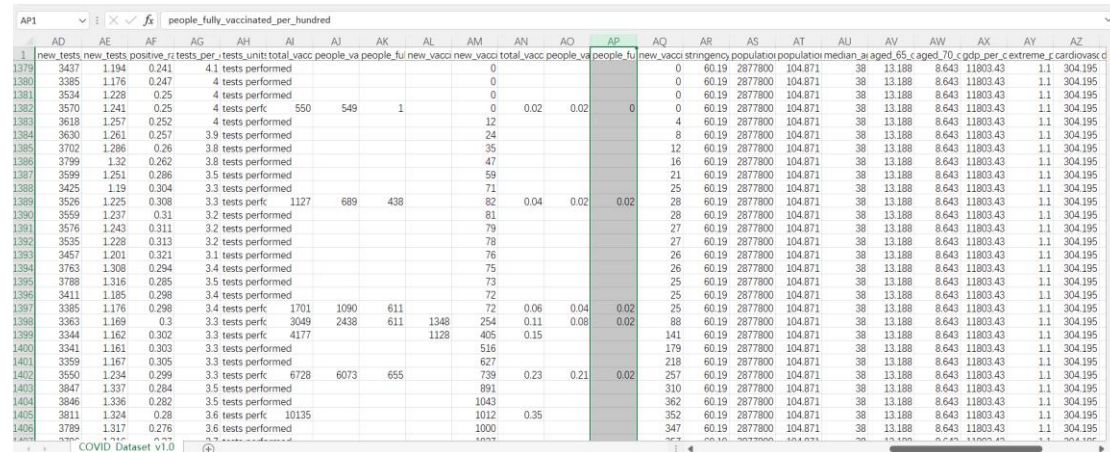# C task supplementary notes

Chart task C2

The data for this task has a different feature from A2 and B2. The data has empty data in the middle of the selected period for many countries. Like the image shown below:

So, I need to add a check operation. That is, even if the start date is empty, I need to check the latest date before it with non-empty data. If all the dates before have empty data, then I can set initial data on the first date to be 0.

For the same reason, the data on the last date may be empty, so the maximum of the data may not appear on the last date. I also add a check operation to find the largest data if the end date is after the valid date.

Report task C3

I want to do regression on the data. After checking the data, I found linear regression is the simplest but most suitable regression method. Each country has the original line and the regression line. If the countries displayed on the chart are too many, the chart will be mess and hard to distinguish, especially the change of rate is not monotone. So, I restrict the number of selected countries to be 1 to 3. Unlike the chart task, doing regression will be meaningless if the selected date is out of the range of valid dates. So I restrict the selected date to be in the valid range.