

REDCap: Overview and Highlights

December 6, 2022

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YALE UNIVERSITY
SCHOOL OF
MEDICINE

PILOT, PILOT, PILOT

- Outcome selection for target population
 - Target population: Health, function, cognition
 - Feasibility of outcome ascertainment; preliminary data
 - Research Operations: Resources/budget, timeline, space, training
- Minimize burden on participants and research staff
- Feedback on data collection process
- Testing of systems and workflow

WHAT IS REDCAP

The screenshot displays the REDCap interface for a project named 'Empower'. The top navigation bar shows the user is logged in as 'charpe'. The main dashboard area is titled 'Completed Baselines' and shows a table of records. The table has columns for 'Record ID' and various baseline metrics. A detailed view of record ID 12 is shown in a pop-up window, titled 'UAB Life Space'. This view includes a form for editing the record, with fields for 'Event Name: Baseline', 'Record ID: 12', and 'UAB Study of Aging Life - Space Assessment'. The form contains several questions with radio button and dropdown options.

Record ID	Screening	Baseline	Gait Speed 3 Meters	Physical Activity	ADL	Fall Efficacy	Functional Assessment	SF12	Mini COG	PHQ	Most Sedentary Behavior	UAB Life Space
9	●	●	●	●	●	●	●	●	●	●	●	●
12	●	●	●	●	●	●	●	●	●	●	●	●
30	●	●	●	●	●	●	●	●	●	●	●	●
37	●	●	●	●	●	●	●	●	●	●	●	●
46	●	●	●	●	●	●	●	●	●	●	●	●
54	●	●	●	●	●	●	●	●	●	●	●	●
63	●	●	●	●	●	●	●	●	●	●	●	●
70	●	●	●	●	●	●	●	●	●	●	●	●
86	●	●	●	●	●	●	●	●	●	●	●	●
87	●	●	●	●	●	●	●	●	●	●	●	●
91	●	●	●	●	●	●	●	●	●	●	●	●
114	●	●	●	●	●	●	●	●	●	●	●	●
122	●	●	●	●	●	●	●	●	●	●	●	●
123	●	●	●	●	●	●	●	●	●	●	●	●
134	●	●	●	●	●	●	●	●	●	●	●	●
140	●	●	●	●	●	●	●	●	●	●	●	●
151	●	●	●	●	●	●	●	●	●	●	●	●
155	●	●	●	●	●	●	●	●	●	●	●	●

What is REDCap?

- REDCap is a secure web-based application for data capture and study management.
- REDCap is open-*license* software, and requires institutional agreement and consortium membership.
- REDCap is open-*standards* software, and is compliant with open specifications for data interchange and data representation.

REDCAP FEATURES

- You can use REDCap to enter data into electronic forms, to conduct online surveys, and/or to upload existing data for integration into your study.
- You can use existing national and local libraries of validated instruments, available online to the REDCap community.
- You can incorporate advanced features for multi-site, multi-arm studies.
- You can set rules for access to data based on user role, treatment arm and data collection site.
- You have access to comprehensive logs of design changes (amendments), data entry, and regulatory compliance events.
- You can safely extend REDCap features programmatically.
- You can integrate REDCap with other web-based tools.

REDCAP COMMUNITY

The REDCap Consortium is impactful



- The key to sustainable software
- REDCap Consortium stands out

DESIGN PRINCIPLES



- **Incorporate Data Management and Informatics early**
- **Build in reminders, prompts, controls, and tools for:**
 - Study staff
 - Participants
 - Clinicians

DESIGN PRINCIPLES

Screen ID TS-000018

MEDICATIONS: CURRENT MEDICATIONS OR ADMINISTERED IN ED

ABSTRACTOR:
 For current, review Triage summary and Home medications.
 For ED, review Manage orders and Order History tabs. "Meds" under "Additional Orders and Documentation" in the ED Encounter.
 For Chart review -> snapshot-> medications for current

