

Learner's Guide to Sharing

What is this guide?

This guide contains all exercises and detailed steps to perform them related to the review of **sharing** for the Design for Data Use Level 1 academy. Please perform each of the exercises when prompted to by your instructors.

Learning objectives for this session

1. Review the sharing concept
2. Explain the link between sharing, user roles and user groups
3. Describe the difference between metadata and data sharing
4. Identify the aggregate metadata that can be shared
5. Describe the concepts of category option and dataset sharing
6. Apply category option and dataset sharing to your own metadata

Exercise 1 - Review of sharing as applied to different users

Perform this exercise in the DEMONSTRATION system

Log in as the HIV user

Log in as the HIV user

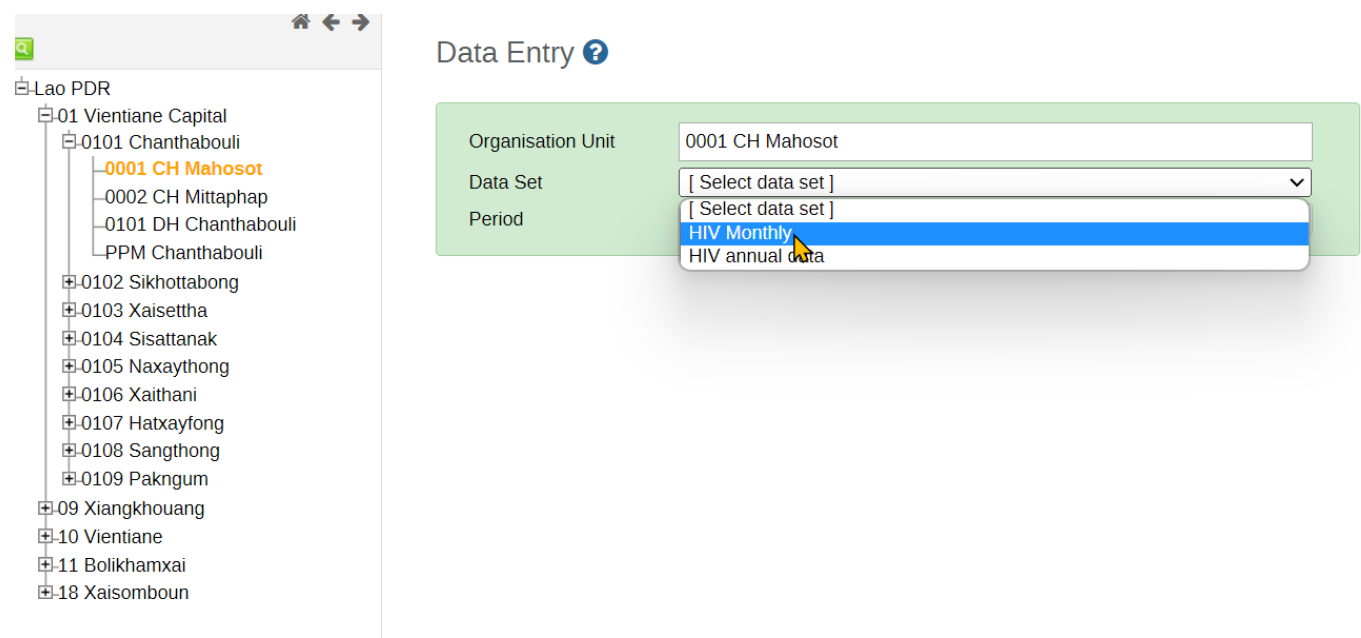
Username: hiv

Password: District1#

You can review the apps menu and note that the apps they have access to here are c

This user has the ability to enter and analyze HIV data only. This starts from when they log in, as they only have access to the HIV dashboards within the system.

Navigate to data entry and access a facility. If you try to see a dataset, they will only have access to the HIV data sets.



Navigate to data visualizer

First, review the dimensions panel. You will see it has been reduced from the admin user. You only have those dimensions that are applicable to the HIV user.

