Guidance on Developing REDCap E-Consent: Non-Exempt Research Requiring a Signature

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Background

This guidance will take you step-by-step on how to build your e-consent in REDCap from the IRBapproved stamped consent form. It is recommended that you utilize the e-consent project template, a pre-built REDCap project, that goes along with the guidance since it includes more or less all of the components addressed in this guidance (see "Getting Started").

We also recommend that you review the <u>main guidance on e-consent/remote consent</u> and be familiar with FDA requirements, which are described in the main guidance if your study is a drug or device study.

This guidance is specifically intended for research that WILL require signatures on the consent form. Under Massachusetts law, a person typing in their name on an electronic document constitutes a legally effective signature. REDCap will also allow an individual to sign their name using a stylus, a finger, or a mouse. If your study is non-exempt but IRB has approved a waiver of documentation of consent, please go to the CRRO website to access the <u>Guidance on Developing REDCap E-Consent</u>: <u>Minimal risk or Exempt Research Not Requiring a Signature and Exempt Research that Includes HIPAA</u> <u>authorization</u>.

(Note that at this time this guidance is NOT applicable to consent for FDA-regulated research, as electronic systems used to create and maintain research records for FDA-regulated research must undergo validation procedures to be fully <u>Part 11 compliant</u>. Although REDCap has the components to be Part 11 compliant, this validation has not been completed.)

Please note that though this guidance that has been created with best study practices in mind, you may need or want to change certain features or functionalities to match your own unique study needs and workflow. If you have any questions regarding how to make certain changes, please contact <u>rchelp@bu.edu</u>.

If you do not have a REDCap account, complete the REDCap User Agreement survey: https://redcap.bumc.bu.edu/surveys/?s=RYKEW4N4RX

If you have comments or questions about the "Building a REDCap e-consent Guidance," please contact Mary-Tara Roth at the CRRO (<u>mtroth@bu.edu</u>).

Brief Overview

If you are completely new to REDCap, we recommend that you look through the resources section, which has video tutorials on various topics: <u>https://redcap.bumc.bu.edu/index.php?action=training</u>

Below is a list of key terms to know before reading the guidance: **Instrument** – A data collection tool that can be left as a form or enabled as a survey. **(Data Entry) Form** – An instrument in which data can only be entered or collected by a REDCap user. (viewing method)

Survey – An instrument in which a research participant can enter data or answer questions without a REDCap account. Instrument is accessed through a URL. (viewing method)

Record – A record contains all the information for a unique participant. One record may contain many instruments.

Record ID – A unique identifier for each record in a project.

Survey Login – A way to increase security on private surveys by requiring participants to enter 1 to 3 specified login credentials in order to begin a survey. The credentials must already exist in the system for the survey login feature to be utilized, either by pulling them from a survey that has already been completed or by entering them on a form.

Online Designer – A way to build and edit instruments through a point-and-click interface.

Data Dictionary – CSV file that holds the architecture of a REDCap project. An alternative to the Online Designer for building or editing projects. Mainly used to save the project for future reference or project duplication.

Piping – Allows answers from previous questions to auto-populate or "pipe" into another place in a survey/form.

Action Tags – A method of customizing data entry for individual fields in a survey or form.

e-Consent Framework – survey setting option that allows for standardized method of obtaining consent and storing consent documentation with a certification and storage function which automatically generates a 'hard-copy' PDF of the signed form.

Project Template – pre-built REDCap project.

External Module - 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. Modules will need to be installed and enabled by a BUMC REDCap administrator. To request an External Module in REDCap, please complete this form: <u>https://redcap.bumc.bu.edu/surveys/?s=F8W4LLXJRP</u>

Getting Started

1. Save your IRB-approved and stamped PDF consent form as a .jpeg or .png file.

- 1.1 Note: this approved consent form *will* contain signature lines applicable to this study.
- 2. Sign on to REDCap and go to "My Projects." <u>https://redcap.bumc.bu.edu/</u>
- 3. To start a new project, you should click "New Project" at the top menu. If you already have a project set up in REDCap, proceed to section D. Creating a Standard e-Consent. **But we strongly**

recommend that you utilize the e-consent project template that goes along with this guide (see step 5 below)

- 4. Complete Project title, Purpose (research), PI info, Project notes, etc.
- 5. At the end of the page, choose "e-Consent for Non-Exempt Research" under "Choose a project template" and press the blue "Create Project" button.
 - 5.1.1 This template provides you with a default layout to help you get started. Please note that the default template provides you with examples for both in-person e-consent and contactless e-consent. Also, the automatic survey feature has been enabled in this template. If you are not going to utilize this feature, disable it.
 - 5.1.2 Edit the fields and survey settings accordingly for your study.

REDCap	Home	🗐 My Projects	+ New Project	Help & FAQ	IEI Training Videos	🖬 Send-It	Messenger	Control Cent
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	begin the creation of a the bottom.	new REDC	ap project on your own by completing the form below and clicking the Create Project	
Project t	itle:	Title to be	displayed on project webpage	
Purpose	of this project: be used?	Practice	/ Just for fun 🔻	
Assign p Folder?	roject to a Project			
Comments	notes (optional): describing the project's use that are displayed on the page.			
Start pro	ject from scratch with a template?	🔍 Uploa	: an empty project (blank slate) d a REDCap project XML file (CDISC ODM format) ?? template (choose one below)	
# Cho	ose a project template	(comes pri	e-filled with fields, forms/surveys, and other settings) 🔺 Add templates (Administrators only)	
	Template title (sorte	d by title)	Template description	
	Basic Demography		Contains a single data collection instrument to capture basic demographic information.	
	Classic Database		Contains six data entry forms, including forms for demography and baseline data, three monthly data forms, and concludes with a completion data form.	
	Longitudinal Database	(2 arms)	Contains nine data entry forms (beginning with a demography form) for collecting data on two different arms (Drug A and Drug B) with each arm containing eight different events.	
	Multiple Surveys (long	tudinal)	Contains three surveys and a data entry form. Includes a pre-screening survey followed by two follow-up surveys, one of which is a questionnaire takenly weekly to capture participant information longitudinally over a period of c. how more	

Creating a Standard e-Consent

The section will incorporate signatures from both the participants and the study staff; this will go over in-person vs. contactless (remote) e-consent, include saving a PDF with both signatures in contactless e-consent setting.

I. Project Settings

- 1. At the "My Projects" page, select the appropriate project that you are creating an e-consent for. This will bring you to the "Project Setup" tab.
- 2. Under "Main Project Settings" within Project Setup tab, select the "Enable" button for the question "Use surveys in this project?"



- 3. Select "Online Designer" button under "Design your data collection instruments & enable your surveys."
- 4. Rename "My First Instrument" by selecting "Choose action" drop down button to "Rename." Name the instrument (your consent document) and then click the "Save" button.

4	🕯 Project Home	i E Project Setup	🕼 Online Designer	Data Dict	ionary	E Co	debook	
			project modifications to status, all field changes	fields and data	snapshot	never 🤉	uments very easi	ow to use this pag
Data Collection Add new instrument: Instruments Create a new instrument from scratch Import a new instrument from the official Upload instrument ZIP file from another 						2		
	Instrument name	e			Fields	View PDF	Instrument action	าร
	Consent Form		Save		15	ß	Choose action 🗢	
							P Rename	
							🗋 Сору	
							X Delete	
							Download inst	rument ZIP

II. Creating the e-Consent instrument

- 1. Now to build your consent form, click on your newly named instrument.
- 2. Click "Add field" button.

S Return to list of instruments		
Current instrument: Consent form	1	Preview instrument
🖉 Variable: record_id		
Record ID		
	ind thus cannot be deleted or moved. It can only be edited.	
	Add Field	

3. Under the Field Type drop down, choose "Descriptive Text." You can keep the "Field Label" blank. It is not necessary to complete this field to upload the file.

- 4. Click on "Upload document." Choose first page of your jpeg format consent form and upload the file. Then click on "In-line image." Give the page a variable name (such as page_1). Click save.
- 5. At bottom of first consent form page (the jpeg image), click the "Add field" button.

