



4

## BRICS USER GUIDE

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# Data Dictionary: eFORMS



## CHAPTER 4 – Data Dictionary: eFORMs

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The **Data Dictionary** module is used for defining data elements and form structures. Data Dictionary allows users to search, create and manage Common Data Elements (CDE) and Unique Data Elements (UDE), create, and manage form structures (FS) and electronic forms (eFORMS).

The Data Dictionary module is closely related to the Data Repository module which provides long term repository for research data.

### 4.1 Data Dictionary Objective

- Browse existing Data Elements
- Search Data Elements
- Create Data Elements
- Import Data Elements
- Browse existing eForms
- Search eForms
- Create eForms

### 4.2 System Functions

The Data Dictionary module provides the tools for defining the data you submit as well as provide alternate terms (aliasing) and translation rules for the same element. Importantly, the BRICS data dictionary provides those who have access to the data with clear and precise information about what it is they are accessing.

### 4.3 Data Dictionary Module Features

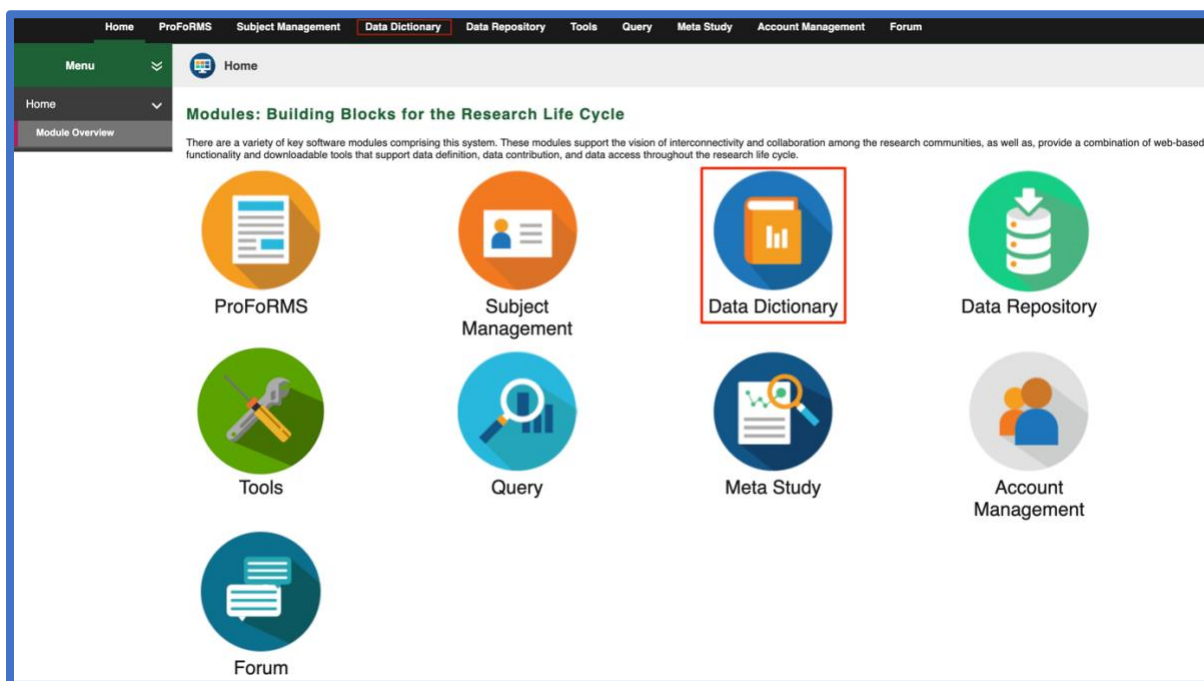
The **Data Dictionary Module** provides useful features for:

- Searching Data Elements
- Downloading Data Elements Results to XML, CSV and ZIP output formats
- Creating Data Elements
- Importing Data Elements

## 4.4 Module Navigation

The **Data Dictionary** module (including sub-modules) is available within the BRICS Workspace. **To Access the Data Dictionary Module:** Perform the following actions:

1. Log into your BRICS instance and select the Account Management module from either the top navigation bar or the module icon.



## 4.7 eFORMs

**An electronic form (eFORM)** is a grouping/collection of various questions and related Common and Unique Data Elements (CDEs and UDEs) used to gather information for a study. An electronic form is analogous to a case report form (CRF) (electronic or paper) where data elements are linked together for collection and display. **Data Submission:**

### 4.7.1 eForm Standardization (Standard vs Non-Standard)

Below are the eForm Standardizations found in BRICS:

- Standard eForms are available for users with Dictionary eForm privilege.
- Non-standard eForms will be available only to users with permissions to the eForm.
- These users would have to be assigned permissions to the eForm under the eFORMs permissions tab by the operations team.

- eForms can be used to collect data in a protocol within the ProFORMS module. The availability of an eForm in the protocol is dependent upon the eForm standardization status.

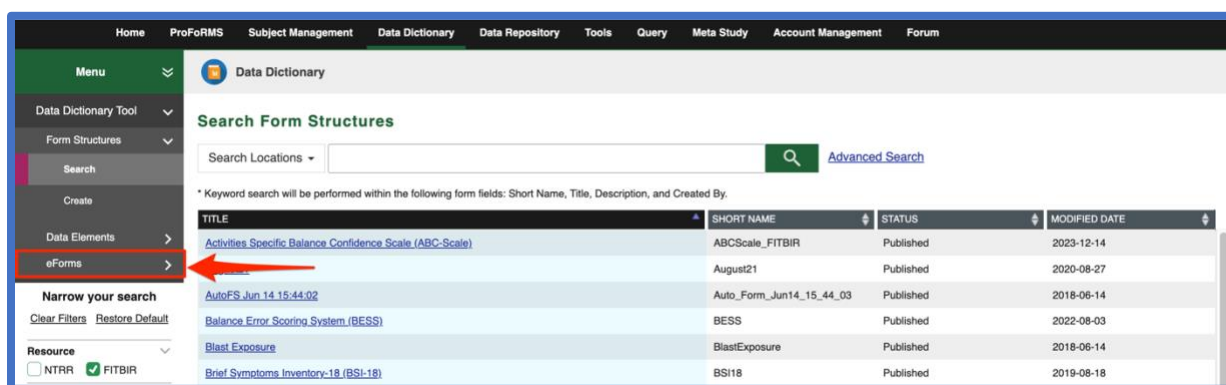
## 4.7.2 Search eForms

**To Search eForms:** Perform the following actions:

When you click the Data Dictionary module icon, you are automatically redirected to the **Data Dictionary>Search Form Structures** page, which by default lists all published form structures which exists in a given instance of BRICS.

On that page you can:

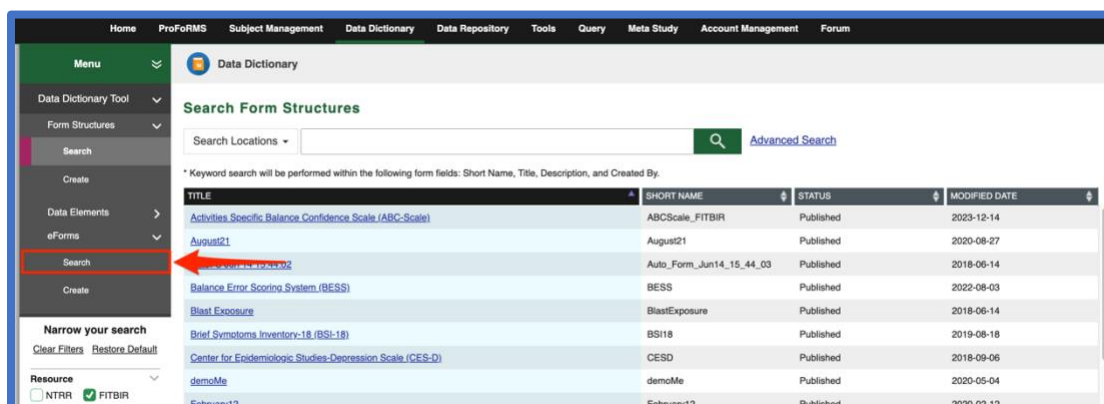
- Login and navigate to the Data Dictionary module.
- Select **eForms** on the left-side tool bar.



