

Corona Update Conclusions

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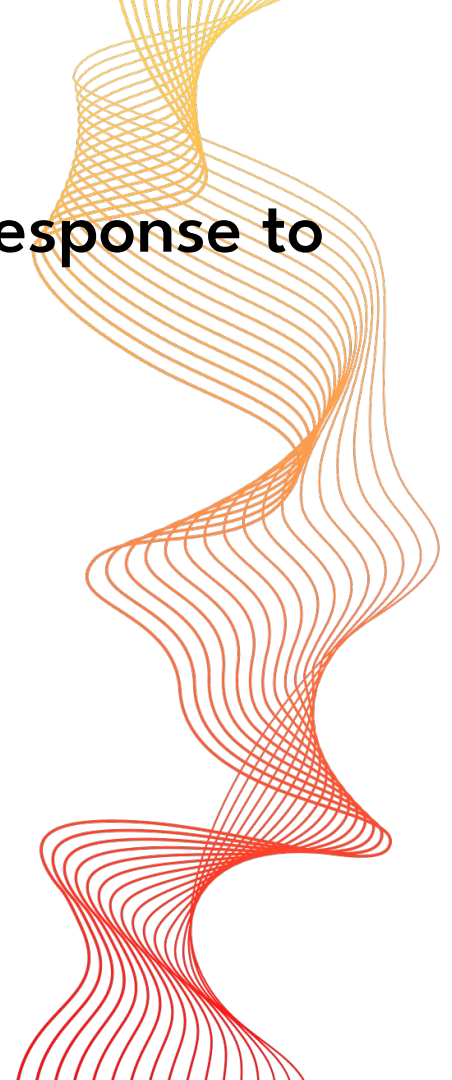


Analysis of my Models and Germany's Response to the COVID-19 Pandemic

A review of the pandemic model I implemented for Germany at the beginning of the pandemic,

a comparison of COVID19 deaths per million inhabitants across countries and the correlation with vaccination rates,

and an analysis of lives saved/lost in Germany in comparison to the USA and Singapore.





My pandemic model for Germany

- At the start of the pandemic I implemented a model of the “concurrently sick” which keeps “the curve flat”
- <https://github.com/TUllmenauAMS/CoronaComputationPrograms>
- We managed to flatten the curve even further from a daily growth rate of 1.02 to 1.015
- [Link to the plot](#)
- The curve accurately predicted the duration of the pandemic





COVID-19 death rates per million inhabitants comparison

- Germany has 2034 deaths per million inhabitants
- The US has 3424 deaths per million inhabitants
- Singapore has 302 deaths per million inhabitants
- [Link to the plot](#)





Correlation with vaccination rates and measures

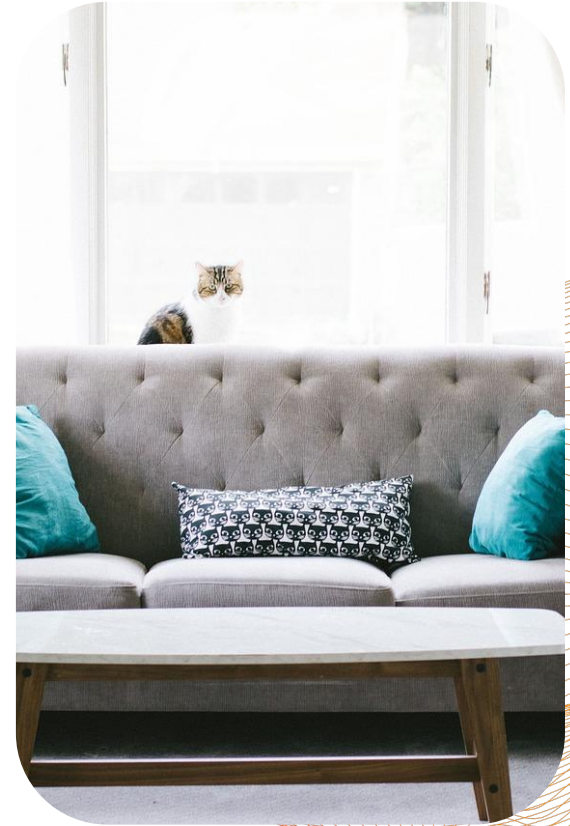
- Germany has **230 vaccinations per 100 people** with the majority participating in measures such as masks
- The US has **203** vaccinations per 100 people with only half participating in measures such as masks
- Singapore has **261** vaccinations per 100 people with a large majority participating in measures such as masks
- [Link to the plot](#)
- [Link](#) in my Colab slides





Lives saved/lost

- Germany **saved** approximately 1390 lives per million inhabitants **compared to the USA**, resulting in about **115,000 lives saved** with a population of 83 million
- **Compared to Singapore**, Germany **lost** approximately 1773 lives per million inhabitants resulting in about **147,000 lives lost** with a population of 83 million

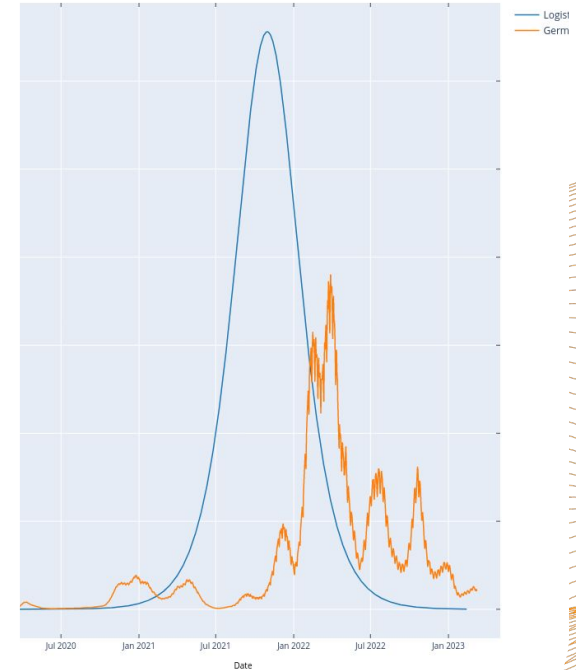




Conclusions

- My model of the concurrently sick not only worked as a policy guide, but also as a **surprisingly accurate predictor** for the **duration** of the pandemic
- Internationally there is a clear **correlation** between **vaccination rate** and **lives saved and lost**
- Internationally **Germany fared in the middle field**, in between the US and Singapore.

cases in Germany, comparison with my logistic model from March 2020 with increase factor of 1.02





Thank you. Please feel free to ask any questions. 😊