DHIS2 USER MANUAL UGANDA

Version 2.3

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About this guide

DHIS2 is a browser-based application that has a number of unique features which help to automate paper-based tools in different countries around the world. These features include providing data entry tools, providing data validation and data improvement features, among others. This guide is intended to aid those individuals or organizations that will need to use DHIS2 for its different features. It provides detailed descriptions on how to use the different features that DHIS2 provides, especially in Uganda.

There are a number of new unique features and functionalities that have been introduced in the new DHIS2 and this guide will describe all of them.

1. What is DHIS2?

After reading this section you will be able to understand:

- What DHIS2 is, and what purpose it serves with respect to health information systems (HIS) generally and in Uganda particularly?
- The major technological considerations when it comes to deploying DHIS2.

1.1 DHIS2 Background

DHIS2 is a tool for gathering, validation, analysis, and presentation of aggregate and patientbased statistical data, tailored nonetheless not limited to cohesive health information management activities. It is a generic tool rather than a pre-configured database application, with an open metadata model and a flexible user interface that allows the user to design the contents of a specific information system without the need for core software design. DHIS2 is a modular web-based software package built with free and open source Java frameworks.

DHIS2 is open source software released under the BSD license and can be obtained at no cost. It runs on any platform with a Java Runtime Environment (JRE 7 or higher) installed.

DHIS2 is developed by the Health Information Systems Programme (HISP) as an open and worldwide distributed process with developers currently in India, Vietnam, Tanzania, Ireland, and Norway. However, there are other developers in other countries that use DHIS2 that help to develop, customize and maintain DHIS2 according to the country's health information systems guidelines and the nature of the different tools they use. In Uganda, that work is done by a

number of organizations including HISP Uganda, Makerere Monitoring and Evaluation Technical Support (METS) Program among others. The development is mainly coordinated by the University of Oslo with support from NORAD and other donors in the different countries.

The DHIS2 software is used in more than 40 countries in Africa, Asia, and Latin America, and countries that have adopted DHIS2 as their nation-wide HIS software include Kenya, Tanzania, Uganda, Rwanda, Ghana, Liberia, and Bangladesh. A rapidly increasing number of countries and organisations are starting up new deployments.

The documentation provided herewith, will attempt to provide a comprehensive overview of the application. Given the abstract nature of the application, this manual will try to serve as a rather complete step-by-step guide of how to use the application in each and every circumstance but not exhaust all of it, but rather will seek to provide illustrations and examples of how DHIS2 can be implemented and used in a variety of situations through generalized examples.

Before implementing DHIS2 in a new setting, we highly recommend reading the DHIS2 Implementation Guide (a separate manual from this one), also available at the main DHIS2 website.

1.2 Key features and purpose of DHIS2

DHIS2 as an application has a purpose and a number of key features and they are summarized in this sub section as follows:

- DHIS2 provides a comprehensive data management solution built on data warehousing principles and a modular structure which can easily be customised to the different requirements of a management information system, supporting analysis at different levels of the organisational hierarchy.
- Customisation and local adaptation through the user interface. No programming required to start using DHIS2 in a new setting (country, region, district etc.). This has been done recently in Uganda.
- DHIS2 also provides data entry tools which can either be in the form of standard lists or tables, or can be customised to replicate paper forms in a particular country and for this case, Uganda.
- Provide easy to use one-click reports with charts and tables for selected indicators or summary reports using the design of the data collection tools. Allow for integration with popular external report design tools (e.g. Jasper Reports) to add more custom or advanced reports.
- User management module for passwords, security, and fine-grained access control (user roles).
- Flexible and lively (on-the-fly) data analysis in the analytics components (i.e. GIS, Pivot Tables, Data Visualizer, Event reports, etc).
- A user-specific dashboard for quick access to the relevant monitoring and evaluation tools including indicator charts and links to favourite reports, maps and other key resources in the system.
- Further modules can be developed and integrated as per user needs, either as part of the DHIS2 portal user interface or a more loosely-coupled external application interacting through the DHIS2 Web-API.

- Users can share and discuss their data in charts and reports using Interpretations, enabling an active information-driven user community.
- Easy to use user-interfaces for metadata management e.g. for adding/editing datasets or health facilities. No programming needed to set up the system in a new setting.
- Functionality to design and modify calculated indicator formulas.
- Messages can be sent to system users for feedback and notifications. Messages can also be delivered to email and SMS.
- Functionalities of export-import of data and metadata, supporting synchronisation of offline installations as well as interoperability with other applications.
- Using the DHIS2 Web-API, allow for integration with external software and extension of the core platform through the use of custom apps.
- Provide different kinds of tools for data validation and improvement of data quality.
- Generally, DHIS2 provides a comprehensive HIS solution for the reporting and analysis needs of health information users at different levels.

1.3 Use of DHIS2 in HIS: Data collection, processing, interpretation, and analysis.

The wider context of HIS can be broadly described through the information cycle presented in Figure 1.1 below. The information cycle pictorially depicts the different components, stages and processes through which the data is collected, checked for quality, processed, analysed and used.



The Information Cycle

Figure 1.1. The health information cycle

DHIS2 supports different facets of the information life cycle including collecting data, running quality checks, data access at multiple levels, reporting, making graphs, maps and other forms of analysis, displaying data in time series to see their minimum and maximum

levels, enabling comparison across time and space, among others.

DHIS2 serves as a data collection, recording and compilation tool, and all data (be it in numbers or text form) can be entered into it. Data entry can be done in lists of data elements or in customised user defined forms which can be developed to mimic paper-based forms in order to ease the process of data entry by the different health workers at any level.

DHIS2 can also be used to increase data quality. First, at the point of data entry, a check can be made to see if data falls within acceptable range levels of minimum and maximum values for any particular data element also including the data type of the data entered. Such checking, for example, can help to identify typing errors at the time of data entry. Further, user can define various validation rules, and DHIS2 can run the data through the validation rules to identify violations. These types of checks help to ensure that data entered into the system is of good quality from the start, and can be improved by the people who are most familiar with it.

When data has been entered and verified, DHIS2 can help to make different kinds of reports. The first kind are the routine reports that can be predefined, so that all those reports that need to be routine generated can be done on a click of a button. Further, DHIS2 can help in the generation of analytical reports through comparisons of for example indicators across facilities or over time. Graphs, maps, reports and health profiles are among the outputs that DHIS2 can produce, and these should routinely be produced, analysed, and acted upon by health managers.

