# Getting Started with Survey Design Using Research Electronic Data Capture (REDCap)



GREAT PLAINS
IDeA | Clinical and
Translational Research

Biostatistics, Epidemiology, and Research Design Key Component Area

## PRESENTATION OBJECTIVES

- Objectives of this module
  - Build a survey using Research Electronic Data Capture (REDCap)
- This module will show you how to:
  - Start building a survey
  - Use different question/answer formats
  - Use skip-logic
  - Use piping
  - Use validation



### **SPECIAL NOTES ABOUT REDCAP**

Only people with UNMC IDs will be allowed to access the specific website mentioned in this presentation. If your institution has REDCap, please refer to your home institution's REDCap page to log in.



### **SPECIAL NOTES ABOUT REDCAP**

- This module will only go over the basics of how to design a survey.
   Please thoroughly read REDCap's instructions regarding rules related to IRB, data collection, moving projects to production status, fees, etc.
- For more information about REDCap and other research IT needs, please visit UNMC's Research Information Technology Office (RITO) page:
- https://www.unmc.edu/vcr/rito/



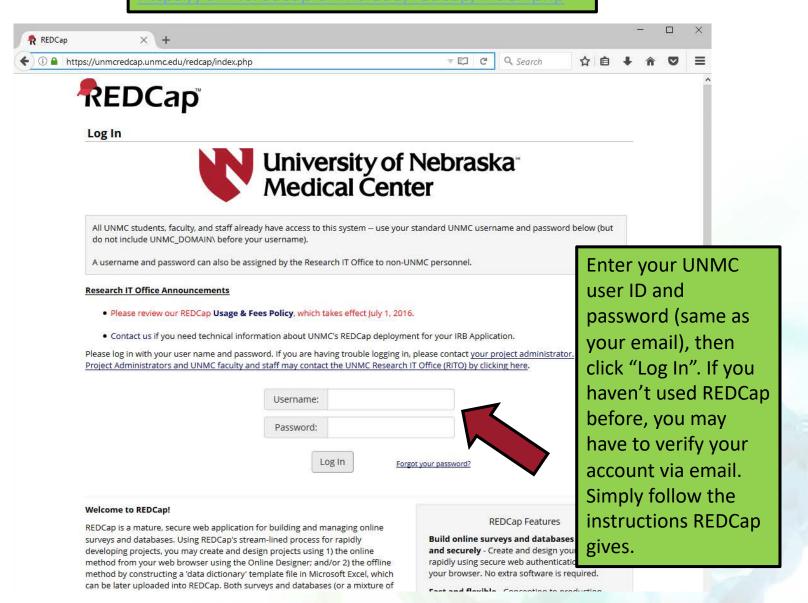
### **SPECIAL NOTES ABOUT REDCAP**

You will notice that REDCap has many 'How To' videos throughout its website. These videos are a great way to help you learn how to use REDCap. There won't be too much emphasis on those videos in this tutorial, but know that they are highly recommended if you want to learn more about REDCap!



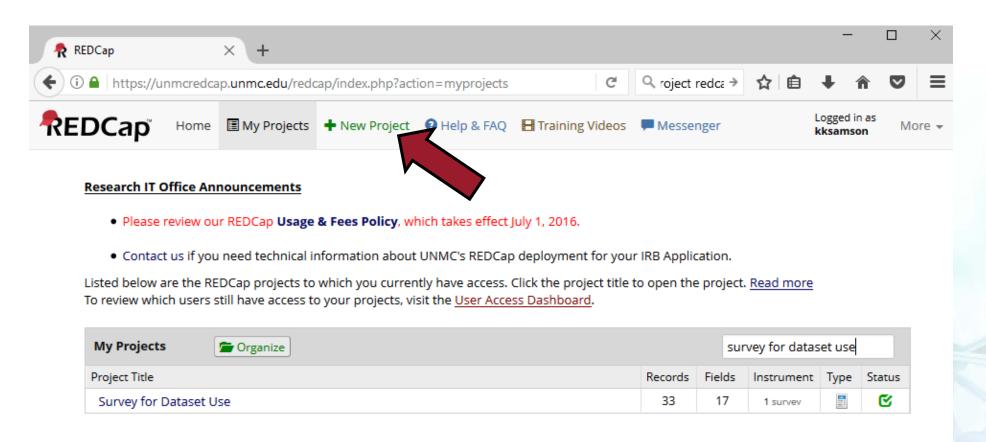
#### To begin, go to (note this link is specific to UNMC):

https://unmcredcap.unmc.edu/redcap/index.phg



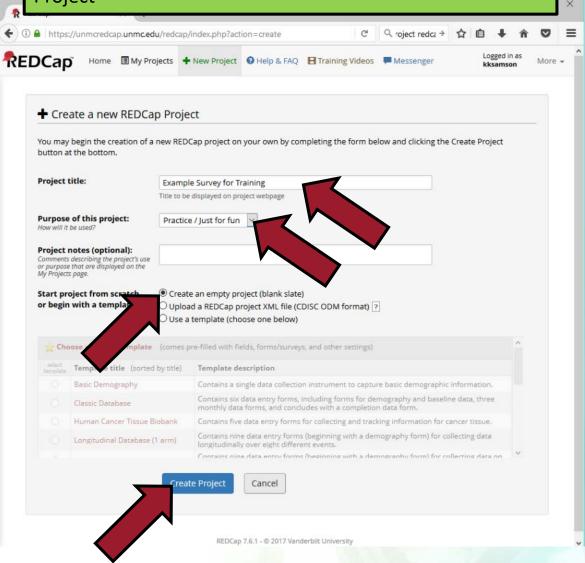


You will be taken to your home page which lists your projects (or a Welcome page if this is your first time using REDCap). To create a new project, click "New Project"

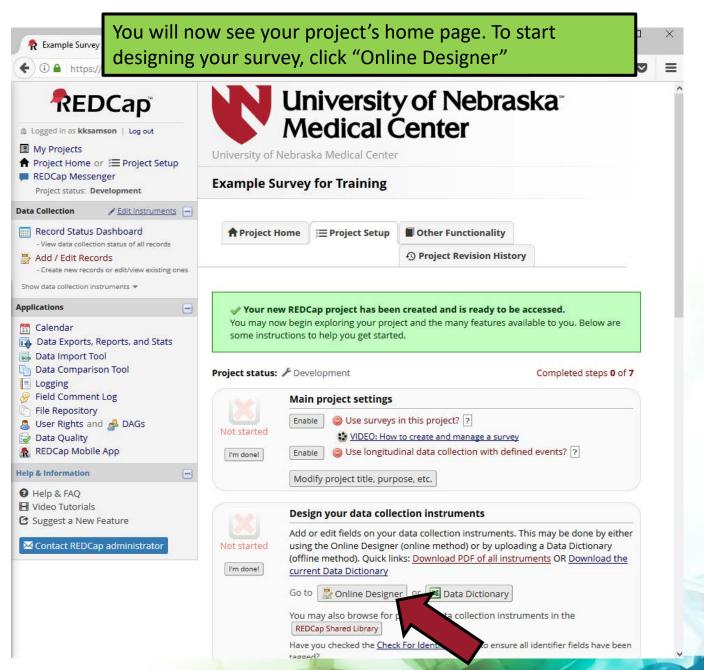




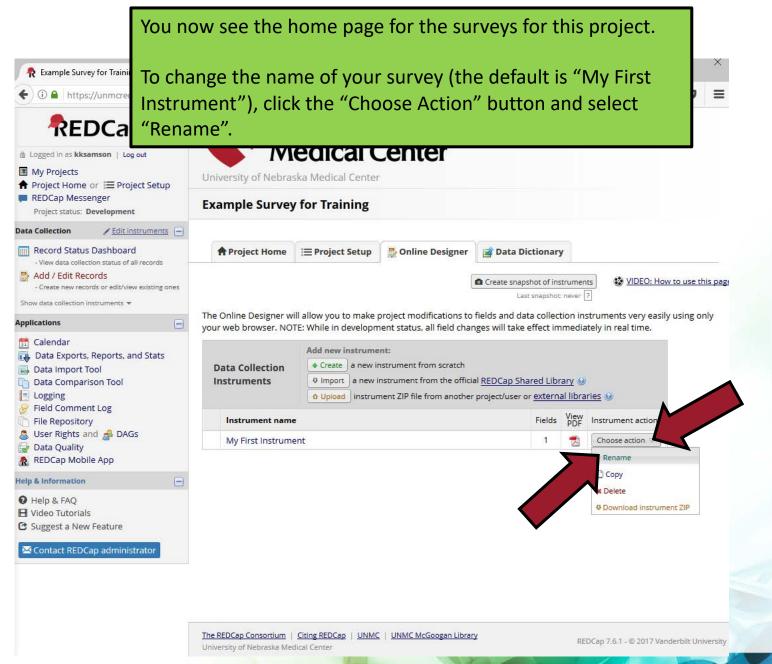
Type in a Project Title, select the Purpose of your project, select "Create an empty project" and then click "Create Project"



