

# Learner's Guide to Maps - Event and TEI Layer

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## 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

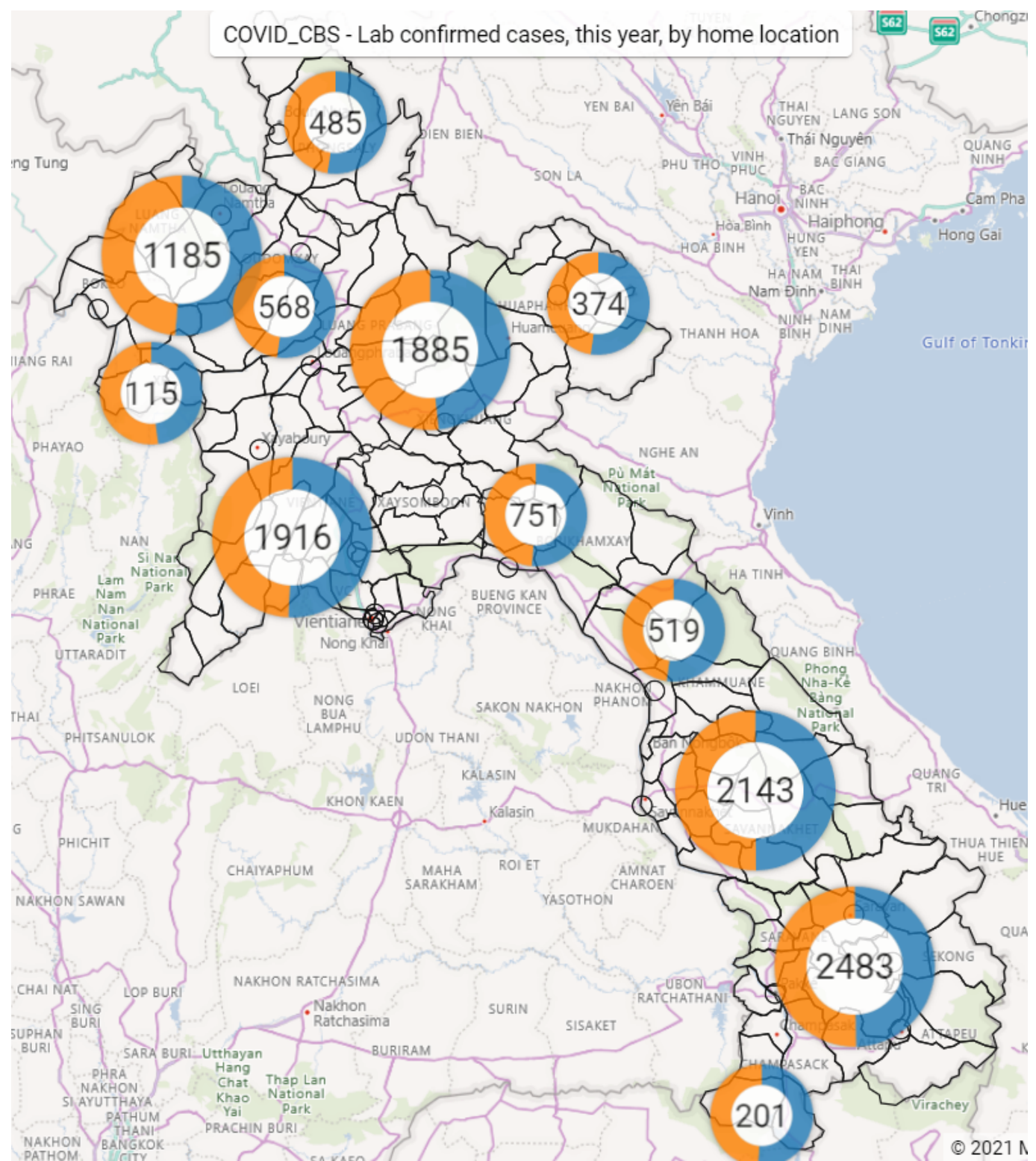
### Create a map using the event layer

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.



