

# USING SURVEYS IN REDCAP

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AN INTERMEDIATE COURSE

CHILDREN'S HOSPITAL OF PHILADELPHIA

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# PREREQUISITES FOR THIS CLASS

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- Beginner-intermediate REDCap skills

EITHER

- completion of “REDCap for Brand-New Beginners: Setting up a New Project” course at CHOP

OR

- equivalent experience creating your own REDCap projects
  - know how to create instruments & use different types of fields
  - familiarity with the Project Setup page and Online Designer

# OBJECTIVES

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- By the end of this class, you should be able to:
  - Determine the best method for distributing your surveys
    - Public survey link
    - Participant list w/o Participant Identifiers
    - Participant list w/Participant Identifiers
    - Designated email field
  - Set up basic Automated Survey Invitations
  - Understand the Survey Settings
  - Track your invitations that are scheduled/have gone out (Survey Invitation Log)
  - Understand when you may need to use the Survey Queue and set it up with basic logic
  - Know how to test your survey project

# AGENDA

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- Refresher of distribution methods
- Discussion of single-survey distribution
- Hands-on time: working together to develop a multi-survey project using many different features
- Questions

# STEPS TO CREATING YOUR SURVEY PROJECT

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- Always start by just creating your forms
  - Don't get bogged down in survey details right away
- Enable surveys in your project **WHILE IN DEVELOPMENT MODE**
  - You need to do this in order to thoroughly test your project!
  - If surveys aren't turned on until after you've moved to Production mode, **you haven't thoroughly tested.**
- Figure out what type of survey setup you need.
  - <https://redcap.link/surveydesigntool> takes you through some of this process
- Test, test, test! There's no such thing as too much testing. **Get really used to sending surveys to yourself!**
- The process may be iterative – you may need to revisit your survey setup many times.
  - This is good! It means you're testing thoroughly.

# A QUICK REFRESHER

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Survey distribution methods in REDCap

# THE PUBLIC SURVEY LINK: ANONYMOUS SURVEY COLLECTION

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- The public survey link is the easiest, most straightforward way to send out a single survey
- Inherently anonymous, but you can always ask name or other identifiers in the survey itself
- Always links only to the FIRST form in your project.
  - If you need two different public survey links to two different surveys – you likely need two different projects.
- Can also create QR codes, short links, and custom links from here.
- Anyone can fill it out more than once – no tracking of identities or IP addresses

# THE PARTICIPANT LIST – **WITHOUT IDENTIFIERS**

- For **anonymous** data collection when you have your participants' email addresses

Participant List belonging to [Initial survey] "Participant Info" Remove all participants

Displaying 1 - 2 of 2 Add participants Compose Survey Invitations Export list

Email	Record	Participant Identifier	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code	
berriganl@chop.edu		Enable Disabled	<input type="radio"/>	-	<input type="checkbox"/>			remove
vincenta@chop.edu		Disabled	<input type="radio"/>	-	<input type="checkbox"/>			remove

Participant List belonging to [Initial survey] "Participant Info" Remove all participants

Displaying 1 - 2 of 2 Add participants Compose Survey Invitations Export list

Email	Record	Participant Identifier	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code	
berriganl@chop.edu		Enable Disabled	<input type="radio"/>	-	<input type="checkbox"/>			remove
vincenta@chop.edu		Disabled	<input type="radio"/>	-	<input type="checkbox"/>			remove

**Response cannot be viewed:**  
When clicking the 'Responded' icon, you may only view responses that have a Participant Identifier defined. Thus you will not be able to view this participant's response by clicking this icon. This is done in order to preserve this response as anonymous.