The screenshot shows the 'Data Dictionary' module with the 'Search Form Structures' page. The left sidebar has a 'Menu' section with 'eForms' selected. The main area shows a search bar and a table of form structures.

TITLE	SHORT NAME	STATUS	MODIFIED DATE
Activities Specific Balance Confidence Scale (ABC-Scale)	ABCScale_FITBIR	Published	2023-12-14
August21	August21	Published	2020-08-27
AutoFS Jun 14 15:44:02	Auto_Form_Jun14_15_44_03	Published	2018-06-14
Balance Error Scoring System (BESS)	BESS	Published	2022-08-03
Blast Exposure	BlastExposure	Published	2018-06-14
Brief Symptom Inventory-18 (BSI-18)	BSI18	Published	2019-08-18

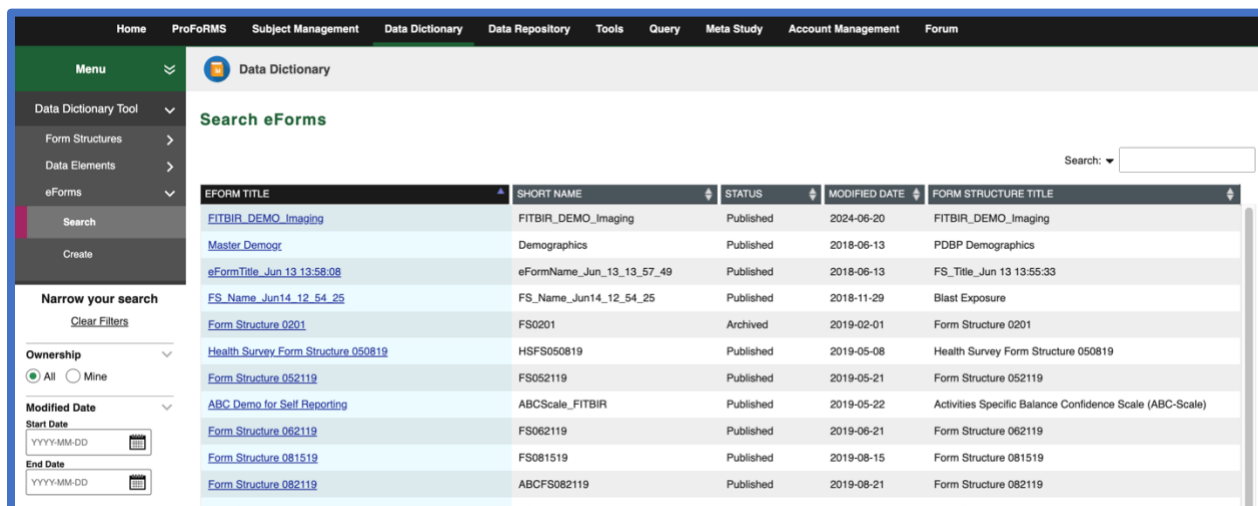
- Select the **Search** under eForms from the expanded drop-down.



The screenshot shows the 'Data Dictionary' module with the 'Search Form Structures' page. The left sidebar has a 'Menu' section with 'eForms' expanded, and 'Search' is selected. The main area shows a search bar and a table of form structures.

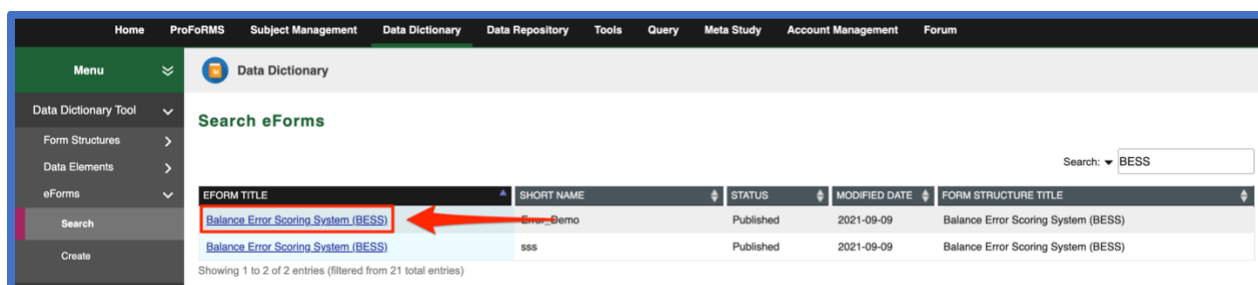
TITLE	SHORT NAME	STATUS	MODIFIED DATE
Activities Specific Balance Confidence Scale (ABC-Scale)	ABCScale_FITBIR	Published	2023-12-14
August21	August21	Published	2020-08-27
AutoFS Jun 14 15:44:02	Auto_Form_Jun14_15_44_03	Published	2018-06-14
Balance Error Scoring System (BESS)	BESS	Published	2022-08-03
Blast Exposure	BlastExposure	Published	2018-06-14
Brief Symptom Inventory-18 (BSI-18)	BSI18	Published	2019-08-18
Center for Epidemiologic Studies-Depression Scale (CES-D)	CESD	Published	2018-09-06
demoMe	demoMe	Published	2020-05-04
Exposure19	Exposure19	Published	2020-03-13

4. You can now see the available eForms. Use the search box to narrow down the results.



EFORM TITLE	SHORT NAME	STATUS	MODIFIED DATE	FORM STRUCTURE TITLE
<a href="#">FITBIR_DEMO_Imaging</a>	FITBIR_DEMO_Imaging	Published	2024-06-20	FITBIR_DEMO_Imaging
<a href="#">Master Demoor</a>	Demographics	Published	2018-06-13	PDBP Demographics
<a href="#">eFormTitle_Jun_13_13:58:08</a>	eFormName_Jun_13_13_57_49	Published	2018-06-13	FS_Title_Jun 13 13:55:33
<a href="#">FS_Name_Jun14_12_54_25</a>	FS_Name_Jun14_12_54_25	Published	2018-11-29	Blast Exposure
<a href="#">Form Structure 0201</a>	FS0201	Archived	2019-02-01	Form Structure 0201
<a href="#">Health Survey Form Structure 050819</a>	HSFS050819	Published	2019-05-08	Health Survey Form Structure 050819
<a href="#">Form Structure 052119</a>	FS052119	Published	2019-05-21	Form Structure 052119
<a href="#">ABC Demo for Self Reporting</a>	ABCScale_FITBIR	Published	2019-05-22	Activities Specific Balance Confidence Scale (ABC-Scale)
<a href="#">Form Structure 062119</a>	FS062119	Published	2019-06-21	Form Structure 062119
<a href="#">Form Structure 081519</a>	FS081519	Published	2019-08-15	Form Structure 081519
<a href="#">Form Structure 082119</a>	ABCF082119	Published	2019-08-21	Form Structure 082119

