



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).

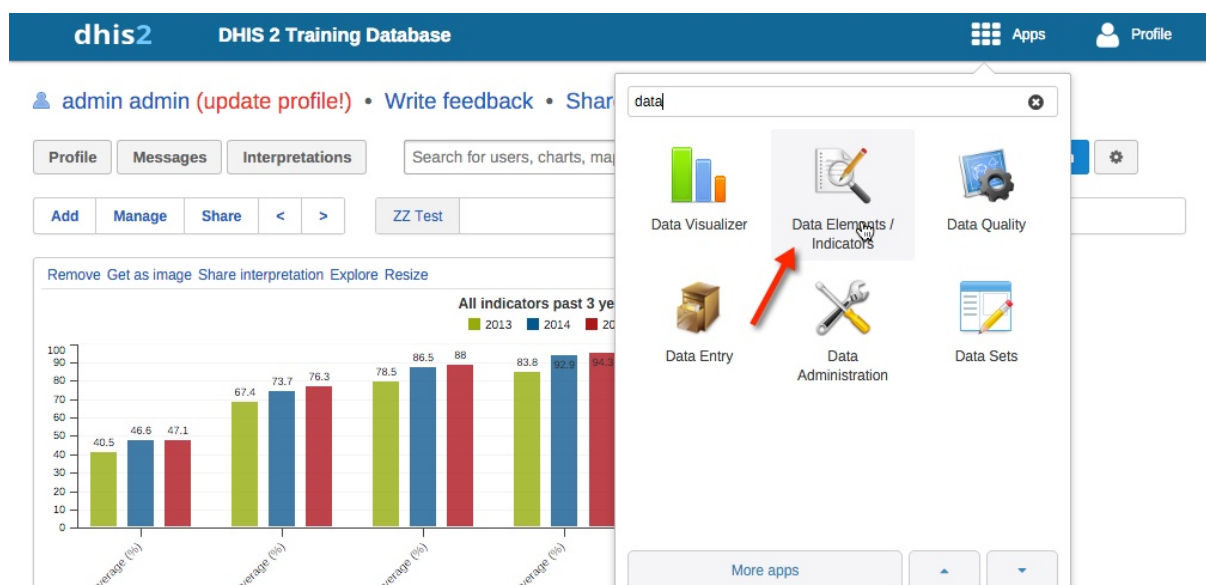


Figure 1 – Select the Data Element / Indicators App in DHIS2

UNAIDS SPECTRUM APP POST INITIATION GUIDE

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.