MEDICATIONS





		Current	ED	Not Recorded	
Alprazolam * must provide value	 	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset
Amitriptyline * must provide value	 	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	reset

Chart Review

- Detailed instructions
- Ordering of items
- Ordering of sections

LABS / IMAGING Since ED visit (1st recorded):
 Results review section then look at labs section in Adler note; then care everywhere-> lab results

	COMPLETED	RANGE	VALUE
AST	<input type="radio"/> Yes <input type="radio"/> No reset	0-35	
ALT	<input type="radio"/> Yes <input type="radio"/> No reset	0-35	

DESIGN PRINCIPLES

AMPLIFIER ACCEPTABILITY

Is the patient (or proxy) able to answer the acceptability questions?

Yes
 No

* must provide value

If no, why not?

Patient is sedated
 Patient is delirious

Ensure CAM-ICU is documented

If 'Patient is delirious', study staff are prompted to collect CAM-ICU measure.

Example: Survey Instructions

Thank you for your time today! Your responses will help inform Lyme disease prevention efforts.

IMPORTANT! You must hit the "SUBMIT" button below and then the "CLOSE SURVEY" button on the next page to make sure you receive your \$10 gift card.

The 'SUBMIT' reminder prevents incomplete surveys/missing data.

DESIGN PRINCIPLES

Example: Real-time data quality control

The screenshot shows a form with the following elements:

- Clinical MOCA (all items) or Sub-scores only?** with a red asterisk and the text "* must provide value".
- Clinical MOCA Date**
- Clinical MOCA: Fluency (0/1)** with a value of 3 entered in a red input field.
- An **Alert** dialog box is open, displaying the message: "The value you provided is outside the suggested range. (0 - 1). This value is admissible, but you may wish to double check it." with a "Close" button.

Controls to prevent errors

Example: Warnings

The screenshot shows a form with the following elements:

- SCREEN** header with the text "Ready for Contact AFTER Site review of initial exclusion criteria - hospice/nursing home status and PCP willingness".
- Language used for this interview** with a dropdown menu showing "primary" and a "SET AUTOMATICALLY" button.
- A red warning box containing the text: "WARNING: REVIEW SCREEN ELIGIBILITY on RECRUITMENT FORM BEFORE PROCEEDING".
- Below the warning box, the text "Screener Eligibility: ____" and "MUST BE EQUAL to 1".

Custom warnings for data inconsistencies.

REDCAP VERSION 12 SELECTED HIGHLIGHTS


- **today** and **now** can now be used as the min or max values for validation so that the current date or time is always used for validation. These can be used to prevent a date/time field from having a value in the past or in the future.
- Additionally, you can now pipe a value from another field into the field's min or max range setting - e.g., [visit_date] or [event_1_arm_1][age].

Date Validation Enhanced

REDCAP VERSION 12 SELECTED HIGHLIGHTS

- Provides a way to use conditional logic to disable specific data entry forms that are displayed on the Record Status Dashboard, Record Home Page, or the form list on the left-hand menu.