Add New Field	* Add New Field	3
ou may add a new project field to this data collection instrument by completing the fields below and clicking the ave button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of se different field types available you may view the the field Types video (4 min).	Save button at the bottom. When y	
Variable Name (utilized in logic, calcs, and exports) Variable Name (utilized in logic, calcs, and exports) ONLY letters, numbers, and underscores How to use ()Smart Variables Optional file attachment, image, audio, or video:		Variable Name (utilized in logic, coits, and exports) UNLY letters, numbers, and underscores or anable stated of animole of of
Action Tags / Field Annotation (optional)	Action Tags / Field Annotation ((optional) Embed an external video (provide video URL) ?
Learn about Action Togs or using Field Annotation e.g. https://youtube.com/watch?w=El-CLWMupz0, https://winneie.com/62730281; https://winneie.com/watch?w=El-CLWMupz0, https://youtube.com/watch?w=El-CLWMupz0, https://youtube.com/watch?w=El-CL	Learn about @Action Tags or using !	Reid Annotation e.g. https://youtube.com/watch/ve_IfsCuVMMupz0, https://www.com/s2732021, http://example.com/movie.mp4 Display format of video: Inline @ Inside popup
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(Images wider than 600 pixels will be downsized to fit page.)		Consigns more over over our provision over the downsteed to itt page.)

6. Follow the instructions in above to add all the consent form pages.



III. Adding fields in e-Consent instrument

You can add text box fields for the participant to type in their first and last name. Under MA Law, typing your name is considered a legal e-signature or you can add a signature field, allowing the participant to provide an e-signature using a stylus, finger, or mouse. Follow the steps below to add the necessary fields for the e-Consent instrument

- 1. On the "Online Designer" tab, click on your consent form under the heading "Instrument name."
- 2. Scroll down to the last page of your electronic consent form.
- 3. Click the "Add Field" blue button at the bottom of the page.
- 4. Select "Text Box..." from the dropdown menu.
- 5. Under the Field Label type "First name." Under "Variable Name" type "firstname".
- 6. Complete the "Required?" and "Identifier?" fields as 'Yes'. Click "Save."

	ves. You will find more information a	bout alternatives later in this form.					
[Include if the delete paraj means your	Edit Field	len ha tha suklant ^y n kantkanne menildar atkanulan	×				
being in the study could even thougi <u>Purpose</u>	You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the IBI Field Types video (4 min).						
A <u>brief</u> expla discover or	Field Type: Text Box (Sho	rt Text, Number, Date/Time,) 🗘					
What Will F	Field Label	Use the Rich Text Editor 🤉	Variable Name (utilized in logic, clics, and exports)				
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/ 🕒 🐨 🕂 🗙 Vai			How to use [+] Smart Variables Plping Validation? (optional) - Or -				
First Name			select ontology service 🗘				
* must provide value	Action Tags / Field Anno	tation (optional)	Required?* ONO Yes * Prompt if field is blank				
🥒 🗈 🐨 🕂 🗶 Va.	Learn about @ Action Tags	or <u>using Field Annotation</u>	Identifier? ONO Yes Does the field contain identifying information (e.g., name, SSN, address)?				
Last Name * must provide value			Custom Alignment Right / Vertical (RV) Align the position of the field on the page				
			Field Note (optional)				
🥒 🛅 🐨 付 🗶 Va			Small reminder text displayed underneath field				
Signature * must provide value			Save Cancel				
	Add Field						
Image: Ward of the second s	<i>iable:</i> date	Today M-D-Y					
	Add Field	Add Matrix of Fields					

- 7. Continue and add Last name field following steps above.
- 8. Adding the Stylus Signature field is optional but is recommended as it offers an experience similar to providing a physical signature. In Field type, choose "Signature..." from the dropdown menu and proceed accordingly.
 - 8.1 If you are adding the signature field, complete the "Field Label" as follows: "Signature (if possible sign with finger, stylus or mouse)." Choose "No" for the "Required" box and choose "Yes" for the "Identifier" box.

(A. Include if there is a potential direct benefit to subjects, otherwise, derite paragraph) The benefit and the second secon	Budy may help the	×
costs that are part of your normal medical care. These costs include costs mode costs are approximated and the event of the study or about the research activities paid for by can also ask the investigator later, using the number on the first page of this form.	calt Field	
Payment [A: include if subjects will be given any payment or incentive, otherwise, delete paragraph] You v description of amount, method, and timing, including how payment will be provided the subject v	You may add a new project field to this data collection instrument by completing bottom. When you add a new field, it will be added to the form on this page. For you may view the IB <u>Field Types</u> video(4 min). Field Type: Signature (draw signature with mouse or fir v	
	Field Label Use the Rich Text Editor 7	
Add Field Add Marcin of Fields	Signature	Variable Name (utilized in logic, calcx, and exports) signature_3 Implementation ONLV letters, numbers, and underscores Implementation How to use [] Smalt Variables Implementation Required?* N O Yes * monget if field ta blank Identifiers? Identifiers? Identifiers? N O Yes Does the field carbain identifying information (e.g., name, SSN, address)? Does the field carbain identifying information (e.g., name, SSN, address)?
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Image: Contract of the second secon		Save Cancel
Signature	≁ <u>Add signature</u>	
Add Field Add Matrix of Fields		
🥒 🖿 🐨 🚼 Vorioble: date_3		
Date 🛅	Today M-D-Y	

- 9. Now to add a date field, choose "Add field" blue button. Under "Field Type", choose "Text Box." Complete "Field Label" and "Variable Name." Under "Validation?" choose a date option from the dropdown menu. We recommend that you use the "Datetime w/ seconds" option (e.g "Datetime w/ seconds (M-D-Y H:M:S)).
 - 9.1 In addition, under "Action Tags/Field Annotation," add the following Action Tags: @NOW and @READONLY. This causes the date field to be automatically generated and un-editable, reducing the potential for error



How it appears on the survey (it will be greyed out):

Date		04-30-2020 17:35:58	M-D-Y H:M:S
* must provide value			

- 9.2 Complete additional fields as necessary.
- 10. You may also elect to set up a file download field, to allow the participant to download a hardcopy of the blank consent form.

Sample Consent 2	Edit Field		>
A Project Home 🔁 Project Setup 🗹 Online De	You may add a new project field to this data collection instrument by completing bottom. When you add a new field, it will be added to the form on this page. For you may view the ☐ Field Types (ideo (4 min). Field Type: Descriptive Text (with optional Image/Video)		
This page allows you to build and customize your data colle	Field Label Use the Rich Text Editor ?	Variable Name (utilized in logic, calcs, and exports)	
existing ones. New fields may be added by clicking the Add Edit icon. If you decide that you do not want to keep a field fields, simply drag and drop a field to a different position v changes will take effect immediately in real time. Are you u	Consent Form Link	Cf_link CNUE (utilized in logic, calcs, and exports) CL (calcs, and exports) C	of its
Return to list of instruments Survey settings		How to use () Smart Variables Piping Optional file attachment, image, audio, or video:	
Current instrument: Sample Consent Template 3		Embed an external video (provide video URL) ?	
Add Field A	Action Tags / Field Annotation (optional)	e.g. https://youtube.com/watch7v=E1cCuWMup20, https://vimeo.com/62730281, http://example.com/movie.mp4	
Consent Form Link	Learn about @ Action Tags or using Field Annotation	Display format of video: 💿 Inline 💿 Inside popup	,
Attachment: 📆 Adult-Consent-Form-Template.pdf (0.28 MB)		- or -	
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🖉 🛅 🐨 🚰 🗶 Variable: cf_inline			
Consent Form Inline Image		Display format of attachment on page: • Link	
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RESEARCH CONSENT FORM		(Images wider than 600 pixels will be downsized to fit page.)	
Title of Project: IRB Number: Contact Info:		Save Cance	el

11. To break up the sections, add a heading prior to the participant's signature section. Click the "Add field" button and under "Field Type" choose "Begin New Section (with optional text)"

Add New Field							
You may add a new project field to this data collection instrument by completing the bottom. When you add a new field, it will be added to the form on this page. For any ou may view the Eli Field Types video (4 min).							
Field Type: Begin New Section (with o	ptional text)						
Field Label	Use the Rich Text Editor ?						
Signature of Study Participant							

How it will look:

Signature of Study Participant	
First Name * must provide value	
Last Name * must provide value	

IV. Enabling survey feature and updating survey settings

1. Find your e-consent instrument under the "Data Collection Instruments" table. Click "Enable" under "Enabled as survey." This brings you to the "Set Up My Survey" tab (or if it is already set up, the tab is called "Modify survey settings").

