

# Slice and dice

Arriving at data that matters – can digital media help inform important decisions by better visualisation?

Looking at the COVID-19 dashboard ([covidout.in](https://covidout.in) made by an organisation for my country) showing the number of confirmed cases and other figures, made me ponder as to why dashboards don't allow users to mix mash data and dive into filtered sets. The dashboard was conveying a lot of information but it **would have made the world of difference to someone who can do something about it – if it could marry the data in-between.** Discrete data may have clues to crucial information but those relationships are made visible by tying the bits together.



# DATA VIZ

If you see the adjacent image, there are various categories and figures. The main part of the dashboard reveals the trend of total number of Covid-19 positive cases for India during the selected time period. The following charts reveal the demographic spread, geographic spread and transmission source. Lastly the break up of cases by hospitalisation, admitted to intensive care and recovered.

**This dashboard can be used by someone who is trying to assess where the cases are more and what is their transmission source.** Also it could be compared with another reading here where cases are low and evaluated for any trends or patterns that could be investigated/verified further.

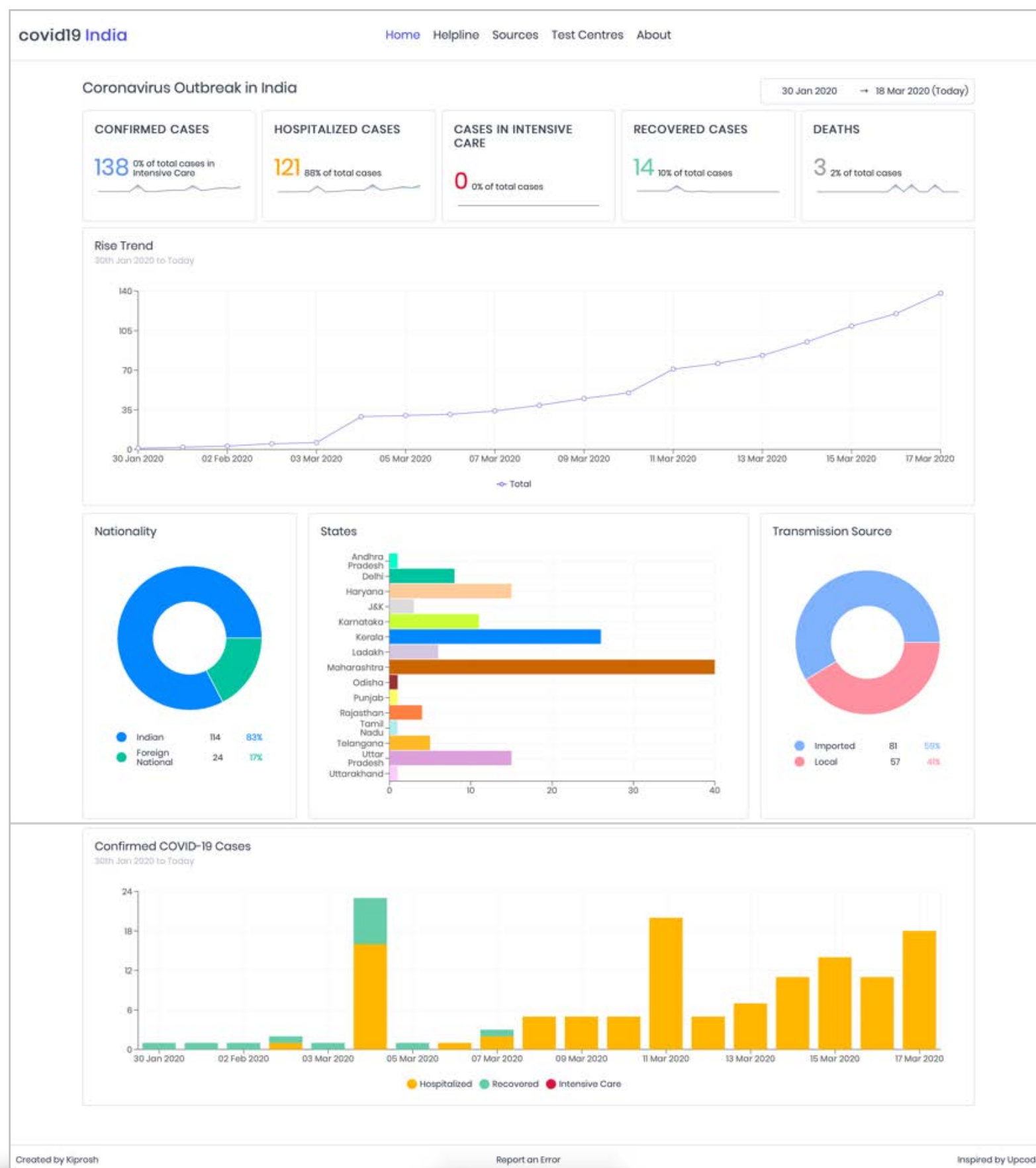
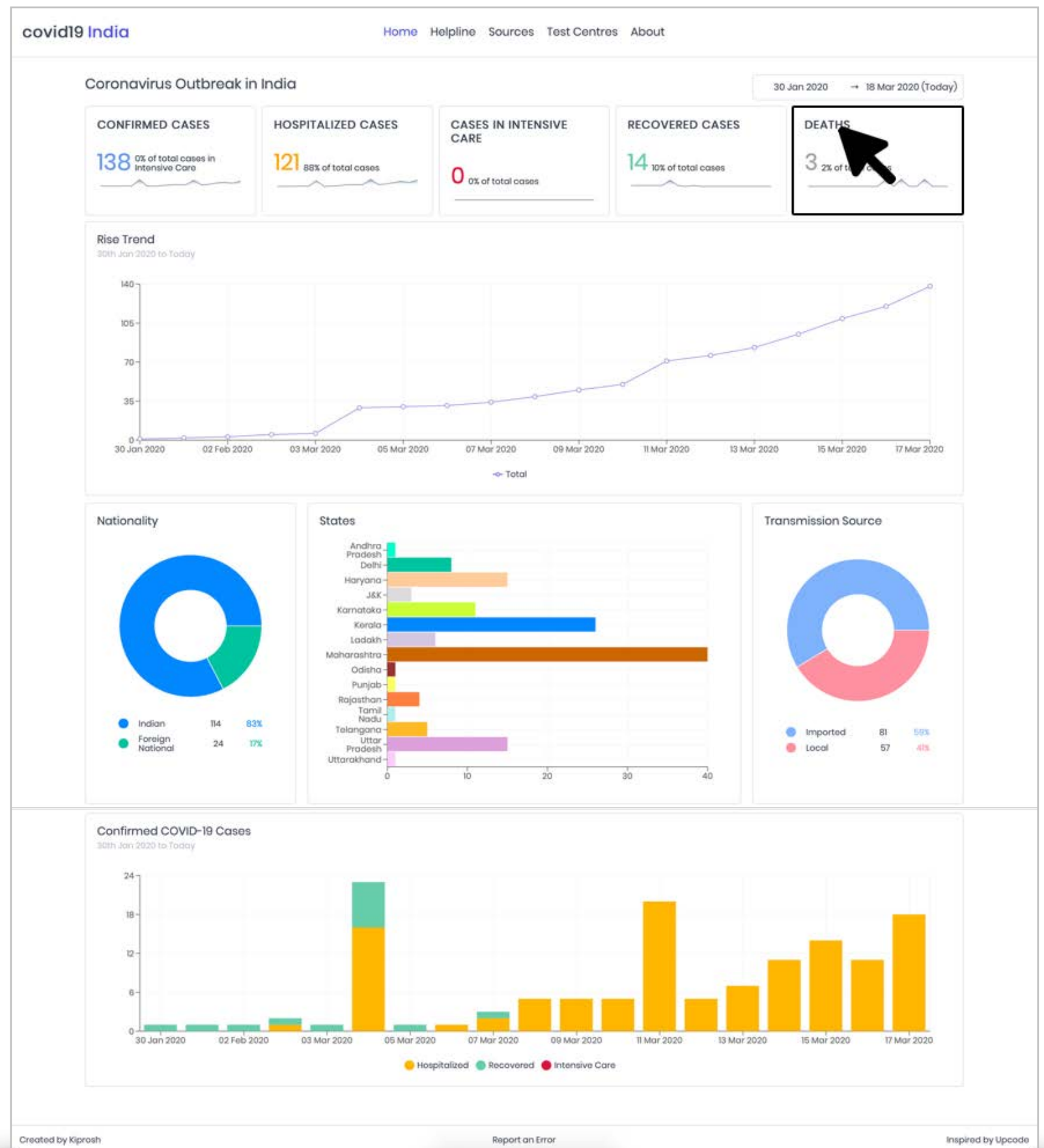


