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

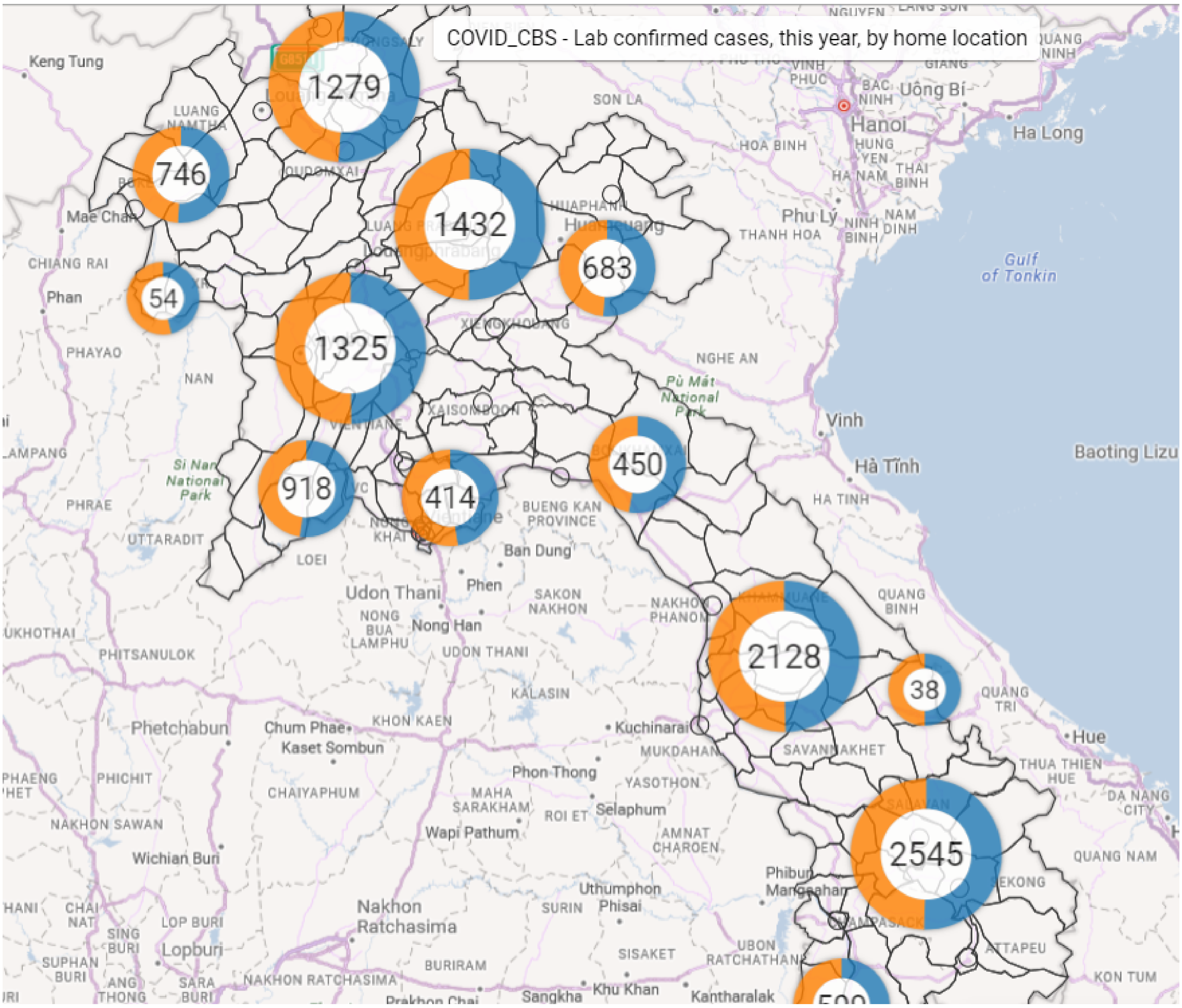
Create a map using the event layer

Please create a map using data from the COVID-19 Case-Based Surveillance Program for lab confirmed cases.

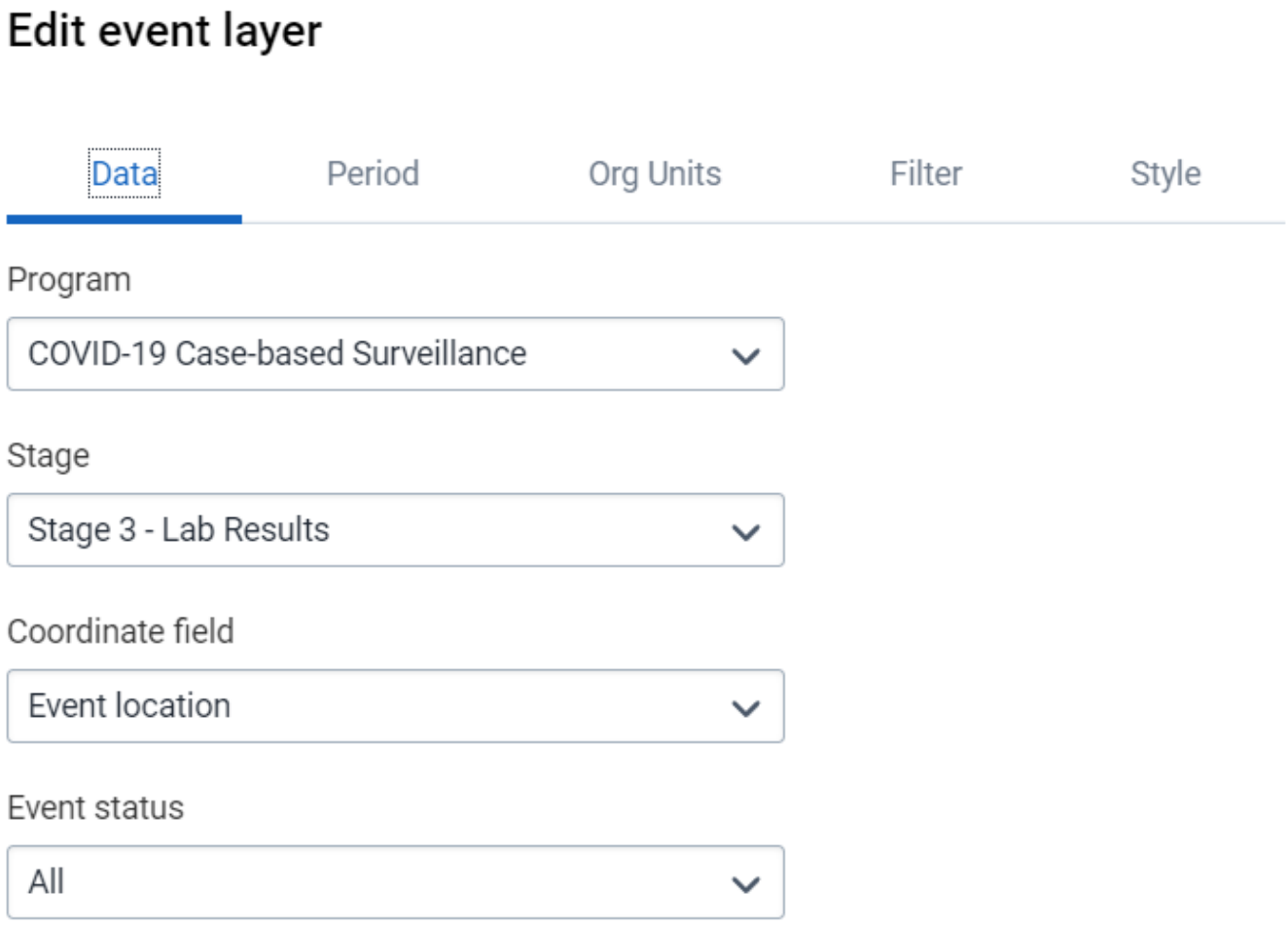
Create the map using the event layer with the following inputs:

