



Guide to preparing Naomi data inputs

12 JANUARY 2021

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Introduction

Program level input data is crucial to produce and improve the accuracy of the subnational-level estimates. Although the household survey data are the gold standard, more timely programmatic data such as timely monthly ANC and ART program data is essential in providing more granular information on spatial variation (i.e., differences between districts) in producing meaningful subnational level estimates to make strategic decisions at the district and programmatic levels. In addition, the HIV testing data is the primary program level data used to inform the estimates of the [First 90](#). The First 90 refers to the first pillar of the UNAIDS 90-90-90 goal: to have for 90% of all people living HIV (PLHIV) to know their HIV status. You can learn more about UNAIDS's 90-90-90 goal in [this resource video](#) we prepared for you.

One of the most important first steps of the estimates process is preparing your input data and making sure it is accurate and complete. This document guides you through preparing quality input data to be used in Naomi to produce subnational level estimates.

The generation of subnational estimates using [Naomi](#) is one of the last steps in the HIV estimation process. Please ensure you have a finalized Spectrum file. You will need validated program data (numbers on ART and ANC prevalence). If you use DHIS in your country, the generation of these data

can be automated using the [ADR](#) (AIDS Data Repository). If you do not use the DHIS, you can manually compile the data and enter them in standardized templates we have prepared for you.

In your country page in ADR, a folder called '*CountryName Inputs UNAIDS Estimates 2021*' has been created for you with **items 1-3 below preloaded by UNAIDS**. This is the folder (Data Package) where all your clean, validated and final datasets should be stored. Your responsibility is to prepare and upload items 4, 5 and 6. This document will explain how to prepare items 4 and 5 in detail.

There are 6 required input files needed to be saved in '*CountryName Inputs UNAIDS Estimates 2021*' folder in ADR. These are the files used in the Naomi model:

1. **Geojson file** that defines the boundaries of your national and subnational geographical areas.
2. **Population file** by five-year age groups and sex and district.
3. **Survey data** that has the data from your most recent population-based survey on prevalence and, if available, incidence and ART coverage.
4. **ART programme data** – number receiving treatment - men, women, children.
5. **ANC programme data** – HIV prevalence, ART coverage among pregnant women.
6. **Updated SpectrumAIM file**. Countries with subnational Spectrum files need to use the tool in Spectrum to create a 1 zip file for Naomi. (Tools>More tools>Naomi district estimates tool>Generate district results>add the subnational Spectrum files and click open. It will create a zip file in the same folder as your final Spectrum files. Upload this file to ADR.

We strongly recommend that once this package is created, you use the [ShinyRob](#) application (a tool to help you visualize data to easily review and spot any anomalies) to review and ensure the quality and consistency of the ANC and ART data. Make the necessary improvements to the ANC or ART data based on your review. The process of improving data quality using ShinyRob is explained in detail below under Step 3.

The indicators and data inputs

The 2 primary program level data inputs needed for Naomi to run subnational estimates are information on prevalence from ANC and on ART. A link to the standardized templates which include the variable definitions is [here](#)

Tools to collect, extract, and analyse

Data collection starts with the paper-based tools in countries at the facility level collected monthly and aggregated to the district and higher levels up to the national level. It is therefore extremely important to ensure the quality of your facility level program data before aggregating. This information is often aggregated using electronic systems such as DHIS or other HMIS to manage the data. To extract and prepare necessary data for the subnational HIV estimates using Naomi, there are two main ways:

- 1) Manually by filling in the [templates](#) or
- 2) Automatically populating the excel templates using a combination of DHIS and the ADR.

Below, you will learn about both.

1. Manual compilation of the program data

To extract, organize and prepare the program level data input needed for Naomi manually, UNAIDS has prepared standardized [Excel templates](#) for you (you can also find it in ADR → UNAIDS → Inputs to UNAIDS Estimates 2021 Templates (Naomi Users)). You and your country team should work together to make sure you understand each indicator in the templates and fill out the necessary data based on the available programmatic data in your country.

This is an example of [the ART data template](#). The first tab provides you with the list of the input data elements/indicators along with their definitions, while the second tab is an example of the data template. If your country does not collect certain data or a data element is missing, they will not be available for analysis in Naomi or any other tools.

Field Name	Field Description	Data Type	Required	Other Constraints
area_id	Must be an area_id from the agreed area hierarchy.	string	Required	none
area_name	Area name corresponding to area_id (optional).	string	Optional	none
sex	Biological sex. Must be "both", "female", or "male".	string	Required	case sensitive restricted values: "both", "m"
age_group	The age group. Must be either "Y000_014" (0-14 y), "Y015_999" (15+ y) or "Y000_999" (0+).	string	Required	case sensitive restricted values: "Y000_014"
calendar_quarter	The calendar quarter reflected the end of reporting period. Formatted as CY20XXQY, for example CY2020Q4 for end of December	string	Required	none
art_current	Number currently receiving ART at the end of reporting period (year).	number	Required	minimum: 0

Figure 1: ART program data template indicator's tab

	area_id	area_name	sex	age_group	calendar_quarter	art_current
1						
2						

Figure 2: ART program data template input tab

Electronic compilation of the program data using DHIS and the ADR

If your country is using DHIS to store and manage data, you can, by using [ADR](#), automate the process of preparing and formatting your programmatic input data to be used in Naomi.