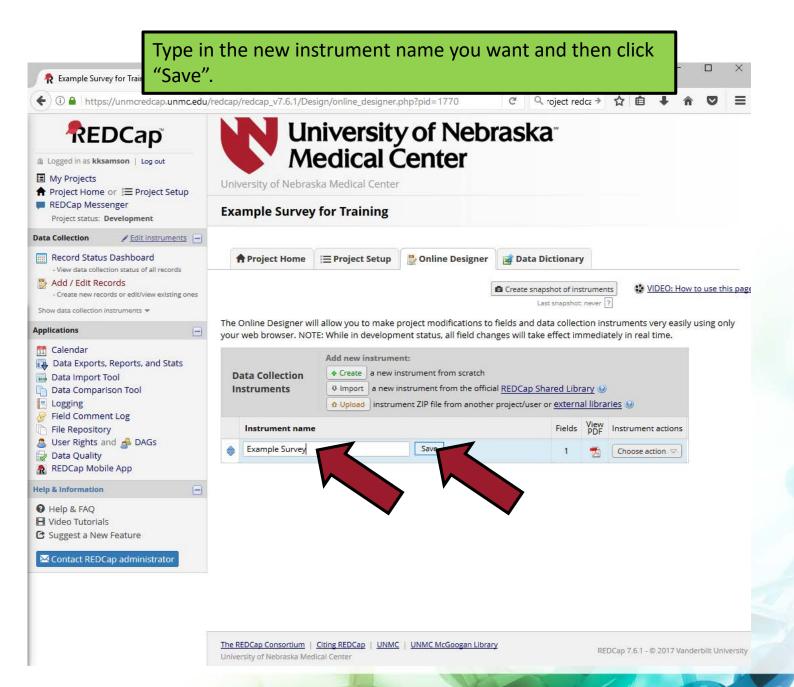






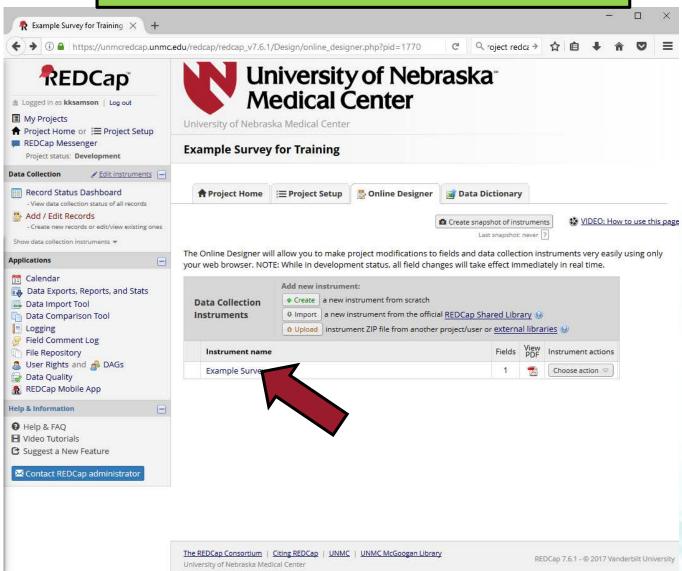




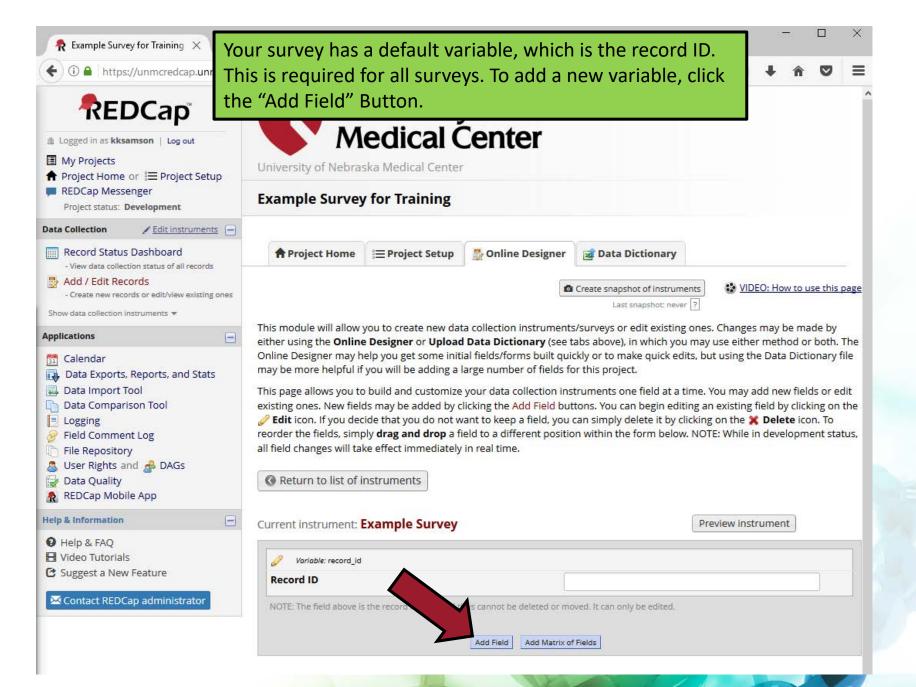




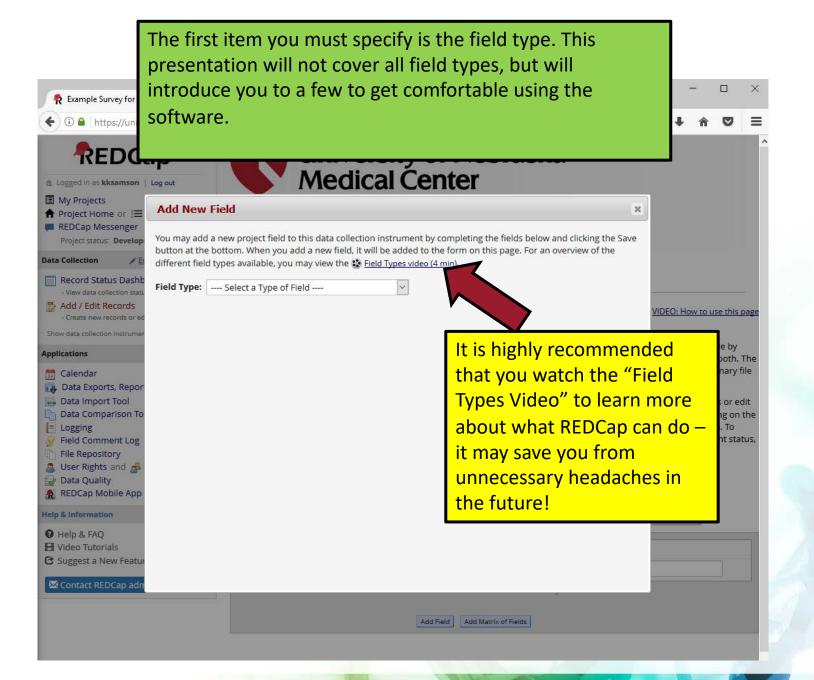
Click on your new survey name to start building your survey.







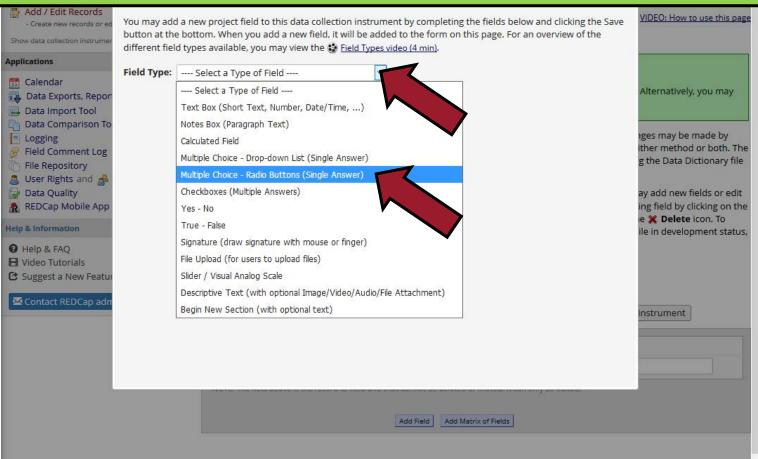




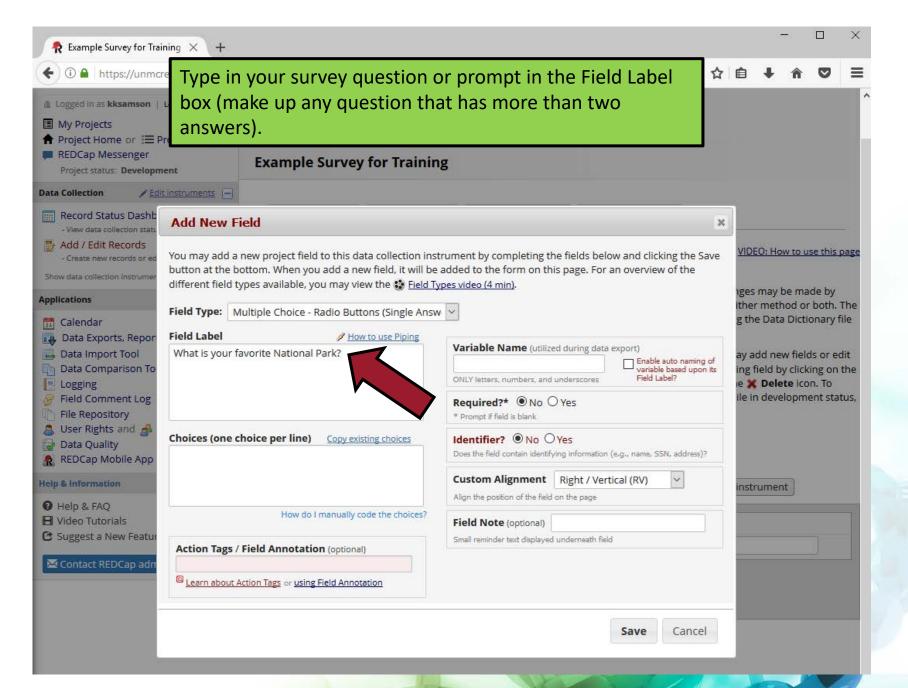


Our first survey item will be a multiple choice question using radio buttons. Radio buttons only allow a respondent to choose a single response.

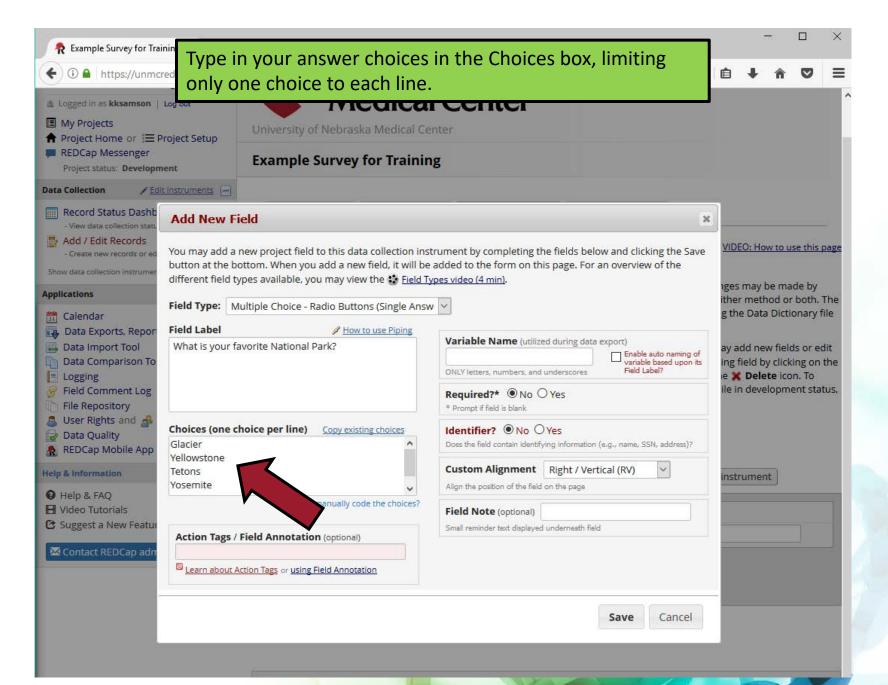
If you want to allow survey respondents to select multiple responses to a question, use the Checkboxes type, but be sure to test this out thoroughly as exported checkbox data can be tricky (hard to distinguish between boxes that were purposefully left unchecked and missing data (i.e. someone didn't answer multiple questions, including the checkbox question)).



