



# Modeling the Dynamics of COVID-19

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## Data Source

- ☒ Local  
☐ Our World In Data

## Continent

Europe

## Country

Czech Republic

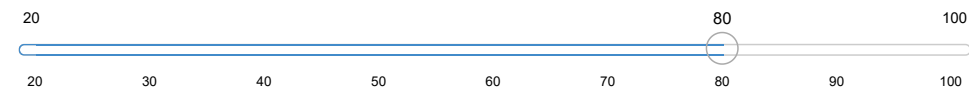
## Modeling Period

2020-04-04

to

2020-06-01

## Percentage of Training Dataset (Training vs. Testing Split):



## Variable of Interest

- ☒ New Cases  
☐ New Deaths

## Czech Republic

The study timeframe starts from **2020-04-04** until **2020-06-01** covering **59** days.

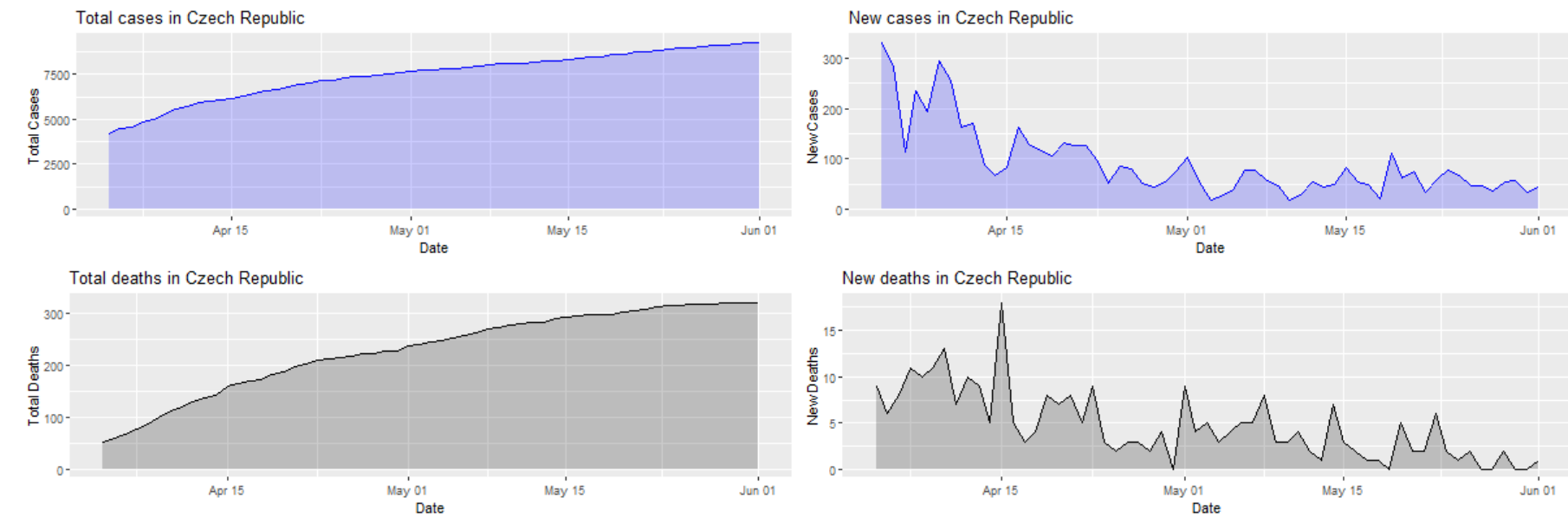
The first case was reported on: **2020-04-04**

The first death was reported on: **2020-04-04**

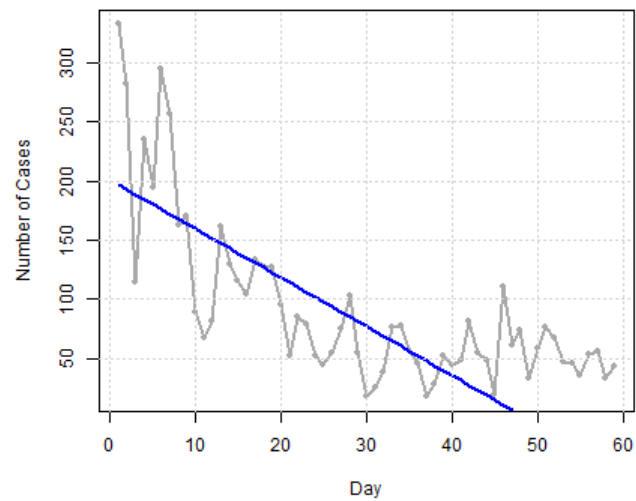
The total cumulative number of cases by the last day in the selected period is **9273** cases.