- Layer Type : Event
- Data:
    - Program : COVID-19 Case-base Surveillance
    - Stage : Stage 3 - Lab Results
    - Coordinate field : Event Location
    - Event status : all
- Period : This Year
- Org Units : User org units 2x below
- Filter :
    - Data item : Lab Test Result = Positive
- Style :
    - Group events
    - Style by data element : Sex

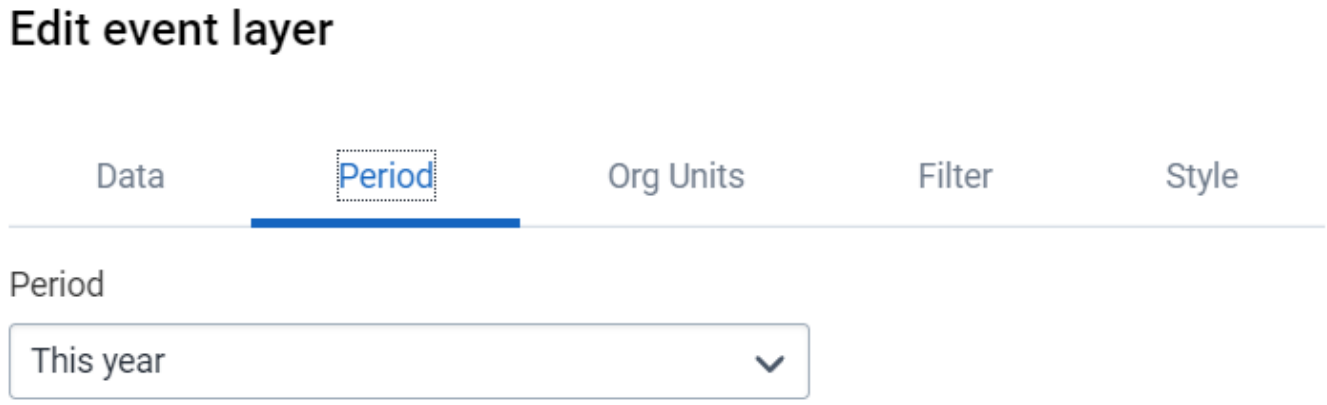
The map is saved as ""COVID_CBS - Lab confirmed cases, this year, by home location" for refence.


COVID_CBS - Lab confirmed cases, this year, by home location
1279
746
1432
683
54
1325
918
414
450
2128
38
2545
Keng Tung
Mae Chan
CHIANG RAI
Phan
PHAYAO
NAN
LAMPANG
PHRAE
UTTARADIT
LOEI
Udon Thani
Nong Han
UDON THANI
SAKON NAKHON
BUENG KAN PROVINCE
Ban Dung
Phen
KHON KAEN
KALASIN
Kuchinarai
MUKDAHAN
SAVANNAKHET
YASOTHON
ROI ET
Selaphum
Phon Thong
MAHA SARAKHAM
Wapi Pathum
AMNAT CHAROEN
Phibun Mangsahan
UBON RATCHATHANI
SISAKET
Khu Khan
Kantharalak
Sangkha
SURIN
Uthumphon Phisai
BURIRAM
Nakhon Ratchasima
NAKHON RATCHASIMA
CHAIYAPHUM
Chum Phae
Kaset Sombun
Phetchabun
PHICHIT
PHITSANULOK
NAKHON SAWAN
Wichian Buri
LOP BURI
Lopburi
SING BURI
SARA BURI
SUPHAN BURI
ANG THONG
SON LA
HOA BINH
Hanoi
Uông Bí
Ha Long
THANH HOA
Phu Lý
NAM DINH
NINH BINH
THAI BINH
HA NAM
HUNG YEN
BAC NINH
Gulf of Tonkin
NGHE AN
Vinh
Hà Tĩnh
HA TINH
Baoting Lizu
QUANG BINH
QUANG TRI
Hue
THUA THIEN HUE
DA NANG CITY
QUANG NAM
KON TUM
ATTAPEU
XIENGKHOUANG
XAISOMBOUN
HUAPHANH
OUDOMXAI
LUANG NAMTHA
Pù Mát National Park
Si Nan National Park