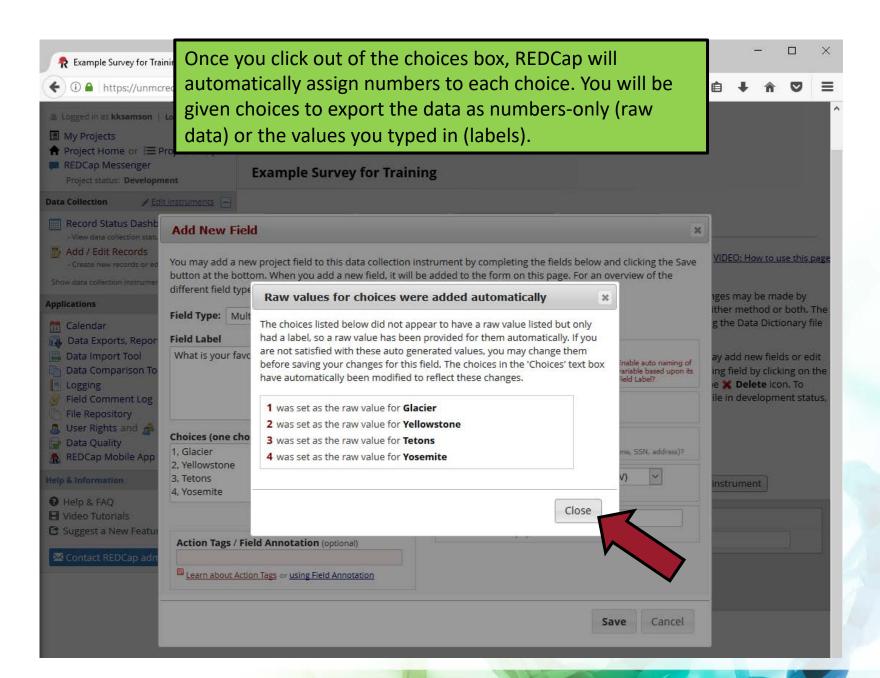




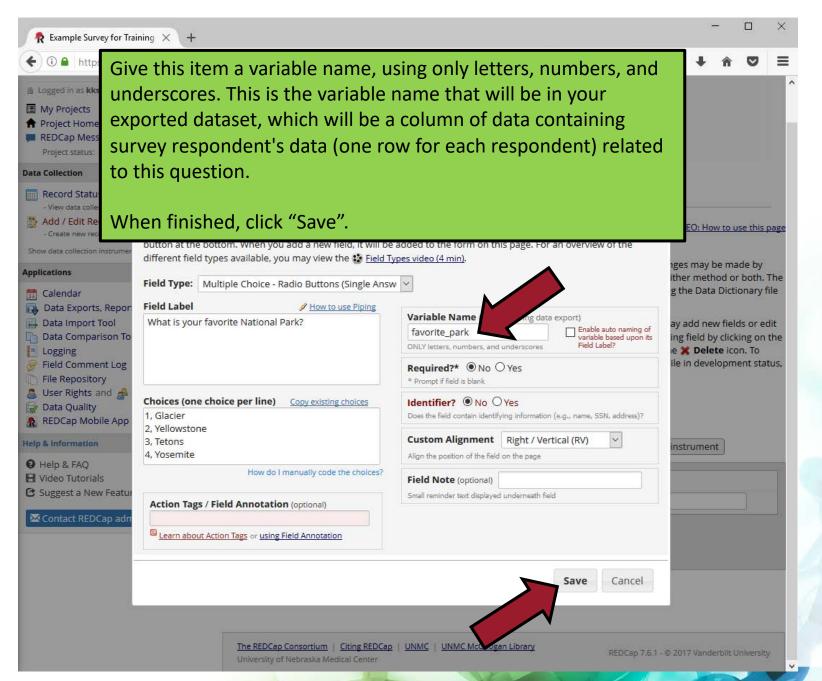






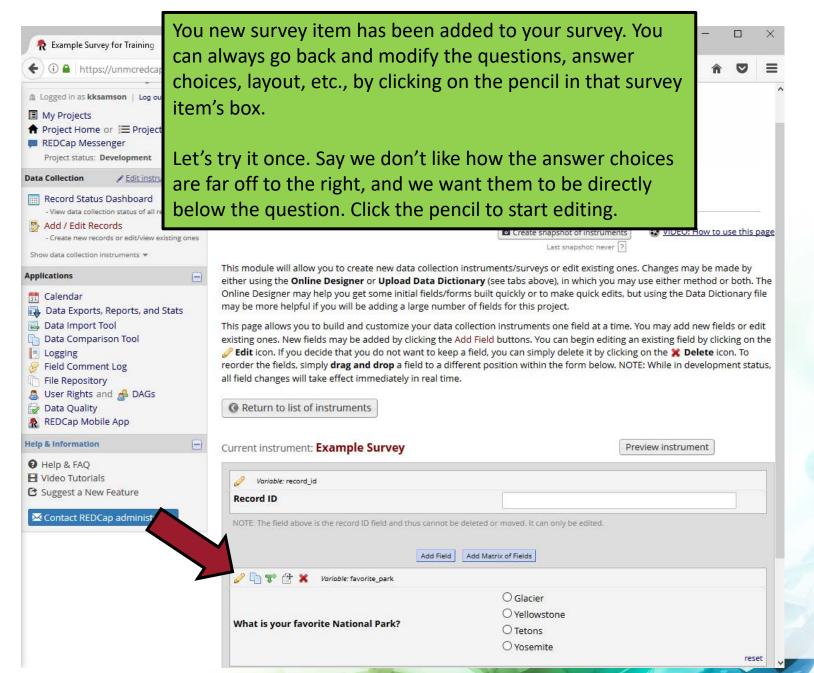




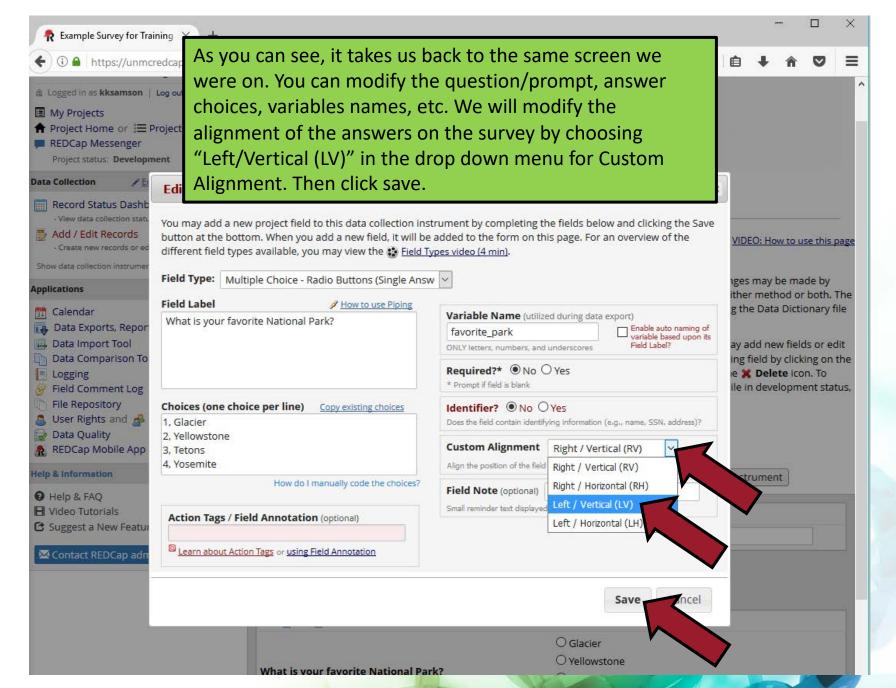




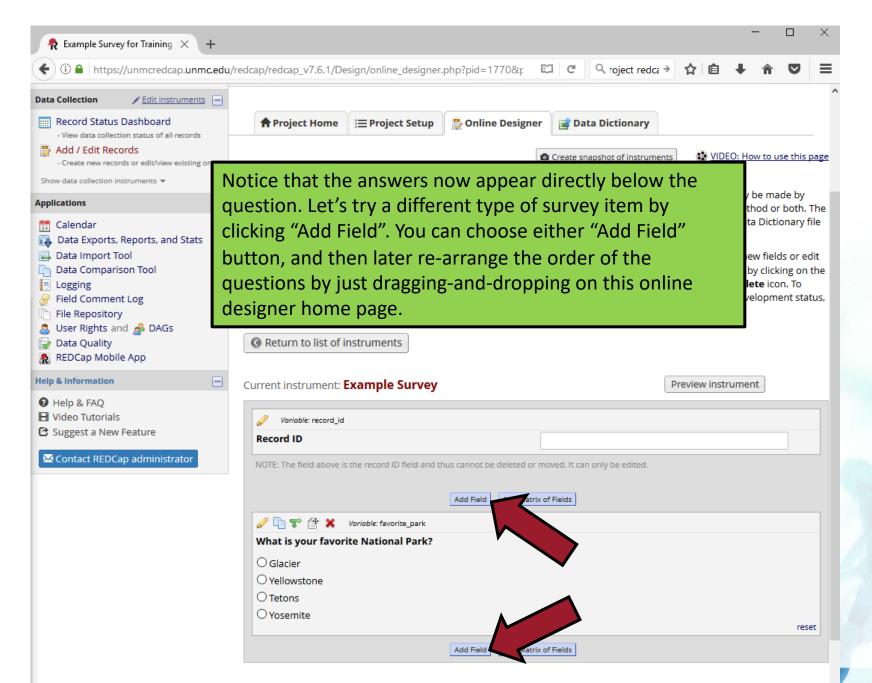
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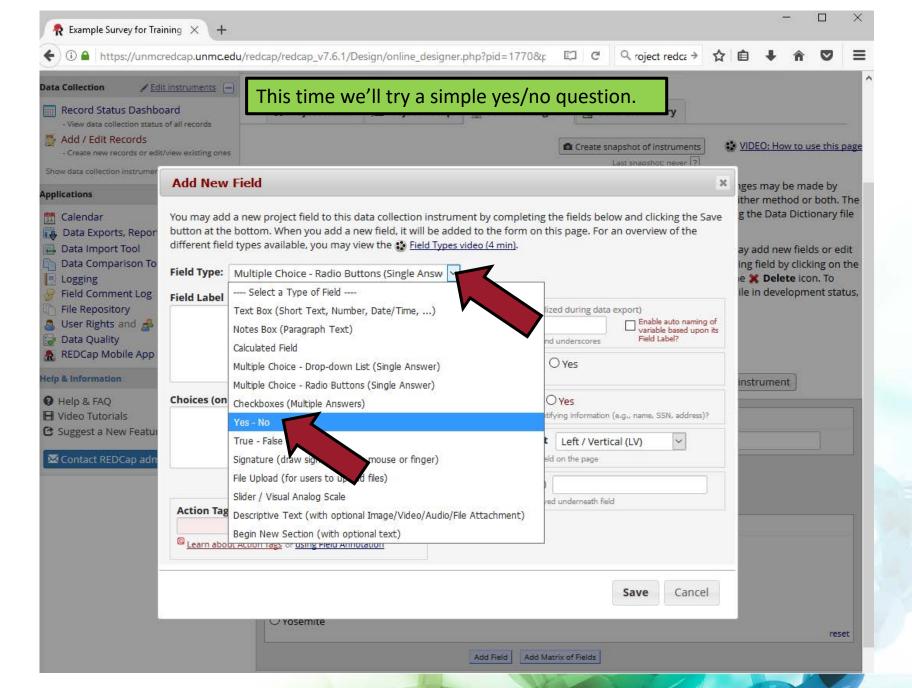