4 steps to preparing and using the program data in the Naomi Model

Step 1: Create 2 pivot tables in DHIS for data elements of interest (ART, and ANC), name them 'UNAIDS ART' and 'UNAIDS ANC'

1. Open your country's DHIS homepage and enter your log-in credentials.

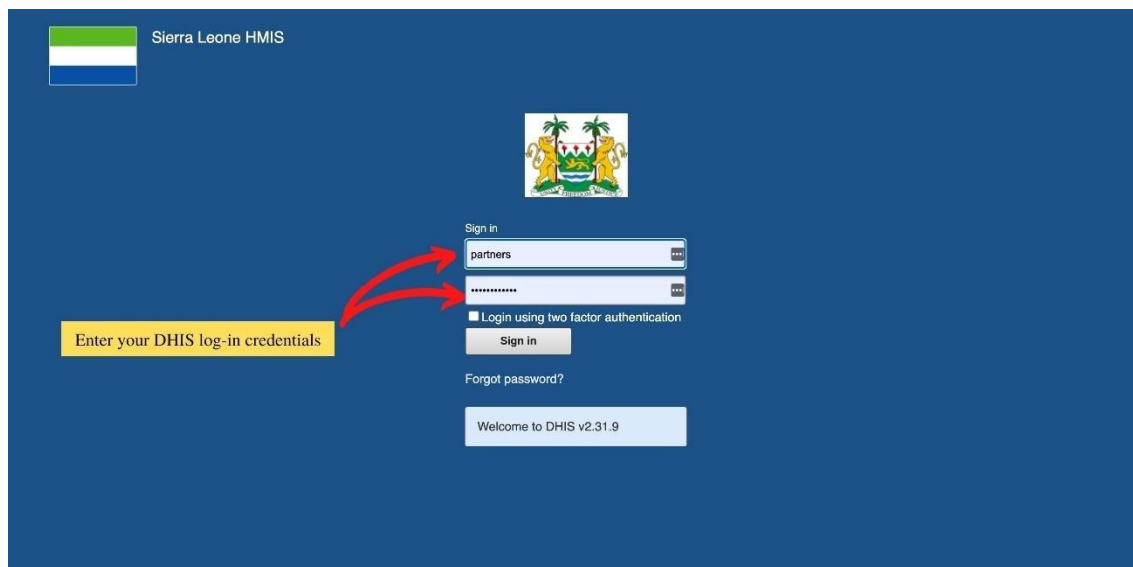



Figure 3: DHIS country log-in page

2. Click  icon on the top right-hand corner to access the pivot table view.

NACP - HIV Testing and Treatment Reports

NACP-Currently On Treatment

Organisation unit	Period	June 2020		July 2020		Aug 2020	
		Male	Female	Male	Female	Male	Female
Sierra Leone	NACP-ART-ADULT-Adult Client Currently on Treatment	8,736	27,036	35,772	8,745	25,455	34,200
	NACP-ART-PAED-Client Currently on Treatment	610	543	1,153	572	545	1,117
	Total	9,346	27,579	36,925	9,317	26,000	35,317

Currently on Treatment by District

Organisation unit / Period	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020
Bonthe District	414	427	419	422	359	253
Port Loko District	1,362	1,397	1,101	1,031	1,058	584
Pujehun District	258	270	281	268	281	279
Kenema District	2,961	2,962	2,805	2,824	2,851	2,840
Tonkolili District	1,123	1,144	1,175	1,202	1,264	1,266
Koinadugu District	537	479	533	524	493	18
Kono District	2,474	2,610	2,637	2,622	2,675	2,644
Western Area Urban District	13,861	13,747	13,727	13,964	13,810	12,975
Kallahun District	1,393	951	802	1,070	843	716
Western Area Rural District	3,299	3,365	3,230	3,634	3,711	3,717

Figure 4: DHIS main page

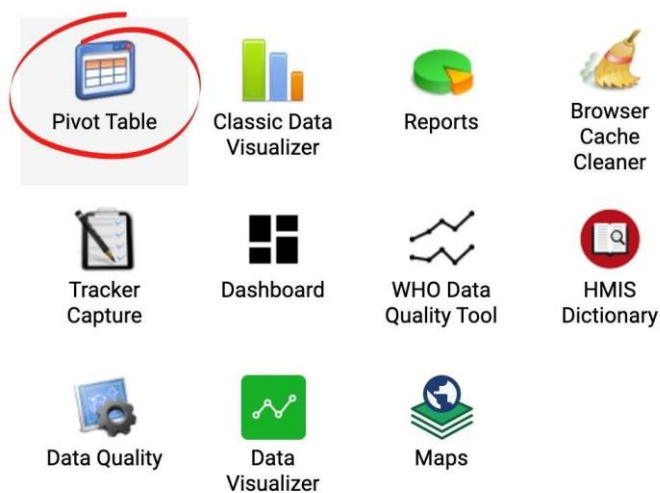


Figure 5: DHIS access panel

3. Create pivot tables of indicator/data elements of interest disaggregated by
 - a. Time period (year, month, etc.)
 - b. Geographic regions (country, district, facility, etc.)
 - c. Age group
 - d. Sex