More about data entry and on how to report after data entry will be covered in the coming sections of this guide.

1.4 Difference between Aggregated and Patient data in a HIS

Patient data is data relating to a single patient, such as his/her diagnosis, name, age, earlier medical history etc. This data is typically based on a single patient-health care worker interaction. For instance, when a patient visits a health care clinic, a variety of details may be recorded, such as the patient's temperature, their weight, and various blood tests. Should this patient be diagnosed as having "Vitamin B 12 deficiency anaemia, unspecified" corresponding to ICD-10 code D51.9, this particular interaction might eventually get recorded as an instance of "Anaemia" in an aggregate based system. Patient based data is important when you want to track longitudinally the progress of a patient over time. For example, if we want to track how a patient is adhering to and responding to the process of TB treatment (typically taking place over 6-9 months), we would need patient-based data.

Aggregated data is the consolidation of data relating to multiple patients, and therefore cannot be traced back to a specific patient. They are merely counts, such as incidences of Malaria, TB, or other diseases. Typically, the routine data that a health facility deals with is this kind of aggregated statistics, and is used for the generation of routine reports and indicators, and most importantly, strategic planning within the health system. Aggregate data cannot provide the type of detailed information which patient level data can, but is crucial for planning and guidance of the performance of health systems.

In between the two you have case-based data, or anonymous "patient" data. A lot of details can be collected about a specific health event without necessarily having to identify the patient it involved. Inpatient or outpatient visits, a new case of cholera, a maternal death etc. are common use-cases where one would like to collect a lot more detail that just adding to the total count of

cases, or visits. This data is often collected in line-listing type of forms, or in more detailed audit forms. It is different from aggregate data in the sense that it contains many details about a specific event, whereas the aggregate data would count how many events of a certain type, e.g. how many outpatient visits with principal diagnosis "Malaria", or how many maternal deaths where the deceased did not attend ANC, or how many cholera outbreaks for children under 5 years. In DHIS2 this data is collected through programs of the type single event without registration.

Patient data is highly confidential and therefore must be protected so that no one other than doctors can get it. When in paper, it must be properly stored in a secure place. For computers, patient data needs secure systems with passwords, restrained access and audit logs.

Security concerns for aggregated data are not as crucial as for patient data, as it is usually impossible to identify a particular person to an aggregate statistic. However, data can still be misused and misinterpreted by others, and should not be distributed without adequate data dissemination policies in place.

2. Getting started with DHIS2

2.1 Using the DHIS2 Demo Server

The DHIS2 development team maintains a demonstration server aimed at helping DHIS2 users to get familiar with using the different features and unique functions that DHIS2 provides. This demo server is available at <u>https://play.dhis2.org/demo</u> and this demo is one of the easiest ways to try out DHIS2 and its excellent features. The user just needs to simply open the above link in a web browser, preferably Mozilla Firefox or Google Chrome, login with username = admin and password = district. Figure 2.1 below shows the login page after accessing the demo server and Figure 2.2 shows the home page of the demo server after logging in.



Figure 2.1. Demo server login page

Dashboard - DHIS 2	× +				- o ×
← → C △ 🍙 play.dhis	2.org/2.33.0/dhis-web-dashboard/	#/		x Q (9 V G 🛛 🖗
DHIS 2 Demo - Sierra Leon	e - Dashboard				⊨ ¹ ≌ Ⅲ J
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ANC: ANC 3 coverage by dist	ricts last 12 months 🛛		ANC: LLITN coverage district	t and facility 2	Augou*

Figure 2.2. Demo server Home Dashboard

Note: All changes on this server are deleted each night, so it is advisable not to save any vital work on this server. It is strictly for demonstration purposes on only!

2.3. Logging on to DHIS2.

If one wants to access and use the features of DHIS2, one has to login into DHIS2. One will have to use a web-browser, preferably Google chrome or Mozilla Firefox as for the other browsers, one might not be able to access the different functions of the system. Once one of the above browsers is set, access dhis2 using this link <u>https://hmis-dev.health.go.ug</u> and this will display a login page as shown in figure 2.3 below.

🛇 dhis2	
Sign in	2
Username	
Password	
Login using two factor authentication	
Sign in	

Figure 2.3. DHIS2 login page

The system will require the user to login with a registered user name and password as shown in the figure above. In this case, the user will have to login using the credentials that were provided by the Ministry of Health Uganda so as to access the home dashboard and start using the system.

Once the user has entered the registered credentials, click the **Sign in** button below and log onto the system. After successfully logging onto the system, a home dashboard will be displayed as shown in *figure 2.4* below.



Figure 2.4. DHIS2 Home page

Please Note: User will not be able to access the system if the credentials entered are not registered or if the either the username or password are incorrect. The system will provide a notification below the sign in button informing the user of the problem in the form of a button that says "Invalid login information". This is shown in the figure *2.5 below*.



Figure 2.5. DHIS2 Home page with features

Once the above occurs, the user will have to re-login with the correct information or consult the hmis support team (hmissupport@health.go.ug).

On accessing the Home dashboard as shown in *figure 2.4*, one should be able to access the

different features provided by DHIS2 after clicking on the apps button (box-like icon (iii)) in the top corner next to the message icon) in the DHIS2 Menu. *figure 2.6* below shows the different DHIS2 features.





Figure 2.6. DHIS2 apps menu

Once you have logged into DHIS2 successfully, refer to the specific sections in this user manual for the different functionality which is available.

2.4. Logging out of DHIS2

Once You are done using the system and you wish to log out of the system, click on the Profile and the click "Log out" the top-right corner of the DHIS2 menu. This is better shown in the figure 2.7 below.



Figure 2.7. DHIS2 Logout

3. Data entry

3.1 Data entry with DHIS2

In order for one to be able to enter data into DHIS2, one has to first have successfully logged onto the system. (See section 2 above on how to log into DHIS2).

To open the data entry window hover over the Apps button in the DHIS2 menu. A dropdown menu will appear listing over the apps provided by DHIS2. Scroll down and click on the Data Entry option. Alternatively, the system provides a search option where you can search using the keyword data entry and the system will filter the applications.

The data entry module is where aggregated data is manually registered in the DHIS2 database. Data is registered for an organisation unit, a period, and a set of data elements (data set) at a time. A data set in most cases corresponds to a paper-based data collection tool which is already in existence.

There are a number of different data sets in the system that correspond to different organization units. It is important to note that for one to be able to access a data set, one has to first select an organization unit (org unit) on the left side of the system. These org units are grouped according to the different regions in the country , then further categorized according to the different districts and then sub counties.