A Project Home	i E Project Setup	C Online Designer	r 🚺 Da	ta Dictionary	E Codebook	
			🙆 Crea	te snapshot of ins	truments 🖪 V	DEO: How to use this page
				Last snapshot:	never ?	
	Survey options:	Current a min		w instrument:	ment from scratch	
	III Survey Queue	Survey Login	♦ Crea	ate a new instru ort a new instru		icial <u>REDCap Shared Library</u>
	IE Survey Queue		♦ Crea	ate a new instru ort a new instru	ument from the off	
	Survey Queue	ions	♦ Crea	ate a new instru ort a new instru oad instrument	ument from the off	icial <u>REDCap Shared Library</u> ? er project/user or <u>external libraries</u> ?
Instruments	Survey Queue Survey Notificat Upload or down	ions Noad Auto Invitations	Crea Uple	ate a new instru ort a new instru oad instrument	ument from the off ZIP file from anoth	icial <u>REDCap Shared Library</u> ? eer project/user or <u>external libraries</u> ? Sunvey related options
Instruments	E Survey Queue Survey Notificat Upload or down	ions iona Auto Invitations Fie	Creater of the contract o	anew instru ort a new instru oad instrument Enabled as survey	ument from the off ZIP file from anoth Instrument actions	icial <u>REDCap Shared Library</u> ? er project/user or <u>external libraries</u> ? Survey-rolated options Survey settings + Automated Invitation
Sample Consent	E Survey Queue Survey Notificat Upload or down t Template 1 t Template 2	ions iload Auto Invitations A Fie 2 2	Creat Imp Ople Ople View PDF 22 D	ate a new instru ort a new instru bad instrument Enabled as survey	ument from the off ZIP file from anoth Instrument actions Choose action ♡	icial <u>REDCap Shared Library</u> ? er project/user or <u>external libraries</u> ? Suprey rolated options © Survey settings + Automated Invitation

2. Under "Basic Survey Options" fill in "Survey Title" and "Survey Instructions." This information will appear at the top of your electronic consent survey page. Adapt the instructions to suit your consent process; for instance: "Please review this electronic consent form with the study coordinator."

A Project Home	í≡ Project Setup	S Online Designer Modify survey settings	
You may edit the surve	y's basic information	modifying the fields below and clicking the Save Changes butt	on.
🖋 Modify survey setti	ings for data collectio	istrument "Sample Consent Template 1"	Save Changes Cancel
Survey Status		Survey Active Foffine, respondents will not be able take the survey.	
Basic Survey Option	ns:		
📎 Survey Title		Sample Consent Template 1 Title to be displayed to participants at the top of the survey page	2
Survey Instructio (Displayed at top of		Paragraph \checkmark BI \mathscr{P} \blacksquare Please complete the form below.Thank you!	
		How to use Piping here	
Survey Design Option	ons:	🗾 Сору	design to other surveys

3. Scroll down to "Survey Termination Options" at the bottom of the survey settings page. Next to "Survey Completion Text", provide the text you want to show to the participant after he/she Version 2.0 10/22/2021 p. 11

provides an electronic signature. Then click the "Save Changes" blue button on the bottom of this webpage.

3.1 For example:

"Thank you for your participation in the research study:

[Name of Study]

If you have any questions, please contact:

[Study Contact Name]:

[insert phone number xxx-xxx and/or email xxxx@bu.edu or xxxx@bmc.org]

Please download the copy of your signed consent form below. (It might be helpful to prompt the participant to download a copy of the informed consent here since the option to allow participants to download a pdf of their completed survey is turned on in the survey settings (see 6.5.2 below) and so the button to download will appear below this survey completion text)

- 4. For further changes to the survey settings, scroll to the section "Survey Customization". Below are a description and examples of what the options do:
 - 4.1 Changing numbering of fields this is to help you with the next step when creating the fields in the consent instrument. Under "question numbering," you can either choose the options 1) "Auto-numbered" or 2) "Custom numbered." Choose the custom-numbered option to remove numberings next to the fields added to the consent. See the examples below:

Signature	e of Study Participant		
1)	First Name * must provide value		
2)	Last Name * must provide value		
3)	Signature (if possible sign with finger, stylus or mouse)	≁ Add signature	2 2
4)	Date * must provide value	Now M-D-Y H:M:	S

Vs.

Signature of Study Participant	
First Name * must provide value	
Last Name * must provide value	
Signature (if possible sign with finger, stylus or mouse)	≁ <u>Add signature</u>
Date * must provide value	Now M-D-Y H:M:S

4.2 To allow the participant to download their completed consent, change the option to "Yes" for the question "Allow participants to download a PDF of their responses at end of survey?" When the participant completes and submits the consent, a button will show up for them to download a copy of their completed consent form.

Allow participants to download a PDF of their responses at end of survey? Display a button for the participant to download a PDF file of their responses for the survey they just completed.	Yes This option will not be available if the Survey Auto-continue or Survey Queue auto-start option is enabled. Also, if a field utilizes the @HIDDEN action tag, it will not be displayed in the PDF. If Note: Because the e-Consent Framework option is enabled on this page, the PDF included here will not be the full-length PDF but will be the 'compact' PDF, which omits unanswered questions and unselected choices.
Close survey Thank you for your participation in this rese	earch study!
Download your survey response (PDF): 🔀 Do	ownload

- 5. For e-consent instruments the e-Consent Framework must be turned on.
 - 5.1 To the right of the "PDF Auto-archiver" choose the third option: "Auto-Archiver + e-Consent Framework."
 - 5.1.1 Note that the project's File Repository, where the archived PDF copy of the signed e-Consent, is located on the left menu under "Applications." Then click on the tab "PDF Survey Archive."
 - 5.2 IMPORTANT: The "Allow e-Consent responses to be edited by users?" should NOT be checked off.
 - 5.3 Next to "e-Consent version" provide a version number. This is to help you keep track of the consent version utilized to consent the participants.

🖌 e-Consent Framework	Disabled			
– and –	O Auto-Archiver enabled			
PDF Auto-Archiver	Auto-Archiver + e-Consent Framework What is the e-Consent Framework?			
	(includes end-of-s	urvey certificatio	n & archival of PDF	consent form)
Upon survey completion, a compact PDF copy of the survey response will be automatically stored in the	🛓 e-Consent Fra	amework Optic	ons:	
project's File Repository, from which the archived PDFs can be downloaded at any time.	For e-Consent it is sometimes required to include the consenting participant's nam (and date of birth in some cases) on the final consent form as extra documentation of their identity. Below you may select fields used to capture that info. You may also enter the current e-Consent version and e-Consent type for this form. The values for the fields below will be automatically inserted into the footer of the PDF consent form that the participant will review at the end the survey, after which that PDF 'hard-copy' will be archived in the File Repository. <u>Read more</u>			
	Allow e-Consent	responses to be	edited by users?	
	e-Consent version:	v1.0	e.g., 4	
	First name field:	first_name "Firs	st Name" 🛛 🔻]
	Last name field:	last_name "Las	t Name" 🛛 🔻	
	Note: If you are using first/last name above			/ou may select it for either elected.
	Optional fields (the	se are not always	necessary for e-Co	onsent):
	e-Consent type:	sample	e.g., Pediatric	
	Date of birth field:	select a field	•]
	Force signature field(s) to be erased if participant clicks Previous Page button while on the certification page?			
	field, a signature field field. If any fields are survey where it asks Page button, it will er	I, or a number field selected below, the them to certify the ase the value of th completing the sur-	I (e.g., to collect a PIN en if the participant g ir responses, if they t ese signature fields, vey. If you do not wa	rvey. It could be a <u>free-form</u> (J), and it must be a <u>Requirec</u> gets to the last page of the hen choose to click the Prev thus forcing them to 'sign' tl nt this behavior, do not sele
	Signature field #1:	select a field	🔻	
	+ Select another sig	nature field		
Send confirmation email (optional)?	No V			

- 5.4 Enable signature erasing feature: under the "Force signature field(s) to be erased...," click on the "+Select another signature field" and then from the "select a field" dropdown menu, select the fields "First Name" and "Last Name." This feature will erase those two data entry fields if the participant returns to the consent page after viewing the confirmation page. That way, in case the participant makes any changes when they return to the consent page, the most up-to-date form will be signed.
 - 5.4.1 NOTE: Only required fields will appear as options in the drop-down menu. Therefore, since the "Signature" field (signature with finger/mouse/stylus) is an optional field, it will not be listed in the drop-down menu.