Image capture from [covidout.in](https://covidout.in)

# DATA VIZ

I was trying to see if the same dashboard can be made to work in a little more revealing way. **If you were to drag one of the data sets over the other, you should be able to see the filtered figures.**

*Proposed design changes to dashboard - image 2*

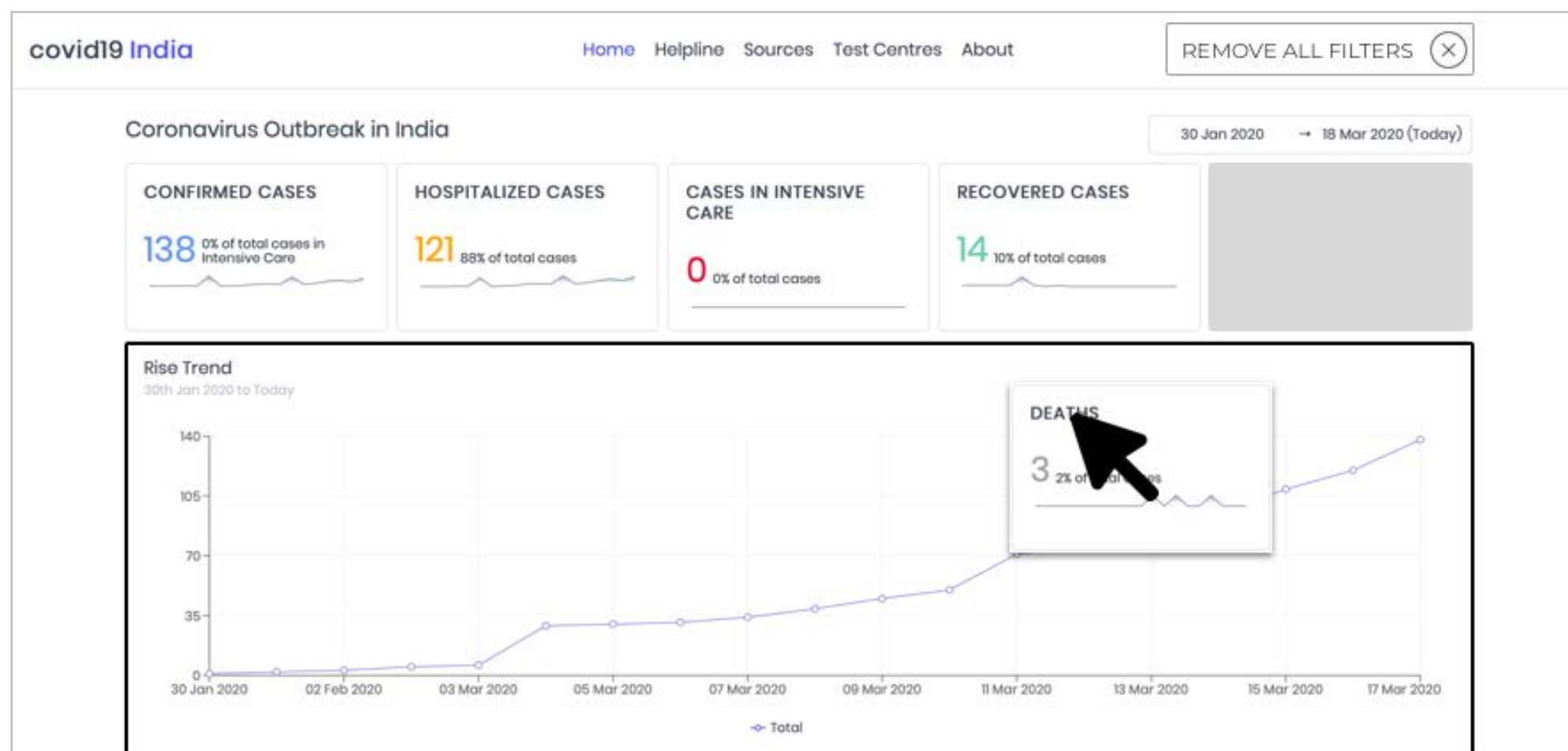


*Proposed design changes to dashboard - image 1*