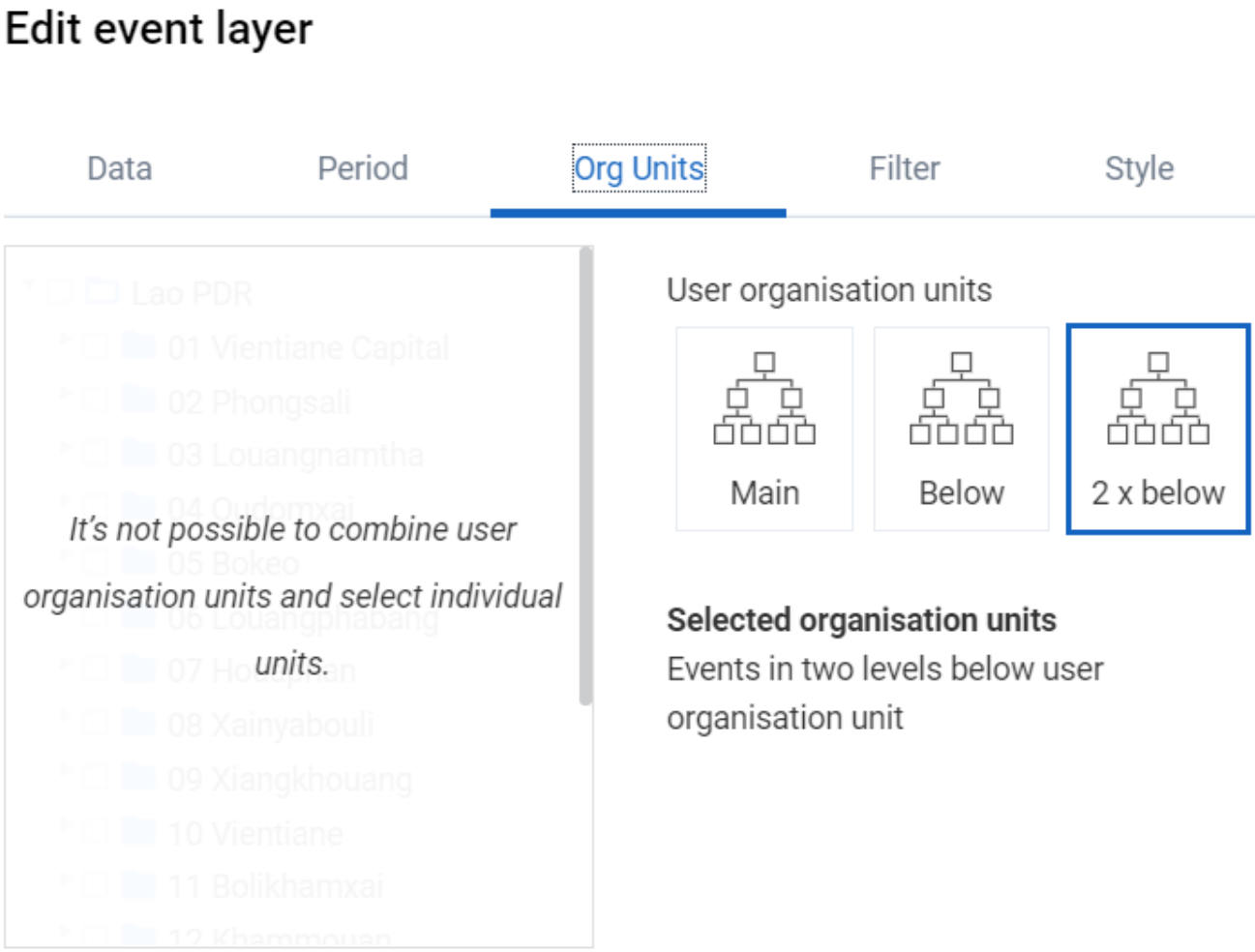
Data Tab



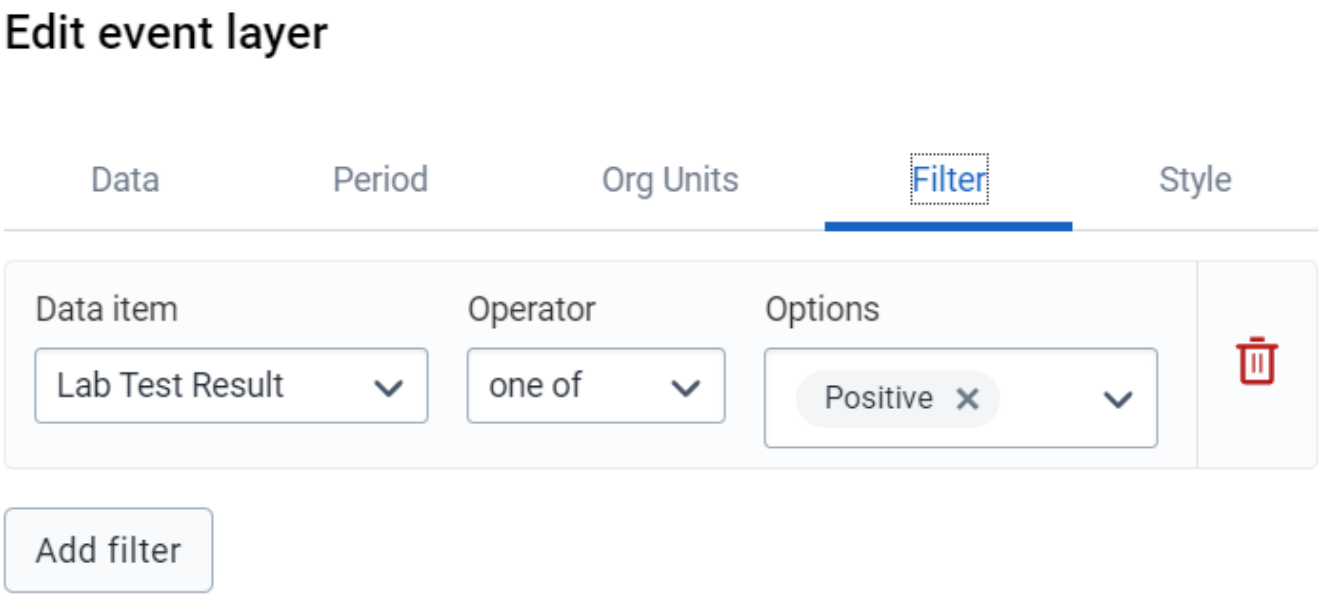
Period Tab



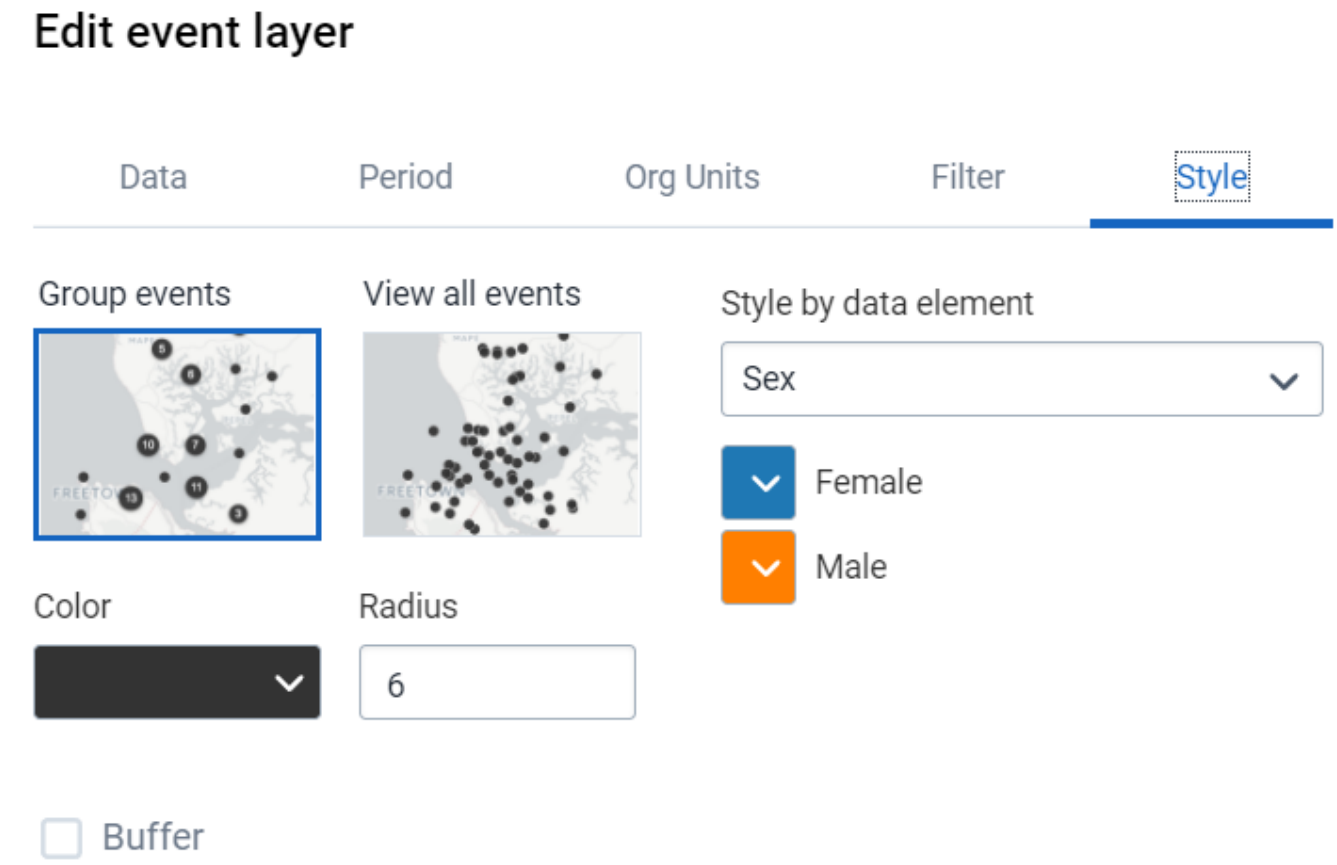
Org Units Tab



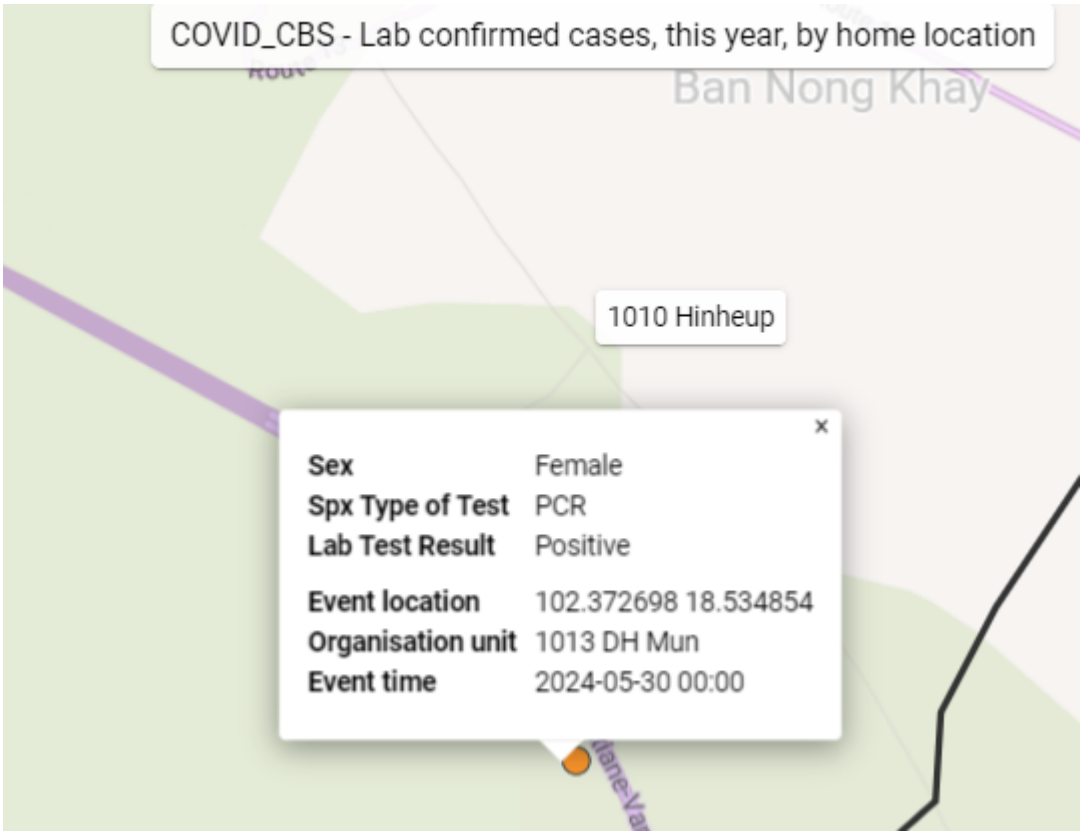
Filter Tab



Style Tab



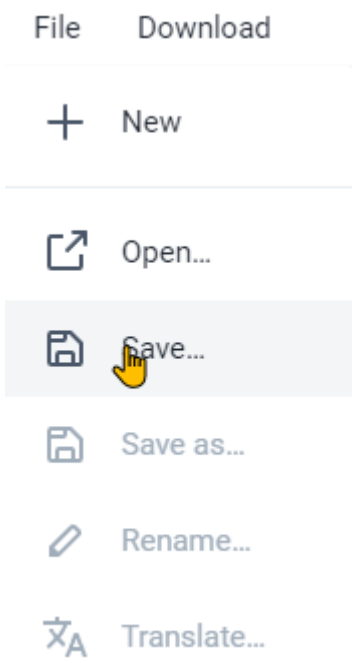
As the events are grouped together, and you have chosen to style them by sex, we see the doughnut charts when we are zoomed out. As you zoom in however you will start to see the individual