Force signature field on the certification	d(s) to be erased if participant clicks Previous Page button while page?			
text field, a signature <u>Required field</u> . If any of the survey where i Previous Page buttor 'sign' the field(s) agai	nat serves as a signature field in this survey. It could be a <u>free-form</u> <u>field, or a number field</u> (e.g., to collect a PIN), and it must be a fields are selected below, then if the participant gets to the last page t asks them to certify their responses, if they then choose to click the h, it will erase the value of these signature fields, thus forcing them to n before completing the survey. If you do not want this behavior, do pelow. You may use up to five signature fields.			
Signature field #1:	first_name "First Name" 🖨			
Signature field #2:	last_name "Last Name" 🗘			
+ Select another sig	Signature field #2: last_name "Last Name" \$ Select another signature field			

V. Modifying Consent instrument for in-person consent vs. contactless (remote) consent

If you are conducting the consent discussion with the participant in-person, where you will each be in the **same physical space**, proceed as before, starting at section D.III, to create the section for "Signature of Study Personnel" within the same instrument (example images below). If you are conducting **a contactless or remote consent discussion**, where the participant and the study staff are **not in the same physical space**, proceed to step 1 of this section.

	Personnel							
		Add Field	Add Matrix	x of Fields				
🥒 🗈 🐨 🖆 🗶	Variable: rx_first_name							
First Name * must provide value								
		Add Field	Add Matrix	x of Fields				
🥒 🗅 🐨 🖆 🗶	Variable: rx_last_name							
Last Name * must provide value								
		Add Field	Add Matrix	x of Fields				
🥒 🛅 🐨 🖆 🗶	Variable: rx_signature							
Signature (if possi	ble sign with finger,	stylus or m	nouse)				2 Ad	<u>d signature</u>
		Add Field	Add Matrix	x of Fields				
🥔 🗅 🐨 🖆 🗙	Variable: rx_date							
Date * must provide value					31	Now	M-D-Y H:M:S	
		Add Field	Add Matrix	k of Fields				

Signature of Study Participant	
First Name * must provide value	
Last Name * must provide value	
Signature (if possible sign with finger, stylus or mouse)	≁ <u>Add signature</u>
Date * must provide value	131 Now Y-M-D H:M:S
Signature of Study Personnel	
First Name * must provide value	
Last Name * must provide value	
Signature (if possible sign with finger, stylus or mouse)	≁ <u>Add signature</u>
Date * must provide value	Now M-D-Y H:M:S

For contactless consenting, it is necessary to create two separate e-Consent instruments, one for the participant to sign and one for the study personnel to sign (these two consent instruments will both be tied to the same record ID). This can be easily done by just copying the first instrument and modifying it for the study personnel.

1. Click on "Choose Action" button corresponding to the e-Consent instrument you just created and click the option "Copy."



2. A window will pop-up. Update the fields accordingly and click the "Copy instrument" button.

Сор	Copy instrument				
new and copi	ppy the instrument " Participant Consent Form ", enter the name of the instrument below. Also, since all variable/field names must be unique cannot duplicate, this instrument's variables must be renamed when ed to the new instrument. Please enter a suffix that will be appended to ew variable names.				
	New instrument name: Study Personnel Consent Form Suffix appended to variable names: _sp				
	Copy instrument Close				
	Instrument name				
	Participant Consent Form				
	Study Personnel Consent Form				

- 3. Click on the newly created "Study Personnel Consent Form" instrument to edit the fields accordingly. For example, the section title should be updated from "Signature of Study Participant" to "Signature of Study Personnel."
- 4. If the study team chooses, they can remove the consent form pages and the copy of the pdf link of the consent for the Study Personnel Consent Form instrument. However, it is recommended that the following sentence, <u>as it is stated in your approved consent form</u>, be added to the "Signature of Study Personnel heading: "I have personally explained the research to the above-named subject (who has read this consent form) and answered all questions. I believe that the subject understands what is involved in the study and freely agrees to participate." Check the language in your approved consent form and edit this section accordingly.

Add Heid Add Matrix of Heids

Signature of Study Personnel

I have personally explained the research to the above-named subject and answered all questions. I believe that the subject understands what is involved in the study and freely agrees to participate.

- 5. To ensure that the study personnel are signing the consent form for the correct participant, you can use the REDCap "piping" feature so that the participant's information from the "Study Personnel Consent Form" instrument is auto-added. Piping pulls data from one instrument to another by referencing the variable name of the data. Please note that the participant consent form must be completed prior to the study personnel opening the consent form for the piping to work.
- 6. Prior to the "Signature of Study Personnel" section heading, click "Add Field" and under "Field Type" choose "Descriptive Text."
- 7. For the "Field Label" refer to the variable name from the "Participant Consent Form" instrument to pipe in the participant's First Name, Last Name, and Date of signature.

7.1 Name the variable name accordingly. For example, "pf_info." Then click "Save."

Field Type: Descriptive Text (with optional l	Image/Video/Aเ\$	
Field Label Participant Name: [first_name] [last_name] Date of informed consent signature: [date]	Use the Rich Text Editor ?	Variable Name (utilized in logic, calcs, and exports) pt_info ONLY letters, numbers, and underscores How to use [f] Smart Variables Piping
		Optional file attachment, image, audio, or video: Embed an external video (provide video URL) ?

	, laa , laa	
🥒 🛅 🐨 🚰 🗶 🛛 Variable: pt_info		
Participant Name: [first_name] [last_name]		
Date of informed consent signature: [date]		
	Add Field	Add Matrix of Fields
	Add Field	Add Matrix of Fields
🥒 🛅 🐨 😤 🛛 Variable: first_name_sp		
First Name * must provide value		
	Add Field	Add Materix of Fields

8. After the participant has completed the consent, study personnel should open their respective consent link. This is how it will appear to study personnel:

	Participant Name: John Smith Date of signature: 04-16-2020 15:26:06		
Signa	ature of Study Personnel		
	First Name * must provide value		
	* must provide value		

- 9. It is recommended that you add a field for "comments" or "notes," where you can explain any situations that may come up during the consent process.
 - 9.1 Click "Add field." Next to "Field Type" scroll through the options and select "Notes Box (Paragraph Text)." Give an appropriate variable name and click "Save."
- 10. As part of consent documentation, it is recommended that you add a field where the study staff will document that they have confirmed the participant's identity.
 - 10.1 The below image is just an example.



* must provide value

Signature of Study Personnel

verbally asking for their first and last name and DOB. checking their name and DOB on their driver's license

checking their name and DOD on their arrents itembe

I have personally explained the research to the above-named subje checking their name and DOB on their government issued passport the subject understands what is involved in the study and freely agrees to participate

10.2 REMEMBER to update the survey settings for the "Study Personnel Consent Form" setting as well!

- 10.2.1 **MOST IMPORTANTLY**, you need to make sure to update the "First Name Field" and "Last Name Field" on the e-consent framework setting so that they refer to the variable names from the "Study Personnel Consent Form" instrument.
- 10.2.2 On instructions for setting up Survey Settings, please go to section D.IV.

e-Consent Framework	2	e-Consent	Framework
---------------------	---	-----------	-----------

PDF Auto-Archiver

- and -

- Disabled
- Auto-Archiver enabled
- Auto-Archiver + e-Consent Framework <u>What is the e-Consent Framework?</u> (includes end-of-survey certification & archival of PDF consent form)

Upon survey completion, a compact PDF copy of the survey response will be automatically stored in the project's File Repository, from which the archived

PDFs can be downloaded at any time.

🛓 e-Consent Framework Options:

For e-Consent it is sometimes required to include the consenting participant's name (and date of birth in some cases) on the final consent form as extra documentation of their identity. Below you may select fields used to capture that info. You may also enter the current e-Consent version and e-Consent type for this form. The values for the fields below will be automatically inserted into the footer of the PDF consent form that the participant will review at the end the survey, after which that PDF 'hard-copy' will be archived in the File Repository. Read more

Allow e-Consent responses to be edited by users?

e-Consent version: First name field:	v1.0 first_name_sp '	e.g., 4 'First Name"	¢	
Last name field:	last_name_sp "	'Last Name''	÷	
Note: If you are using first/last name above	a single field to c while leaving the	apture whole na other name fiel	ame, you may sel d unselected.	ect it for either
Optional fields (thes	e are not always	necessary for	e-Consent):	
e-Consent type:		e.g., Pediatri	с	
Date of birth field:	select a field		\$	
Force signature field on the certification p Select a field below th text field, a signature Required field. If any of the survey where it Previous Page button 'sign' the field(s) again not select any fields b Signature field #1: + Select another sign	page? hat serves as a sig field, or a numbe fields are selecter t asks them to cer i, it will erase the v before completi- below. You may us select a field	nature field in th r field (e.g., to co d below, then if t tify their respon value of these si ng the survey. If se up to five sign	nis survey. It could bllect a PIN), and i he participant ge ises, if they then o gnature fields, thi you do not want	d be a <u>free-form</u> it must be a ts to the last page choose to click the us forcing them to

- 11. Since the e-consent framework is turned on, the study personnel consent form must be completed as a survey for the file to be appropriately archived once completed.
 - 11.1 Add a "Descriptive Text" field such as the one shown below as a reminder to the study staff who is completing the form to complete it as a survey.



