

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with solid blue dots. The lines are thin and gray, creating a mesh-like structure.

# **AI-Hackathon 2021**

## **Team #3**

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It shows a cluster of nodes connected by lines, with several nodes highlighted in blue to match the overall theme.

## Team #3



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AI-expert



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Data analyst



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AI-expert

# Objective

## 1. Before pandemic

In case of a pandemic, which types of countries are more at risk?



## 2. During pandemic

Do we really save lives by staying at home?





1.

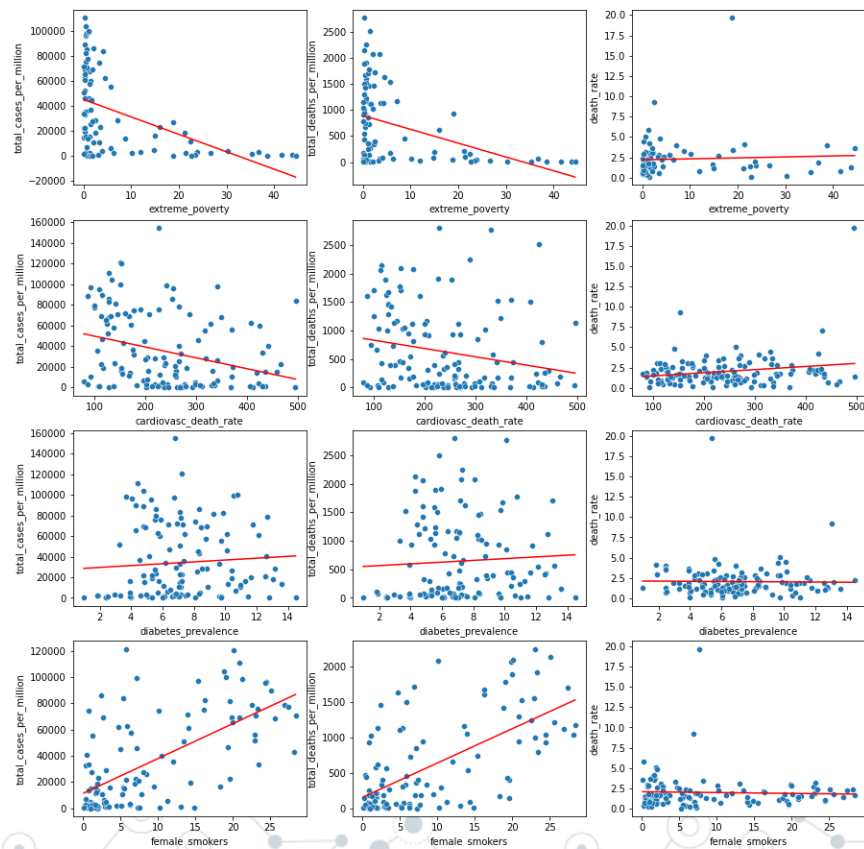
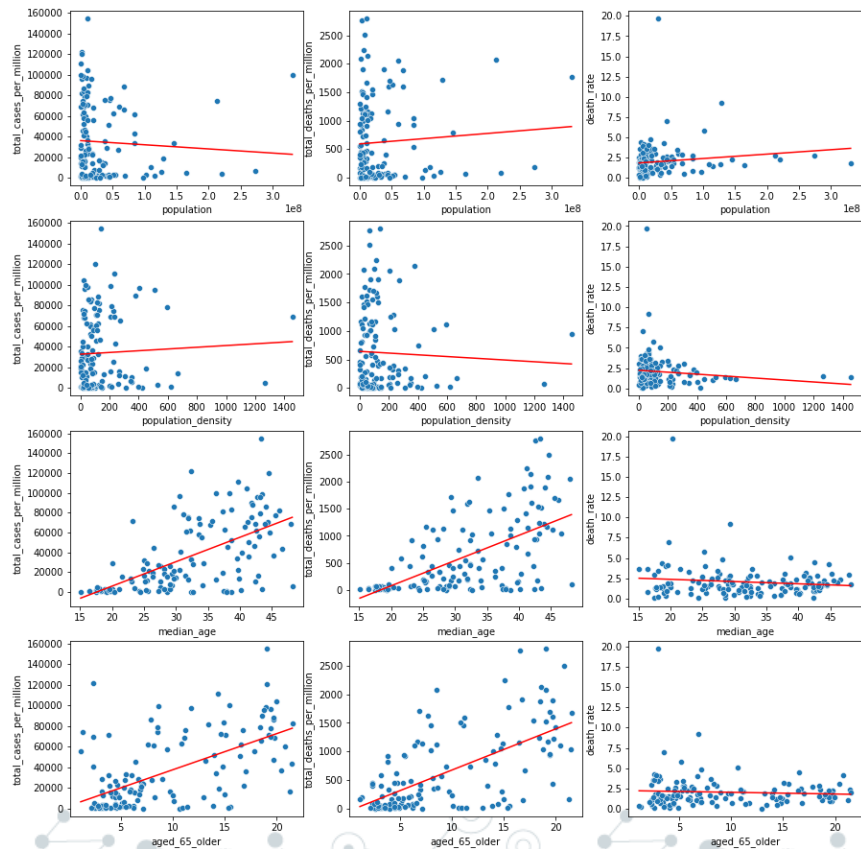
# Countries analysis