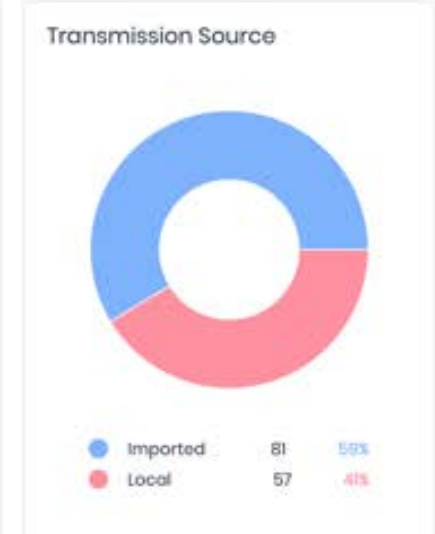
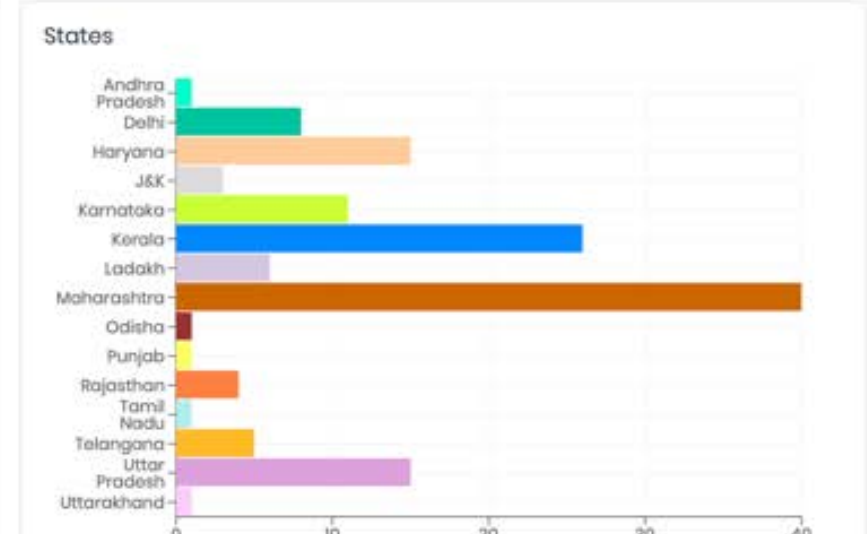
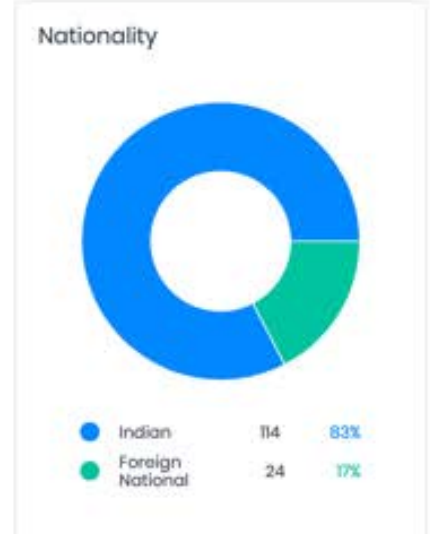
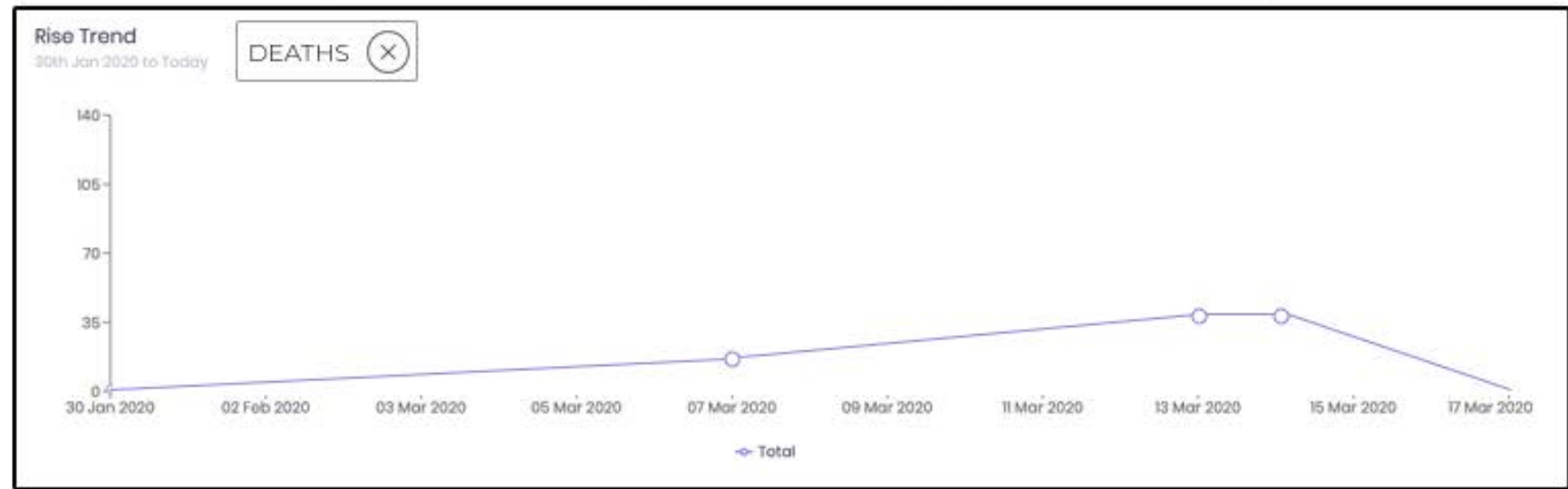
Transposing a data point from one visualisation onto another is equivalent to **placing a filter pointing to that data** in the destination.

\*With assumption that the entire dashboard has been built from a single data set which has multiple attributes



