

* (covered in next seminar)
STEP 4: PROJECT BOOKMARKS (OPTIONAL)

- Custom bookmarks
- Appear in Applications menu on the left
- Accessible by all project users
- Example:
  - Department website
  - External website
  - Other projects
STEP 5: USER RIGHTS

• User Rights - add users with custom user rights
• Data Access Groups - for multi-site studies
STEP 5: ADDING USERS

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.

Create new roles: Add new user roles to which users may be assigned.

Don’t add email address!
If not found, either:
• user has yet to log in
• or their access is suspended due to inactivity

STEP 6: TEST YOUR PROJECT

- Enter test records
- Test branching logic
- Test calculations
- Create reports
- Export test data
- Have colleagues review project as well
STEP 7: MOVE TO PRODUCTION

- Request test data deletion
- Wait for confirmation email from Administrator before collecting real data!
PROJECT TIMELINE AND MODES

- **Development Mode**
  - Build and test a project
  - TEST DATA

- **Draft Mode**
  - Update project setup
  - REAL DATA CONTINUES

- **Production Mode**
  - Enter and review data
  - REAL DATA

- **Draft Protocol**

- **Final Protocol**

- **Inactive Mode**
  - View and analyze data
  - NO DATA ENTRY

- **Archived Mode**
  - Project is closed
  - DATA ANALYSIS FINALIZED

- **Protocol Amendment**

*if IRB approval required*
Longitudinal Data Collection
WHAT IS CLASSIC DATA COLLECTION?

Data Collection Instruments

Collected Once Over Time

<table>
<thead>
<tr>
<th>Data Collection Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
</tr>
<tr>
<td>Baseline Data</td>
</tr>
<tr>
<td>Month 1 Data</td>
</tr>
<tr>
<td>Month 2 Data</td>
</tr>
<tr>
<td>Month 3 Data</td>
</tr>
<tr>
<td>Completion Data</td>
</tr>
</tbody>
</table>
WHAT IS LONGITUDINAL DATA COLLECTION?

<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>
CLASSIC VS LONGITUDINAL DATA COLLECTION

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

LONGITUDINAL
• Uses instruments.
• Uses events.
• Repeat instruments using events.

<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>
HOW TO ENABLE LONGITUDINAL DATA COLLECTION

Main project settings

Enable

Use surveys in this project? 😕

Disable

Use longitudinal data collection with defined events? 😕

Modify project title, purpose, etc.

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

Have you checked the Check For Identifiers page to ensure all identifier fields have been tagged?

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

Project Setup Define My Events Designate Instruments for My Events

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

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>
DISPLAY AND REPORTING DIFFERENCES

Classic Project:

<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>1</td>
<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 fields)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>100</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>
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</table>

Longitudinal Project:

<table>
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<tr>
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<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>
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<td></td>
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<tr>
<td>9</td>
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<tr>
<td>11</td>
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<td>data</td>
<td>data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REPEATING INSTRUMENTS

Enable optional modules and customizations

- Enable Repeatable 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

**Repeatable instruments**

Watch in-depth video (33 minutes)

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
Creating Surveys
A REDcap survey is a “public” version of a (form) instrument that is completed by a study participant without having to log into REDCap.

That same instrument can also be used by the study team as a data entry form when logged into REDCap.
CREATING AND ENABLING A SURVEY

1. Enable the survey feature (Project Setup tab).

2. Create the instrument first.

3. Enable the instrument as a survey.
**Survey Status**

- **Survey Active**

**Basic Survey Options:**

<table>
<thead>
<tr>
<th>Survey Title</th>
<th>Sleep Study Survey</th>
</tr>
</thead>
</table>

**Survey Instructions**

(Displayed at top of survey after title)

- **Please complete the survey below.**
  
  Thank you!
**SURVEY DESIGN OPTIONS**

- **Logo**
  - (Optional: display an image above the survey title)
  - Add new logo:
  - If using a logo, hide survey title on survey page?

- **Use enhanced radio buttons and checkboxes?**
  - (Includes Yes/No and True/False fields)
  - Standard radios and checkboxes

- **Size of survey text**
  - Large

- **Font of survey text**
  - Open Sans

- **Survey theme**
  - University of Chicago

---

**Survey design preview (sample survey):**

**This is the survey title**

Your survey instructions will go here. The instructions can tell your survey participant about the purpose as well as what to expect once they have completed the survey. Below is a listing of various question types that will be displayed on your survey.

