

# Learner's Guide to the Attribute Model

## What is this guide?

This guide contains all exercises and detailed steps to perform them related to the review of **attributes** 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. Describe what dataset attributes are
2. Use attributes in analysis apps
3. Configure attribute options, attribute categories, attribute category combos in maintenance
4. Verify the creation of attribute category option combos via maintenance

## Exercise 1 - Use attributes to create visualizations

**Perform this exercise in the DEMONSTRATION system**

Review a dataset in data entry that uses the attribute model

Dataset you can view : Immunization. Immunization is located at the facility level in the Lao hierarchy.

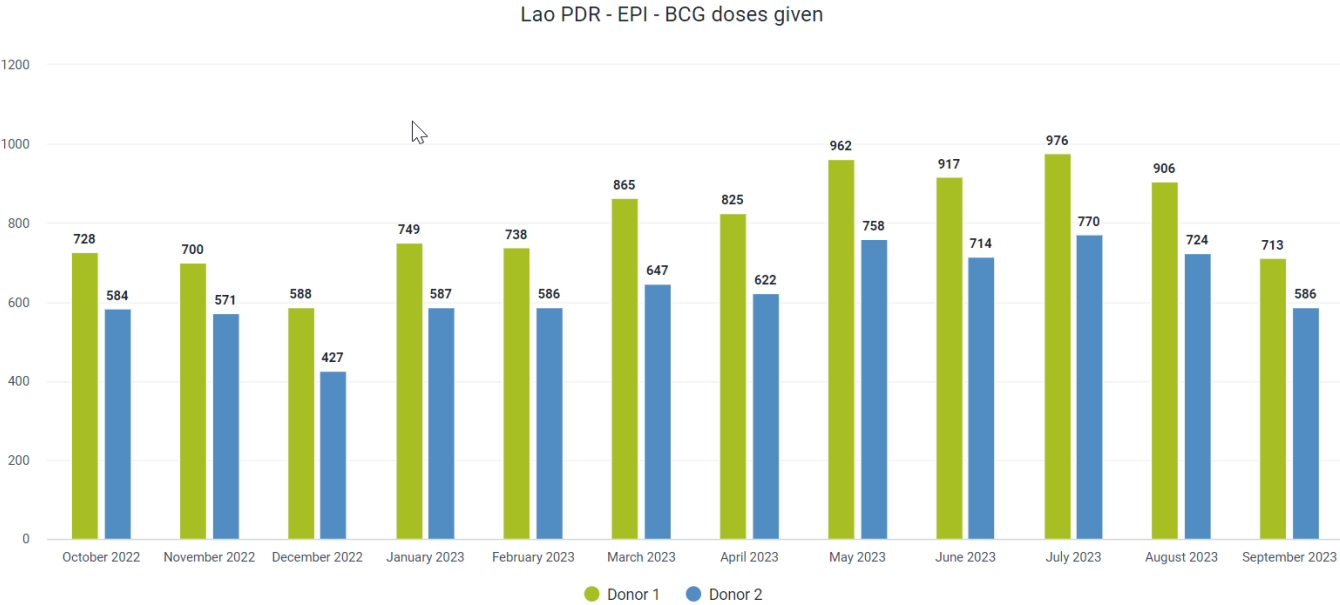
The screenshot shows the 'Design for Data Use' interface. On the left, a tree view under 'Lao PDR' lists various locations, with '0001 CH Mahosot' highlighted. The main area is titled 'Data Entry' and contains a form with the following fields:

- Organisation Unit: 0001 CH Mahosot
- Data Set: Immunization (dropdown menu)
- Period: August 2023 (dropdown menu with 'Prev year' and 'Next year' buttons)
- Donors: [ Select option ] (dropdown menu with 'Donor 1' and 'Donor 2' options)

Select to review in data entry focusing on the use of attribute categories to disaggregate the data set.

Review how attribute categories can be used to visualize data

Open the chart "EPI - BCG doses given by Donors" from the Immunization dashboard



This chart has two categories being used to disaggregate the data.

Attribute category : Donors; We can see Donor 1, Donor 2 on the chart.

We can add in additional dimensions as items or filters to our chart.

As an example, we can select the disaggregate category "Age" and select some classes to filter our data further

Age (immunization)

- ☐ Automatically include all items  
Select all Age (immunization) items. With this option, new items added in the future will be automatically included.
- ☒ Manually select items...

