Learner's Guide to Maps - Event and TEI Layer

What is this guide?

This guide contains all exercises and detailed steps to perform them related to the use of ***maps - event and tracked entity layer*** for the Tracker Use Level 1 academy. Please perform each of the exercises when prompted to by your instructors.

Learning objectives for this session

1. Describe the maps app as it relates to tracker data
2. Describe the limitations of maps when working with tracker data
3. Create maps using tracker data within:
    1. The event layer
    2. The tracked entity layer

Exercise 1

Create a map using the event layer

As a review, you can create a map using the event layer.

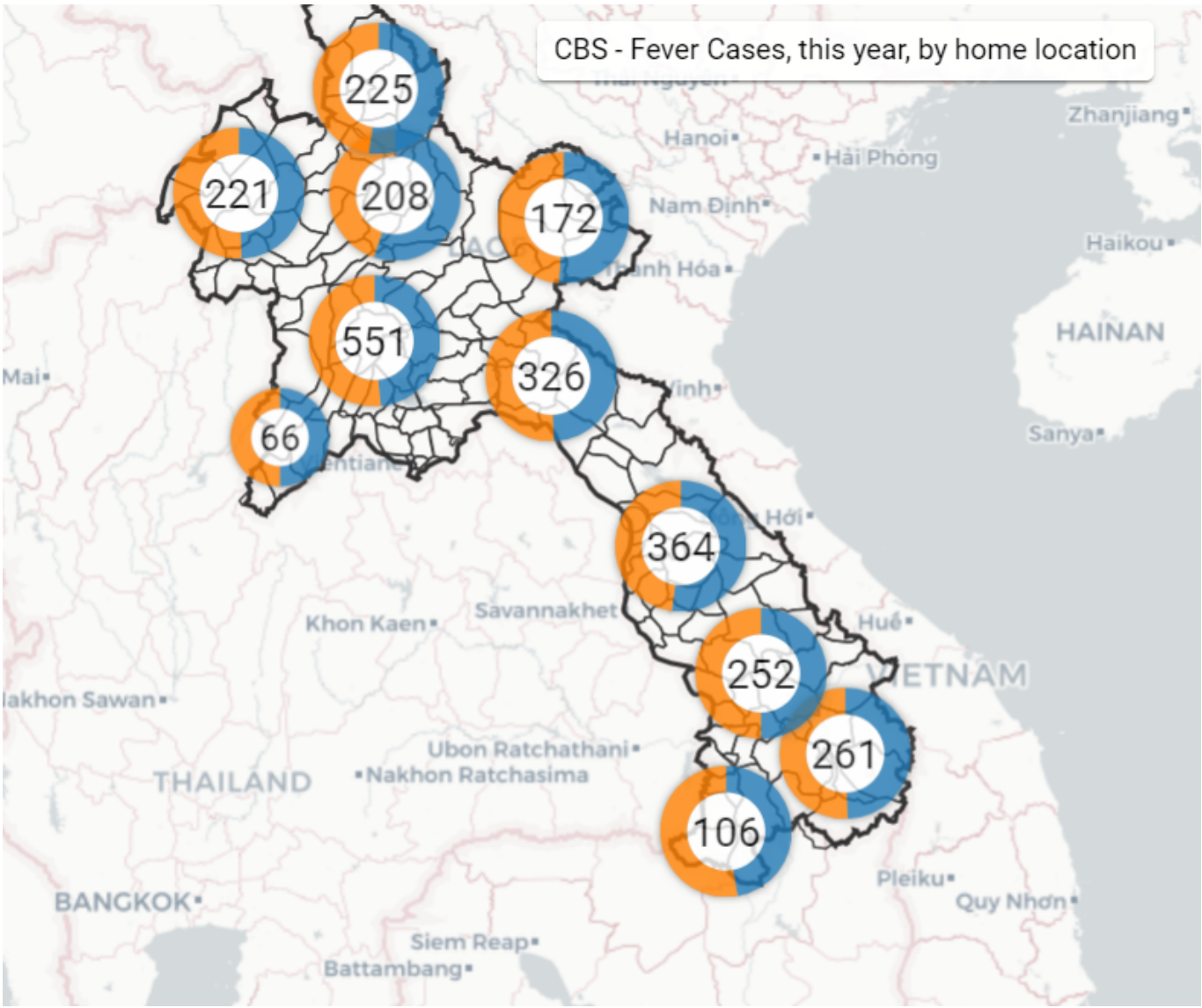
We can create a map using data from the Case based surveillance Program for Fever cases from Diagnostic and clinical information.

Clear your inputs, if any, by going to File -> New.

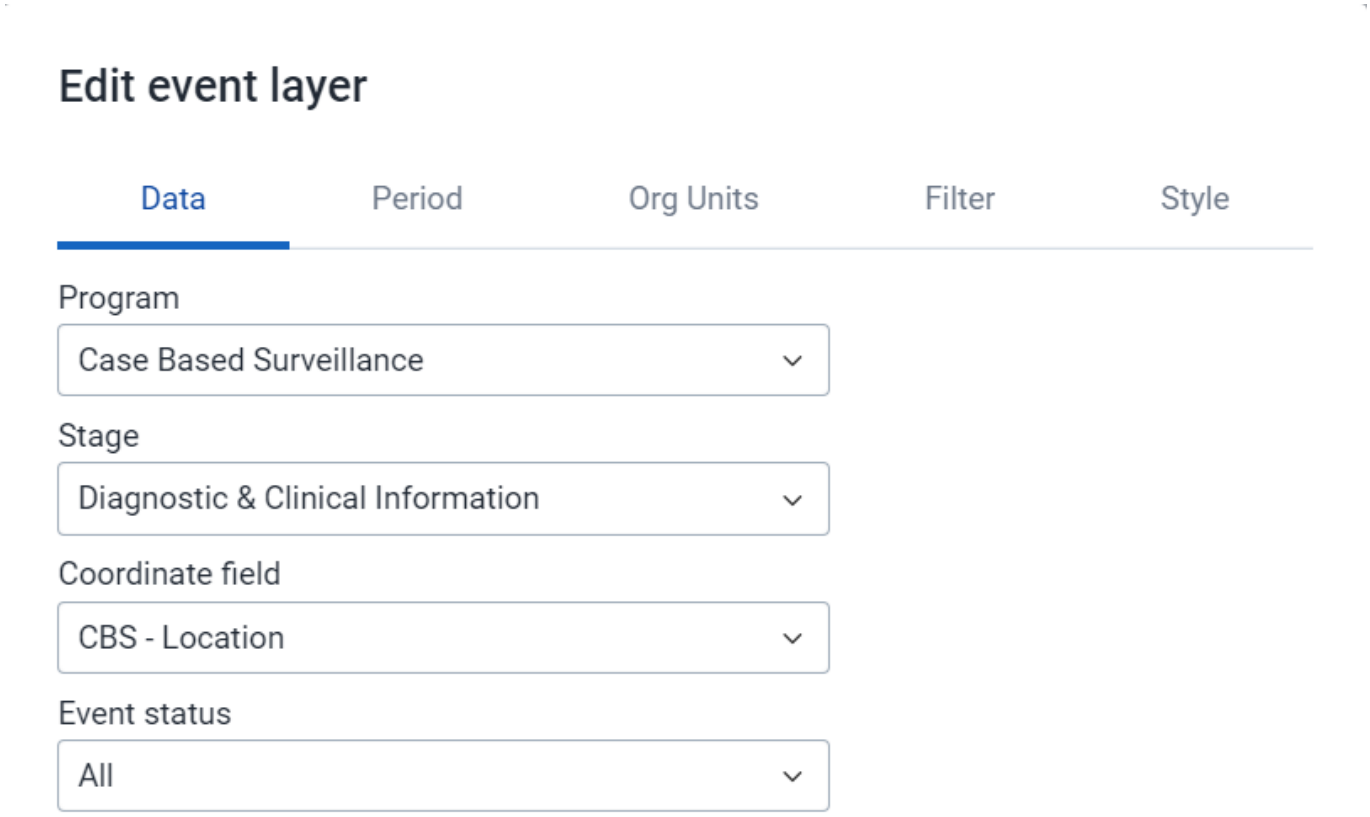
Create the map using the event layer with the following inputs:

- Layer Type : Org unit
    - Level 3 (District)
- Layer Type : Event (CBS Location)
- Data:
    - Program : Case-based Surveillance
    - Stage : Stage 1 - Diagnostic and clinical information
    - Coordinate field : CBS Location
    - Event status : all
- Period : This Year
- Org Units : User sub-x2-units
- Filter :
    - Data item : Fever = Yes
- Style :
    - Group events
    - GEN - Sex

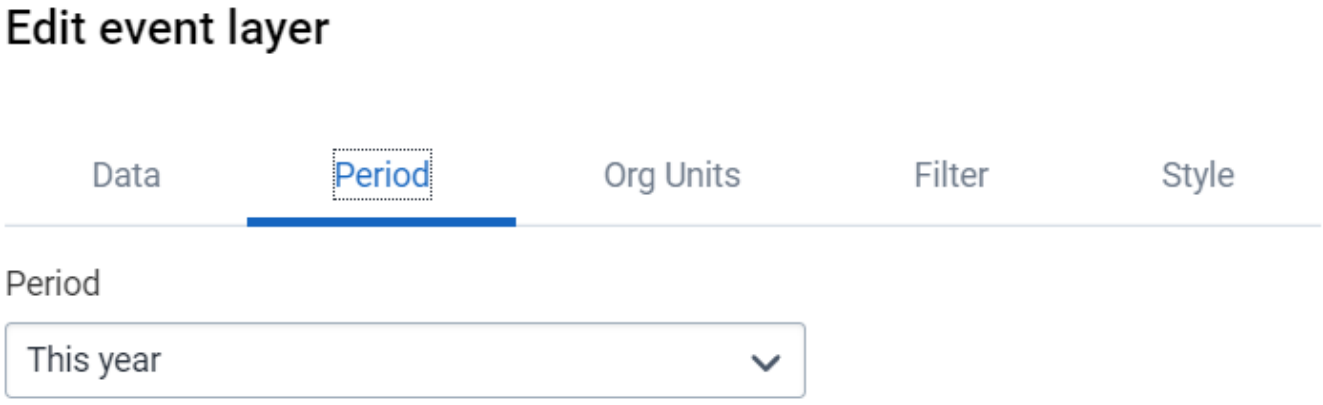
The map should look like this


CBS - Fever Cases, this year, by home location
225
221
208
172
551
326
66
364
252
261
106
Hanoi
Hải Phòng
Nam Định
Zhanjiang
Haikou
HAINAN
Sanya
Khon Kaen
Savannakhet
Huế
VIETNAM
Ubon Ratchathani
Nakhon Ratchasima
THAILAND
BANGKOK
Pleiku
Quy Nhơn
Siem Reap
Battambang