**This is a section header to divide the survey page into sections.**
**Survey Customizations**

### Question Numbering
- **Custom numbered**: The option allows custom numbering for questions, but it won't display correctly if using auto-numbering and if some questions have branching logic employed. Question auto-numbering has been automatically disabled because some of your survey questions use branching logic.

### Question Display Format
- **All on one page**: This option will display page numbers at the top of the survey page to help respondents navigate through the questions.

### Allow participants to download a PDF of their responses at end of survey?
- **Yes**: Recommended if the survey auto-continues or Survey Queue auto-start option is enabled. Also, if a field utilizes the @HIDDEN action tag, it will not be displayed in the PDF.

### Survey-specific email invitation field
- **Designate an email field for sending survey invitations for this survey only**: This option will override the project-level email invitation field and any email address entered into the Participant List. It will also override any email address originally entered into the Participant List.

### For 'Required' fields, display the red 'must provide value' text on the survey page?
- **Yes**: If 'No', it will NOT display the following text beneath all 'Required' fields: *must provide value*

### Allow survey respondents to view aggregate survey results after completing the survey?
- **Disabled**: After completing the survey, participants can view all responses in aggregate graphical format and/or as descriptive statistics. Also, the individual respondents' answers will be highlighted in the results.

### Text-To-Speech functionality
- **Disabled**: All text that is spoken is sent to a service hosted at Vanderbilt University that utilizes the IBM Watson Text to Speech API service. Be advised that if the survey utilizes piping, for privacy concerns, data piped from Identifier fields will *not* be sent to the service with the rest of the text but will instead be redacted. (what does this mean?)
**Survey Access**

**Response Limit (optional)**
(Maximum number of responses to collect. Prevents respondents from starting the survey after a set number of responses have been collected.)

If left blank, the response limit will not be enforced.

Will include partial and completed responses

Custom text to display to respondent on survey when limit is reached:
Thank you for your interest; however, the survey is closed because the maximum number of responses has been reached.

**Time Limit for Survey Completion (optional)**
(The amount of time that each respondent has to complete the survey based on when they were initially sent the survey invitation. Note: This feature excludes public survey links.)

If the respondent loads the survey after this time has passed, it will not allow them to begin or continue the survey. (If all are left blank, the time limit will not be enforced.)

**Survey Expiration (optional)**
(Time after which the survey will become inactive.)

The time must be for the time zone America/Chicago, in which the current time is 11/15/2019 15:53.

**Allow 'Save & Return Later' option for respondents?**
(Allow respondents to leave the survey and return later.)

- No
- Allow respondents to return without needing a return code
- Allow respondents to return and modify completed responses
SURVEY TERMINATION OPTIONS

Survey Termination Options:

- [ ] (Optional) Auto-continue to next survey
  - Automatically start the next survey instrument after finishing this survey.

- Redirect to a URL
  - Provide a full URL to redirect to a webpage when the survey is completed.
    - Example URL: http://www.example.com/mypage.html

- OR -

Survey Completion Text
- (Displayed after survey is completed as 'thank you' text or as acknowledgement text)
  - Thank you for taking the survey.
  - Have a nice day!

PDF Auto-Archiver
- Upon survey completion, a compact PDF copy of the survey response will be automatically stored in the project's File Repository, from which the archived PDFs can be downloaded at any time.

Send confirmation email (optional)?
- (Email the respondent when they complete the survey)
  - [No]
EDITING SURVEY SETTINGS

To edit your survey settings, click on **Survey Settings** under **Survey-related options**.

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.
To allow a study team member to manage surveys (add participants, send emails, etc), assign them the user right:

Manage Survey Participants
USER RIGHTS FOR EDITING SURVEYS

To allow a study team member to edit survey responses or delete surveys, assign them the user right called:

Edit Survey Responses
TESTING IS CRITICAL!

• **Send** yourself the survey just as you would sent it to your participants.

• Make sure all the **settings** and **format** are correct.

• Export the test data to preview your **data analysis**, and modify the survey questions if needed.

• Once testing is complete, request the project be moved to **production**.

• **DO NOT SEND SURVEY EMAILS UNTIL PROJECT HAS BEEN MOVED TO PRODUCTION!**
Sending Surveys
PUBLIC SURVEY LINK

- Participant emails unknown beforehand.
- Participants all use the same survey link.
- Emails sent via Outlook, not within REDCap.
- Great for listservs or posting on flyers or websites.

