

Survey Design and Tools Part II

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Agenda – Part II

- Create or Use Validated Survey
- Developing Surveys
- Designing & Formatting Surveys
- Distribution Methods
- Response Rates
- Data Analysis
- Regulatory and Contracting

Deciding to Use a Validated Survey or Create Your Own

Validated vs. De Novo Surveys

Creating, testing, validating a survey is a significant effort requiring substantial investment

- Is it reliable?
 - Does it repeatedly measure the same property/effect and get the same result?
- Is it valid?
 - Does it measure the property that is suppose to be measured

Create or Use Validate Survey:

Validated Surveys

- Are you measuring an attitude, concept or behavior?
 - Likely a validated survey exists

Avoid re-inventing the wheel...

It's hard work,
and difficult to get right.



Finding and Using Validated Surveys:

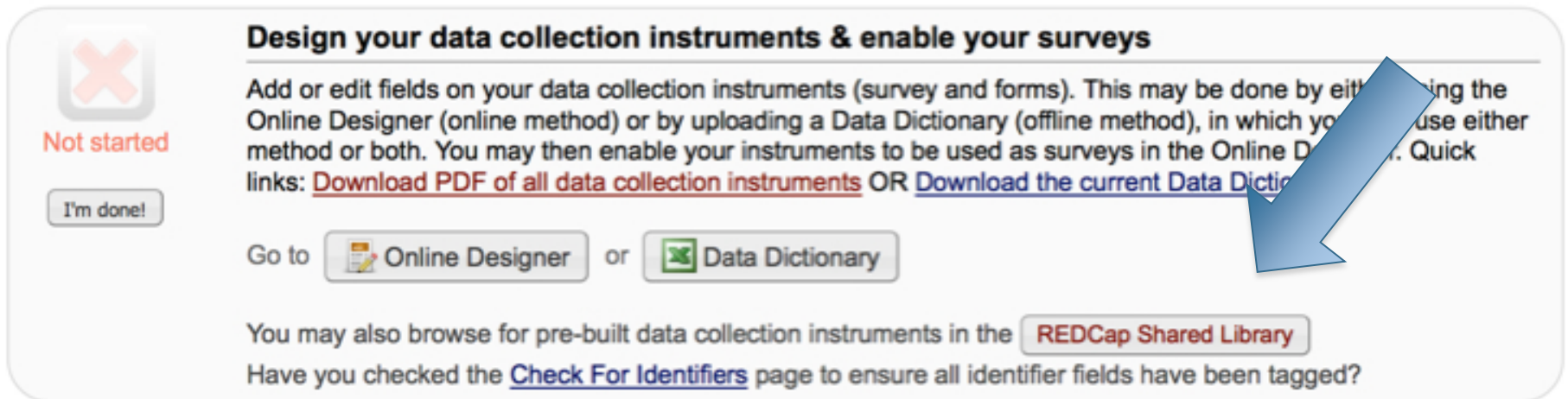
Validated Surveys


Finding the instrument that accurately and reliably measures the concept of interest can be difficult, but there are resources...

Finding and Using Validated Surveys:

REDCap Shared Library

- Database with hundreds of curated, validated instruments including surveys
- Curated for relevance, accuracy in function and coding, and copyright issues






Not started

I'm done!

Design your data collection instruments & enable your surveys

Add or edit fields on your data collection instruments (survey and forms). This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method), in which you can use either method or both. You may then enable your instruments to be used as surveys in the Online Designer. Quick links: [Download PDF of all data collection instruments](#) OR [Download the current Data Dictionary](#).

Go to  Online Designer or  Data Dictionary

You may also browse for pre-built data collection instruments in the [REDCap Shared Library](#)

Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?

Finding and Using Validated Surveys:

REDCap Shared Library

Logged in as Joe User (Oregon Health and Science University)

[Return to REDCap](#)

Keyword search:

Search options:

Minimum downloads:

Recent additions:

Curated by REDLOC?