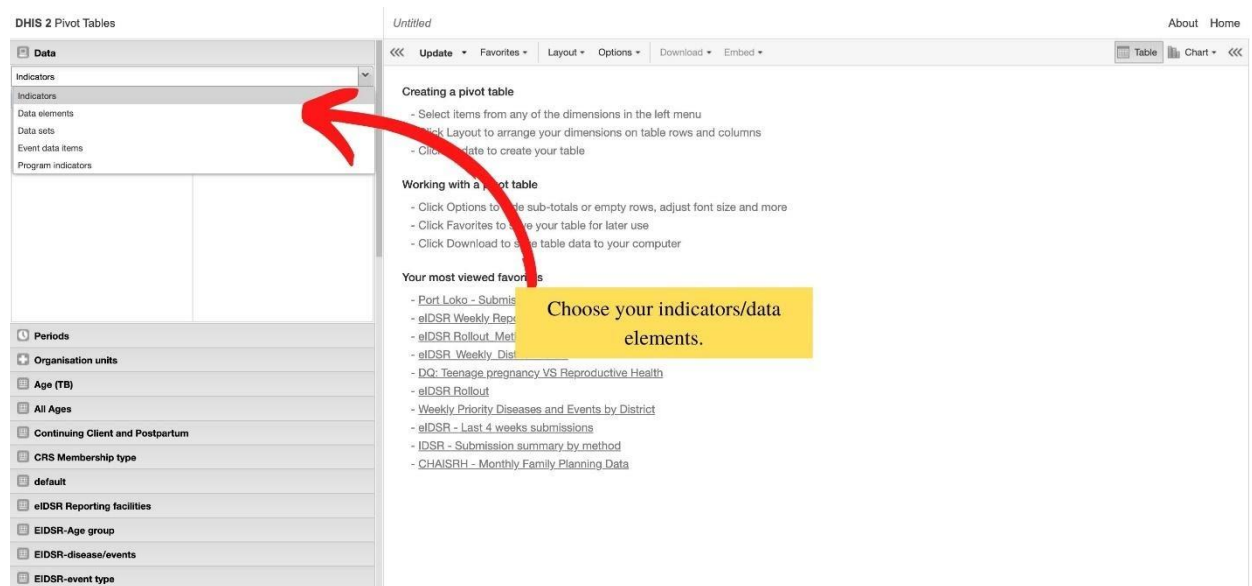


Figure 6: DHIS pivot table page view

Pivot Table example

To learn how to make pivot tables of your desired indicators/data elements, you can view these [DHIS tutorial videos](#) below. There are 7 video tutorials to guide you through learning how to create, manipulate and save pivot tables. These are helpful for those just learning about how to create DHIS pivot tables for the first time as well as for those who want to get better at manipulating different data elements.

- [Module 3 - Session 2 - Pivot Tables Demo 1 of 7](#)
- [Module 3 - Session 2 - Pivot Tables Demo 2 of 7](#)
- [Module 3 - Session 2 - Pivot Tables Demo 3 of 7](#)
- [Module 3 - Session 2 - Pivot Tables Demo 4 of 7](#)
- [Module 3 - Session 2 - Pivot Tables Demo 5 of 7](#)
- [Module 3 - Session 2 - Pivot Tables Demo 6 of 7](#)
- [Module 3 - Session 2 - Pivot Tables Demo 7 of 7](#)

Once you are done creating your pivot tables, save the ART program data as ‘**UNAIDS ART**’ and the ANC program data as ‘**UNAIDS ANC**’ in your ‘**Favorites**’ list. Then you can easily find them, connect to them and pull them into ADR to have them formatted to be used in Naomi. (*for common errors in this section and how to rectify, please refer to the Trouble Shooting section below).

Period	Organisation unit	inatal client positive type 2	Antenatal client HIV positive type 1/2
	Bo District	1	125
	Bombali Distr	58	2
	Bonthe Distr		1
	Falaba Distr		13
	Kailahun Distr	18	304
	Kambia District	411	107
	Karene District	29	73
	Kenema District	1 041	177
	Koinadugu District	841	58
	Kono District		29
	Moyamba District	455	18
	Port Loko District		69
	Pujehun District	32	88
	Tonkolili District	73	258
	Western Area Rural District	1 513	468
	Western Area Urban District	471	26
	Total	5 887	1 816

Figure 7: DHIS pivot table 'Favorite' view

Step 2: Map your DHIS pivot table to the Naomi template in ADR for automatic import

Configure connection

“Mapping” a DHIS pivot table to a Naomi template means **connecting** a pivot table you created in the DHIS to the right template to be configured to be read and processed by Naomi for analysis.

Once you have finished making the pivot tables, open [ADR](#). Navigate to your country page under ‘organizations’ and click the **DHIS2 Source Tab**.

theAIDS DATArepository

Organizations / Sierra Leone

Click DHIS2 Sources Tab

Datasets DHIS2 Sources Activity Stream About

Add Dataset

Search datasets...

11 datasets found

Order by: Relevance

General Data DHIS ANC Tested for HIV Type 1,2,1/2 Pulled Dec 20 2020 Output ANC

This dataset has no description

Figure 8: ADR country page view

Then click **Add DHIS2 Source** button and then enter your DHIS2 log-in credentials. Click 'Next'.

DHIS2 sources

Fetchers allow importing remote datasets into the ADR. This DHIS2 fetcher can be configured to periodically fetch pivot tables from a DHIS2 instance and do some automatic transformation upon them.

DHIS2 Connection > Pivot Tables > Column Configuration > DHIS2 Source Details

Configure DHIS2 Connection

* DHIS2 URL:

This should include the https:// part of the URL. [Click here to optionally specify the DHIS2 API version](#)

* DHIS2 Username:

The user must have access to read the desired pivot tables

* DHIS2 Password:

Your password won't be stored in ADR but passed straight to the DHIS2 instance for authentication.