- 11.2 Go to section D.VI for instructions on how to complete the study personnel form as a survey.
- 12. The overall survey for the Study Personnel Consent Form will look like this:

Study Personnel Consent Form v1.0	Resize font: 🔁 🗖
Participant Name: Date of signature: 	
l confirmed the participant's identify by: * must provide value	 click the checkbox to confirm
<u>Signature of Study Personnel</u> I have personally explained the research to the above-named so the subject understands what is involved in the study and freel	•
First Name * must provide value	Printed name of person conducting consent discussion
Last Name * must provide value	Printed name of person conducting consent discussion
Signature (if possible sign with finger, stylus or mouse)	➤ <u>Add signature</u> Signature of person conducting consent discussion
Date * must provide value	10-22-2021 11:51:34 M-D-Y HEM-S
Comments:	
	Expand
Next Page >>	

VI. Completing the Study Personnel Consent Form – Reminder for Contactless Consent

Since the e-consent framework is turned on for the Study Personnel Consent Form, it must be completed as a survey (the Participant Consent form will always be completed as a survey due to the nature of how it gets delivered to the participant).

- 1. To access the consent link for study personnel, go to the participant's record and click on the "Study Personnel Consent Form" instrument.
- 2. At the top of the form, find the "Survey Option" drop down and click on the "Open survey" option or the "Log out + Open survey" option to access the consent link directly.

Record ID	Participant Consent Form	Study Personnel Consent Form	Survey options Open survey Log out + Open survey	Survey options
	Ø		Compose survey invitation	Compose survey in
	0	\bigcirc	Survey Access Code and	Survey Access Code
			Bar QR Code	QR Code

3. If you chose "Open survey" option, once you complete the e-consent survey and click "Close survey," it will lead you back to the original data entry form of the "Study Personnel Consent Form" and a pop-will show up (below). You MUST click "Leave without saving changes." Clicking this option will save the changes made in the consent via the survey link. If you click "Stay on page" instead, the responses entered in the consent via the link will not be saved to the record.

Recommended: Leave this page while survey is in session				
Since you just opened the survey for this instrument, it is recommended that you leave this page without saving any changes so that you <u>do not overwrite any existing</u> <u>survey responses</u> that were collected for the survey in another browser tab.				
Leave without saving changes Stay on page				

4. If you chose, "Log out + Open survey," this will log you out of REDCap and direct you to the consent form to complete as a survey. This is the safer method since it guarantees that changes made to the consent are saved and avoids the risk of not saving the changes unlike the other option noted previously (step 3).

VII. Creating the Participant Information Instrument (Creating password for consent link and Using Survey Log-in feature)

To ensure that the e-consent link has been sent to the correct participant, a password/code to access the link must be sent via a separate email or be given to the participant via phone at the beginning of the informed consent process. This method utilizes REDCap's survey log-in feature which allows the study team to email the e-consent link to the participant from REDCap and also, create their own unique link code. There is also an option to automate the process of emailing the consent survey to the participant (please see section F to learn about this option).

1. Under "Enable Optional modules and customizations" enable "Designate an email field for sending survey invitations."

101	🚓 Enable optional modules and customizations				
	Enable 🖨 Repeatable instruments ?				
Optional	Disable 🖉 Auto-numbering for records ?				
I'm done!	Enable Scheduling module (longitudinal only) ?				
	Enable Candomization module ?				
	Disable Obsignate an email field for sending survey invitations ? Field currently designated: email ("Participant's email")				
	Additional customizations				

- 2. Go to "Online Designer" and click "create a new record." Name this instrument something like "Participant Information." This is where you will enter the participant's email and code.
- 3. Open the newly created instrument.
- 4. Click add field and add the two fields, "Participant's email" and "e-Consent Code."
- 5. For "Participant's email" field, under "validation," select "email."

ield Type: Text Box (Shor	: Text, Number, Date/Time,) \vee	
ield Label	Use the Rich Text Editor ?	Variable Name (utilized in logic, calcs, and exports)
Participant's email		email Enable based upon ONLY letters, numbers, and underscores Field Label?
		How to use [•] Smart Variables Piping
		Validation? (optional) Email ~
		select ontology service 🗸
Action Tags / Field Annot	ation (optional)	Required?* No OYes Prompt if field is blank
Learn about @ Action Tags or	using Field Annotation	Identifier? No OYes Does the field contain identifying information (e.g., name, SSN, address)?
		Custom Alignment Right / Vertical (RV)

6. The completed instrument should look like this:

🖉 Variable: record_id	
Record ID	
NOTE: The field above is the record ID field and the	hus cannot be deleted or moved. It can only be edited.
	Add Field Add Matrix of Fields
🥒 🛅 🐨 😤 🗙 Variable: email	
Participant's email	
	Add Field Add Matrix of Fields
🥒 🛅 🐨 😤 🗙 Variable: code	
Survey Code	
	Add Field Add Matrix of Fields

- 7. In "Online Designer" under "Survey options," select "Survey Login."
 - 7.1 The changes that must be made are marked in red in the picture and listed below.
 - 7.1.1 Enable the Survey Login.
 - 7.1.2 For "Login field #1," select "e-Consent Code" field.
 - 7.1.3 For "Custom error message," what is provided in the image below is just an example. Customize the message accordingly.
 - 7.1.3.1 For "Apply the survey login to all surveys in project," select "Only selected surveys."

📍 Survey Login

P Enforce 'Survey Login'?

You may enable a Survey Login page on one or more surveys that will force your survey respondents to authenticate (log in) on your surveys before they are allowed to view and complete the survey. Tell me more

x

Below, select the fields that you wish to serve as the login fields for the respondent to enter, as well as several other settings that control how the survey login is applied to the surveys in your project. NOTE: Once a respondent has logged in to a survey, they will not be prompted to enter their login credentials again if they return to that survey or begin another survey using the survey login within the following 30 minutes.

🚏 Enable Survey Login?	Enabled 💙		
Fields to display on the survey login form			
Login field #1	code "e-Consent Code"		
♦ Add another login field			
Customizations for survey login			
Minimum number of fields above that are required for login	1 •		
Apply the survey login to all surveys in project?	Only selected surveys (set on Survey Settings If you have trouble logging in to the survey, please contact Jung at jung@bu.edu HTML may be used in order to add links or to add style to text.		
Custom error message: Provide a custom error message that will be displayed on the survey login form for when the user experiences issues, such as not being able to log in successfully, so that they may contact you for help.			
EXAMPLE: "If you have any trouble logging in to the survey, please contact survey_admin@myinstitution.edu for help."</a 			
Security settings for survey login (optional)			
Number of failed login attempts before respondent is locked out for a specified amount of time, which is set below.	0 = Disabled		
Amount of time respondent will be locked out after having failed login attempts exceeding the limit set above.	0 Minutes, 0 = Disabled		
	Save Cancel		

8. Now that survey login settings are all set, to enable the feature, go to Survey settings and go to "Enforce 'Survey Login'?" field and select "Yes."

Enforce 'Survey Login'?	Yes 🗸
credentials before beginning the survey and also	If set to 'Yes', this survey will employ the Survey Login feature according to its settings defined in the Online Designer.

VIII. Setting up the Multi Signature Consent External Module

Multi Signature Consent module allows you to define one or more instruments to merge into one PDF file. When each defined instrument is complete, a combined PDF with signatures (and other fields) from those instruments is generated, saved to a file upload field in the project, and also to the file repository for the project. You can couple this with an Alert and Notification to then send a copy of the combined PDF to a participant.

All modules need to be installed and enabled by a BUMC REDCap administrator. Please navigate to the External Modules, under the left Applications menu, and submit a request to have the Multi Signature Consent Module enabled or complete this form https://redcap.bumc.bu.edu/surveys/?s=F8W4LLXJRP. Version 2.0 10/22/2021 p. 24

Please contact Tasha Coughlin, <u>tawatson@bu.edu</u>, with your project ID (pid may be found in your project URL) if you have any issues regarding this step.

