# COVID-19 pandemic in Sweden

## Paulina Szymczak, Igor Filipiuk

Data Analysis and Visualisation

#### Introduction

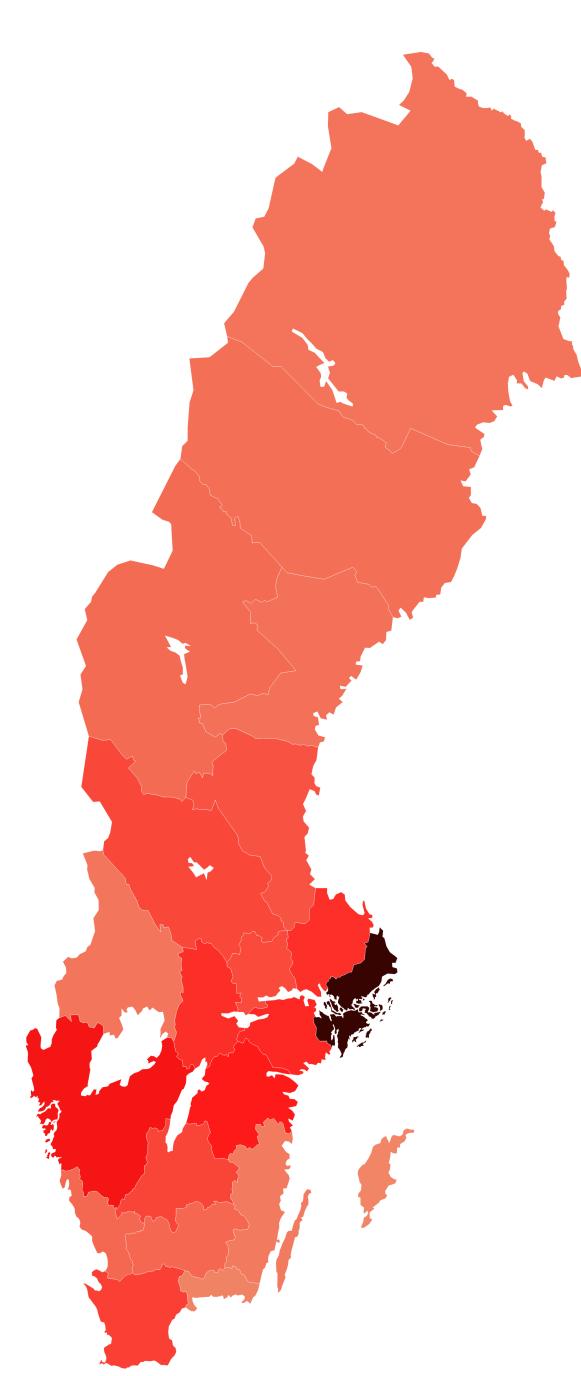


Figure 1: Map of confirmed cases in Sweden.

While most of countries applied special regulations and restrictions in the face of COVIDpandemic, Sweden has not imposed a lockdown and kept parts of its society open. The main goal of this analysis is the evaluation of the nonrestrictive approach global pandemics comparing with Sweden countries sharing similar socioeconomic characteristic countries which also decided to liberal strategy.

The ongoing COVID-19 pandemic was confirmed to have reached Sweden on 31th of January. Since then almost 30 thousand of people were infected and over 3500 people has died due to Coronavirus infection. If we look at the map of confirmed cases in the Figure 1 it is visible that the Stockholm area is unproportionally more affected by the epidemic than other regions. Stockholm area agglomerates within itself 2.4M of people which is almost 25% of the whole country.

## Analysis

There is no doubt that Sweden has higher rates of infections and deaths when compared to other countries in the Nordic region (Figure 3). Looking at those numbers we need to have in mind that Denmark, Finland and Norway introduced heavy restrictions, which aimed at social distancing (such as closing schools, universities, cancelling public events, severe limitations on businesses). Among those Sweden seemed to have the least legal restrictions, deciding to give mainly recommendations to its citizens. In that regard we can clearly state that government driven restrictions work in terms of containment of the pandemics and effectively lowering the infection rates.

