



## The Guide

### What this guide is intended to achieve

This guide is designed to enable an appropriately trained individual to customize a set of default HIV Estimate data elements and associated indicators on a local country instance of DHIS2.

It achieves this by outlining a detailed series of 'steps' supported by screenshots of an actual live post-initiation process. A video has also been produced and is part of the associated 'support' package accompanying this guide.

### Protocol for making Data Elements Import-Ready

#### Go to the Data Elements Area

Under DHIS2 Apps area, navigate to the App known as Data Elements / Indicators App (start typing in the search box to narrow down the list of Apps if it is not immediately visible).

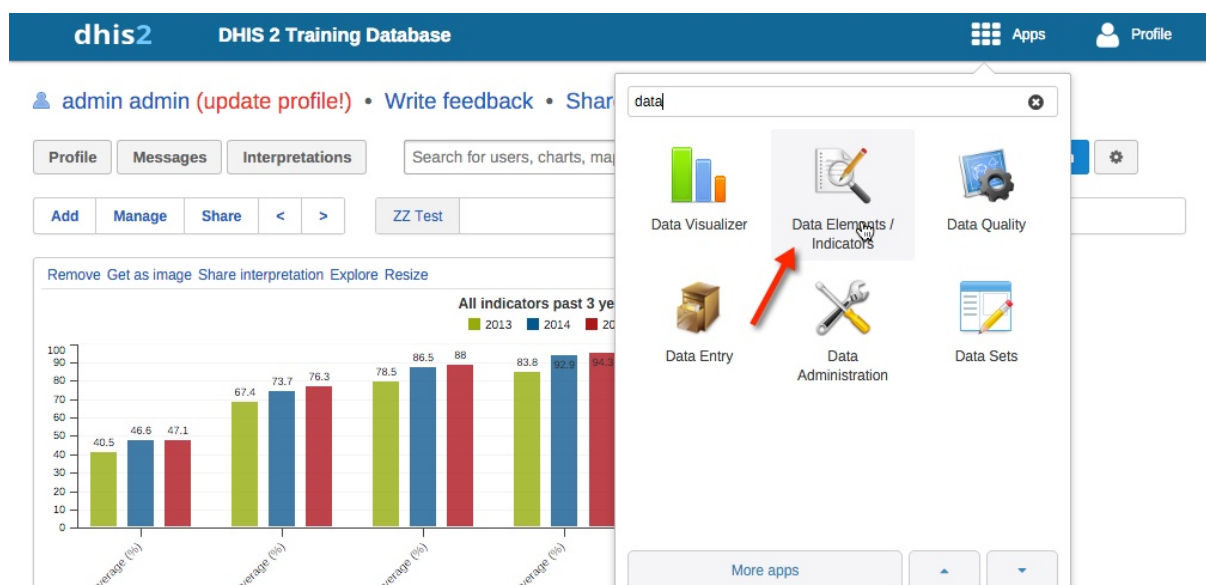
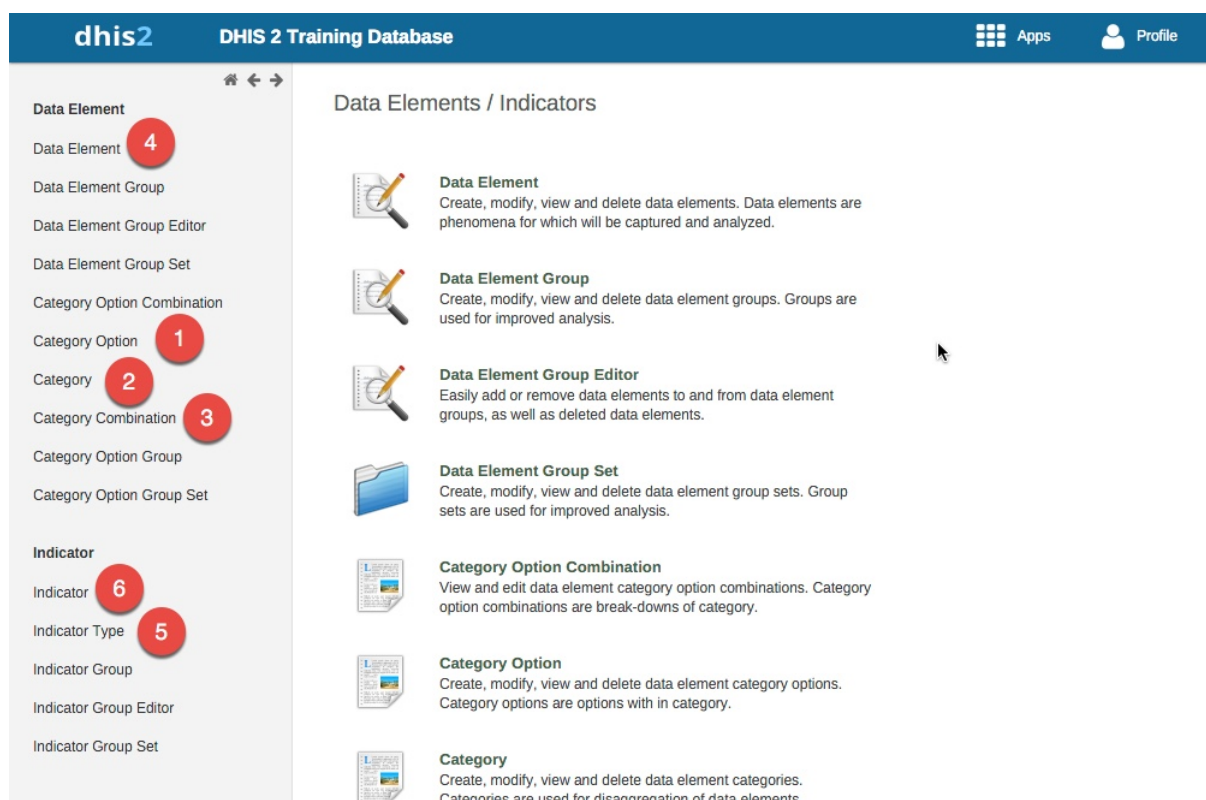