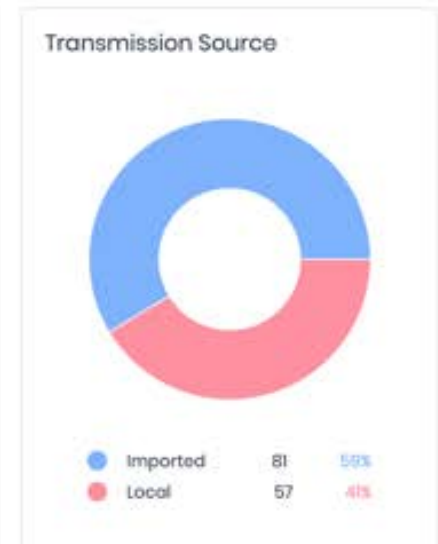
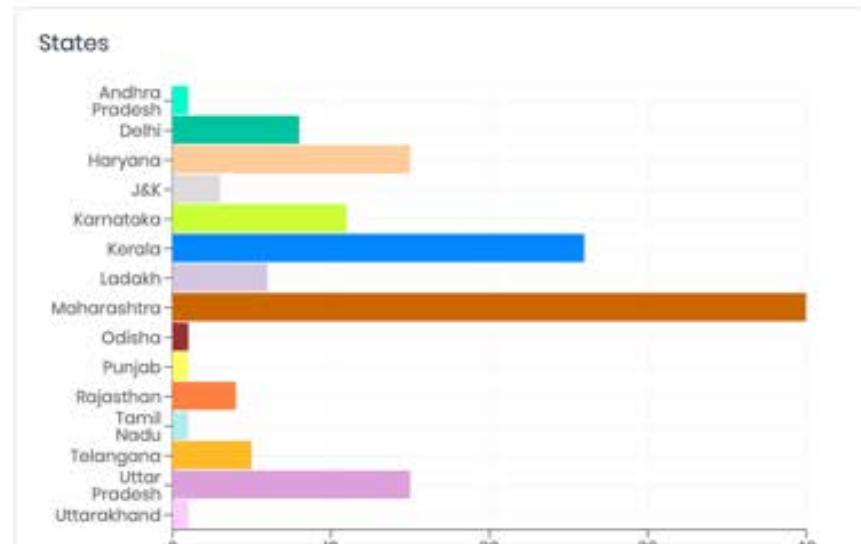
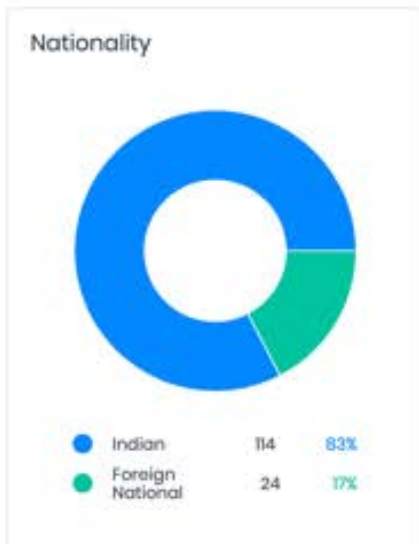
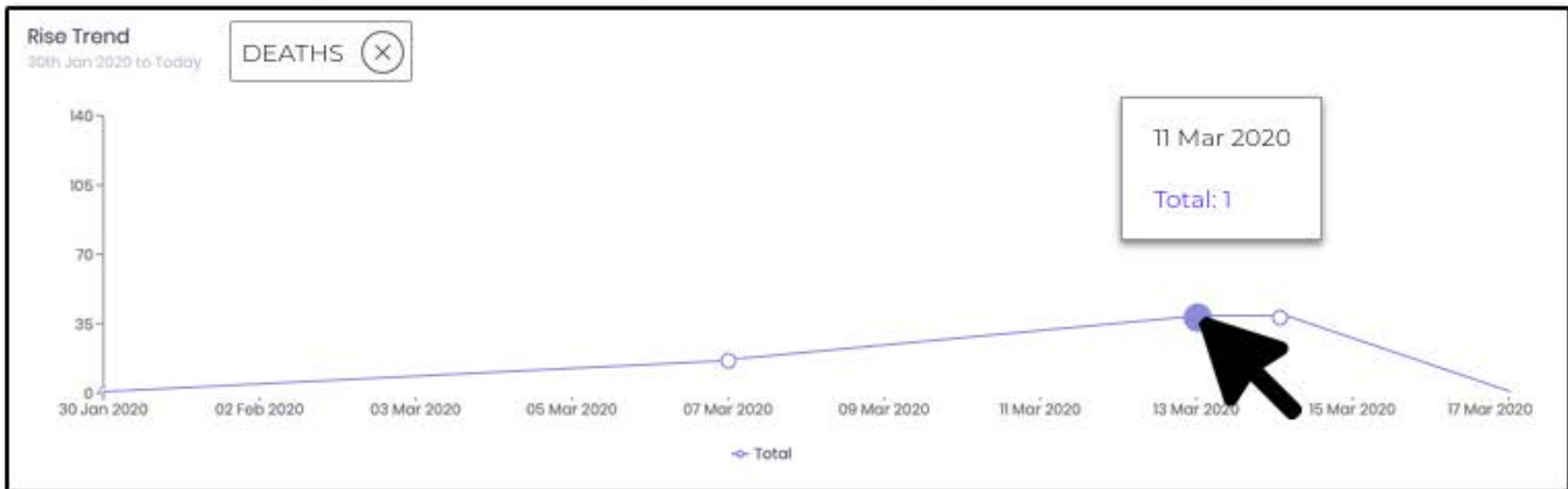
Coronavirus Outbreak in India

30 Jan 2020 → 18 Mar 2020 (Today)



Coronavirus Outbreak in India

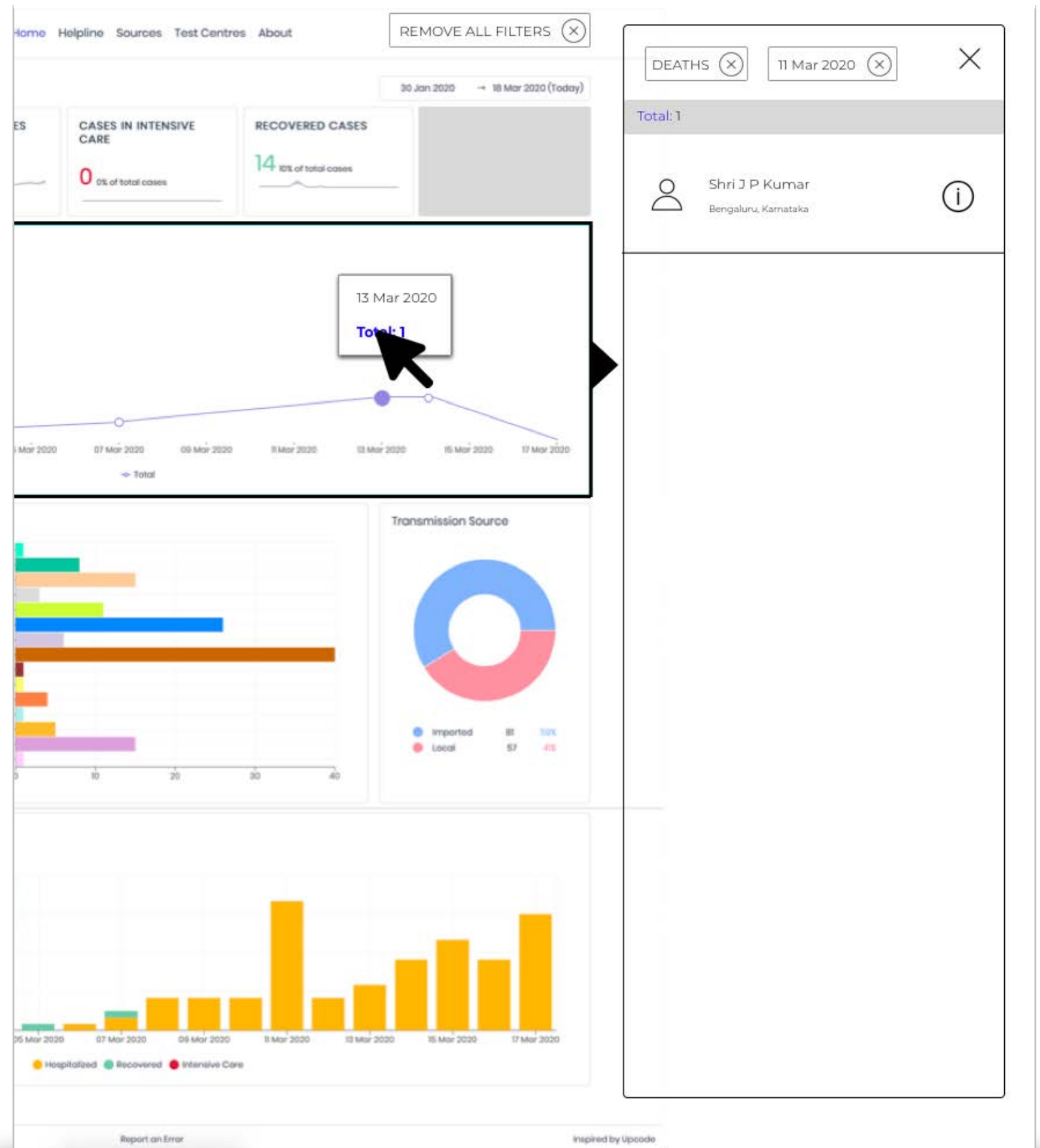
30 Jan 2020 → 18 Mar 2020 (Today)



# DATA VIZ

Upon clicking on a single data point, it can bring up details for say a health officer or an epidemiologist. If there was something not fitting the pattern or any clarification required they could reach out to the case's family and get particulars of their travel or medical history, etc.