A statistical study on OWID dataset

# Features

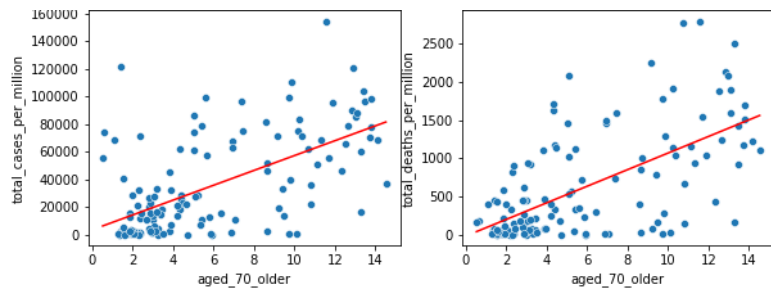
- ◎ Population
- ◎ Average age
- ◎ Smoker
- ◎ Income
- ◎ Life expectancy
- ◎ Hospital beds
- ◎ Handwashing facilities
- ◎ etc.

## Features' plot

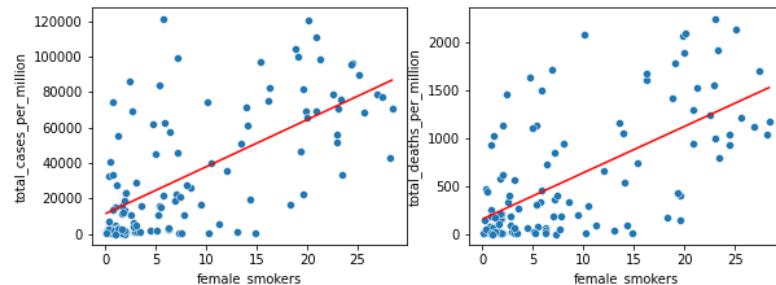


## Remarkable results

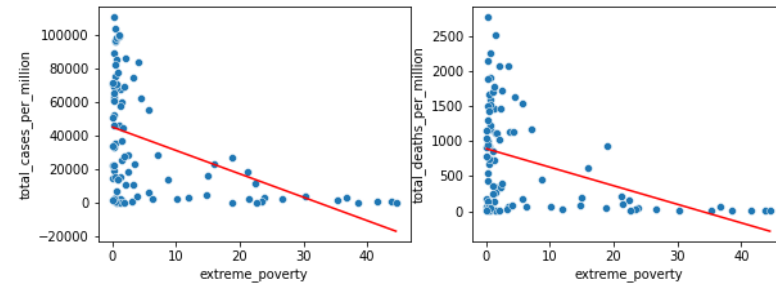
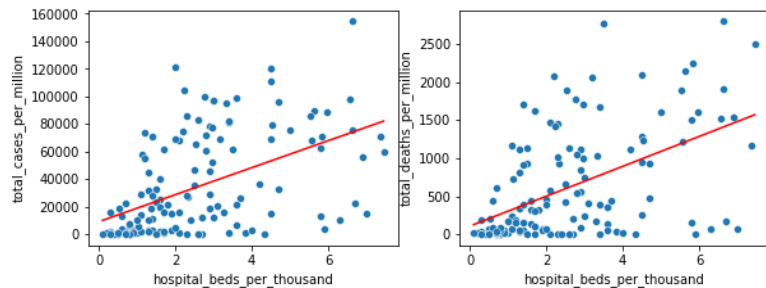
Predictable