Figure 1 – Select the Data Element / Indicators App in DHIS2

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The resulting screen displays a list of options for configuring the data model of DHIS2. All of the configuration options required to localize the UNAIDS Spectrum App instantiated HIV Estimate data elements and indicators are accessible from the following screen, and include:

1. Category Options; 2. Categories; 3. Category Combinations; 4. Data Elements; 5. Indicator Types; and 6. Indicators.



*Figure 2 – All localization activities are accessible from this one area of DHIS2*

The order in which localization takes place can be important, as certain objects 'build on' previously defined objects. The basic process is to replace any 'placeholder' objects that have been setup by the UNAIDS Spectrum App with locally relevant equivalents.

The subsequent steps in this guide follow the sequence of steps indicated in the screen above. DHIS2 administrators will already be familiar with this process.

It is highly recommended that if the DHIS2 administrator is not familiar with the specific HIV Estimate data elements already in their system, that they work with the relevant Health Programme to identify someone familiar with HIV/AIDS indicators to assist in the process.

### Step 1 – Identify/Create the Equivalent Gender Category Options

It is highly likely that the local country instance of DHIS2 will already have indicators that are disaggregated by gender. In DHIS2, such disaggregation is modelled using Category Options, Categories and Category Combinations.

If the instance does not use such disaggregation, set them up, or adopt (and re-label) the place holder objects instantiated by the UNAIDS Spectrum App.

The screenshot displays the 'Data element category option management' interface in the DHIS2 Training Database. The left sidebar contains a list of navigation items, with 'Category Option' selected and highlighted by a red arrow. The main content area shows a table of category options. Two items are circled in red: 'Female' (labeled with a red circle containing '1') and '(Replace): Female' (labeled with a red circle containing '2'). Other items include '(Replace): Male', '< 5 years', 'default', 'Male', 'Other', 'PMTCT', 'TB', and '≥ 5 years'. At the bottom, there are pagination controls showing 'No. of pages: 1', 'No. of rows per page: 50', and 'Jump to page: 1'.

Figure 3 – Confirm that local category option equivalents (2) exist for the placeholder category options (1). If they don't exist, either create them or re-label and use the placeholder items.