YOUR DIMENSIONS

- 🗳 Admin Levels ●
- 🗳 Age (HIV)
- 🗳 Age in years (0-14, 15+, unknown)
- 🗳 Age in years (0-4, 5-14, 15+)
- 🗳 Age in years (0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65+, unknown)
- 🗳 HIV status (known/unknown)
- 🗳 IPD/OPD ●
- 🗳 Ownership ●
- 🗳 Pop: Single age
- 🗳 Population Estimates
- 🗳 Pregnant women/others
- 🗳 Sex (Male/Female)
- 🗳 Sex (with unknown)
- 🗳 Type ●

Now, open the data panel. With all types selected, scroll through. You will notice the user only has access to data items from shared population items as well as the HIV data items.

Data

Search by data item name

Data Type

All types

◦ HIV - ANC clients tested positive for HIV

◦ HIV - ANC clients with know HIV positive status

⌘ HIV annual data - Reporting rate

⌘ HIV annual data - Reporting rate on time

⌘ HIV annual data - Actual reports

⌘ HIV annual data - Actual reports on time

⌘ HIV annual data - Expected reports

√⁹/₈ HIV - ART coverage rate (%)

√⁹/₈ HIV - ART retention rate after 12 months (%)

√⁹/₈ HIV - Estimated HIV prevalence rate (%)

◦ HIV - Estimated people living with HIV

√⁹/₈ HIV - Estimated people living with HIV

◦ HIV - Facilities with HIV test kits stockout days reported

◦ HIV - Facilities with HIV treatment courses stockout days

➡

➔

⬅

⬅

Selected Items

No items selected

⬆

⬇

Hide

Update

Select indicators as the data type, only the HIV and population indicator groups are available to this user.

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Data

Search by data item name

Data Type

Indicators

Indicator group

All groups

All groups

HIV

HIV stock

Population estimates

HIV - ART retention rate after 12 months (%)

HIV - Estimated HIV prevalence rate (%)

HIV - Estimated people living with HIV

HIV - HIV test positivity rate (%)

HIV - HIV tests performed

HIV - HIV tests positive

HIV - HIV viral load testing coverage annualized (%)

➡

➡

⬅

⬅

Selected Items

No items selected

⬆

⬇

Hide

Update

The same is true for the other data types. Here is the example for data elements

Data

Search by data item name

Data Type

Data elements

Data element group

All groups

Disaggregation

Totals only

All groups

HIV

HIV stock

Population Estimates (General)

Population Estimates (Single Age)

Population live births

HIV - ANC clients newly tested HIV positive and started on ART

HIV - ANC clients tested for HIV

HIV - ANC clients tested positive for HIV

HIV - ANC clients with known HIV positive status

→

→

←

←

Selected Items

No items selected

↑

↓

Hide

Update

Log in as the all health programs user

The combination of user roles, user groups and sharing allows us to provide a great deal of granularity when we define our users. We can have them only access segmented pieces of the system, along with limited access to the apps within DHIS2; or we can create users with maintenance privileges and access to many data types. Anything in between can also be created.

For the last user, log in with

Username: health_admin

Password: District1#

Right away we can see this user has access to all of the health dashboards.

If we view there app menu, they have access to all of the DHIS2 apps.

ALLCATEGORYDATA ELEMENTDATA SETINDICATORORGANISATION UNITPROGRAMVALIDATIONOTHER

Data element

Data element group

Data element group set

Data element management ?

Search by name, code or id

Domain type

Value type

Category combination

Name	Domain type	Value type	Category combo	Last updated	
District Population: Children aged 12 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
District Population: Children aged 3 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
District Population: Children aged 3-5 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
District Population: Children aged 6 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
District Population: Children aged 6-12 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
EPI - ADS 0.05 ml broken	Aggregate	Positive or Ze...	None	November 15, 2...	
EPI - ADS 0.05 ml issued	Aggregate	Positive or Ze...	None	November 15, 2...	

We can go to Maintenace -> Data Elements and see this user has wide authority to view, edit and add data elements from all of the health programs.

ALLCATEGORYDATA ELEMENTDATA SETINDICATORORGANISATION UNITPROGRAMVALIDATIONOTHER

Data element

Data element group

Data element group set

Data element management ?

