REDCap: Overview and Highlights

December 6, 2022

Co-Leader, Yale Program on Aging (POA),

Yale Pepper OAIC Operations Core

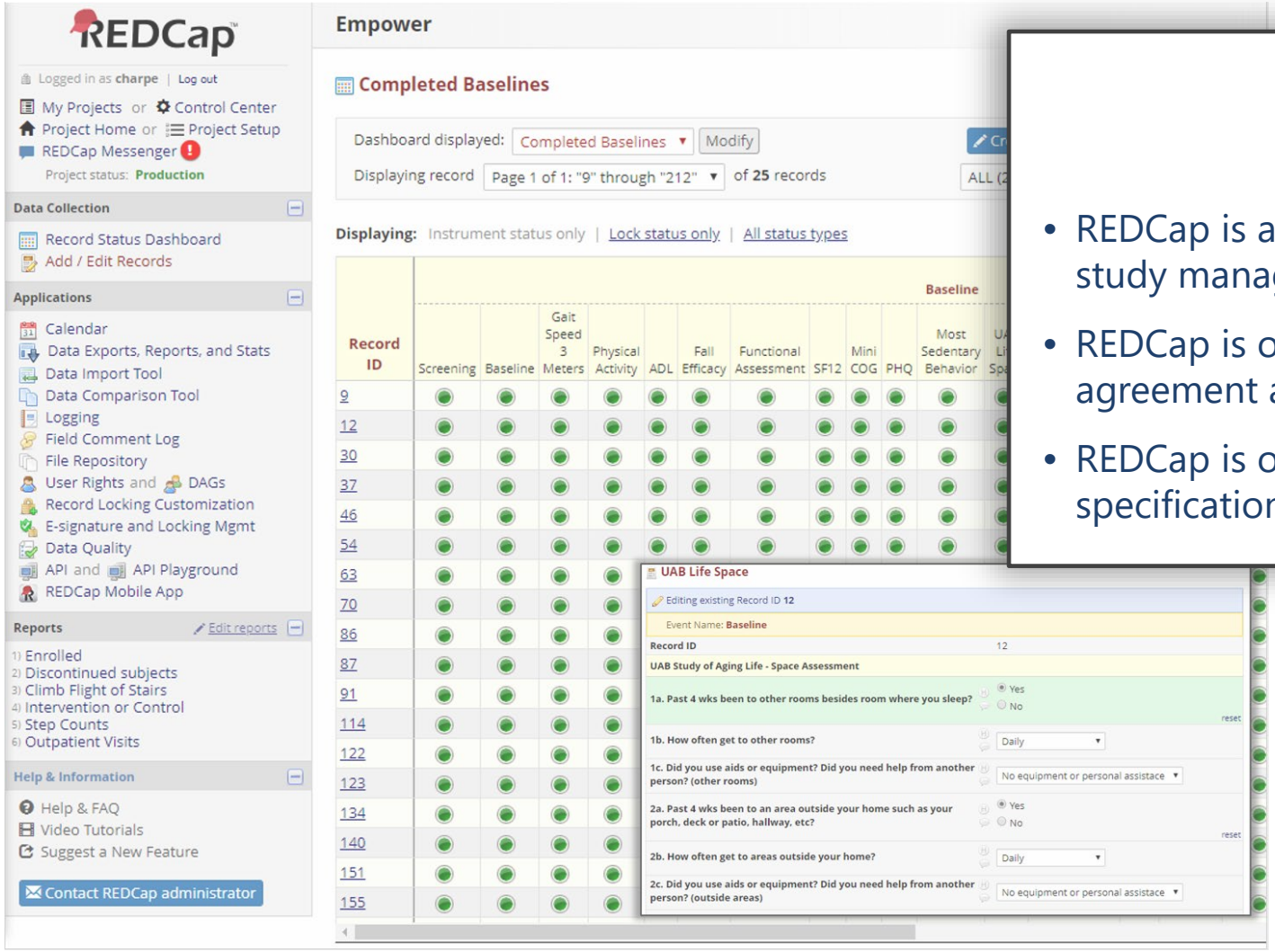
Katy Araujo, MPH

Data Management and Informatics Core

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



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

