Learning objectives

- Survey setup
- Distribution
- Management
- Example of uses
- Twilio (texting)
- 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

Laboratory  Clinic  Community

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What is a survey in REDCap terms?

A different way of doing data entry in your project
General survey models

Simple single survey
- Quick and easy to setup
- Single record per response
- Great for getting started with surveys

Chained surveys
- 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 setup
- Great for longer term studies
Simple single survey

Example uses for a single survey

- Registration survey
  - Classes
  - Events
- Enrollment survey
- Consent survey
- Feedback survey
- Part of a recurring data collection
  - Copy and change date model
Simple single survey

Setup steps for a single survey

► Turn on Survey mode for the entire project
► Enable the desired instruments as surveys
► Configure survey settings for your surveys

► You have to do these in the right order!
Simple single survey

Turning on the survey feature

► Hit the “Enable” button to turn on survey mode
► Found in the project setup page
► Disable survey mode hides features
► Can only be done in development
► Will suspend all active surveys
Simple single survey

**Enable instruments as surveys**

- Found in the online designer
- Hit the "Enable" button behind each instrument
- You have to do this for each instrument you want to distribute as a survey
- Hitting the enable button will take you directly to the survey settings for that instrument
- Each instrument that's a survey can still be filled out as a normal instrument
Simple single survey

Survey settings – Basic options

► Survey Title
  ► Can be different from instrument name
  ► Allows for HTML

► Survey Instructions
  ► Use this instead of an extra descriptive field
  ► Allows for HTML
  ► Has some formatting options build in
  ► It is ok to leave this empty

Uses

Setup – Survey settings

Basic options

Design options

Survey access

Termination options

Distribution
Simple single survey

Survey settings – Design options

- Survey Design
  - Logo
  - Enhanced buttons
    - Use for mobile centric surveys

- Size & Font

- Survey Theme
  - Preloaded theme
  - Build your own
    - Saving links theme to your account

- Survey Customization
  - Default settings are fine for 90% of the surveys
Simple single survey

Survey settings – Survey access

- Response limit
  - Great for registration surveys

- Time limit
  - Great for daily, weekly or monthly surveys

- Survey expiration
  - Completely deactivates a survey for all records

- "Save and Return"
  - Default is "No save and return"
  - Access codes can be time intensive
    - Located in each survey's record
  - Save and return after completion is risky
    - Can interfere with other features

Uses

- Setup – Survey settings
  - Basic options
  - Design options

Survey access

- Termination options

Distribution
Simple single survey

Survey settings – Termination options

► Auto-continue
  ► Auto skip to the next survey upon submit
► URL redirect
  ► Redirect to any website
► Thank you message
  ► Default option
  ► Allows for custom text
  ► HTML allowed
► Confirmation email
  ► Send upon completion
  ► Requires an email
  ► Record email or temporary email

Uses

Setup – Survey settings

Basic options

Design options

Survey access

Termination options

Distribution
Simple single survey

Distribution – Public link

- Found under "Manage survey participants"
- Auto-generated by REDCap
- Alternatives:
  - Shortened link – great for tweets/text
  - Custom link – Human readable
  - QR code – scan with a smartphone
  - Web embedding code
  - Short code
    - Very temporary (1 hour)
    - In-clinic use

Uses
- Setup – Survey settings

Distribution
- Public Link
- Participant list
- Survey invitation log

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**Simple single survey**

**Distribution – Participant link**

- One unique link per participant
- Add participants
  - Email plus optional name
  - One email per line
  - De-identified mode possible
- Compose survey invitations
  - Send date/time
  - Reminders
  - Subject and message
  - Recipients
  - Hit send!