Interesting



Strange



# Hypotheses

## Inaccurate reports

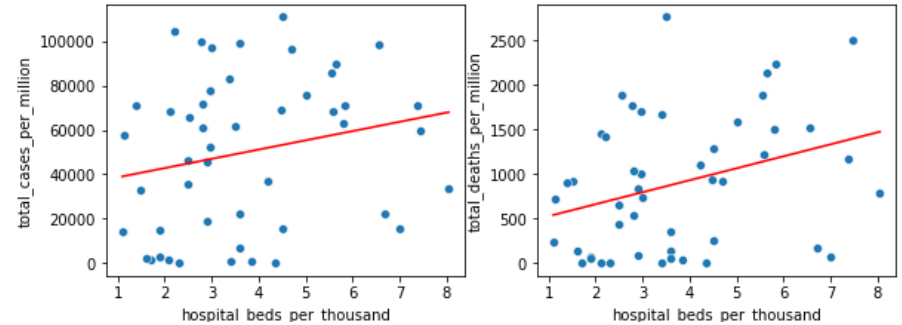
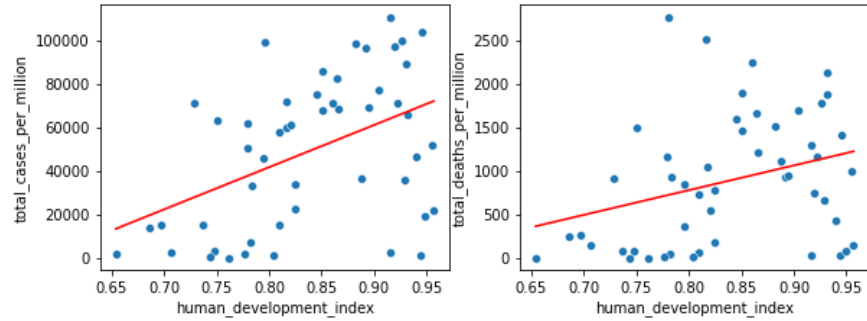
The reported number of cases in low-income countries are not much accurate

## Hidden features

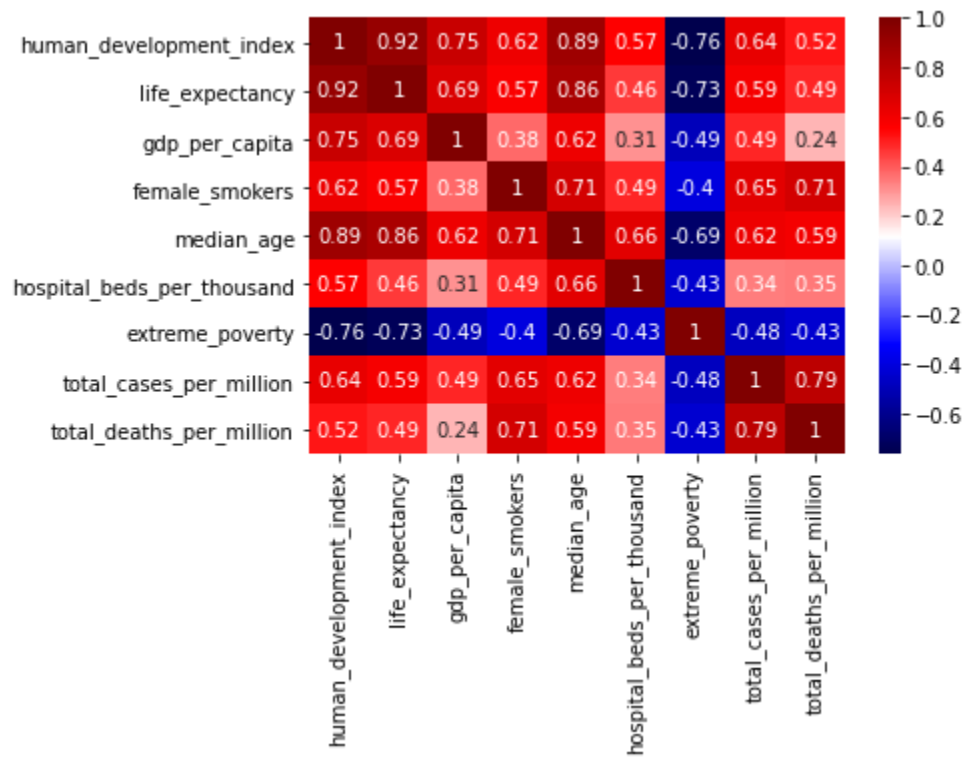
Some other features are playing the main role but we see only their impact through these strange features.