Next

Figure 9: ADR DHIS2 Sources tab view

Find the right pivot table

Browse and find the correct pivot table that you saved in step 1 your 'Favorites' section of the DHIS (i.e. UNAIDS ART) from the dropdown menu. In the dropdown menu, you will see all the pivot tables saved in your DHIS 'Favorites' list. Typing the first few letters of the pivot table name (in this case 'UNAIDS') will help you find the right table quickly.

DHIS2 sources

Fetchers allow importing remote datasets into the ADR. This DHIS2 fetcher can be configured to periodically fetch pivot tables from a DHIS2 instance and do some automatic transformation upon them.

Pivot Tables

In this dropdown list, you will see all the pivot tables saved under your "Favorites" in DHIS2. Search for the right pivot table by typing the first few letters of the title.

UNAIDS

- UNAIDS ANC
- UNAIDS ART monthly example
- UNAIDS_ADULT ART INDICATORS BY MONTHS IN 2020 BY HEALTH FACILITIES
- UNAIDS_ANC Client 1st Visit_Adolescent Service ANC
- Visit_ANC Client HIV Pos 1, 2, 1/2+District_2020
- UNAIDS_ART
- UNAIDS_Current On ART_Adult_District_2020
- nPrPyOOpWw5

+ Add Pivot Table

Naomi ANC Input

Previous Next

Figure 10: ADR DHIS2 Pivot Table Fetcher/Importer view

Make sure to map the pivot table to the correct template. For example, if you are importing the ANC program data, then choose the 'Naomi ANC Input' table to map/connect the data. You can connect to and import multiple pivot tables at the same time by clicking the green 'Add Pivot Tables' button.

DHIS2 Connection > Pivot Tables > DHIS2 Source Details

Choose your DHIS2 pivot tables

UNAIDS ART Naomi ART Input

UNAIDS ANC Naomi ANC Input

+ Add Pivot Table

Previous Next

Make sure to map your pivot table to the right input table. For example, if you are working with ART data, select "Naomi ART Input", etc.

You can import multiple pivot tables at the same time. We recommend you import both ART and ANC tables together as shown in this example.

Figure 11: ADR DHIS2 Pivot Table mapping view

Mapping the indicators

Upon clicking “Next”, you are taken to the ‘Column Configuration’ page.

DHIS2 Connection > Pivot Tables > Column Configuration > DHIS2 Source Details

Configure Columns and Categories

3 UNAIDS ART UNAIDS ANC

1 Source DHIS2 pivot table: UNAIDS ART (DHIS2 ID: kccwBwKEpfV)

2 ADR Mapping Type: Naomi ART Input

You are then taken to the Column Configuration page. Make sure that you are 'mapping' (connecting) your pivot table with the right programmatic data table. Also, make sure that you are in the right programmatic tab to start mapping your indicators.

The pivot table UNAIDS ART, with ID: kccwBwKEpfV in your DHIS2 system will be used to populate the Naomi ART Input ADR table.

NACP-ART-ADULT - old clients who were supplied with ARVs / Male, >49y

column: art_current age_group: Y000_014 sex: male

Figure 12: ADR Pivot table Column configuration page

1. Name of your DHIS pivot table (program data pivot table that you are importing **from**)

2. Naomi programmatic data table (Naomi compatible program data template you are importing **into**)
3. Tab which allows you to switch back and forth between different datasets (in this case, between ART and ANC datasets).

On this page, you can ‘map’ the indicators/data elements from your DHIS pivot table to the Naomi programmatic data template for a direct import. This process is crucial so please pay careful attention. ‘Mapping’ means that you are connecting the data elements/indicator in your DHIS pivot table to the right data element/indicator in the Naomi programmatic data input table. For example, the pivot table from your country’s ART program is showing the data such as the ‘number of people currently receiving ARV’ by 5 year-age increments. For this ART data to be recognized and used by Naomi, it has to be organized into two main age groups: 0-14 and 15-49 (or 0+ when the age disaggregation is not available). You need to, therefore, ‘map’ each of the data element in your pivot table such as ‘the number of people currently on ARV 0-4’, ‘the number of people currently on ARV 5-9’, etc., to the required data element format in the Naomi ART input table (in this example, you would map both of these data elements into the ‘0-14’ age group in the Naomi table).

In the below example, the ANC programmatic data pivot table is being mapped to the Naomi ANC input data template.

1. This is the name of the data element in your DHIS pivot table.
2. This is the variable/indicator name in the Naomi ANC input data template.
3. Age group code in the Naomi ANC input data template.
4. Button to turn on and off the data element/indicator. You can choose to exclude a data element if it is not needed.
5. If the data element/indicator accepts a negative value, click this to indicate it.
6. In this example, the indicator in the DHIS pivot table is ‘Antenatal client tested for HIV>49 yrs’.
7. Since there is only one age group needed for the Naomi ANC input data template (15-49 yrs) and we do not need the data element for women over >49 yrs of age, you can click the on/off button (see number 4) to turn off this indicator from being mapped and imported.

Antenatal client tested for HIV / 15-24 yrs **1**

2

column:

anc_clients

3

age_group:

Y015_049

4

☒

5

☐ Negative value

Antenatal client tested for HIV / 35-44 yrs

column:

anc_clients

age_group:

Y015_049

☒

☐ Negative value

Antenatal client tested for HIV / > 49 yrs **6**

column:

anc_clients

age_group:

Y015_049

7

☐

Figure 13: ADR Pivot table Column configuration page – mapping each indicator

When a data element/indicator is turned off, it collapses and becomes grayed out as seen in Figure 16.