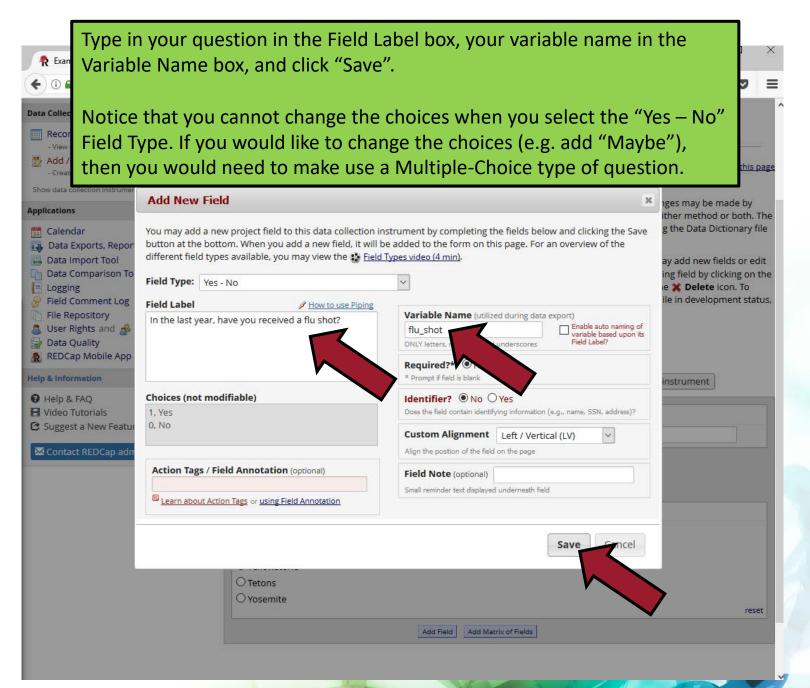




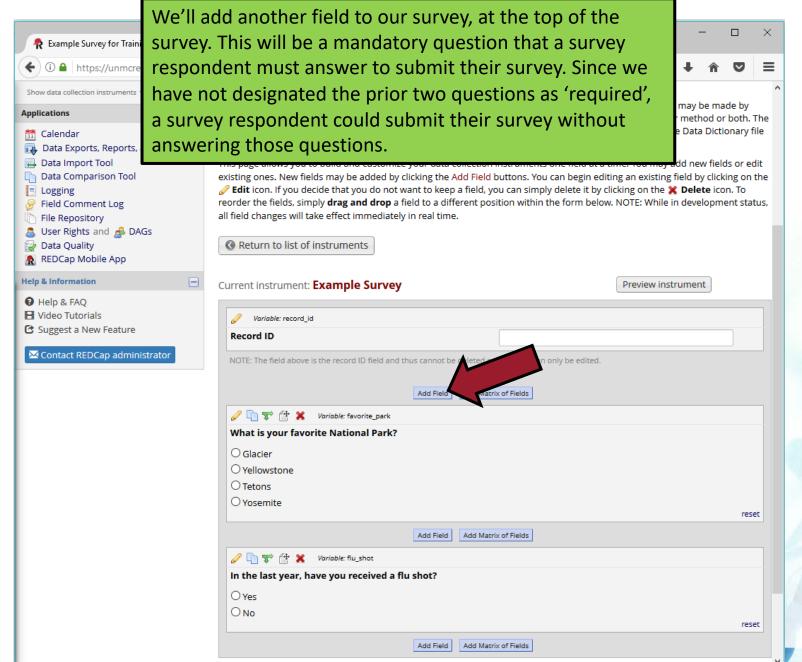










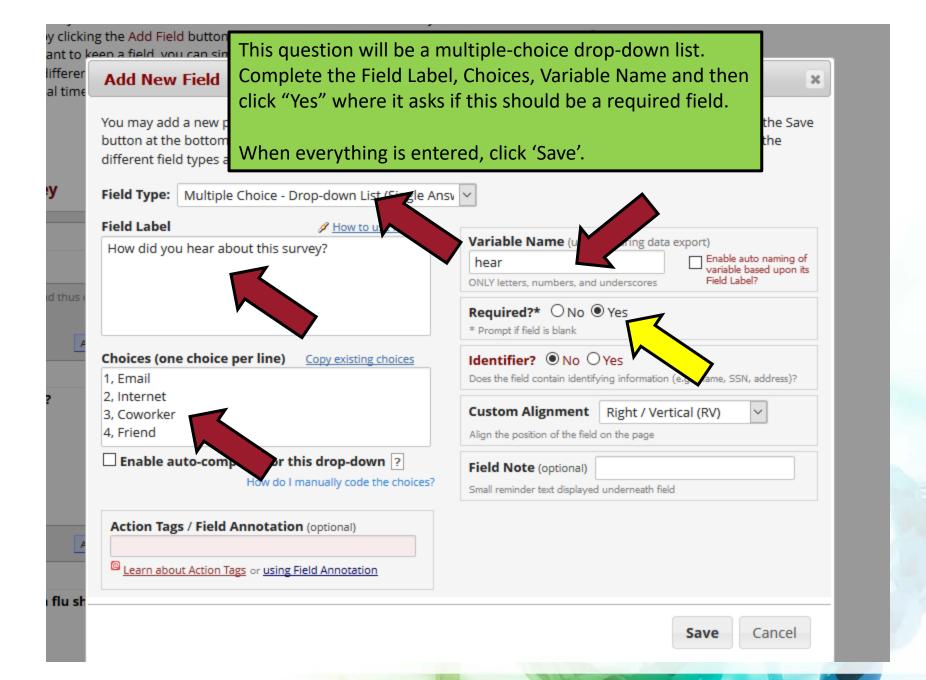




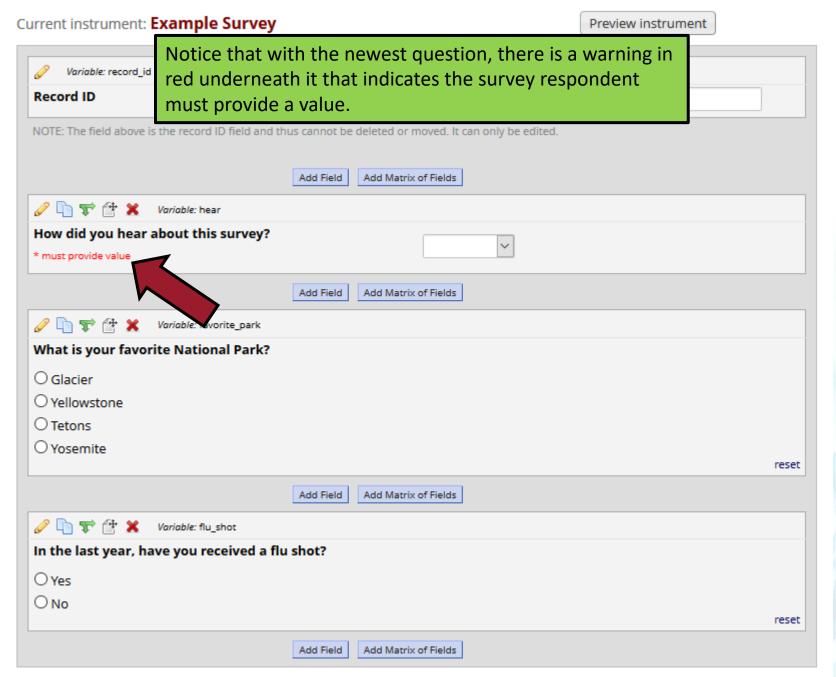
### **TUTORIAL NOTE:**

To get the most out of this tutorial, use the same questions and variable names that are used in the following slides. Some of the concepts we will be covering are dependent on specific questions and variables names, so it will be easier to just follow the examples directly. After you finish the tutorial, you can create as many questions as you would like!



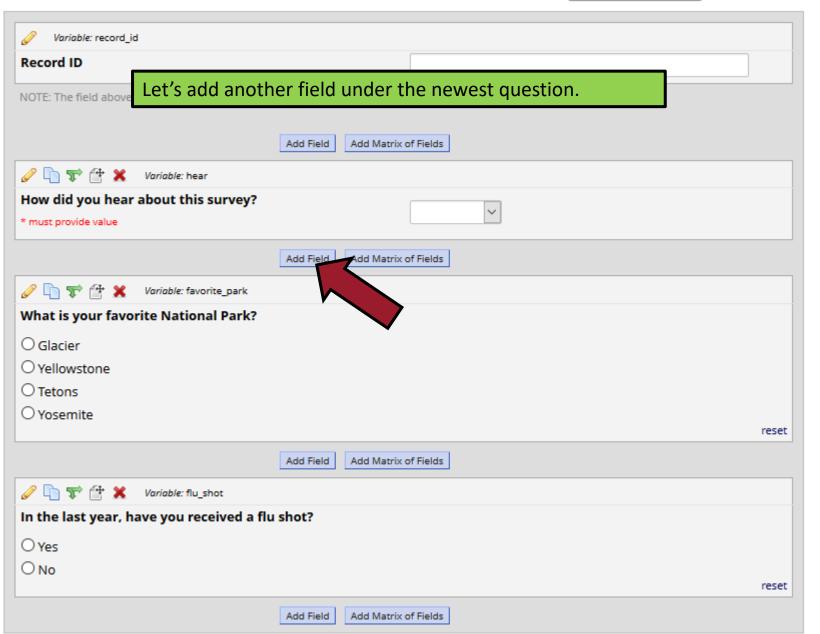






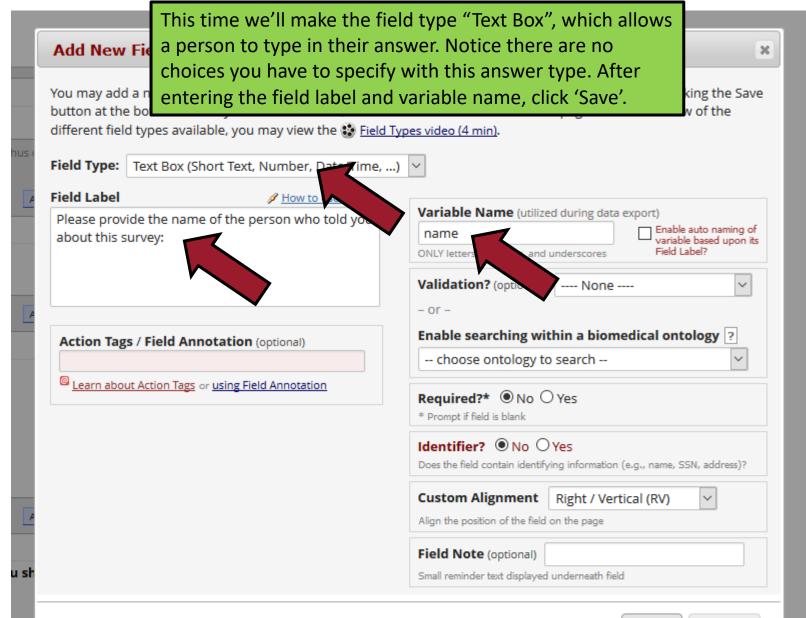


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Save

#### Current instrument: **Example Survey**

\* must provide value

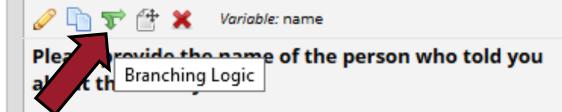


Now let's say that we only want people to answer the question we just created, only if they responded a certain way to a preceding question. To do this, we will use "Branching Logic" or "Skip Logic", which will only make a question appear if the survey respondent answered a specific way in an earlier question.

Click the branching logic symbol (green arrows) on the question you want to be contingent on a previous response.