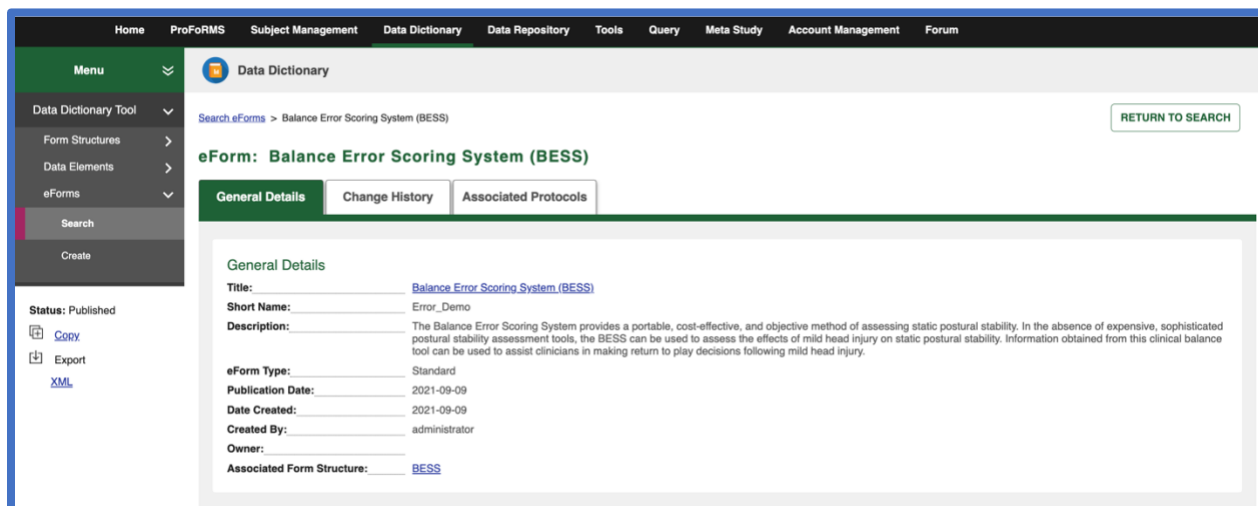
5. Click on the eForms title to open it.



EFORM TITLE	SHORT NAME	STATUS	MODIFIED DATE	FORM STRUCTURE TITLE
<a href="#">Balance Error Scoring System (BESS)</a>	Error_Demo	Published	2021-09-09	Balance Error Scoring System (BESS)
<a href="#">Balance Error Scoring System (BESS)</a>	\$\$\$	Published	2021-09-09	Balance Error Scoring System (BESS)

Showing 1 to 2 of 2 entries (filtered from 21 total entries)

6. The eFORM will open to the following page:



Search: eForms > Balance Error Scoring System (BESS) [RETURN TO SEARCH](#)

### eForm: Balance Error Scoring System (BESS)

**General Details** | **Change History** | **Associated Protocols**

**General Details**

Title: [Balance Error Scoring System \(BESS\)](#)

Short Name: Error\_Demo

Description: The Balance Error Scoring System provides a portable, cost-effective, and objective method of assessing static postural stability. In the absence of expensive, sophisticated postural stability assessment tools, the BESS can be used to assess the effects of mild head injury on static postural stability. Information obtained from this clinical balance tool can be used to assist clinicians in making return to play decisions following mild head injury.

eForm Type: Standard

Publication Date: 2021-09-09

Date Created: 2021-09-09

Created By: administrator

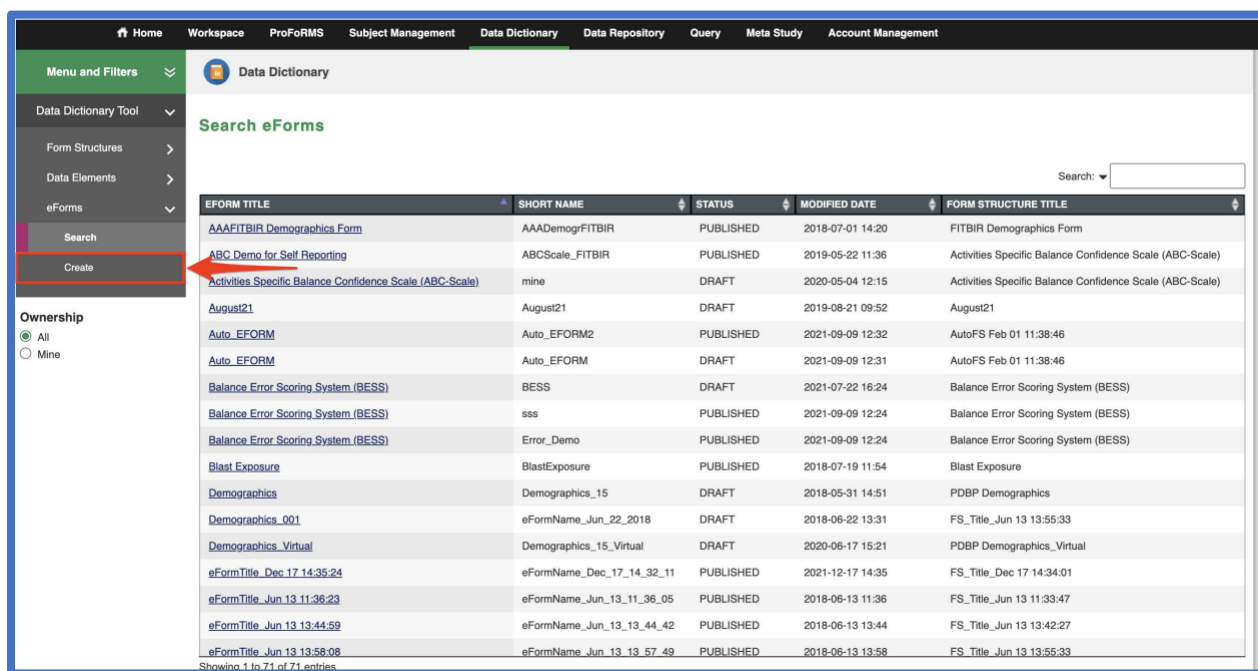
Owner:

Associated Form Structure: [BESS](#)

## 4.7.3 Create eForms

**To Create eForms:** Perform the following actions:

1. Select Create under eForms in the left navigation.

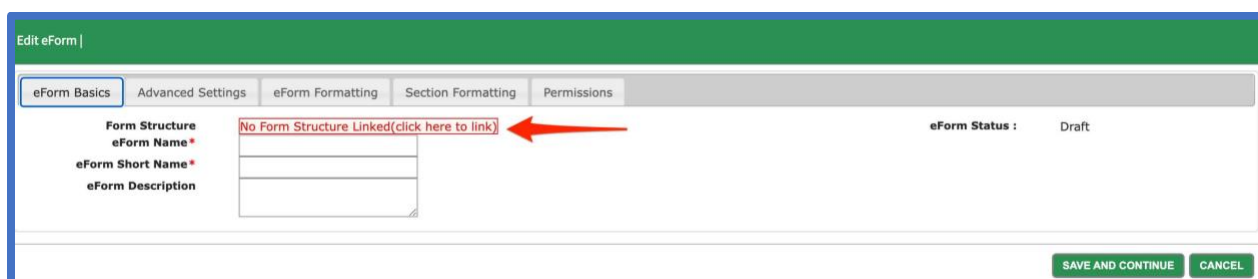


The screenshot shows the 'Data Dictionary' section of the application. In the left-hand navigation menu, under the 'eForms' category, the 'Create' option is highlighted with a red box and a red arrow. The main area displays a table of existing eForms with columns for EFORM TITLE, SHORT NAME, STATUS, MODIFIED DATE, and FORM STRUCTURE TITLE. A search bar is located at the top right of the table.