If you are utilizing the e-consent project template, we recommend that after enabling the external module in your project, set up the module configuration using the reference below. This will help you get started and understand how the module works.

If you are updating your e-consent project with this new module, go to step 1 of this section so that you have the additional items required to follow the module configuration example.

Configure Module: Multi Signature	onfigure Module: Multi Signature Consent			
Project: e-Consent for Non-Exempt Research Settings	Values			
	1. Instruments to Merge:	+		
1. Form: * must provide value	participant_consent_form_v10 V			
	2. Instruments to Merge:	+		
2. Form: * must provide value	study_personnel_consent_form_v10 V			
File Field This is where the PDF will be saved in the record and it must be a file-upload field: * must provide value	signed_pdf - Complete and Signed • 💙			
Update Logic When this logic is true and one of the above forms is saved, then create the PDF. This logic should not be true until all forms are complete: * must provide value	[study_personnel_consent_form_v10_co mplete] = 2 and [participant_consent_form_v10_complet e] = 2			
Custom Header This header will appear in the upper-right corner of the PDF:	Multi-Signature Consent			
Custom Footer This footer will appear on the bottom center of the PDF:				
Keep Page Breaks Normally page breaks between forms are removed. Check here to keep each form on a separate page in the PDF:				

Keep Record ID Field Row The record id is always in the header, but if you check this it will also be part of the PDF if on the first instrument:	
Save in File Repository Check to save a permanent copy in the local file repository:	
Save to External Storage Check to save a permanent copy in the external storage (the same location that is configured for the econsent module):	
Save As This Survey In File Repository If you check the previous option, set which survey you want this to appear as in the File Repository. If you are using the eConsent Framework on one of the surveys in this config, then be sure to select a different survey as you can only have one entry per record, per survey id in the File Repository. Will default to first form otherwise:	signed_consent_copy 🗸
Enable Debug Logging (optional) Requires installation and configuration of emLogger:	

1. Create a new instrument and enable it as a survey. In the e-consent project template, we called it "Signed Consent Copy."

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey-related options
Participant Information	3	Ø	Enable	Choose action \bigtriangledown	
Version Tracking	2	ß	Enable	Choose action \bigtriangledown	
Participant Consent Form v1.0	14	ß	۷	Choose action \bigtriangledown	Survey settings
Study Personnel Consent Form v1.0	8	ß	۷	Choose action \bigtriangledown	Survey settings + Automated Invitations
Consent Form (participant and study personnel)	17	ß	۷	Choose action \bigtriangledown	Survey settings + Automated Invitations
Participant Consent Form v2.0	13	ß	۷	Choose action \bigtriangledown	Survey settings
Signed Consent Copy	2	ß	۷	Choose action 🗢	Survey settings + Automated Invitations

2. In that instrument, create a "File Upload" field. This is where the merged PDF will be saved.

Edit Field

You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the 🖽 Field Types video (4 min).

Field Type:	File Upload (for users to upload files)	•	
	Select a Type of Field Text Box (Short Text, Number, Date/Time,) Notes Box (Paragraph Text) Calculated Field Multiple Choice - Drop-down List (Single Answer) Multiple Choice - Radio Buttons (Single Answer) Checkboxes (Multiple Answers) Yes - No True - False Signature (draw signature with mouse or finger) File Upload (for users to upload files) Silder / Visual Analog Scale Descriptive Text (with optional Image/Video/Audio/File Attachment) Begin New Section (with optional Image/Video/Audio/File Attachment) Begin New Section (with optional text)	Use the Rich Text Editor ?	Variable Name (utilized in logic, calcs, and exports) signed_pdf ONLY letters, numbers, and underscores How to use ()Smart Variables Piping
			Save Cancel
2 2	🛉 🚰 💥 Variable: signed_pdf		
omplet	e and Signed Consent Form		± Upload file

Testing out your e-Consent

I. How to test out the e-Consent link during Development Mode

Please note that if you've already enabled the Survey Login feature (section D.VII) and created the "Participant Information" instrument, you will not be able to utilize the public survey link since the first instrument will no longer be a survey. Once the Survey Login feature is turned on, you can still test out the consent links by creating fake records and using your own email.

1. To view the consent form from the Subject view, select "Survey Distribution Tools" from the left menu under "Data Collection." Under "Link Actions" click on "Open public survey" (the first button).

X

My Projects or Control Center					
REDCap Messenger	🔗 Public Survey Link	🎎 Participant List	🔄 Survey Invitation Log		
roject Home and Design					
常 Project Home ・ ≔ Project Setup ② Designer ・ 圓 Dictionary ・ 目 Codebool ■ Project status: Development	survey link below to email it contains questions asking fo	to your participants. Re or identifying data from	esponses will be collected anor the participant). NOTE: Since t	his method uses a single survey	
ata Collection		link for all participants, it allows for the possibility of participants taking the survey multiple times, which may be necessary in some cases.			
Survey Distribution Tools	To obtain the survey link, co		baste it into the body of an ema to begin taking your survey.	ail message in your own email	
Record Status Dashboard - View data collection status of all records	Public Survey URL: https://	redcap.bumc.bu.edu/si	urveys/?s=77FNY7P8TF	r <u>i</u>	
🖥 Add / Edit Records					
- Create new records or edit/view existing ones	Protect the public sur	vey using the Google re	CAPTCHA feature		
Show data collection instruments					
pplications					
Alerts & Notifications	Link Actions		Link Customization	5	
🖥 Calendar					
Data Exports, Reports, and Stats	Open public survey		Get Short Survey Link		
Data Import Tool	Open public survey +	🗘 Log out	🔏 Create Custom Survey Lii	h	
🗲 Data Comparison Tool			pap create coston surrey en		
Logging	Send me URL via ema	il	> Get Embed Code		
Field Comment Log					
File Repository	🔬 Survey Access Code o	r 🎇 QR Code			

Utilizing Automated Survey Invitation (ASI) to send out e-Consent survey

I. Creating Version Tracking instrument (to keep track of consent versions for Automated Survey Invitation)

If you are utilizing Automated Survey Invitation (ASI), you need to set up a process to keep track of the informed consent versions. This is recommended in general even if you are not utilizing ASI in order to keep track of consent versions used.

To keep track of informed consent versions, create a Version Tracking instrument. The fields in this instrument will be utilized to set up the ASI (instructions in step 66).

- 1. Add a Text Box field to enter the informed consent version number.
 - 1.1 It is recommended that you add a validation option for this field because if there is a blank space next to the value entered, this space will be treated as a character. So the field value "1.0" is different from "1.0_" (the underscore represents the blank space).
 - 1.1.1 For the validation option, you can select "Number (1 decimal place)." So this field will have to be in the format "#.#"
 - 1.1.1.1 If this validation is not met, the user will get an error message.

Edit Field	×
bottom. When ye	w project field to this data collection instrument by completing the fields below and clicking the Save button at the u add a new field, it will be added to the form on this page. For an overview of the different field types available, Field Types video (4 min).
Field Type: Tex	Box (Short Text, Number, Date/Time,) 💙
Field Label	Use the Rich Text Editor ? Variable Name (utilized in logic, calcs, and exports)
Version numbe	version Enable auto naming of variable based upon its
	ONLY letters, numbers, and underscores Heid Laber?
	How to use [1] Smart Variables / Piping
	Validation? (optional)Number (1 decimal place)
	Minimum:
	Maximum:
Action Tags / F	eld Annotation (optional)
	select ontology service 🗸
Learn about @ A	tion Tags or <u>using Field Annotation</u> Required?* No O Yes * Prompt if field is blank
	Identifier? No OYes Does the field contain identifying information (e.g., name, SSN, address)?
	Custom Alignment Right / Vertical (RV)
	Align the position of the field on the page
	Field Note (optional) #.#
	Small reminder text displayed underneath field
	Save Cancel

Add a "Yes/No" field where the study staff will confirm whether or not to email the consent form.
 Your instrument should look like this:

urrent instrument: Version Trackin	g	Preview instrum
	Add Field Add Matrix of Fields	
🥔 🛅 🐨 🚰 X 🛛 Variable: version		
Version number		
	#.#	
	Add Field Add Matrix of Fields	
🦉 🛅 🐨 😤 🗙 🛛 Variable: email_consent		
	○ Yes	
Email consent form	ONo	
		re

4. Proceed to the next section to enable this instrument as a repeatable instrument. This is a necessary step!

II. Enabling repeatable instruments for Version Tracking instrument

This is a useful module when you make changes to your approved consent form that necessitate reconsenting subjects who are already enrolled. Enabling repeatable instruments allows one to create another instance of Version Tracking instrument for that participant rather than having to create a new record ID to document the re-consent. So, under a single record ID, you can have multiple signed consent forms.