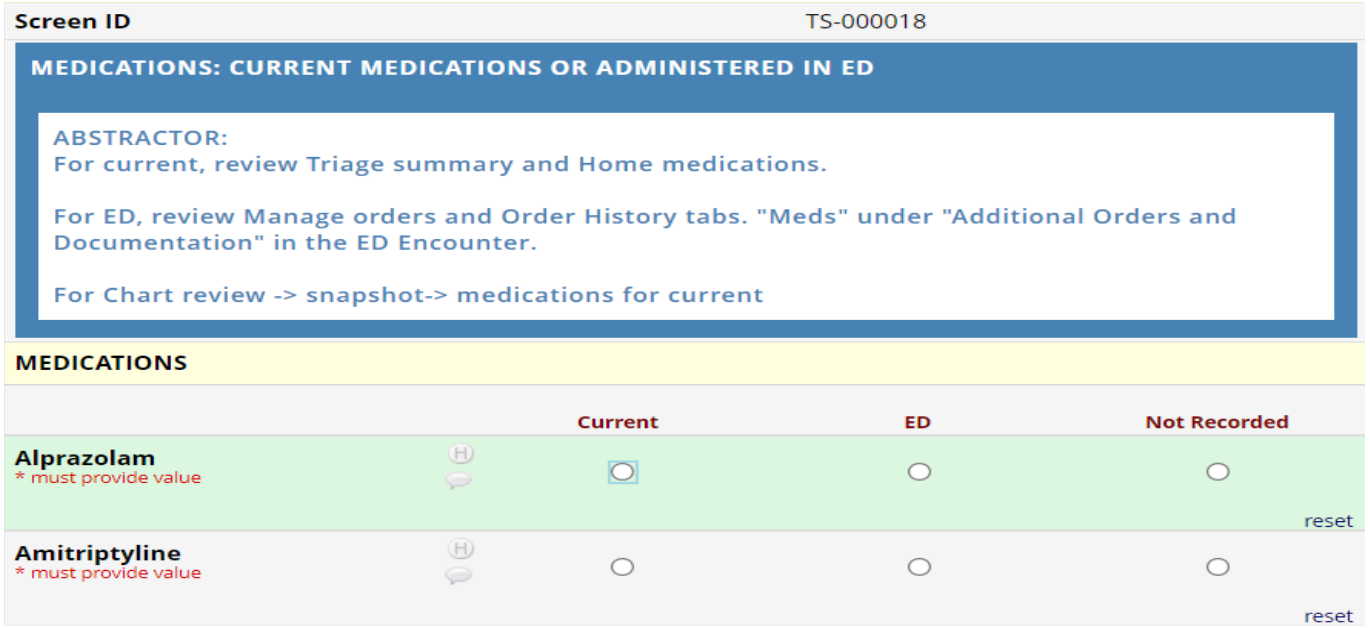
The REDCap Consortium is impactful

- 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.

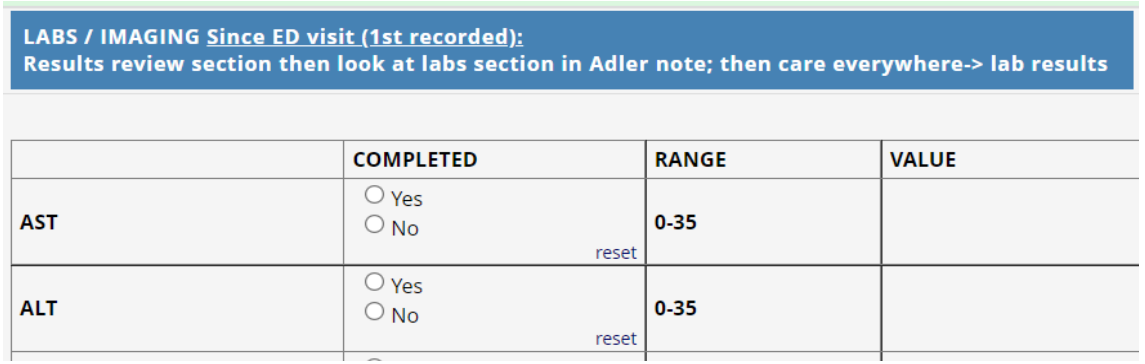
For Chart review -> snapshot-> medications for current

MEDICATIONS

	Current	ED	Not Recorded
Alprazolam * must provide value	○	○	○ reset
Amitriptyline * must provide value	○	○	○ reset