PARTICIPANT LIST

- Participants emails known beforehand.
- Each participant receives unique, one time use link.
- Emails sent through REDCap to participant email address.
- Can track who has or has not responded.
The **Public Survey Link** is the simplest and fastest way to distribute a survey. The link can be published on a webpage, social media platforms, flyers, or sent in an email to a large group.

![Image of Public Survey Link interface](image-url)
The **Participant List** allows for emailing the survey to your participants. It helps keep track of responses and non-responses.
PARTICIPANT IDENTIFIERS

• To keep the survey anonymous, **don’t** enable the Participant Identifier feature.
• To make the survey non-anonymous, enable the Participant Identifier feature.
• The Participant Identifier may be the participant's name, an ID number, or whatever you would like.
• It is **not the same** as the project’s main primary identifier (Record Number, Record ID, Study ID, MRN).
• The Participant Identifier is can be exported along with the data.
There are different ways of adding participants’ email addresses to the **Participant List**:

1. For few participants, manually type in.
2. For many participants, cut-and-paste in.
1. Specify when emails should be sent.
2. Enable reminders for non-responses.
3. Compose the email message.
4. Select participants from the list.
5. Send the invitations.
A section for the unique survey link will be appended to the end of your email message:

```
Survey
jacevedo@bsd.uchicago.edu
Sent: Tue 7/9/2019 12:40 PM
To: Acevedo, Julissa [CRI]

Please take this survey.

You may open the survey in your web browser by clicking the link below:
Diabetes Survey

If the link above does not work, try copying the link below into your web browser:
https://redcap.uchicago.edu/surveys/?s=SAMPLE_LINK

This link is unique to you and should not be forwarded to others.
```

**NOTE:** You may modify or remove any text you wish above but make sure you include either [survey-link] or [survey-url] in the text or else the participant will not have a way to take the survey.
NON-RESPONSE REMINDERS

1. Survey reminders can only be setup while composing survey invitations.
2. They cannot be setup after invitations have been sent.
3. They can be sent on specific days of the week, or every X days, or at an exact date/time.
4. Up to 2-5 reminders can be scheduled.

![Enable reminders](image_url)
Tracking Surveys
SURVEY NOTIFICATIONS

1. Go to Online Designer and click on Survey Notifications.

2. Select the survey and select the email address.
TRACKING SURVEYS VIA THE PARTICIPANT LIST

Surveys responses can be tracked on the Participant List according to:

- **Complete** – participant submitted the survey
- **Incomplete** – participant started but hasn’t submitted the survey
- **No Action** – participant has not started the survey

![Participant List](image)
The **Survey Invitation Log** lists survey invitations that have already been sent or have been scheduled to be sent to survey participants.

You may even view the invitation email itself by clicking the icon in the 'View Email' column.
For **Partial Responses**, you can use **Compose Survey Invitations** from the **Participant List** to send them a reminder email.

If participants don’t remember their **Save-and-Return** code, you can retrieve it from their survey record.
EDITING RESPONSES

1. User must have **Edit Survey Responses** user rights.

2. To edit a response, open record and click **Edit Response** at top of survey.

3. Make the changes, and **save** the record.
SURVEY TIMESTAMPS

Survey responses get timestamped when the survey’s **Submit** button is clicked on by the participant. Timestamps appear on the Add/Edit record selector.

As well as the survey record.
Survey Features
SURVEY STOP ACTION

Stop Actions prompt the participant to end the survey when certain field choices are selected. Only selection fields have this option. Click the **Stop Sign icon** and select the stop choice.
The **Survey Wizard** is located under the Applications menu. This survey is designed to help you work through the steps of setting up and selecting the right distribution model of survey.
MULTIPLE SURVEYS

Create multiple surveys in the same project.

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.

<table>
<thead>
<tr>
<th>Instrument name</th>
<th>Fields</th>
<th>View PDF</th>
<th>Enabled as survey</th>
<th>Instrument actions</th>
<th>Survey-related options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening Survey</td>
<td>25</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings</td>
</tr>
<tr>
<td>Month 1 Survey</td>
<td>18</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings</td>
</tr>
<tr>
<td>Month 2 Survey</td>
<td>18</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings</td>
</tr>
<tr>
<td>Month 3 Survey</td>
<td>18</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings</td>
</tr>
<tr>
<td>Completion Survey</td>
<td>5</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings</td>
</tr>
</tbody>
</table>
LONGITUDINAL SURVEYS

Instead of creating the same survey as multiple instruments, the survey can be made repeatable.