#### Poland and Sweden: Extremely different approaches

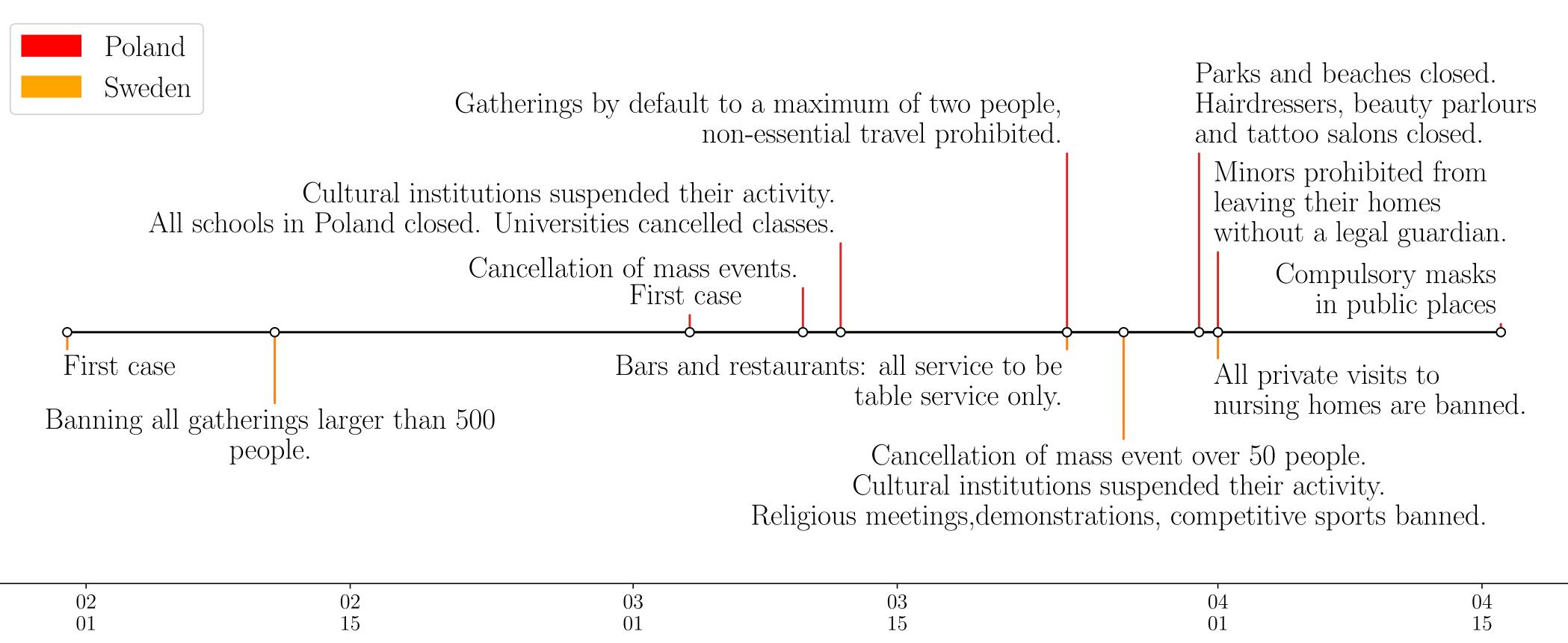


Figure 2: Legal restrictions introduced by Polish and Swedish governments due to Coronavirus outbreak.

