

# REDCap for Surveys

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**CARILIONCLINIC**

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# Objectives

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- Describe HART services and REDCap at Carilion
- Utilize REDCap to generate surveys and questionnaires
- Request REDCap service



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# HART

- **Health Analytics Research Team**
- Formed last quarter 2016
- Our mission: Provide quality supports to research and studies
- Our service:
  - Extract medical information from EPIC for research purpose
  - Deliver statistics analysis
  - Advice on study designs
  - Provide scientific inputs
  - Support applications: REDCap, etc



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# REDCap

- **R**esearch **E**lectronic **D**ata **C**apture
- **Secure, web-based** application for managing and collection of research data
- Origin: Vanderbilt University, 2004
- >2000 institutions, >100 countries



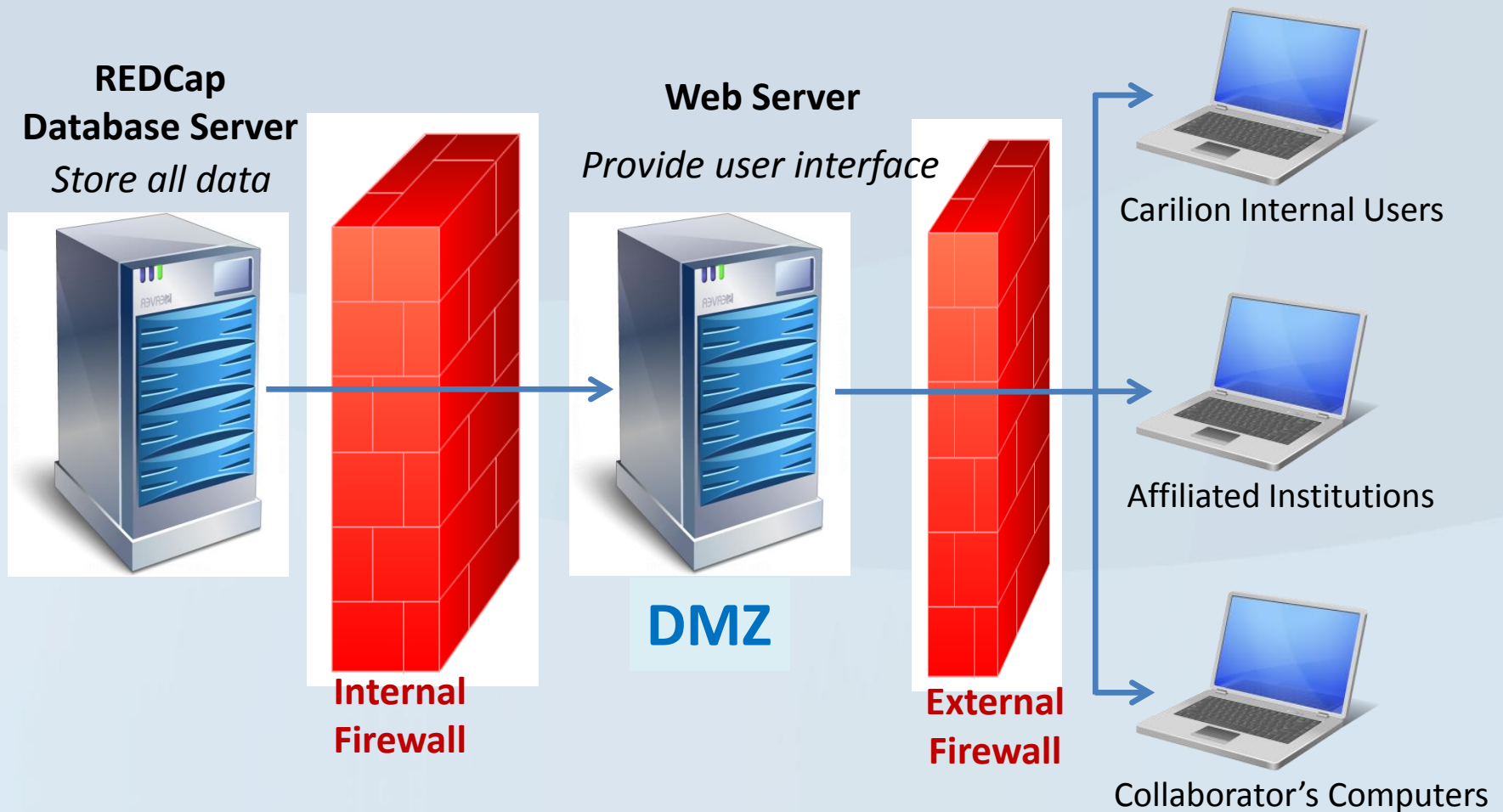
# REDCap at Carilion

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- **Go-live** at Carilion 3/1/2017
- Open to **Research, QA/QI**
- Installed and maintained by **HART** team
- Free of charge




# Carilion REDCap Infrastructure





# REDCap



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### Welcome to REDCap!

REDCap is a mature, secure web application for building and managing online surveys and databases. Using REDCap's stream-lined process for rapidly developing projects, you may create and design projects using 1) the online method from your web browser using the Online Designer; and/or 2) the offline method by constructing a 'data dictionary' template file in Microsoft Excel, which can be later uploaded into REDCap. Both surveys and databases (or a mixture of the two) can be built using these methods.

REDCap provides automated export procedures for seamless data downloads to Excel and common statistical packages (SPSS, SAS, Stata, R), as well as a built-in project calendar, a scheduling module, ad hoc reporting tools, and advanced features, such as branching logic, file uploading, and calculated fields.