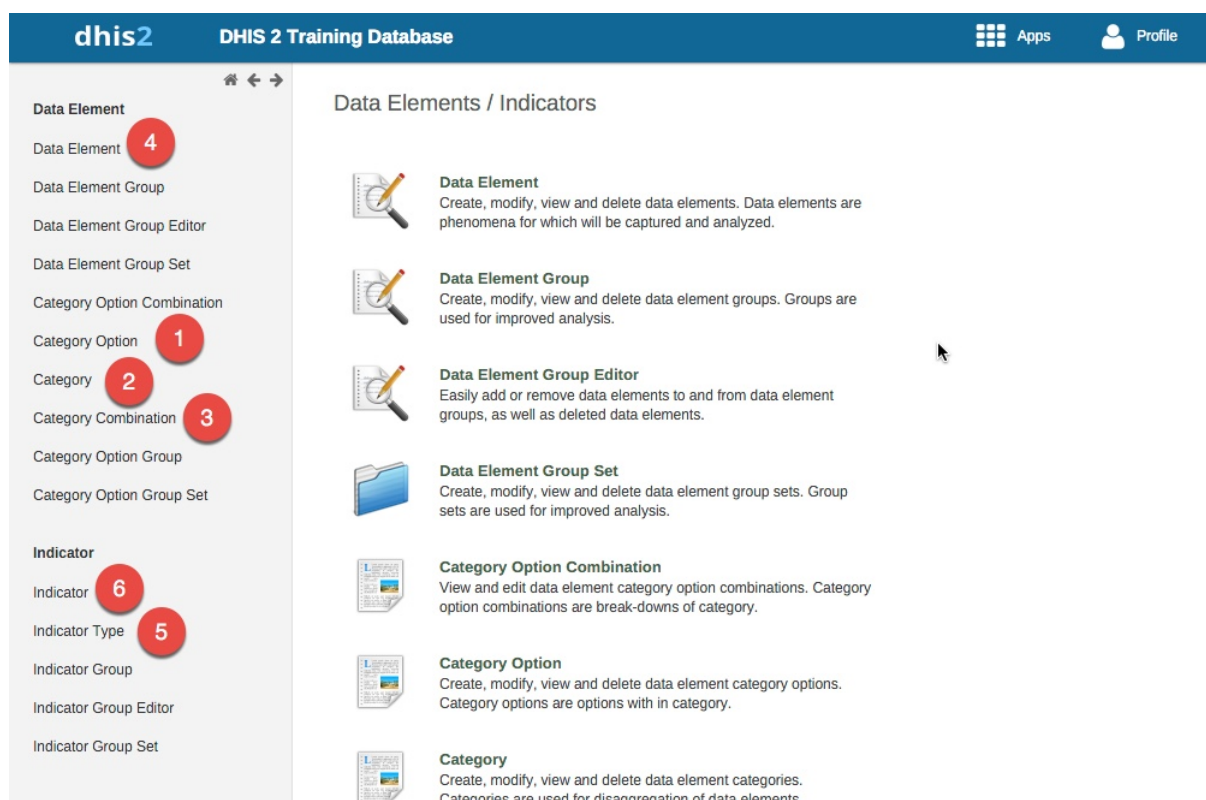


Figure 2 – All localization activities are accessible from this one area of DHIS2

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 shows the DHIS2 Training Database interface. The left sidebar contains a list of navigation options: Data Element, Data Element Group, Data Element Group Editor, Data Element Group Set, Category Option Combination, Category Option (highlighted with a red arrow), Category, Category Combination, Category Option Group, Category Option Group Set, Indicator, Indicator, Indicator Type, Indicator Group, Indicator Group Editor, and Indicator Group Set. The main content area is titled 'Data element category option management'. It features a search bar with 'Filter by name', 'Filter', 'Clear', and 'Add new' buttons. Below the search bar is a table of category options. The table has a 'Name' column. The items listed are: '(Replace): Female' (circled in red with a '2'), '(Replace): Male', '< 5 years', 'default', 'Female' (circled in red with a '1'), 'Male', 'Other', 'PMTCT', 'TB', and '≥ 5 years'. 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 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.

UNAIDS SPECTRUM APP POST INITIATION GUIDE

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 'Data element category management' interface in DHIS2. The left sidebar contains a navigation menu with the following items: Data Element, Data Element Group, Data Element Group Editor, Data Element Group Set, Category Option Combination, Category Option, Category (highlighted with a red arrow), Category Combination, Category Option Group, Category Option Group Set, Indicator, Indicator Type, Indicator Group, Indicator Group Editor, and Indicator Group Set. The main content area is titled 'Data element category management' and includes a search bar with 'Filter by name', 'Filter', 'Clear', and 'Add new' buttons. Below the search bar is a table of categories. The first row is '(Replace): Gender' with a red circle '1' next to it. The second row is 'Age (above/below 5 years)'. The third row is 'Gender' with a red circle '2' next to it. The fourth row is 'HIV service'. At the bottom, 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.

UNAIDS SPECTRUM APP POST INITIATION GUIDE

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 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', and 'Jump to page: 1' with 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:

UNAIDS SPECTRUM APP POST INITIATION GUIDE

- 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).