EFORM TITLE	SHORT NAME	STATUS	MODIFIED DATE	FORM STRUCTURE TITLE
AAAFITBIR Demographics Form	AAADemogrFITBIR	PUBLISHED	2018-07-01 14:20	FITBIR Demographics Form
ABC Demo for Self Reporting	ABCscale_FITBIR	PUBLISHED	2019-05-22 11:36	Activities Specific Balance Confidence Scale (ABC-Scale)
Activities Specific Balance Confidence Scale (ABC-Scale)	mine	DRAFT	2020-05-04 12:15	Activities Specific Balance Confidence Scale (ABC-Scale)
August21	August21	DRAFT	2019-08-21 09:52	August21
Auto_EFORM	Auto_EFORM2	PUBLISHED	2021-09-09 12:32	AutoFS Feb 01 11:38:46
Auto_EFORM	Auto_EFORM	DRAFT	2021-09-09 12:31	AutoFS Feb 01 11:38:46
Balance Error Scoring System (BESS)	BESS	DRAFT	2021-07-22 16:24	Balance Error Scoring System (BESS)
Balance Error Scoring System (BESS)	sss	PUBLISHED	2021-09-09 12:24	Balance Error Scoring System (BESS)
Balance Error Scoring System (BESS)	Error_Demo	PUBLISHED	2021-09-09 12:24	Balance Error Scoring System (BESS)
Blast Exposure	BlastExposure	PUBLISHED	2018-07-19 11:54	Blast Exposure
Demographics	Demographics_15	DRAFT	2018-05-31 14:51	PDBP Demographics
Demographics_001	eFormName_Jun_22_2018	DRAFT	2018-06-22 13:31	FS_Title_Jun 13 13:55:33
Demographics_Virtual	Demographics_15_Virtual	DRAFT	2020-06-17 15:21	PDBP Demographics_Virtual
eFormTitle_Dec 17 14:35:24	eFormName_Dec_17_14_32_11	PUBLISHED	2021-12-17 14:35	FS_Title_Dec 17 14:34:01
eFormTitle_Jun 13 11:36:23	eFormName_Jun_13_11_36_05	PUBLISHED	2018-06-13 11:36	FS_Title_Jun 13 11:33:47
eFormTitle_Jun 13 13:44:59	eFormName_Jun_13_13_44_42	PUBLISHED	2018-06-13 13:44	FS_Title_Jun 13 13:42:27
eFormTitle_Jun 13 13:58:08	eFormName_Jun_13_13_57_49	PUBLISHED	2018-06-13 13:58	FS_Title_Jun 13 13:55:33

Showing 1 to 71 of 71 entries

2. Click on the No Form Structure Linked (Click here to link)



The screenshot shows the 'Edit eForm' form with the 'eForm Basics' tab selected. The 'Form Structure' section displays the message 'No Form Structure Linked(click here to link)' with a red arrow pointing to the text. The 'eForm Name' field is empty, and the 'eForm Short Name' and 'eForm Description' fields are also empty. The 'eForm Status' is set to 'Draft'. At the bottom right, there are 'SAVE AND CONTINUE' and 'CANCEL' buttons.

3. Use the Search box to narrow the results for the Form Structure you're looking for and click the radio button to the left of the SHORT NAME to select it.

Form Structure

Please select a form structure for this form

Search: demographics

	SHORT NAME	VERSION	DESCRIPTION
<input checked="" type="radio"/>	Demographics	2.0	This form contains data elements that are collected to describe the demographics of the study population. The items are used to compare baseline characteristics among study groups and to identify confounding variables.
<input type="radio"/>	DemogrFITBIR	1.0	FITBIR Demographics standard form

Showing 1 to 2 of 2 entries (filtered from 101 total entries) (1 row selected of 101)

First Previous 1 Next Last

SELECT CANCEL

- After selecting a Form Structure, click SELECT at the bottom right to continue.
- The Edit Form Details panel will display.  
See description of each tab below

PDBP Demographics  
Demographics: Draft

Edit eForm |

eForm Basics

Advanced Settings

eForm Formatting

Section Formatting

Permissions

Form Structure

eForm Name\*

eForm Short Name\*

eForm Description

Demographics

PDBP Demographics

Demographics

This form contains data elements that are collected

eForm Status : Draft

SAVE AND CONTINUE CANCEL

**eForm Basics:** The basic settings of the eForm: Form Structure, eForm Name, eForm Short Name (MUST BE UNIQUE), eForm Description.

**Advanced Settings:**

- Allow Multiple Instances: Allows the form to be used multiple times when it is the same visit type and same user. When unchecked you will not be able to use this form if it is the same visit type with the same patient.
- eForm Category for Proforms: This will indicate the category in Proforms. We recommend leaving it as Normal.

**eForm Formatting:** Change the Font, Font Size, Font Color, Padding, etc. Add a Header/Footer.

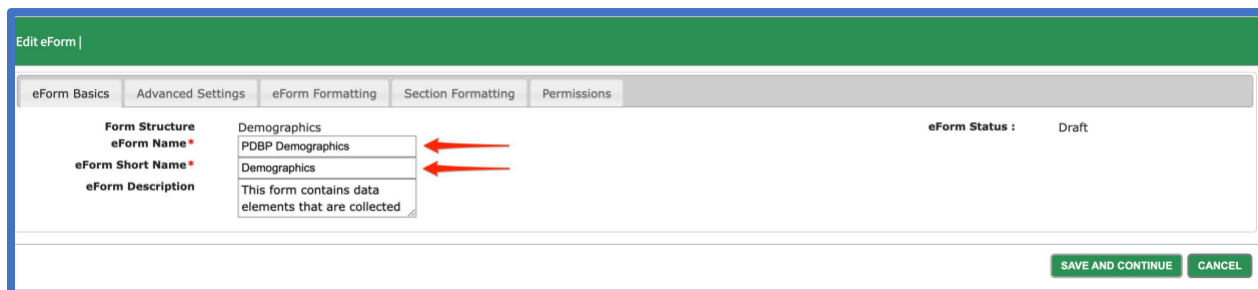
**Section Formatting:** Similar to eForm Formatting but specifically for the sections.

**Permissions:** See and modify the permissions for this eForm. You give a user the following permissions:  
Owner: Has full access to Read/Write/Admin and can modify the Owner Permission.

**NOTE:** Each eForm can ONLY have ONE Owner. Admin: Has full access to Read/Write. and can also add additional admins. Write: Has full access to Read and can also edit the eForm. Cannot edit the Permissions. Read: Cannot make any edits to the eForm. Read access will only allow the user to view the eForm.

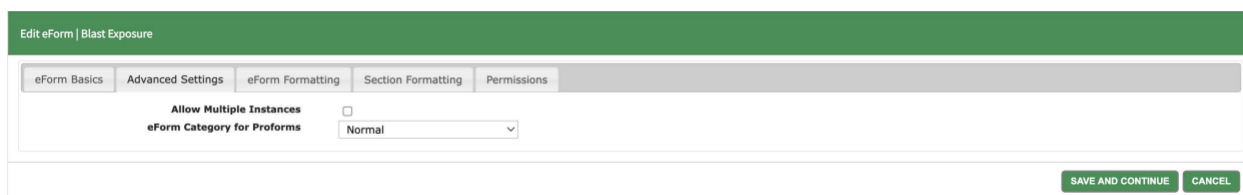
6. Fill out the required fields: **eForm Name** and **eForm Short Name**.