1. Setup the survey instruments.

2. Enable the longitudinal feature.
LONGITUDINAL SURVEYS

3. Setup the events.

4. Assign the surveys to the events.
AUTOMATED SURVEY INVITATIONS

ASIs are similar to composing email invitations, but instead the invites are sent automatically when:

- An earlier survey is completed -or-
- A condition is met
The **Survey Queue** is a survey packaging option. It allows for chaining together multiple surveys like a to-do list (using optional logic too).
The **Survey Login** requires participants to log into the survey before viewing it and completing it.

```plaintext
<table>
<thead>
<tr>
<th>Instrument name</th>
<th>Fields</th>
<th>View PDF</th>
<th>Enabled as survey</th>
<th>Instrument actions</th>
<th>Survey-related options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening Survey</td>
<td>25</td>
<td></td>
<td>✓</td>
<td>Choose action</td>
<td>✓ Survey settings</td>
</tr>
<tr>
<td>Month1 Survey</td>
<td>18</td>
<td></td>
<td>✓</td>
<td>Choose action</td>
<td>✓ Survey settings</td>
</tr>
<tr>
<td>Completion Survey</td>
<td>5</td>
<td></td>
<td>✓</td>
<td>Choose action</td>
<td>✓ Survey settings</td>
</tr>
</tbody>
</table>
```
INACTIVATE A SURVEY

1. At Online Designer, click on Survey Settings.

2. At Survey Status, set to Survey Offline.
MARK PROJECT AS COMPLETED

Go to **Other Functionality** tab, and either:

- Move to Analysis/Cleanup – data collection over, project is accessible
- Mark project as Completed – entire study is over, project is hidden
Additional Features
# RECORD STATUS DASHBOARD

## ECE Pilot Study

**Record Status Dashboard (all records)**

Displayed below is a table listing all existing records/responses and their status for every data collection instrument (and if longitudinal, for every event). You may click any of the colored buttons in the table to open a new tab/window in your browser to view that record on that particular data collection instrument. Please note that if your form-level user privileges are restricted for certain data collection instruments, you will only be able to view those instruments, and if you belong to a Data Access Group, you will only be able to view records that belong to your group.

### Dashboard displayed: Default dashboard

Displaying record: Page 1 of 1: "1" through "29" of 27 records

**Legend for status icons:**
- **Incomplete**
- **Incomplete (no data saved)**
- **Unverified**
- **Partial Survey Response**
- **Complete**
- **Completed Survey Response**

<table>
<thead>
<tr>
<th>Record ID</th>
<th>Admin</th>
<th>Survey Session 1</th>
<th>Survey Session 2 T</th>
<th>Survey Session 2 C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>2</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>3</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>4</td>
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<tr>
<td>5</td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>8</td>
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<td>9</td>
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<td>11</td>
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<td>19</td>
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<tr>
<td>20</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>21</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
## Training Project

### Logging

This module lists all changes made to this project, including data exports, data changes, and the creation or deletion of users.