Shared Library

- Search
- Library Metrics
- My Activity
- Institution Activity
- Consortium Activity
- REDLOC**
- REDLOC Login

Found 9 results matching your search

Title	Downloads
▶ Multiple Sclerosis Quality of Life (MSQOL-54) ★	47
▶ PROMIS Parent Proxy SF v1.1 - Anxiety - Short Form 8b ★	15
▶ PROMIS Parent Proxy SF v1.1 - Depressive Symptoms - Short Form 6b ★	8
▶ PROMIS Pediatric SF v1.1 - Anxiety - Short Form 8b ★	6
▶ PROMIS Pediatric SF v1.1 - Depressive Symptoms - Short Form 8b ★	5
▶ PROMIS SF v.1.0 - Intensidad del Dolor - Cuestionario Abreviado 3a ★	2
▶ PROMIS SF v1.0 - Physical Function - Short Form 12a ★	16
▶ PROMIS SF v1.0-1.1 Global ★	151
▶ Rand 36 Item SF Health Survey Instrument (Version 1.0) ★	1096

★ Indicates a REDLOC curated instrument

Didn't find what you were looking for?
[Suggest a validated instrument for library inclusion.](#)

Finding and Using Validated Surveys:

REDCap Shared Library


▼ Rand 36 Item SF Health Survey Instrument (Version 1.0) ★ 1096

Details:

Institution:	REDLOC
Contact:	Brenda Minor
Contact email:	brenda.minor@vanderbilt.edu
Submitted by:	Brenda Minor
Description:	"A set of generic, coherent, and easily administered quality-of-life measures. These measures rely upon patient self-reporting and are now widely utilized by managed care organizations and by Medicare for routine monitoring and assessment of care out
Acknowledgement:	RAND® is a registered trademark. Copyright © 1994-2010 RAND Corporation. RAND Health is a research division of the RAND Corporation. Used with permission http://www.rand.org/health/surveys_tools/mos/mos_core_36item.html
Terms of use:	http://www.rand.org/health/surveys_tools/mos/mos_core_36item_terms.html Terms and Conditions for Using the 36-Item Short Form Health Survey RAND hereby grants permission to use "RAND 36-Item Short Form Health Survey" in accordance with the following conditions, which shall be assumed by all to have been agreed to as a consequence of accepting and using this document: < ...Show more
Last updated:	February 23, 2010

[View as web page](#)
[View as PDF](#)

Import into my REDCap project





Finding and Using Validated Surveys: REDCap Shared Library

Project Setup

Online Designer

Data Dictionary

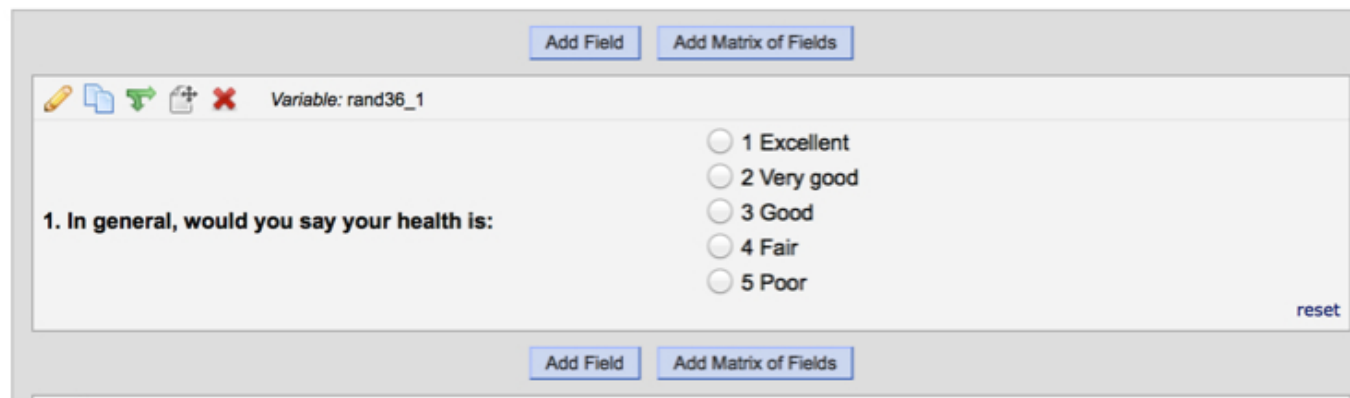
 [VIDEO: How to use this page](#)

This page allows you to build and customize your data collection instruments one field at a time. You may add new fields or edit existing ones. New fields may be added by clicking the **Add Field** buttons. You can begin editing an existing field by clicking on the  **Edit** icon. If you decide that you do not want to keep a field, you can simply delete it by clicking on the  **Delete** icon. To reorder the fields, simply **drag and drop** a field to a different position within the form below. NOTE: While in development status, all field changes will take effect immediately in real time.