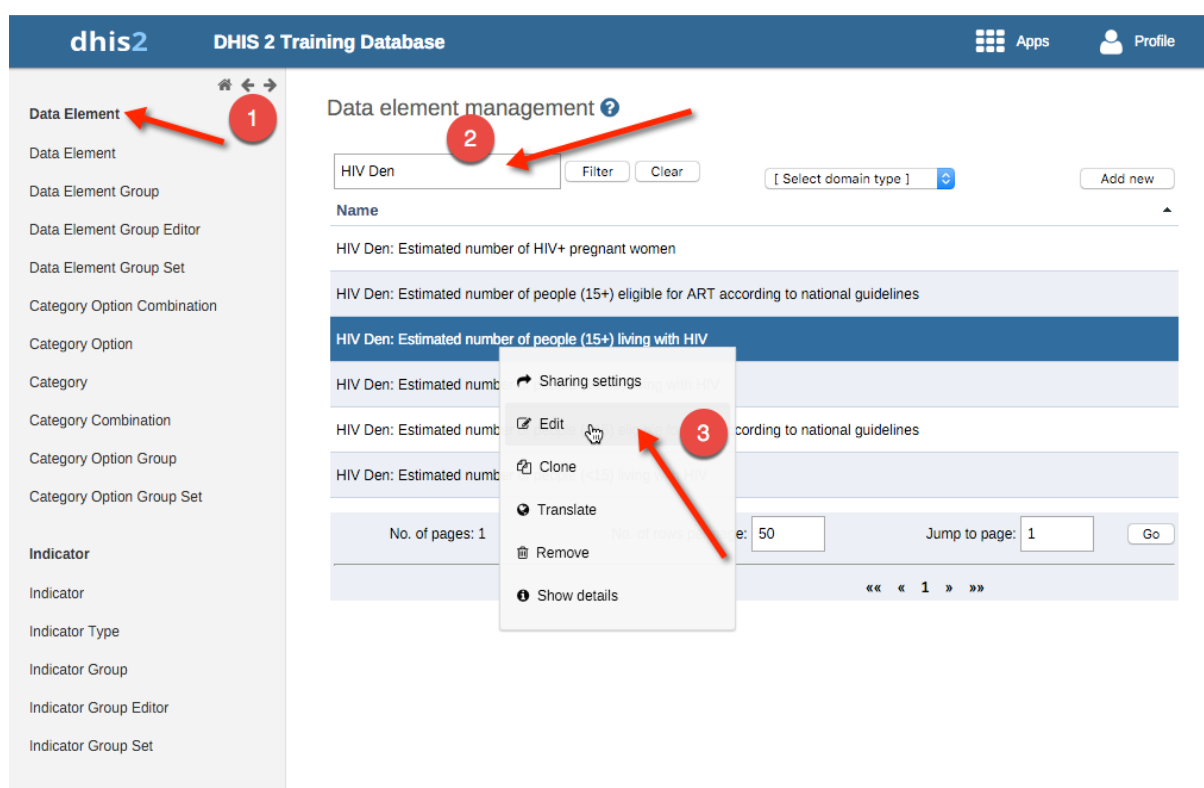


Figure 6 – Opening up a Data Element for editing

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.

UNAIDS SPECTRUM APP POST INITIATION GUIDE

The screenshot shows the 'Indicator type management' interface in DHIS2. 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'). The second item is 'Numerator only'. The third item is 'Per 10 000'. The fourth item is 'Per 100 000'. The fifth item is 'Per 1000'. The sixth item is 'Percentage' (marked with a red circle '2'). The seventh item is 'Rate (factor=1)'. At the bottom, there are pagination controls: 'No. of pages: 1', 'No. of rows per page: 50', 'Jump to page: 1', and a 'Go' button.

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 DHIS2. The left sidebar is empty. The main content area displays the 'Edit indicator type' form. The 'Details' section contains three fields: 'Name' with the value 'Percentage', 'Factor' with the value '100', and 'Number' with the value 'No'. There are 'Save' and 'Cancel' buttons at the bottom.