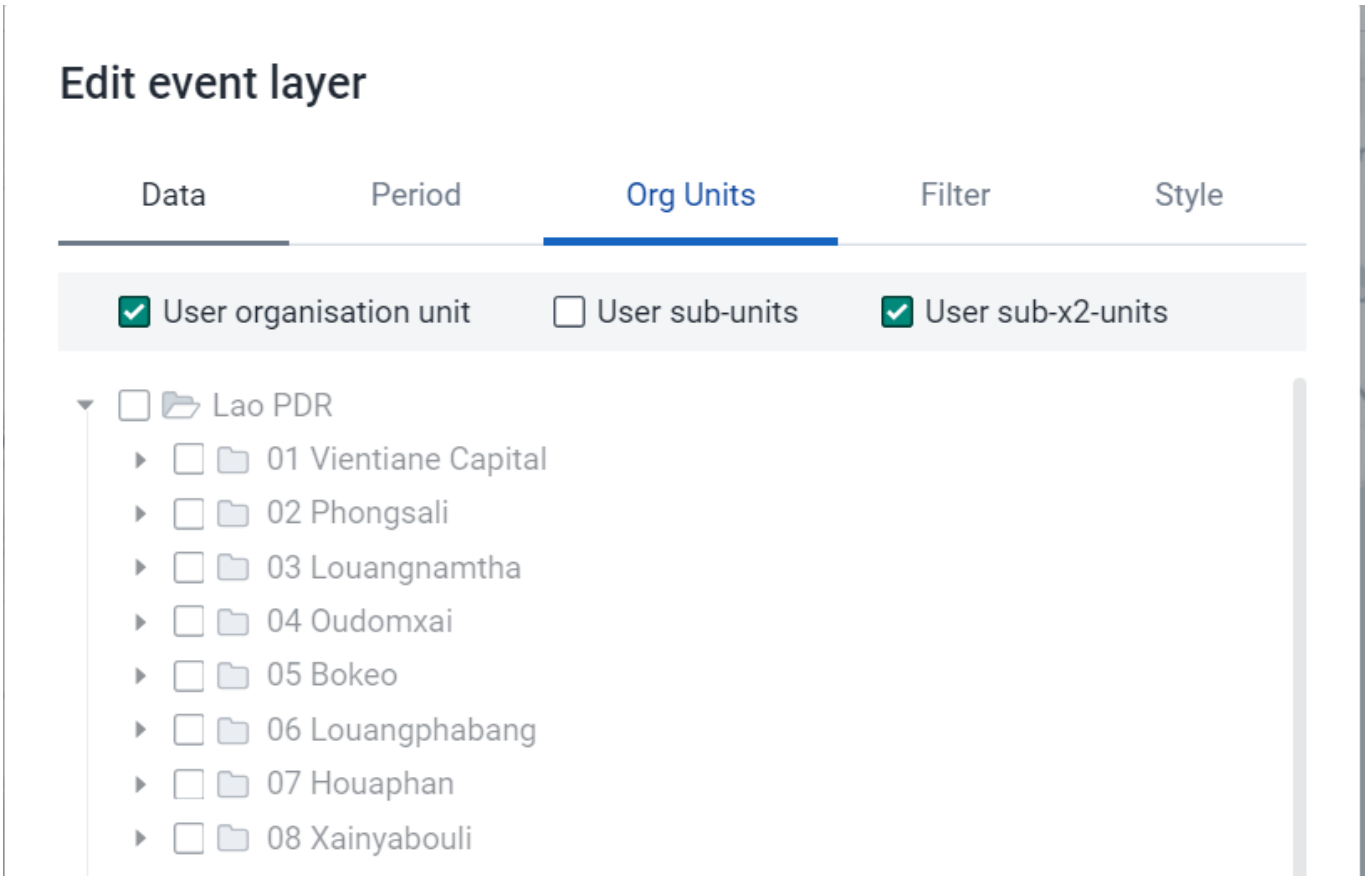
Data Tab



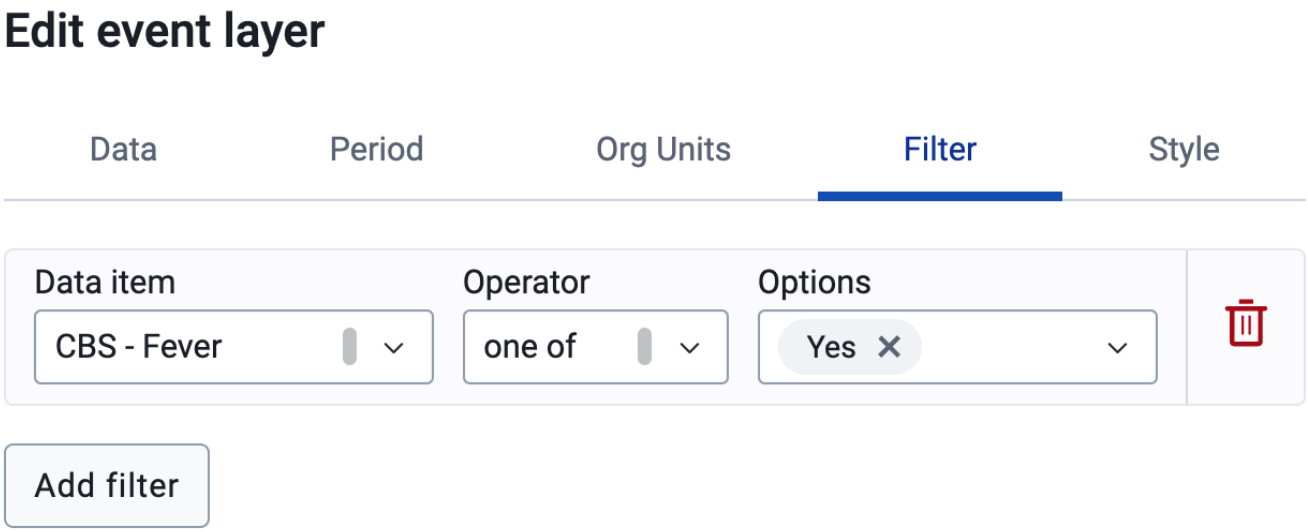
Period Tab



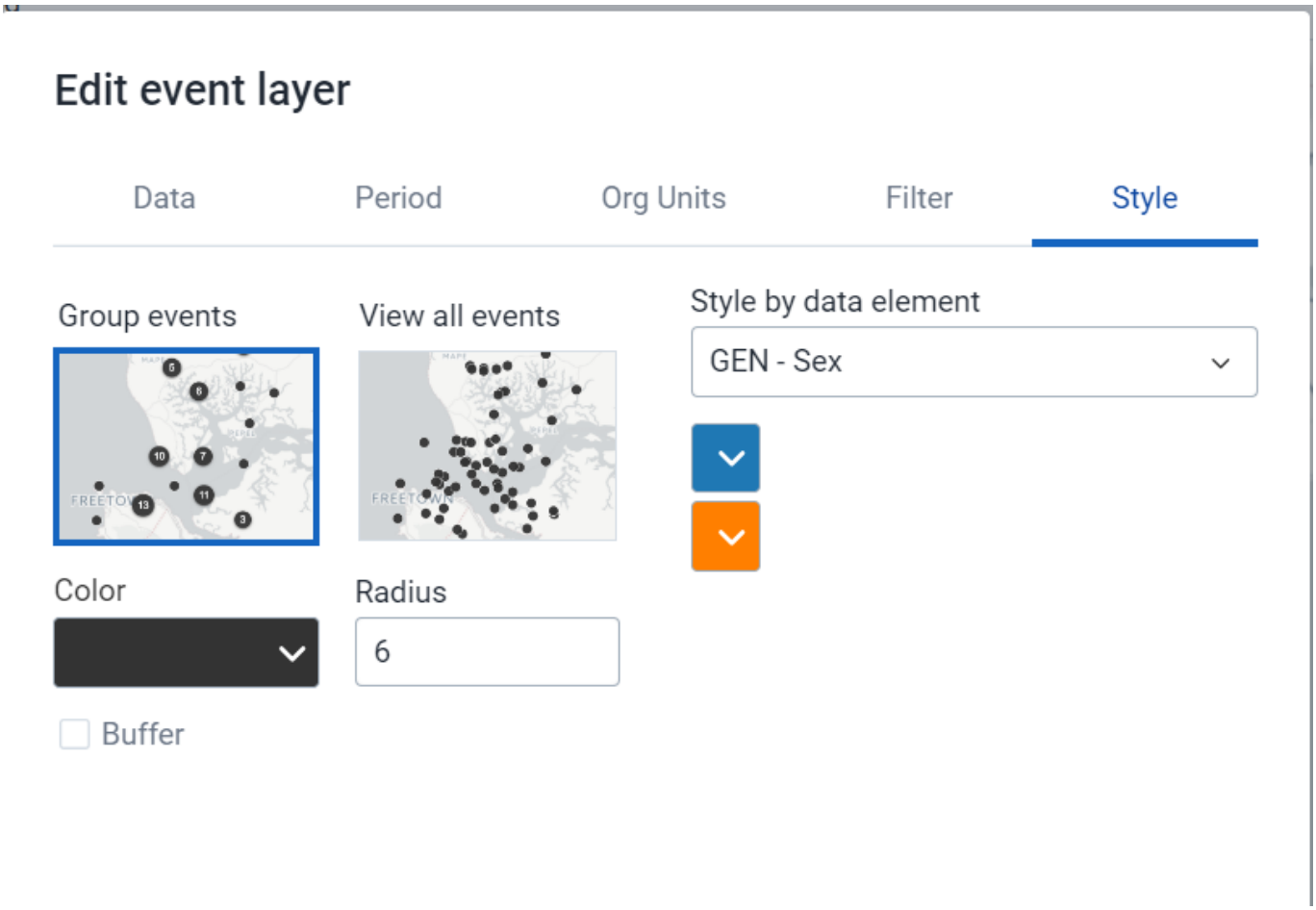
Org Units Tab



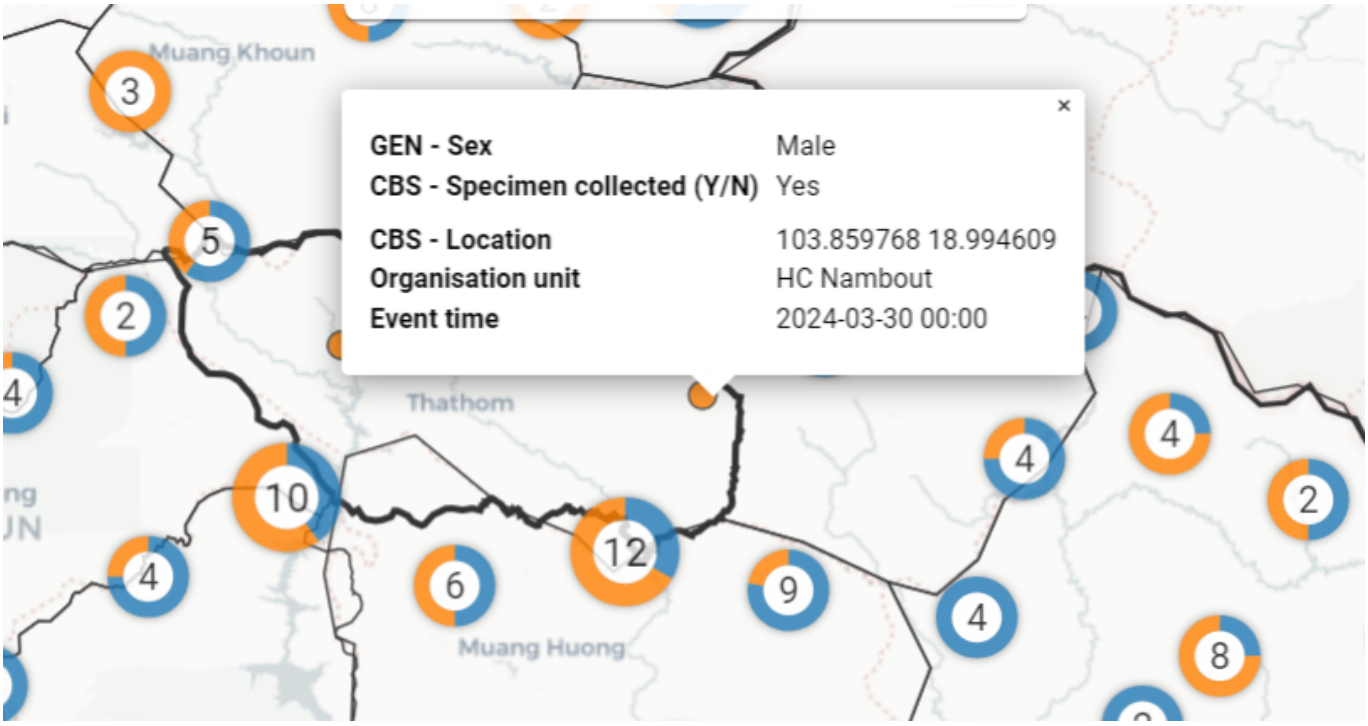
Filter Tab



Style Tab



As the events are grouped together, and you have chosen to style them by sex, we see the doughnut charts when we are zoomed out. As you zoom in however you will start to see the individual locations of each of these events. Select an event to see the details.

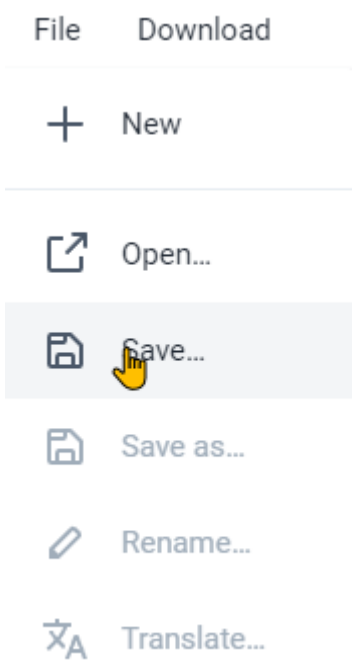


As we can see, using this layer is the same whether we are using event or tracker data. As with our other analyses, we do have to keep in mind that the event layer will be displaying all the events within a program