# THE PARTICIPANT LIST – WITH IDENTIFIERS

- For **identifiable** data collection when you have your participants' email addresses

Participant List belonging to [Initial survey] "Participant Info" Remove all participants

Displaying 1 - 2 of 2 + Add participants ✉ Compose Survey Invitations 📄 Export list

Email	Record	Participant Identifier (optional) <span>Disable</span>	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code
berriganl@chop.edu	<a href="#">3</a>	Lindsay Berrigan	✔	-	✉	-	-
vincenta@chop.edu	<a href="#">2</a>	Ariel Vincent	✔	-	✉	-	-

Record ID is clickable – response is not anonymous

# SENDING FROM THE PARTICIPANT LIST

Participant List belonging to [Initial survey] "Participant Info" Remove all participants

Displaying 1 - 2 of 2 + Add participants Compose Survey Invitations Export list

Email	Record	Participant Identifier (optional) <span>Disable</span>	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code
berriganl@chop.edu	3	Lindsay Berrigan	<input checked="" type="checkbox"/>	-	<input type="checkbox"/>	-	-
vincenta@chop.edu	2	Ariel Vincent	<input checked="" type="checkbox"/>	-	<input type="checkbox"/>	-	-

Choose which recipients to send to



Choose when to send/remind



Write your email – always include [survey-link] and [survey-url]



**Info**  
Survey title: Participant Info

**When should the emails be sent?**  
 Immediately  
 At specified time:  M/D/Y H:M  
The time must be for the time zone America/New\_York, in which the current time is 06/22/2022 21:18.

**Enable reminders**  
 Re-send invitation as a reminder if participant has not responded by a specified time?

**Compose message**  
From:  Display name (optional)  berriganl@chop.edu ▼  
(select any project user to be the 'Sender')  
To: **[All participants selected from Participant List]**  
Subject:

Send test email

Paragraph ▼ **B** *I* U [Link](#)

Please take this survey.  
You may open the survey in your web browser by clicking the link below:  
[survey-link]  
If the link above does not work, try copying the link below into your web browser:  
[survey-url]

**Participant List** Actions: -- check/uncheck participants --  
(those who have not responded completely)

<input checked="" type="checkbox"/>	Email (2 selected)	Participant Identifier	Scheduled?	Sent?	Responded?
<input checked="" type="checkbox"/>	berriganl@chop.edu	Lindsay Berrigan	-	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	vincenta@chop.edu	Ariel Vincent	-	<input type="checkbox"/>	<input type="checkbox"/>

# HANDS-ON TIME

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BUILDING A MULTIPLE SURVEY PROJECT TOGETHER

Adolescent Outcomes Questionnaire (all participants)



Pain Anxiety Symptom Scale (immediately after first survey)



We want to receive a notification when this is completed



Chronic Pain Acceptance Questionnaire (automatically send 30 days after PASS is complete)



We want this survey to be password-protected



Coping Strategies Questionnaire (right after Chronic Pain Acceptance Questionnaire, only to participants in group A)



Allow participants to save and return later

# DESIGNATING AN EMAIL FIELD

- Create a text field with email validation in your project:

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

Enable auto naming of variable based upon its Field Label?

ONLY letters, numbers, and underscores

How to use [Smart Variables](#) [Piping](#) [Field Embedding](#)

**Validation?** (optional)  ▼

– OR –

**Enable optional modules and customizations**

Optional

- Repeatable instruments [?](#)
- Auto-numbering for records [?](#)
- Scheduling module (longitudinal only) [?](#)
- Randomization module [?](#)
- Designate an email field for communications (including survey invitations and alerts) [?](#)

[Additional customizations](#)

Settings displayed to Administrators only:

- Clinical Data Pull from EHR [?](#)
- Twilio SMS and Voice Call services for surveys and alerts [?](#)

- An easy, clean way to build your participant list
- Needed for certain survey functionalities
- If I have my participants' email addresses, I often use this method
  - Allows for the most control over the project

# CAN I BUILD A MULTI-SURVEY PROJECT WITHOUT USING A DESIGNATED EMAIL FIELD?

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- Short answer: yes! But your options are limited:
  - First instrument must be a survey
  - Participants must fill out first survey in order fill out subsequent surveys
  - Can't automate the first survey invitation
- If those criteria are ok with you, you can send multiple surveys from the Participant List, either with or without identifiers:

Participant List belonging to [Initial survey] "Participant Info" Remove all participants

Displaying 1 - 2 of 2 [Initial survey] "Participant Info" "Pain Anxiety Symptom Scale Short Form 20 Pass 20" Export list