1. Go to the "Project Setup" page and under "Enable optional modules and customizations" click the "enable" button next to "Repeatable instruments."



This will open up a window where you can select which instrument you want to repeat and also add a custom label for that repeating instrument. You can customize the label using the variable names of the fields.

Repeatable instruments

An excellent way to collect repeating data in REDCap is to use repeatable instruments and/or repeatable events. This is sometimes called one-to-many data collection. Some examples may include but are not limited to the following: data from multiple visits or observations, concomitant medications, adverse events, or repetitive surveys (daily, weekly, etc.).

Below you can specify a data collection instrument to be infinitely repeatable, which means that an instrument can be repeated over and over again (a different number of times for each record) even without enabling REDCap's longitudinal module. Once an instrument is set to repeat, you will see options on the Record Home Page to add another instance of the instrument for the currently selected record. All instances of a repeating instrument will then be displayed as a table near the bottom of the Record Home Page, thus allowing viewing of the instances and easy navigation within them.

Repeat this instrument?	Instrument name	Custom label for repeating instruments (optional) @ Example: [visit_date], [weight] kg
	Participant Information	
	Version Tracking	[version]
	Participant Consent Form v1.0	
	Study Personnel Consent Form v1.0	
	Consent Form (participant and study personnel)	
	Participant Consent Form v2.0	

Save Cancel

x

3. To create a new instance, select the record for which you want to create the new instance and click on the "+" button or "+ Add new." Below, you can see that the repeatable instruments are shown with the custom labeling ([version]).

Record ID 12

Data Collection Instrument	Status
Participant Information	۲
Version Tracking	+
Participant Consent Form v1.0 (survey)	
Study Personnel Consent Form v1.0 (survey)	\bigcirc
Consent Form (participant and study personnel) $\ensuremath{(survey)}$	
Participant Consent Form v2.0 (survey)	\bigcirc

Repeating Instruments

Version Tr	racking <mark>(2)</mark>		
1	۲	1.0	
2	۲	2.0	
+ Add new			

III. Turning on Automated Survey Invitations (ASI)

This is to set up the ASI feature, which will automatically send the link to the e-consent form depending on specific conditions. **Please follow the specific conditions outlined in step 12.2 carefully!** The conditions that will trigger the ASI have been set so that the variables refer to the latest "instance" of the Version Tracking form (if there's only one instance of the Version Tracking form, the latest instance is that first instance). When the specific conditions are met, REDCap will automatically send the link to the e-consent form to the participant's email. The time or when the invitation gets sent can also be customized.

- 1. In Online Designer, under "Survey-related options," click on the button "Automated invitations."
- 2. Step 1: For the email subject line and body of the email, customize it for your study accordingly. Click on "Send test email" to see how the email will appear for the participant.
- 3. Step 2: Enter the following conditions (note that this matches the variable names shown in step 11.3):
 - 3.1 [email_consent][last-instance] = "1" and [version][last-instance] = "#.#"
 - 3.1.1 For #.#, enter the corresponding consent version number for that e-consent survey.
- 4. Step 3: Here you can set up when the invitation gets sent. In this example, it is set up as immediate. So, as soon as the "Participant Information" form is complete, REDCap will send out the e-consent invitation. It may take a few minutes for the participant to receive the email.

5. Step 4: Select "Active" to turn on automated invitations.

🕒 Define Conditions for Automated Survey Invitations (ASI)

Instructions: In this pop-up you may define your conditions for automated survey invitations that will be sent out for the survey (and event, if a longitudinal project) listed in the Info box below. <u>Tell me more</u>

📋 Info	💮 STEP 2: Conditions
Survey title: Participant Consent Form v1.0	Specify conditions for sending invitations:
STED 1. Company married	When the following survey is completed:
STEP 1: Compose message	select a survey 🗸
From: jung@bu.edu 🗸	AND V
(select any project user to be the 'Sender')	When the following logic becomes true:
To: [All participants who meet the conditions defined]	[email_consent][last-instance]="1" and [version][last-instance] = 1.0
Subject: consent version 1	(e.g., [age] > 30 and [sex] = "1")
	How do I use special functions?
Compose Preview Send test email	Test logic with a record: select record V
Please take this survey.	Ensure logic is still true before sending invitation? ?
	How to use 'stop logic' to disable an automated invite
You may open the survey in your web browser by clicking	
the link below:	E STEP 3: When to send invitations AFTER conditions are met
[survey-link]	Send immediately
If the link above does not work, try copying the link below	O Send on next → select day 🗸 at time 🛛 👩 H:M
into your web browser:	O Send after lapse of time: days hours minutes
······	
NOTE: You may modify or remove any text you wish in the Compose	O Send at exact date/time: ∭⊘ M/D/Y H:M
Message text box above. Make sure you include either [survey-link] or [survey-url] in the text or else the participant will not have a way to take the	
survey.	In the second se
You may use HTML formatting in the email message: bold, <u> underline,</u>	Re-send invitation as a reminder if participant has not responded by
<i>italics, link, etc.</i>	a specified time?
How to use Piping in the survey invitation	

IV. Sending out the e-consent invitation email

- 1. Now that the survey-log-in feature and ASI have been enabled, create a new record in order to enter the participant's email and e-Consent code.
- 2. From the left menu, under "Data Collection" click on "Add/Edit Record" to create a new record.



3. Next, navigate to the "Choose an existing Record ID" heading and under the "select record" drop down menu, click on the green "+Add new record" button and this will create a new and open up the new record.

Choose an existing Record ID	select record 🕈
	+ Add new record

4. Click on the "Participant Information" instrument and enter the participant email and e-Consent code. Select "Complete" for form status and save the form.

Participant Information

Editing existing Record ID 1	
Record ID	1
Participant's email	B jung@bu.edu
e-Consent Code	⊕
Form Status	
Complete?	⊖ Complete ►
	Save & Exit Form Save & 🔻
	Cancel

Re-sending and troubleshooting survey invitation

I. Re-sending the e-Consent invitation email

Survey Distribution Tools

1. In case the participant needs to be sent another email of the e-consent link, under "Data Collection," click on "Survey Distribution Tools."

Or Public Survey Link	🔐 Participant Lis	5 Survey Invitation Log						
is also possible to identify	an individual's surve	ustomized email to anyone in you answers, if desired, by providing a	n Identifier for ea					
nust first be enabled by clic	king the 'Enable' buti	on in the table below). <u>More details</u>	1					
Participant List belongin	g to "Participant e-Co	nsent Form"						
Participant List belongin Displaying 1 - 1 → of 1	g to "Participant e-Co		ns				🗷 Expo	ort list
		Compose Survey Invitation	ns Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code	ort list

- 2. Under "Compose message," edit the subject line and body of the email accordingly. Do not delete the [survey-link] and [survey-url] smart variables.
- 3. Under "Participant List" select the record/email that needs the new invite and click "Send Invitations."

lnfo Survey	title: Participant e-Consent Form			ticipant Li			s: check/unch	neck part	ticipants	`
			(tho	se who have i	not responded comp	letely)			-	
	n should the emails be sent? ediately			Email (0 selected)	Participant Identif	er Scheduled?	Sent?	Respon ded?	
🔾 At sp	ecified time: 10/Y H:M			jung@bu.e	du (ID 1)		-			
The t 09/2	time must be for the time zone America/New_York, in which the 5/2020 22:51.	e current time is								
Enab	le reminders									
	end invitation as a reminder if participant has not cified time?	t responded by a								
Com	pose message									
From:	jung@bu.edu	•								
	(select any project user to be the 'Sender')									
To:	[All participants selected from Participant Lis	st]								
Subject										
Com	pose Preview	Send test email								
	take this survey.	A								
You m below:	ay open the survey in your web browser by clickir	ng the link								
[surve										
If the l	ink above does not work, try copying the link belo	w into your								
web b	rowser:	•								
box abo	: You may modify or remove any text you wish in the Com we. Make sure you include either [survey-link] or [survey-u ticipant will not have a way to take the survey.									
	y use HTML formatting in the email message: bold, <u (a href=""> link, etc. <u>How to use Piping in the survey invite</u></u 									
- Selec	t a previously sent email to load it in the Compose box -	~								

II. Accessing survey (e-consent) link if having issue with survey invitation delay

Sometimes the recipients do not receive the survey invitation email right away even when ASI is set-up to send the email immediately. To get around this issue, the best option is to access their survey link from the Participant List table under Survey Distribution Tools. Please note that if you have the survey login feature turned on, the participant will receive a prompt to enter the survey login code (i.e. e-consent code).