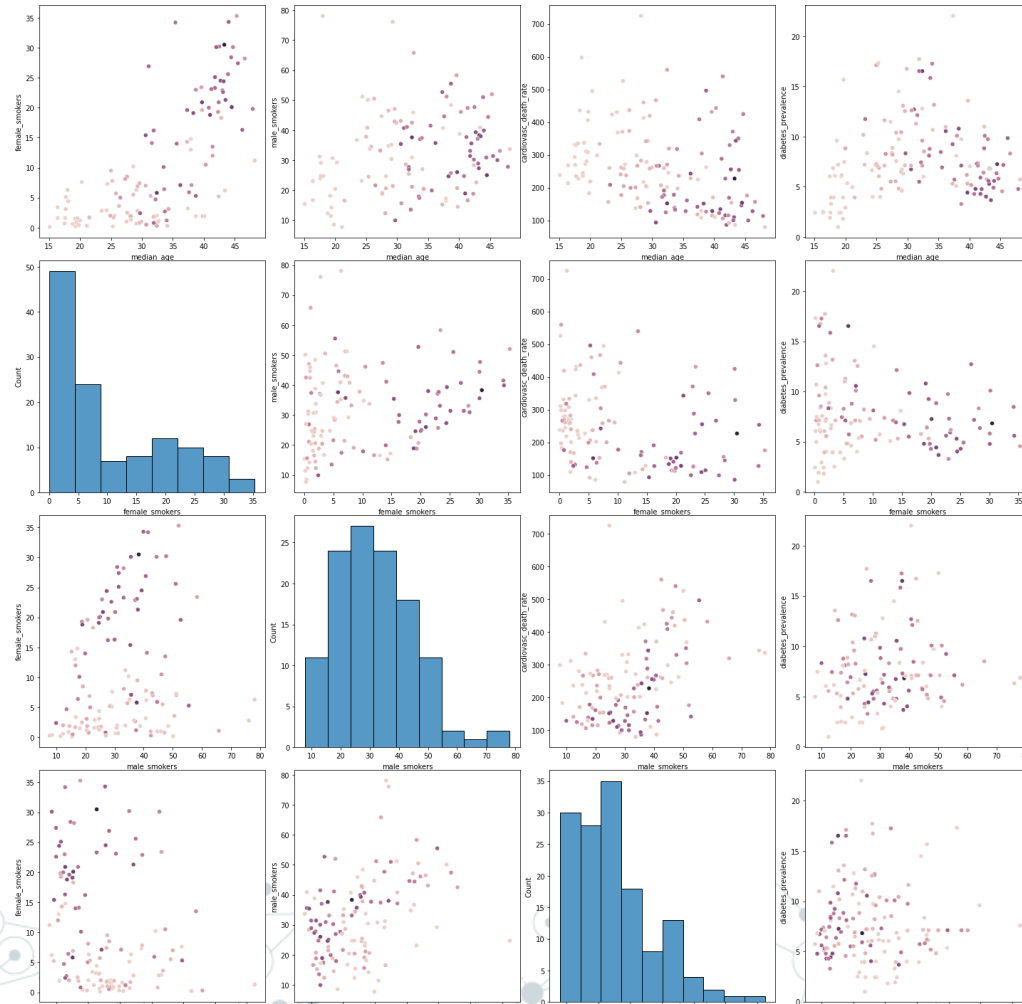
## Plots for top high-income countries



## Correlation matrix



# Correlation matrix



In case of a pandemic, which types of countries are more at risk?