<table>
<thead>
<tr>
<th>Time / Date</th>
<th>Username</th>
<th>Action</th>
<th>List of Data Changes OR Fields Exported</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/10/2019 6:55pm</td>
<td>jacevedo</td>
<td>Manage/Design</td>
<td>Modify project settings</td>
</tr>
<tr>
<td>07/10/2019 6:55pm</td>
<td>jacevedo</td>
<td>Updated Record 1002</td>
<td>test_complete = &quot;2&quot;</td>
</tr>
<tr>
<td>07/10/2019 6:54pm</td>
<td>jacevedo</td>
<td>Updated Record 1001</td>
<td>test_complete = &quot;2&quot;</td>
</tr>
<tr>
<td>07/10/2019 6:54pm</td>
<td>jacevedo</td>
<td>Deleted Record 999</td>
<td>record_id = &quot;999&quot;</td>
</tr>
<tr>
<td>06/10/2019 4:33pm</td>
<td>[survey respondent]</td>
<td>Created Response 1004</td>
<td></td>
</tr>
<tr>
<td>06/10/2019 4:32pm</td>
<td>jacevedo</td>
<td>Manage/Design</td>
<td>Modify survey info</td>
</tr>
<tr>
<td>06/10/2019 4:32pm</td>
<td>[survey respondent]</td>
<td>Created Response 1003</td>
<td></td>
</tr>
<tr>
<td>06/10/2019 4:24pm</td>
<td>jacevedo</td>
<td>Manage/Design</td>
<td>Modify survey info</td>
</tr>
<tr>
<td>06/10/2019 4:23pm</td>
<td>[survey respondent]</td>
<td>Updated Response 1002</td>
<td></td>
</tr>
<tr>
<td>06/10/2019 4:22pm</td>
<td>[survey respondent]</td>
<td>Created Response 1002</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Variable / Field Name</td>
<td>Field Label</td>
<td>Field Attributes (Field Type, Validation, Choices, Calculations, etc.)</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------</td>
<td>---------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>study_id</td>
<td>Study ID</td>
<td>text</td>
</tr>
<tr>
<td>2</td>
<td>date_enrolled</td>
<td>Section Header: Consent Information</td>
<td>text (date_ymd)</td>
</tr>
<tr>
<td>3</td>
<td>patient_document</td>
<td>Upload the patient’s consent form</td>
<td>file</td>
</tr>
<tr>
<td>4</td>
<td>first_name</td>
<td>Section Header: Contact Information</td>
<td>text, Identifier</td>
</tr>
<tr>
<td>5</td>
<td>last_name</td>
<td>Last Name</td>
<td>text, Identifier</td>
</tr>
<tr>
<td>6</td>
<td>address</td>
<td>Street, City, State, ZIP</td>
<td>notes, Identifier</td>
</tr>
<tr>
<td>7</td>
<td>telephone</td>
<td>Phone number</td>
<td>text (phone), Identifier</td>
</tr>
<tr>
<td>8</td>
<td>email</td>
<td>E-mail</td>
<td>text (email), Identifier</td>
</tr>
<tr>
<td>9</td>
<td>dob</td>
<td>Section Header: Demographics</td>
<td>text (date_ymd), Identifier</td>
</tr>
<tr>
<td>10</td>
<td>age</td>
<td>Age (years)</td>
<td>calc</td>
</tr>
<tr>
<td>11</td>
<td>ethnicity</td>
<td>Ethnicity</td>
<td>radio</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0: Hispanic or Latino</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1: NOT Hispanic or Latino</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2: Unknown / Not Reported</td>
</tr>
<tr>
<td>12</td>
<td>race</td>
<td>Race</td>
<td>dropdown</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0: American Indian/Alaska Native</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1: Asian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2: Native Hawaiian or Other Pacific Islander</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3: Black or African American</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4: White</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5: More Than One Race</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6: Unknown / Not Reported</td>
</tr>
</tbody>
</table>
Previously...

Field Type: Multiple Choice - Radio Buttons (Single Answer)

Question Number (optional)  
Displayed only on the survey page

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

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

<em>Encourage mon enfant à attendre avec impatience le repas.</em>

HTML needed

---

Today...

Field Type: Multiple Choice - Radio Buttons (Single Answer)

Question Number (optional)  
Displayed only on the survey page

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

*Animó a mi hijo(a) para que este emocionada para la comida.*

*Encourage mon enfant à attendre avec impatience le repas.*

no HTML needed
**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
  - **INV**  Invalid
  - **UNK**  Unknown
  - **NASK** Not asked
  - **ASKU** Asked but unknown
  - **NAV** Temporarily unavailable

choose and add codes
PIPING

**before**

What is your favorite ice cream?

- Chocolate
- Vanilla
- Strawberry

How much do you love _____ ice cream?

Hate it | Indifferent | I love _____!

Click bar above and then drag to set response

**setup**

How much do you love [ice_cream] ice cream?

Hate it | Indifferent | I love [ice_cream]!

Click bar above and then drag to set response

**after**

What is your favorite ice cream?

- Chocolate
- Vanilla
- Strawberry

How much do you love Chocolate ice cream?

Hate it | Indifferent | I love Chocolate!

Click bar above and then drag to set response
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 [?] Piping

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment Right / Vertical (RV)
Align the position of the field on the page

Field Note (optional)

Action Tags / Field Annotation (optional)
@HIDDEN-SURVEY

Learn about @ Action Tags using Field Annotation

action tags list
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/)

Question Number (optional) 

Field Label

This record was entered by [record-dag-label]

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

dag

Enable auto naming of variable based upon its Field Label?