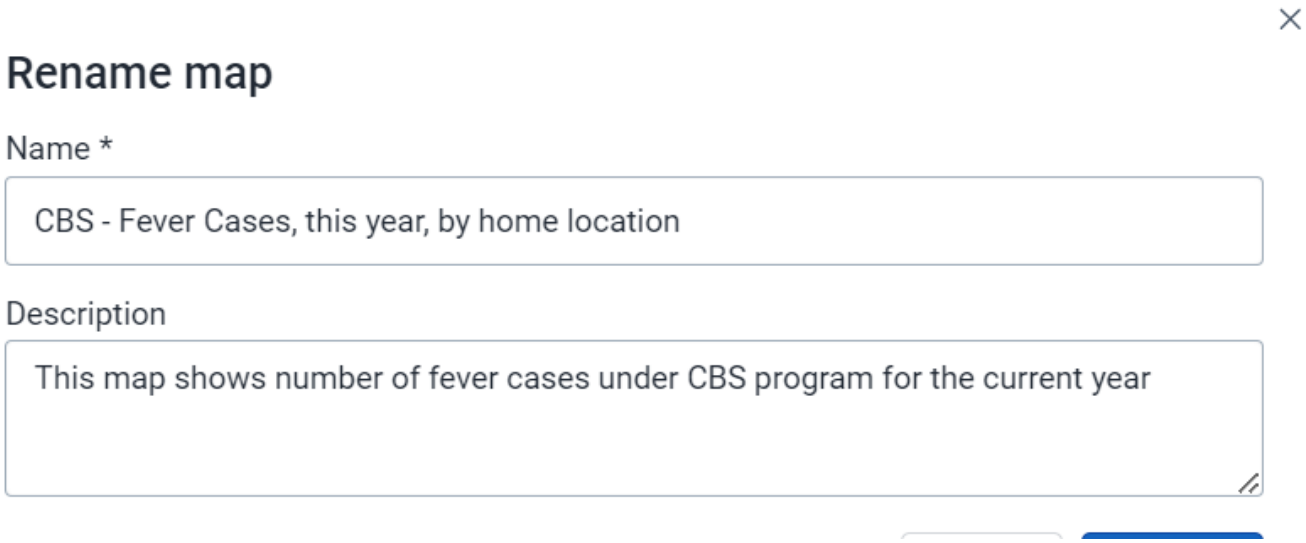
on this map; so in the case of repeated event data you can have multiple events on the map representing each of these events.

Review how to save a map

Go to the file menu and select the "Save" option



Give the map a name and a description and select "Save"



Review how to download a map

Select the download option from within the app. This will open up a new dialog. Position your legend where you want it and select "Download" to download the map. This will download a PNG file of the map to your downloads folder.