The interface should enable them to dive into any information harnessing the full power of what's in front of them.



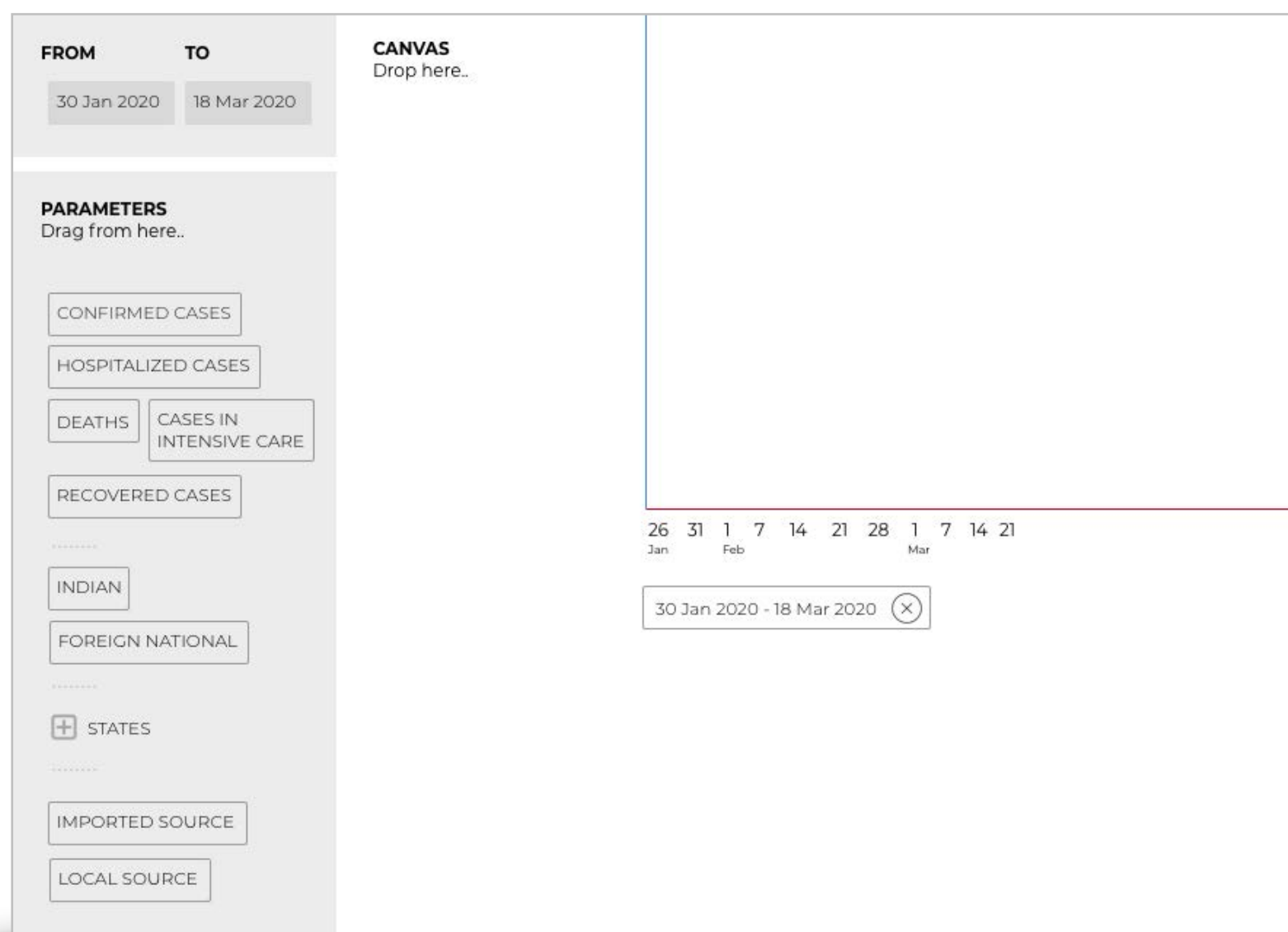
# DATA VIZ

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Instead of a dashboard, what if we could give to them a “**data space**” where they can see the information they want by adding the ingredients?

By default a time period is already selected as a filter which can be changed. The time becomes x-axis. The platform allows additional filter/parameter to be dragged onto the canvas (illustrated in next page) to become the y-axis.

The canvas can be zoomed in/out and rotated to view the data better.



*Proposed new design for visualising data - image 1*



FROM

TO

30 Jan 2020

18 Mar 2020

CANVAS

Drop here..

PARAMETERS

Drag from here..

CONFIRMED CASES

HOSPITALIZED CASES

DEATHS

CASES IN INTENSIVE CARE

RECOVERED CASES

INDIAN

FOREIGN NATIONAL

+ STATES

IMPORTED SOURCE

LOCAL SOURCE

26 31 1 7 14 21 28 1 7 14 21  
Jan Feb Mar

30 Jan 2020 - 18 Mar 2020 (X)

FROM

TO

30 Jan 2020

18 Mar 2020

CANVAS

Drop here..

PARAMETERS

Drag from here..

CONFIRMED CASES

HOSPITALIZED CASES

DEATHS

CASES IN INTENSIVE CARE

RECOVERED CASES

INDIAN

FOREIGN NATIONAL

+ STATES

IMPORTED SOURCE

LOCAL SOURCE

CONFIRMED CASES (X)

40  
30  
20  
10  
1

26 31 1 7 14 21 28 1 7 14 21  
Jan Feb Mar

30 Jan 2020 - 18 Mar 2020 (X)



FROM

TO

30 Jan 2020

18 Mar 2020

CANVAS

Drop here..

PARAMETERS

Drag from here..