Data Tab

# Edit event layer

Data

Period

Org Units

Filter

Style

Program

COVID-19 Case-based Surveillance

Stage

Stage 3 - Lab Results

Coordinate field

Event location

Event status

All

Period Tab

# Edit event layer

Data

Period

Org Units

Filter

Style

Period

This year

Org Units Tab

Edit event layer

DataPeriodOrg UnitsFilterStyle

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

It's not possible to combine user organisation units and select individual units.

User organisation units

Main

Below

2 x below

Selected organisation units

Events in two levels below user organisation unit

Filter Tab

Edit event layer

DataPeriodOrg UnitsFilterStyle

Data itemOperatorOptions

Lab Test Result

one of

Positive

Add filter

Style Tab

4 / 12

## Edit event layer

Data


Period

Org Units


Filter

Style

Group events



View all events



Style by data element

Sex

Female

Male

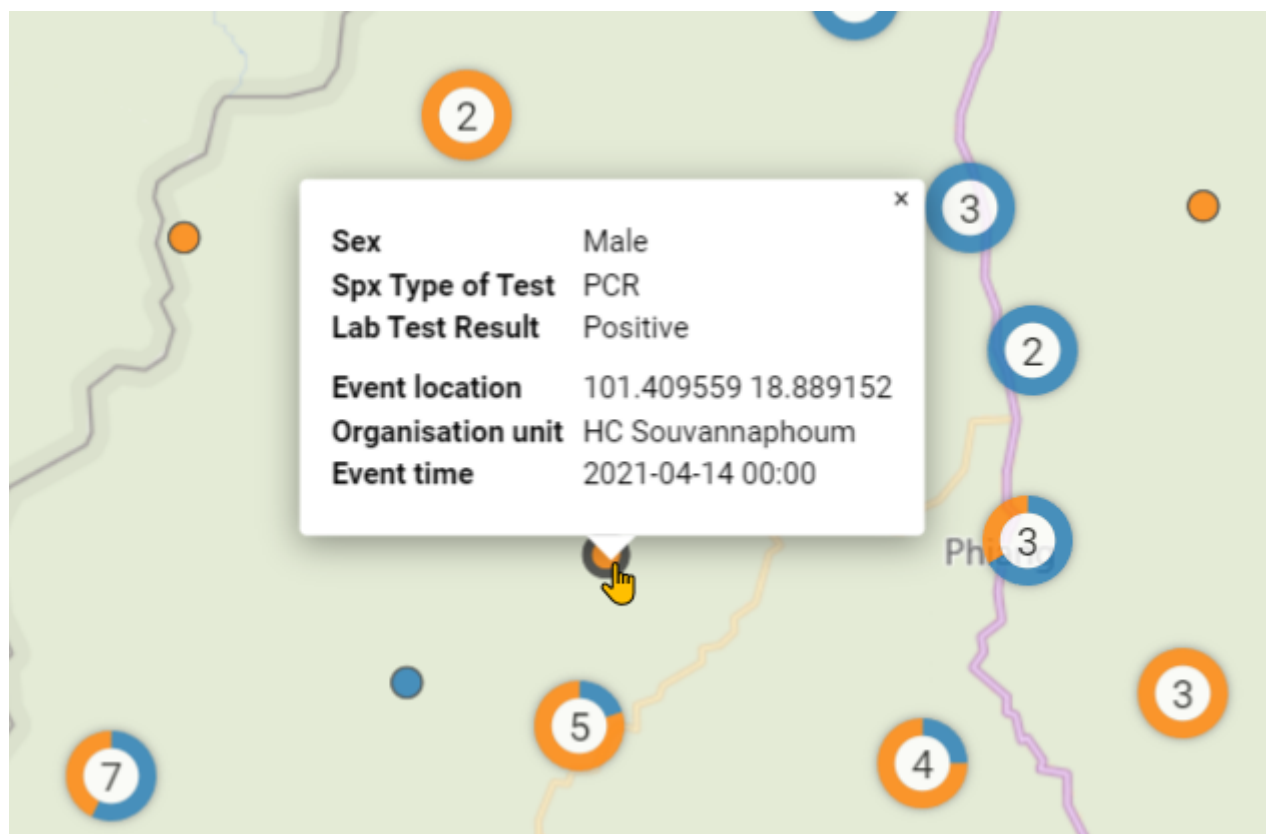
Color

Radius

6

☐ Buffer

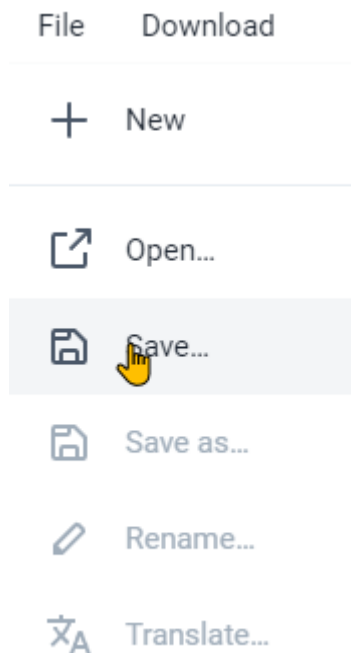
As the events are grouped together, and you have chosen to style them by sex, we see the doughnut charts when we are zoomed out. As you zoom in however you will start to see the individual locations of each of these events. Select an event to see the details.



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"

### Save map as

Name \*

COVID\_CBS - Confirmed cases by sex and home location, this year

Description

This map shows the number of COVID-19 cases confirmed by lab tests disaggregated by sex by their home location throughout the country for the current year.

Cancel

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.

## Download map

☐ Show name

☒ Show legend

Legend position



Cancel

Download

## Exercise 2

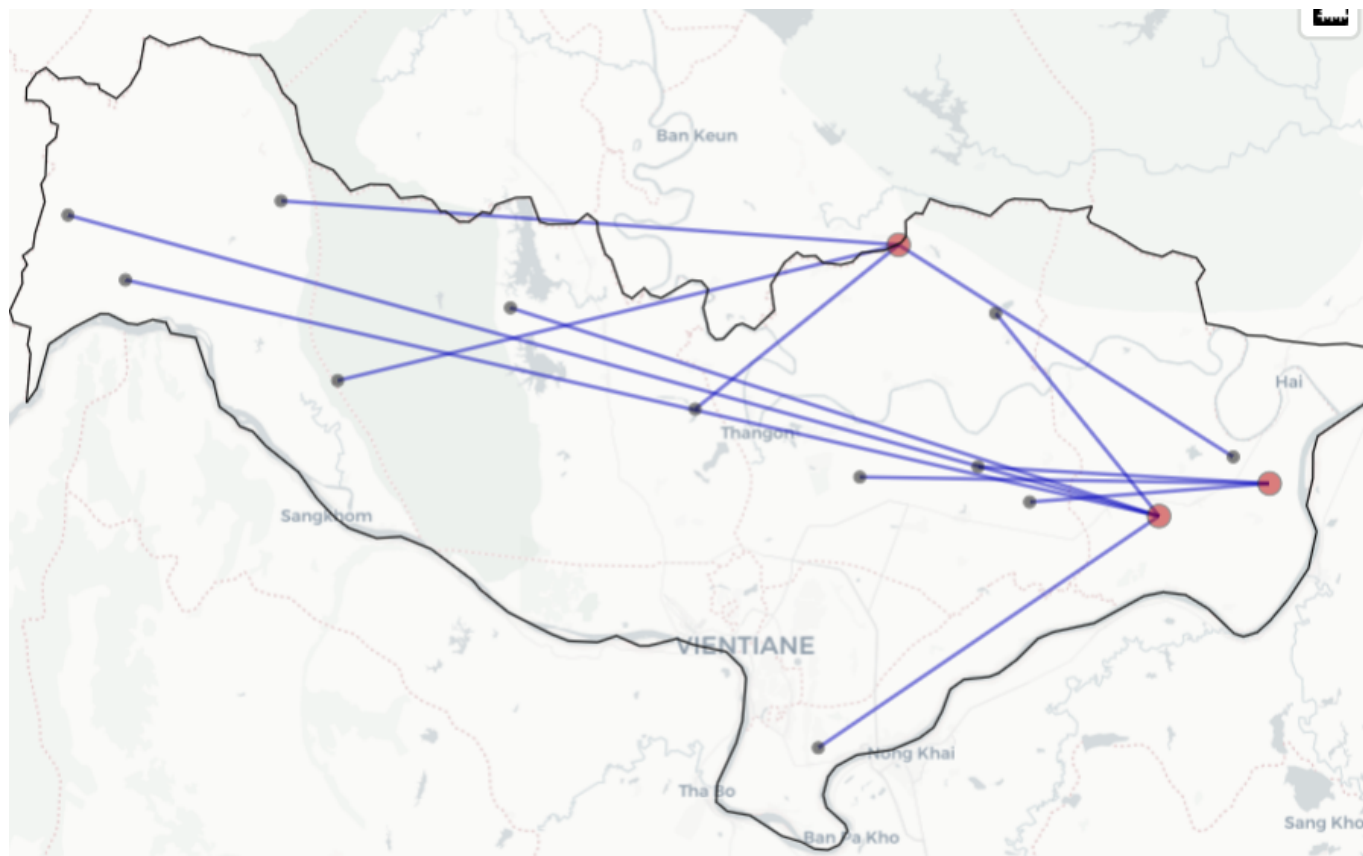
Create a map using the TEI layer with relationships