### Step 2 – Identify/Create the Equivalent Gender Categories

It is highly likely that the local country instance of DHIS2 will already have indicators that are disaggregated by gender. In DHIS2, such disaggregation is modelled using Category Options, Categories and Category Combinations.

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If the instance does not use such disaggregation, set them up, or adopt (and re-label) the place holder objects instantiated by the UNAIDS Spectrum App.

The screenshot shows the DHIS2 interface for 'Data element category management'. The left sidebar lists various data management options, with 'Category' selected and highlighted by a red arrow. The main content area displays a table of categories. The first row is labeled '(Replace): Gender' and is marked with a red circle containing the number '1'. The second row is 'Age (above/below 5 years)'. The third row is 'Gender' and is marked with a red circle containing the number '2'. The fourth row is 'HIV service'. Below the table, there are pagination controls showing 'No. of pages: 1', 'No. of rows per page: 50', and 'Jump to page: 1'.

Figure 4 – Confirm that local category equivalent (2) exists for the placeholder category (1). If it doesn't exist, either create it or re-label and use the placeholder item.

Note: The Category placeholder (1) *UNAIDS (Replace): Gender* makes use of the Placeholder Category Options *UNAIDS (Replace): Female* and *UNAIDS (Replace): Male*. Similarly, it is likely (but not absolutely certain) that a local equivalent exists (2) *Gender*, that will make use of Category Options *Male* and *Female*.

### Step 3 – Identify/Create Equivalent Gender Category Combinations

It is highly likely that the local country instance of DHIS2 will already have indicators that are disaggregated by gender. In DHIS2, such disaggregation is modelled using Category Options, Categories and Category Combinations.

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If the instance does not use such disaggregation, set them up, or adopt (and re-label) the place holder objects instantiated by the UNAIDS Spectrum App.

The screenshot shows the DHIS 2 Training Database interface. On the left, a sidebar lists various data management options, with a red arrow pointing to 'Category Combination'. The main content area is titled 'Data element category combination management'. It features a search bar with 'Filter by name' and buttons for 'Filter', 'Clear', and 'Add new'. Below this is a table of category combinations. The first row is '(Replace): Gender CC' with a red circle '1' next to it. The second row is 'Age (above/below 5 years)'. The third row is 'Gender CC' with a red circle '2' next to it. The fourth row is 'HIV service'. At the bottom of the table, there are pagination controls: 'No. of pages: 1', 'No. of rows per page: 50', 'Jump to page: 1', and a 'Go' button.

Figure 5 – Confirm that local category combination equivalent (2) exists for the placeholder category (1). If it doesn't exist, either create it or re-label and use the placeholder item.

Note: The Category Combination placeholder (1) *UNAIDS (Replace): Gender CC* makes use of the Placeholder Category Combination *UNAIDS (Replace): Gender*. A local equivalent may or may not exist for this.

Note: It is this final local equivalent (e.g. Gender CC) that is required for the next step.

### Step 4 – Localize the Data Elements

There are (in this version of the Guide) seven data elements that have been instantiated by the UNAIDS Spectrum App.

Six of these data elements use the Gender Category Combination. It is necessary to edit each data element and replace the placeholder *UNAIDS (Replace): Gender CC* with the local equivalent.

The six data elements to modify include:

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- UNAIDS: Estimated number of people (15+) eligible for ART according to national guidelines
- UNAIDS: Estimated number of people (<15) eligible for ART according to national guidelines
- UNAIDS: Estimated number of people (15+) living with HIV
- UNAIDS: Estimated number of people (15-49) living with HIV
- UNAIDS: Estimated number of people (<15) living with HIV

Click on the Data Element option (1), Type in the search field *HIV Den* and click *Filter* to highlight only the list of UNAIDS elements. And then click on the necessary Data Element one at a time and click the Edit option (3).