Aged societies

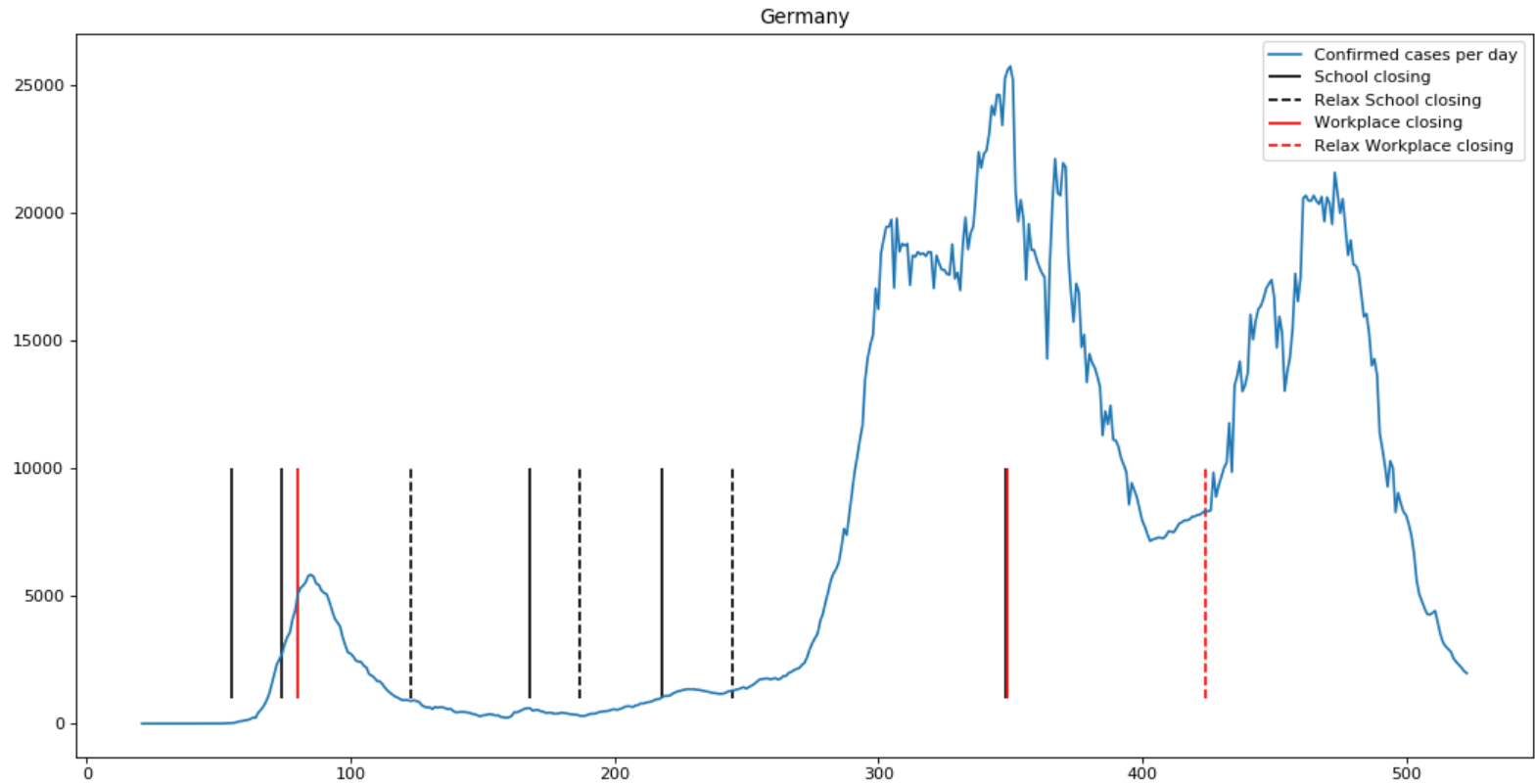


2.