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

### Edit boundary layer

#### Organisation Units

#### Style

- ▼ ☐  Lao PDR (1)
  - ▶ ☒  01 Vientiane Capital (1)
  - ▶ ☐  02 Phongsali
  - ▶ ☐  03 Louangnamtha
  - ▶ ☐  04 Oudomxai
  - ▶ ☐  05 Bokeo

Select levels

Select groups

## Tracked Entity Layer

### Data Tab



## Edit tracked entity layer

Data

Relationships

Period

Org Units

Style

Tracked Entity Type

Person

Program

COVID-19 Case-based Surveillance

Program status

All

☐ Follow up

Relationships Tab

## Add new 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

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

### Add new tracked entity layer


Data	Relationships	Period	Org Units	Style
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☒ Select period when tracked entities were last updated

☐ Program/Enrollment date: the date a tracked entity was registered or enrolled in a program

Start date



End date



## Org Units Tab

## Edit tracked entity layer

Data	Relationships	Period	Org Units	Style
<div><div><div><div><div>▼</div><div><input type="checkbox"/></div></div><div>Lao PDR (1)</div></div><div><div><div>▼</div><div><input type="checkbox"/></div></div><div>01 Vientiane Capital (1)</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0001 CH Mahosot</div></div><div><div><div>▼</div><div><input type="checkbox"/></div></div><div>0002 CH Mittaphap (1)</div></div><div><div><div>■</div><div><input checked="" type="checkbox"/></div></div><div>CHW Mittaphap</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0003 CH Setthathirath</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0004 CH Children</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0005 CH Mother &amp; Child</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0101 Chanthabouli</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0102 Sikhottabong</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0103 Xaisettha</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0104 Sisattanak</div></div><div><div><div>▶</div><div><input type="checkbox"/></div></div><div>0105 Naxaythong</div></div></div></div>				

Selection mode

Selected only

▼

**Selected organisation units**

Tracked entities in CHW Mittaphap

### Style Tab

## Edit tracked entity layer

Data

Relationships

Period

Org Units

Style

### Tracked entity style:

Color



Point size

☐ Buffer

### Related entity style:

Color



Point size

Line Color



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 than 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.