locations of each of these events. Select an event to see the details.



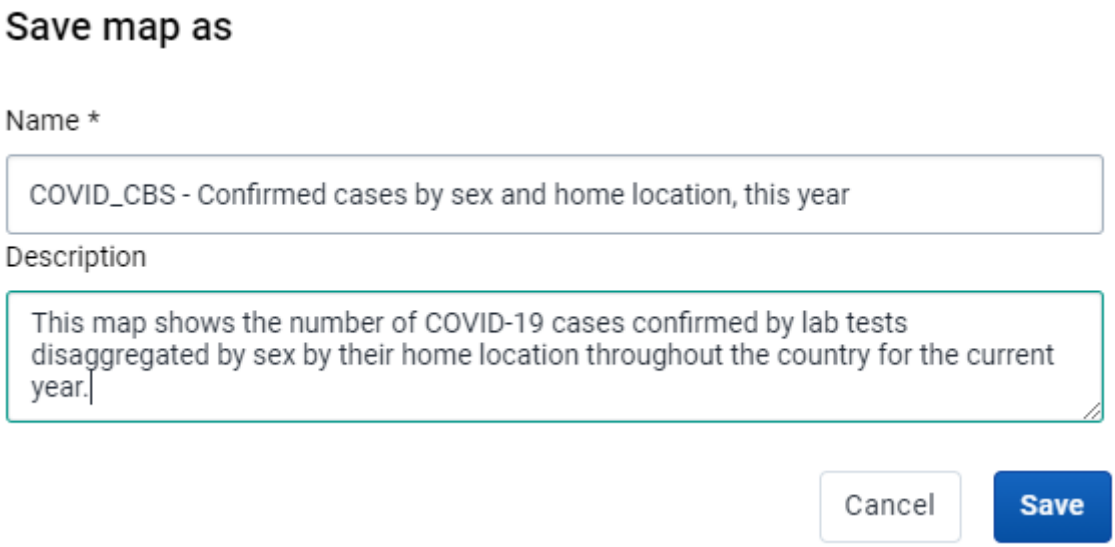
As we can see, using this layer is the same whether we are using event or tracker data. As with our other analyses, we do have to keep in mind that the event layer will be displaying all the events within a program on this map; so in the case of repeated event data you can have multiple events on the map representing each of these events.