Open the data entry app

In the organisation unit tree to the left, select an organisation unit



Select a Data set.

MOH - Uganda **Achol**

Agago District

Adiang Subcounty

Alap HC II

-Ligiligi HČ II

E-Kotomor Subcounty

ELamiyo Subcounty E Lapona Subcounty

Lukole Subcounty

Ornot Subcounty Palmol Subcounty Parabongo Subcounty -Patongo Subcounty Patongo Town Council H-Wol Subcourty

E-Lira Palwo Subcounty

Orina HC II -Agago Town Council E Arum Subcourty

and HC II

+ +

Organisation Unit Adilang HC III Deta Set [Select date set] Prev year Next year Period

Data Entry 🕜

Data Entry 🔞 Organisation Unit Adlians HC III Data Set HMIS 104 - NTDS MDA Implementation Report • [Select data set] HMIS 033b - Weekly Epidemiological Surveillance Report Period -Devid Fegeriec's Medical Ca HMIS 0976 - VHT/ICCM Quarterly Report HMIS 104 - NTDS MDA Implementation Report HMIS 105:01 - OPD Monthly Report (Attendance, Referralis, Conditions, TB, Nutrition) HMIS 105:02-03 - OPD Monthly Report (Attendance, Referralis, Conditions, TB, Nutrition) HMIS 105:02-03 - OPD Monthly Report (MCH, FP, EID, EPI & HEPB) HMIS 105:06-09 - OPD Monthly Report (HTS & SMC) HMIS 105:06-09 - OPD Monthly Report (Supplies, Outreaches & Supervision) Kalongo Town Council HMIS 105:10 - OPD Monthly Report (Lab) HMIS 106a:01-02 - HIV Quarterly Report HMIS 106a:03 - TB/Leprosy Quarterly Report HMIS 108a:04 - Lab Quarterly Report HMIS 107c - Health facility human resource inventory Omlya Pachwa Subcounty

Select nationality



The following subsections will describe the steps one has to go through while entering the data.

3.2 Selecting the data entry form

UCH - United	* 4 +	Data Entry 🔞								¥ Adle	ng HC III - Oc	tober 2017 - No	Deta Element	Selected
Achel Achel Adage District Adlang Euboon -Align HC II -Aligh HC II -David Fagerle -Ligiligi HC II	ty I E's Mexilcel Ct	Organization Unit Data Set Parisol Nationality	Adilang HC III HMIS J04 - NTOS MDA implementatik Dozobar 2017 J. Netional	n Report T Pre	vyaar Next yaar	• •							Run vali Print blaz	klation form nic form
H Agage Town Eou B Agage Town Eou B Arum Subcounty B Kalonge Town C	ndi	FGTION 4]: implementa	toranits (Villages schools) parisbes) targeted	knowned forge					ONCHO (Fav Dindness)	-	SCHISTO (D)	(barzia)	
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B-Lukale Subcount B-Omlya Pachera S B-Omat Subcounty B-Patroni Subcounty	y iubaounty	J03. Number of schools te J04. Number of schools co	geted											_
B Parabongo Subo	ounty	ection P.J.Population at a	sk											
B-Patongo Tevin C	ouncil			Under 1	y mair	1·	4 Yra	-	5-14 Yra		15°Y	15	Total	
		P01. Overall total populati	on in sub county						M	F				•
		argeneti Population (TP)	n Sub County											
		PD1. ONCHO (River Blind	ees)										0	
		PO2. SCHISTO (Biherzia)											
		LC HOHIC J Number of p	eople treated in sub-county with diffe	rem drug	patkapes-								0	

To jump to entering data, the first step is to open the correct desired form corresponding to an organization unit and please follow these steps:

To jump to entering data, the first step is to open the correct desired form corresponding to an organization unit and please follow these steps:

- 1. Locate the org unit you want to register data for in the tree menu to the left. Expand and close branches by clicking on the +/- symbols.
- 2. Select a data set from the dropdown list of data sets available to your selected org unit. This drop down appears down the org unit box.
- 3. Select a period to register data for. The available periods are controlled by the period type of the data set (reporting frequency). You can select any year that you want to report by either clicking prev year or next year buttons on the right of the period box.
- 4. After selecting the period in which you wish to report, a nationality dropdown will automatically appear down which contains the three client categories.
- 5. After selecting a client category, the selected data set will appear down words ready for data entry

The figure 3.1 below shows an example of a selected data entry form for Adilang HC III for the month of October 2017, client category refugee.

Figure 3.1. Example of a selected data set

3.3 Entering Data

3.4

-	eHMIS Dev	elopment Environment		tternskeiges 🛛 🗰 🐠
EI ÉMOH-L	dencia.	Data Entry 🔞		🕷 Adlang HC III - October 2017 - 104-TPD2. Targeted Population for SCHISTO (Bifranks) in Sub Courty 15+Yrs, Penale
B.Acho D.Ag	i ngo District Adilang Subcourcy Adilang HC III	Organisation Unit Data Set	Adleng HC III HKIS 104 - NTDS MDA Implementation Report	Cun validation Prim form Princ bank form
	Alop HC II David Fegeries's Medical Co Ligiligi HC II	Period Nationality	October 2017 Prev year Next year Netional	



veen

the form cells. Note that the values are saved immediately and do not require to be saved at a later stage. When you are done entering a value, a cell turning into green indicates that the entered value has been successfully saved in the system or on the server.

Authentication of the Input: In case you type in an invalid value, for example, a character in a field that only accepts numeric values, the cell or field you have typed in the wrong value will

turn into red and you will get a pop-up that explains the problem and the field will be coloured yellow (not saved) until you have corrected the value. If you have defined a min/max range for the field (data element+organisation unit combination) a pop-up message will notify you when the value is out of range, and the value will remain unsaved until you have changed the value (or updated the range and then re-entered the value).

Blocked Cells: If a field is disabled (dark grey) it means that the field can and should not be filled. The cursor will automatically jump to the next open field.

Data history: By double-clicking on any input field in the form a data history window opens showing the last 12 values registered for the current field (organisation unit+data element +categoryoptioncombo) in a bar chart. This window also shows the min and max range and allows for adjusting the range for the specific organisation unit and data element combination.

3.5 Editing and Deleting data

If you wish to enter data which has previously been entered, simply replace the data entry value with the update values.