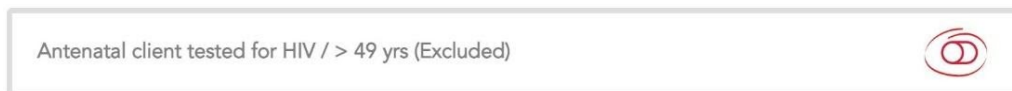


Figure 14: ADR Column configuration page - turning off a data element

Once you mapped all your indicators in one programmatic area (i.e., UNAIDS ART), click on the next program's tab to map all its indicators. After you 'mapped' all your data elements in **both** program areas, click 'Next' and continue.

After clicking 'Next' on the previous page, you are taken to the page to name your import file.

Naming and saving your import

Name your 'import' as follows '**CountryName Naomi**' in the '**Title**' section and provide additional details in the '**Description**' section. Make sure to map it to the right country under '**Organization**' as well as in the '**Geographical Location**'.

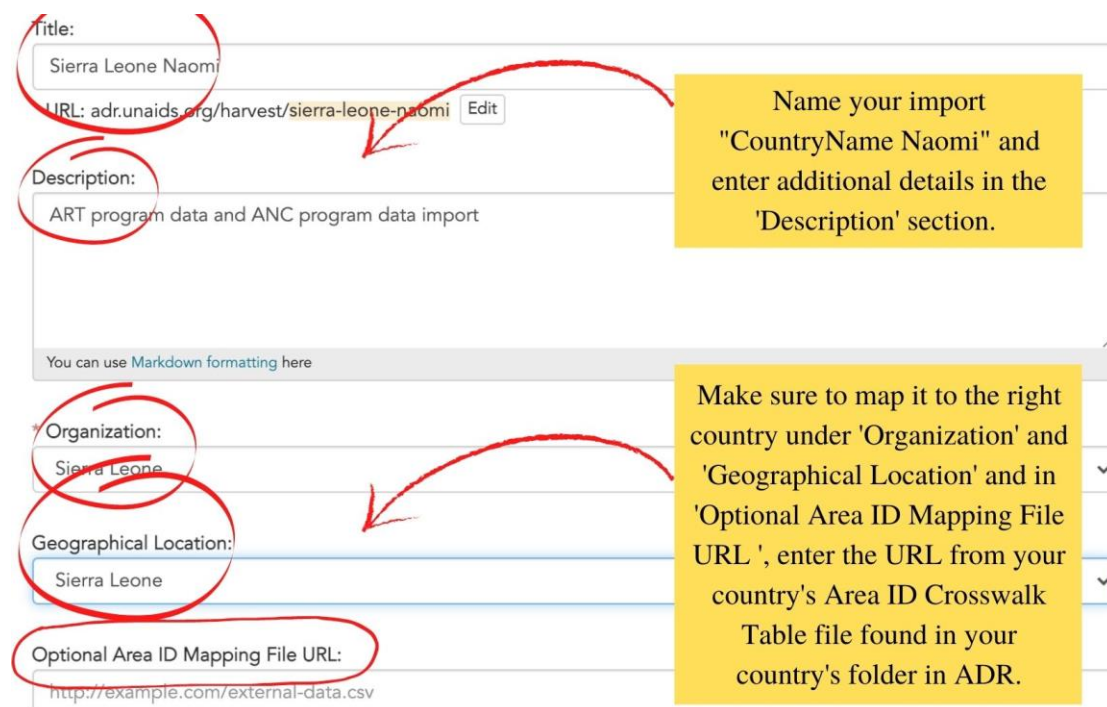


Figure 15: Finalize DHIS2 Source page – naming the database

For the '**Optional Area ID Mapping File URL**', open your '**Country Inputs UNAIDS Estimates 2021**' folder in ADR (you should open a **new** tab in your browser to do this) and find your country's **Area ID Crosswalk Table 2021** file as seen in Figure 18. (Note: this is the file containing the mapping of area codes in the source DHIS system. It is a cross walk file that links DHIS IDs with Naomi area IDs).

Dataset Activity Stream Manage

Sierra Leone Area ID Crosswalk Table 2021

Data and Resources

Sierra Leone Area ID Crosswalk Table
Last modified: 3 hours ago
Access restricted to specific organizations.

Additional Info

Field	Value
Geographical Location	Sierra Leone
Contact Name	ADR Admin
Contact Email	ADR Admin
Data Type	General Data
Transfer to	
Uploaded By	ADR Admin (admin)
State	active

Click 'Explore', then choose 'Preview'

Explore ▾

- Preview
- Download
- Edit
- Delete

Figure 16: ADR – where to find the Area ID Crosswalk Table

Click to open it, click Explore → Preview and copy the URL. Paste it into the ‘Optional Area ID Mapping File URL’ field.

Click ‘Save’ and ‘Next’ to run the import.

When you run the import, the following folders will be automatically created in your ADR: ‘CountryName Naomi Output ART’ and ‘CountryName Naomi Output ANC’. This is because ADR automatically recognizes the type of datasets you are importing and places appropriate naming extensions at the end of ‘CountryName Naomi’ title. Within these folders, you will find your program datasets nicely formatted to Naomi specifications.