Search by name, code or id

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District Population: Children aged 6 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
District Population: Children aged 6-12 years	Aggregate	Positive or Ze...	Sex	November 23, 2...	
EPI - ADS 0.05 ml broken	Aggregate	Positive or Ze...	None	November 15, 2...	
EPI - ADS 0.05 ml issued	Aggregate	Positive or Ze...	None	November 15, 2...	

We can see from these different user types that we can create a wide variation of access using a combination of user roles, user groups and sharing.

Exercise 2 - Review data level sharing

Perform this exercise in the CUSTOMIZATION system

We will now review the concept of data level sharing in more detail as it applies to aggregate data sets. In particular, we will discuss 2 objects in detail:

- Category Options
- Data Sets

These 2 objects have both meta-data and data level sharing applied to them. In most instances (unless everything is public) sharing of these items will have to be configured in order for users to access the data sets, data and reporting rates related to these data sets correctly.

Sharing generally works within the intersection of these 3 concepts in DHIS2:

- The user role assigned to a user (already covered)
- The user group in which the user belongs to
- The sharing settings themselves

We can traditionally think of user groups as defining how outputs are shared (dashboards, tables, maps, etc.) but we can also use both meta-data and data level sharing to restrict what a user has access to in quite a bit of detail.

User Groups

We have covered user roles, now we can discuss user groups in a bit more detail. Navigate to the user groups part of the application.

Navigate to Users - > User Groups and list out the groups.

You will see a number of user groups available here; and they typically follow the same pattern

- Data Capture
- Access
- Admin

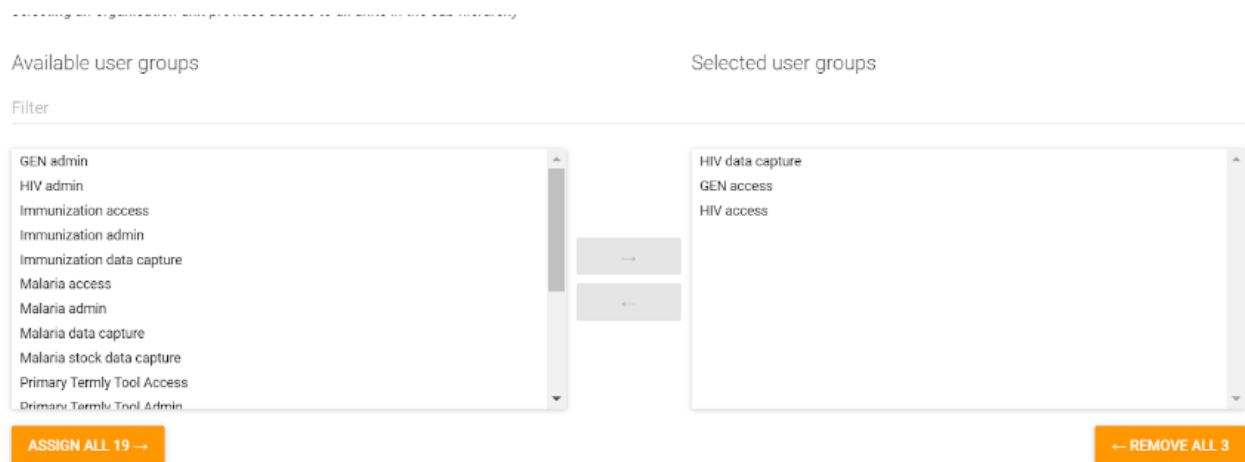
Display name	Is member	
GEN access		⋮
GEN admin		⋮
HIV access		⋮
HIV admin	✓	⋮
HIV data capture		⋮
Immunization access		⋮
Immunization admin	✓	⋮
Immunization data capture		⋮
Malaria access		⋮

These 3 user group types contain the same users that were discussed earlier, linked to the various functionality that has already been demoed. We can use these groups to share reports/outputs, data elements, indicators, categories and other meta-data, as well as data which is what we will do in this case.

Creating a user group is very easy.