Search

➡➡

➡

⬅⬅

⬅

Selected Items

1+ year

<1 year

Hide

Add to Series

▼

Place the age dimension in the series and Donors in Filter and update the data.



You will see this effects the output of the data we are now showing.

Note you can do this for any type of data set disaggregated using attribute categories.

## Create a new chart

To create a new chart select File - > New

Here are the inputs for the chart:

### Chart Type

- Column

### Data

- Data Type : Indicators
- Indicator group: Immunization
- Indicator Name: EPI - BCG doses given

### Data

Data Type

Indicators

Indicator group

Immunization

√<sup>10</sup> EPI - < 1 year monthly target population

√<sup>10</sup> EPI - AEFI suspected - non-serious

√<sup>10</sup> EPI - AEFI suspected - serious

√<sup>10</sup> EPI - BCG Doses Given <1 year Donor 1%

√<sup>10</sup> EPI - BCG Doses Given <1 year Donor 2 %

√<sup>10</sup> EPI - BCG doses given < 1 year

√<sup>10</sup> EPI - DPT 1 to 3 dropout rate (%)

√<sup>10</sup> EPI - DPT 1 to 3 immunization performance

√<sup>10</sup> EPI - DPT 1 to MR1 dropout rate (%)

√<sup>10</sup> EPI - DPT-HepB-HIB 1 doses given

Selected Items

√<sup>10</sup> EPI - BCG doses given

⇒

→

⇐

←

Hide

Update

### Period

- 2021, 2022, 2023

Period

Relative periodsFixed periods

Period typeYear

Yearly2023

2014

2015

2016

2017

2018

2019

2020

➡➡

➡

⬅⬅

⬅

Selected Periods

2021

2022

2023

Hide

Update

Organisation unit

- Lao PDR

We now want to add in the age Immunization and Donor data dimensions to the chart. We can note now that the attribute category "Donor" is not treated differently from any other available data dimension when we look at the side panel. There is no distinction to separate it from other categories or org unit group sets either as the attribute category dimension can be used the same as the other ones that are available. As long as the data we are reviewing is disaggregated according to said dimension, it can be used to disaggregate and filter our data.

Add in the categories for Donors

Donors

- ☐ Automatically include all items  
Select all Donors items. With this option, new items added in the future will be automatically included.
- ☒ Manually select items...

Search

➡➡

➡

⬅⬅

⬅

Selected Items

▣ Donor 1

▣ Donor 2

Hide

Update

and Age (Immunization)

Age (immunization)

- ☐ Automatically include all items  
Select all Age (immunization) items. With this option, new items added in the future will be automatically included.
- ☒ Manually select items...

Search

➡

➔

⬅

⬅

Selected Items

1+ year

<1 year

Hide

Add to Series

Modify the layout and update the chart



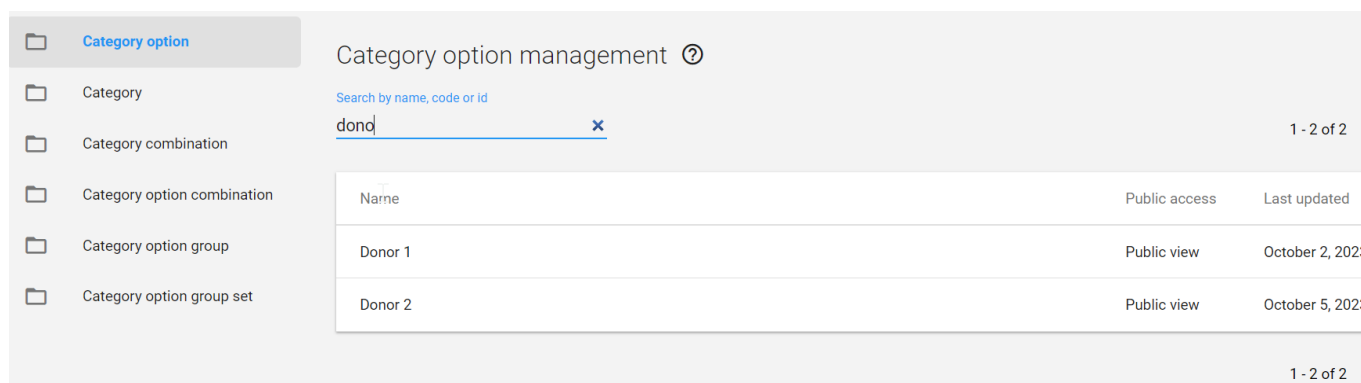
## Exercise 2 - Review how to manage category options in maintenance

### **Perform this exercise in the CUSTOMIZATION system**

In our example, let us create the attribute options that we had used to disaggregate our Immunization data set. This consists only Donors.

