Making the Most of REDCap
All About Surveys

Presenter: Julissa Acevedo
Senior Systems Analyst / REDCap Administrator
What is REDCap?

Who is the CRI?

REDCap History
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

WEBSITE:
cri.uchicago.edu
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: Developed at Vanderbilt
- 2006: Global consortium
- 2010: University of Chicago
- 2011: Center for Research Informatics
- 2012: REDCap at UChicago

**NOW**
- Worldwide: 3600 institutions, 130 countries, 727,000 projects, 988,000 users
- UChicago: 4,800 projects, 5,100 users
What is a Survey?
Survey Respondents vs Project Users
Survey User Rights
WHAT IS A SURVEY?

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.
SURVEY PARTICIPANTS

People who submit data through a survey.

Can only submit data via survey links.

Can never see one another’s data.

PROJECT USERS

Must login to see what was submitted by participants.

Can send surveys links.

Can track who has or has not responded.
USER RIGHTS FOR MANAGING SURVEYS

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
Creating a Survey
Enabling the Survey
Survey Settings
Testing Surveys
Multiple Surveys
Longitudinal Surveys
**CREATING AND ENABLING A SURVEY**

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

   ![Main project settings](image)

2. Create the instrument first.

   ![Data Collection Instruments](image)

3. Enable the instrument as a survey.

   ![Data Collection Instruments](image)
SURVEY SETTINGS

Set the status, title, and opening instructions.

Survey Title
Screening Survey
Title to be displayed to participants at the top of the survey page

Survey Instructions
Please complete the survey below.
Thank you!

How to use Piping here
SURVEY SETTINGS – DESIGN OPTIONS

Add a logo, customize the text and survey theme.
SURVEY SETTINGS – CUSTOMIZATIONS

Select various survey customizations, as needed:

<table>
<thead>
<tr>
<th>Survey Customizations:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question Numbering</strong></td>
</tr>
<tr>
<td>Auto numbered ✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Question Display Format</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>All on one page</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Allow participants to download a PDF of their responses at end of survey?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Display a button for the participant to download a PDF file of their responses for the survey they just completed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Survey-specific email invitation field</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Designate an email field for sending survey invitations for this survey only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>For ‘Required’ fields, display the red ‘must provide value’ text on the survey page?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes ✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Allow survey respondents to view aggregate survey results after completing the survey?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>After completing the survey, participants can view ALL responses in aggregate graphical format and/or descriptive statistics. Also, the individual respondent’s answers will be highlighted in the results.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Additional settings:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum number of responses required before participants are allowed to view aggregate data (recommended = 10).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Text-To-Speech functionality</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Allows text on survey page to be read audibly to participants.)</td>
</tr>
<tr>
<td>When enabled, icons will be displayed next to all text on the survey page, and when clicked, the text will be read out loud to the participant (must have computer speakers turned on).</td>
</tr>
</tbody>
</table>

NOTICE: 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.

Administrators: How to disable this feature
SURVEY SETTINGS – ACCESS

Set response limits, completion time limits, expiration date, and the Save&Return options.

**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.)
  - [ ] (e.g., 150) If left blank, the response limit will not be enforced.
  - Will include [ ] partial and completed responses

- **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.)
  - [ ] days [ ] hours [ ] minutes

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

- **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 SETTINGS – TERMINATION

Set what happens after survey is submitted.

Survey Termination Options:

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

- Redirect to a URL
  (Redirect to a webpage when survey is completed)
  Provide a full URL, e.g. http://www.example.com/mypage.html
  
  How to use Piping here

- 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

- Disabled
  Enabled
SURVEY SETTINGS – CONFIRMATION

Send an optional confirmation email.

Send confirmation email (optional)?
(Email the respondent when they complete the survey)

Yes

Provide email subject, email message, and (optionally) an attachment to be sent to respondent when they complete the survey. How to use Piping here

From: jacevedo@bsd.uchicago.edu

Subject: Thank you for taking our survey!

We have received your information and will contact your shortly.

Attached is a copy of you completed survey.

Attachment:

Include PDF of completed survey as attachment

WARNING: Since email is not considered a secure form of communication, the PDF attachment option is NOT recommended if the survey contains questions asking for identifying information (e.g., PHI).
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.
ABOUT TESTING...

• Testing is CRITICAL!
• To test your survey, send a link to yourself in the same method as you plan to send a link to a respondent.
• Take your survey a few times to make sure the instructions, format, and termination options work as needed.
• Export test data to check on data analysis, and modify survey questions if needed.
• Once testing is complete, request the project be moved to production.
• DO NOT send out survey until then!
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, + Automated Invitations</td>
</tr>
<tr>
<td>Month 1 Survey</td>
<td>18</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings, + Automated Invitations</td>
</tr>
<tr>
<td>Month 2 Survey</td>
<td>18</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings, + Automated Invitations</td>
</tr>
<tr>
<td>Month 3 Survey</td>
<td>18</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings, + Automated Invitations</td>
</tr>
<tr>
<td>Completion Survey</td>
<td>5</td>
<td></td>
<td></td>
<td>Choose action</td>
<td>Survey settings, + Automated Invitations</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.
DISTRIBUTING SURVEYS

Public Survey Link vs Participant List

How to use the Public Survey Link

How to use the Participant List
PUBLIC SURVEY LINK VS PARTICIPANT LIST

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 collect survey responses.