CONFIRMED CASES

HOSPITALIZED CASES

DEATHS

CASES IN INTENSIVE CARE

RECOVERED CASES

INDIAN

FOREIGN NATIONAL

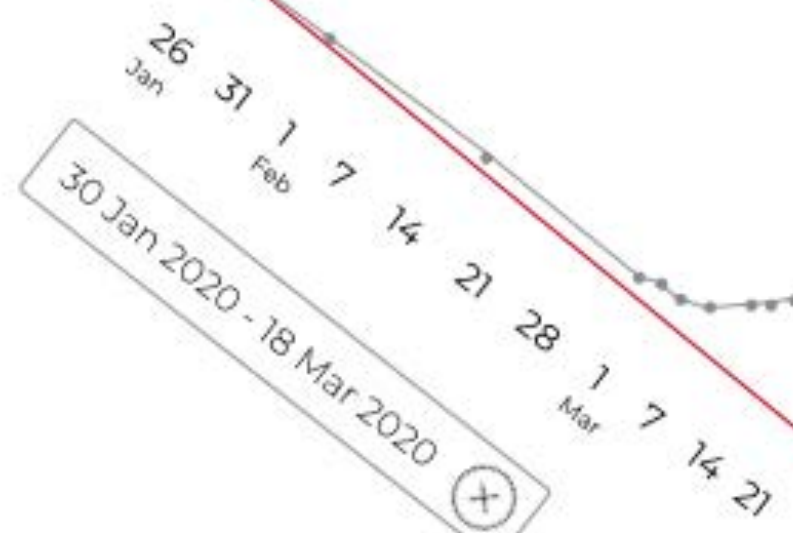
+ STATES

IMPORTED SOURCE

LOCAL SOURCE

CONFIRMED CASES (X)

40  
30  
20  
10  
1



Adding an additional filter to the canvas can plots the values in the axis perpendicular to x and y.



FROM

TO

30 Jan 2020

18 Mar 2020

CANVAS

Drop here..

PARAMETERS

Drag from here..

CONFIRMED CASES

HOSPITALIZED CASES

DEATHS

CASES IN INTENSIVE CARE

RECOVERED CASES

INDIAN

FOREIGN NATIONAL

+ STATES

IMPORTED SOURCE

LOCAL SOURCE

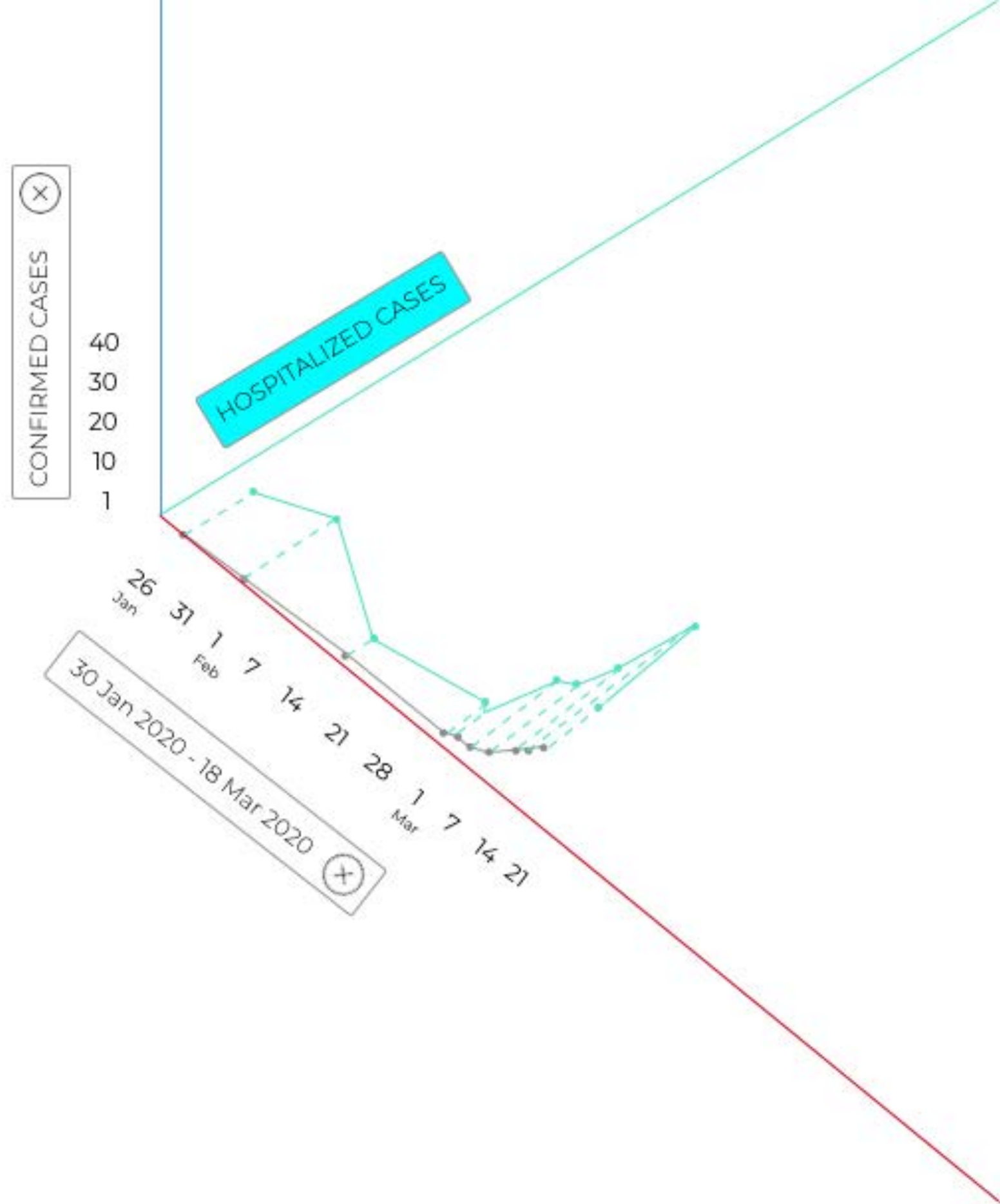
CONFIRMED CASES (X)