Navigate to maintenance -> Category -> Category Option

From this screen, the first thing you want to do is search for the attribute option you are creating.



Category option management ?

Search by name, code or id

donor x 1 - 2 of 2

Name	Public access	Last updated
Donor 1	Public view	October 2, 2023
Donor 2	Public view	October 5, 2023

1 - 2 of 2

If I type in "Donors" as a attribute option, I will see that this already exists. Under normal circumstances, you would stop here. Never create a duplicate attribute option when it already exists.

In this scenario, we want to go through the process of the attribute category model from start to finish; so we will create this attribute option for demonstration purposes only.

Create a new attribute option by selecting the plus icon.

Use your initials as a prefix and create the attribute option Donor 1.



ALL
CATEGORY
DATA ELEMENT
DATA SET
INDICATOR
ORGANISATION

← Category option ?

Name (\*)  
SND\_Donor 1

Short name  
SND\_Donor 1

Code

Form name

Description

Start date

End date

Filtering organisation units by name

0 Organisation units selected

☐ Lao PDR

- ☐ 01 Vientiane Capital
- ☐ 09 Xiangkhouang
- ☐ 10 Vientiane
- ☐ 11 Bolikhamxai
- ☐ 18 Xaisomboun

For organisation units within Lao PDR

Organisation unit level
SELECT
DESELECT

Organisation unit group
SELECT
DESELECT

SELECT ALL
DESELECT ALL

You can discuss the fields as you fill them in. Save the attribute option when you are finished.

Repeat this process to create the attribute option for Donor 2.

So far, nothing is actually different then when we create disaggregate category options.

## Exercise 3 - Review how to manage categories in maintenance

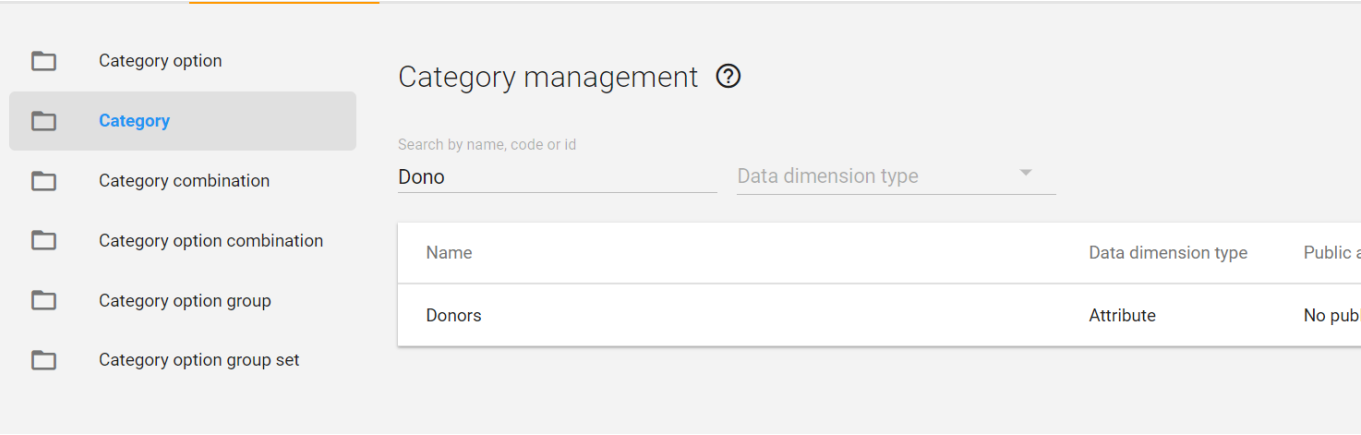
**Perform this exercise in the CUSTOMIZATION system**

We want to create one category

- Donors

Navigate to maintenance -> Category -> Category

From this screen, the first thing you want to do is search for the category you are creating.



We will see Donors listed already. Under normal circumstances, you would stop here. Never create a duplicate categories when they already exist.

In this scenario, we want to go through the process of the attribute category model from start to finish; so we will create these attribute categories for demonstration purposes only.

Create a new category by selecting the plus icon.