**NOTE:** eFORM short name must be unique.

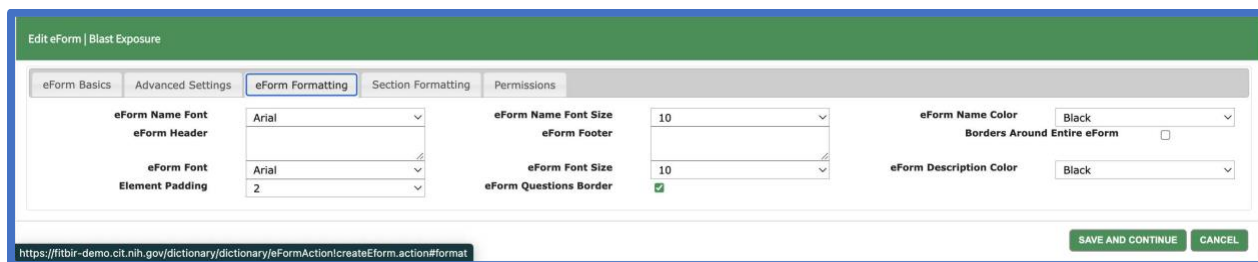
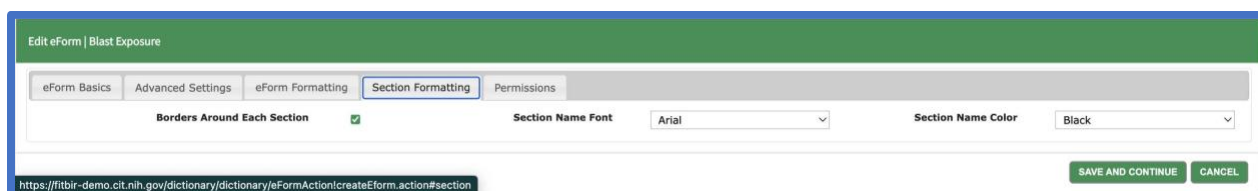


7. **Advanced Settings:** Leave as default values unless needed for your use case.

- **Allow Multiple Instances:** Allows the form to be used multiple times when it is the same visit type and same user. When unchecked you will not be able to use this form if it is the same visit type with the same patient. Recommended to leave this field unchecked.
- **eForm Category for Proforms:** This will indicate the category in Proforms. We recommend leaving it as Normal.



8. **eForm Formatting & Section Formatting:** Change to meet your formatting needs here.



9. **Permissions:** To modify your eForms permissions:

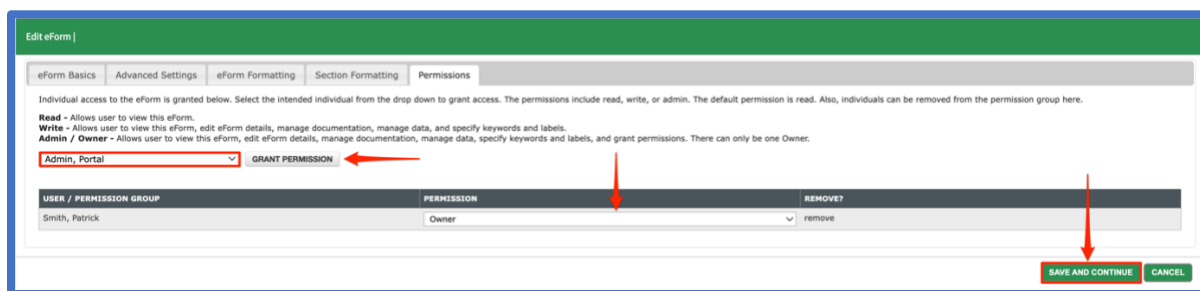
Select a username from the drop-down list. Click **GRANT PERMISSION**. Then select the permission access for the user in the list. The different permissions are **Read**, **Write**, and **Admin**. Click on the **Grant Permission** button.

To remove a user from the permission group, click **Remove**.

**Read:** Allows user to view this eForm.

**Write:** Allows user to view this eForm, edit eForm details, manage documentation, manage data, and specify keywords and labels.

**Admin / Owner:** Allows user to view this eForm, edit eForm details, manage documentation, manage data, specify keywords and labels, and grant permissions. **There can only be one Owner.**



Individual access to the eForm is granted below. Select the intended individual from the drop down to grant access. The permissions include read, write, or admin. The default permission is read. Also, individuals can be removed from the permission group here.

**Read** - Allows user to view this eForm.  
**Write** - Allows user to view this eForm, edit eForm details, manage documentation, manage data, and specify keywords and labels.  
**Admin / Owner** - Allows user to view this eForm, edit eForm details, manage documentation, manage data, specify keywords and labels, and grant permissions. There can only be one Owner.

Admin, Portal GRANT PERMISSION

USER / PERMISSION GROUP	PERMISSION	REMOVE?
Smith, Patrick	Owner	remove








SAVE AND CONTINUE CANCEL


























10. After completing all your desired changes click **Save and Continue** button.

## 4.7.4 Modifying an eForm Page

After either creating an eForm or edit an eForm you will be taken to this page:

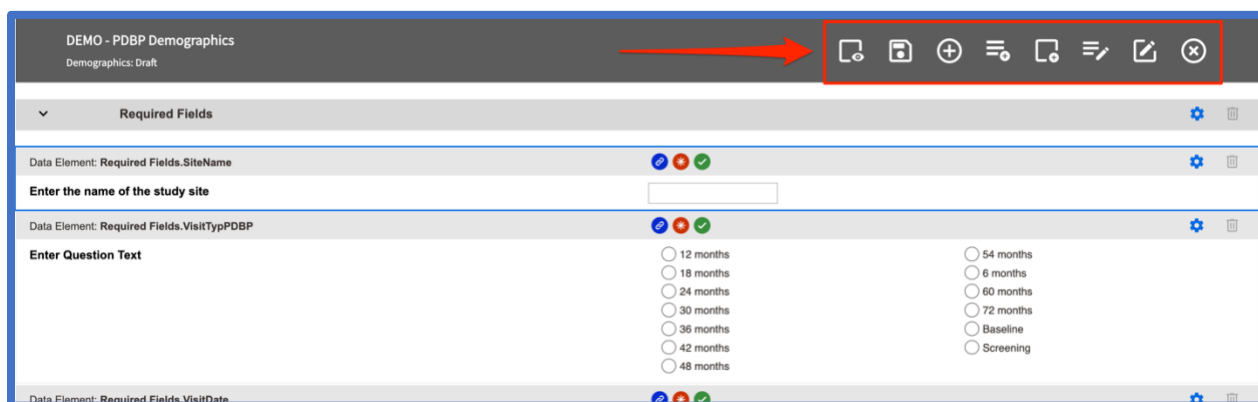
DEMO - PDBP Demographics  
Demographics: Draft







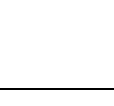









Required Fields		
Data Element: Required Fields.SiteName	  	 
Enter the name of the study site		
<input type="text"/>		
Data Element: Required Fields.VisitTypPDBP	  	 
Enter Question Text		
<div> <input type="radio"/> 12 months <input type="radio"/> 18 months <input type="radio"/> 24 months <input type="radio"/> 30 months <input type="radio"/> 36 months <input type="radio"/> 42 months <input type="radio"/> 48 months </div> <div> <input type="radio"/> 54 months <input type="radio"/> 6 months <input type="radio"/> 60 months <input type="radio"/> 72 months <input type="radio"/> Baseline <input type="radio"/> Screening </div>		
Data Element: Required Fields.VisitDate	  	 
Enter Question Text		
<input type="text"/>		
Data Element: Required Fields.GUID	  	 
Global Unique ID (GUID) which uniquely identifies the subject:		
<input type="text"/>		
Data Element: Required Fields.AgeYrs	  	 