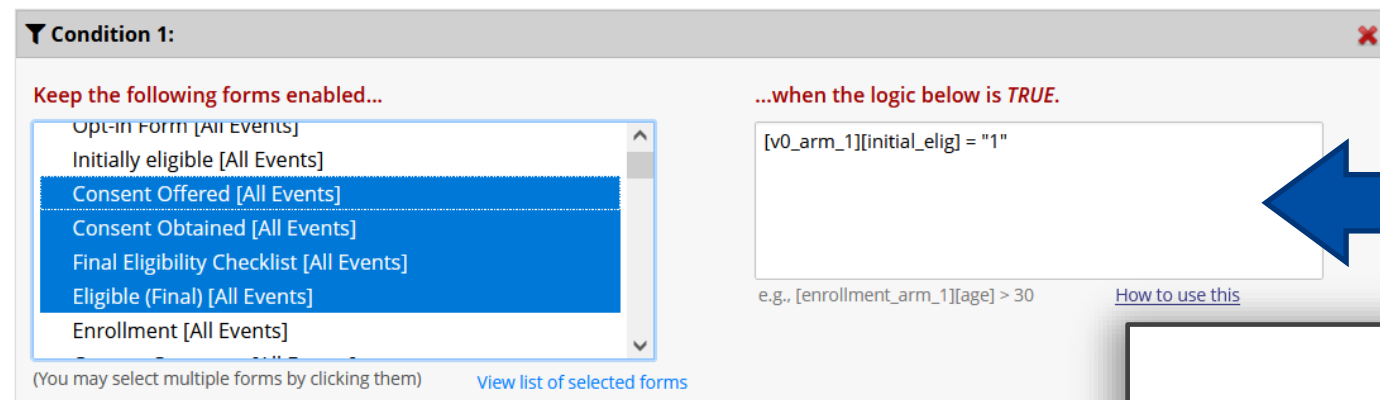
Example:



Data Collection Instruments

Form options:
 Form Display Logic ✓

Access Form Display Logic from online designer



Condition 1:

Keep the following forms enabled...

- Opt-in Form [All Events]
- Initially eligible [All Events]
- Consent Offered [All Events]
- Consent Obtained [All Events]
- Final Eligibility Checklist [All Events]
- Eligible (Final) [All Events]
- Enrollment [All Events]

...when the logic below is TRUE.

[v0_arm_1][initial_elig] = "1"

e.g., [enrollment_arm_1][age] > 30 [How to use this](#)

Highlighted forms will only be shown if the display logic is true

Form Rendering Logic

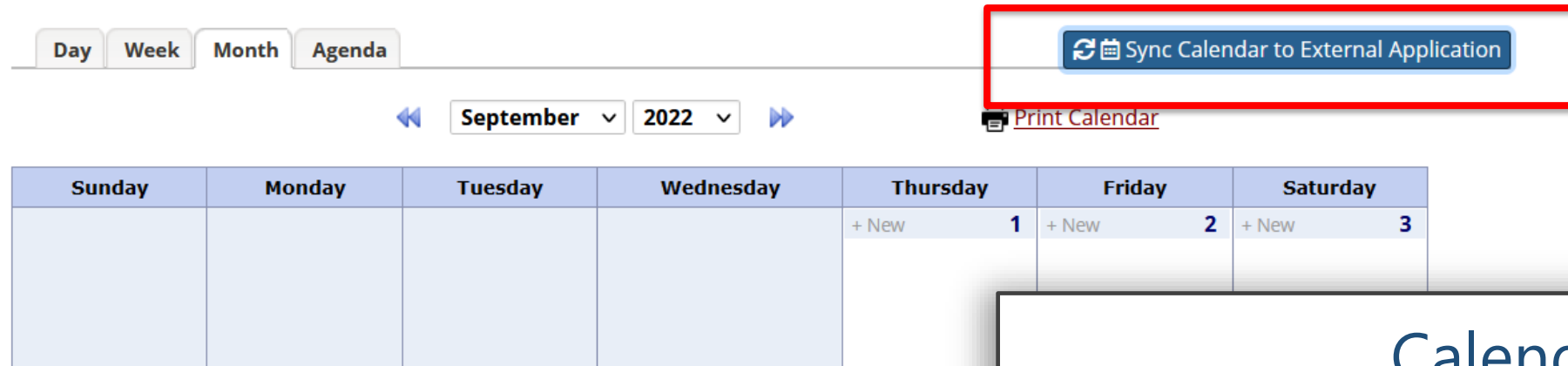
REDCAP VERSION 12 SELECTED HIGHLIGHTS

- If your project uses scheduling, you can use the new Calendar Sync feature to sync your REDCap project calendar to an external calendar application.

