# REDCAP Advanced Surveys (304)





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Laboratory

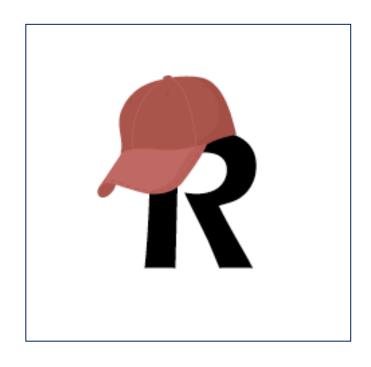
Clinic

Community



# Learning objectives

- Advanced survey setup
- Distribution
- Automated Survey Invitations (ASI)
- Alerts and Notifications
- Survey Distribution
- Repeatable Surveys
- Gift Cards
- Twilio/Mosio (SMS)
- Action tags for Surveys





What is a survey in REDCap terms?

A different way of doing data entry in your project



# General survey models

#### Simple single survey

(Covered in the "Intro to REDCap survey" class)

- Quick and easy to set up
- Single record per response
- Great for getting started with surveys

#### **Chained surveys**

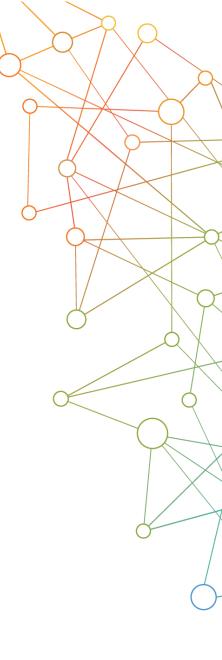
(Covered in the "Intro to REDCap survey" class)

- Link multiple surveys together
- "Skip" over certain surveys
- Multiple survey responses linked to a single record

#### Longitudinal surveys

- Longitudinal mode turned on
- Repeat the same survey in multiple events
- Multiple survey responses per event per record
- Takes a bit more time and testing to set up
- Great for longer term studies





# Longitudinal survey uses

### **Example Uses for longitudinal surveys**

- Multiple timepoints data collection
  - Clinical studies
  - Pre and post surveys
- Registration and review surveys
- Projects with:
  - Limited FTE
  - Large participant numbers
  - Low frequency

# Longitudinal survey steps

#### Setup steps:

- 1. Plan distribution model
- 2. Craft email message
- 3. Setup invite triggers
- 4. Determine timing

### Planning for longitudinal surveys

- Build on the simple survey and chained survey examples
- Define per event how you want your surveys to run
- First event will work similarly to a chained survey
- After the initial survey in each event, run through the surveys via auto-continue or survey queue
- The first survey in any follow up events can be distributed in different ways:
  - Manually (e.g., in-clinic on a tablet)
  - Automated Survey Invitations (ASI) (via email)
  - Alerts and Notifications (via email or SMS)



# Automating survey invitations

#### Choose between two automation methods:

#### Automated survey invitations

- An Automated Survey Invitation (ASI) email will be repeatedly sent at a recurring interval.
- From Online Designer, click the 'Automated Invitations' button for the survey
- Fill out the invitation information and designate how often and how many times the invitations should be repeated.
- Use with surveys where the participant is emailed at a regular interval, such as with daily, weekly, or monthly surveys.
- For example: a COVID-19 daily symptom-tracking survey.

#### Alerts and notifications

- Send out a recurring email alert containing a specially-formatted survey link for a repeating survey.
- Create an alert using the Alerts & Notifications application.
- Choose how to trigger the alert and indicate how how often and how many times the notifications should be repeated.
- Use for surveys where the participant is emailed at regular intervals depending on record status and/or logic.
- Can send notifications to project staff as well.



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Automated Survey Invitations (ASI)



# ASI – Setup email invitation

### **Step 1: Compose message**

- Select a "From" email
  - You can add up to 2 emails to REDCap in your Profile
- Define a subject line
  - Short and to the point
- Define the invitation email body
  - REDCap will add the links automatically via the smart variables [survey-link] and [survey-url]
  - HTML is allowed add formatting, logos or hyperlinks
  - Piping is allowed add participant's name or other information from an existing field

# ASI – Triggering the invitation

#### **Step 2: Conditions**

- REDCap schedules an ASI invite when the condition(s) become true
- Three main ways of triggering, similar to survey queue
  - Survey completion
    - e.g., After consent survey is completed
  - o Logic
    - e.g., After consent equals yes ([consent]='1')
  - Combination of the two
    - e.g., After the consent survey is completed AND consent equals yes
- Check the "Ensure logic is still true before sending invitation" box
  - Use to stop sending an invite if conditional logic may change for future invitations

# ASI – Message timing

#### Step 3: When to send after conditions are met

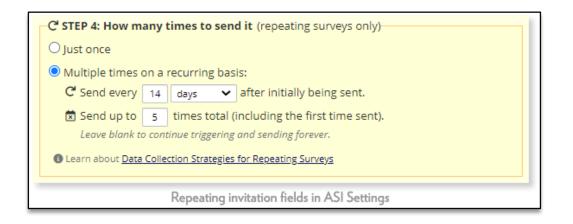
Two points of message timing:

- 1. When to send
  - Immediately (depending on server load)
  - Next day of week
  - After or before a specific interval of time (from the moment of trigger or based on a field value)
  - Exact date and time
- 2. Optional reminders
  - Up to 5 reminders
  - Set schedule (e.g. every 3 days, Mondays)
  - Remaining reminders get deleted when their survey is completed

# ASI - Repeating instruments

### **Step 4: Repeating instruments**

- Step 4 only appears for repeating surveys
- Choose to send just once or multiple times
- Choose max number of times to send



#### **ASI** - Activation

#### Remember to Activate your invitation!



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# Alerts and Notifications



# Alerts & Notifications – Triggers

### **Step 1: Triggering the Alert**

A. How will this alert be triggered?

Form/Survey saved

Conditional logic

Both

B. Triggering the alert...

Defining when instrument is saved or when logic is true

C. Trigger Limit

Flexibility with regards to repeatable instruments/events

# Alerts & Notifications – Scheduling

### **Step 2: Set the Alert Schedule**

- When to send the alert
  - Immediately or exact date/time
  - Next day or specific day of week
  - Send x days after or before an event or date
- Send it how many times
  - Just once
  - Every time a form is saved
  - Multiple times on a recurring basis (sending forever or enter number of times to be sent)
- Alert expiration
  - Use with send every x days to stop repeating alert after a set date (e.g., enter study end date)

# Alerts & Notifications - Messaging

### **Step 3: Message Settings**

- Alert Type Email vs. SMS (Twilio or Mosio service)
- Email From, To, BCC, Failure errors
  - Send message to project staff on certain conditions
- Message
  - Use smart variables
  - Piping data (prevent piping identifier data check box)
  - Use event names with fields in longitudinal projects
- Attachments
  - File upload field vs. Browse for a file

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# **Distribution Options**



#### Distribution – Fire & Forget

- Setup your entire project to send surveys with minimal oversight
- For projects with limited manpower or that will run for a long time
- You can build all your ASI's with survey completion and logic triggers if you know the schedule ahead of time
  - Single trigger point model
    - i.e., everything gets scheduled based on 1 trigger but with different delays between surveys
  - Cascading model
    - Each survey completion triggers another to be sent

### **Distribution – Fuzzy triggers**

- Use when you want to automate things, but you don't know when certain events will take place.
  - e.g., Trigger a set of surveys after an ED visit
  - e.g., Trigger follow-up surveys after an illness is reported
- Instead of using survey completion trigger, you can trigger things off a field.
  - Build a special form that contains triggers
    - Use checkboxes for immediate triggers
    - Use date variables for fuzzy time triggers (e.g., send survey 2 weeks before a scheduled visit)
  - Filled out by study personnel
  - Allows more control over survey distribution but takes more staff time



#### **Distribution – Kill Switches**

- Flip side of a fuzzy trigger
- Disables scheduled surveys and reminders
- Build in a special manual control field in a form
- Add branching logic to the ASI
  - e.g., [kill(1)]='1' (option 1 don't send" is checked)
  - Check "Ensure logic is still true" box
- Managed by study personnel
- Secondary uses
  - Reset and resend your survey invitations
    - Remember to update invitation text

#### **Distribution – Repeatable forms**

- Repeatable form distribution can get complicated
- You can setup ASI's for repeatable events as well as Alerts & Notifications
- Have respondents repeat the same survey over and over, even within events
- Make a form/survey repeatable in Project Settings
- Optional, use "Repeat the survey" button in the survey settings
- Use repeatable forms/surveys only if specifically needed
  - Recommendation: Test, test and test again
- For more information, see Data Collection Strategies for Repeating Surveys link is ASI or Alerts and Notifications

#### Gift Card Models

#### Gift cards are tricky

- Potential for scamming is high
- Build in at least one manual step
- Contact REDCap administrator for assistance

#### Setup

- Create a "gift card" instrument
- Include read only gift card information field plus instructions
- Setup ASI to send out when gift card field is not empty

#### Running a gift card model

- Tell your respondents that you will distribute the gift cards after the survey
- Build a report that displays all records eligible for a gift card but that haven't received one
- Download the report in csv raw format, plug in codes and reupload with the data import tool



# Texting (SMS)

#### **Twilio or Mosio**

- Send invites as text via a third-party service (<a href="https://www.mosio.com/redcap">https://www.mosio.com/redcap</a>.)
- Need to create an account with Twilio or Mosio
- There is a cost per message fee paid directly to the company

#### **Texting options**

- Send alerts & notifications via text
- Send survey link via text
- Send survey as text conversation (not secure/not recommended)

#### Setup

- See REDCap project setup page for more information
- Sign up with Mosio or Twilio for an account
- Contact REDCap administrator to enable your account

# **Action Tags**

#### **Useful Action tags for surveys**

- @HIDDEN-SURVEY
  - Handy for markup by study team
- @READ-ONLY
  - For displaying preloaded data
- @LATITUDE & @LONGITUDE
  - For capturing someone's location
- @NOW & @TODAY
  - For creating a "start" time stamp
  - Often combined with @HIDDEN
- @NONEOFTHEABOVE
  - To create an option in a checkbox that unchecks all other options
- @RANDOMORDER
  - To circumvent "multiple choice" bias (not for Matrix)
- @HIDECHOICE
  - To update options in an active survey





Thank You!

Questions?

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