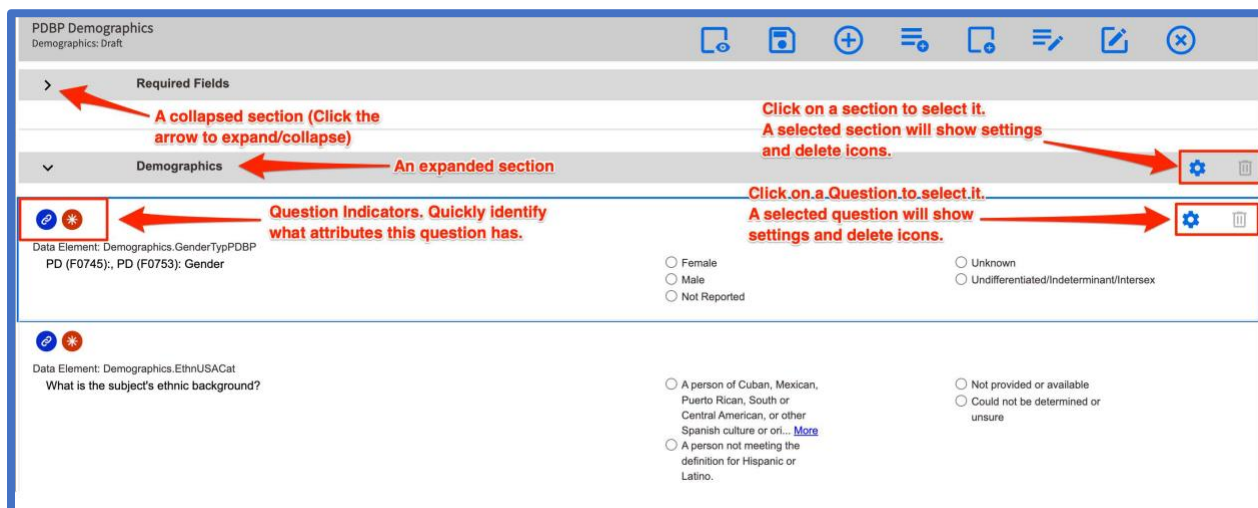
There are various changes you can make to your eForm from this page. If you do not wish to make any changes then click the Save Icon at the top to save your eForm and exit back to the eForm module.

When on the modifying an eForm page, you will see a row of icons at the top of the page like in the photo below. Each icon is described below the image.



	<b>Preview:</b> Click to show a preview of what the eForm will look like with the current edits. (See next page for screenshot of the preview page)		<b>Add Section:</b> Add a section to your eForm. <b>NOTE:</b> Additional sections can only contain text. You cannot add questions to a newly created section
	<b>Save:</b> Click to save the changes and exit the Modify eForm Page.		<b>Edit Form Details:</b> Opens the Edit Form Details Panel.
	<b>Add Data Element:</b> Click to add any data elements you have removed. <b>NOTE:</b> You can remove optional fields from the eForm. Once removed, they will show up in this list. This list will only contain fields you have removed.		<b>Edit Layout:</b> Move Text/Questions/Sections or Create a Table (Putting questions/text side by side) <b>NOTE:</b> You cannot rearrange the order of questions. You can only move them to be side by side.
	<b>Add Text:</b> Click here to add additional text to your eForm.		<b>Cancel:</b> Cancel Creating or Editing the eForm.

An eForm is made up of different Sections and each section is made up of Questions. You are able to change various settings of those sections and questions as well as easily view what attributes each question has from the **Question Indicators** (Check guide below image).
















The screenshot shows the 'PDBP Demographics' eForm. Red arrows and text boxes provide the following explanations:

- Collapsed section:** A right-pointing arrow icon indicates a collapsed section. Clicking it expands the section.
- Expanded section:** A downward-pointing arrow icon indicates an expanded section.
- Section selection:** Clicking on a section (like 'Demographics') selects it, showing settings and delete icons.
- Question Indicators:** Small icons next to questions identify their attributes. For example, a link icon indicates a question linked to a Data Element.
- Question selection:** Clicking on a question selects it, showing settings and delete icons.

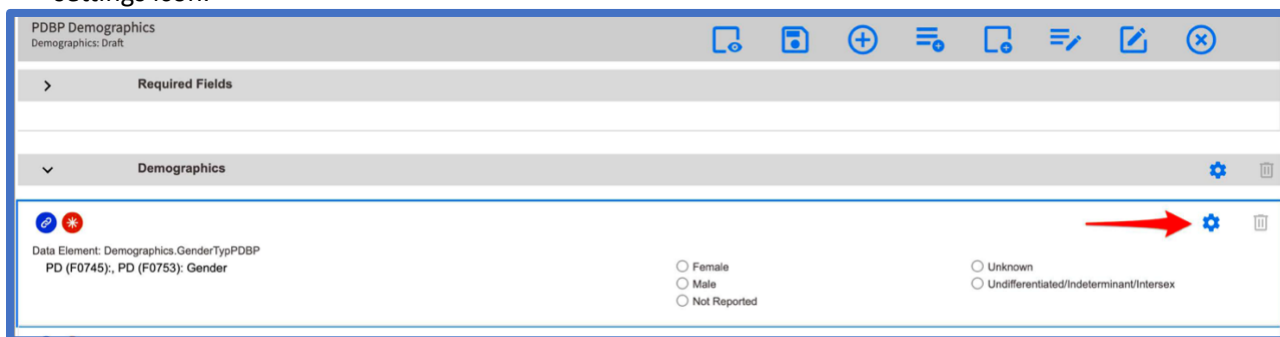
Visible questions include 'Gender' and 'What is the subject's ethnic background?' with their respective radio button options.

### Question Indicator Guide

	This question is linked to a Data Element.		This question is collapsible.
	This question is Required.		This question is repeatable.
	This question has Validation Requirements. (e.g. Answer must be a number)		This section has a grid layout.
	This question has a Calculation Rule.		This question is prepopulated.
	This question has a Conversion Factor		This question is FHIR.
	This question has a Skip Rule.		This question has an Email notification.
	This question is a Count.		

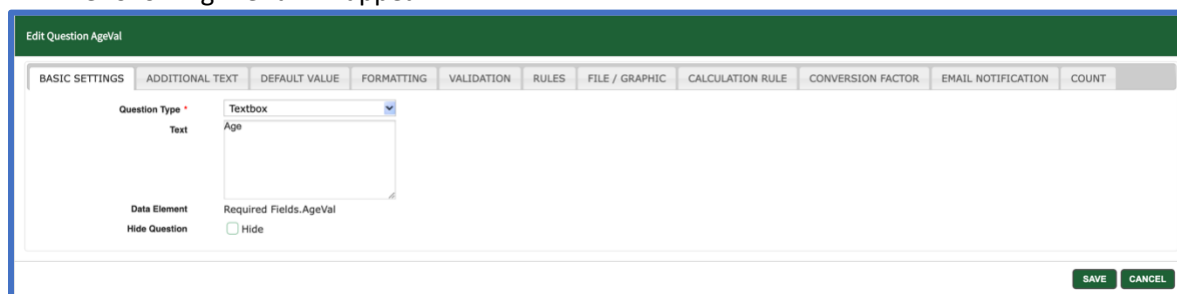
## 4.7.5 Modifying a Question

1. Click on a question then a settings and delete icon will appear at the top right. Click on the settings icon.



The screenshot shows the 'PDBP Demographics' form in 'Draft' mode. A red arrow points to the settings icon (a gear) located at the top right of the question area, next to a delete icon (a trash can). The question is titled 'Data Element: Demographics.GenderTypPDBP' and 'PD (F0745); PD (F0753): Gender'. It includes radio buttons for 'Female', 'Male', 'Not Reported', 'Unknown', and 'Undifferentiated/Indeterminant/Intersex'.