Calendar

 [VIDEO: How to use the calendar \(7 min\)](#)

The Calendar application can be used as a project calendar within this project to help organize your schedule and keep track of any upcoming events. It will allow you to add or modify calendar events and then view them either in a daily, weekly, or monthly format below. To add a new note or calendar event to any day, click **+New** at the top of that day's box to begin entering the information. Since you have already defined multiple events for this project, you may additionally [generate a schedule](#) using your pre-defined Events, which will then be added to the calendar.

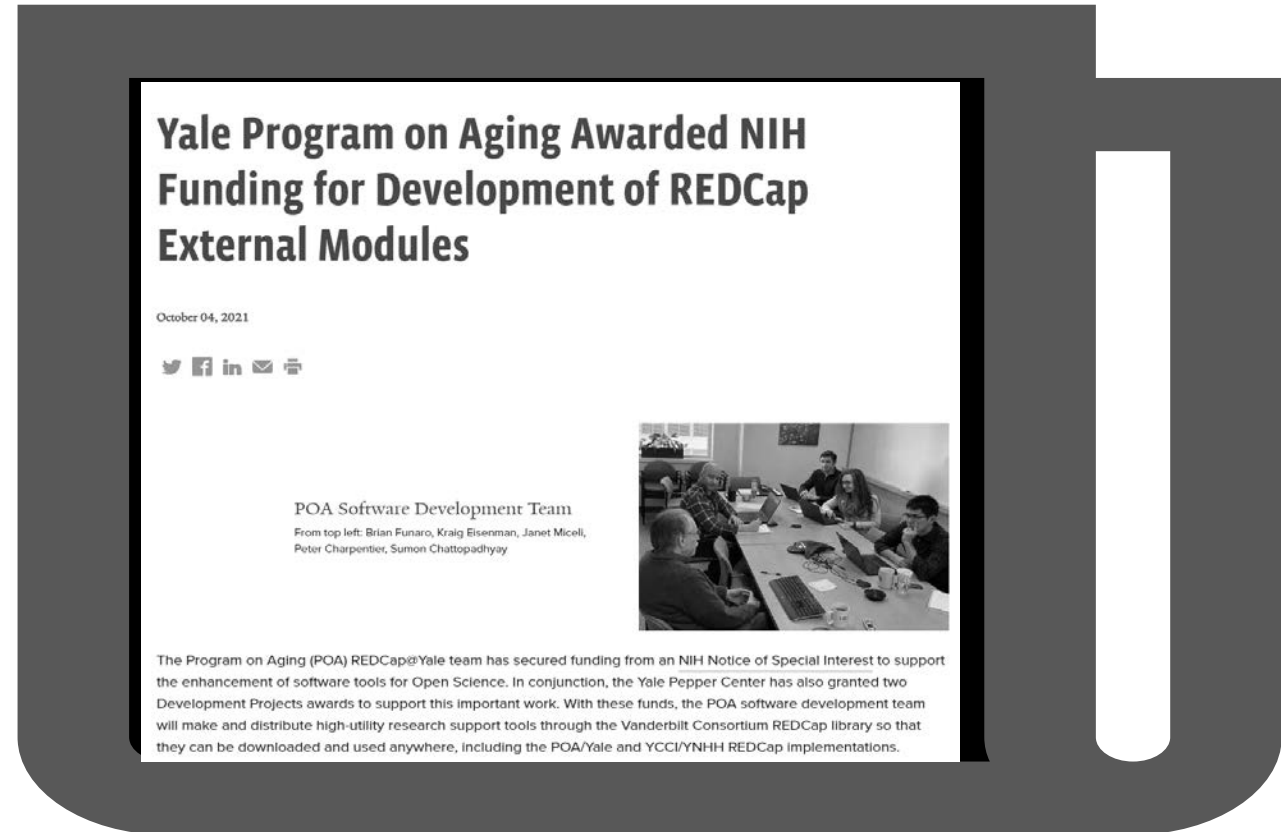


The screenshot shows the REDCap Calendar interface. At the top, there are tabs for 'Day', 'Week', 'Month', and 'Agenda'. Below these is a navigation bar with left and right arrows, a dropdown for 'September', and another dropdown for '2022'. A blue button with a refresh icon and the text 'Sync Calendar to External Application' is highlighted with a red box. Below the navigation bar is a calendar grid with columns for 'Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', and 'Saturday'. The 'Thursday', 'Friday', and 'Saturday' columns have a '+ New' link and a number (1, 2, and 3 respectively). A 'Print Calendar' link is visible below the navigation bar.

Calendar Sync

YALE STUDY SUPPORT SUITE (YES3)

1. YES3 Exporter
2. YES3 Dashboard
3. YES3 Site Portal



For additional information about YES3: <https://portal.redcap.yale.edu/resources/yes3/>

YALE STUDY SUPPORT SUITE (YES3)

GEARSSv2 YES3 Dashboard palooka Testing Site

all records n = 15 add a record

record		mrn	last	first	ED D/C	Screen	BSL	4Day	30Day	90Day	Discontinued
TS-000018	open	hidden	hidden	hidden	04/07/2022	1	Complete	Complete	Complete	T:07/06/2022	form
TS-000026	attn:dcc	form	form	form	form	form	form	Refused	Complete	Complete	form
TS-000034	closed	hidden	hidden	hidden	04/08/2022	1	Complete	Complete	T:05/08/2022	T:07/07/2022	form
TS-000042	open	hidden	form	form	form	1					form