Review how to save a map

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

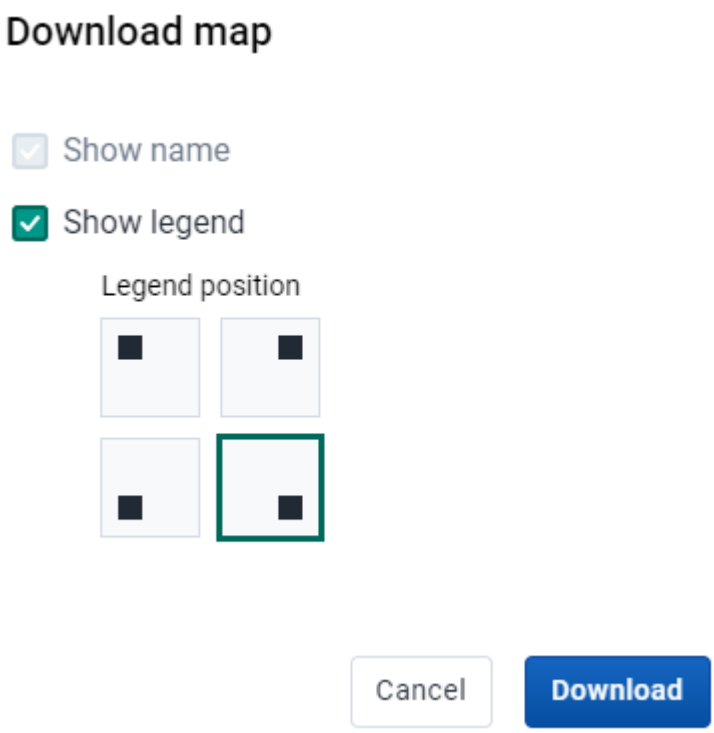


Give the map a name and a description and select "Save"



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

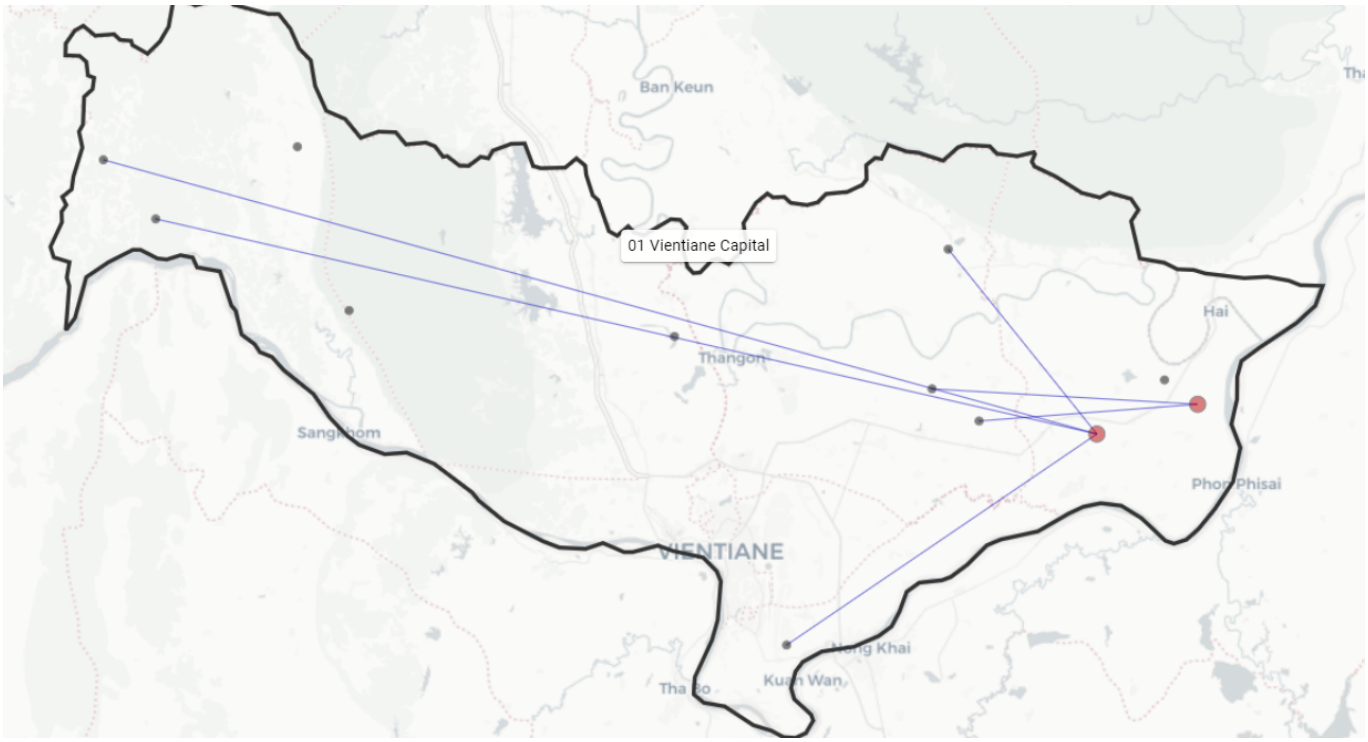
Create a map using the TEI layer with relationships

We will now create a map using data from the COVID-19 Case-Based Surveillance Program where we will display relationships on the map.

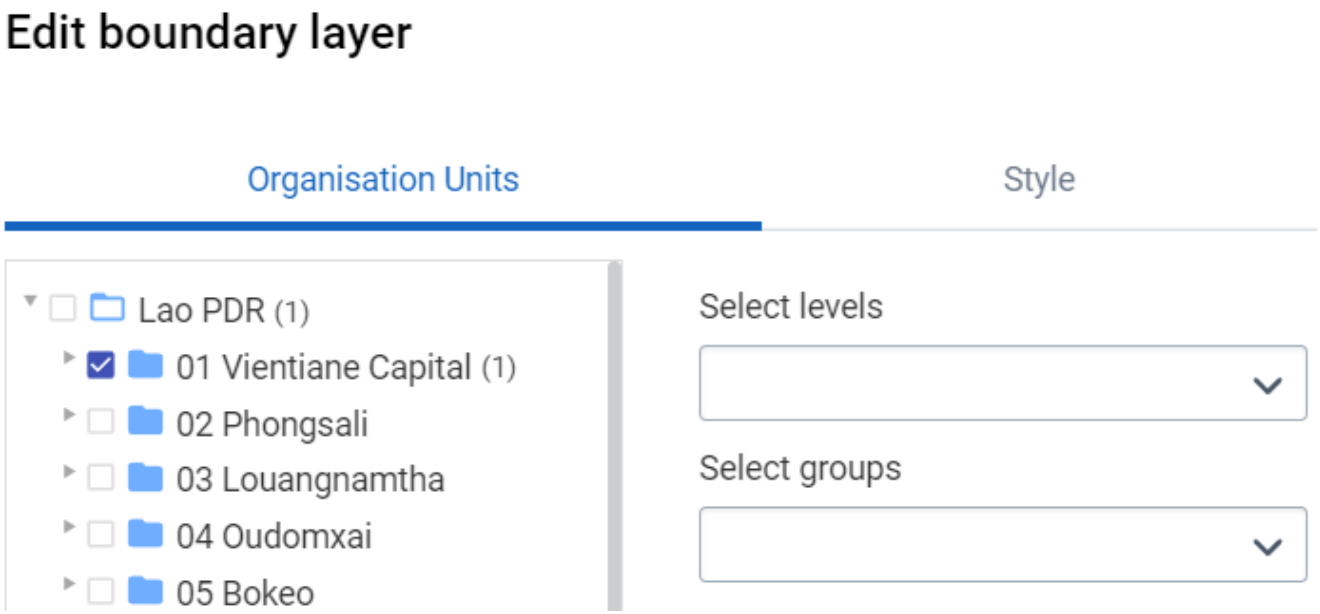
Create the map using the tracked entity layer with the following inputs:

- Layer 1 Type : Boundary Layer - Vientiane Capital
- Layer 2 Type : Tracked Entity
- Data:
  - Tracked Entity Type : Person
  - Program : COVID-19 Case-base Surveillance
  - Program status : all
- Relationships :
  - Display tracked entity relationships = yes
  - Relationship type : Has Been in Contact with
- Period :
  - Program/Enrollment date
  - Start/ End Date : Oct 16, 2020 - Oct 16, 2021
- Org Units : CHW Mitthaphap
- Style : leave as default

The map is saved as "COVID_CBS - Cases and Contacts" for reference.

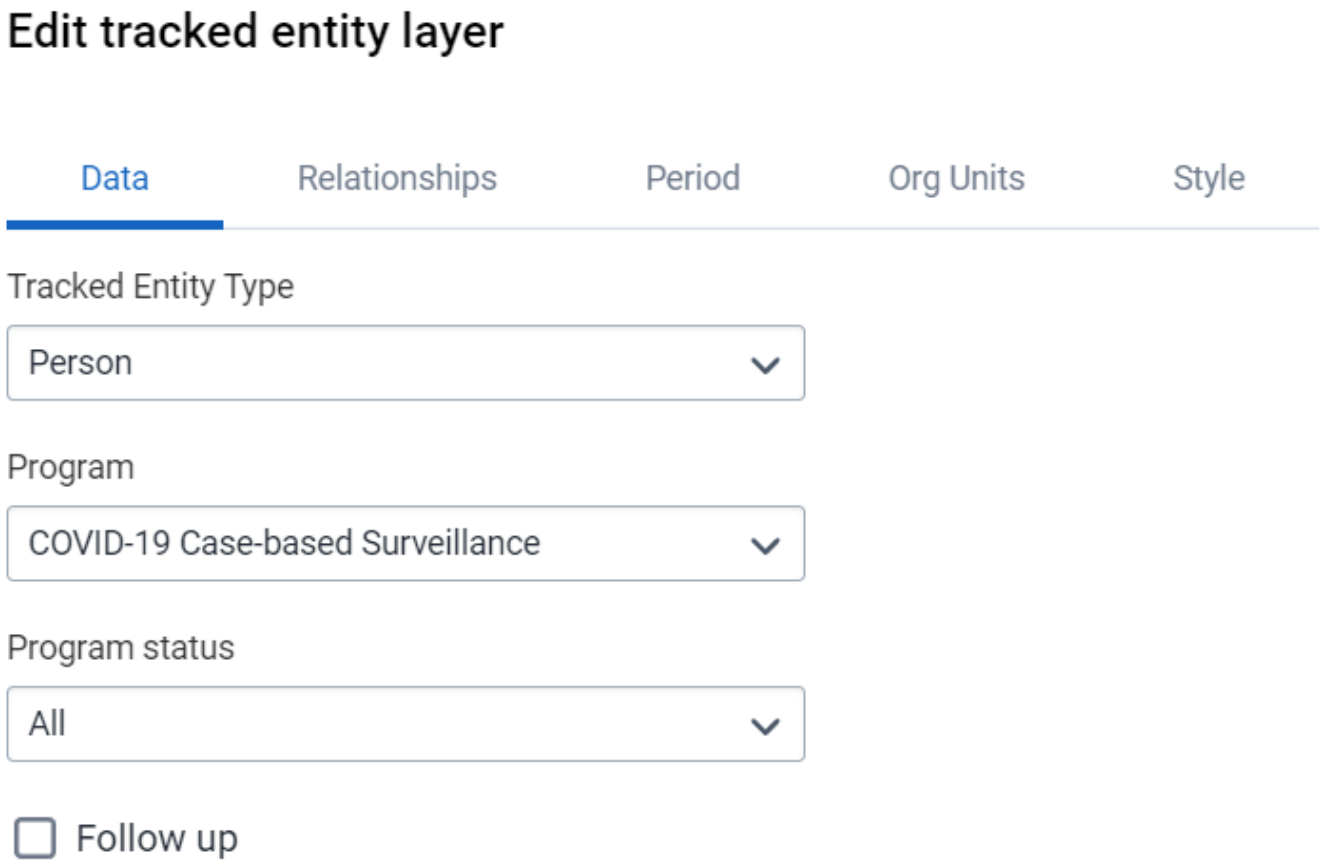


Boundary Layer

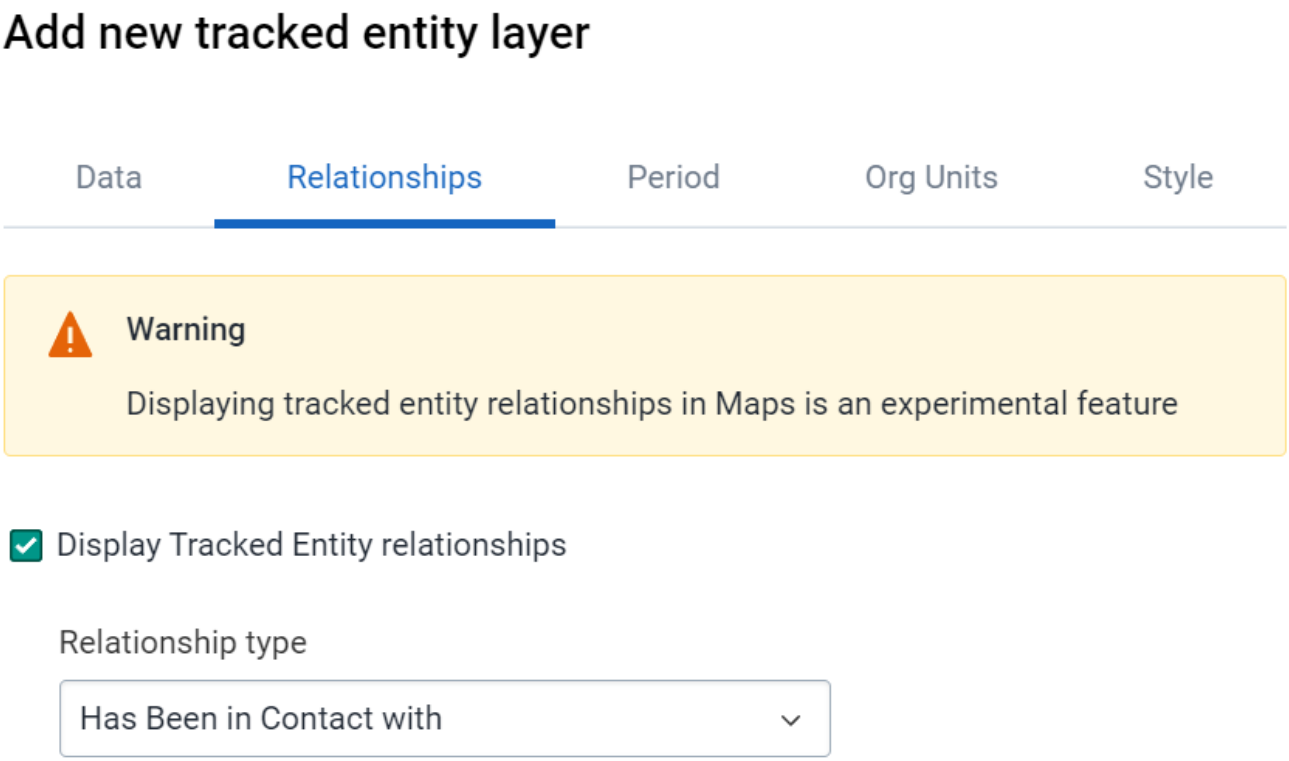


Tracked Entity Layer

Data Tab



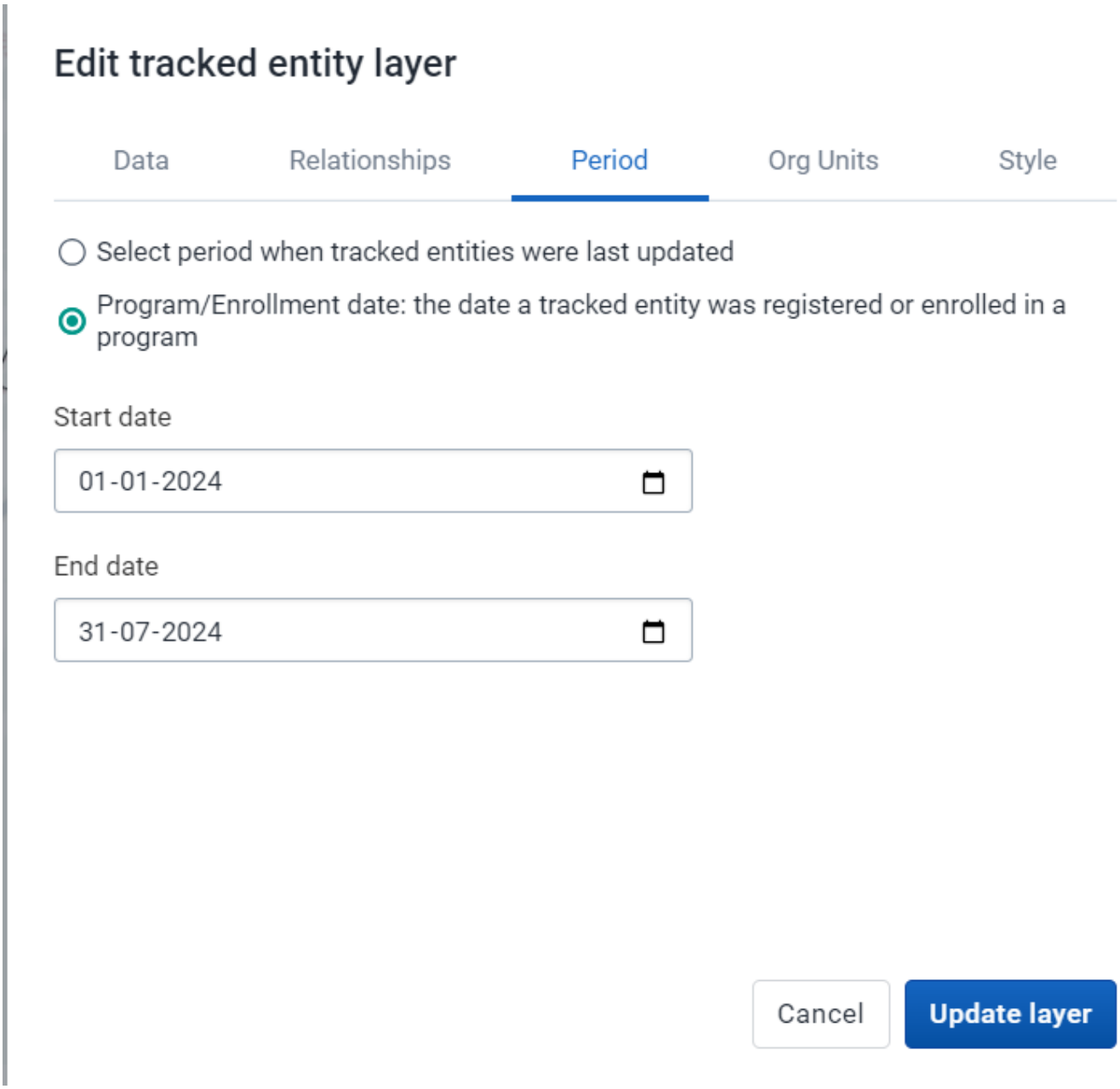
Relationships Tab