Add Field

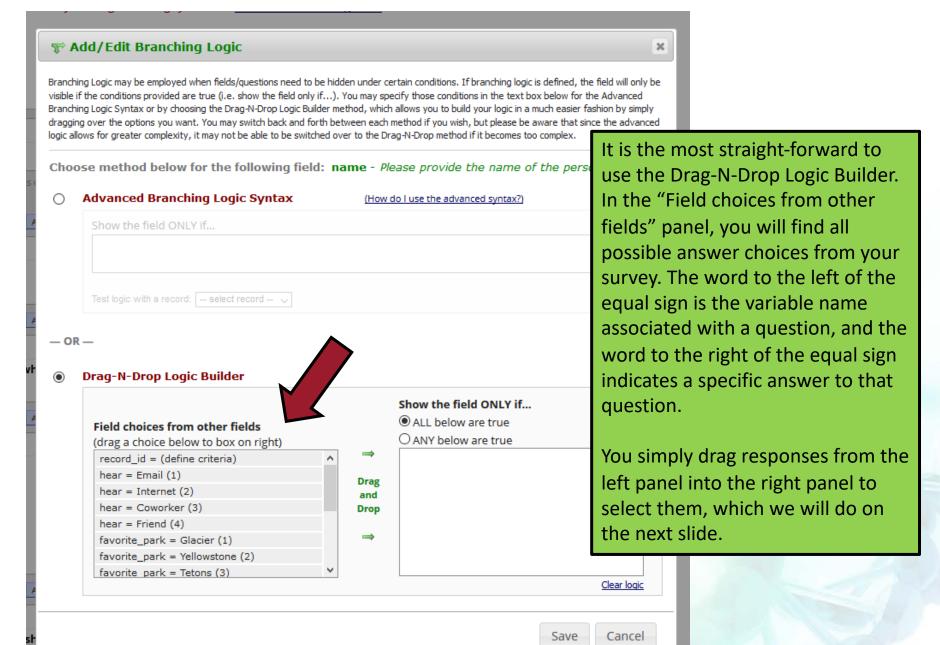
Add Matrix of Fields



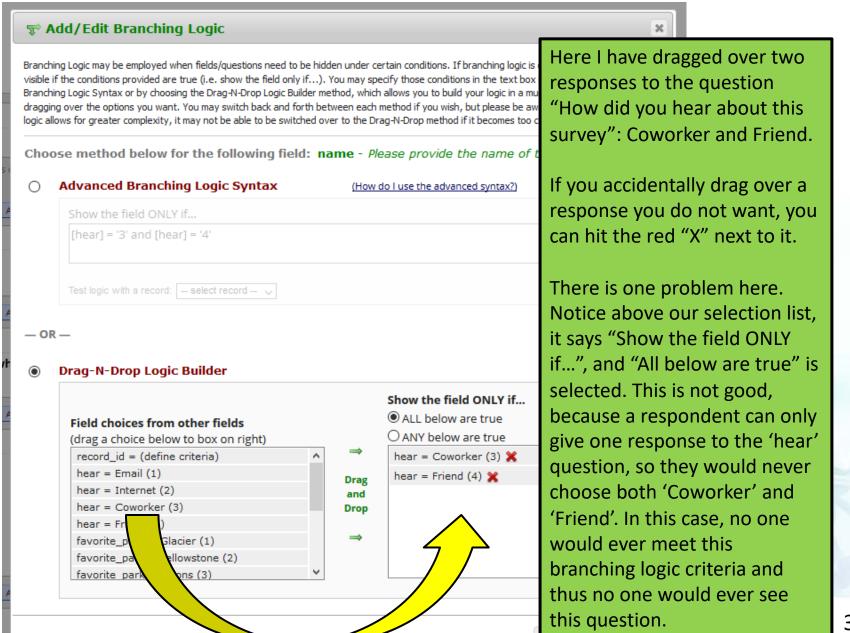
Add Field

Add Matrix of Fields

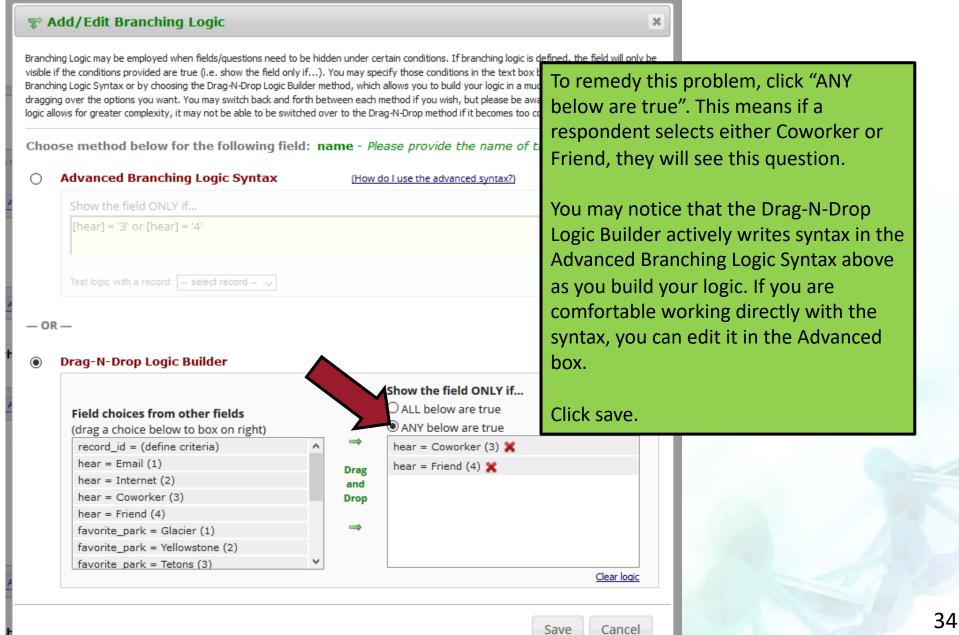




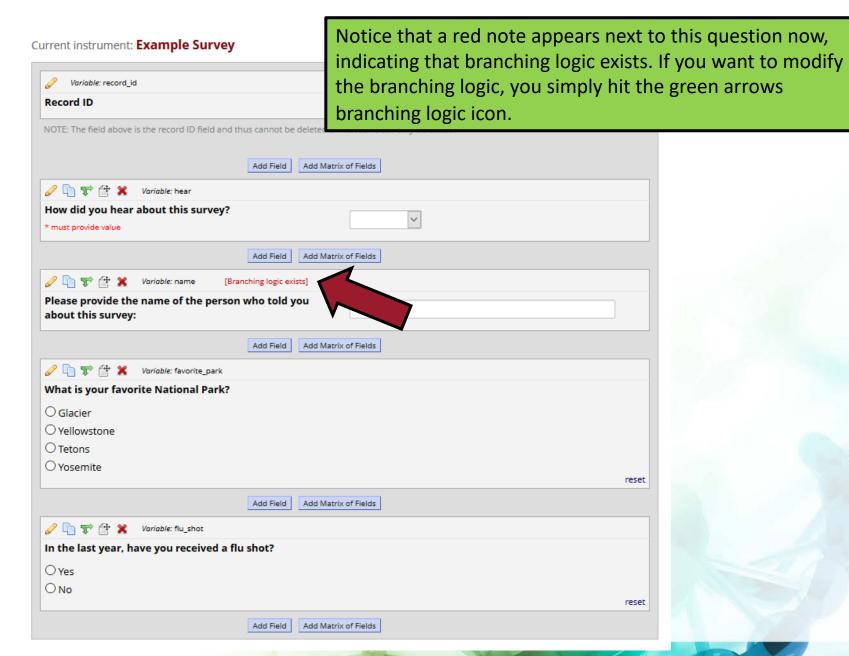




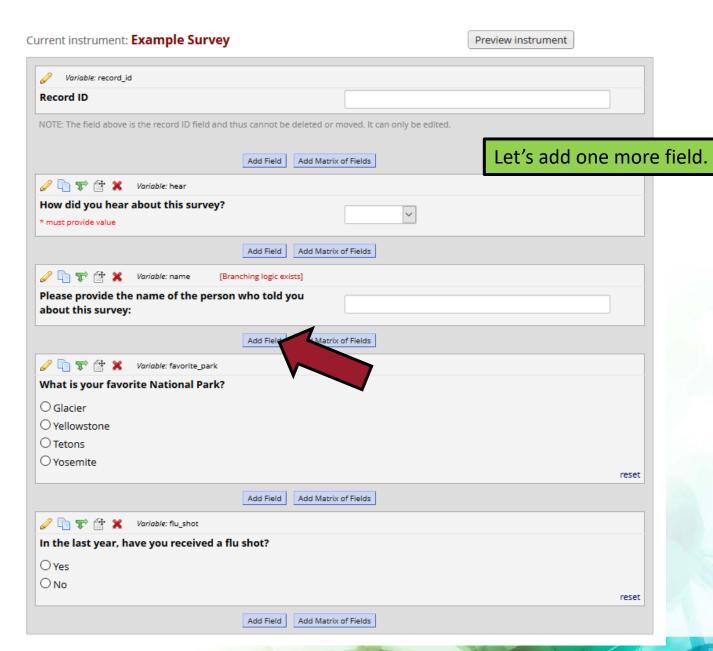




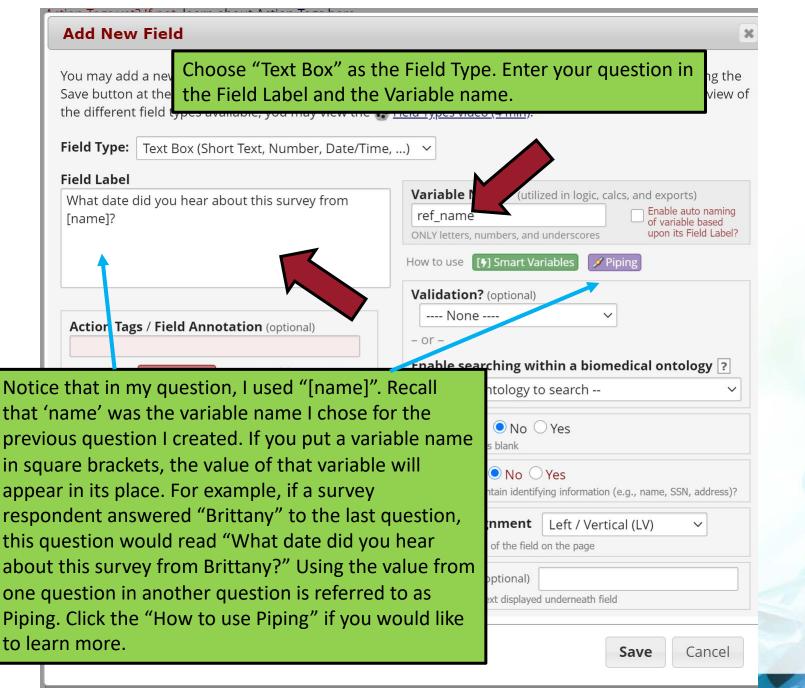




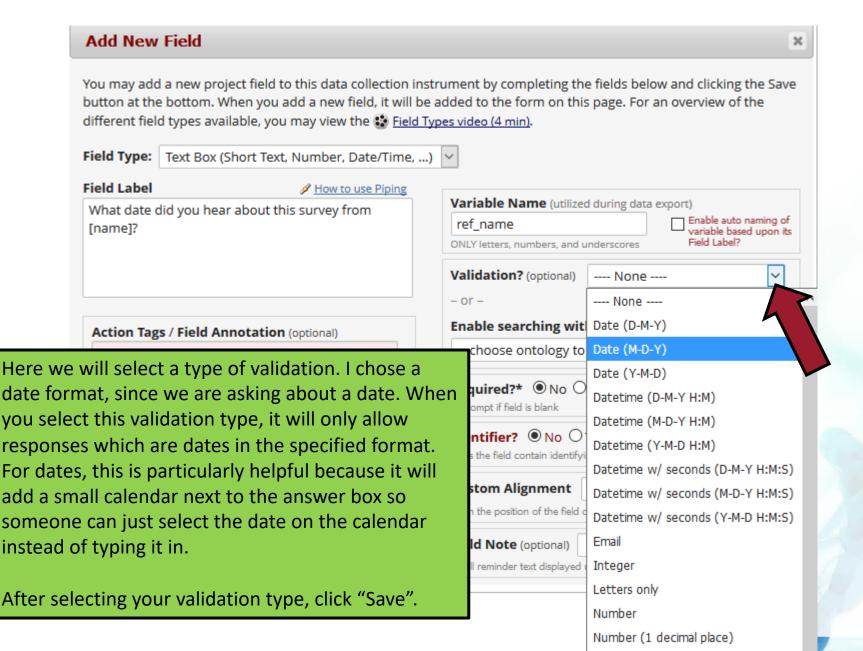


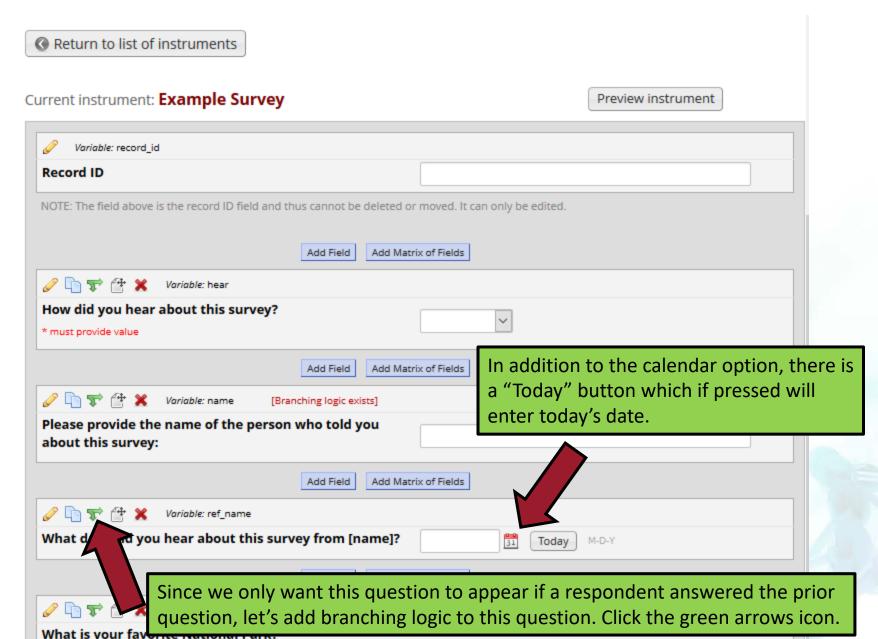




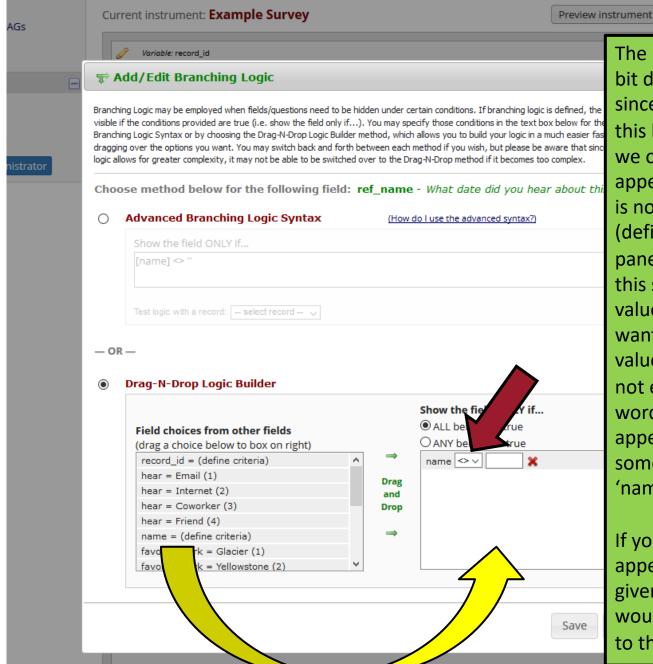








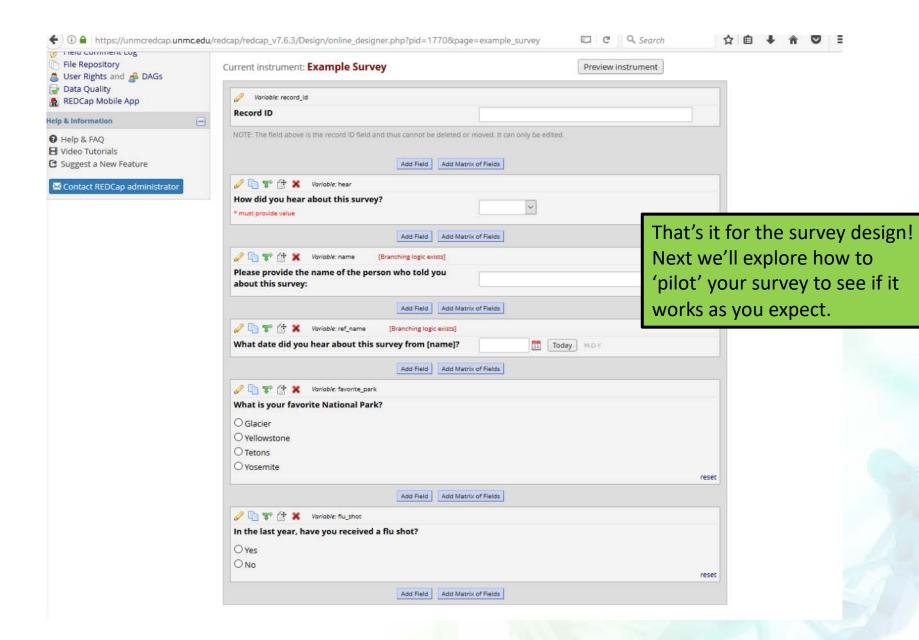




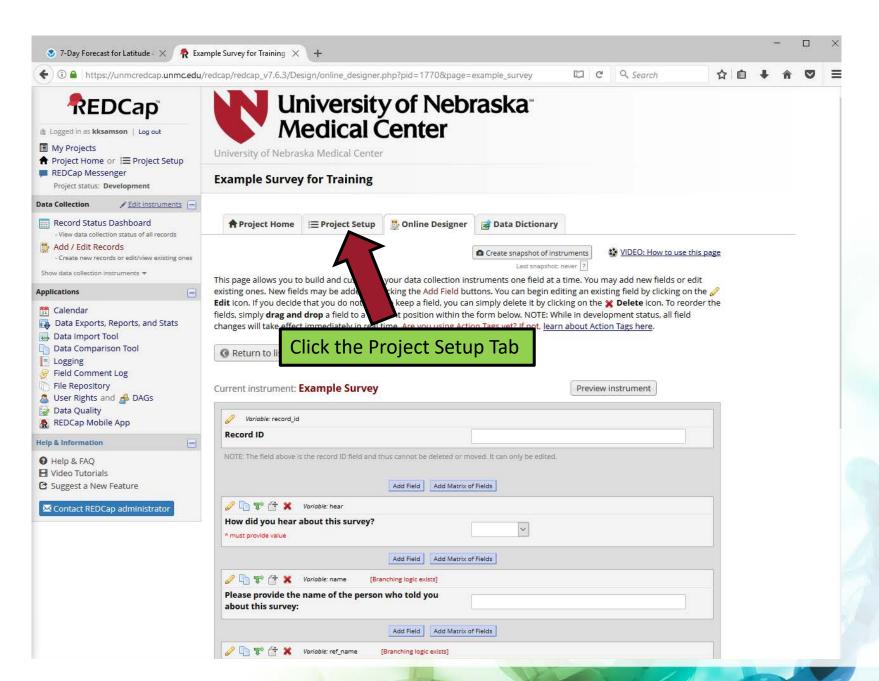
The branching logic on this one is a bit different than the last one. since the question we are basing this logic off of is open text. Here, we only want this question to appear if the prior question 'name' is not empty. Drag the 'name = (define criteria)' over to the right panel. The 'not equal to' symbol in this syntax is '<>'. We'll leave the value after '<>' blank, since we only want this question to appear if the value given to the name question is not equal to missing. In other words, this question will only appear if the respondent entered something in response to the 'name' question.

If you only wanted this question to appear when a specific value was given to the name question, you would type in that value box next to the '<>' symbol.