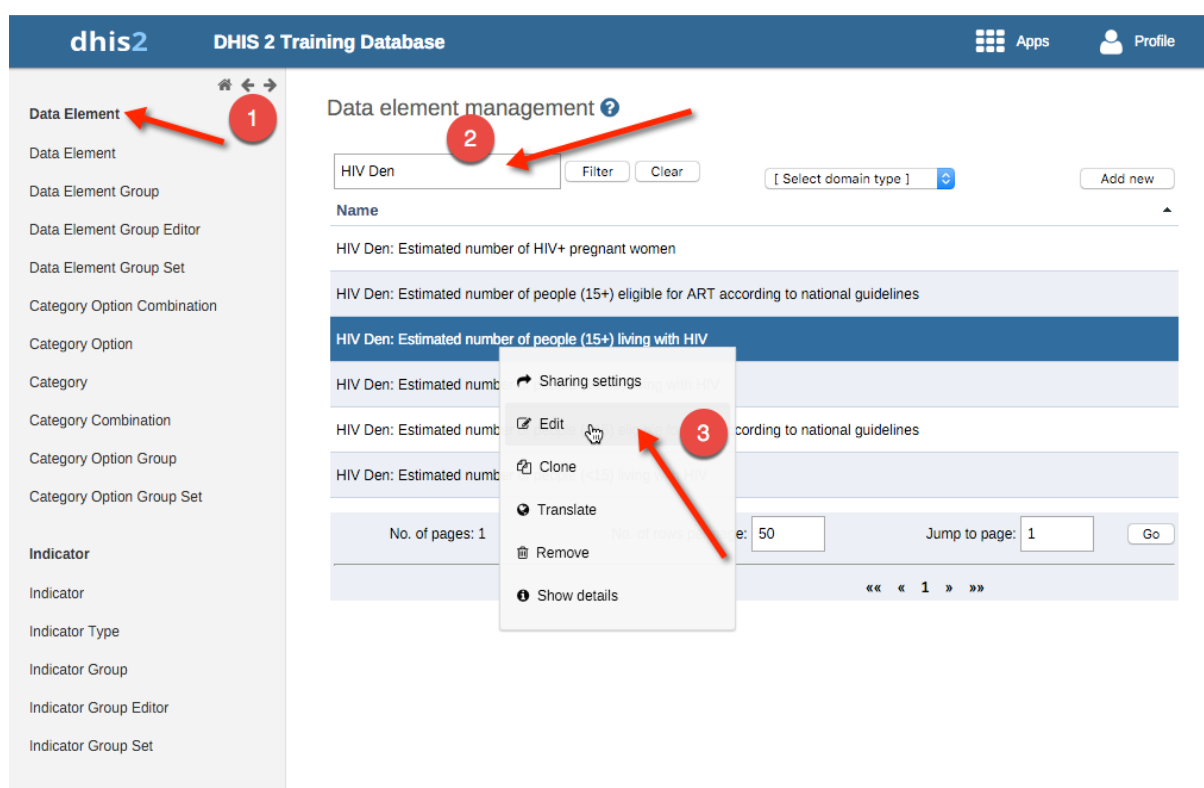


Figure 6 – Opening up a Data Element for editing

Scroll down the Edit screen until you find the 'Category Combination' label (1), Select the local equivalent identified or created in Step 3 above (2), and then save (3). Repeat this for all five Data Elements.

Note: HIV Den: Estimated number of HIV+ pregnant women does NOT use a Gender category combination, so it should not be modified.

**dhis2** DHIS 2 Training Database Apps Profile

Edit data element

**Details**

Name \* HIV Den: Estimated number of people (15+) living with H

Short name HIV Den: Est. (15+) living with HIV

Code

Description

Form name

Domain Type \* Aggregate

Value Type \* Number

Number type Number

Aggregation operator \* Sum

Store zero data values No

URL

1 Category Combination \*   
 ✓ (Replace): Gender CC   
 Age (above/below 5 years) default   
**Gender CC**   
 HIV service   
 Please select

Option set for data values

Option set for comments

Legend set

Aggregation levels

3 Save Cancel

2

Figure 7 – Updating the Data Element Category Combination with the local equivalent

### Step 5 – Identify/Create Equivalent Percentage Indicator Type

It is highly likely that the local country instance of DHIS2 will already have indicators indicator types set up for percentage (a simple multiplier for helping format indicators that use a numerator and denominator).

In order to create placeholder indicators, it was first necessary to create a placeholder percentage indicator type.

In as similar manner to Steps 1 through 3 above, the task is to either identify the local replacement equivalent, or if it does not exist, create it or re-use the placeholder by re-labelling it.