1. Select the blue plus sign to add a new group
2. Assign the group a name (and code if you want)
3. Save the user group

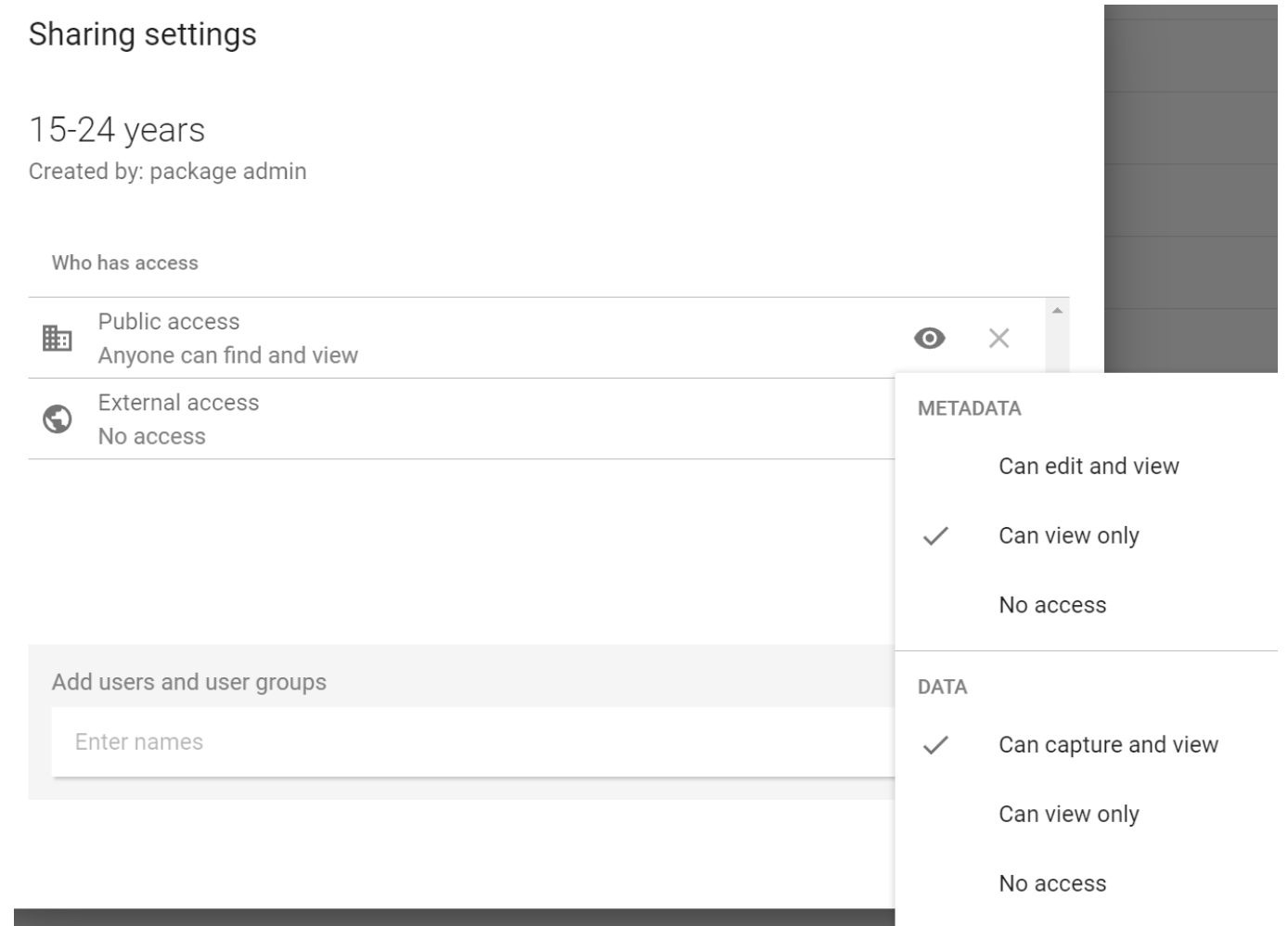
We assign these user groups to our user at any time (either during or after creating the user) in order to apply the correct sharing settings to them. If we review the user "HIV": we can see they are assigned to three HIV user group



This allows us to use these user groups to assign sharing permissions to any user assigned to the user group.