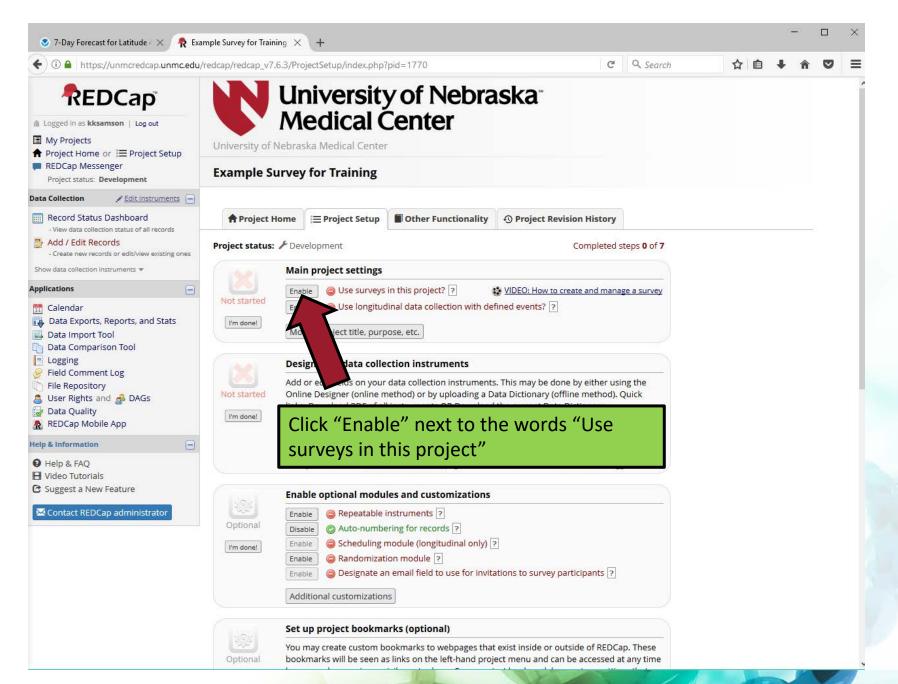




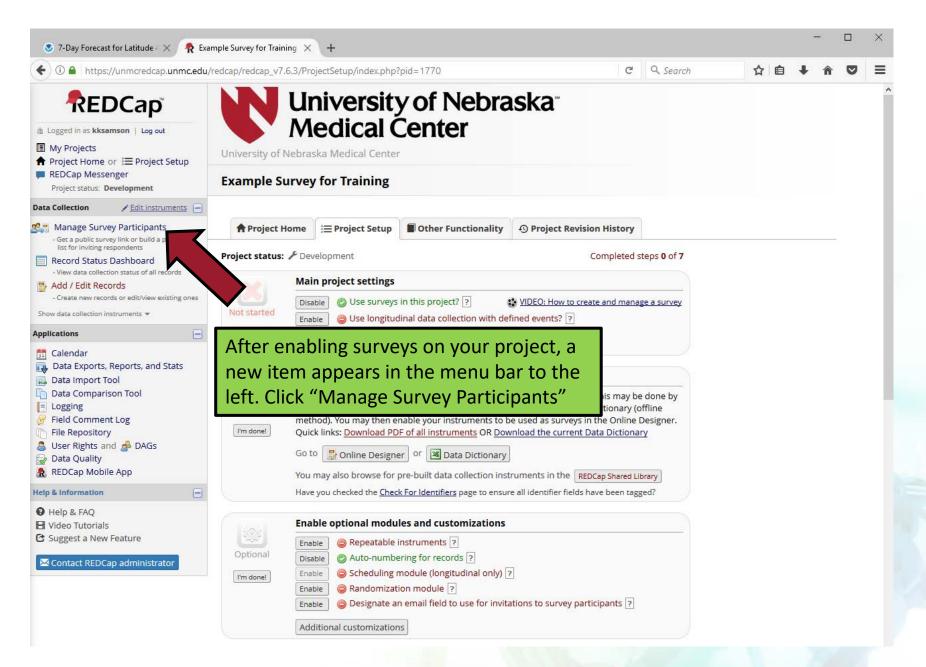




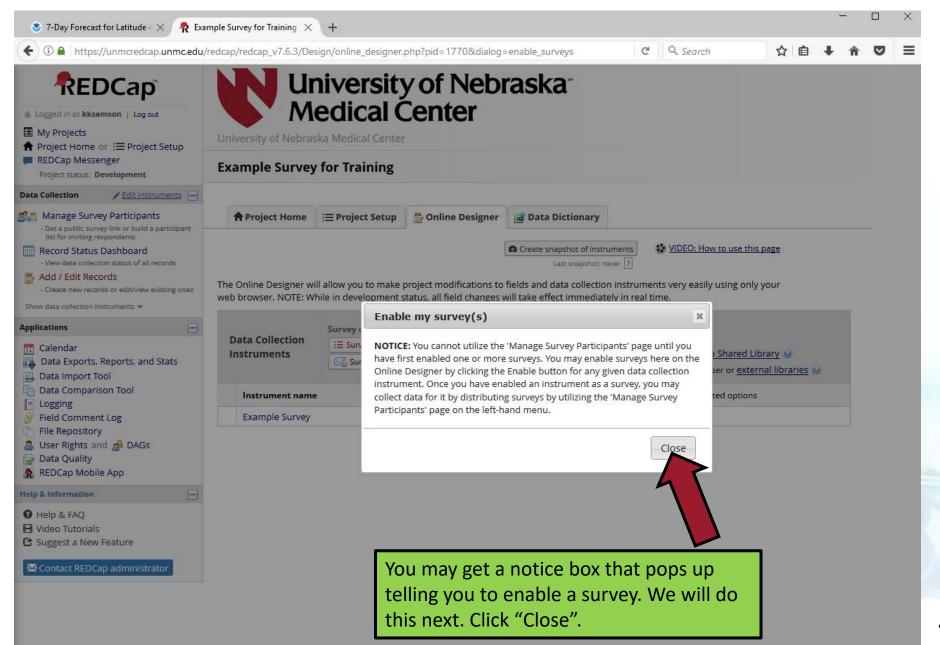




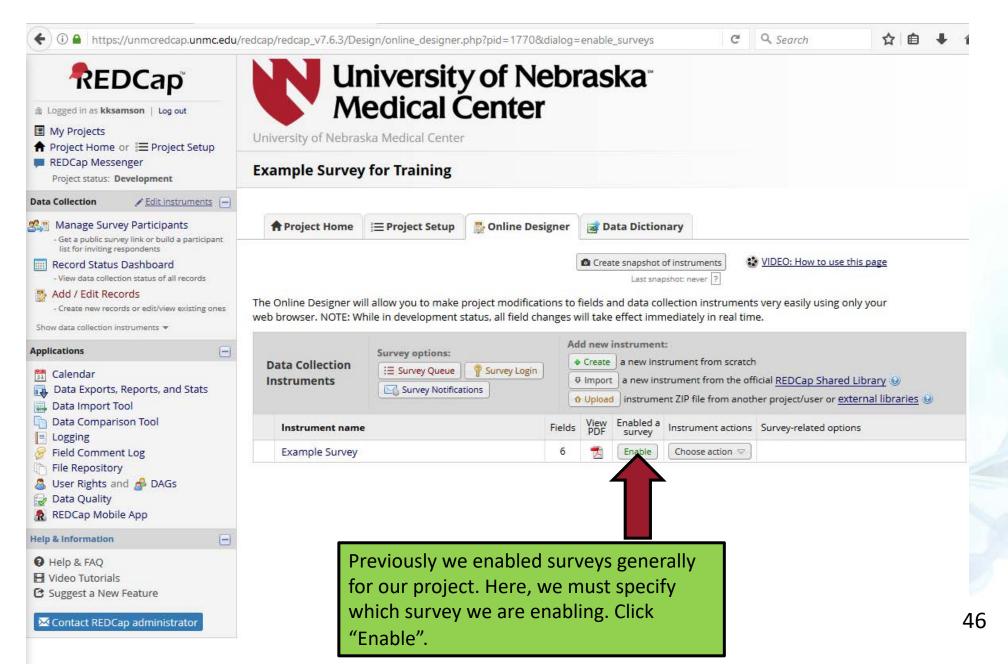




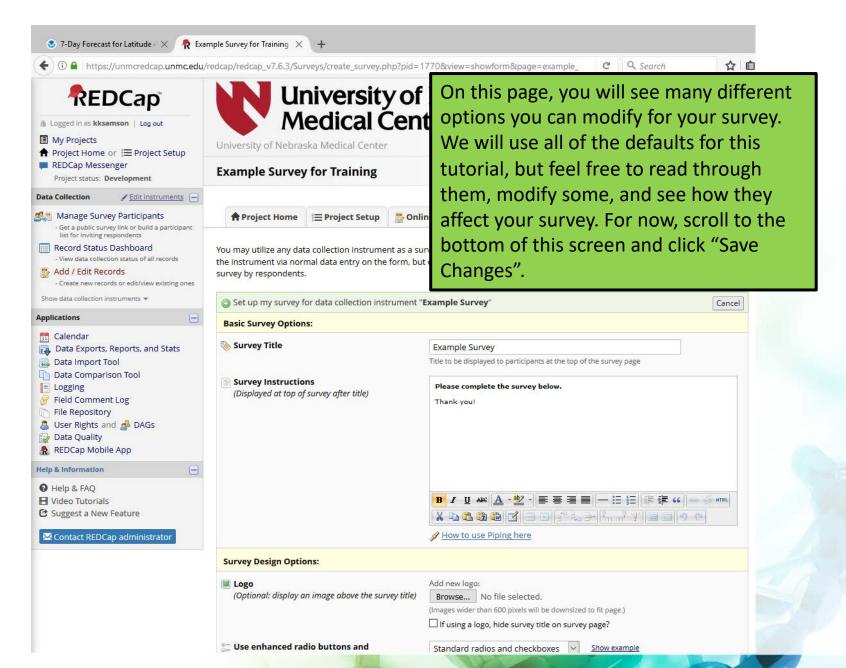




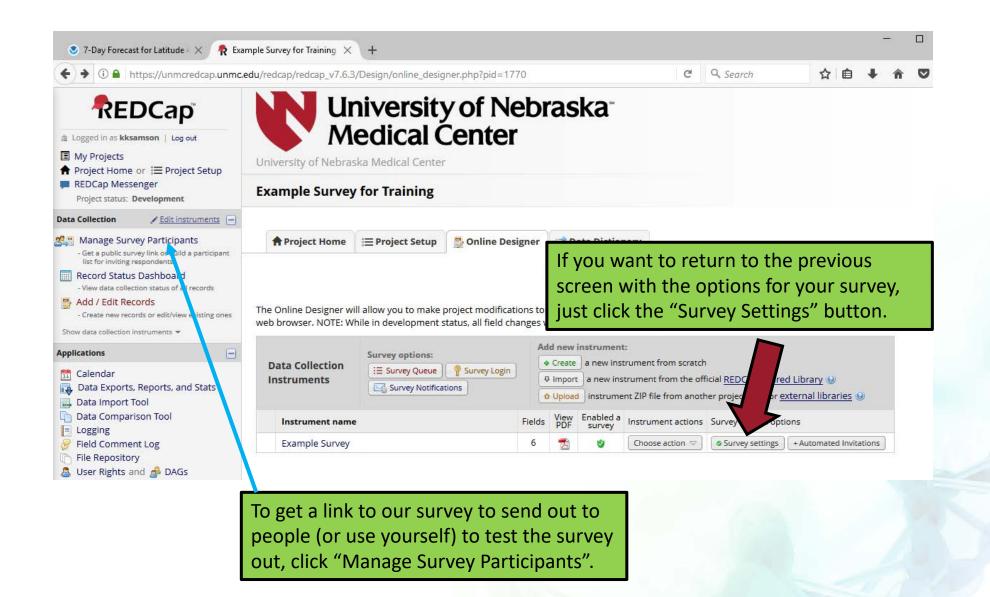










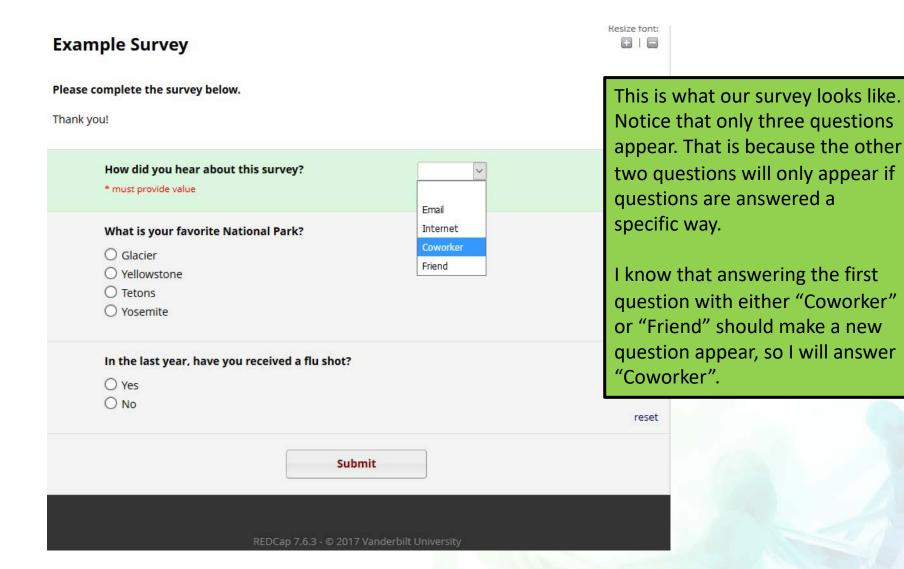








IMPORTANT: What we are doing right now is using the URL to TEST the survey to make sure it works as expected. If you want to use the survey to collect actual data, your project <u>must</u> be moved into <u>production</u>!





### **Example Survey**

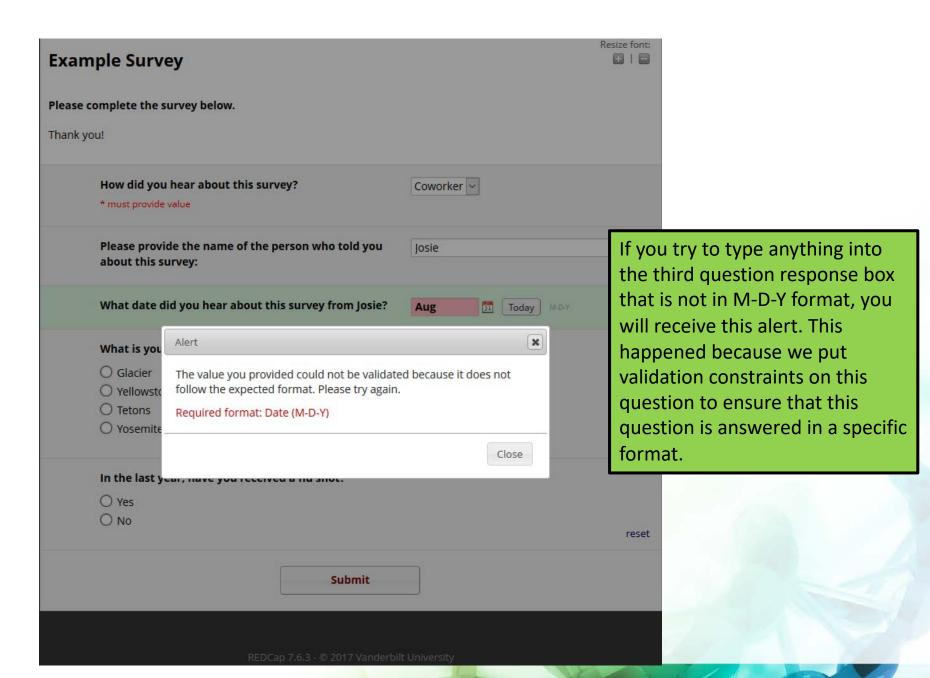
Resize font:

Please complete the survey below.

Thank you!

How did you hear about this survey?  * must provide value	Coworker	
Please provide the name of the person who told you about this survey:	Josie	
What date did you hear about this survey from?		looks like our branching logic
What is your favorite National Park?  Glacier  Yellowstone  Tetons  Yosemite	O Se	worked because a new question appeared!  Once you type anything into the second question/prompt, the
In the last year, have you received a flu shot?  Yes No		third question appears. Notice that the third question has instead of "Josie". The name "Josie" will appear where the
Submit	bo	ne is as soon as you click the ox to answer the date question or the calendar).







### **Example Survey**

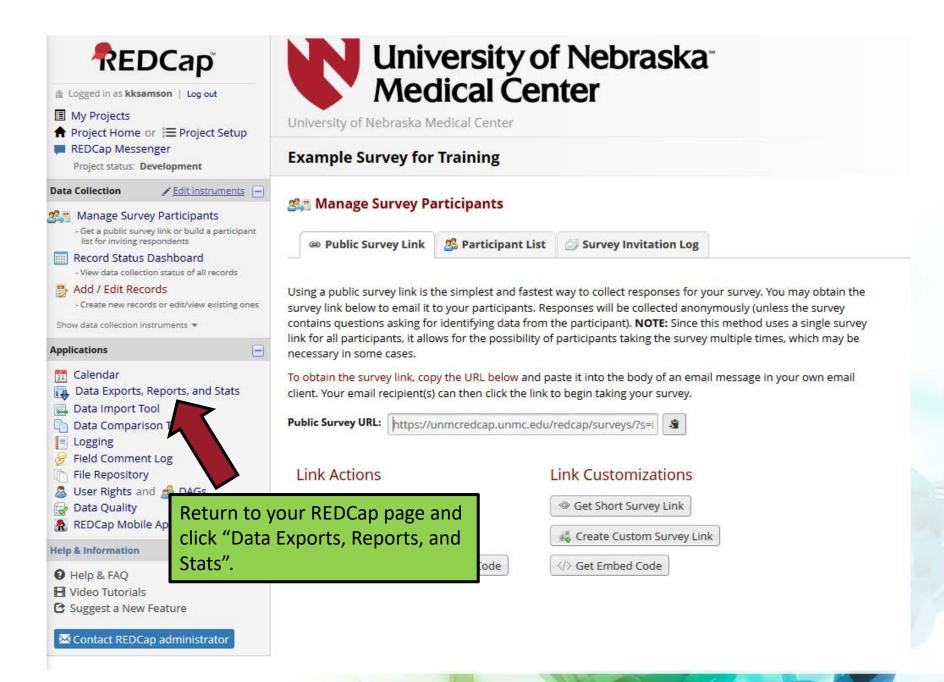
Resize font: 010

Please complete the survey below.