The screenshots below highlight how to identify the local equivalent or alternatively display the parameters if you need to create your own local equivalent.

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The screenshot shows the 'Indicator type management' interface in the DHIS 2 Training Database. The left sidebar contains a list of navigation items, with 'Indicator Type' highlighted by a red arrow. The main content area displays a list of indicator types. The first item is '(Replace): Percentage' (marked with a red circle '1') and the second is 'Percentage' (marked with a red circle '2'). Below the list are pagination controls showing 'No. of pages: 1', 'No. of rows per page: 50', and 'Jump to page: 1'.

Figure 8 – Confirm that local Indicator Type equivalent (2) exists for the placeholder Indicator Type (1). If it doesn't exist, either create it or re-label and use the placeholder item.

The screenshot shows the 'Edit indicator type' interface in the DHIS 2 Training Database. The 'Details' section contains the following fields:

- Name: Percentage
- Factor: 100
- Number: No

There are 'Save' and 'Cancel' buttons at the bottom of the form.

Figure 9 – Parameters of a local equivalent for Percentage (if creation is necessary)

### Step 6 – Localizing the Indicators

There are two localizations required for each indicator, (a) change the Indicator Type, and (b) change the denominator.

For each of the Indicators instantiated by the UNAIDS Spectrum App, the data elements highlighted in Step 4 have been used as denominators. Placeholder data elements prefixed with *UNAIDS (replace):* have been used for the numerators. These need to be changed to local equivalents.



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### Step 6a – Filter the list of target indicators

Click on the Indicator (1), Type in the search field *HIV Ind* and click *Filter* (2) to highlight only the list of HIV indicators that were loaded during the App setup process. Click on each Indicator in turn and click the Edit option (3).