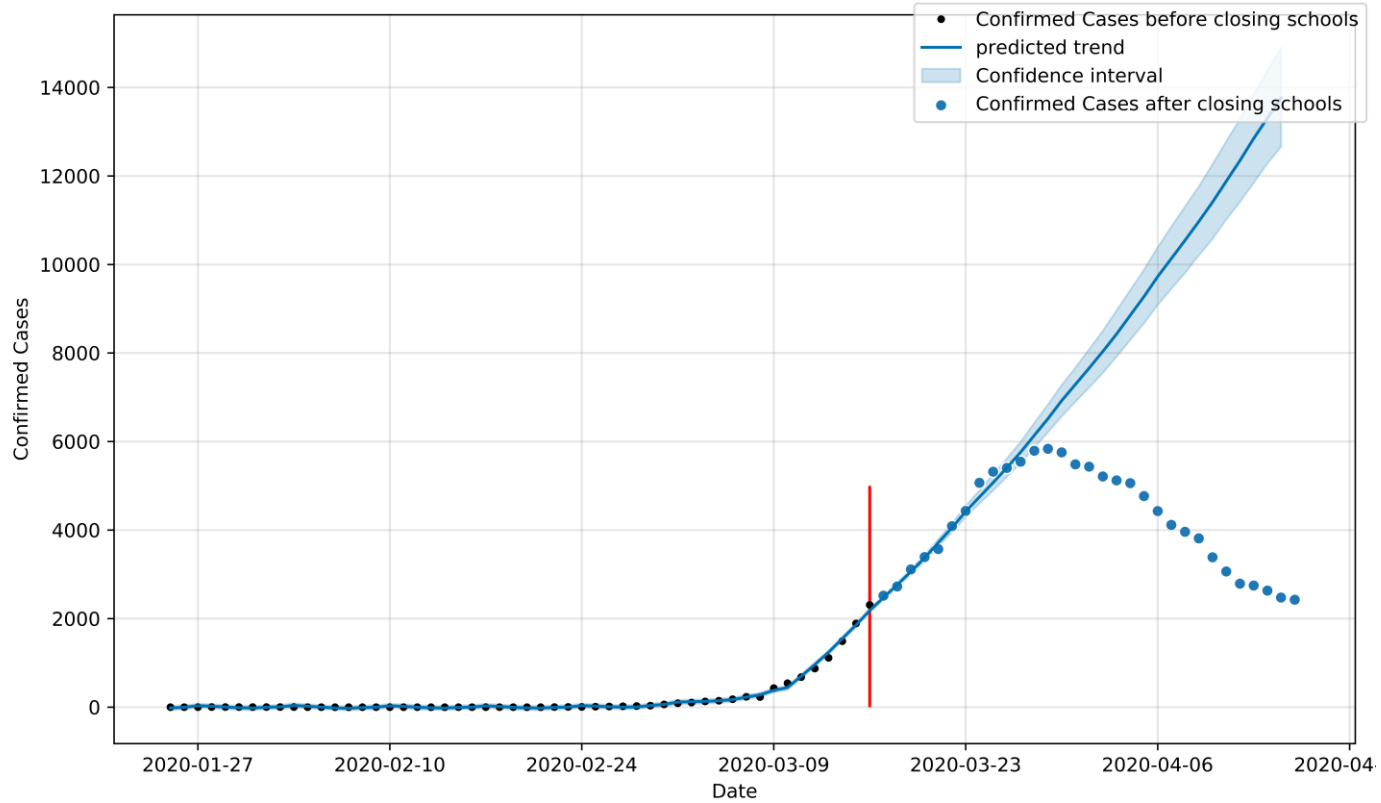
# Policies analysis

A time-series analysis on OxCGRT dataset