Chart Review

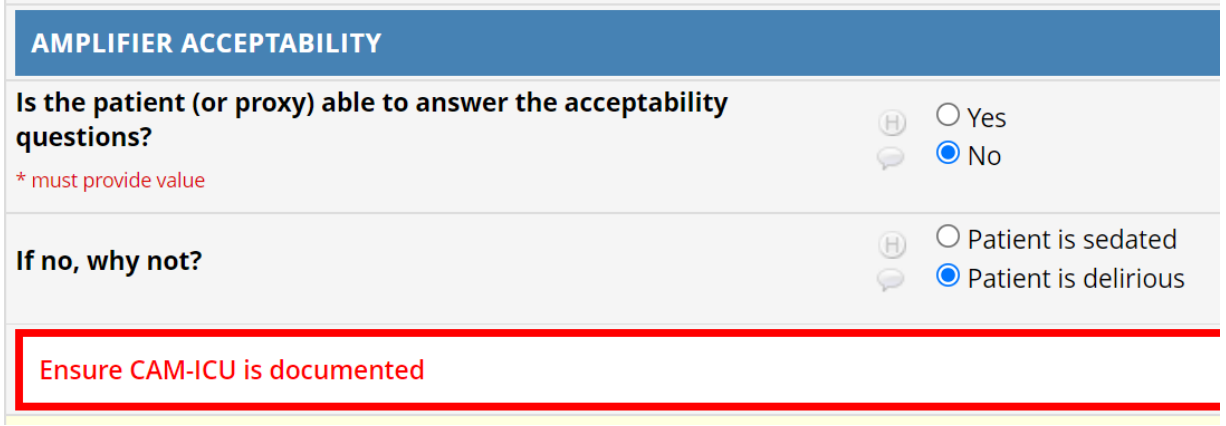
- Detailed instructions
- Ordering of items
- Ordering of sections



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

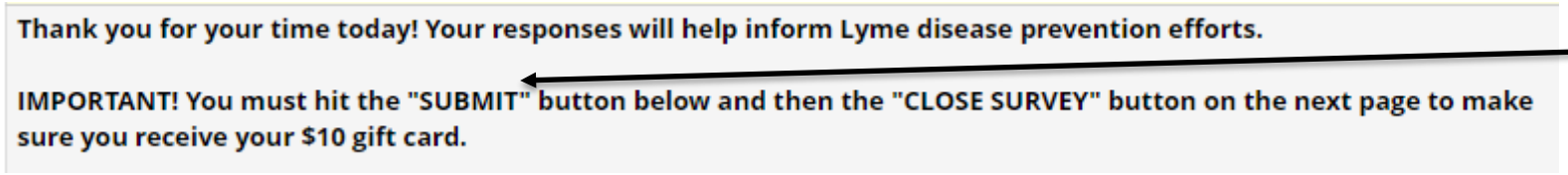
	COMPLETED	RANGE	VALUE
AST	○ Yes ○ No reset	**0-35**	
ALT	○ Yes ○ No reset	**0-35**	

