



Modeling the Dynamics of COVID-19

Supervised by Dr. Sawsan Hilal
Built by Aisha Khalid and Ahmed Khedr

Data Source
☒ Local
☐ Our World In Data

Continent
Europe

Country
Jersey

Modeling Period
2020-04-04 to 2020-06-01

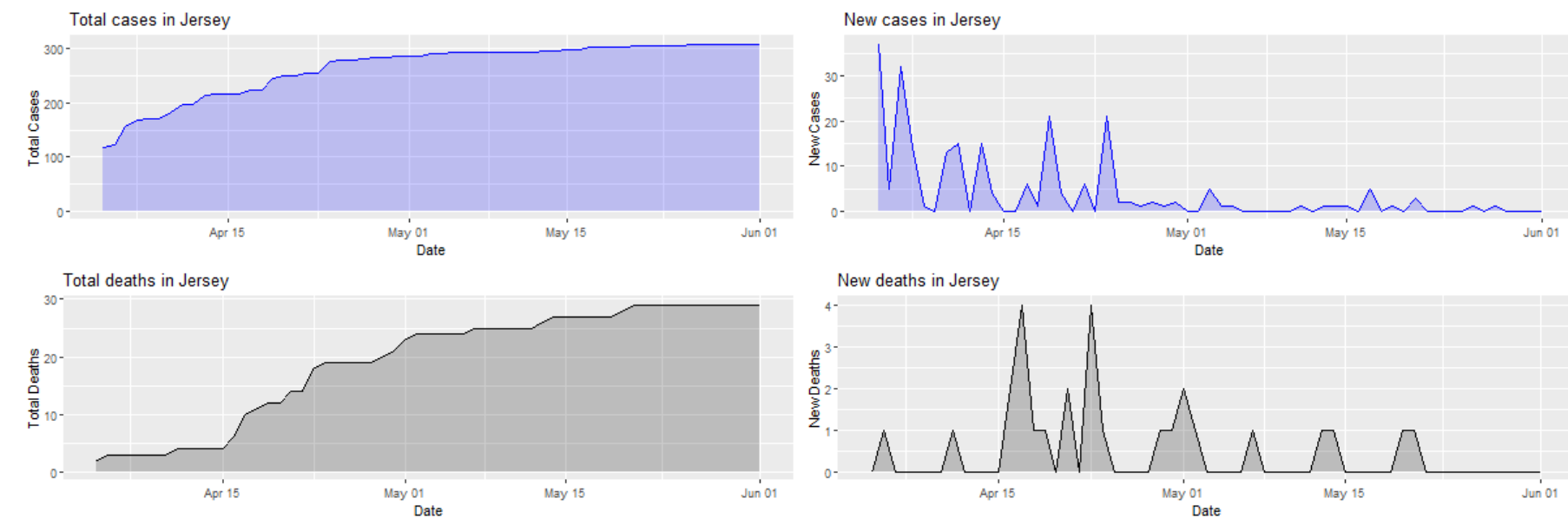
Percentage of Training Dataset (Training vs. Testing Split):
20 80 100

Variable of Interest
☒ New Cases
☐ New Deaths

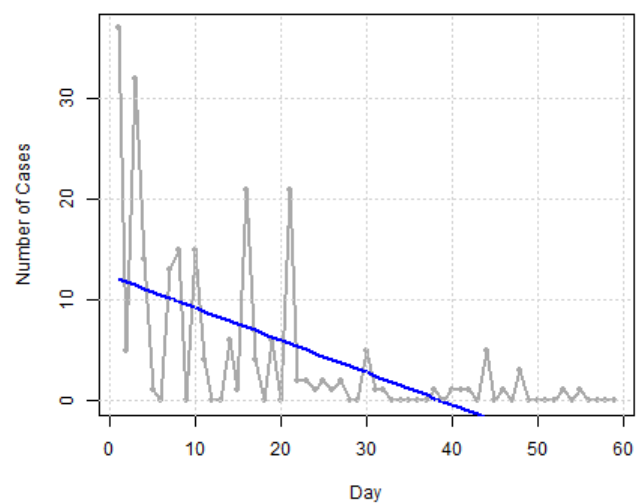
Jersey

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 **308** cases.
The total number of deaths by the last day in the selected period is **29** deaths.