Where to find the imported databases and how to manage them

Once your import is processed, you will be able to see your imported and nicely formatted data in Naomi table format in the following locations.

- A) Under Datasets Tab on your ADR country/Organization homepage
- B) Under DHIS2 Source Tab on your ADR country/organization’s homepage.

A) Your ADR country/organization homepage

Home / Organizations / Sierra Leone

Sierra Leone
Republic of Sierra Leone
[read more](#)

Followers: 0 Datasets: 7

Datasets DHIS2 Sources Activity Stream

[+ Add Dataset](#)

Search datasets...

7 datasets found

[General Data](#) Sierra Leone Naomi Output ART

Figure 17: ADR Country home page view

Clicking the name of your newly imported data will take you to this page below. Clicking 'Explore' provides you with a number of options. *Note that if you perform the import multiple times (i.e., 'refreshing' the dataset whenever new data becomes available) for the same database so you can see different versions of the same database on this page.

Dataset [Activity Stream](#) [Manage](#)

Sierra Leone Naomi Output ART

Data and Resources

[Download All](#)

[Explore](#)

[Explore](#)

[Preview](#)
[Download](#)
[Edit](#)
[Delete](#)

art dhis2

Figure 18: ADR Country page Data and Resources view

By clicking 'Preview', you can quickly review what your newly formatted database looks like. 'Download' allows you to download the data as a .csv file.

89 records

« 1 – 89 »

_id	area_id	area_na...	calenda...	age_group	sex	art_curr...
1	SLE_2_1...	Tonkolili ...	CY2016Q4	Y000_014	male	659
2	SLE_2_1...	Tonkolili ...	CY2017Q4	Y000_014	male	761
3	SLE_2_1...	Tonkolili ...	CY2018Q4	Y000_014	male	874
4	SLE_2_1...	Tonkolili ...	CY2019Q4	Y000_014	male	974
5	SLE_2_1...	Tonkolili ...	CY2020Q3	Y000_014	male	1167
6	SLE_2_1...	Tonkolili ...	CY2020Q4	Y000_014	male	719
7	SLE_2_1...	Bo District	CY2016Q4	Y000_014	male	1155
8	SLE_2_1...	Bo District	CY2017Q4	Y000_014	male	1714

Figure 19: ADR Country page Data and Resources view – viewing the imported table

B) Under DHIS2 Sources Tab

DHIS2 Sources

Information DHIS2 sources

In this place you can configure automated data imports from the DHIS2 servers. DHIS2 sources produce tabular data imported into the ADR.

Organization: **Sierra Leone** 6

Data Type: There are no Data Type that match this search

Tags

6 DHIS2 sources found

Search harvest sources...

Order by: Relevance

Organization: **Sierra Leone**

Sierra Leone Naomi

There is no description for this harvest source

Datasets: 2 — Organization: **Sierra Leone**

You can see all your DHIS imports here. If the 'Datasets' value is '0', it means the import was NOT successful and you need to see what error might have occurred.

Figure 20: ADR DHIS2 Sources tab view – viewing the imported sources

You can always find out more about your database by clicking the name of your database. For example, when your import is not successful, click it to find out more. Click 'Admin' to learn more about what error might have occurred. When the datasets number is '0', it means the import was not successful. It

will also say ‘there are no datasets associated to this harvest source.’ Click the red ‘Admin’ button to access more in-depth information.

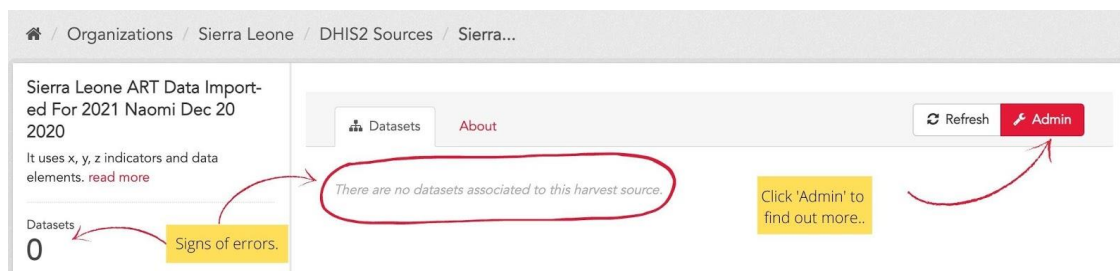


Figure 21: ADR DHIS2 Sources tab view – viewing the imported data sources

Clicking the ‘Edit’ tab will take you back to the main DHIS2 Sources page. This will allow you to go back to the beginning of your DHIS import process, review the previous mapping and fix whatever mistakes or error that might have occurred. You can go through the process of mapping the data elements again and update/make the necessary changes.

Click ‘View full job report’ if you want to see more details.