DESIGN PRINCIPLES



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

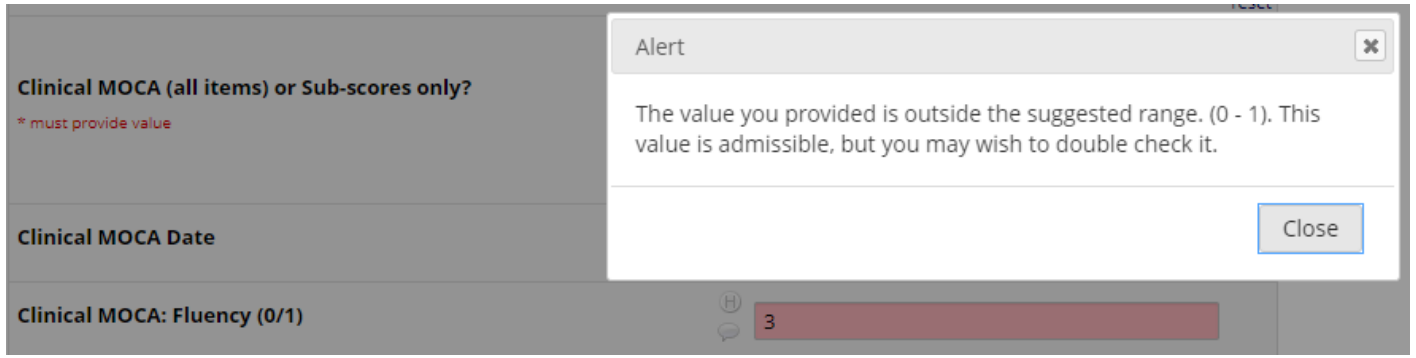
Example: Survey Instructions



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

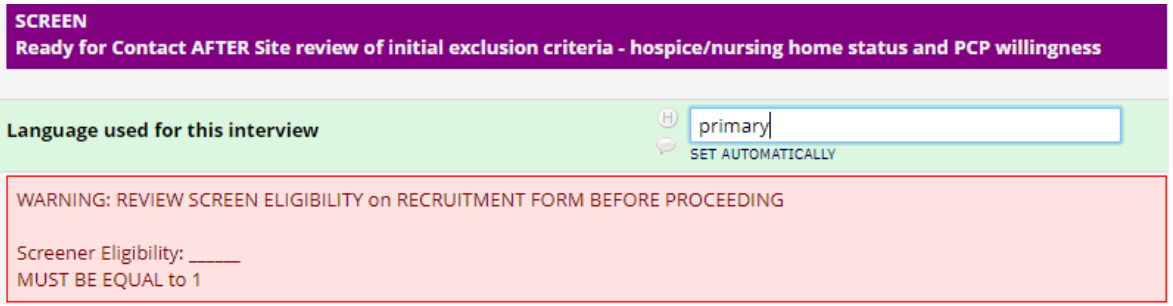
DESIGN PRINCIPLES

Example: Real-time data quality control



Controls to prevent errors

Example: Warnings



Custom warnings for data inconsistencies.

REDCAP VERSION 12
SELECTED HIGHLIGHTS

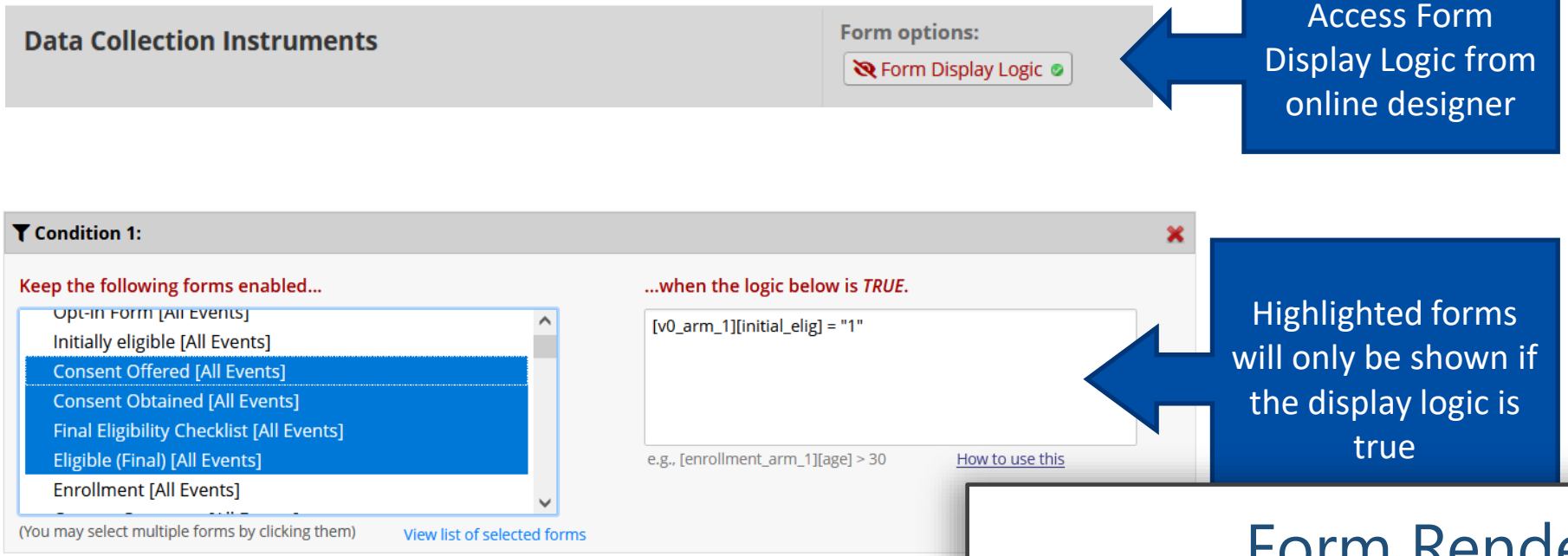
- **today** and **now** can now be used as the min or max values for validation so that the current date or time is always used for validation. These can be used to prevent a date/time field from having a value in the past or in the future.
- Additionally, you can now pipe a value from another field 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.