Use your initials as a prefix and create the category for Donors. Make sure you use the category options that you have created (initials\_Donors)

Name (\*)

SND\_Donors

Short name (\*)

SND\_Donors

Code

Description

Data dimension type (\*)

Attribute

☒ Data dimension

Category options

Search available/selected items

+

++

+++

0 days

0 year

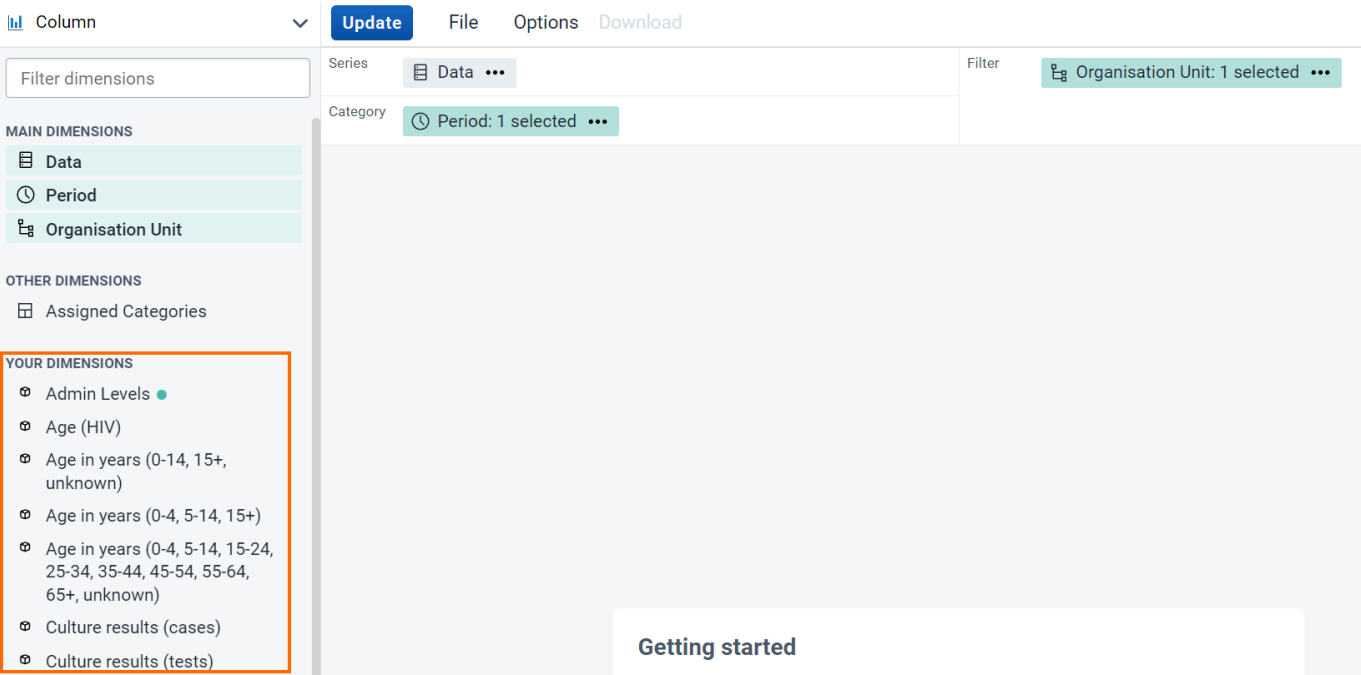
0-14 years

Donor 1

Donor 2

You can discuss the fields as you fill them in. In particular, make sure to review the data dimension type. This time, we will be using attribute. This is because this category is being applied to a data set, not a data element.

Also, explain that the data dimension tick box allows the category to show up on the left side menu in analysis apps.



Ensure you use the category options that you made with your initials to create this new attribute category.