Cases vs. Deaths Overview

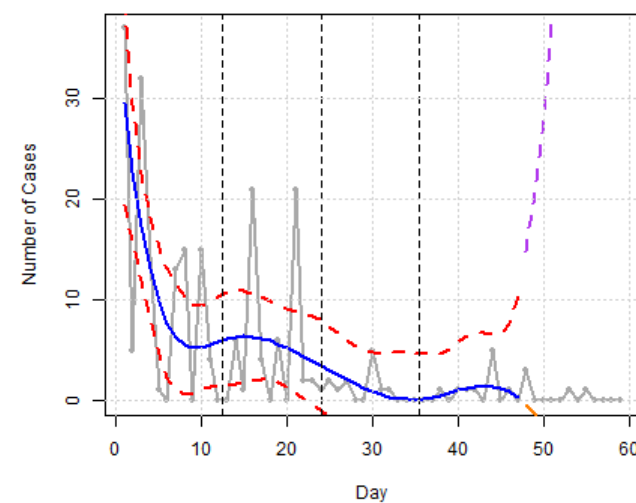


New Cases in Jersey (Actual vs. LR)



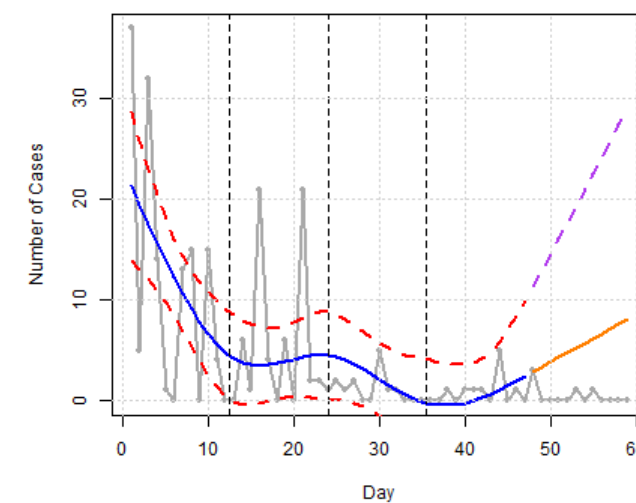
AIC = 323.359
BIC = 328.909
Training MSE = 50.12
Testing MSE = 27.83

New Cases in Jersey (Actual vs. Cubic Spline)



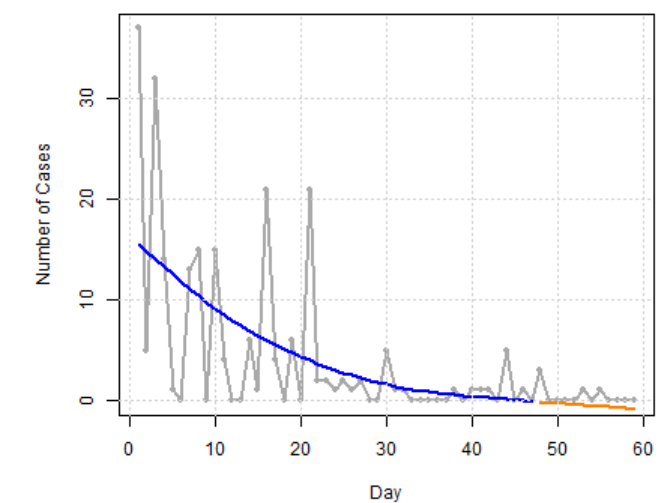
AIC = 317.775
BIC = 332.576
Training MSE = 35.98
Testing MSE = 239.34

New Cases in Jersey (Actual vs. Natural Spline)



AIC = 319.891
BIC = 330.992
Training MSE = 40.98
Testing MSE = 30.22

New Cases in Jersey (Actual vs. Smoothing Spline)



Degrees of Freedom = 2.944
AIC = 4,210.446
BIC = 4,215.893
Training MSE = 44.73
Testing MSE = 1.45