2. The following menu will appear:



The screenshot shows the 'Edit Question AgeVal' menu. It has a green header and a tabbed interface. The 'BASIC SETTINGS' tab is selected. The 'Question Type' is set to 'Textbox' and the 'Text' is 'Age'. The 'Data Element' is 'Required Fields.AgeVal'. There is a 'Hide Question' checkbox which is currently unchecked. At the bottom right, there are 'SAVE' and 'CANCEL' buttons.

**NOTE:** The following tabs are only available for numerical questions: Calculation Rule, Conversion Factor, and Count.

Question Settings tabs:

**Basic Settings:** You can select the type of question field for the user and the question text that is displayed. **Additional Text:** Add any additional text before/after the question.

**Default Value:** Set a default value.

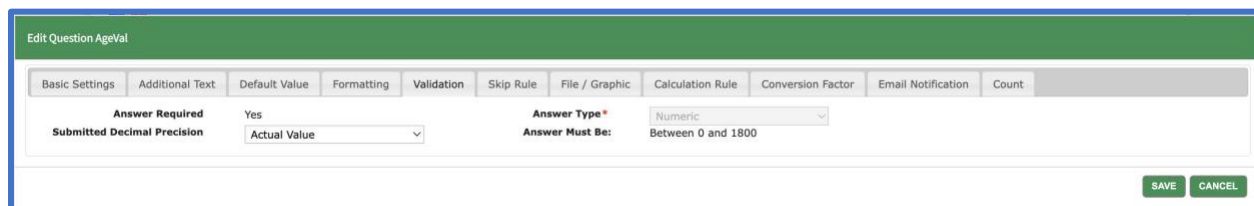
**Formatting:** Set a formatting(font, font size, etc) details for the question.

**File / Graphic:** Upload an Image or File to the eForm.

**Validation:** Set any validation for the question and if the question is required or not. e.g. (must be a number between 1-500)

**Answer Types:** Numeric, String, Date, Date-Time, Esignature, and Password.

**NOTE:** If the question is required in the Form Structure, you CANNOT set it otherwise. Only fields that are optional in the form structure can you set as required in the eForm.



**Skip Rule:** Set a rule that if this question meets a certain condition then it will have an affect on another question. Do not be confused by the name, Skip Rule, the original use case was to skip questions. (e.g. If the user chooses their country as outside the USA, then skip the question asking what state they live in). Since then we have built out to include many different rules and functions.

**Skip Rule Operators** - Think of this as: "If this question's answer is \_\_\_\_ the VALUE"

- Greater than equal to: If this question's answer is Greater than equal to the value.
- Greater than: If this question's answer is Greater than the value.
- Less than equal to: If this question's answer is Less than equal to the value. - Less than: If this question's answer is Less than the value.
- Contains: If this question's answer Contains the value(s) (e.g. If this question's answer Contains Hello and you have Hello World as the answer it will evaluate as true)
- Has any value: If this question's answer has any value. (If the question is answered then it will evaluate as true)
- Is blank: If this question's answer is blank. (If unanswered it will evaluate as true).
- Equal: If this question's answer is Equal to the value.

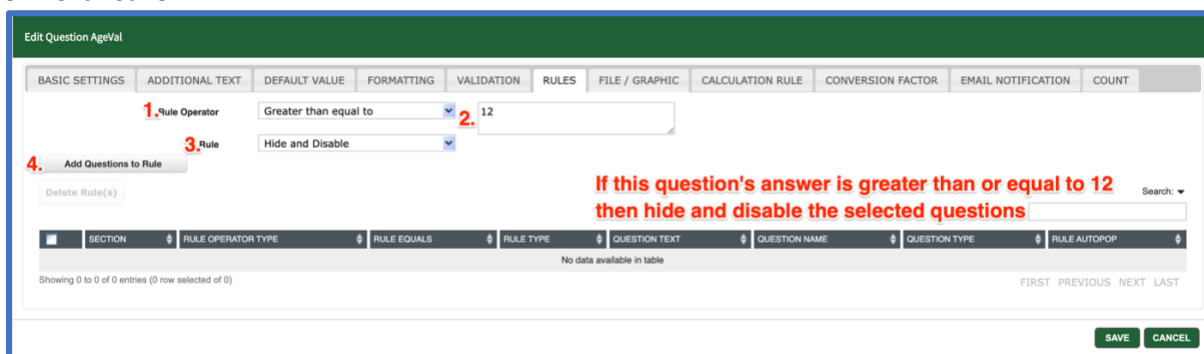
**NOTE:** Some operators will allow you to put multiple values separated by an "|".

**Skip Rule** - Think of this as the second part of the question: "If this question's answer is SKIP RULE OPERATOR the VALUE then \_\_\_\_ the SELECTED QUESTIONS."

- Hide and Disable: If the condition is met then we want to Hide and Disable the selected questions.
- Hide and Save: If the condition is met then we want to Hide and Save the selected questions. This will hide the question but will save the default value.
- Disable: If the condition is met then we will Disable the selected questions.
- Require: If the condition is met we will Require the selected questions.

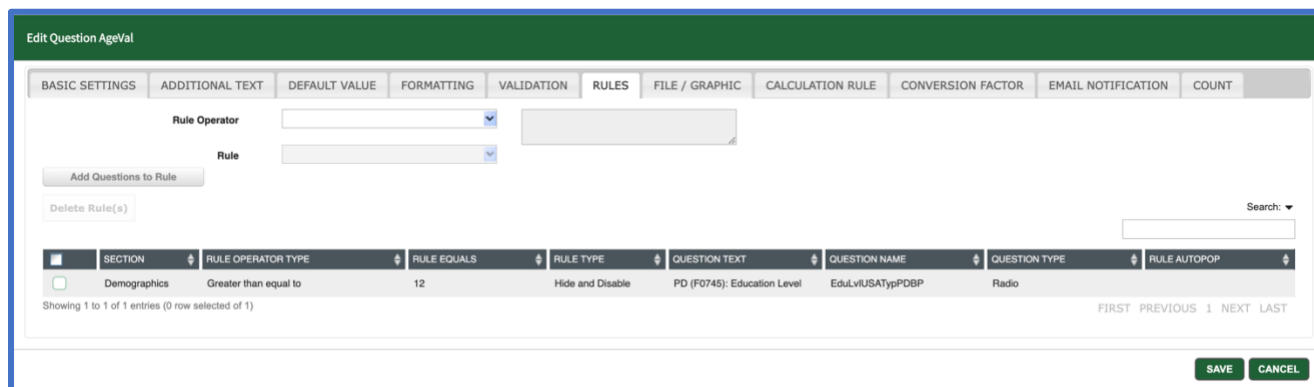
## 4.7.6 How to create a skip rule

1. Select the Skip Rule Operator. (e.g. Greater than)
2. Input the value in the text box to the right of it. (e.g. 13)
3. Set the skip rule. (e.g. Disable - this will allow us to disable a future question should the condition above be met)
4. Select Add Questions to Skip (Select the questions we want the skip rule to affect).
5. Click Save



**Skip Rule Example:** See the created skip rule in the photo below: If this question's answer is greater than 13, it will hide & save (It will save the default value as the answer and hide the question from the user) the question asking education level.