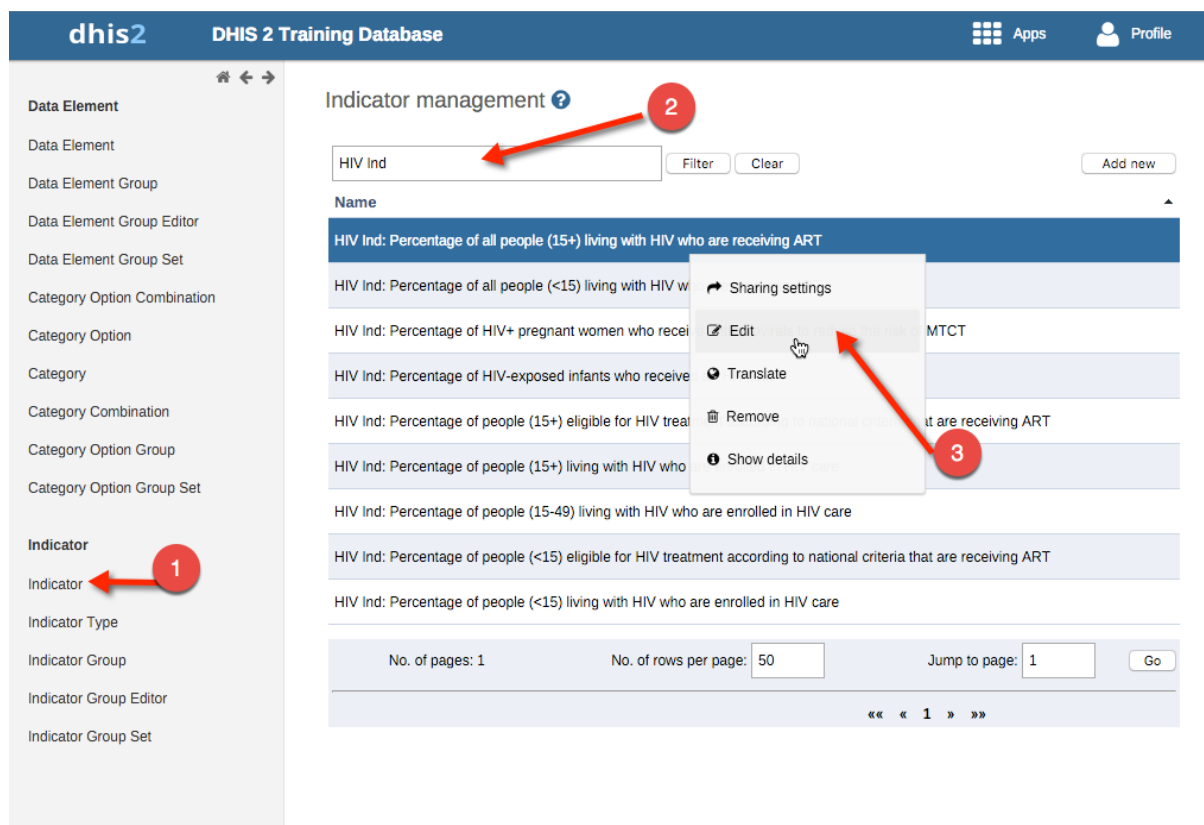


Figure 10 – Opening an Indicator for Editing

The list of target indicators for editing include:

- UNAIDS: Percentage of all people (15+) living with HIV who are receiving ART
- UNAIDS: Percentage of all people (<15) living with HIV who are receiving ART
- UNAIDS: Percentage of HIV+ pregnant women who receive antiretrovirals to reduce the risk of MTCT
- UNAIDS: Percentage of HIV-exposed infants who received an HIV test
- UNAIDS: Percentage of people (15+) eligible for HIV treatment according to national criteria that are receiving ART
- UNAIDS: Percentage of people (15+) living with HIV who are enrolled in HIV care
- UNAIDS: Percentage of people (15-49) living with HIV who are enrolled in HIV care
- UNAIDS: Percentage of people (<15) eligible for HIV treatment according to national criteria that are receiving ART
- UNAIDS: Percentage of people (<15) living with HIV who are enrolled in HIV care

## Step 6b – Localize the Indicator Type for the given Indicator

Change the Indicator Type to the local equivalent (1) identified or setup in step 5, then click on the 'Edit Numerator' item (2) to be presented with the Numerator edit screen.

The screenshot shows the 'Edit indicator' form in the DHIS 2 Training Database. The form is titled 'Edit indicator' and has a 'Details' section. In the 'Details' section, the 'Indicator Type' dropdown is set to '(Replace): Percentage' and is highlighted with a red circle and the number '1'. A red arrow points from this circle to the 'Indicator Type' dropdown. Below the 'Indicator Type' dropdown, there are buttons for 'Edit numerator' and 'Edit denominator'. The 'Edit numerator' button is highlighted with a red circle and the number '2'. A red arrow points from this circle to the 'Edit numerator' button. At the bottom of the form are 'Save' and 'Cancel' buttons.

Figure 11 – Localizing the Indicator: (1) Set Indicator Type to local equivalent; (2) Edit the Numerator and replace with local equivalent.

The UNAIDS Spectrum App instantiated a number of placeholder data elements that have been used as numerators in the instantiated indicators. These should be replaced with local equivalents. The placeholder data elements include:

- UNAIDS (replace): Number of people (15+) enrolled in HIV care
- UNAIDS (replace): Number of people (15+) receiving ART
- UNAIDS (replace): Number of people (15-49) enrolled in HIV care
- UNAIDS (replace): Number of people (15-49) receiving ART
- UNAIDS (replace): Number of people (<15) enrolled in HIV care
- UNAIDS (replace): Number of people (<15) receiving ART
- UNAIDS (replace): Number of women receiving antiretrovirals to reduce the risk of MTCT
- UNAIDS (replace): Total HIV-exposed infants testing by 12 months

## Step 6c – Localize the numerator for the target indicator

Identify the data element (1) that needs replacing, select an appropriate alternative local data element (2) to replace the placeholder, and type in a new matching description (3) for this local replacement numerator.

The screenshot shows the 'Edit indicator' window in DHIS2. The 'Edit numerator' dialog is open, showing the 'Description' tab. The 'Description' field at the top contains the placeholder '(replace) Number of people (15+) receiving ART' (labeled 3). Below it is a 'Formula' field containing the placeholder '#{ZAGAMhSKqUx}'. To the right of the formula field is a list of 'Data elements' (labeled 2) with various options like '(replace): Number of people (15+) enrolled in HIV care (Total)' and '(replace): Number of people (15+) receiving ART ((Replace): Female)'. At the bottom of the dialog, there is a 'Description' field containing the placeholder '(replace): Number of people (15+) receiving ART (Total)' (labeled 1). The background shows the 'Edit indicator' page with 'Save' and 'Cancel' buttons.