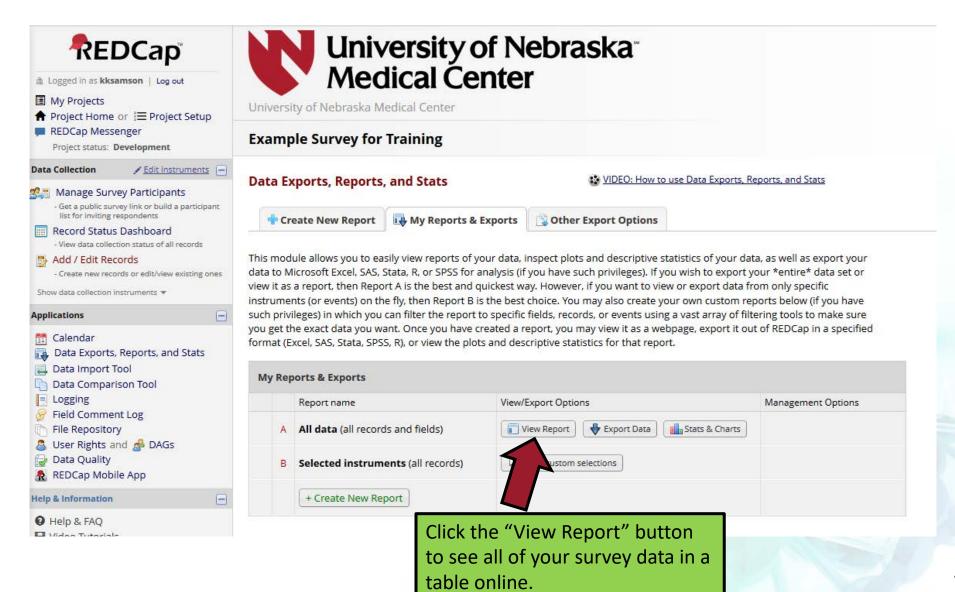
Thank you!

	then click submit. Complete the survey a few times (by repasting
What is your favorite National Park?	the survey URL) with different
Glacier	responses, so you have at least
○ Yellowstone	handful of responses. This will
O Tetons	give you something more
○ Yosemite	substantive to look at when we
In the last year, have you received a flu shot?	do the data export.
● Yes	
O No	reset

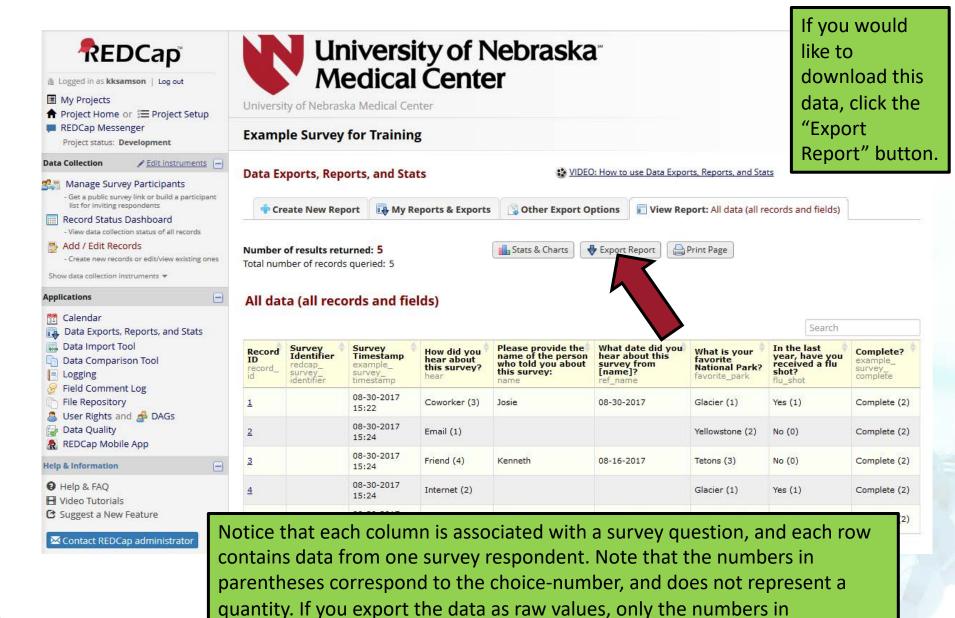






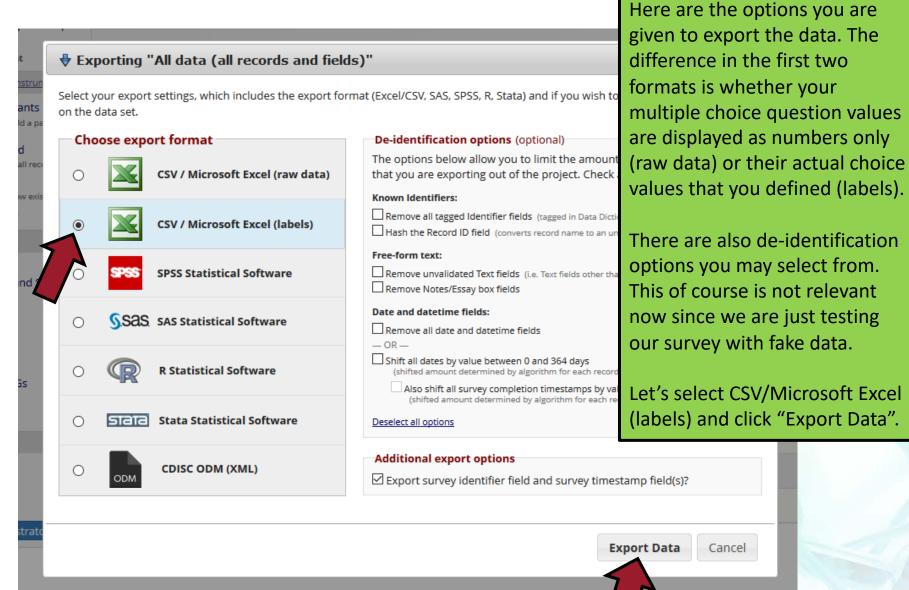




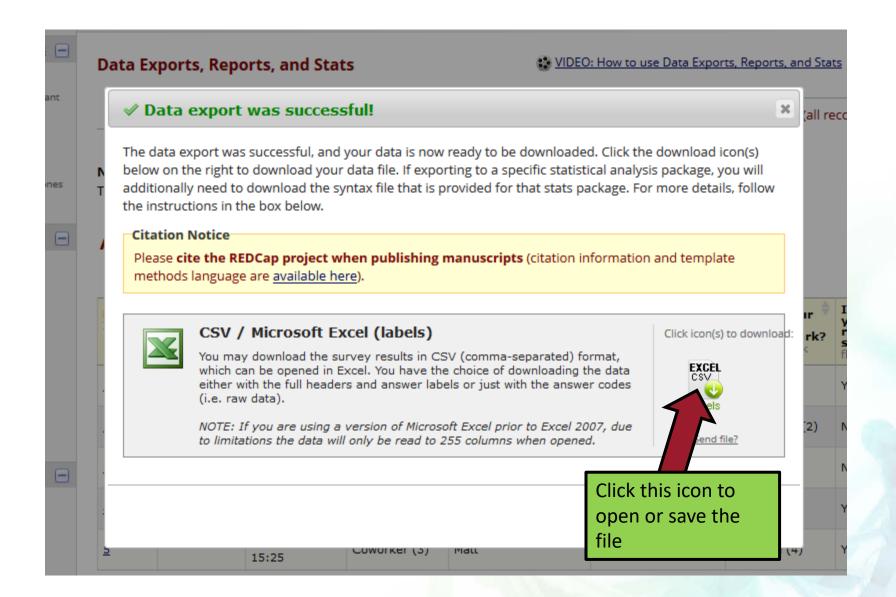


parentheses will appear, not words associated with those numbers.

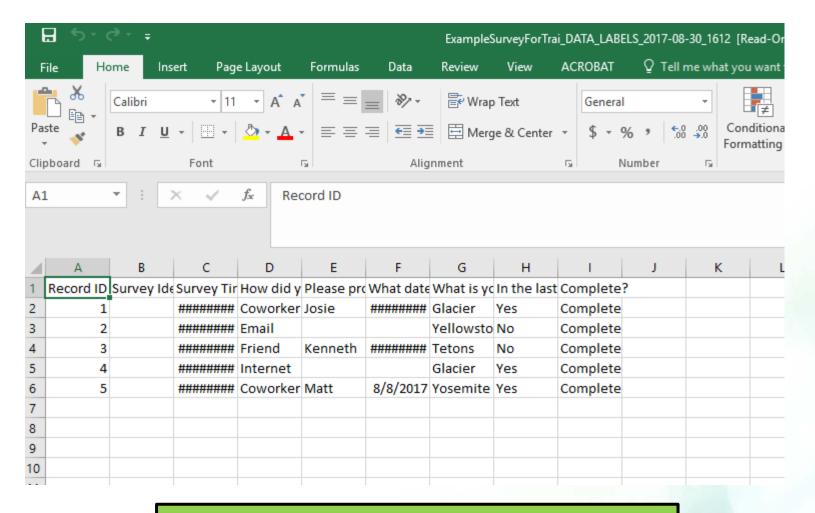






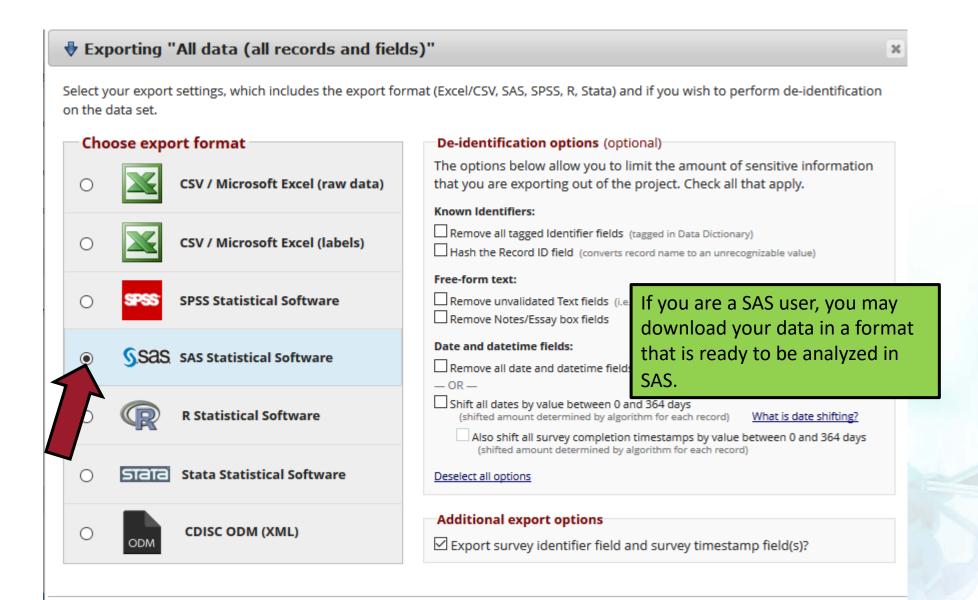






This is what the sheet will look like. The cells with "#####" happen because the width isn't wide enough. Make the column wider to see the values.







**Export Data** 

Cancel

### ✓ Data export was successful!

×

The data export was successful, and your data is now ready to be downloaded. Click the download icon(s) below on the right to download your data file. If exporting to a specific statistical analysis package, you will additionally need to download the syntax file that is provided for that stats package. For more details, follow the instructions in the box below.

#### Citation Notice

Please **cite the REDCap project when publishing manuscripts** (citation information and template methods language are <u>available here</u>).



#### **SAS Statistical Software**

Download and save all 3 files on the right to a common location. First, double-click on the Pathway Mapper (.bat) file, which will run quickly and invisibly. (If you are not using a Windows operating system, such as Mac or Linux, please see the Additional Instructions.) Now double-click on the \*.sas file, which will open SAS. When the file is loaded and displayed, choose Run (or Run-->Submit) from the top menu options. This action will launch the script that will automatically read in all data and manipulate data fields with labels, option values, etc.

Click icon(s) to download:

SAS

CSV

Pathway
Mapper

Send file?

Close

With the SAS download option, be sure to follow the directions carefully. If you do, you will get the data in a CSV file, and also SAS code which will read in your data from that CSV file, and contains all of the Proc Format coding and variable labels so you don't have to create those manually!



# **DATA COLLECTION**

 You can easily modify your survey during this pre-production stage if you find any glitches or problems with your survey. Continue to test out your survey as you improve it.

 All of the data you have collected to test your survey can easily be wiped when you're ready to collect real data and move your survey into production.



## **CONTACT INFORMATION**

If you have any questions related to the content of this presentation, or have noticed that this presentation needs to be updated due to changes in the format of the REDCap website, please contact Kaeli Samson at <a href="mailto:kksamson@unmc.edu">kksamson@unmc.edu</a>.



## **FUNDING STATEMENT**

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