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REDCap for Research: Part I

Watch a recording of the session here

Steve Dragos, Ric Angeles and Larkin Lamarche

October 22nd, 2019

Michael G. DeGroote SCHOOL OF MEDICINE

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Family Medicine

DFM Research Knowledge and Skill Builder

October 22 2019

Presented by Steve Dragos & Ric Angeles

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Learning Objectives

1. Understand how REDCap can be used for building and managing online surveys and databases
2. Identify some of the basic functions of REDCap via a demonstration of the software
3. Recognize where to find REDCap information and resources online and at DFM

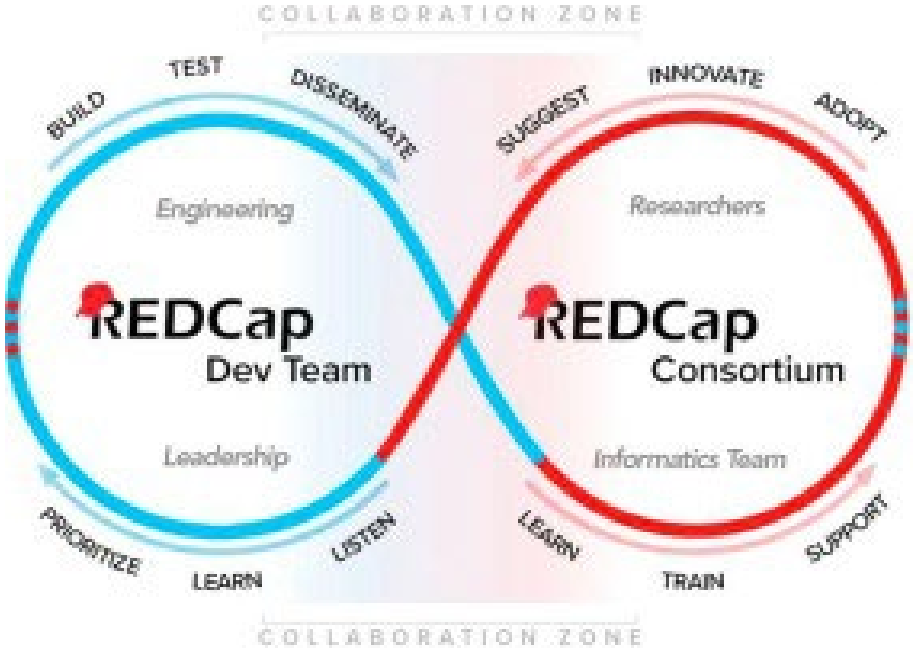
What is REDCap?

Research Electronic Data Capture (REDCap)

- Secure, web-based application for building and managing online databases and surveys
- Online and offline data collection e-forms
- Built-in ability to export data downloads to Excel, SPSS, SAS
- Advanced features:
  - survey development
  - longitudinal data collection
  - ad-hoc reporting tools (reports and stats)
  - mobile access (online and offline)

REDCap Consortium

https://projectredcap.org/



- McMaster and DFM IT licensed members of the consortium
- 2400 institutional partners / 115 countries / 590,000 total end-users / 450,000 ongoing research studies

Harris, P. A., Taylor, R., Minor, B. L., Elliott, V., Fernandez, M., O'Neal, L., ... & Duda, S. N. (2019). The REDCap consortium: Building an international community of software platform partners. *Journal of biomedical informatics*, *95*, 103208.