[Return to list of Data Collection Instruments](#)

Current instrument: **Rand 36 Item SF Health Survey Instrument (Version 1.0)**

[Preview instrument](#)



The screenshot shows the REDCap Online Designer interface. At the top, there are two buttons: "Add Field" and "Add Matrix of Fields". Below these buttons is a toolbar with icons for edit, copy, paste, add, and delete. The main area displays a variable named "rand36_1" with the question "1. In general, would you say your health is:". To the right of the question are five radio button options: "1 Excellent", "2 Very good", "3 Good", "4 Fair", and "5 Poor". A "reset" link is located at the bottom right of the question area. At the bottom of the interface, there are two more buttons: "Add Field" and "Add Matrix of Fields".

Other Resources

- PROMIS (<http://www.nihpromis.org/>)
 - Patient Reported Outcomes Measurement Information System (PROMIS), is a system of highly reliable, valid, flexible, precise, and responsive assessment tools that measure patient–reported health status.
- National Cancer Institute
 - <http://appliedresearch.cancer.gov/resource/collection.html>

DEVELOPING SURVEYS



Developing a Survey:

Okay, If you must!

Preparing to Do A Survey:

- **Who** are you going to survey?
- **How** are you going to survey them?
- **What** are you going to ask them?

What Could Possibly Go Wrong?

- **Who:** Coverage Error, Sampling Error, Non-response Error
- **How:** Method Effect
- **What:** Measurement Error

Engage a statistician and/or survey design expert early!

Developing a Survey:

Question Writing Tips

- Write at a 6th grade level.
- Use complete sentences.
- Use as few words as possible.
- Define your terms.
- Never make the first questions open-ended, difficult, embarrassing or directly about themselves.
- Avoid complicated skip patterns in mail surveys.
- Make sure the question requires an answer. Questions beginning with “If” or “When” often don’t.

Developing Surveys:

Wording Practices to Avoid

- Shorthand
 - Contractions, abbreviations, symbols, slashes, parenthesis, brackets
- Framing questions in the negative
- Using double negatives
- Passive voice
- Words or phrases that express a strong point of view

Developing Surveys:

Wording Practices to Avoid

- Questions using leading, emotional or evocative language
- Technical terms and jargon
- ‘Double-barreled’ questions or responses
 - Using ‘and’ in a question or response
- Questions with multiple response dimensions
 - Asking about frequency and occurrence in single question

Developing Surveys:

Question Wording

Keep It Simple!

Use

- Work
- Tired
- About
- People who live here
- Job concerns
- Providing health care
- Your answers

Instead of

- Employment
- Exhausted
- Regarding
- Occupants of this household
- Work-related employment issues
- Health care provision
- Your responses to this questionnaire

Developing Surveys:

Question Types

- Open-ended vs. Closed Questions
 - Respondents more likely to skip open-ended
 - Open-ended
 - Greatest variety of responses
 - Time consuming to respond and analyze
 - Closed
 - Ensure that respondents interpret questions the same way
 - Response options should be mutually exclusive & exhaustive

Question Types

- Rating scales
 - Usually between 5 and 7 points
 - Provide a rating scale
 - Write questions so that both positive and negative items are scored high and low
 - Agree/Disagree scales biased to ‘Positivity bias’
 - Order of response categories can influence answer choices

Developing Surveys:

Visual Layout

- Keep design clean, simple and consistent
 - Clearly distinguish question text from answer choices and instructions
 - For open-ended questions provide lines
 - Limit the number of variations of font formats
 - Consider population (age, reading level, diagnoses that may impact reading comprehension/ability)
 - Make use of white space

Developing Surveys:

Visual Layout

- First and last impressions are created by the front and back cover/pages
 - Remember to include instructions about return of completed survey
 - Thank your participants for their time!
- Check for spelling and grammatical errors, readability and flow, visual consistency
- Test your survey on a variety of people!

DISTRIBUTION METHODS



Distribution Methods:

Types

- Distribution Methods
 - Mailed
 - Web
 - Mobile
 - Phone
 - In person
 - Mixed

Depends on Population!