TS-000059	closed	hidden	form	form	form	1	Complete	Withdrew			Full withdrawal
TS-000067	attn:dcc	hidden	form	form	04/08/2022	1	T:04/08/2022	T:04/12/2022	T:05/08/2022	T:07/07/2022	form
TS-000075	open	hidden	form	form	form	form		Complete			form
TS-000083	open	form	form	form	form	form		Refused			form
TS-000091	open	hidden	hidden	hidden	04/09/2022	1	Complete	T:04/13/2022	T:05/09/2022	T:07/08/2022	form
TS-000109	open	hidden	hidden	hidden	04/09/2022	1	Complete	T:04/13/2022	T:05/09/2022	T:07/08/2022	form
TS-000117	open	hidden	hidden	hidden	04/11/2022	1	T:04/11/2022	T:04/15/2022	T:05/11/2022	T:07/10/2022	form
TS-000125	open	hidden	form	form	04/20/2022	1	T:04/20/2022	T:04/24/2022	T:05/20/2022	T:07/19/2022	form
TS-000133	open	form	form	form	form	1		Unable to com...	Unable to com...		form
TS-000141	open	form	form	form	form	form	S:2022-04-12 1...	Unable to com...	Unable to com...	Unable to compl...	form
TS-000158	open	form	form	form	form	form					form

YES3 MESSAGE LOG TS-000067

2022-08-21 13:03:40 [dcc] popeye:
Popeye here from DCC. Please close out the baseline form.

2022-08-21 13:05:46 [staff] palooka:
I was unable to reach this patient. How should I close out the baseline?

2022-08-21 13:08:22 [dcc] popeye:
Open the link on the BSL column, which will open the BSL call log form for this patient. Enter the outcome "unable to reach." Be sure to mark the REDCap BSL form as "complete."

ATTENTION: dcc staff n/a (thread closed)

Thanks buddy.

SAVE AND CLOSE

YES3 INSPECTOR TS-000067

Recruit	Screen
Screening date	04/08/2022
Screen Eligible	1
Recruit	Consent Form
Person providing consent	Self (participant)
Date of consent	04/08/2022
Recruit	Post-Screen
ED discharge date	04/08/2022
ED Disposition	Discharged
Baseline	Baseline Interview Call Log #1
Interview contact attempt date and time	04/08/2022 16:15
Outcome of call	Unable to reach
Baseline	Fall
FALL DOMAIN STATUS:	Yes
1. Did you (he/she) come to the ED today because of a fall? A fall is defined as an unexpected event in which a person comes to the ground, floor, or lower level.	