Email	Record	Participant Identifier	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code	
berriganl@chop.edu		Enable Disabled	<input type="radio"/>	-	<input type="checkbox"/>	<input type="checkbox"/>		<a href="#">remove</a>
vincenta@chop.edu		Disabled	<input type="radio"/>	-	<input type="checkbox"/>	<input type="checkbox"/>		<a href="#">remove</a>

# SURVEY SETTINGS

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- A lot of these are "you don't know you need them until you need them" type of things
- Features are frequently added here with upgrades

Check out:

<https://storage.googleapis.com/arcus-edu-libsci/PDFs/SurveySettings.doc.pdf>

# SURVEY NOTIFICATIONS

- Use survey notifications to receive a simple notification when a participant completes a particular survey in your project

The screenshot shows the 'Data Collection Instruments' management page. It includes sections for 'Form options', 'Survey options', and 'Automated Survey Invitation options'. A red arrow points to the 'Survey Notifications' button in the 'Survey options' section. Below these sections is a table of instruments.

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey-related options
Participant Info	11			Choose action	Survey settings + Automated Invitations
Pain Anxiety Symptom Scale Short Form 20 Pass 20	20			Choose action	Survey settings Automated Invitations

The dialog box is titled 'Email notifications for survey responses'. It contains a paragraph of text explaining the notification process. Below the text is a table with the following data:

Participant Info	Recipient email address	Notifications Enabled
berriganl (Lindsay Berrigan)	BerriganL@chop.edu (Primary)	

- For more complex notifications, use the Alerts & Notifications section



# AUTOMATED SURVEY INVITATIONS

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- Automated Survey Invitations (ASIs) are a way to trigger survey invitations and reminders
- You control what makes them send in the ASI setup

More on ASIs here:

<https://storage.googleapis.com/arcus-edu-libsci/PDFs/Automated%20Survey%20Invitation.pdf>

# SURVEY INVITATION LOG

- Your hub to see what has gone out and what's scheduled to go out in the future

**Survey Distribution Tools**

Public Survey Link | Participant List | **Survey Invitation Log**

Listed below are the survey invitations that have already been sent or have been scheduled to be sent to survey participants in this project. For each invitation it displays the participant email, participant identifier (if exists), survey name, and the date/time in which the invitation was (or will be) sent. You may even view the invitation email itself by clicking the icon in the 'View Email' column. Please note that all times below correspond to the time zone "America/New\_York", in which the current time is 06/20/2022 4:16pm.

**Survey Invitation Log**  
(in ascending order by time sent)

View past invitations | View future invitations

Displaying 1 - 2 of 2

Begin time: [ ] End time: 06/20/2022 16:16 (M/D/Y H:M)

Display: All invitation types (excluding deleted invitations) and All response statuses

Display: All surveys

Display: All records

Display invitation reminders?

Apply filters | Reset | Download log (as seen below) |  Delete all selected

Invitation send time	View Invite	Participant Email	Record	Participant Identifier	Survey	Survey Link	Responded?	Errors (if any)	
06/20/2022 10:02am		berriganl@chop.edu			Participant Info				<input type="checkbox"/>
06/20/2022 10:06am		berriganl@chop.edu			Participant Info				<input type="checkbox"/>

Filter by instrument, record, date/time, past vs future invitations

Can edit/delete individual future invitations from here

**Survey Invitation Log**  
(in ascending order by time sent)

View past invitations | View future invitations

Displaying 1 - 1 of 1

Begin time: 06/21/2022 09:31 End time: [ ] (M/D/Y H:M)

Display: All invitation types (excluding deleted invitations) and All response statuses