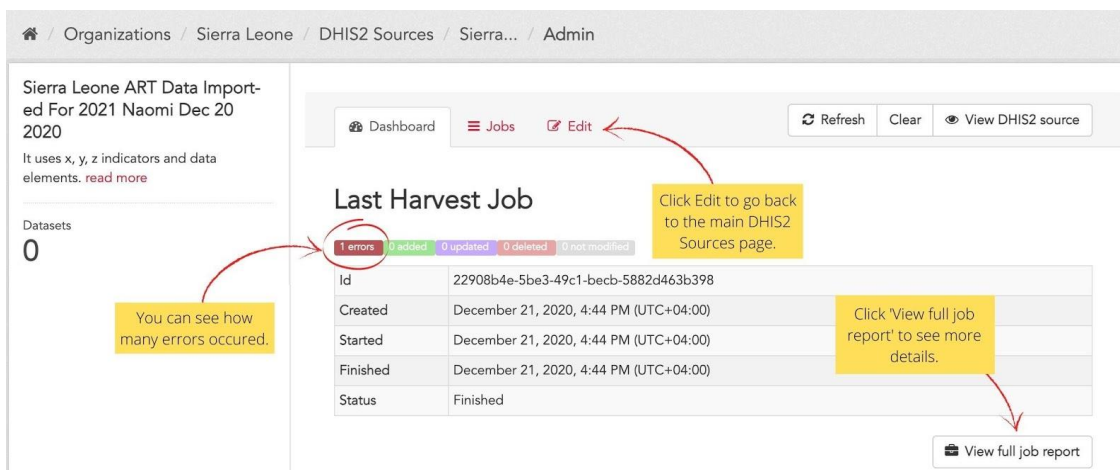


Figure 22: ADR DHIS2 Sources tab view – Admin view

How to update data in the previously imported and formatted table (‘re-harvesting’)

Once you created your pivot tables, mapped the indicators and set up the automated import, updating the data once new data becomes available is easy. Here are the steps.

- 1) Click on the DHIS2 Sources tab.
- 3) Click the database of your choice.
- 4) Click ‘Refresh’.
- 5) A window asking you to ‘confirm this action’ will pop up since ‘refreshing/updating/reharvesting’ will overwrite the previous data.
- 6) You will either ‘Cancel’ or ‘Confirm’

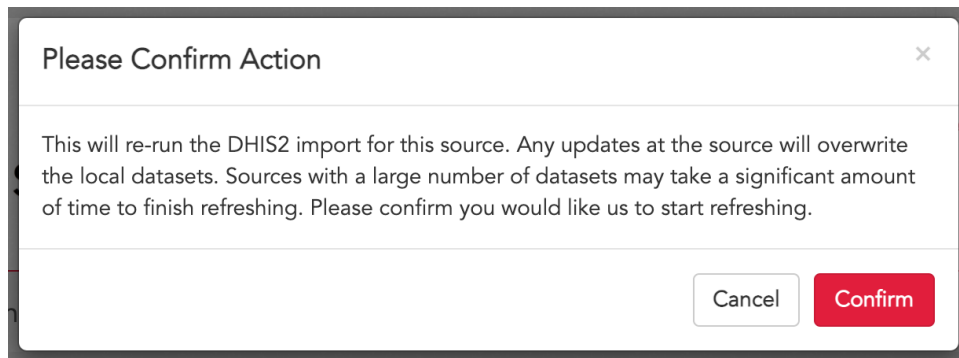


Figure 23: ADR DHIS2 Sources tab view – Warning message before ‘re-harvesting’ data

Storing your data for analyses in Naomi

As mentioned earlier, in your country page in ADR, UNAIDS has created a folder called ‘**Country Inputs UNAIDS Estimates 2021**’ folder to help you organize all your databases and files required for the estimate process. Please always review the data in your imported databases before finalizing and saving them in this folder. You can do so by downloading your newly formatted tables as .csv files and reviewing them in Excel and/or viewing them visually using ShinyRob tool to review and validate the data.

Once you are confident with your datasets, upload the final ART and ANC datasets (named ‘**CountryName Naomi Output ART**’ and ‘**CountryName Naomi Output ANC**’) into the **Country Inputs UNAIDS Estimates 2021** folder.

Step 3: Review the trends to ensure data quality (Using Shiny Rob)

The [ShinyRob](#) tool presents the district level ART and ANC program data in a visual format helping you to easily review trends, compare results and spot any anomalies for data cleaning. Reviewing the input data and being confident about the quality of the data is the most important aspect in the process of producing accurate estimates. Here are the steps.

- 1) Open [ShinyRob](#) from [the UNAIDS HIV Tools](#) page.
- 2) Click “Get ADR key”.
- 3) Copy your ADR key/API by clicking an icon that looks like two pieces of paper on top of each other. Please remember that **your ADR/API key is unique to you and acts like a password**. Do not share it with others.

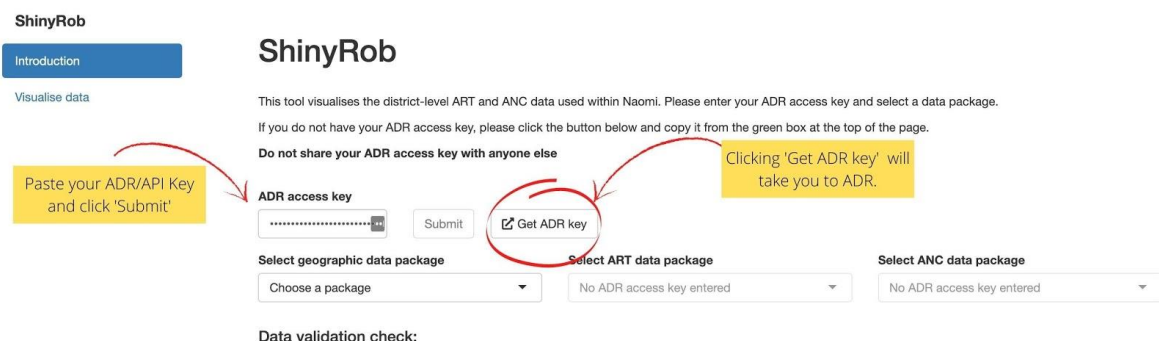


Figure 24: ShinyRob main page view – getting ADR key



Figure 25: ADR API key view

4) Select geographic data package, ART data package and ANC data package from the dropdown menus.