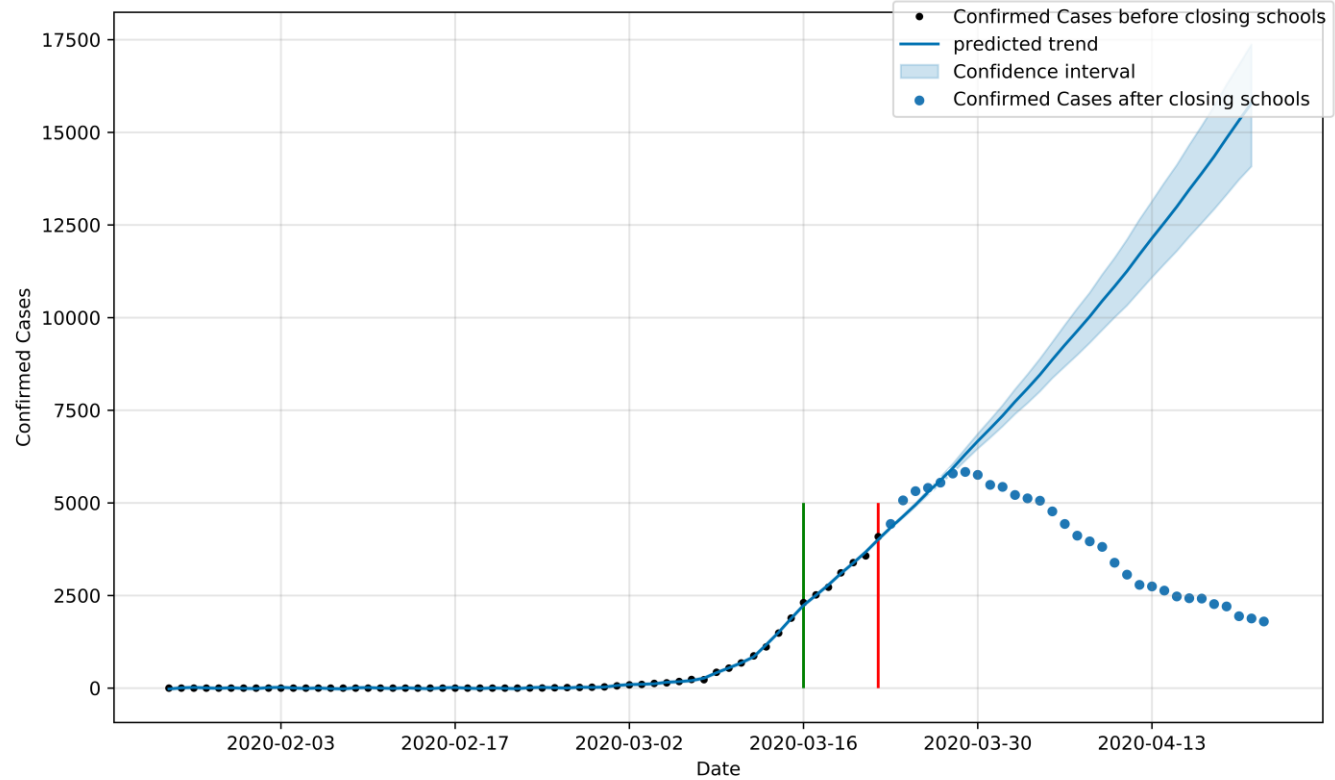
## Confirmed cases during time (Germany)