Customized study dashboards
At a glance: study status and workflow

YALE STUDY SUPPORT SUITE (YES3)

It is available through the Vanderbilt REDCap Repository (at no cost).



Repository of External Modules

The REDCap Repo is a centralized repository of curated External Modules that can be downloaded and installed in REDCap by a REDCap administrator. External Modules are add-on packages of software that can extend REDCap's current functionality, as well as provide customizations and enhancements for REDCap's existing behavior and appearance, either at the system level or project level. The modules provided here were created and submitted by software developers at various REDCap institutions around the world.

If you have created a module and wish to submit it to be listed in the REDCap Repo, please complete the [Module Submission Survey](#). Updated versions must also be submitted via the survey. To learn more about the REDCap Repo module review process, you may download the [Module Review Guidelines \(PDF\)](#).

You may search below for available modules. If you got to this site directly, you will be able to view information about each module, but you will not be able to download modules from this page unless you arrived here from the REDCap application and are a REDCap administrator. If you have questions or are experiencing issues, please contact redcap@vumc.org.

Disclaimer: The modules listed in the REDCap Repo have gone through a process of testing, validation, and curation by the Vanderbilt REDCap Team with help from trusted individuals in the REDCap Consortium. It should not be assumed that all modules are bug-free or perfect, so please be aware that the entire risk as to the quality and performance of the module as it is used in your REDCap installation is borne by the REDCap administrators who download and install the modules.

Show 10 entries

Search

Module title and description

First Submitted

Most Recent Update

Downloads
(installs only - Excludes updates)

YES3 Exporter (*yes3_exporter_v1.0.2*)

[View on GitHub](#) [View Stats](#)

Description: Specialized data export module for datamart integrations and data sharing

Author: [Peter Charpentier](#) (0)

2022-08-24

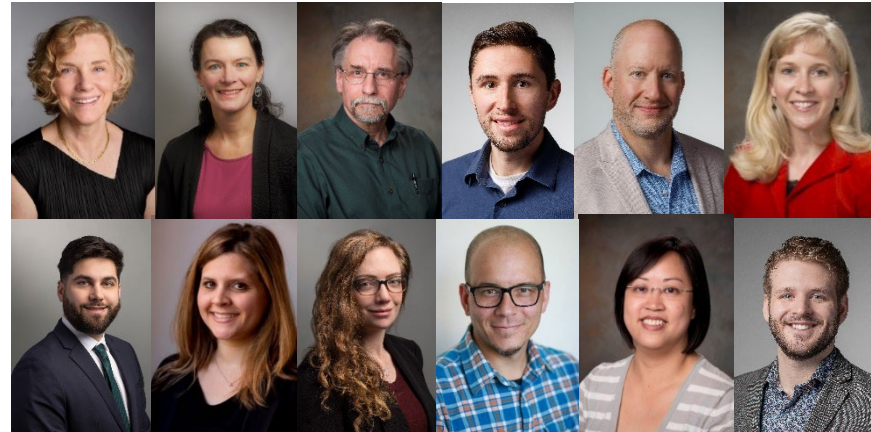
2022-08-24

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You must be a REDCap administrator logged in to REDCap to download modules.

Email your local REDCap Administrator to download
and enable the module in your project.

THANK YOU



Top Row

Denise Acampora
Katy Araujo
Peter Charpentier
Kraig Eisenman
Brian Funaro
Mary Geda

Bottom Row

Tyler Hamilton
Dana Limone
Janet Miceli
Jesse Reynolds
Sui Tsang
Maxwell Wibert

The YES3 funded by:

***Yale Claude D. Pepper Older Americans Independence Center (OAIC) grant
Development Project Award for the Operations Core, 3P30AG021342.***