If you want to delete a data value completely, you should select the value of interest, and press "Delete" on your keyboard. If you enter a zero and the data element has been configured to not store zeros, the previous data value (i.e. the one you wish to modify) will not be overwritten with the new value. Therefore, it is better practice to delete the data value completely (waiting for the cell to turn green) and then to enter the new value.

3.6 Validating Data in the Form

When all the available values for the form has been filled in you can run a validation check on the data in the form. Click on the "Run Validation" button in the top right (at the beginning of the data entry page) or lower left (at the end of your data entry page) corner. All validation rules which involve data elements in the current form (dataset) will be run against the new data. Upon completion you will be presented with a list of violations or a simply a message that says "The data entry screen successfully passed validation". See the Data Quality chapter for information on

how to define such validation rules.

When you have corrected any erroneous values and are done with the form the recommended practice is to click on the Complete button below the form to register the form as complete. This information is used when generating completeness reports for district, county, province or the national level.

Organisation Unit	Adliang HC III]					Run	relidation nt form
Data Set	HMIS 104 - NTDS MDA Implementa	ation Re	ροπ	•	i l					Print l	lank form
Period	October 2017	•	Prev year	Next year]						
Nationality	1. National			T							
										_	
_						 _				-	
	Complete			Incom	plete		Runiv	alidatio	n	h	
	Complete			Incom	plete		Runiv	alidatio	n		

3.7 Offline Data Entry

The data entry module will function even if during data entry the Internet connectivity is not stable. In order to utilize this functionality, you must login to the server while Internet connectivity is present, but if during data entry, the Internet link between your computer and the server becomes unstable, data can still be entered into the data entry form, saved to your local computer, and then pushed to the server once the Internet connectivity has been restored. Data can be entered and stored locally while being off-line and uploaded to the central server when on-line. This means that the on-line deployment strategy will be more viable in areas with unstable Internet connectivity. The total bandwidth usage is greatly reduced since forms no longer are retrieved from the server for each rendering.

When the server is able to be reached through the Internet connection, a message is displayed at the top of the data entry screen below.

If the Internet connection should disconnect for some reason during the data entry process, this will be detected by the application, and you will be informed that your data will be stored locally.

3.8 Important Notes on Data Entry in DHIS2

There are a number of unique features that have been introduced in the new DHIS2 and some of those are related to data entry. Most of these have been described in the previous subsections of section 3 but those that have been left out include the following:

 The big data sets such as 106a and 105 have been divided into different sections to ease data entry.

• A menu on each data set has been introduced on the left hand side to ease navigation through the different sections while entering data in a particular data set.

• Blocked cells (Grey cells) do not allow data entry into the system.

Adilang HC III HMIS 104 · NTDS MDA Implementation Report Ŧ. [Select data set] HMIS 033b - Weekly Epidemiological Surveillance Report HMIS 097b · VHT/ICCM Quarterly Report HMIS 104 · NTDS MDA Implementation Report HMIS 105:01 - OPD Monthly Report (Attendance, Referrals, Conditions, TB, Nutrition) HMIS 105:02-03 - OPD Monthly Report (MCH, FP, EID, EPI & HEPB) intat HMIS 105:04-05 - OPD Monthly Report (HTS & SMC) HMIS 105:06-09 - OPD Monthly Report (Supplies, Outreaches & Supervision) es tai HMIS 105:10 - OPD Monthly Report (Lab) HMIS 106a:01-02 · HIV Quarterly Report HMIS 106a:03 - TB/Leprosy Quarterly Report es co HMIS 106a:04 - Lab Quarterly Report HMIS 107c - Health facility human resource inventory bisitar HMIS 108 - IPD Monthly Report

bls covered



1



bls covered

4. Pivot Tables application 4.1 About the Pivot table app

A user can use the Pivot Table app to generate pivot tables building on all the available data dimensions in DHIS2. A pivot table is a dynamic tool used for data analysis which lets a user summarize and arrange data according to its dimensions.

Examples of data dimensions in DHIS2 may include:

- Data dimension itself (for example data elements, indicators and events).
- Periods (representing the time period for which the data represents).
- Organisation hierarchy (representing the geographical location of the data).

From these dimensions a user can freely select dimension items to include in the pivot table. A user can also create additional dimensions in DHIS2 with the group set functionality.

4.2 Create a pivot table

To create Pivot Tables:

1. Access pivot tables module by clicking the **Pivot Table** icon in the **Apps** menu.



Dimension items:

2. The Pivot Table screen displays with two window panes: The **Dimensions** pane on the left, and the **Results** pane on the right. The Dimensions pane is where the data dimensions for your analysis are selected; the Results pane displays/returns the results of the dimensions pane.

🖪 Data	W Update - Favorites - Layout - Options - Download - Embed -
Indicators Select indicator group Available Selected	Creating a pivot table - Select items from any of the dimensions in the left menu - Click Layout to arrange your dimensions on table rows and columns - Click Update to create your table Working with a pivot table - Click Options to hide sub-totals or empty rows, adjust font size and more - Click Pavorites to save your table for later use - Click Download to save table data to your computer
 Periods Organisation units Administrative Units Location Nationality Ownership Pilot Schools PP - Class 	 Your most viewed tavorites <u>Enrolment by Age Group, Class and Sex - 2017</u> <u>Reports Entered for Pre-primary and Primary Schools</u> <u>KPIs Comparisons - Last 5 Years</u> <u>Reporting Rates for Primary School Form</u> <u>PP - Enrolments and Caregiver Information</u> <u>Teachers and Enrolment</u> <u>Enrolment, orphans by sub county, gender and class 2017</u> <u>Reporting Rates for Pre-primary School Form</u> <u>Validation Check - Teachers Vs Enrolment</u> <u>Validation Check - Caregiver Vs Enrolment</u>

3. In the menu to the left, select the dimension items to be analyzed, for example either **data** elements or program indicators

🖲 Data	
Data elements	*
Indicators	
Data elements	
Data sets	
Event data items	
Program indicators	

- **Data elements:** Specific data or data elements represent the raw data being collected
- **Program Indicators:** Represent formulas providing coverage rates, incidence rates, ratios and other formula-based units of analysis.
- **Reporting rate**: Reporting rate summaries show how many forms have been submitted by organisation unit for a given period. There are two methods available to calculate reporting rates: completeness and timeliness reports.