### Comparison with other countries

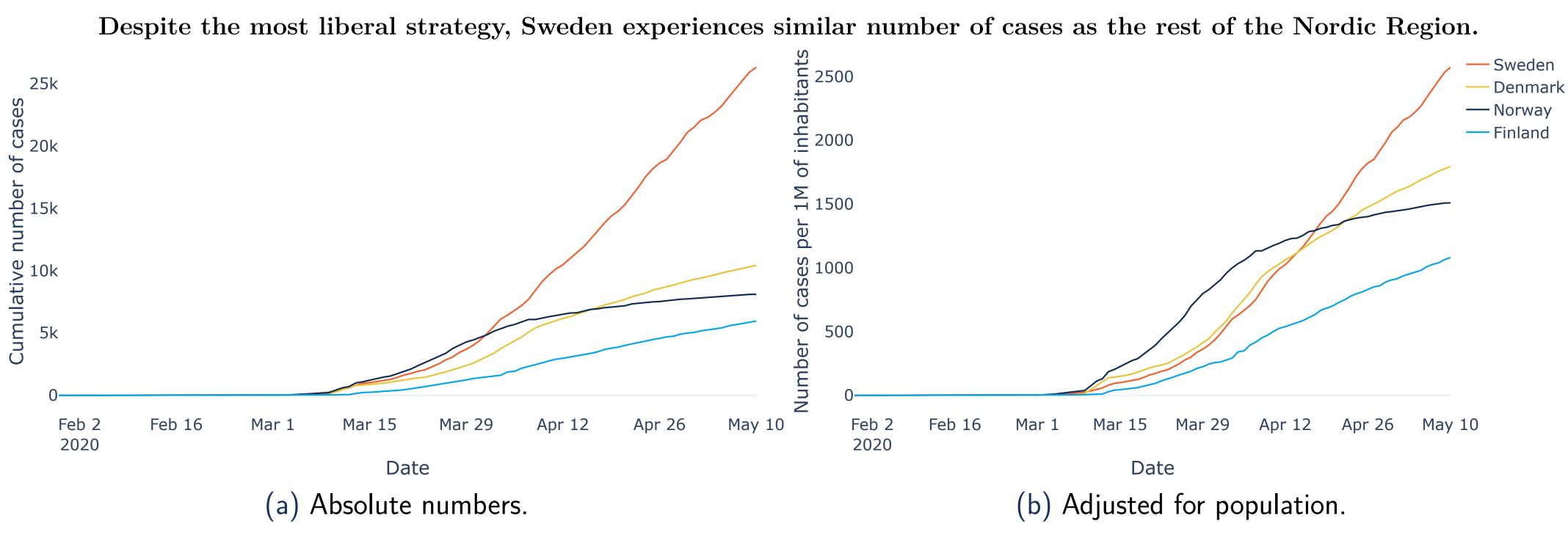


Figure 3: Cumulative number of cases for the countries in the Nordic Region.

The liberal strategy results in a different outcome depending on the country.