Display: All surveys

Display: All records

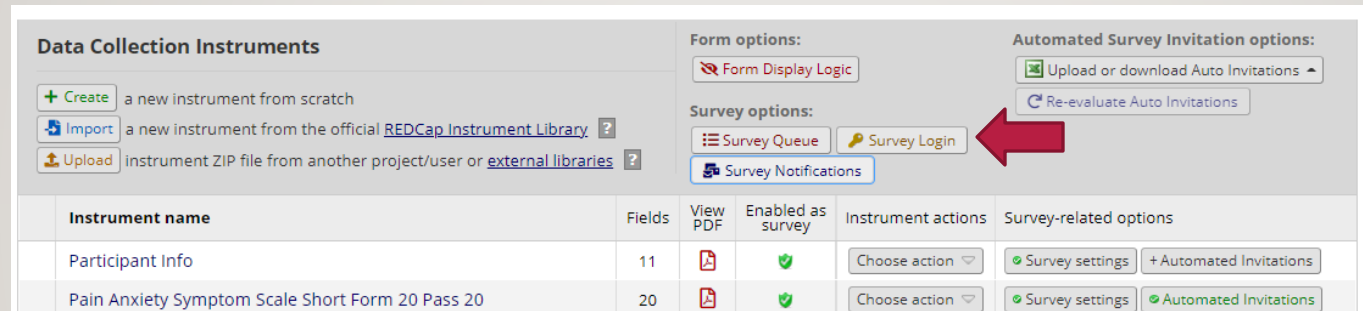
Display invitation reminders?

Apply filters | Reset | Download log (as seen below) |  Delete all selected

Invitation send time	View Invite	Participant Email	Record	Participant Identifier	Survey	Survey Link	Responded?	Errors (if any)	
07/21/2022 9:30am		berriganl@chop.edu	2	Lindsay Berrigan	Pain Anxiety Symptom Scale Short				<input type="checkbox"/>

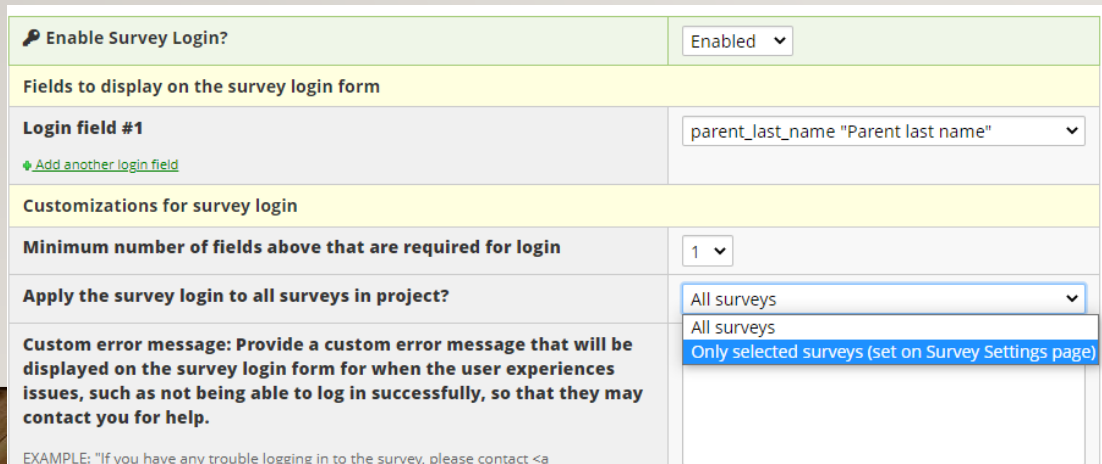
# SURVEY LOGIN

- Use the survey login to password-protect your surveys



The screenshot shows the 'Data Collection Instruments' management interface. In the 'Survey options' section, the 'Survey Login' button is highlighted with a red arrow. Below this, a table lists instruments with their respective 'Survey-related options'.

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey-related options
Participant Info	11			Choose action ▾	Survey settings + Automated Invitations
Pain Anxiety Symptom Scale Short Form 20 Pass 20	20			Choose action ▾	Survey settings Automated Invitations



The configuration form for 'Enable Survey Login?' includes the following fields:

- Enable Survey Login?**: Enabled (dropdown)
- Fields to display on the survey login form**
- Login field #1**: parent\_last\_name "Parent last name" (dropdown)
- Customizations for survey login**
- Minimum number of fields above that are required for login**: 1 (dropdown)
- Apply the survey login to all surveys in project?**: All surveys (dropdown menu is open, showing 'All surveys' and 'Only selected surveys (set on Survey Settings page)')
- Custom error message**: Provide a custom error message that will be displayed on the survey login form for when the user experiences issues, such as not being able to log in successfully, so that they may contact you for help.