4. Select time **Period (s)** for analysis. These can be fixed periods (top pane), or periods relative to the current date (bottom pane)

C Periods					
Yearly			*	Prev year	Next year
Available	> >> «	<			Selected
2019					
2018					
2017					
2016					
2015					
2014					
Days	Weeks		N	lonths	
Today Yesterday Last 3 days Last 7 days Last 14 days Bi-month Last bi-month Last 6 bi-months Bi-months this year Financial years	This week Last week Last 4 weeks Last 12 weeks Quarters This quarter Last 4 quarter Quartershis yee	s ar s year		This month Last month Last 3 month Last 6 month Last 12 mm Months thi itix-months This six-m Last six-m Last 2 six-	h h hths onths onths is year onth onth months
This financial year Last financial year Last 5 financial years	Years This year Last year Last 5 years				

Fixed vs Relative Periods: If a **Fixed** period is selected, whenever a report is generated, the data values of the table will always reflect the selected periods, and thus be static. If a **Relative** period is selected, whenever a report is generated, the data values of the table will be relative to the current time within the system, following the reporting parameters selected; and thus alter over time.

5. Select the Organisation Unit(s) (OU) you are reporting on. Multiples can be selected utilizing [shift] or [ctrl] keys.

Note that if there are any child organization units under your selected OU, the data for the children will aggregate together.

6. Click **Update** to see the table display in the results pane.

DHIS 2 Pivot Tables		for user manual			About Home
🔍 Data		< Update - Favorites - L	ayout - Options - Download - Embed	•	Table 🛄 Chart - 巛
Indicators	¥		2018		
Select indicator group	¥		PRI - Extracurricular Participation, Female +	PRI - Enrollment, 10 years, Female +	
Available 🔍 🔰 🚿	« < Selected	Awach Subcounty	147	7	
	PRI - Extracurricular Participation, Female	Bardege Division	0	39	
	PRI - Enrollment, 10 years, Female	Bungatira Subcounty	100	23	
		Imanyiro Subcounty	50	12	
		Jagusi Subcounty	134	71	
		Kigandalo Subcounty	38	40	
		Kityerera Subcounty	31	73	
		Magamaga Town Council	83	48	
		Malongo Subcounty (Mayuge District)	101	66	
		Mayuge Town Council	285	203	
0		Mpungwe Subcounty	152	330	
C Periods		Patiko Subcounty	119	27	
C Organisation units		Pece Division	131	37	
Location		Unyama Subcounty	176	60	
Nationality		Wairasa Subcounty	49	52	1
Ownership					
PP - Class					
PP - AgeGroup					
PP - Category of Stances					
PP - Reason for Caregiver Leaving					
PP - Training of CMC					

4.3 Favorites

Saving pivot tables and charts as favorites enables you to return to your data and makes them easy to find. They can also be shared with other users as an interpretation or can be displayed on the dashboard.

4.3.1 Open Favorites

1. Click **Favorites** then click **Open** from the dropdown list that is displayed.



Enter the name of a favorite in the search field to narrow the options, or click Prev and Next to manually search through multiple pages. Favorites are arranged in alphabetical order.

2. Select the favorite by clicking on it.

	OPEN FAVORITE				×
READY Type y	our search	Filter	Show all		~
NAME	CREAT	ED LAST UF	DATED		
READY+ Aggregate Report	2018-0	1-25, 18:41 2018-05	-07, 15:50	🛛 🖸	8
Page 1 of 1				Prev	Next

4.3.2 Save Favorites

- 1. Create your desired pivot table.
- 2. Click Favorites and then Save as from the dropdown list displayed.

Favorites -	Layout -	Options -	Download -	Embed -
New				
🗂 Open				
Save				
E Save as		1		
		1		

- **3.** Enter a **name** and **description** for the favorite. It is important to name your favourite properly.
- 4. Click save.

SAVE FAVORITE AS	×
Name test Type name here Description A test favorite Type description here	
	Show favorites
	Click here to Save Save

5. Immediately you should share your favourite with the adequate groups.

4.3.3 Rename Favorites

- 1. Open the favourite you want to rename.
- 2. Click Favorites and then select Rename from the dropdown list.
- 3. Enter the new **name** for the favorite.
- 4. Click Update.

	RENAME FAVORITE	X
Name teest		
Description srgser		
Cancel		Update

4.3.4 Share Favorites

- 1. Open the favorite you want to share.
- 2. Click Favorites and then select Share from the dropdown list.



- 3. Select sharing settings:
 - Select User group to share with
 - Do not allow external access
 - Turn off public access (i.e. none)
 - Click save



4.3.5 Delete Favorites

- 1. Click Favorites and then select Delete from the dropdown list
- 2. Click **OK** to confirm.

4.4 Download Pivot Tables

- 1. To download the data in the current pivot table:
- 2. Click Download.

3. Under Table layout, select the desired download format: Excel, CSV or HTML.



4.4.1 Download Plain Data Source Format

To download plain data source formats:

- 1. Click Download.
- 2. Under Plain data source, select the desired file format.

Download - Embed	1 -
Table layout	1
Microsoft Excel (.	xis)
CSV (.csv)	
HTML (.html)	
Plain data source	
JSON	Þ
B XML	₽
Microsoft Excel	₽
CSV	₽
Advanced	Þ

4.5 Visualize Pivot Tables as chart

This section explains how to switch between pivot table, chart and map visualizations of your data.

- 1. Open a favourite or create a new pivot table, within the pivot table app.
- 2. Click the **Chart** icon on the top right, then select **Open this table as chart** from the dropdown list. The current pivot table then opens as a chart.

1	🛛 Chart 🔻
12	Go to charts
C	Open this table as chart
	Open last chart

4.6 Open Pivot Tables selection as chart

It is possible to visualize a small part of the pivot table as a chart by clicking directly on a value in the table instead of opening the whole table.

1. In the pivot table, click a value.

Construction Const									
2018									
	PRI - Extracurricular Participation, Female \$	PRI - Enrollment, 10 years, Female \$							
Awach Subcounty	147	7							
Bardege Division	0	39							
Bungatira Subcounty	100	23							
Imanyiro Subcounty	50	12							
Jagusi Subcounty	134	71							
Kigandalo Subcounty	38	40							
Kityerera Subcounty	31	73							
Magamaga Town Council	83	48							
Malongo Subcounty (Mayuge District)	101	66							
Mayuge Town Council	285	Open selection as	en selection as chart						
Mpungwe Subcounty	152	Org unit drill down/up	en selection as map						
Patiko Subcounty	119	27							
Pece Division	131	37							
Unyama Subcounty	176	60							
Wairasa Subcounty	49	52							

- 1. To verify the selection, hold the cursor over Open selection as chart. The highlighted dimension headers in the table indicate what data will be visualized as a chart.
- 2. Click Open selection as chart.