How to use [?] Smart Variables

Optional file attachment, image, audio, or video:

Embed an external video (provide video URL)

Display format of video:

- Inline
- Inside popup

Learn about @Action Tags or using Field Annotation
You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button 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/...)

<table>
<thead>
<tr>
<th>Field Label</th>
<th>Use the Rich Text Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paragraph</td>
<td></td>
</tr>
</tbody>
</table>

### Record ID

3

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Grants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-federal Grants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Agreements/Contracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Food question

**How often did you eat spicy foods last year?**

- [ ] Per day
- [ ] Per week
- [ ] Per month
- [ ] Do not know / Prefer not to answer

**number of servings**

**reset**
The Alerts & Notifications feature allows you to construct alerts and send customized 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. [Learn more](#)
Training Project

File Repository

This page may be used for storing and retrieving files and documents used for this project. You may upload files here to save for retrieval later, or you may download previously uploaded files in the file list below. Whenever a data export is performed, the resulting data and syntax files are stored here as well.

<table>
<thead>
<tr>
<th>Filter by file type:</th>
<th>ALL</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date uploaded: 07/27/2010</td>
<td>File size: 9.7 KB</td>
<td></td>
</tr>
<tr>
<td>Consent Form</td>
<td><img src="Consent_Form_IRB40857470.docx" alt="File: Consent_Form_IRB40857470.docx" /></td>
<td><img src="Consent_Form_IRB40857470.docx" alt="File: Consent_Form_IRB40857470.docx" /></td>
</tr>
<tr>
<td>Date uploaded: 07/27/2010</td>
<td>File size: 9.7 KB</td>
<td></td>
</tr>
</tbody>
</table>
Welcome to REDCap!

REDCap is a mature, secure web application for building and managing online surveys and databases. Using REDCap's streamlined process for rapidly developing projects, you may create and design projects using 1) the online method from your web browser using the Online Designer; and/or 2) the offline method by constructing a 'data dictionary' template file in Microsoft Excel, which can be later uploaded into REDCap. Both surveys and databases (or a mixture of the two) can be built using these methods.

REDCap provides automated export procedures for seamless data downloads to Excel and common statistical packages (SPSS, SAS, Stata, R), as well as a built-in project calendar, a scheduling module, ad hoc reporting tools, and advanced features, such as branching logic, file uploading, and calculated fields.

Learn more about REDCap by watching a brief summary video (4 min). If you would like to view other quick video tutorials of REDCap in action and an overview of its features, please see the Training Resources page.

Please note that any publication that results from a project utilizing REDCap should cite grant support (NIH CTSA UL1 TR000430).

NOTICE: If you are collecting data for the purposes of human subjects research, review and approval of the project is required by your Institutional Review Board.

If you require assistance or have any questions about REDCap, please contact REDCap Support.
Data Import Tool
DATA COLLECTION TYPES

- Online data entry
- Excel data import
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)
   - [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 to change the Variable/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 values to overwrite existing saved values?**

**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></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Study ID</td>
<td>Gender</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>male</td>
</tr>
<tr>
<td>3</td>
<td>101</td>
<td>female</td>
</tr>
<tr>
<td>4</td>
<td>102</td>
<td>F</td>
</tr>
<tr>
<td>5</td>
<td>103</td>
<td>M</td>
</tr>
<tr>
<td>6</td>
<td>104</td>
<td>f</td>
</tr>
<tr>
<td>7</td>
<td>105</td>
<td>m</td>
</tr>
</tbody>
</table>

Choices (one choice per line)
0, Female
1, Male

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>study_id</td>
<td>gender</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>101</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>102</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>103</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>104</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>105</td>
<td>1</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
# Data Exports, Reports, and Stats

## Training Project

### Data Exports, Reports, and Stats

- **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, as well as export 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 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.

### My Reports & Exports

<table>
<thead>
<tr>
<th>Report name</th>
<th>View/Export Options</th>
<th>Management Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>A All data (all records and fields)</td>
<td><img src="view-report.png" alt="View Report" /> <img src="export-data.png" alt="Export Data" /> <img src="stats-charts.png" alt="Stats &amp; Charts" /></td>
<td></td>
</tr>
<tr>
<td>B Selected instruments (all records)</td>
<td><img src="make-custom-selections.png" alt="Make custom selections" /></td>
<td></td>
</tr>
</tbody>
</table>

---

**How-to video**

![How-to video](how-to-video.png)
DATA EXPORTS, REPORTS, AND STATS

List of Participants Who Like Chocolate Ice Cream
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
  - New Folder
  - Add
- My Reports