40  
30  
20  
10  
1

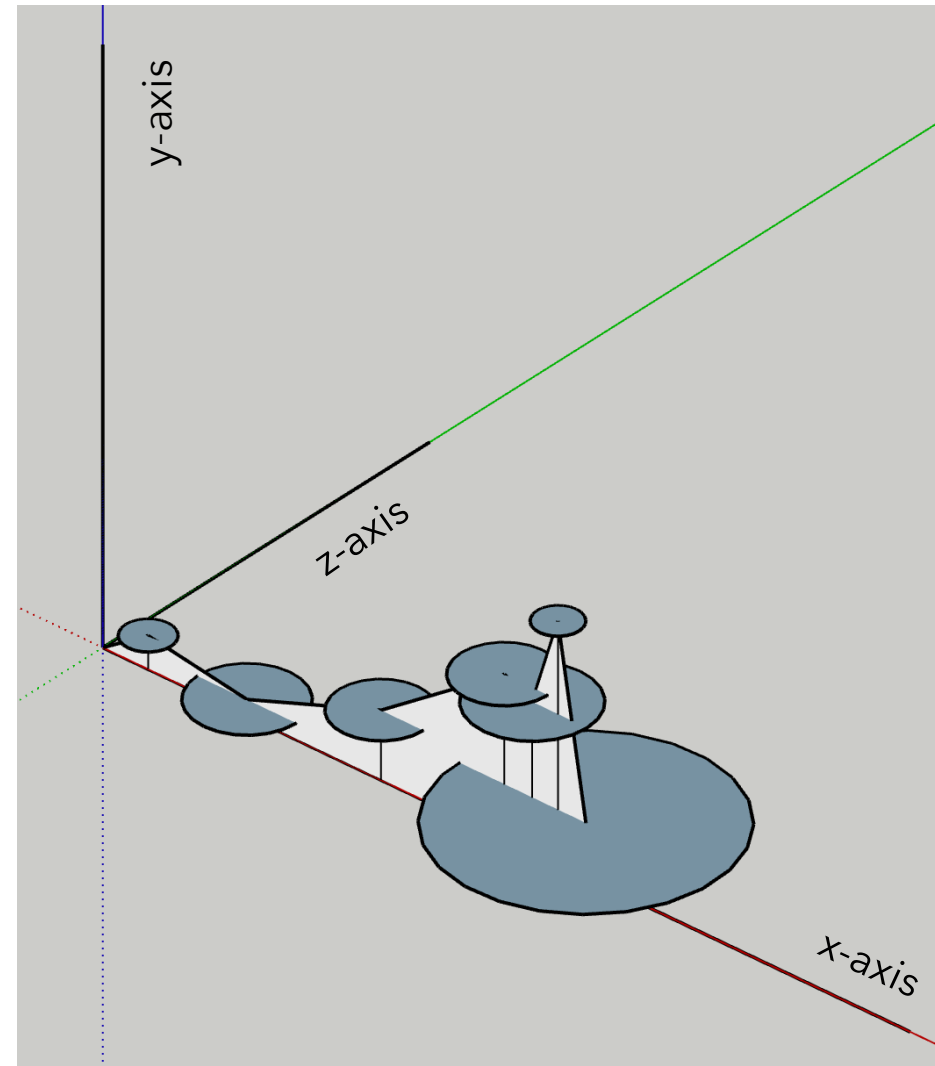
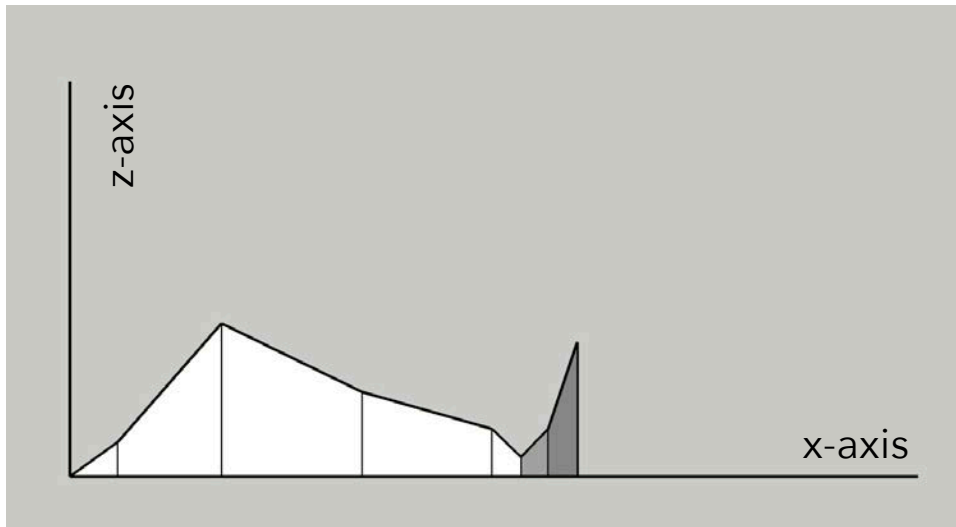
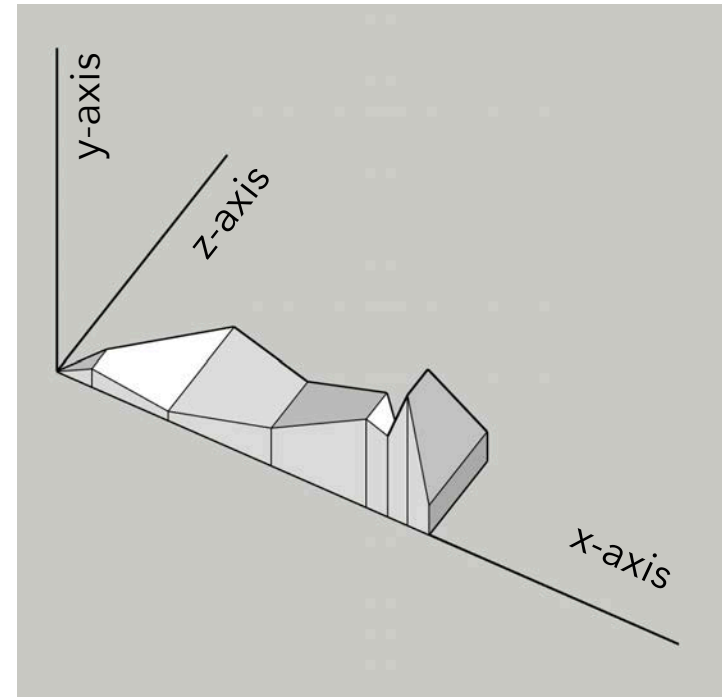
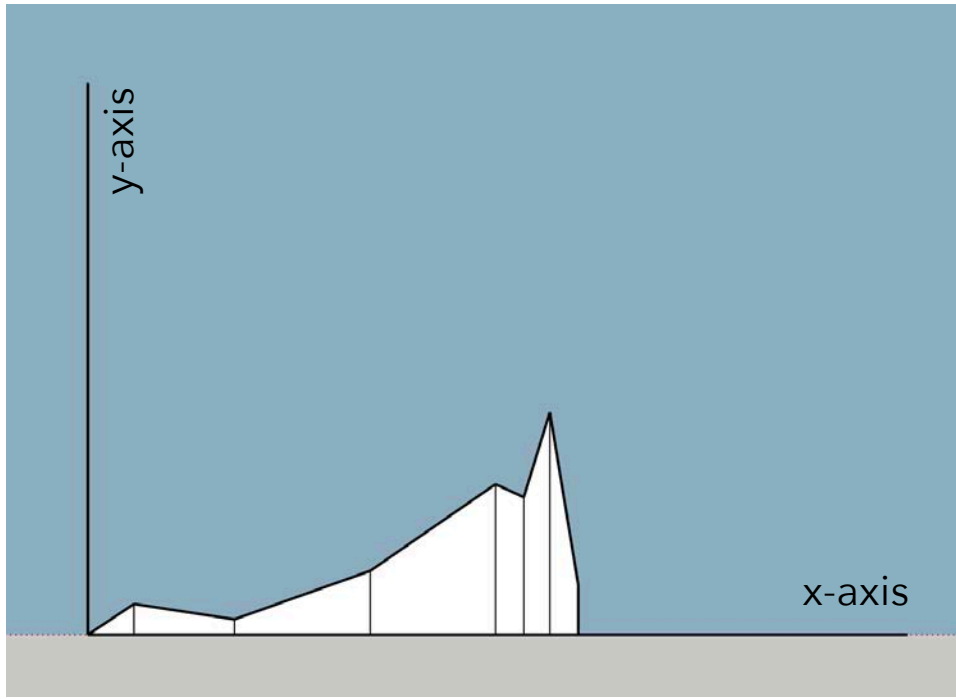
HOSPITALIZED CASES

30 Jan 2020 - 18 Mar 2020 (X)

26 Jan 31 Feb 1 7 14 21 28 1 Mar 7 14 21



Instead of plotting the hospitalised cases as an area chart in the perpendicular plane, it could also be plotted as circles with values taken as radii (illustrated in the following image) to help visualise the data.