The total number of deaths by the last day in the selected period is **320** deaths.

## Cases vs. Deaths Overview

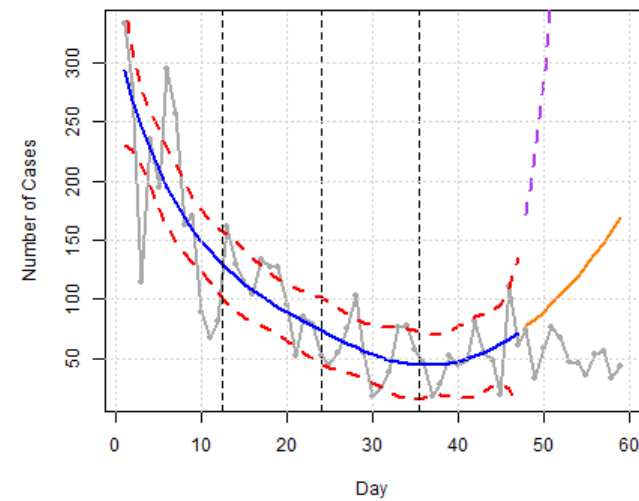


New Cases in Czech Republic (Actual vs. LR)



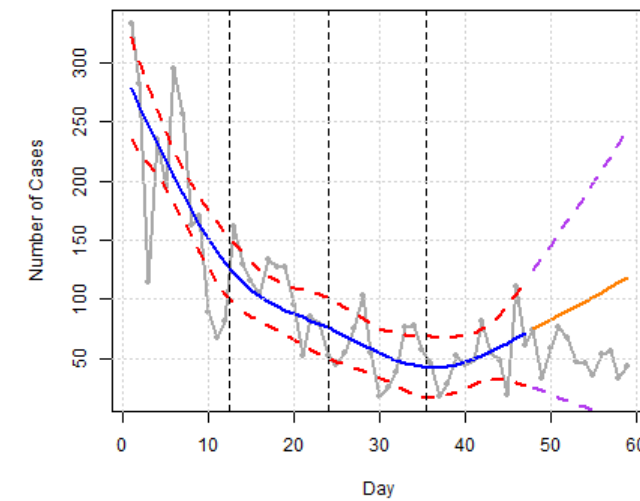
AIC = 506.308  
BIC = 511.859  
Training MSE = 2,457.7  
Testing MSE = 5,385.6

New Cases in Czech Republic (Actual vs. Cubic Spline)



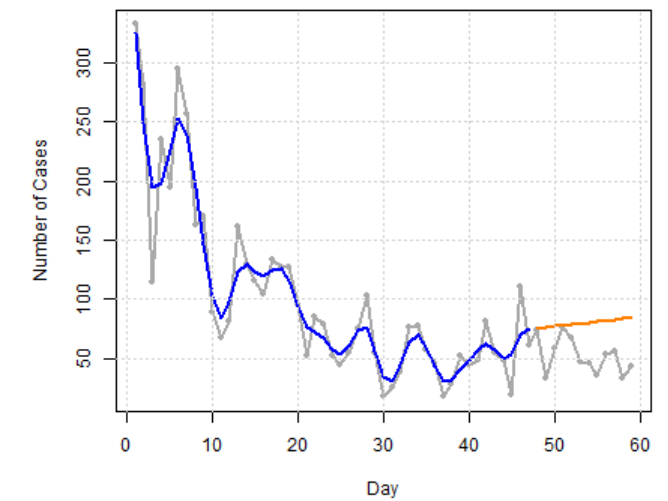
AIC = 489.67  
BIC = 504.471  
Training MSE = 1,394.37  
Testing MSE = 5,868.08

New Cases in Czech Republic (Actual vs. Natural Spline)



AIC = 486.157  
BIC = 497.258  
Training MSE = 1,408.9  
Testing MSE = 2,537.46

New Cases in Czech Republic (Actual vs. Smoothing Spline)



Degrees of Freedom = 19.769  
AIC = 44,576.51  
BIC = 44,613.08  
Training MSE = 473.8  
Testing MSE = 1,025.69