**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
  - Age
  - Race
  - Time
  - DMHTN

view for all users
## Report Search and Access

### Search Reports

<table>
<thead>
<tr>
<th>Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Physician_info</td>
</tr>
<tr>
<td>2) # of bronchs_completed</td>
</tr>
<tr>
<td>3) # of bronchs_refused</td>
</tr>
<tr>
<td>4) #0f bronchs_ineligible</td>
</tr>
<tr>
<td>5) Abridge.weekly_report</td>
</tr>
<tr>
<td>6) # of bronchs scheduled</td>
</tr>
<tr>
<td>7) Rebecca 5-13-11</td>
</tr>
<tr>
<td>8) # of screenings</td>
</tr>
<tr>
<td>9) All Local site ID's</td>
</tr>
<tr>
<td>10) Incomplete.tests.redraw</td>
</tr>
</tbody>
</table>

### Access Settings

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

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

- **All users** – OR – **Custom user access** (Choose specific users, roles, or data access groups who will have access)

**Edit Access:** Choose who can edit, copy, or delete this report (requires user to have 'Add/Edit/Organize Reports' privileges)

- **All users** – OR – **Custom user access** (Choose specific users, roles, or data access groups who will have access)
**EXPORT OPTIONS**

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

### 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)
- Remove unvalidated Text fields (i.e. Text fields other than dates, numbers, etc.)
- Remove Notes/Essay box 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)
- Also shift all survey completion timestamps by value between 0 and 364 days (shifted amount determined by algorithm for each record)

### Additional export options
- Check box to 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):
    - (comma) - default

- **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:
    - Use fields' native decimal format (default)

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

[Export Data] [Cancel]
Smart Devices
REDCap is compatible with:

- Tablets and smart phone (iOS and Android)
- imply go to https://redcap.uchicago.edu/
Use for offline data collection
(where there is no/poor internet connectivity)
MOBILE APP - PROCESS

Create Project (REDCap)

Download App (Device)

Collect Data (App)

Sync Data (App to REDCap)

Download Project (App)

Update Project (App)
**MOBILE APP - SETUP**

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).
User Rights
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

Role name | Username or users assigned to a role | Expiration | Data Access Group | Project Design and Setup | User Rights | Data Access Groups | Date
---|---|---|---|---|---|---|---
| | jacevedo (Julissa Acevedo) | | | | | |
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 of User Roles

<table>
<thead>
<tr>
<th>Role name</th>
<th>Username or users assigned to a role</th>
<th>Expiration</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>
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**

(e.g., Project Manager, Data Entry Person)

<table>
<thead>
<tr>
<th>Role name (click role name to edit)</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>Data Access Group (click DAG to assign user)</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>✓</td>
<td>x</td>
<td>x</td>
<td>De-Identified</td>
</tr>
<tr>
<td></td>
<td>t.cri.redcap3 (Sam Lee)</td>
<td>never</td>
<td>Advocate</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>
Help Resources in Your Project

Demo Project

Project status: Development

Main project settings
- Disable [ ] Use surveys in this project?
- Enable [ ] Use longitudinal data collection with defined events?
- I'm done!
- Modify project title, purpose, etc.

Design your data collection instruments & enable your surveys

Add or edit fields on your data collection instruments (survey and forms). This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). You may then enable your instruments to be used as surveys in the Online Designer.

Quick links: Download PDF of all instruments OR Download the current Data Dictionary

Go to
- Online Designer
- Data Dictionary

Have you checked the Check For Identifiers page to ensure all identifier fields have been tagged?

Learn how to use
- Smart Variables
- Piping
- Action Tags

Enable optional modules and customizations
- Enable Repeatable instruments?
- Enable Auto-numbering for records?
- Enable Scheduling module (longitudinal only)?
- Enable Randomization module?
- Enable Designate an email field for sending survey invitations?

Contact REDCap administrator
redcap@rt.cri.uchicago.edu
HELP RESOURCES – CRI WEBSITE

http://cri.uchicago.edu/redcap/
HELP RESOURCES – CRI WEBSITE

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 need technical help with any of REDCap's features, please contact REDCap Support. But if you have more involved questions on designing your project, or are not sure if REDCap is right for your study, the CRI’s REDCap Administrator will gladly schedule a zoom call with you, free of charge.

SCHEDULE CALL

Zoom