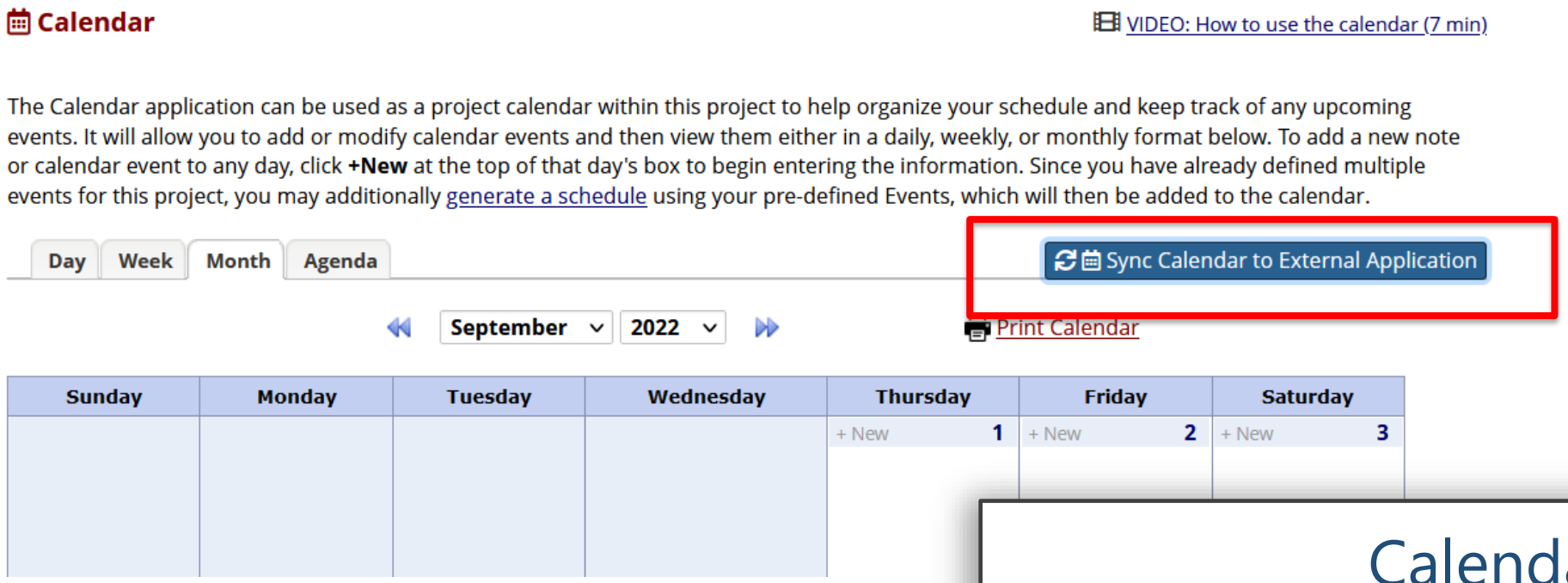
Example:



Form Rendering Logic

REDCAP VERSION 12
SELECTED HIGHLIGHTS

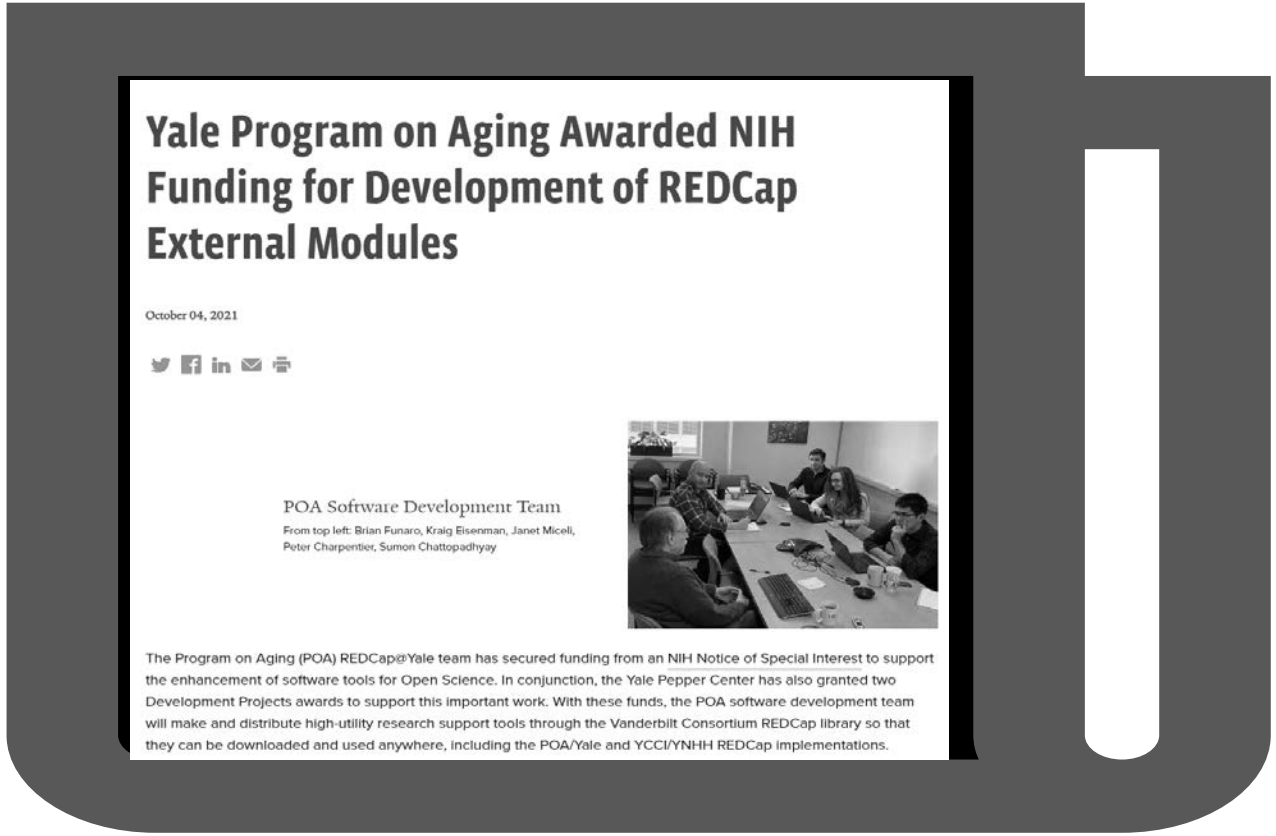
- If your project uses scheduling, you can use the new Calendar Sync feature to sync your REDCap project calendar to an external calendar application.