5. Data Visualizer Application

5.1 Overview of the data visualizer application

The data visualizer module enables users to easily create dynamic data analysis and visualizations through charts and data tables. You can freely select content (like indicators, periods and organisation units) for your analysis. This module can be accessed by selecting

Data Visualizer from the app menu. The image below shows the viewport of the module. For a quick start:

- M Sourch appa Column Fie -Optione Ŧ ø 🕈 G Dets ··· riar 12 Organization Unit 1 selected +++ 3, Seech dimensions Ri paca Çı manlad 13 Organikation Valt Grapsy (9 Period 1 selected --3 Depe Dana Gray · AER Severity · ANR Organisms Þ ٢ e. ATT CONDITINGS a Authority Mobile Coordiguased Groups, Cepture: · ANTS ADD Bed inventory a visualization by adding di e Blood Transferios Ap 8 0 27 Ē E Bood Type · DAT Results DEDMType e sel Ace N EPI Age with Months
 EPI Service Delivery Type Trader Cepture Mana e ensis En Val Works . T e EQA Results é FadilyLevel гт скранену туре e madade × + ø × 🔕 Data Visualizer - \leftrightarrow \rightarrow C \bullet hmis-dev.health.go.ug/dhis-web-data-visualizer/index.html#/ \$ 0 1 🔢 Apps 🧕 UTAMU Intranet - Т... 🜔 GitHub - amitkhare... 🚳 Яндекс 🚳 Почта M era 💈 https://hmis-dev.he... 🚺 https://www.jotfor... 🛛 Uganda eHMIS 🥚 template eHMIS Development Environment - Data Visualizer 🗏 🖂 🏭 PW ▼ UPDATE File Options Column Series 😝 Data 🚥 Filter to Organisation Unit: 1 selected ••• Category () Period: 1 selected ••• 🖯 Data () Period C Organisation Unit AEFI Severity AMR Organisms @ ART Cohort Age Authority AYFS Age @ Bed Inventory Create a new visualization by adding dimensions to the layout Blood Transfusion Age @ Blood Type © DAT Results © DSDM Type @ EPI Age © EPI Age with Months EPI Service Delivery Type @ EPI Site © EPI Vial Wastage Type @ EQA Results Facility Level P Dispensary Type @ FP Methods FP Timing
- 1. Look under the "Data" heading and select an indicator group from the list of groups.

2. Look under "Available indicators" and select a few indicators from the list by double-clicking on them.



CLEGT ALL

HIDE UPDATE

3. Click "Update" in the top bar and see the chart unfold.

The data visualizer is designed firstly to be easy-to-use - you can simply select the indicators, data elements, periods and organisation units you want to include and click "Update" to get your visualization. Secondly it is designed to be fast and work well over poor Internet connections - charts are generated in the web browser and very little data is transferred over the Internet.

5.2 Creating a chart and selecting a chart type

The visualizer module provides nine different chart types, each with different characteristics. You can select the type of your chart by clicking on one of the icons in the top left bar titled "Chart type".

- 1. Column chart: Chart which displays information as vertical rectangular columns with lengths proportional to the values they represent. Useful e.g. for comparing performance of different districts.
- 2. Stacked column chart: Chart with vertical rectangular columns where bars representing multiple categories are stacked on top of each other. Useful e.g. for displaying trends or sums of related data elements.
- 3. Bar chart: Same as column chart, only with horizontal bars.
- 4. Stacked bar chart: Same as stacked column chart, only with horizontal bars.
- 5. Line chart: Graph which displays information as a series of points connected by straight lines. Also referred to as time series. Useful e.g. to visualize trends in indicator data over multiple time periods.
- 6. Area chart: Chart which is based on line chart, with the space between the axis and the line filled with colors and the lines stacked on top of each other. Useful for comparing the trends of related indicators.
- 7. Pie chart: Circular chart divided into sectors (or slices). Useful e.g. to visualize the proportion of data for individual data elements compared to the total sum of all data elements in the chart.
- 8. Radar chart: Displaying multivariate data on axes starting from the same point. Also known as spider chart.
- 9. Speedometer Chart: Semi-circle chart which displays values out of 100%. Sometimes referred to as a gauge chart.

ы	Column	•	UPDAT	Е	File	Options	
Q :	Search dimensions		Series	₿	Data •••		
0	Data		Category	0	Period: 1	selected ••	••
0	Period						
H2	Organisation Unit						
Φ	AEFI Severity						
Φ	AMR Organisms						
Φ	ART Cohort Age						
Φ	Authority						
Φ	AYFS Age						
Φ	Bed Inventory						
Φ	Blood Transfusion Age						
Φ	Blood Type						
Φ	DAT Results						
Φ	DSDM Type						
Φ	EPI Age						
Φ	EPI Age with Months						
Φ	EPI Service Delivery Type						
Φ	EPI Site						
	EDING-UNI- CONTRACT						
Φ	EPI viai wastage Type						

📊 Column	-	UPDAT	E	File	Options	
Q. Search dimensions	Se	eries	0	Data •••		
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③ Period						_
La Organisation Unit						
AEFI Severity						
AMR Organisms						
ART Cohort Age						
@ Authority						
AYFS Age A						
Bed Inventory						
Blood Transfusion Age						
Blood Type						
DAT Results						
DSDM Type						
© EPIAge						
EPI Age with Months						
EPI Service Delivery Type						
EPI Site						
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EQA Results						
R Eacility Level						

Column	Stacked column	Bar	Stacked bar
Line	Area	Pie	Radar
Gauge	Year over year (line)	Year over year (column)	123 Single value
Open as Map			
Facility Level	_		
FP Dispensary FP Methode	Туре		
© FP Timing			
© FP Visit Type			
the HepB Age			
HIV Age			



5.3 Selecting Dimension Items

5.3.1 Select indicators

The visualizer module can display any number of indicators and data elements in a chart and data table. Both indicators and data elements can be selected and appear together in the same chart, with their order of appearance the same as the order in which they are selected. You can select indicators by choosing Indicators from the "Data" header and selecting an indicator group from the list of groups below it. This will make the indicators in the selected group appear in the list under "Available indicators" to the left. From that list you can double click on any indicator in order to select it, this will move it to the list under "Selected indicators". Alternatively you can mark one or more indicators and click the single-arrow button. To select all indicators you simply click on the double-arrow button. To deselect indicators you can do correspondingly in the "Selected indicators" list.