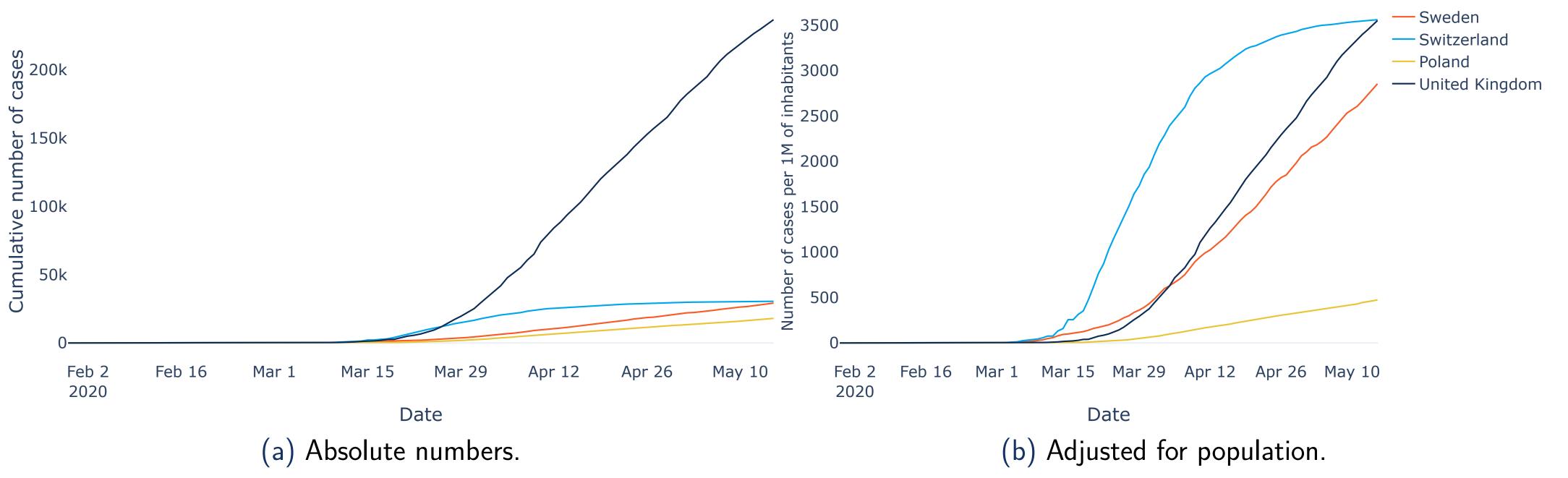


Figure 4: Cumulative number of cases for countries sharing liberal approach to the epidemic. Poland was added for comparison.

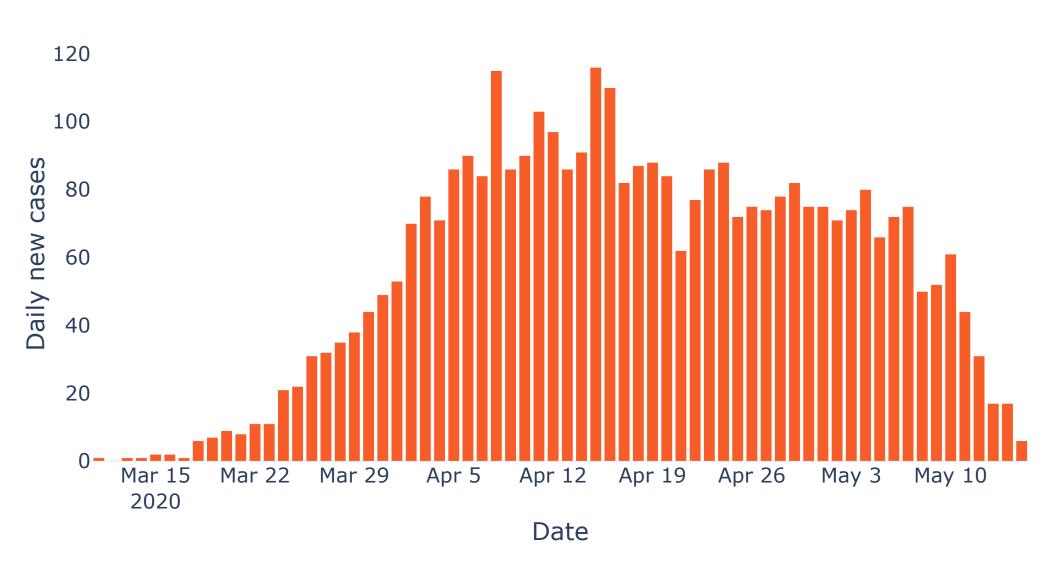


Figure 5: Death cases per day in Sweden.

Plotting Sweden against other countries which adopted rather liberal strategy (Figure 4A) it is visible that Swedes are not in the worst situation. United Kingdom could be considered a country which failed to adopt the liberal strategy having to introduce very restrictive measures after the death toll reached 30 thousand cases. However, when we adjust the scale for population (Figure 4B) the Swedes are observing a strikingly similar dynamics of cumulative cases as the Brits.

#### Conclusion

There has not yet been a global consensus (probably there never will) whether liberal or restrictive approach to the pandemic is better. Not only it requires deeper sociological analysis (i.e. cultural differences, approach to social interactions within the society) but also observing the impact of the pandemics on the local economy. As long as there is no realistic data telling the price of non-restrictive strategies and the effectiveness of both approaches in the long run, all that is left is the hope that the infection curve in Sweden will start to flatten.

### Key take-aways

- Stockholm is the most affected region in Sweden. The more densely populated region the more affected by COVID19 it is.
- Despite the most liberal strategy, Sweden experiences similar number of cases as the rest of the Nordic Region. Nevertheless, Sweden has the lowest test rate of the Nordic countries but the highest number of confirmed coronavirus cases.
- In comparison to other countries with similar liberal approach Sweden dealt significantly better. Although there has not yet been a global consensus which approach is better, even in Sweden itself there are controversies voiced over country's lack of rigorous protective measures.