Distribution Methods:

Factors to consider^[1]

Factor	In Person	Phone	Mail	Online
Cost	Costly	Moderate	Cheap	Cheapest
Speed	Slow	Fast	Moderate	Fastest
Response rate	High	Moderate	Low	Low to Moderate
Sampling need	Address	Phone #	Address	Email
Respondent burden	Low	Moderate	High	Low
Researcher control	Variable	Variable	None	None
Length of survey	Long	Moderate	Short	Short
Social desirability	High	Moderate	Low	Low
Length of response options	Short to moderate	Moderate	Short	Moderate
Survey complexity	High	Good	Poor	High
Chance of interviewer bias	High	Moderate	None	None



Distribution Methods:

Online Surveys

Strengths

- Eliminates need for data entry
- Adaptive – show only relevant questions
- Cost
- Questions with long list of possible responses
- Respondents more willing to disclose private and socially undesirable information
- Ability to require response
 - Provide option for ‘Unknown’/’Don’t know’

Challenges

- Limits ability to verify accuracy and account for missing data
- Skewed to internet users (some may not possess skillset)
- How and when participants read email
- Spam filters – delivery schedule



Distribution Methods:

Maximize Rewards & Trust

- Respect the respondent: tell why the research is being done, provide a toll-free number for questions, say thanks.
- Ask for advice: we need your feedback, we need information only you can provide.
- Offer a financial or tangible reward (even a token) in advance of their completing the survey.
- Make project seem important, prominent. Emphasize legitimating sponsorships or affiliations.



Distribution Methods:

Minimize Costs

- Don't embarrass the respondent—don't use complicated language or phrases they might not understand.
- Minimize inconvenience to the respondent – keep it short, don't include too many complex questions.
- Ask for personal information only when necessary; if necessary, soften the request. Make sure respondent understands why it is important.

RESPONSE RATE

Response Rate:

Overview

- Overall declining response rates in the past 3 decades
- Reasons for non-responses^[2,7]
 - Failure to deliver questions to target audience
 - Mistrust of confidentiality
 - Over-surveying fatigue
 - Insufficient postage
 - No return postage provided
 - Incorrect mailing address
 - Unclear survey instructions
 - Interception and disposal by family/other
 - Insufficient incentive/payment

Response Rate:

By Distribution Methods^[2]

Method/Industry	N	Min	Max	Mean (% Returned)	SD
Mail	309	19.7	94.0	44.7	21.8
In person/ drop in	31	30.0	83.0	62.4	16.9
Email	11	23.7	89.0	54.7	23.9
Phone	10	10.0	86.2	49.1	24.1
Web	6	10.6	69.5	38.9	15.1
Health care	21	17.4	94.0	53.8	20.0
Education	15	10.0	84.0	49.0	24.1

Response Rate:

By Distribution Methods – Rates

- Study 1^[3]
 - Phone – 64%
 - Mail w/ follow-up telephone – 56%
 - Mail w/ follow-up letter – 49%
 - Incomplete – 44%
- Study 2^[4]
 - Phone – 30%
 - Mail – 18%
 - Online – 7%
- Study 3^[5]
 - Mail – 32%
 - Online – 21%

[3] **Response rates of three modes of survey administration and survey preferences of rheumatoid arthritis patients.** Ivett Garcia, Cecillia Portugal, Li-Hao Chu, and Aniket Kawatkar. *Arthritis & Care* 2014; 66:3. 364-370 DOI: 10.1002/acr.22125.

[4] **Comparison of response rates and cost-effectiveness for a community-based survey: postal, internet and telephone modes with generic or personalised recruitment approaches.** Martha Sinclair, Joanne O'Toole, Manori Malawaraarachchi, Karin Leder. *BMC Medical Research Methodology* 2012; 12:132 DOI:10.1186/1471-2288-12-132.

[5] **Web surveys versus other survey modes – a meta-analysis comparing response rates.** Manfreda Lozar, Berzelak Bosnjak, I. Haas, and V. Vehovar. *International Journal of Market Research* 2008; 50. 79-104.