5.3.2. Select data elements

To select data elements choose Data Elements from the "Data" header. The same principle for selecting and deselecting indicators applies for data elements.







5.3.3. Select reporting rates

The visualizer can display reporting rates in a chart, by itself or together with indicators and data elements. Reporting rates can be selected by choosing Reporting Rates from the "Data" header. Reporting rates are defined by data sets. It can be selected by double-clicking in the list of available data sets to the left.

Data sets Event data items Program indicators HMIS 033b - Weekly Epidemic (Reporting rate) HMIS 097b - VHT/ICCM Quart HMIS 104 - NTDS MDA Impler rate) HMIS 105:01 - OPD Monthly R Conditions, TB, Nutrition) (Rep HMIS 105:02-03 - OPD Monthl HEPB) (Reporting rate) HMIS 105:04-05 - OPD Monthl (Reporting rate) HMIS 105:06-09 - OPD Monthl & Supervision) (Reporting rate HMIS 105:10 - OPD Monthly R HMIS 105:10 - OPD Monthly R	logical Surveillance Report erly Report (Reporting rate) nentation Report (Reporting eport (Attendance, Referrals, orting rate) y Report (MCH, FP, EID, EPI & y Report (HTS & SMC) y Report (HTS & SMC) y Report (Supplies, Outreaches) eport (Lab) (Reporting rate) onthly Report (Reporting rate)	→	Selected Data
SELEC	T ALL		DESELECT ALL



5.3.4. Select fixed and relative periods

Click on the "Periods" header. For fixed periods, select a period type from the combo box. You can select any number of fixed periods from any period type. Below the fixed period you will find the relative period checkboxes and you may select as many as you like. The names should be fairly self-descriptive and they are relative to the current date, meaning that if the current month is March and you select "Last month", the month of February will be included in the chart. You are also free to combine fixed periods and relative periods in the same chart. Overlapping periods will be filtered so that they only appear once.





5.3.5. Select organisation units

You can select which organisation units to include in the chart by clicking the "Organisation units" header. This section features three ways of selecting organisation units, which can be selected by clicking on the gear icon directly below the organisation units header. The default mode is called "Organisation units" and lets you select the organisation units you want to appear in the chart from the tree. This mode also features three checkboxes. Checking "User org unit" will disable the organisation unit tree and give you the organisation unit that is related to the current/logged in user instead. This is also useful for administrators as they can create a meaningful "system" favorite with this option checked and all users will find their respective organisation unit when they open it. The the same concept goes for "User sub-units" and "User sub-x2-units". The second mode is called "Select levels". Here you can select all organisation units at one or more levels. However, at the same time you also have the option to select parent organisation units in the tree, which makes it easy to select e.g. all facilities inside one or more districts. The same thing goes for the third mode called "Select groups". Here you can select all organisation units inside one or more groups and parent organisation units at the same time.

- 5.3.6 Change Display of Chart
- 5.3.7 Download Chart as Image, PDF or data source
- **5.3.8 Manage Chart Favorites**
- 5.3.9 Visualize Chart as Pivot table

6. Dashboards

After login, HMIS your default Dashboard. Dashboards are a collection of charts and tables that display dynamic information. You can either use dashboards defined by your administrator, or build your own dashboards on the basis of the charts or pivot tables visible to you.

6.1 Create Dashboards

1. From the home screen, click the \bigcirc button to add a new dashboard.

S2 Pilot	IS2 Pilot for eEMIS - Dashboard						
Se ch for a	dashboard 📩 🖈	PRI - School Enrolments	Data Quality & Reporting Rates	PRI - Quality and Facilities	Teachers Information SHOW MORE	Training Materials	
PRI - School	Enrolments 🔺	i Edit Share	Add Filter 👻				

2. Enter a title and description of your dashboard and use the **'search for items to this dashboard'** to add the items saved in your favorites

OHIS2 Pilot for EMIS - Dashboard	⊨ ⁹ ≅ Ⅲ (^
SAVE CHANGES	EXIT WITHOUT SAVING
Currently editing	
Add title here	Q Search for items to add to this dashboard
Add description here	
There are i	o items on this dashboard

3. The items added can be resized, ordered, rearranged, deleted. Use the **'SAVE CHANGES'** button to save changes on the dashboard.



6.2 Manage dashboards

Use the star to make the dashboard as your favorite so that it appears top on list, **EDIT** to modify or delete the dashboard, **SHARE** to share it with other users and **FILTER** to filter by organization units.

PRI - Scho	ol Enrolments 🔺 🛈 Edit	Share Add Filter	•	Organisation Unit: Gulu District <u>Remove</u>	
The inp It is The	e Annual Education Census exercises allow to the planning and monitoring of the pr intended that the census should address following Statistics are available:-	v the Ministry of Education and ovision of quality and relevant the information needs of all st	l Sports to collect all education to Ugand akeholders.	the necessary information about education sector in Uganda. This ans.	information is used as an
Enrolments a	and Intake for the Last 5 Years 🖄	E	= 🖪 🛇	Net and Gross Enrolment Ratio 🖂	
	Gulu Distric	ct		Gulu District	
75k				150	
	55 95	52			
50k	•			100 93.1 96.1	
	39 151		0 929	67.1 68.3 73.8	66.2 63.7
				50 57.8	55.5
25k		 PRI - C.2a. New I 	Entrants to P1: 6 045	28.3	27.8
	6 119 8 86	7	6 45		
0				2016 2017	2018
	2016 2017	7	2018	PRI - Gross Enrolment Ratio (GER-%) PRI - Net Er	rolment Ratio (NER-%)
	PRI - C.1. Enrolment PRI - C	C.2a. New Entrants to P1		PRI - Gross Intake Ratio (GIR-%) PRI - Net Int	take Ratio (NIR-%)
KPIs Compar	risons - Last 5 Years 🖄	þ		GER in Districts 🖸	
Organisation unit	Data / Period 2016 20	017 2018			
Gulu District	PRI - Gross Enrolment Ratio (GER-%) 67.1 9	3.1 66.2		The second second	2 4 +
	PRI - Net Enrolment Ratio (NER-%) 54.5 7	3.8 55.5		2 Proto	
	PRI - Gross Intake Ratio (GIR-%) 68.3 9	6.1 63.7		Sarro.	
	PRI - Net Intake Ratio (NIR-%) 28.3 3	7.8 27.8		The second second	
	PRI - % of Orphaned Children Enrolled 15.4 1	4.9 14.4		mit the	KENYA
	PRI - % of SNE Children Enrolled 2.8	2.3 2.6		A MAR	
	PHI - Percentage of Nationals Enrolled 99.7 9 DDL Data of Dupits Departing Class (() 142	9.6 99.1		KATT DENER	Eldoret.
	PRI - Publi Classroom Patio	7.5 57.9		Butembo-	sumue Meru-
	PRI - Pupil Textbook Ratio	28 0.29		59 51 II	Nakuru 1
	PRI - Pupil Stance Ratio 52,3 4	7.2 45.2		A A A A A A A A A A A A A A A A A A A	mpor with 1
				40	NAIRC © OpenStreetMap, © CartoDB

