Learning objectives

• Advanced survey setup
• Distribution
• Automated Survey Invitations (ASI)
• Alerts and Notifications
• Management
• Twilio (SMS)
• Action tags
• Best practices
ITHS’ Focus

• Speeding science to clinical practice for the benefit of patients and communities.

• Promotes translation of scientific discovery by:
  - Fostering innovative research
  - Cultivating multi-disciplinary partnerships
  - Training the next generation of researchers

• More information: www.iths.org
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 surveys

**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 surveys

Setup steps for longitudinal surveys

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

Setup ASI – Crafting your message

► Select a "From" email
  ► You can add up to 3 emails to your account
► Define a subject line
  ► Short and to the point is the best
► Define the invitation body
  ► REDCap will add the links automatically via the smart variable [survey-link]
  ► HTML is allowed
    ► Logo's or hyperlinks
  ► Piping is allowed and encouraged
    ► Try at least to add someone's name
    ► Helps with the spam filters
Longitudinal surveys

Setup ASI – Triggering invites

- REDCap schedules an invite the moment the defined trigger becomes true

- Three main ways of triggering similar to survey queue
  - Survey completion
    - e.g. After consent survey is completed
  - Branching 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

- Bonus: Ensure logic is still true upon send
  - Advanced feature that has some interesting applications.
Longitudinal surveys

Setup ASI – Timing

- Two points of timing:
  - Initial survey invitation
  - Specific date and time
  - After a specific interval of time (from the moment of trigger or dynamic)
  - "On the next ..."

- Reminders
  - Up to 5 reminders
  - Set schedule (every 3 days, mondays)
  - Remaining reminders get deleted when their survey is completed

Pro tip: send things on Tuesday morning 7 a.m.
Longitudinal surveys

Setup Alerts & Notifications – 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 in regards to repeatable instruments/events
Longitudinal surveys

Setup Alerts & Notifications – Set the Alert Schedule

► When to send the alert
  ► Static vs dynamic

► Send it how many times
  ► Just once
  ► Every save
  ► Multiple times (sending forever…)

► Alert expiration
  ► Use with send every x days forever to stop this alert after a set date (e.g. study end date)
Longitudinal surveys

Setup Alerts & Notifications – Message Settings

- Alert Type - SMS vs. Email
- Email From, To, BCC, Errors
  - Manual entry only approved domains
- Message
  - Use smart variables
  - Piping data with identifiers needs additional action
- Attachments
  - File upload fields vs. static
Longitudinal surveys

**Distribution – Fire & Forget**

- Setup your entire project to "run" itself with minimal oversight
- Great for projects with limited manpower or that run for a long time
- Build all your ASI's with survey complete and logic triggers
  - Single trigger point model
    - i.e. everything gets scheduled based on 1 trigger but with different delays
  - Cascading model
    - Each survey completed triggers another
Longitudinal surveys

Distribution – Fuzzy triggers

You want to automate things, but you don't know upfront when certain events take place

- e.g. Trigger a set of surveys after a ED visit
- e.g. Trigger surveys after a child has had a concussion in a football match

Instead of survey complete trigger, you trigger things of a variable.

- Build a special form that contain those triggers
  - Checkboxes for immediate triggers
  - Date variables for fuzzy time triggers
    - e.g. Send survey 2 weeks before visit
- Filled out by study personnel
- Allows for more control
Longitudinal surveys

Distribution – Kill Switches

- Flip side of a fuzzy trigger
- Disables scheduled surveys and reminders
- Build a special form (can be combined)
- Add branching logic to the ASI
  - e.g. \([\text{kill}(1)]<>1\)
  - Turn on "Ensure logic is still true"
- Has to be managed by study personnel

Secondary use:

- "Reset" your survey invitations
  - Update invite text
- REDCap auto filters completed surveys
Longitudinal surveys

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### Distribution – Repeatable forms

- Repeatable form functionality is complicated
- You can't setup ASI's for repeatable events (yet) but you can use this in Alerts & Notifications
- You can have respondents repeat the same survey over and over
- Setting is located in the survey settings of a survey, but only after you made the survey repeating
- Use at your own risk
  - Recommendation: Test, test and test again
Gift cards Models

Gift cards are tricky

- Potential for scamming is high
- Build in at least one manual step
- Talk to us if you want more advice

Setup

- Create a "gift card" instrument
- Includes read only gift card 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 at a set time, but not instantaneously
- Build a report that displays all records eligible for a gift card, but that haven't had one yet
- Download the report in csv raw format, plug in codes and reupload with the data import tool
Texting & Robo-calling

Twilio

• Send invites as text via a third party service ([www.twilio.com](http://www.twilio.com))
• Will have to create an account with Twilio
• Costs money ([https://www.twilio.com/sms/pricing](https://www.twilio.com/sms/pricing))

Texting / Robo calling options

• Send survey link via text
• Start survey as robo-call
• Send text to invite to robo call
  (respondent calls to start survey)
• Send text to invite to robo call
  (service calls when respondent replies by text)
• Send survey as text conversation (inherently not secure)

Setup

• Found in the project setup page
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
- @HIDECHOICE
  - To update options in an active survey
Thank You
Questions?
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