Calendar Sync

YALE STUDY SUPPORT SUITE (YES3)

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



Yale Program on Aging Awarded NIH Funding for Development of REDCap External Modules

October 04, 2021

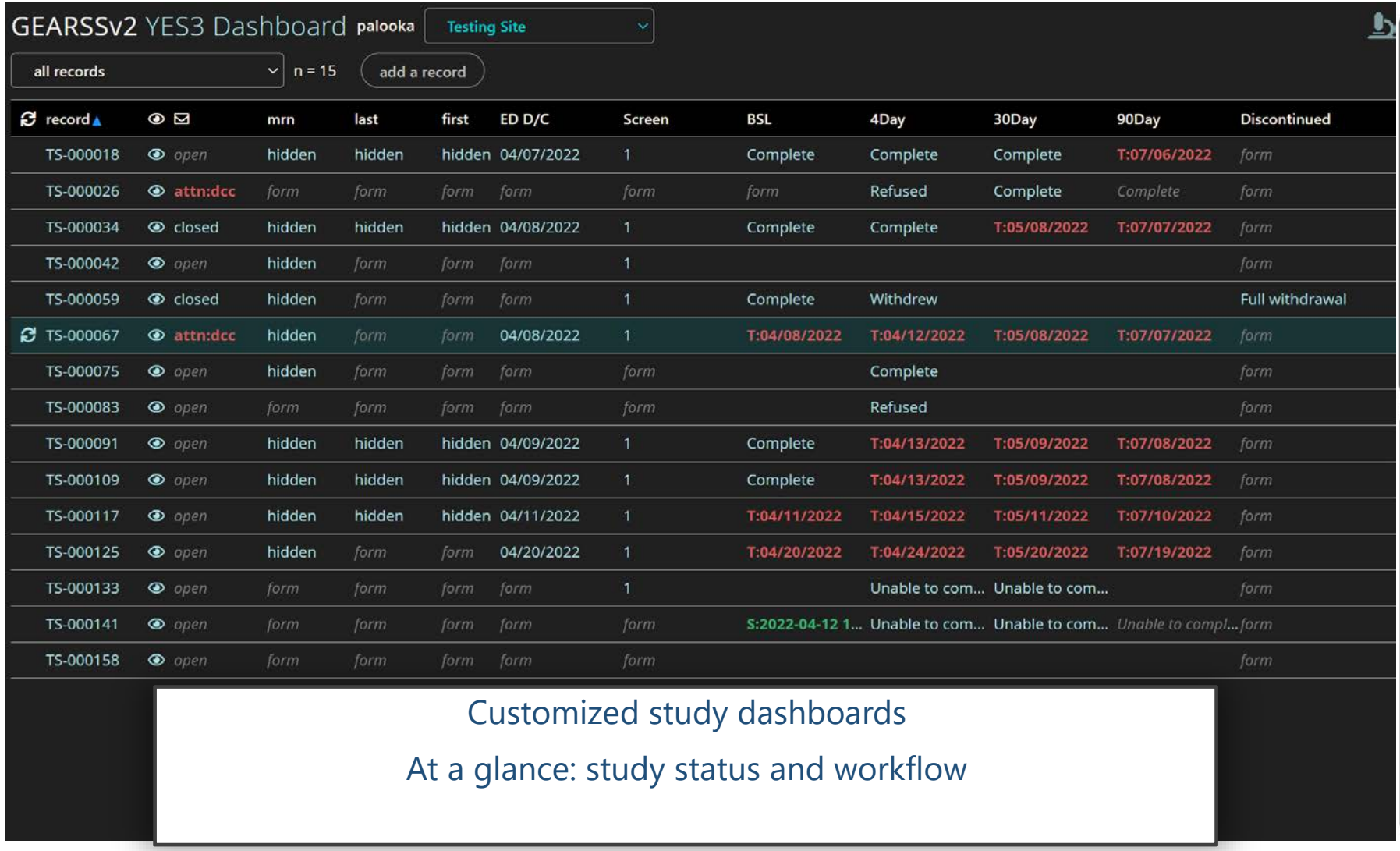
POA Software Development Team

From top left: Brian Funaro, Kraig Eisenman, Janet Miceli, Peter Charpentier, Sumon Chattopadhyay

The Program on Aging (POA) REDCap@Yale team has secured funding from an NIH Notice of Special Interest to support the enhancement of software tools for Open Science. In conjunction, the Yale Pepper Center has also granted two Development Projects awards to support this important work. With these funds, the POA software development team will make and distribute high-utility research support tools through the Vanderbilt Consortium REDCap library so that they can be downloaded and used anywhere, including the POA/Yale and YCCI/YNHH REDCap implementations.

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

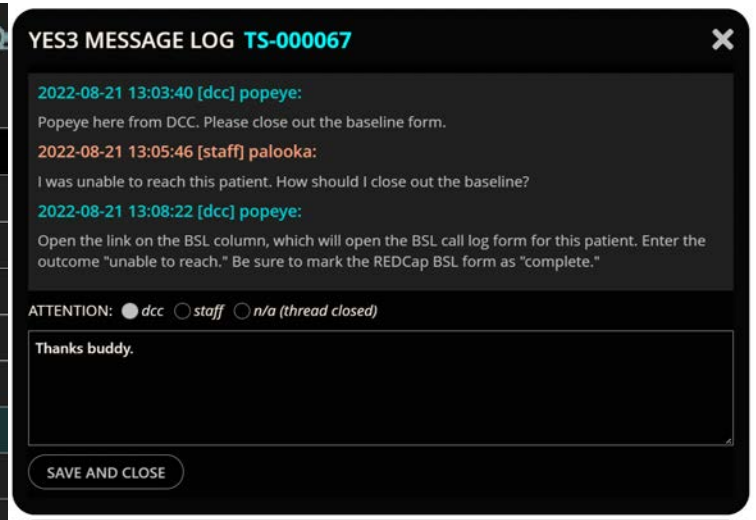
YALE STUDY SUPPORT SUITE (YES3)