ShinyRob

This tool visualises the district-level ART and ANC data used within Naomi. Please enter your ADR access key and select a data package.

If you do not have your ADR access key, please click the button below and copy it from the green box at the top of the page.

Do not share your ADR access key with anyone else

ADR access key

.....

Select geographic data package

Burundi Inputs UNAIDS Estimates 2021 | Burundi

Select ART data package

Burundi Inputs UNAIDS Estimates 2021 | Burundi

Choose a package

Burundi Inputs UNAIDS Estimates 2021 | Burundi

Select ANC data package

Burundi Inputs UNAIDS Estimates 2021 | Burundi

Data validation check:

Geographic data
Valid

ART data
Valid

Last modified: 2020-11-22 19:48:22

ANC data
Valid

'Valid' means that ShinyRob is connected to the right data packages that you created in ADR.

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Figure 26: ShinyRob main page view

5) Click the blue “Visualise data” button on the upper left-hand corner.

6) You will see the indicators below as graphs.

- **ART count:** Number on ART at the end of calendar year
- **ART sex ratio:** Ratio of females-to-males among adults on ART
- **ART paediatric:** Proportion of total on-ART under age 15
- **ANC count:** Number of ANC clients
- **ANC prevalence:** HIV prevalence among ANC attendees
- **ANC known positive:** Percentage of known positive already on ART
- **ANC ART coverage:** ART coverage prior to first ANC visit

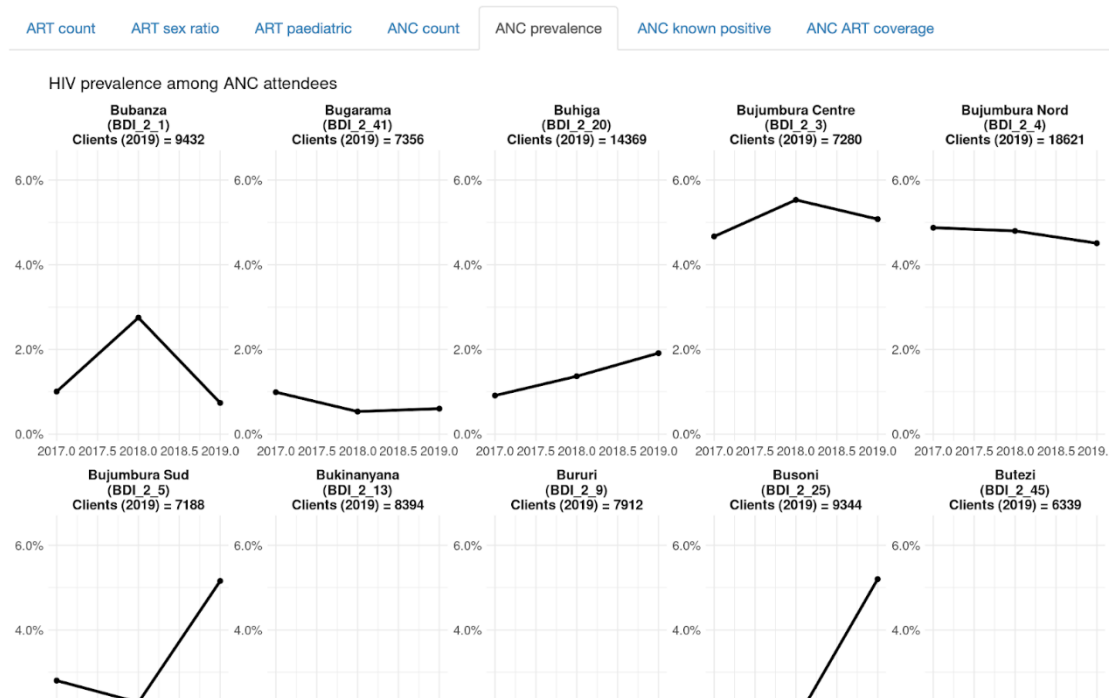


Figure 27: ShinyRob visual analyses of the indicators view

Once you are confident with your datasets, name each table as “**ART Data**” and “**ANC Data**” and save them in the **Country Inputs UNAIDS Estimates 2021** folder in your country page in ADR.

Step 4: Run the Naomi model and review the analysis to inform programming (i.e., more ART scale up in certain geographic regions, etc.)

Open [Naomi](#) from [UNAIDS HIV Tools page](#). Consult Naomi specific resource videos and documents ([14 steps to run Naomi with audio](#) and [slides](#) and [Instructions to Naomi Model](#)) from the [Training Videos link](#) from the same page.

Trouble Shooting

1) Pivot table not showing up in the “Favorite” list in DHIS

- Refresh the browser. It might ask you to log into the DHIS again but it should take you back to the pivot table view right away. Navigate to the Favorite list and you should find it.

2) In ADR, you cannot find/access your pivot table that you know you saved in the ‘Favorite’ in DHIS.

- Refresh your browser. ADR will take you back to the main page of DHIS2 Sources where you will need to provide your DHIS log-in information again. Then navigate to the dropdown menu where you see the list of the pivot tables and you should see it.

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