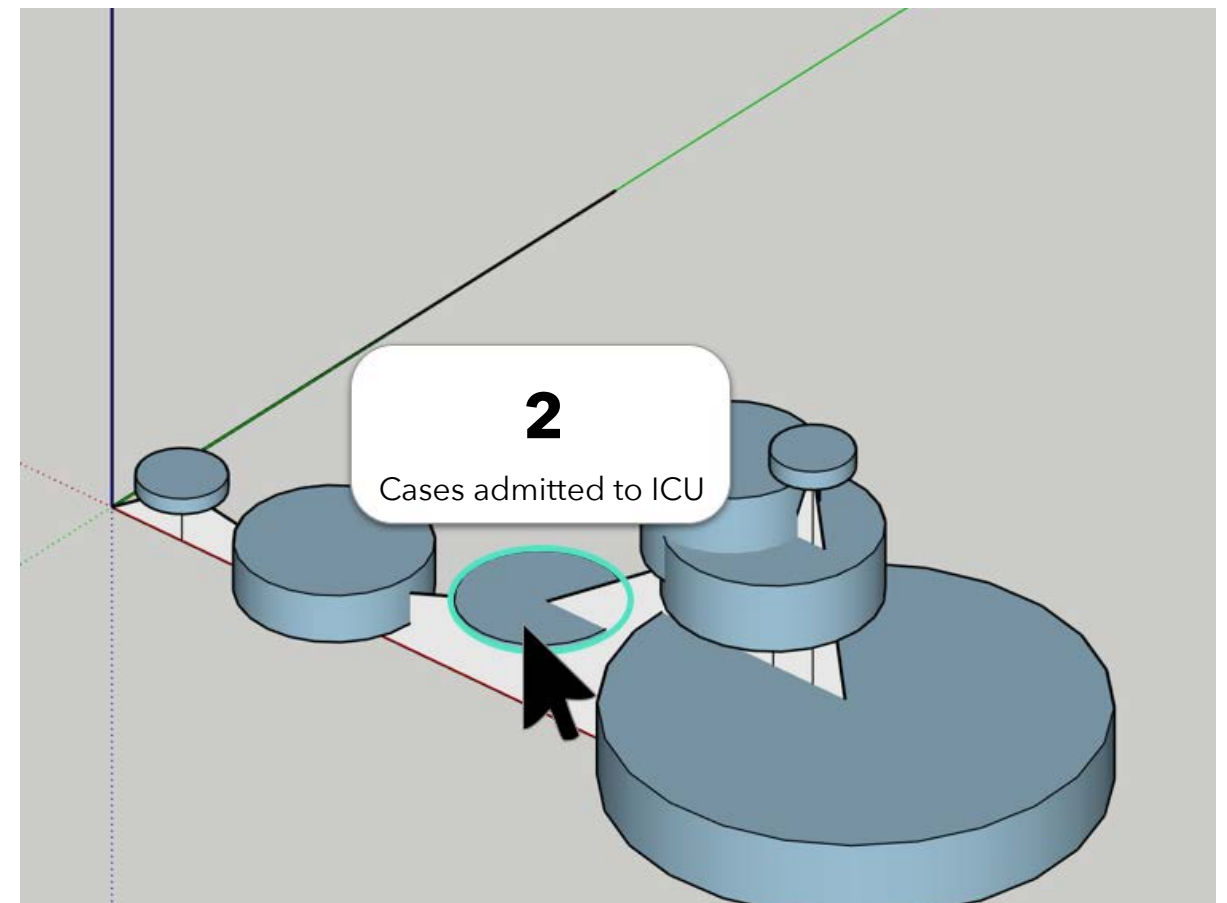
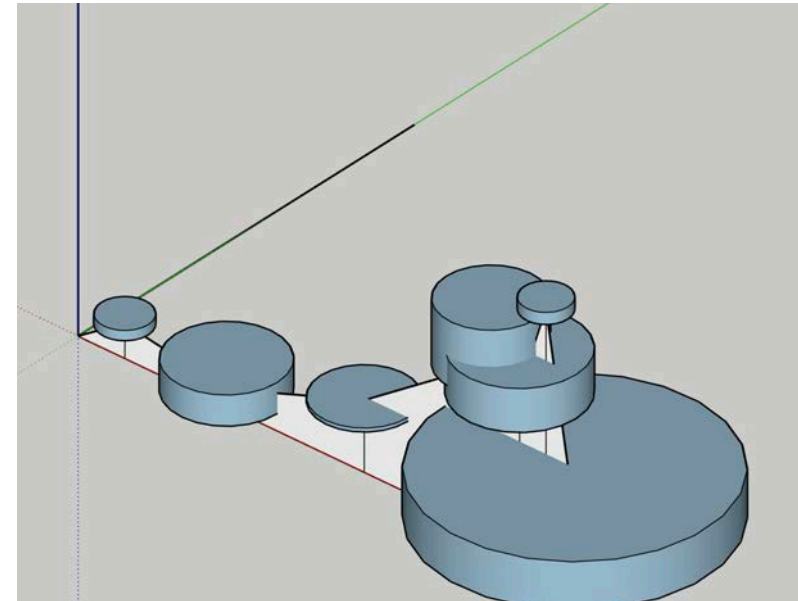


*Proposed new design for visualising data - images of canvas*

# DATA VIZ

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An additional filter 'Cases admitted to ICU' added could extrude the circles in plane perpendicular to the circles. By taking mouse over to the elements or intersections points, I could bring up additional details.





# DATA VIZ

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Having exhausted all the three dimensions I am currently exploring the best way to represent when an additional filter is brought into the canvas on top of this set.

Following is the attempt to prototype this.

<https://rewritablehere.github.io/dataviz/>

```
1  let x1 = [0, 0, 10, 0, 0, 0, 0, 0, 0, 0];
2  let y1 = [300, 300, 0, 300, 300, 300, 300, 300, 300, 300];
3  let x2 = [300, 0, 300, 300, 300, 300, 300, 300, 300, 300];
4  let y2 = [300, 0, 10, 300, 300, 300, 300, 300, 300, 300];
5
6  ▼ function setup() {
7      createCanvas(1440, 1080, WEBGL);
8  }
9
10 ▼ function draw() {
11     background(102);
12     let radius = width * 10.5;
13
14
15     orbitControl();
16     normalMaterial();
17
18     translate(-100, -height/4, 0);
19
20     push();
21
22     stroke(255);
23 ▼ for (let p = 0; p < x1.length; p++){
24     line(x1[p], y1[p], y2[p], y2[p]);
25     }
26
27     pop();|
28
29 }
30
```