**Uses**

- Setup – Survey settings

**Distribution**

- Public Link
- Participant list
- Survey invitation log
Simple single survey

**Distribution – Survey Invitation log**

- View all past and future survey invites
  - Filter on various aspects
  - Past versus future
  - Reminders
- Allow for editing of timing of future invites
  - Hit little pencil next to each invite
- Allows for deletions of future invites
  - Hit little red x next to each invites
- Edits/deletes will need to be done for each invite and reminder separately
- Take this into account when setting up
Chained surveys

Example uses for chained surveys

► Consent models
► Enabling "paging" in surveys
  ► Mobile device optimization
► Multiple workflow surveys
  ► Parent vs child surveys
  ► Male vs female surveys
  ► Limited randomization uses
► Simplifying
  ► Instruments
  ► Branching logic
Chained surveys

Setup steps for chained surveys

► Same as a simple single survey
► Enable multiple desired instruments as surveys
► Setup the chain

► You have to do these in the right order!
Chained surveys

Setup – Auto-Continue

► Found in the survey settings
► Will need to be enabled for each survey
► Makes the survey continue to the next survey automatically
  ► Does nothing for last survey in line
  ► Enable a different termination option for the last survey
► Does not play nice with the survey queue
Chained surveys

Setup – Survey Queue
- Found in the online designer
- Populates based on instruments and events
- Setup after defining your instruments
- First survey will always be missing
- Enable survey based on:
  - Survey completion
  - Branching logic
  - Both
- Auto-start
  - Immediately start next survey
  - Go to survey queue overview first
- Order of instruments determines who wins the "tie"

Uses

Setup
- Auto-continue

Survey queue
- Best practices

Distribution
Chained surveys

Setup – Best practices

► Customization copy (found in survey settings)

► Notifications (found in the online designer)
  ► Do not trigger for each survey
  ► Great for keeping an eye on low activity projects

► Termination options
  ► Think about the workflow of your survey participants
  ► Use survey queue if you expect "broken" entry
Chained surveys

Return codes versus survey login

- First survey will be distributed like a simple survey
- Return codes
  - "Save and return" turned on
  - 6 digit alpha-numeric code
  - Survey specific
  - Lookup in the survey response
  - Not ideal for anonymous surveys
- Survey login
  - Setup in online designer
  - Up to 3 variables can be selected
  - Won't work for first survey
  - Pick an easy to remember variable
**Participant list "Plus"**

- Multiple surveys will make a survey selector popup
- Select the survey you want to sent and invite for
- Ideal for sending new invites for "broken" surveys
- Use the "incomplete" or "non-responders" selector
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)
  ► Via email invite
    (or automated survey invitations aka ASI)
  ► Via text invite

► 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 – "To" emails**

- REDCap needs to know where to send an invitation
- Defined in one of two places:
  - Participant list
    - Use when you have a list of emails beforehand
  - Define email (found in project setup)
    - Use when you don't know emails upfront
    - Needs to be a text field with an email validation
    - Simply calling it "email" is not enough
    - Only 1 email per record allowed
Longitudinal surveys

Setup ASI – "To" emails

- 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 at the bottom of the page
  - 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 – "To" emails

- 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.

Uses

Setup – Auto Invitations

"To:" Email

Crafting your message

Triggering invites

Timing

Distribution
Longitudinal surveys

Setup ASI – "To" emails

Two points of timing:

- Initial survey invitation
  - Specific date and time
  - After a specific interval of time (from the moment of trigger)
  - "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

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

- Uses
- Setup
- Distribution
  - Fire and Forget
  - Fuzzy triggers
  - Kill switches
- Interplay with repeatable forms
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. [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

- **Distribution – Repeatable forms**
  - Repeatable form functionality is still very new
  - You can’t setup ASI’s for repeatable events (yet)
  - 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

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Uses

Setup

Distribution

- Fire and Forget
- Fuzzy triggers
- Kill switches

Interplay with repeat forms
Miscellaneous – User Rights

Ability to manage survey invitations

• Allows access to the "Manage survey invitations" menu
• Make 1 person responsible plus 1 or 2 back ups

Ability to edit existing surveys

• Needs to be set by instrument
• Allows for modification of a completed survey
  • Handy for updating email address or other info
• Only distribute this right to people who need it
  • Everything gets logged anyway, but it prevents confusion
Miscellaneous – Texting & Robo-calling

Twilio

- Send invites as text via a third party service (www.twilio.com)
- Will have to create an account with Twilio
- Costs money (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 unsecure)

Setup

- Found in the project setup page
Miscellaneous – 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
Miscellaneous – Gift Cards Best Practices

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
Thank You
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