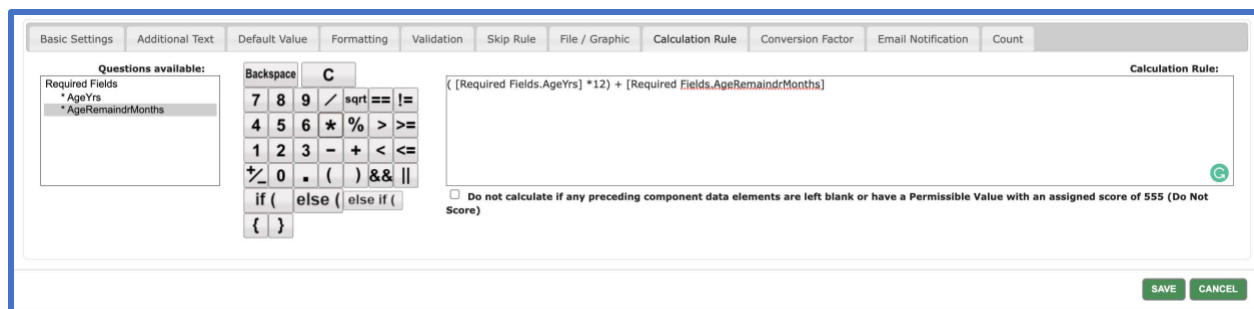
Please reach out to an ops member for additional help/questions.



**Calculation Rule:** Set the answer to this question based off of a calculation from other question(s). On the left it will display numeric based questions that you can do calculations with. Select the fields and it will add it to your logic in the right text box. Use the keypad to handle inputting your calculation.

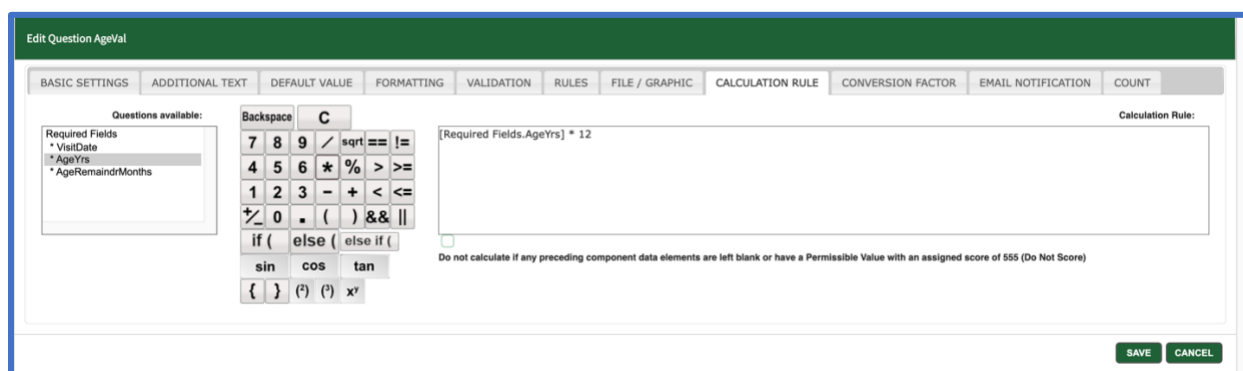
**For example:** In the photo below, we are calculating this individual's age in months from the age in years and age remainder months. So we have: age in years \* 12 + age remainder months to get the total number of months this person has been alive.

**NOTE:** The checkbox below the right text field, "**Do not calculate if any preceding component data elements are left blank...**", if checked, the calculation will only run if those previous fields have been answered. Please reach out to an ops member for additional help/questions.



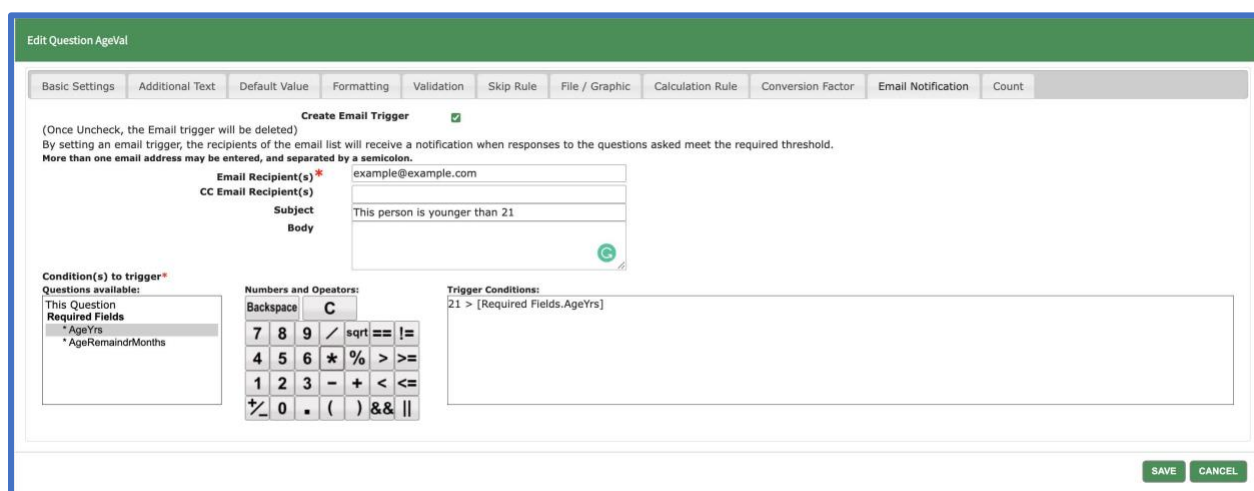
**Conversion Factor:** Convert the answer through a function. The data that is submitted will be ran through your conversion and will be what is recorded.

**For example:** The image below will take this question's answer and multiply it by 12. Possible use cases could be converting years to months or converting feet to inches.



**Email Notification:** If a specific condition is met then send an email notification to a specified email address.

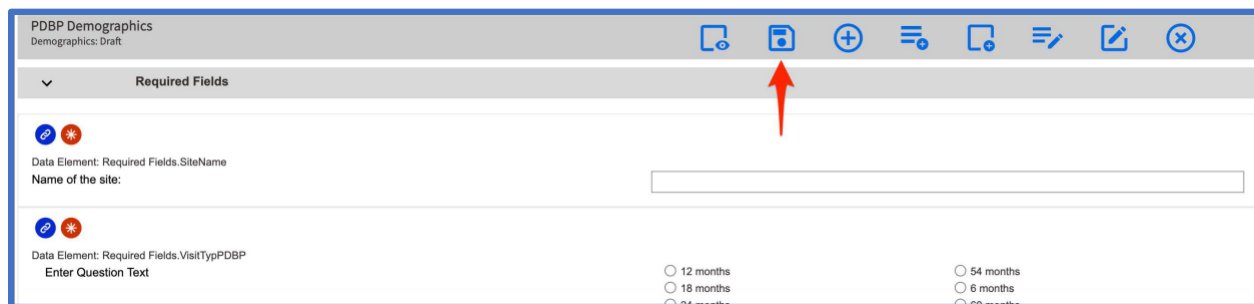
**For example:** The image below will check if this person's inputted age is less than 21 and will send an email to the inputted email address(es) if it is true.





**Count:** You can select multiple questions and it will give you the count of answered questions you selected and will set the answer to this question to be equal to that count. If you select 10 questions and the user only answers 3 out of those 10. Then this question's answer will evaluate to 3.

After you are done modifying your eForm. Click the Save icon and confirm your changes.



Upon saving the eForm, the status is now “Draft”. To publish it click Request Publication.