Slides 8-9 in the sharing presentation explain specific permissions for data level sharing for different aggregate specific objects.

Go to Category option management in maintenance and open the sharing dialog for any of the category options



We can see that the category options are not actually shared with a particular user group, but are in fact public. You will also notice that these sharing settings are seperated into **METADATA** and **DATA**.

METADATA sharing determines if a person can edit (for example, updating its name or changing another parameter, note that they would need the proper user authorities/user role assigned to them on top of this sharing setting) and view an object or only view the object (see the object in various apps).

DATA level sharing takes this one step further and determines, in specific detail, what a person can do with the data that is linked to the object.

Exercise 3 - Review the data sharing configuration of aggregate objects

Perform this exercise in the CUSTOMIZATION system

Category Options

Go to Category option management and open the sharing dialog for any of the category options

Sharing settings

15-24 years

Created by: package admin

Who has access

Public access

Anyone can find and view

External access

No access

Add users and user groups

Enter names

METADATA

Can edit and view

✓

Can view only

No access

DATA

✓

Can capture and view

Can view only

No access

Regarding aggregate data and category options, this relationship is VERY important! When we create a new category option, data sharing by default is set to no access. If we then use this category option in a category and category combination without altering the sharing settings, a user trying to access a data set containing this category option will in fact not be able to do so. In essence, it will completely restrict the user from entering entire datasets as well as any data associated with this category combination if the data sharing is set to no access. Users will need "can capture and view" access to enter data. User group sharing is possible, but can quickly become challenging if not maintained over time.

In this case, keeping category options public with the sharing settings displayed on screen is recommended so that users and administrators are able to re-use them freely. By making them public, any program can use them to make category combinations; and any admin will be able to log in and check for duplicates before creating new ones!

Data Sets

HIV

You can also open the sharing settings for the HIV Monthly data set.

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Sharing settings

HIV Monthly


Created by: Thai Nguyen


Who has access


No access

 External access


No access







 HIV access


HIV access







 HIV admin


HIV admin






 HIV data capture


HIV data capture





Add users and user groups

Enter names



CLOSE

Similarly, this dataset is also shared with 3 user groups; and there are different sharing settings applied to each of these user groups.

You will notice there is only one user group that has they "Can capture and view" setting applied to it's data level sharing. This means that only users part of this user group will be able to enter data within this data set.

Sharing settings

HIV Monthly

Created by: Thai Nguyen

Who has access

NO access

External access

No access

HIV access

HIV admin

HIV data capture

Add users and user groups

Enter names

TB - Household contacts (quarterly)

Section

Quarterly

TB - Laboratory (monthly)

Section

Monthly

TB - RR/MDR-TB case detection and treatment (ye...

Section

Yearly

METADATA

Can edit and view

✓ Can view only

DATA

✓ Can capture and view

Can view only

No access

You could switch over the the HIV user in another browser to show the effect these sharing settings have to a user within this user group.

Username : hiv
Password : District1#

Breakdown of the settings

Let us breakdown these user groups and their sharing settings as a review

- Access user groups
 - Metadata : can view only
 - This means they can see the data set in various apps
 - Data :
 - Can view only
 - This actually only refers to the reporting rates for the data set, not the values within the data set themsevles. That is tied to the data elements and the category model
- Admin user groups
 - Metadata : can edit and view

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- Users in this group can edit the dataset; but they must have the appropriate user authorities to access data set maintenance or they won't be able to do this via the UI
- Data :
 - Can view only
 - This actually only refers to the reporting rates for the data set, not the values within the data set themselves. That is tied to the data elements and the category model
- Data Capture user groups
 - Metadata : can view only
 - This means they can see the data set in various apps
 - Data :
 - Can capture and view
 - Users in this group can see the data set in data entry and enter values in the data set AS LONG AS they have the correct user authorities to add values. They can also see this dataset in various analysis apps