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.

UNAIDS SPECTRUM APP POST INITIATION GUIDE

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).

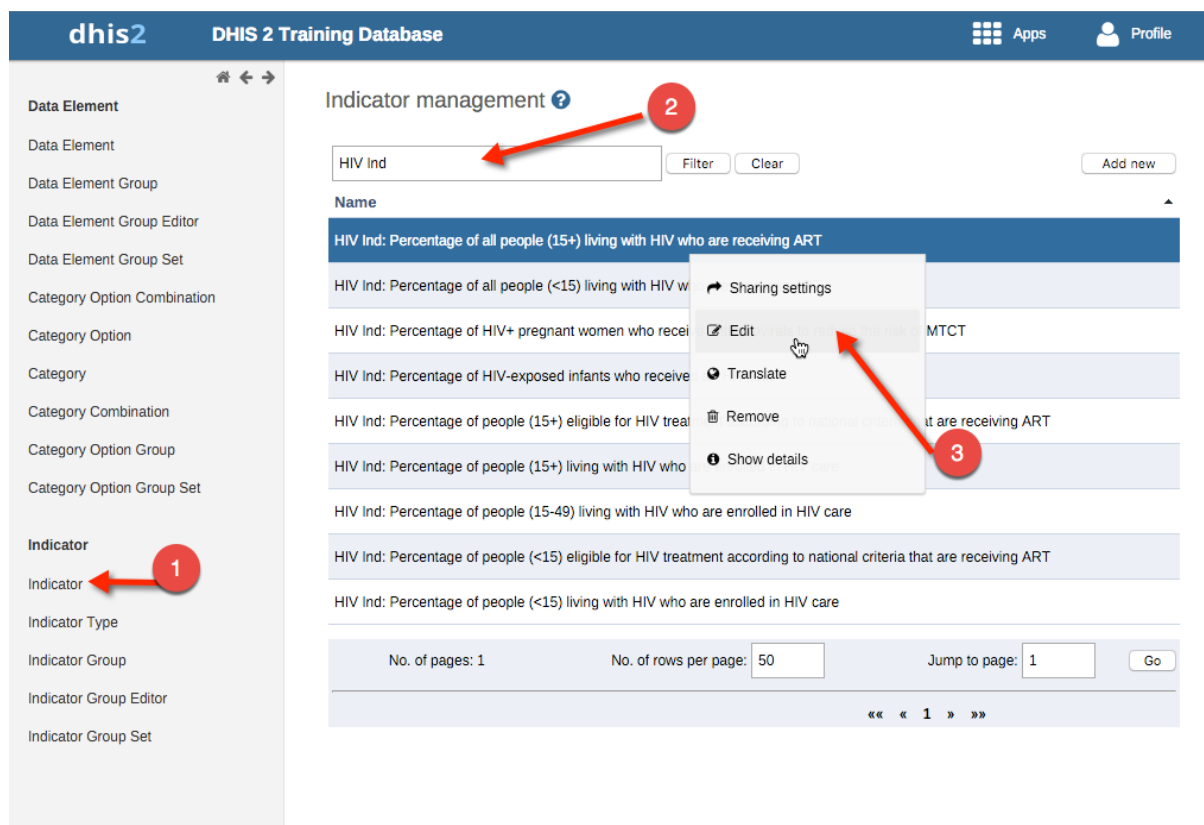


Figure 10 – Opening an Indicator for Editing

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 arrow labeled '1'. Below this, there are buttons for 'Edit numerator' and 'Edit denominator', with the 'Edit numerator' button highlighted by a red circle and arrow labeled '2'. Other fields include Name, Short name, Code, Description, Annualized, Decimals in data output, Legend set, URL, Data sources, Limitations, Purpose, and Related indicators. At the bottom 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' interface in DHIS2. The 'Edit numerator' dialog is open, displaying the following sections:

- Description:** A text input field containing the placeholder '(replace) Number of people (15+) receiving ART' (marked with a red circle 3). Below it is a tip: 'Tip: use abs(x) sin(x) cos(x) tan(x) ln(x) log(x) sqrt(x) mod(x,y)'. Below the tip is a formula input field containing the placeholder '#{ZAGAMhSKqUx}'.
- Constants:** A section for defining constants.
- Organisation unit counts:** A section for defining organisation unit counts, with options for 'Dispensary', 'Health Centre', and 'Hospital district'.
- Data elements:** A list of available data elements. The selected element is '(replace): Number of people (15+) receiving ART ((Replace): Female)' (marked with a red circle 2).
- Description:** A section for defining the description of the numerator. The text input field contains the placeholder '(replace): Number of people (15+) receiving ART (Total)' (marked with a red circle 1).

At the bottom of the dialog are '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).¹



Figure 13 – Accessing the Data Administration App in DHIS2.

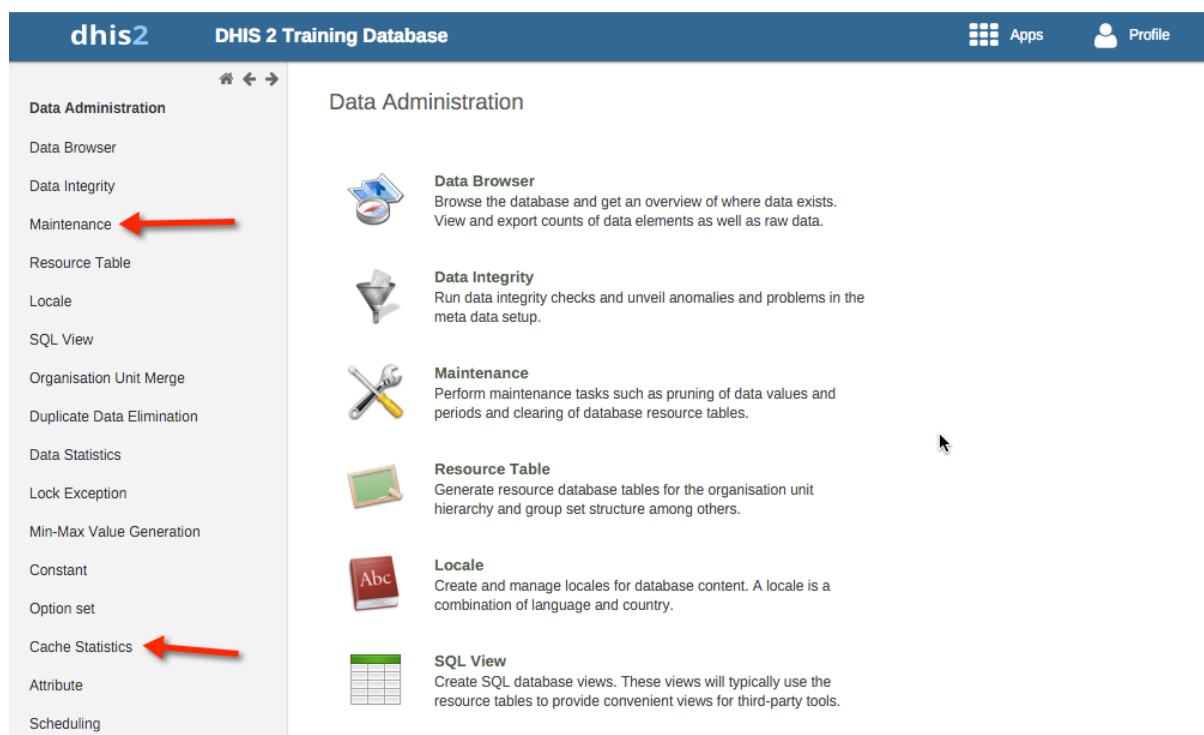


Figure 14 – Accessing the Data Administration App in DHIS2.

¹ 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