Exercise 2

Create a map using the TEI layer with relationships

Create a map using the TEI layer with relationships

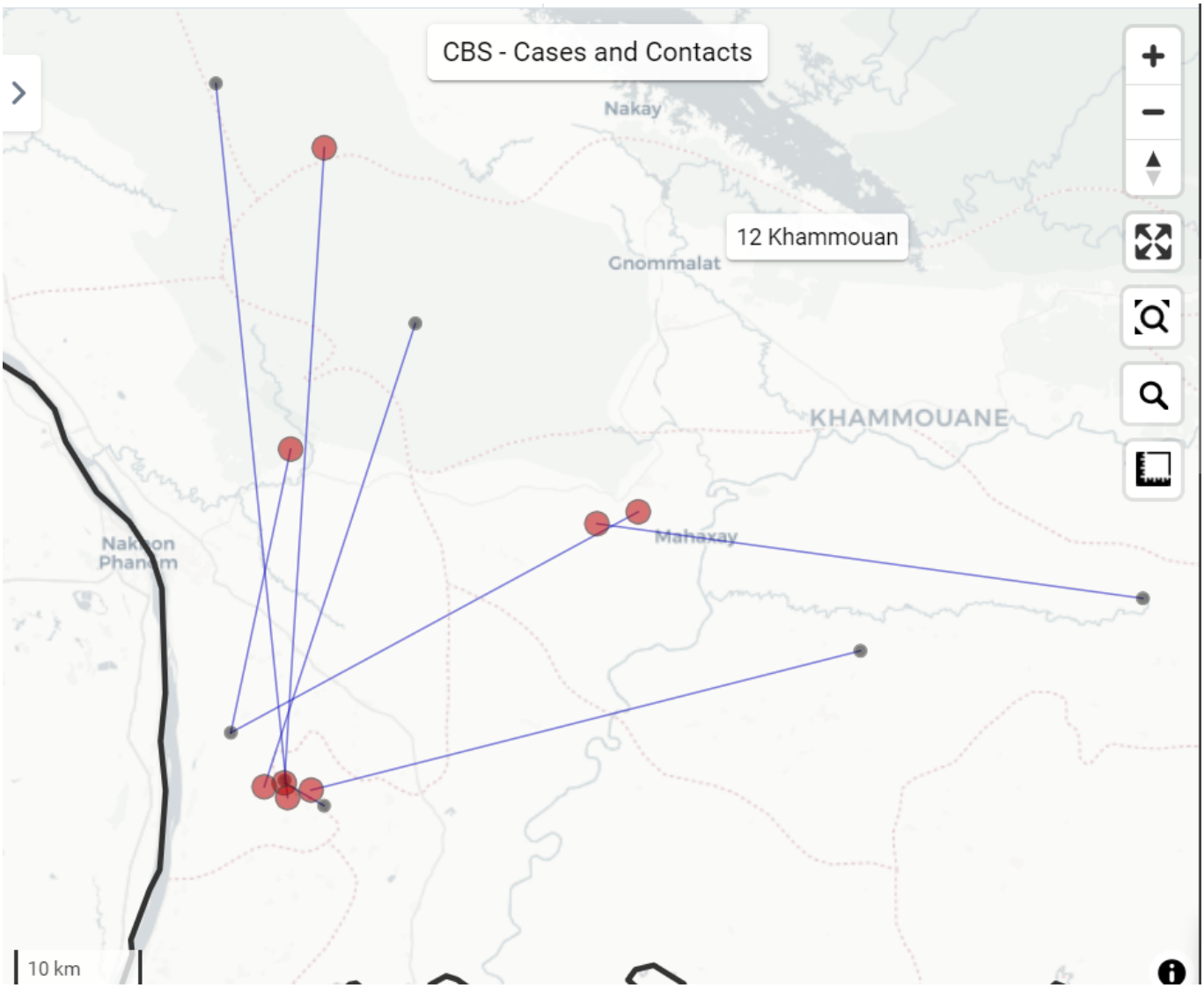
We will now create a map using data from the Case-Based Surveillance Program where we will display relationships on the map.

Clear your inputs by going to File -> New.

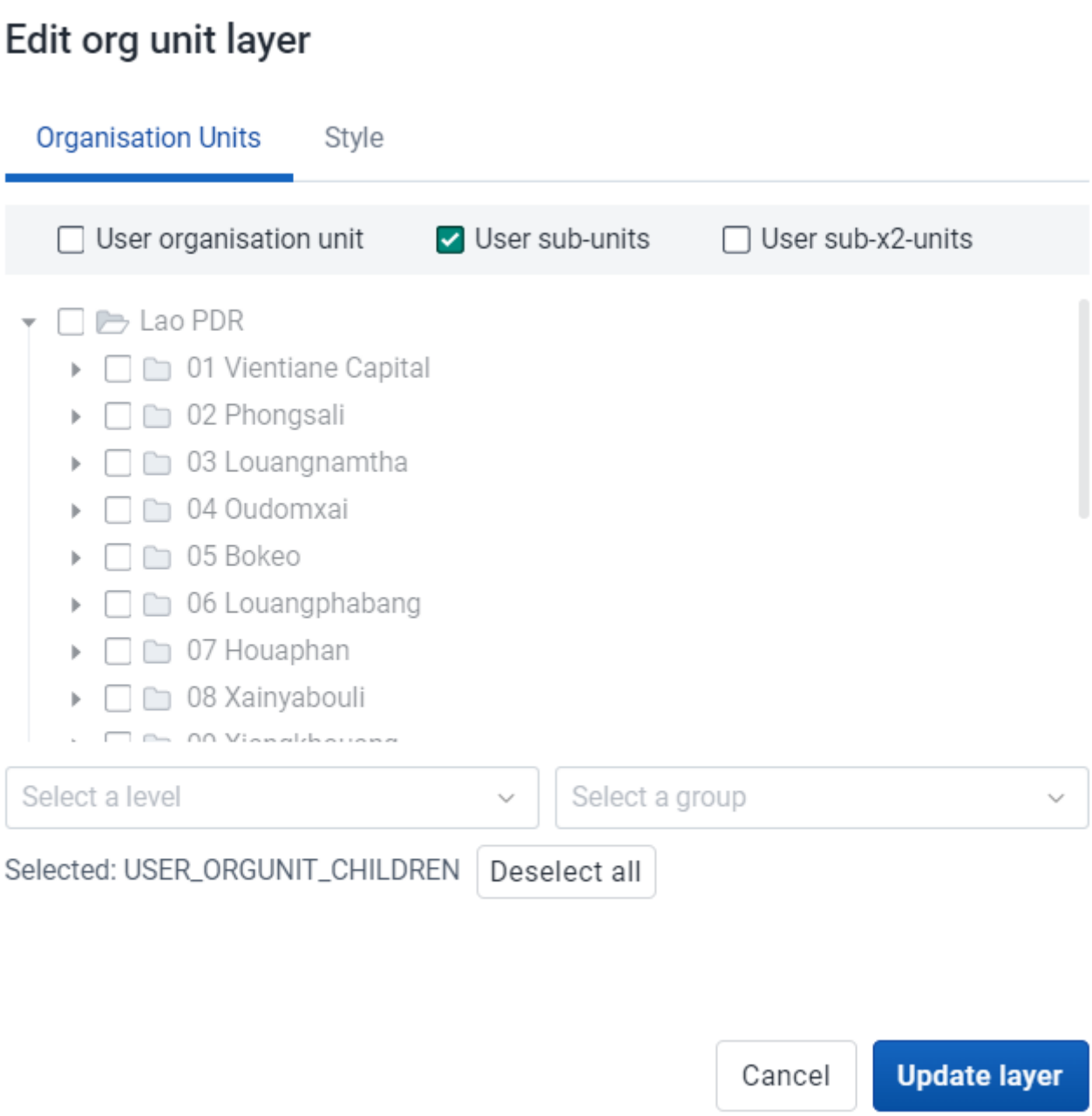
Create the map using the tracked entity layer with the following inputs:

- Layer 1 Type : Org Unit - User sub - units
- Layer 2 Type : Tracked Entity
- Data:
    - Tracked Entity Type : Person
    - Program : Case-base Surveillance
    - Program status : all
- Relationships :
    - Display tracked entity relationships = yes
    - Relationship type : Has Been in Contact with
- Period :
    - Select periods when last updated
        - the date a tracked entity was registered or enrolled in a program: December 31, 2023 - July 13, 2024
- Org Units : 12 Khammouan
- Selection mode : Selected and all below

The map should look like this

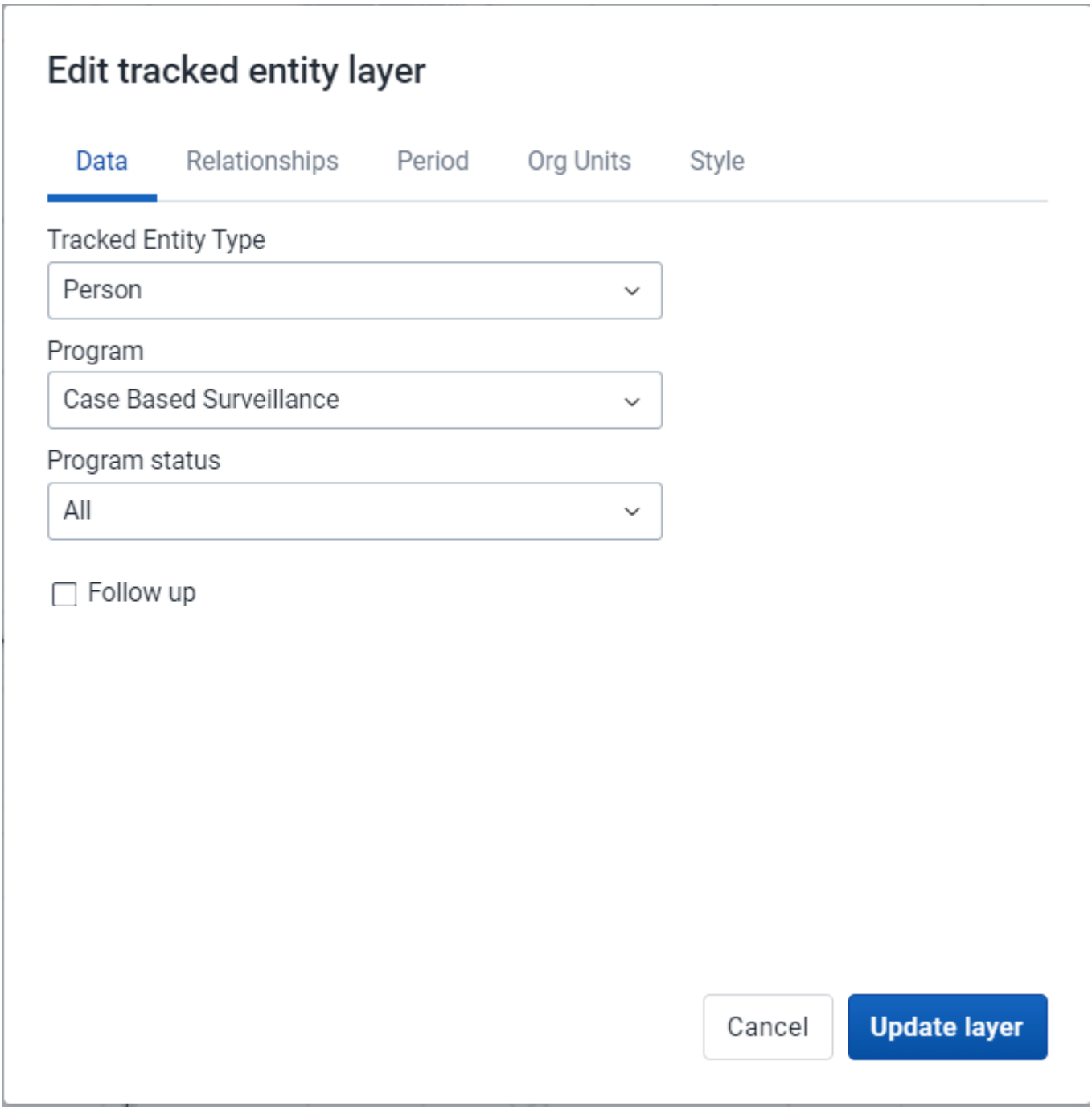


Boundary Layer

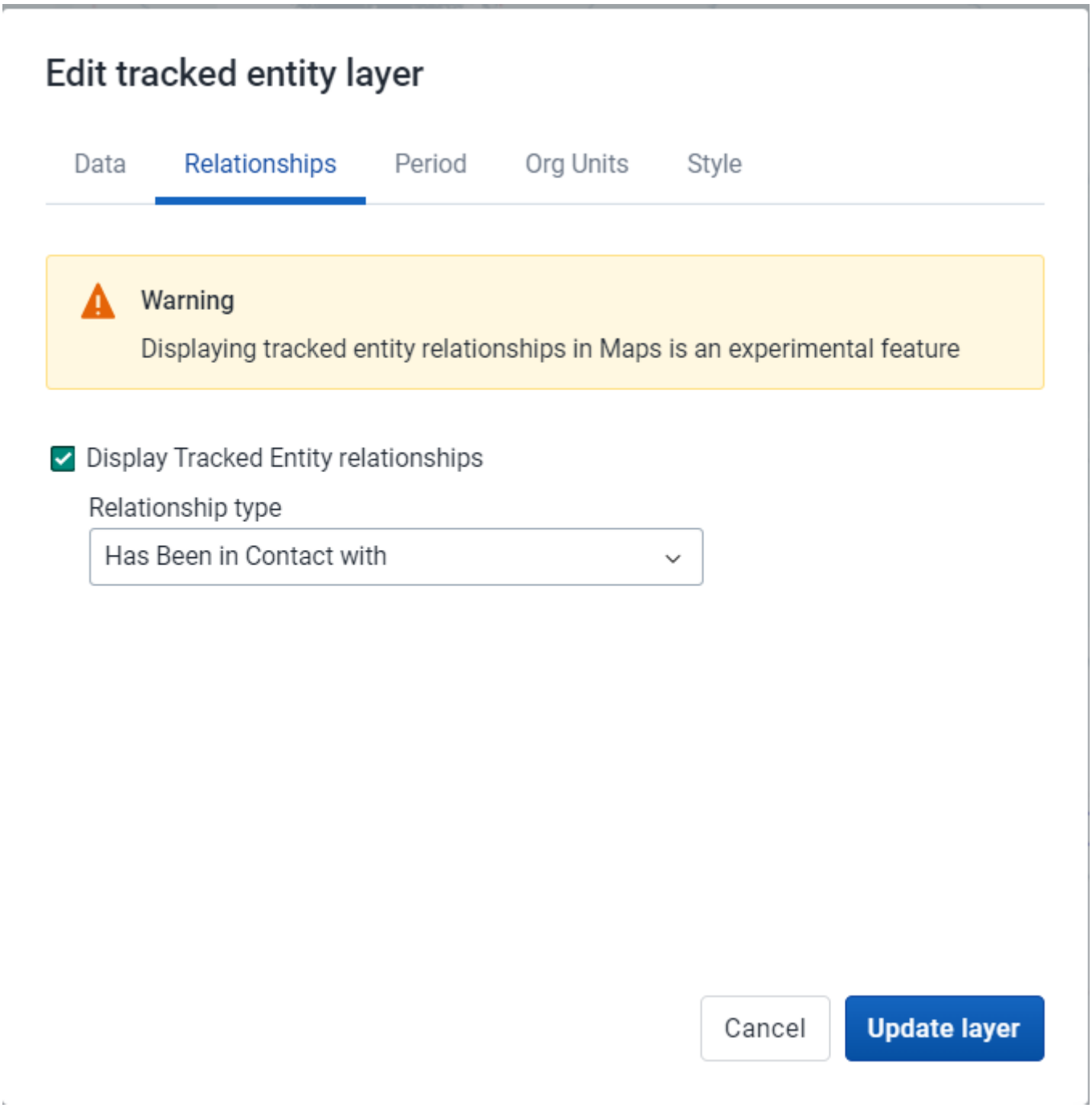


Tracked Entity Layer

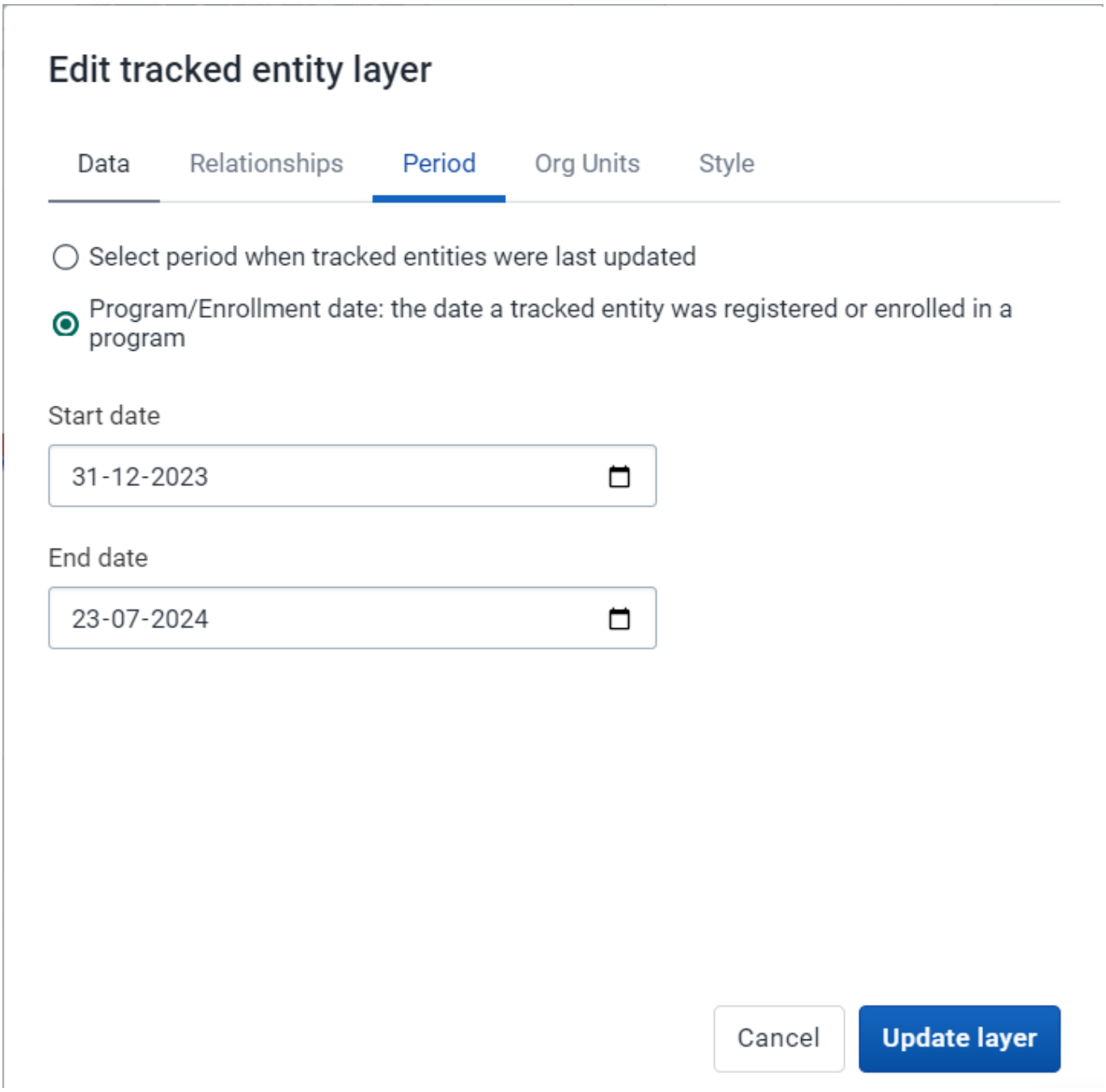
Data Tab



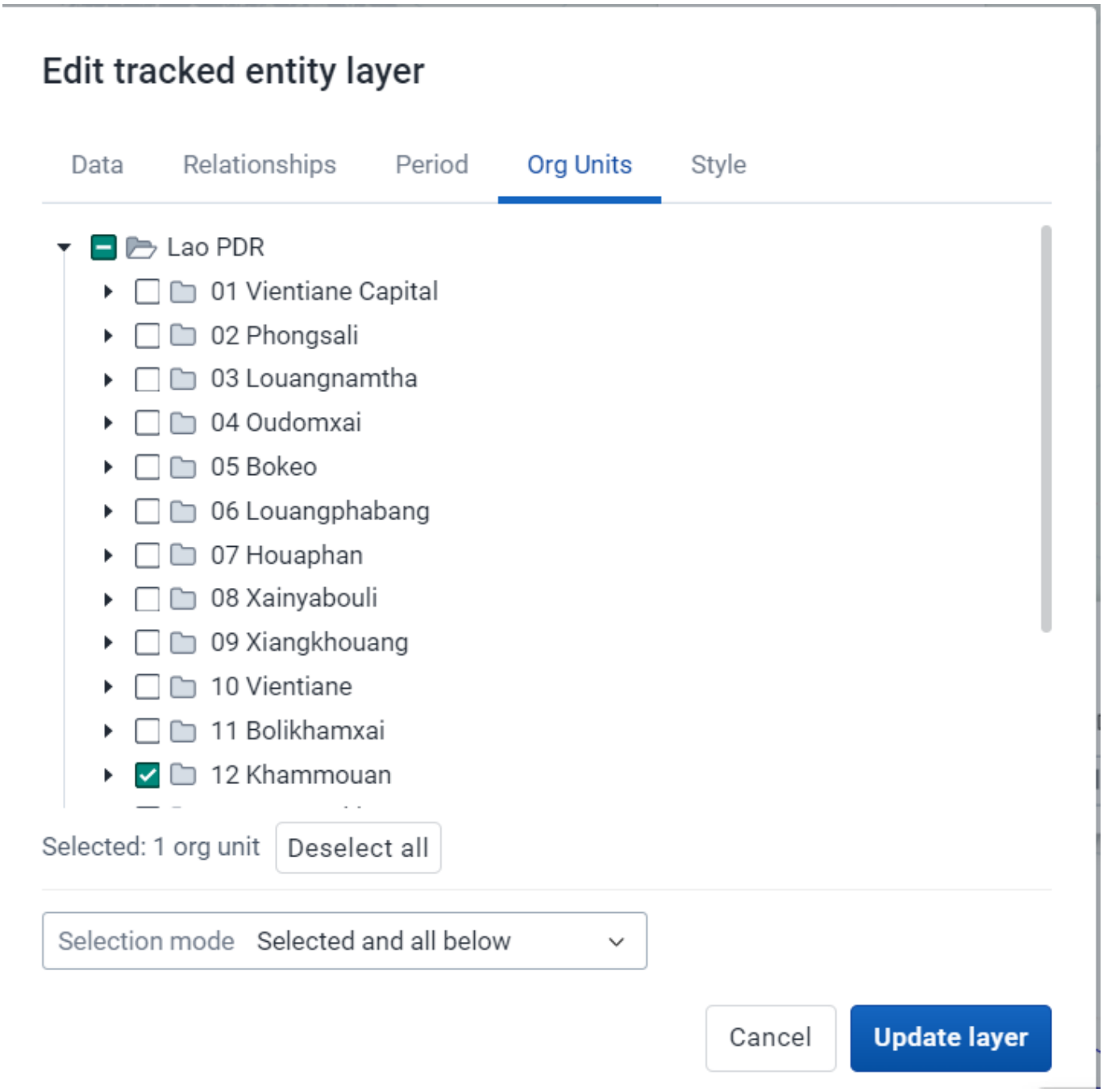
Relationships Tab


Edit tracked entity layer
Data
Relationships
Period
Org Units
Style
Warning
Displaying tracked entity relationships in Maps is an experimental feature