Figure 12 – Replacing the placeholder numerator with a local equivalent.

Note: Depending on the decisions made when the local country instance of DHIS2 was setup, the numerators may be more complex than highlighted in the screenshot above. For example, a country may have differing age-bracket disaggregation's, and therefore require a complex numerator requiring the use of operands (addition, subtraction etc.).

## Data Maintenance

It may be necessary to carry out Data Maintenance at the end of this setup (e.g. Running the *'Update category option combinations'*, Clearing Server Cache or other related activities).<sup>1</sup>



Figure 13 – Accessing the Data Administration App in DHIS2.

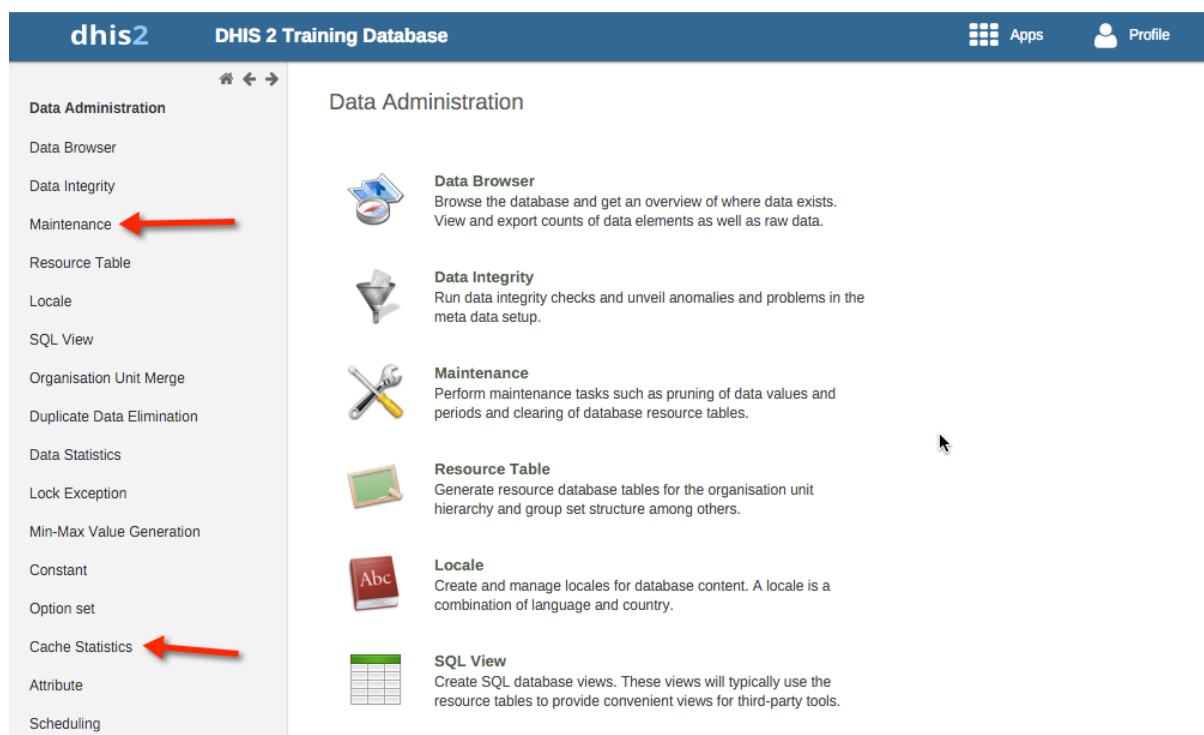


Figure 14 – Accessing the Data Administration App in DHIS2.

<sup>1</sup> Data Administration Functions are described in the following DHIS2 Users : [http://dhis2.github.io/dhis2-docs/master/en/user/html/dhis2\\_user\\_manual\\_en\\_full.html](http://dhis2.github.io/dhis2-docs/master/en/user/html/dhis2_user_manual_en_full.html)