Participant List belonging to	"Participant Consent Form v1.0"	~						
	"Participant Consent Form v1.0"	-						
Displaying 1 - 27 🗸 of 27	"Study Personnel Consent Form v1.0"	ons					🛛 🗷 Export lis	st
Email	"Consent Form (participant and study personnel)" "Participant Consent Form v2.0" "Signed Consent Copy"		Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code	

1. On the right hand side menu, click on "Survey Distribution Tools." Make sure that you are looking at the correct participant list. By default it shows the participant list that belongs to the part survey instrument, which for in this example the first survey instrument is "Participant Consent Form v1.0."

Participant List belonging to	"Participant Consent	Form v1.0"					
Displaying 1 - 27 V of 27	Add participants	Compose Survey Invitations					Export list
Email	Record	Participant Identifier	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code
jung@bu.edu	<u>26</u>	Disabled		-		68	
Version 2.0 10/22/2021							p. 34

- 2. Find the participant record and under "Link," right click to copy the link address.
- 3. This link is specific to this participant's record and will prompt them to enter their e-consent code.

What to do with updated/newly approved informed consent forms

- 1. When you have an updated approved informed consent, create a NEW e-consent survey. This can easily be done by copying the original or previous e-consent instrument.
- 2. Replace the informed consent pdf link and the images of the informed consent form pages.
- 3. Go to the survey settings and update the settings accordingly. Please refer to section D.IV.

Additional Capabilities

- I. For studies with checkbox options such as recontact permission, biospecimen storage, etc.:
- 13. To break up the checkbox sections, add a heading prior to the participant's signature section. Click the "Add field" button, and under "Field Type" choose "Begin New Section (with optional text)" and label the section appropriately.
- 14. To add the Yes/No options, click "Add Field" below the new section and choose "Multiple Choice radio options." Enter an appropriate "variable name."
 - 14.1 Under the "Field Label", you have the option to repeat the name of the optional section.
 - 14.2 Under "Choices," type out the choices.
 - 14.3 Make sure to click "Yes" for "Required?"

Field Type: Multiple Choice - Radio	o Buttons (Single Answe 🖨	
Question Number (optional) Displayed only on the survey page		Variable Name (utilized in logic, calcs, and exports) re_contact
Field Label	Use the Rich Text Editor ?	ONLY letters, numbers, and underscores Field Label?
Recontact		How to use [🖲 Smart Variables 📝 Piping
		Required?* No OYes * Prompt if field is blank
		Identifier? ONO Yes Does the field contain identifying information (e.g., name, SSN, address)?
		Custom Alignment Right / Vertical (RV)
		Align the position of the field on the page
	Copy existing choices	Field Note (optional)
1, Yes, you may contact me again to about a different research study.	let me know	Small reminder text displayed underneath field
0, No, you may <u>not</u> contact know about a different research stu		
	How do I manually code the choices?	

	Add Field Add Matrix of Fields	
🥜 🛅 🐨 🚰 🌚 🗙 🛛 Variable: re_contact		
Recontact	Yes, you may contact me again to let me know about a different research study.	
* must provide value	No, you may <u>not</u> contact me to let me know about a different research study.	
		reset

15. If you have more than Yes/No options, it is recommended that you use the "Add Matrix of Fields" option instead of the "Add Field" option. The optional section found in the ICF template was used for the example below:

We would like to ask your permission to contact you again in the future. This contact would be after the study has ended. Please initial your choice below:

YesNo	You may contact me again to ask for additional information related to this study
YesNo	You may contact me again to ask for additional biological samples related to this study
YesNo	You may contact me again to let me know about a different research study
YesNo	You may contact me again to list reason – or delete line

- 15.1 Under "Matrix Header Text", enter the name of the optional section.
- 15.2 Under "Field Label," type the choices and give each of them an appropriate variable name. Make sure to click the checkbox for "Required?"
- 15.3 Under "Matrix Column Choice," enter as shown in the image below (1, Yes; 0, No). The answer format should be "Single Answer (Radio Buttons)".
- 15.4 Under "Matrix group name," enter an appropriate variable name for this whole section, such as "recontact" or "optional_sec."

Ontional sub study/resentest sections					
Optional sub-study/recontact section:					
					Expand
Aatrix Rows			auto namin	a of variable bacoc	l upon its Field Label
ach row represents a different field with its own label and variable	e name.		auto naming		apon its neid Laber
Field Label		Variable Name ONLY letters, numbers, and underscores	Question Number (optional)	Required?*Fiel	d Annotation ?
You may contact me again to ask for additional info	rmatio	add_inform			
You may contact me again to ask for additional biol	ogical :	bio_sample			
You may contact me again to let me know about a c	lifferer	diff_study			
You may contact me again to list reason – or delete	line	other			
Add another row					
latrix Column Choices	Othe	r Matrix Info			
hoices (one choice per line) Copy existing choices		er Format:			
I, Yes		e Answer (Radio But	ttons) 🗘		
0, No					
	Rank	w only 1 choice to be se		atrix of fields?	uttong only)
		wonly I choice to be se	liected per		outton's only)
	Matrix	x group name: ON	ILY letters,	numbers, and u	nderscores
	recon	ntact	What is	a matrix group	name?

How it appears to participants:

Yes	No	
0	0	
		re
0	0	
0	0	re
0	0	re
	0	0 0 0 0 0 0 0 0

II. Enabling Twilio in REDCap

1. REDCap has the capability to send SMS text messages to survey respondents by using a third-party web service named Twilio. Costs associated with this service are managed from your Twilio

account. For more information about Twilio in REDCap, please visit the request link below. Please note that you need to obtain specific IRB approval to use Twilio.

- 1.1 Please follow this link to request the Twilio Module in REDCap: https://redcap.bumc.bu.edu/surveys/?s=HJPXWCME7H
- 1.2 IRB approval is required to ues Twilio

III. Additional External Modules

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. Modules will need to be installed and enabled by a BUMC REDCap administrator. To request an External Module in REDCap, please complete this form:

https://redcap.bumc.bu.edu/surveys/?s=F8W4LLXJRP

Below are modules that may be useful in your study:

- Multi Signature Consent Module allows you to define one or more instruments to combine into one PDF. Please see section D.VIII for more details. To learn more visit: https://redcap.bumc.bu.edu/redcap_v11.4.0/ExternalModules/?prefix=multi_signature_conse nt&page=README.md
- Auto Record Generation Module allows for a new record to be generated in another project (or the same project). Data fields can be transferred to the new record as well. To learn more visit: <u>https://redcap.bumc.bu.edu/redcap_v11.4.0/ExternalModules/?prefix=vanderbilt_auto_record_generation&page=README.md</u>
- The Multilingual EM allows surveys and data entry forms to be translated into multiple languages. <u>The module and your language choices should be set up first, before building your</u> <u>instruments.</u> To learn more visit:

https://redcap.bumc.bu.edu/redcap_v9.3.0/ExternalModules/?prefix=multilingual&page=READ ME.md

Checking project and moving to production status

- 1. Please be sure to review the remaining steps prior to finalizing your e-Consent project.
 - Survey design and distribution: <u>https://redcap.bumc.bu.edu/index.php?action=help&newwin=1#ss57</u>
 - Test your project thoroughly: <u>https://redcap.bumc.bu.edu/index.php?action=help&newwin=1#ss37</u>
 - 1.1 Move your project to production status.
 - 1.1.1 Go to the "Project Status" page and scroll to the bottom. Click "Move project to production."



Move your project to production status

Move the project to production status so that real data may be collected. Once in production, you will not be able to edit the project fields in real time anymore. However, you can make edits in Draft Mode, which will be auto-approved or else might need to be approved by a REDCap administrator before taking effect.

Go to Move project to production

Links to additional resources

- Please visit the <u>CRRO website</u>, for more information on e-Consent. You will find other useful guidance such as: Using E-Consent at BMC and BU Medical Campus
- <u>Guidance on Developing REDCap E-Consent: Minimal risk or Exempt Research Not Requiring a</u> <u>Signature and Exempt Research that Includes HIPAA Authorization</u>

Resources for REDCap:

- <u>REDCap FAQ</u>
- <u>REDCap Training Videos</u>
- BU Medical Campus/BMC REDCap email support: <u>rchelp@bu.edu</u>