Display Tracked Entity relationships
Relationship type
Has Been in Contact with
Cancel
Update layer

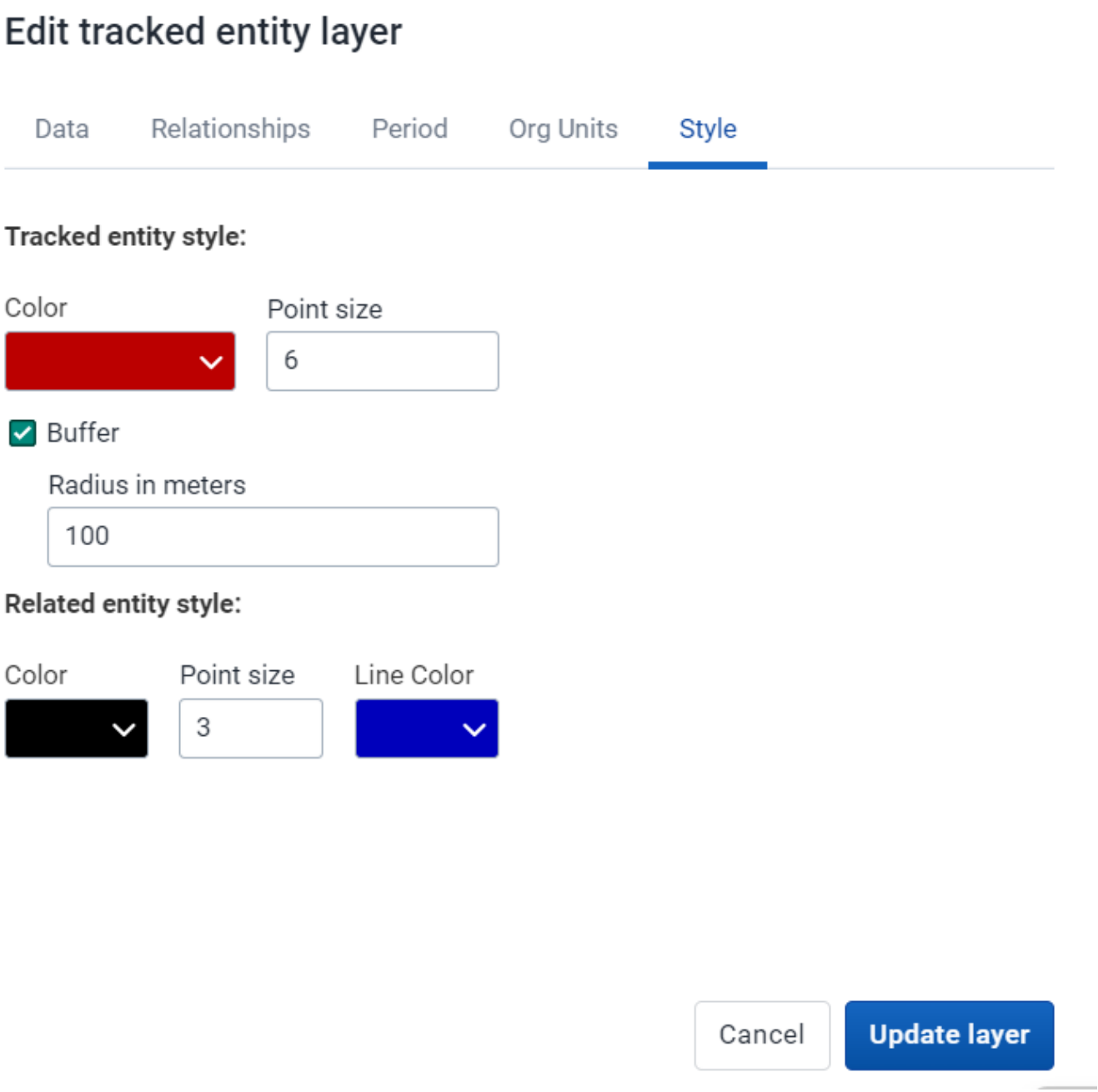
Period Tab



Org Units Tab


Edit tracked entity layer
Data
Relationships
Period
Org Units
Style
Lao PDR
01 Vientiane Capital
02 Phongsali
03 Louangnamtha
04 Oudomxai
05 Bokeo
06 Louangphabang
07 Houaphan
08 Xainyabouli
09 Xiangkhouang
10 Vientiane
11 Bolikhamxai
12 Khammouan
Selected: 1 org unit
Deselect all
Selection mode
Selected and all below
Cancel
Update layer

Style Tab



Explain the style tab in a bit more detail as you are reviewing it. You can see here you can select the colour of tracked entity, its related entities and the line used to represent the relationship.

The "Buffer" option in the Style tab is used to create a buffer zone around geographical points, lines, or areas (polygons). This buffer zone visually represents a specified distance from the selected geographic feature and can be useful for various analytical purposes.

This allows you to customize the output of these relationship outputs slightly when creating the map layer.

Review the map output along with limitations of this layer

As we can see, we are able to display tracked entities along with their relationships using this layer. We have already discussed that we are only able to display relationships within the same program currently, but in addition you are not able to apply any event data to filter out the tracked entities that you are showing. Therefore, ***the tracked entity layer can not be combined with any information from the events within a program stage.***

This is unfortunate, as it requires us to collect co-ordinates for every event within a tracker program, rather then just being able to collect the coordinate once and using it in conjunction with our event data.

This is something that is being worked on however and is expected in future releases.