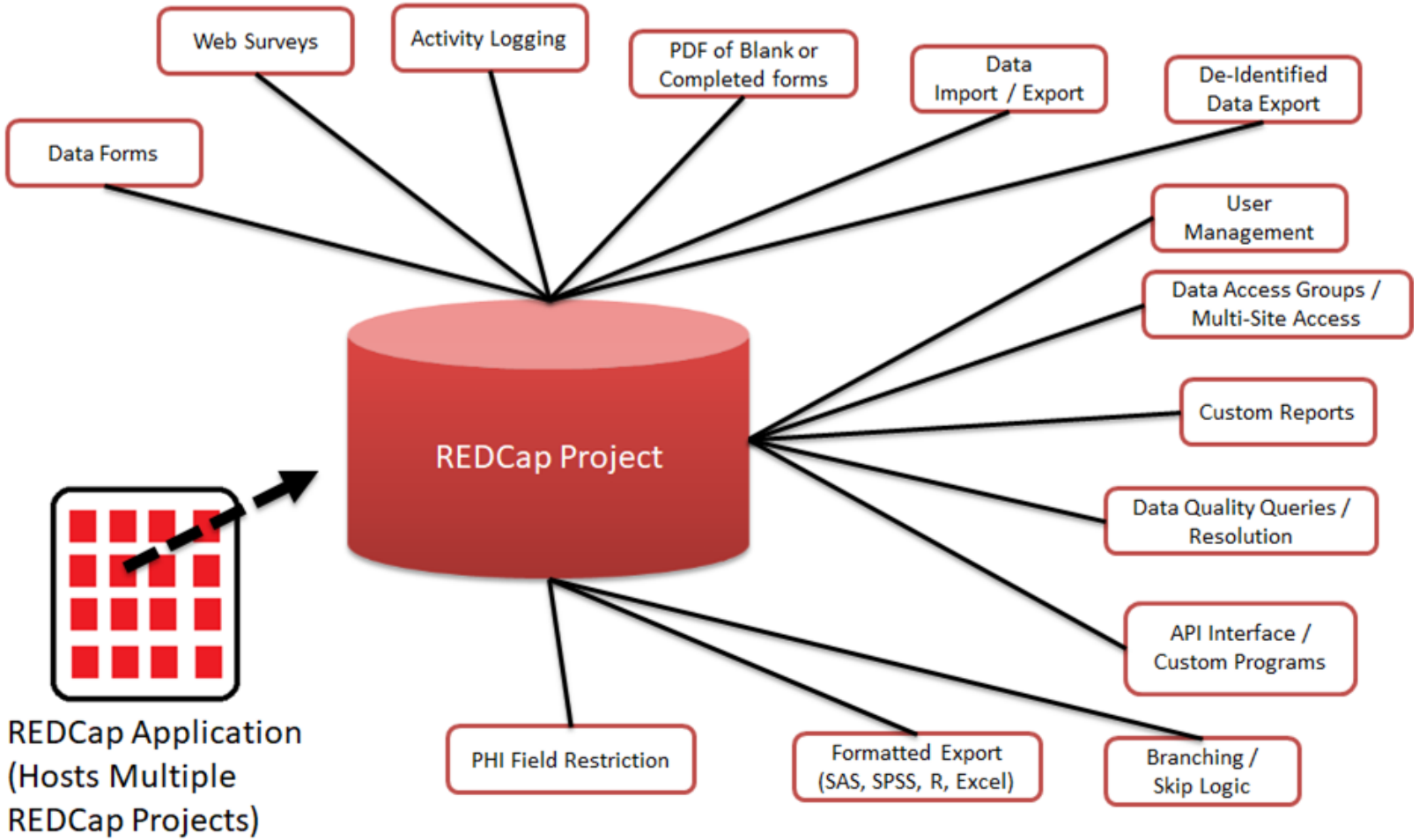
REDCap at DFM

Scope of Project	Instance	Cost
REDCap test site (pre-project)	- sandbox to learn about and test the program	$0
Small research project (1 – 10 short surveys)	- REDCap dfmgp.mcmaster.ca instance is shared with DFM Research staff/faculty - project will be part of the above domain name	$0
Large research project or research program with multiple sub-projects	- separate version of REDCap, hosted in dedicated server environment - own domain name - for use by external users to share copies of the instance and to share data - no start and stop fees - data should be exported for analysis once data collection phase is complete	$100/month

See DFM REDCap Project Creation SOP at dfmresearch>Systems and Processes>REDCap

Overview of Specifications and Capabilities

Online and Offline
(mobile app)
data capture system



Slide Acknowledgement: Brief Intro to REDCap. Paul Harris, Vanderbilt CTSA https://studylib.net/doc/5546088/brief-introduction-to-redcap

REDCap - Some (of the many) Features

- Online-offline capability
- All the usual database bling (different data types, calculated fields, skip patterns, VAS, data upload, inline/link for video/documents, etc.)
- Ready built questionnaires from the REDCap library: easy to import/export questionnaires
- Calendar scheduling
- Configurable user permission
- Data quality system
- Data access groups
- Detailed logging routing for monitoring

Use in DFM Research

- CHAP-Philippines
  - Mobile App collected by volunteers
  - Organized by villages under 1 municipality database
- CHAP
  - Online version collected by volunteers and supervised by a Research nurse
  - Organized by buildings with different user rights
- CP@home
  - Mixed of Mobile App and online versions
  - Organized by paramedic services
- MyCP
  - Using survey version as a mobile app
- Health TAPESTRY
  - Chart audits done by Research Assistants
- TAPER
  - Online version collecting data from telephone interviews
  - Offline data collection using the Mobile App

Using REDCap - Demo

- User interface orientation
- Project creation
- Building instruments
  - Data types, fields, logic
  - REDCap library
- Data entry
- Reports
- Data exporting

REDCap Resources

- Web site: https://projectredcap.org/
- Instructional videos: https://projectredcap.org/resources/videos/
- University of California San Francisco REDCap Knowledge Bank or FAQ: https://wiki.library.ucsf.edu/display/RKB/REDCap+Frequently+Asked+Questions
- Brief Intro to REDCap Slide Deck. Paul Harris, Vanderbilt CTSA https://studylib.net/doc/5546088/brief-introduction-to-redcap
- Harris, P. A., Taylor, R., Minor, B. L., Elliott, V., Fernandez, M., O'Neal, L., ... & Duda, S. N. (2019). The REDCap consortium: Building an international community of software platform partners. *Journal of biomedical informatics*, *95*, 103208.
- DFM REDCap Project Creation SOP: dfmresearch>Systems and Processes>REDCap

Questions?

And a question for the audience:

What would you like to learn more about? We are holding Part II of the REDCap skill builder on November 26.

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Department of Family Medicine
Michael G. DeGroote School of Medicine
Faculty of Health Sciences

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