6.3 Searching in the list of Dashboards

You can search for a specific dashboard using the search field in the upper left of the control bar entitled "Search for a dashboard". The search is case insensitive, and as you type, the list of dashboards will filter down to those that match your search text.

^					
Search for a dashboard	PRI - School Enrolments	Data Quality & Reporting Rates	PRI - Quality and Facilities	Teachers Information	Training Materials
				SHOW MORE	
PRI - School Enrolments	★ (i) Edit Share	Add Filter 👻			

6.4 Resize the Dashboard Pane

You can set a specific height for the dashboards pane by down-clicking and dragging the bottom edge of the control bar. When you finish dragging, the new height will be set. Clicking on **SHOW MORE** will expand the control bar to its maximum height (10 "rows"). Clicking on **SHOW LESS** will reset the height to your customized height.

\$	DHIS2 Pilot for eEMIS - Dashboa	ard							■	\geq	 1
Ð	Search for a dashboard	+ PRI - School Enrolments	Data Quality & Reportin	Rates	PRI - Quality and Facilities	Teacher	formation	Training Materials			
					SHOW MORE						

6.5 Filter Dashboard Data

To add a filter of the dashboard, the "Add Filter"



Choose Period, Organisation Unit, Administrative Units, Location, Ownership etc depending on the variable that you want to alter to view more meaningful data. In the example below, when Organisation Unit is chosen

Search for a dashboard PRI - School Enrolments	Data Quality & Reporting Rates PRI - Quality and Facilities Teachers Information Training Materials SHOW MORE						
PRI - School Enrolments 🔺 🛈 Edit Share	Add Filter 👻						
	Q Search dimensions						
The Annual Education Census exercises allow the Ministry of input to the planning and monitoring of the provision of qualit It is intended that the census should address the information The following Statistics are available:	Period Organisation units Organ Admin Locat User organisation unit User sub-units User sub-x2-units						
Enrolments and Intake for the Last 5 Years 2 MoE Uganda	Owne Owne						
190k 112 998 100k 51 196	Knova District Omoro District Pader District Pader District						
Solid 20 746 0 2016 2017 2016 2017 September 1	Ankole Region Bukedi Region Setupos Region 1 selected - <u>Deselect all</u>						
KPIs Comparisons - Last 5 Years 🛛	Evel Group						
Organisation unit Date/ Period 016 027 0218 Gulu Daterd PRI - Gross Envolment Ratice (DER-Ni) 67.1 63.3 66.2 PRI - Met Drivenere Ratice (DER-Ni) 64.7 73.8 65.5 PRI - Net Drivenere Ratice (DER-Ni) 63.6 63.7 PRI - Net Drivenere Ratice (DER-Ni) 63.6 63.7 PRI - Net Driven Ratice (DER-Ni) 63.5 63.7	Select a level Select a group Cancel Confirm						
PRI - 54 of Styte-Index Divident Encoded 154 143 144 PRI - 54 of SNE Children Encoded 28 28 26 PRI - Pacentago of Nationals Encoded 28 28 26 PRI - Repetition of Nationals Encoded 28 28 26 PRI - Repetition of Nationals Encoded 300 800 031 PRI - Run of Pupil Repetition Cate(%) 142 144 135 PRI - Pupil Catecore Ratio 573 472 572 PRI - Pupil Entock Ratio 630 620 620 PRI - Pupil Stance Ratio 573 472 452	Butterniter						

One is able to view and choose the administrative unit of analysis as seen above

The dashboard immediately changes to cater for the choice above as seen below



6.6 Interprete Dashboard Data

You can write interpretations for the chart, pivot table, map, event

report, and event chart items. Click on the interpretations button

and the item will be expanded vertically underneath to show the interpretations and replies. You can like an interpretation, reply to an interpretation, and add your own interpretation. You can edit or delete your own interpretations and replies, and if you have moderator access, you can delete others' interpretations.

It is possible to format the description field, and interpretations with **bold**, *italic* by using the Markdown style markers * and _ for **bold** and *italic* respectively. The text field for writing new interpretations have a toolbar for adding rich text. Keyboard shortcuts are also available: Ctrl/Cmd + B and Ctrl/Cmd + I. A limited set of smilies is supported and can be used by typing one of the following character combinations: :) :-) : (:-(:+1:-1. URLs are automatically detected and converted into a clickable link.

Interpretations are sorted by date descending, with the most recent shown on top. Interpretation replies are sorted by date ascending, with the oldest shown on top.

6.7 Share Dashboard Data

In order to share a dashboard with user groups, click on the **SHARE** button to the right of the dashboard title to display the dashboard sharing settings options. To share the dashboard with specific users or user groups, type in the name in the input field to add them to the dashboard sharing settings



All dashboards have two sharing groups set by default.

- External access (without login)
 - This option, when selected, provides access to the dashboard as an external resource. This is useful for when you are creating an external web portal but would like to call information from a dashboard you have made internally within DHIS2. By default, this option is not selected.
- Public access (with login)
 This option allows the selected dashboard to be pushed to all users within your DHIS2 instance. This can also be hidden from public view by selecting the "None" option, which is the default option for new dashboards.

User groups that have been added manually can be assigned two types of permissions within the dashboard

- Can view Provides the user group with view only rights to the dashboard.
- Can edit and view Allows the user groups to edit the dashboard in addition to viewing it. Editing allows for altering the layout, resizing and removing items, renaming/deleting the dashboard etc.

You can provide users with the url of the dashboard, allowing them to navigate directly to the dashboard. To get the dashboard url, just access the dashboard in view mode, and copy the browser url