## Model predictive analysis (Germany)

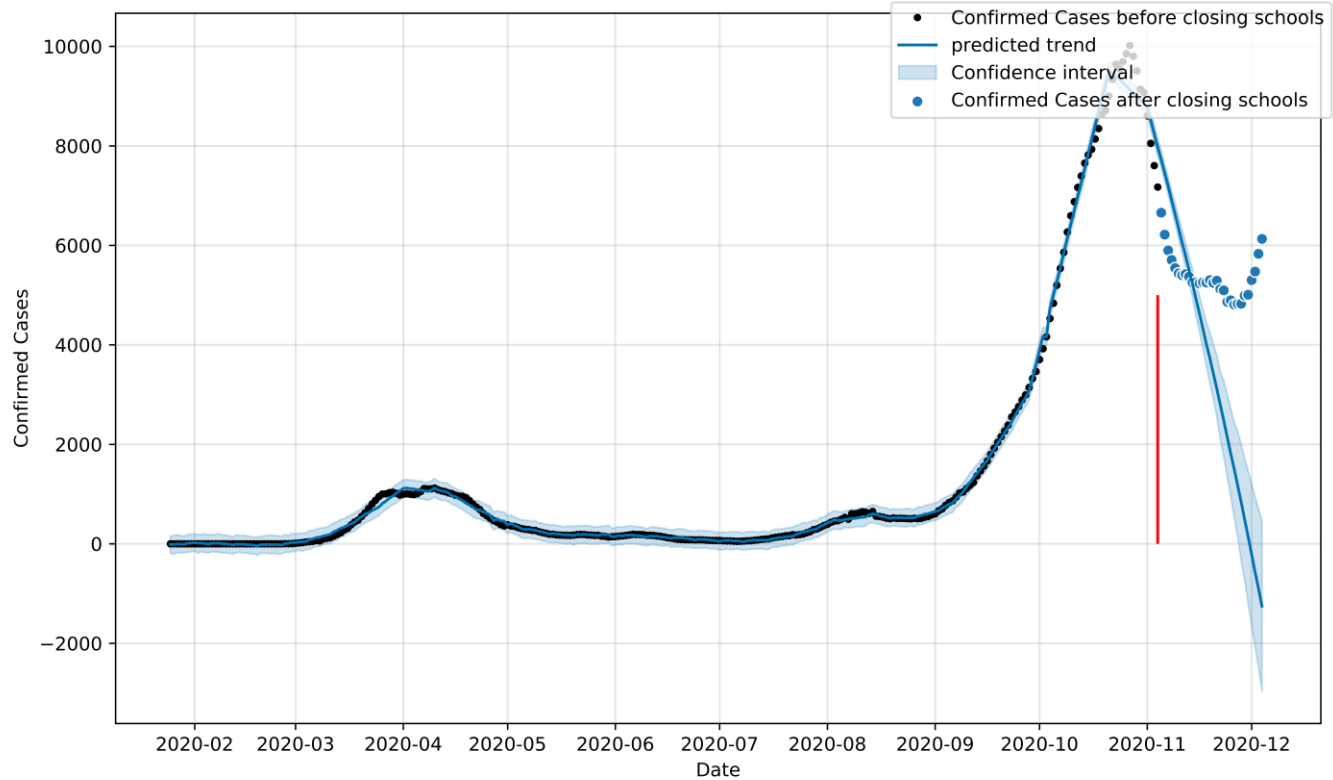


## Model predictive analysis (Germany)



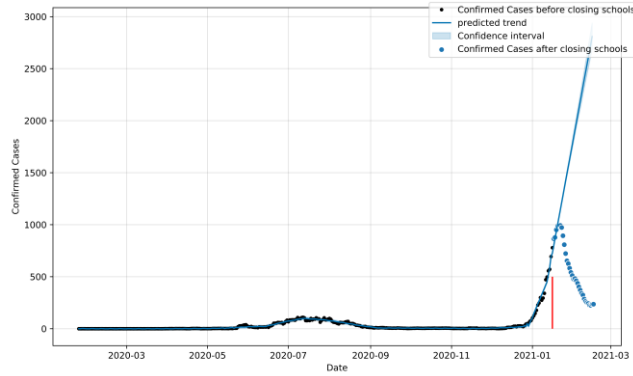


## Model predictive analysis (Netherlands)

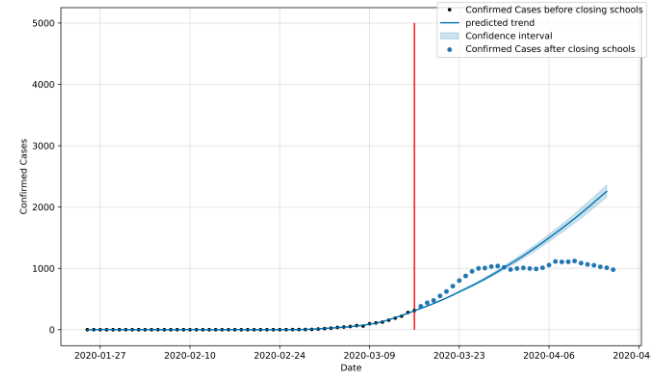


# Model predictive analysis

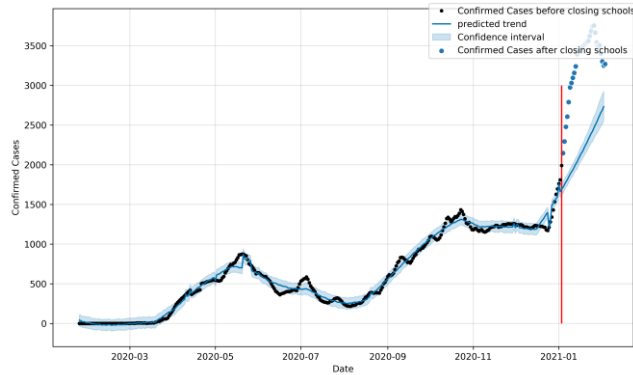
## Malawi



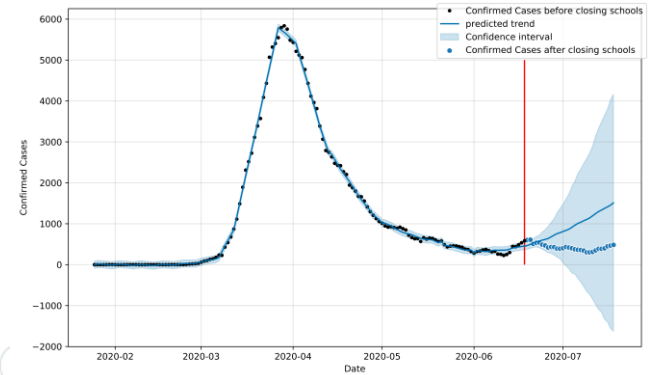
## Netherlands



## UAE



## Germany



Do we really save lives by staying at home?



Yes! We are heroes who save many lives by staying at home



# Thanks!

## Any questions?