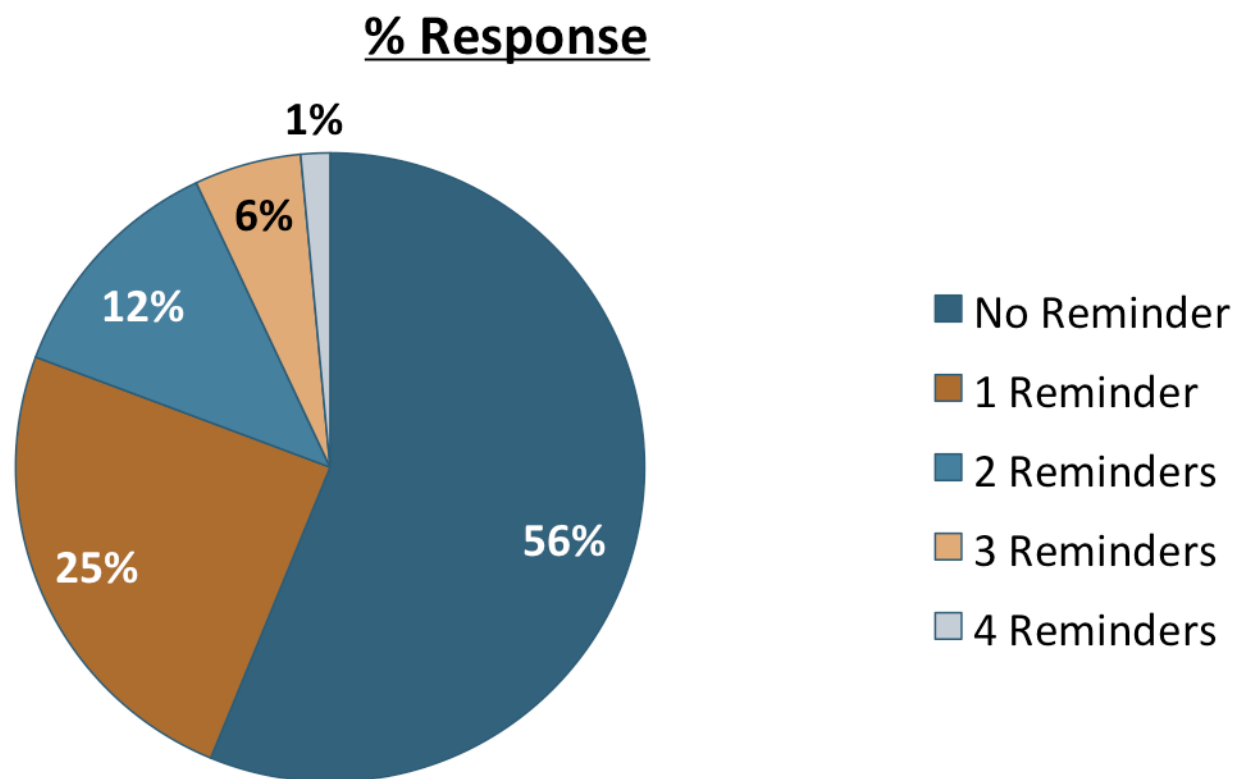
Response Rate:

Facilitation & Follow-up

- Pre-notification
- Publicity
- Reminders
 - Give window of 7 to 10 days before following-up
- Advise respondents of a deadline
- Planning on resurveying the same population?
 - Thank for participation
 - Share some of your findings
 - Survey feedback?
- Follow-up methods include:
 - Email
 - Phone
 - Mailed postcard

Response Rate:

Increasing Contact^[6]



DATA ANALYSIS

Data Analysis:

Coding Data

- Checks to find errors in coding or data entry
- Weighting of questions
- Conversion of responses to numerical values
- Coding open-ended questions
 - Abstraction and coding
- Repeated surveys – analyzing absolute or percent change between periods, overall, etc.?
- Consideration of time of year survey administered

Data Analysis:

Analyzing Data

- Incomplete surveys and missing data
- Conduct and report non-response bias tests
 - Archival analysis
 - Wave analysis
 - Interest-level analysis
 - Active non-response analysis

REGULATORY & CONTRACTING



Regulatory & Contracting:

Considerations

- **Protocol** – includes description of participant recruitment, data types, survey tools, individually identifiable data, measures to protect confidentiality

- **Informed Consent vs. Information Sheet**



Regulatory & Contracting:

Online – Recruiting Using a Survey

For studies where researchers want to use an online survey to individuals that have not signed a consent form:

- **Consent/Authorization** – IRB approved *Waiver of Authorization*; Consent as first page of online survey or part of recruitment materials

	REDCap	Survey Monkey	Survey Gizmo
Business Associates Agreement Required		X	X
Accounting of Disclosures		X	X