Learn more about REDCap by watching a [brief summary video \(4 min\)](#). If you would like to view other quick video tutorials of REDCap in action and an overview of its features, please see the [Training Resources](#) page.

**NOTICE:** If you are collecting data for the purposes of human subjects research, review and approval of the project is required by your Institutional Review Board.

If you require assistance or have any questions about REDCap, please contact [REDCap Administrator \(123-456-7890\)](#).

### REDCap Features

**Build online surveys and databases quickly and securely** - Create and design your project rapidly using secure web authentication from your browser. No extra software is required.

**Fast and flexible** - Conception to production-level survey/database in less than one day.

**Export data to common data analysis packages** - Export your data to Microsoft Excel, PDF, SAS, Stata, R, or SPSS for analysis.

**Ad Hoc Reporting** - Create custom queries for generating reports to view or download.

**Scheduling** - Utilize a built-in project calendar and scheduling module for organizing your events and appointments.

**Easily manage a contact list of survey respondents or create a simple survey link** - Build a list of email contacts, create custom email invitations, and track who responds, or you may also create a single survey link to email out or post on a website.

**REDCap Mobile App** - Collect data offline using an app on a mobile device when there is no WiFi or cellular connection, and then later sync data back to the server.

**Send files to others securely** - Using 'Send-It', upload and send files to multiple recipients, including existing project documents, that are too large for email attachments or that contain sensitive data.



# Project Types

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- Survey
  - Forms to collect data from respondents, typically via emailed links
- Traditional project
  - Data entry forms for consistent data collection
- Longitudinal Study
  - Data gathered for the same subjects over time
- Combination of the above



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# REDCap Survey Example 1

The following qualities are important in my supervisor:

|    |              | Extremely Important   | Very Important        | Somewhat Important    | Slightly Important    | Not Important at All  |       |
|----|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------|
| 1) | BELIEVABLE   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | reset |
| 2) | APPROACHABLE | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | reset |
| 3) | HONEST       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | reset |
| 4) | SUCCESSFUL   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | reset |
| 5) | QUALIFIED    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | reset |

Please let us know your weekly schedule for the following:

|    |                             | Monday                   | Tuesday                  | Wednesday                | Thursday                 | Friday                   |
|----|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6) | Gym (Weight Training)       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) | Aerobics                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8) | Eat Out (Dinner/Lunch)      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9) | Drink (Alcoholic Beverages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



# REDCap Survey Example 2

You can create YES-NO questions.

☐ Yes

This question has vertical alignment of choices on the right.

☐ No

reset

And you can also create TRUE-FALSE questions.

☐ True

☐ False

This question has horizontal alignment.

reset

DATE questions are also an option. If you click the calendar icon on the right, a pop-up calendar will appear, thus allowing the respondent to easily select a date. Or it can be simply typed in.



Today

Y-M-D

The FILE UPLOAD question type allows respondents to upload any type of document to the survey that you may afterward download and open when viewing your survey results.

[Upload document](#)

A SLIDER is a question type that allows the respondent to choose an answer along a continuum. The respondent's answer is saved as an integer between 0 (far left) and 100 (far right) with a step of 1.

You can provide labels above the slider

Middle label

Right-hand label



# Distribution Methods

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- Email invite
- Anonymous survey link
- Embed survey on website
- QR code
- Print



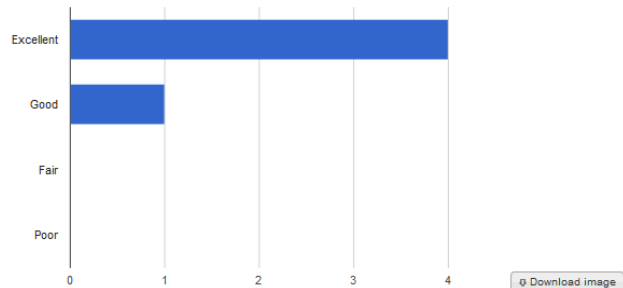
# Survey Results

## Completing a literature review.

[Refresh Plot](#)[View as Bar Chart](#)

| Total Count (N) | Missing  | Unique |
|-----------------|----------|--------|
| 5               | 0 (0,0%) | 2      |

Counts/frequency: Excellent (4, 80,0%), Good (1, 20,0%), Fair (0, 0,0%), Poor (0, 0,0%)

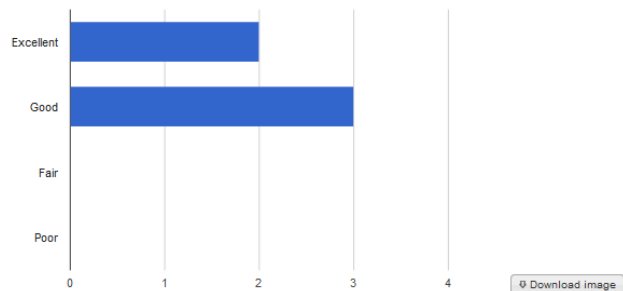


## Utilizing online database search engines.

[Refresh Plot](#)[View as Bar Chart](#)

| Total Count (N) | Missing  | Unique |
|-----------------|----------|--------|
| 5               | 0 (0,0%) | 2      |

Counts/frequency: Excellent (2, 40,0%), Good (3, 60,0%), Fair (0, 0,0%), Poor (0, 0,0%)



- Descriptive
- Export to Excel, R, SAS, SPSS, Stata for further analysis



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# REDCap Request

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- Contact R & D
- Contact HART (email, call, talk...)
- Submit Edison Request

<https://edison.carilionclinic.org>



# HART Service on Surveys

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- Work with you on questions design
- Convert your questionnaires into REDCap forms
- Test run
- Send survey out
- Collect results and analyze





*for*  
**Survey**





thank you!