Using a public survey link is the simplest and fastest way to collect responses for your survey. You may obtain the survey link below to email it to your participants. Responses will be collected anonymously (unless the survey contains questions asking for identifying data from the participant). **NOTE:** Since this method uses a single survey link for all participants, it allows for the possibility of participants taking the survey multiple times, which may be necessary in some cases.

To obtain the survey link, copy the URL below and paste it into the body of an email message in your own email client. Your email recipient(s) can then click the link to begin taking your survey.

Public Survey URL: https://redcap.uchicago.edu/surveys/?s=DF8FKXHHW3

**Link Actions**
- Open public survey
- Open public survey + Log out
- Send me URL via email
- Survey Access Code or QR Code

**Link Customizations**
- Get Short Survey Link
- Create Custom Survey Link
- Get Embed Code
PARTICIPANT LIST

The Participant List allows for emailing the survey to your participants, and keeping track of responses.

The Participant List option allows you to send a customized email to anyone in your list and track who responds to your survey. It is also possible to identify an individual’s survey answers, if desired, by providing an Identifier for each participant (this feature must first be enabled by clicking the ‘Enable’ button in the table below). Note: All survey responses collected are considered anonymous unless you 1) are using Participant Identifiers or 2) have enabled the designated email field for invitations. More details

![Participant List Table]

<table>
<thead>
<tr>
<th>Email</th>
<th>Record</th>
<th>Participant Identifier</th>
<th>Responded?</th>
<th>Invitation Scheduled?</th>
<th>Invitation Sent?</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:jane.doe@email.com">jane.doe@email.com</a></td>
<td></td>
<td>Disabled</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:john.doe@email.com">john.doe@email.com</a></td>
<td></td>
<td>Disabled</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.
ADDING PARTICIPANTS TO PARTICIPANT LIST

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.
DESIGNATE AN EMAIL FIELD

1. Setup the email field with email validation.

2. Enable the feature on the Project Setup tab.
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.
FIELD PIPING

The Piping feature allows you to pipe previously collected data to customize the survey invitation greeting...

...or the survey completion text.
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)
TRACKING SURVEYS VIA THE SURVEY INVITATION LOG

- 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.
PARTIAL RESPONSES

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.

They also be included in exports and reports.

**Example:**

Survey response is editable

Response is only partial and is not complete. **Response was added on 01/26/2017 2:55pm by JA1980-B.** You have permission to edit this survey response from its original values. In order to begin editing the response, you must click the Edit Response button above. **2 people (the survey respondent and 1 user)** have contributed to this partial survey response.

Return Code for participant to continue survey: **X7RDLC8A**

Study ID 2
Inactivate a Survey
Inactivate a Project
INACTIVATE A SURVEY

1. At Online Designer, click on Survey Settings.

2. At Survey Status, set to Survey Offline.
INACTIVATE OR ARCHIVE A PROJECT

Go to Other Functionality tab, and either:

• Move to inactive status – data collection over, remains visible
• Archive the project – entire study is over, remains hidden
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.
SURVEY NOTIFICATIONS

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

2. Select the survey and select the email address.
**ACTION TAGS**

**Action Tags** are special terms that begin with the '@' sign that can be placed inside a field's **Field Annotation** to add special functionality.
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).
SURVEY LOGINS

The **Survey Login** requires participants to log into the survey before viewing it and completing it.

![Survey Login](image)

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>Data Collection Instruments</th>
<th>Survey options:</th>
<th>Add new instrument:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey Queue</td>
<td><img src="image" alt="Survey Queue" /></td>
<td><img src="image" alt="Survey Queue" /></td>
</tr>
<tr>
<td>Survey Login</td>
<td><img src="image" alt="Survey Login" /></td>
<td><img src="image" alt="Survey Login" /></td>
</tr>
<tr>
<td>Survey Notifications</td>
<td><img src="image" alt="Survey Notifications" /></td>
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</tr>
</tbody>
</table>
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.
SMART DEVICES

- Smart Phones
- Tablets
- Mobile App
SMART DEVICES

REDCap is compatible with:

• Phones: Android and iPhone
• Tablets: Android and iPads
• Simply go to https://redcap.uchicago.edu/

https://redcap.uchicago.edu/
MOBILE APP

Offline data collection (no internet)

REDCap

App Store

Google play
MOBILE APP - PROCESS

1. Create Project (in REDCap)
2. Download App (onto Device)
3. Download Project (into App)
4. Collect Data (in App)
5. Sync Data (App to REDCap)
6. Update Project (in App)
MOBILE APP - IPAD
RESPONSE RATE ADVICE

• Keep instructions simple!
• Keep your wording brief!
• Include contact info!
• Use more select fields than text boxes!
• Keep them interested!
• Offer incentives!
HELP RESOURCES

Inside of REDCap:

Outside of REDCap:

https://cri.uchicago.edu/redcap

redcap@rt.cri.chicago.edu