EXAMPLE: "If you have any trouble logging in to the survey, please contact <a

Choose whether to apply to all surveys or only some (specify in Survey Settings)

# THE SURVEY QUEUE

- The **survey queue** is used when different participants will fill out different sets of surveys

**Data Collection Instruments**

**Form options:**  
Form Display Logic

**Automated Survey Invitation options:**  
Upload or download Auto Invitations  
Re-evaluate Auto Invitations

**Survey options:**  
Survey Queue (highlighted with a red arrow)  
Survey Login  
Survey Notifications

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey-related options
Participant Info	11			Choose action	Survey settings + Automated Invitations
Pain Anxiety Symptom Scale Short Form 20 Pass 20	20			Choose action	Survey settings Automated Invitations

Usually requires creating your own REDCap logic



**Set up Survey Queue**

The Survey Queue displays a list of your surveys to a participant all on a single page, in which the queue comprises all surveys that are to be completed (like a 'to-do' list) as well as the surveys that the participant has already completed. [Tell me more](#)

[+ Add custom text to display at top of survey queue](#)

**Keep the Survey Queue hidden from participants?**  
This setting will keep the Survey Queue table hidden from participants, and will force Auto Start to be enabled for all queue-activated surveys (even if unchecked below). This is useful if you wish to use the Survey Queue to automatically guide survey participants to the next survey without displaying the queue of surveys.

Activated?	Survey Title	Display survey in the Survey Queue when...	Auto start?
 Not activated Activate	"Participant Info"	<input type="checkbox"/> When the following survey is completed: -- select a survey -- AND <input type="checkbox"/> When the following logic becomes true: <input type="text"/> (e.g., [age] > 30 and [sex] = "1") Test logic with a record: -- select record --	<input type="checkbox"/>
 Activated Deactivate	"Pain Anxiety Symptom Scale Short Form 20 Pass 20"	<input checked="" type="checkbox"/> When the following survey is completed: "Participant Info" AND <input checked="" type="checkbox"/> When the following logic becomes true: [age_group] = "1" (e.g., [age] > 30 and [sex] = "1") <b>Valid</b> (The determination of validity may not be 100% accurate in all contexts.) Test logic with a record: -- select record --	<input type="checkbox"/>

Save Cancel

# SENDING SURVEYS FROM WITHIN A RECORD

Click in the bubble of the survey you want to send for that record

Participant ID	Participant Info	Pain Anxiety Symptom Scale Short Form 20 Pass 20	Chronic Pain Acceptance Questionnaire - Revised (CPAQ-R)	Coping Strategies Questionnaire Revised (CSQ-R)
1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Then you can compose a survey invitation from there, or open the survey for a participant to fill out in person

Invitation status:

Survey options

- Open survey
- Log out + Open survey
- Compose survey invitation
- Survey Access Code + QR Code

# SENDING SURVEYS VIA TEXT MESSAGE

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- You can send SMS survey invites using Twilio – a third-party service that works with REDCap
- Everything we've learned is still relevant to sending via SMS instead of email
- More information on Twilio:

[What Is Twilio?](#)

[Twilio setup instructions](#)

# BEST PRACTICES FOR TESTING YOUR SURVEY PROJECT

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- DON'T just enter in the data entry form and assume that's good enough!
- Test the WHOLE process, end-to-end – as though you/your testing partner are an actual participant.
- Recruit others on your team to help.
- Test across a variety of browsers (i.e. Chrome, Firefox, Safari), and devices (laptops, tablets, phones).
- If you're using multiple surveys and ASIs with date-based logic, temporarily set your dates closer together to test the whole project (i.e. instead of 30 days, set it to send in 1 day).

# MORE RESOURCES

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- [Survey-specific resources](#)
- [General REDCap Resources](#)

Contact us at [redcap@chop.edu](mailto:redcap@chop.edu)

Office hours 2x per month – hours listed on REDCap home page



# FEEDBACK

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Scan the below QR code to give feedback on this class. Be honest – we're always trying to improve!