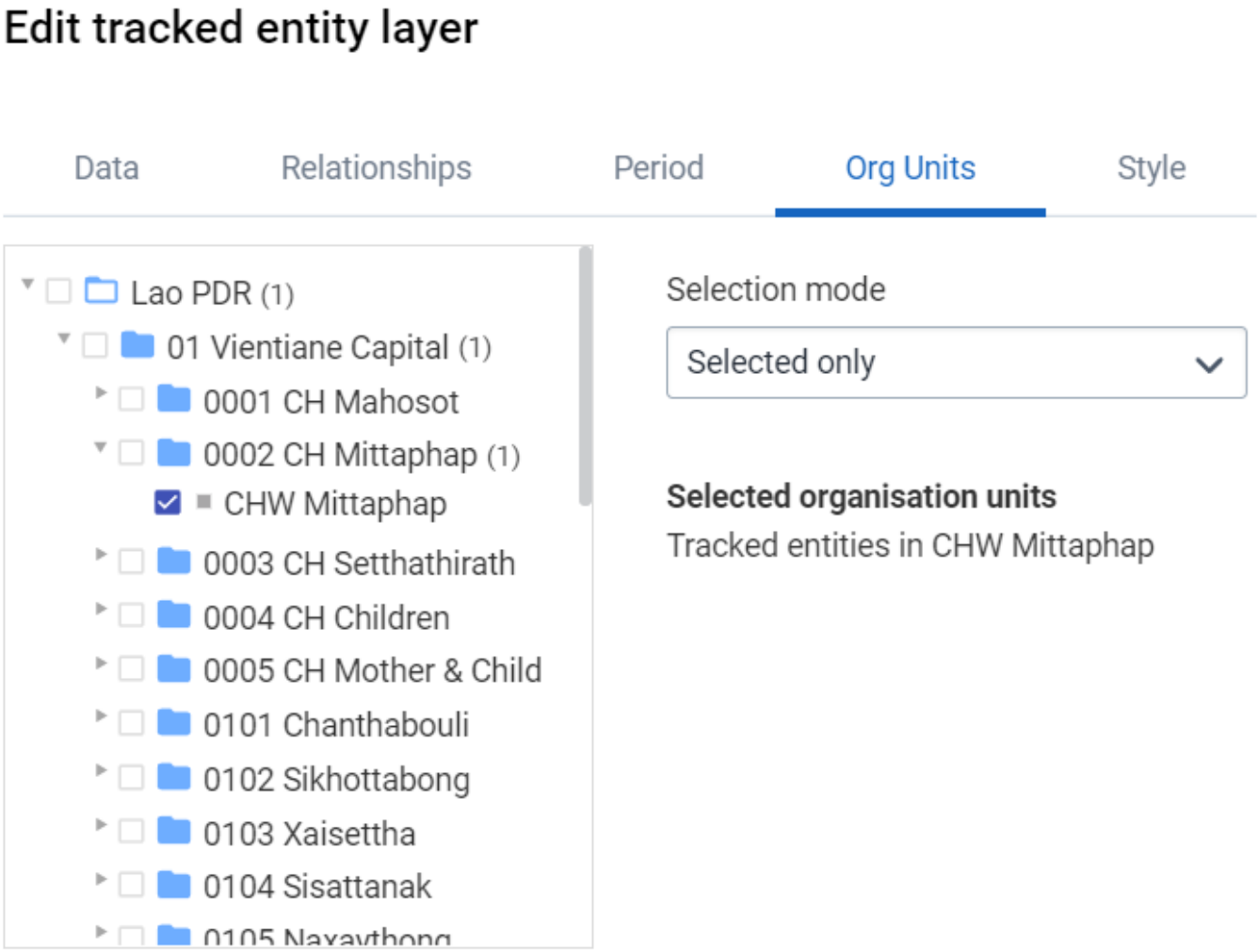
This tab allows you to show relationships between tracked entities, but has a large warning message as it is still in development.

One of the main drawbacks when using the relationship layer is that it only allows you to display relationships within the same program. In our example, we actually have a separate program for registering contacts, but we are not able to display the relationships between the surveillance program and the contacts program; we can only display relationships within the surveillance program (ie. both the cases and contacts must be in this program). Applied more generally, this means that you are only able to display relationships within the same program on the map currently using the tracked entity layer.