## Exercise 4 - Review how to manage attribute category combinations in maintenance

### **Perform this exercise in the CUSTOMIZATION system**

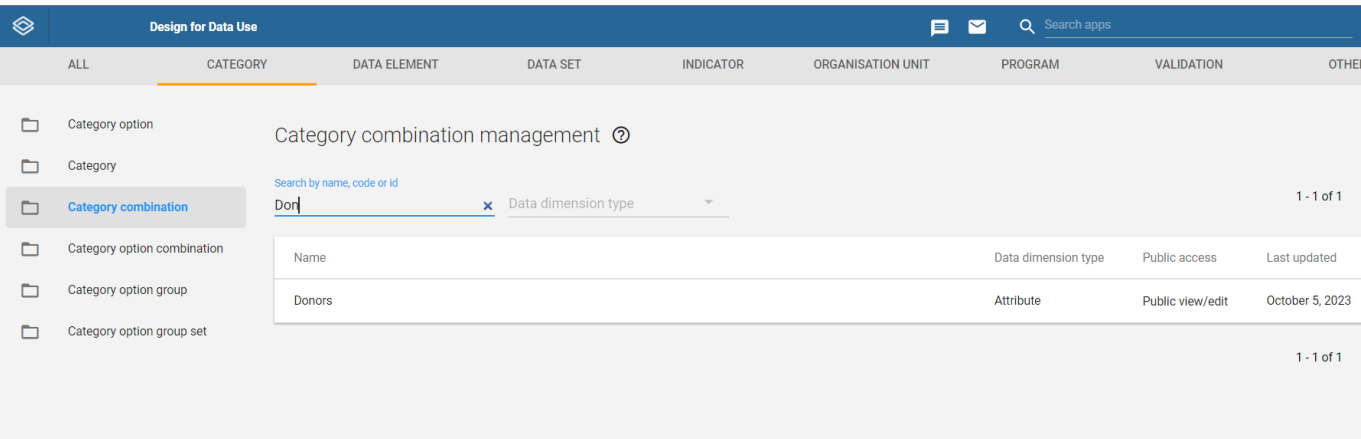
We want to create one attribute category combination

- Donors

Navigate to maintenance -> Category -> Category combination

From this screen, the first thing you want to do is search for the category you are creating.



The category combination already exists



In this scenario, we want to go through the process of the attribute category model from start to finish; so we will create this category combination for demonstration purposes only.

Create a new category combination by selecting the plus icon.

Use your initials as a prefix and create the category combination for Donors. Make sure you use the categories that you have created (initials\_Donors)

 Category combination 

Name (\*)

SND\_Donors

Code

Data dimension type (\*)

Attribute

☐ Skip category total in reports

Categories

Search available/selected items

Population Estimates

You can discuss the fields as you fill them in. In particular, make sure to review the data dimension type. We will use attribute once again. Interestingly, when you select attribute as the data dimension type, you will only be able to select from attribute categories to create your attribute category combination.

## Exercise 5 - Check the category option combinations

We have successfully created our category combination. It is now time to check if the category option combinations have been created. Based on what we made, we should have a total of 2 category option combinations

- Donor 1
- Donor 2

To check this,

Navigate to maintenance -> Category -> Category option combination

Search for your category combination, hit the action button followed by show details

Category option combination management ⓘ

Search by name, code or id  
SND

1 - 1 of 1 < >

Name	Public access	Last updated	⚙️
SND_Donor 1		October 16, 2023	⋮

Short name X  
SND\_Donor 1

**Created**  
Mon Oct 16 2023 12:50:18 GMT+0530 (India Standard Time)

**Last updated**  
Mon Oct 16 2023 12:50:18 GMT+0530 (India Standard Time)

**Id**  
ntqc0AtZcKn

**Api URL**  
<https://dev.dhis2.world/ddu/api/29/categoryOptionCombos/ntqc0AtZcKn>

1 - 1 of 1 < >

Now that you have verified it has been created correctly, you can use the attribute category combination to disaggregate the data sets that you need.

Note : the process to check if this has been generated correctly is the EXACT SAME as what was done for disaggregate category option combinations. This is because the underlying data model is also identical. The only difference is the classification (attribute) and that is now used to disaggregate a data set instead of a data element.

## STOP - Perform Exercise 5

Exercise 6 - Review where you apply these attribute category combos when creating a dataset

### ***Perform this exercise in the CUSTOMIZATION system***

Navigate to Maintenance -> Data Set and list the data sets. Search for the immunization data set.

Name (\*)

Immunization

Short name

Immunization

Code

IMM\_AGG

Color

SELECT COLOR

Icon

ADD ICON

Description

Expiry days

0

Open future periods for data entry

12

Days after period to qualify for timely submission

15

Period type (\*)

Monthly

DATA INPUT PERIODS

Category combination (\*)

Donors

After opening these datasets, navigate to the category combination field. It is usually marked as "None" when there is no attribute category combination applied. In these cases however, you will see the attribute category combination that is required has been applied to the data sets in question.