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

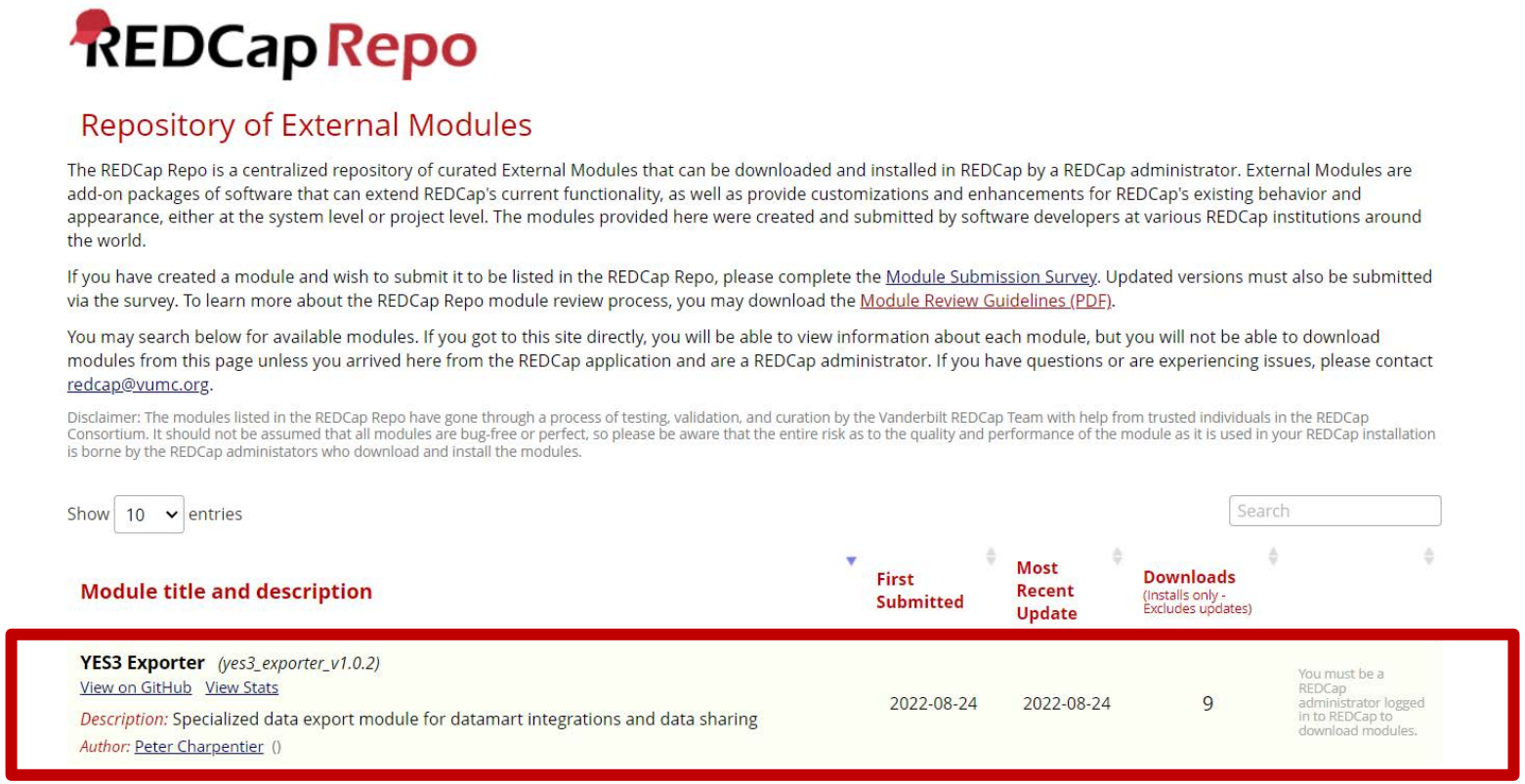
Customized study dashboards

At a glance: study status and workflow



YALE STUDY SUPPORT SUITE (YES3)

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



REDCap Repo

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 administators who download and install the modules.

Show 10 entries

Search

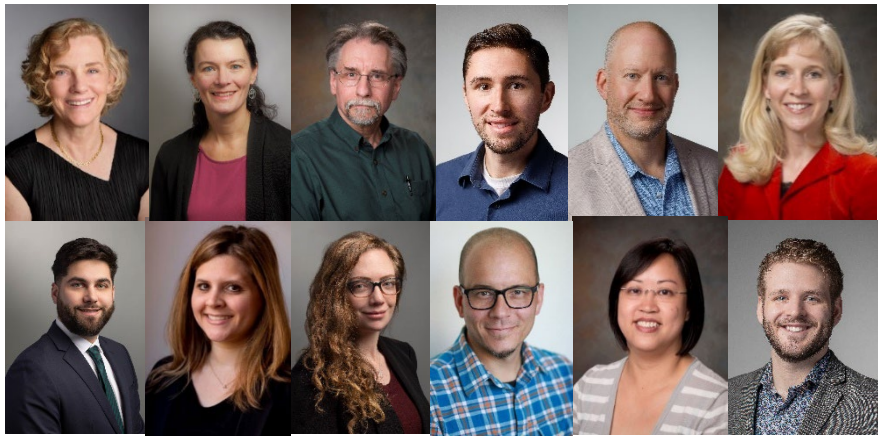
Module title and description	First Submitted	Most Recent Update	Downloads (Installs only - Excludes updates)	
YES3 Exporter *(yes3_exporter_v1.0.2)* View on GitHub View Stats *Description:* Specialized data export module for datamart integrations and data sharing *Author:* Peter Charpentier ()	2022-08-24	2022-08-24	9	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

REDCap @ Yale
Research Electronic Data Capture

https://portal.redcap.yale.edu/resources/yes3



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.