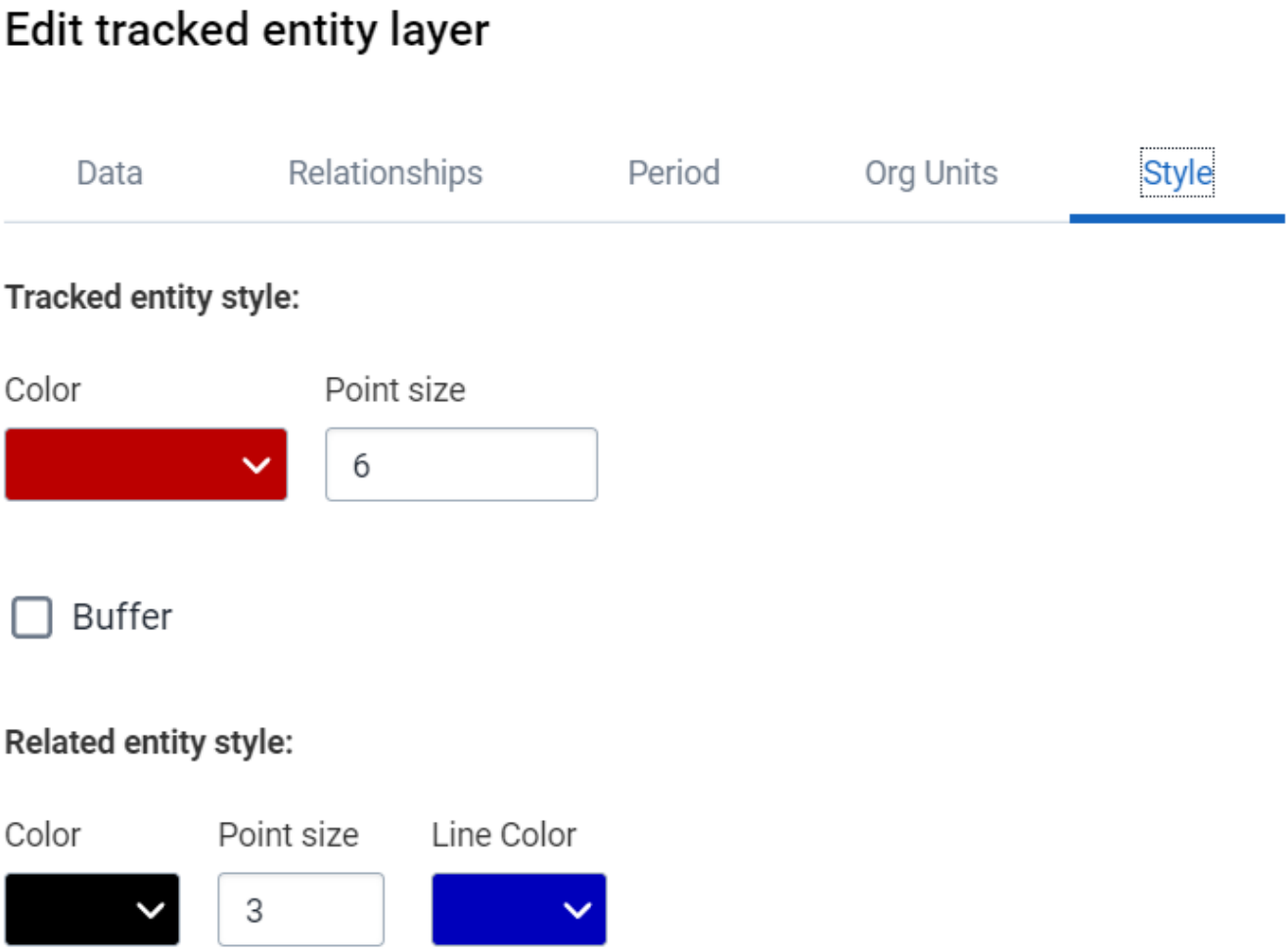
Period Tab



Org Units Tab


Edit tracked entity layer
Data
Relationships
Period
Org Units
Style
Lao PDR (1)
01 Vientiane Capital (1)
0001 CH Mahosot
0002 CH Mittaphap (1)
CHW Mittaphap
0003 CH Setthathirath
0004 CH Children
0005 CH Mother & Child
0101 Chanthabouli
0102 Sikhottabong
0103 Xaisettha
0104 Sisattanak
Selection mode
Selected only
Selected organisation units
Tracked entities in CHW Mittaphap

Style Tab



In the style tab, you can select the colour of the tracked entity, its related entities and the line used to represent the relationship. 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.