



Modeling the Dynamics of COVID-19

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Data Source

- ☒ Local
☐ Our World In Data

Continent

Europe

Country

Vatican

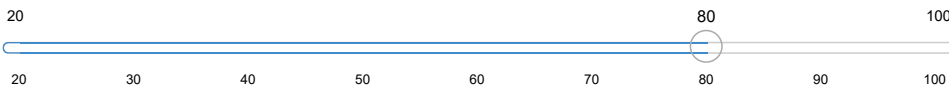
Modeling Period

2020-04-04

to

2020-06-01

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



Variable of Interest

- ☒ New Cases
☐ New Deaths

Vatican

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

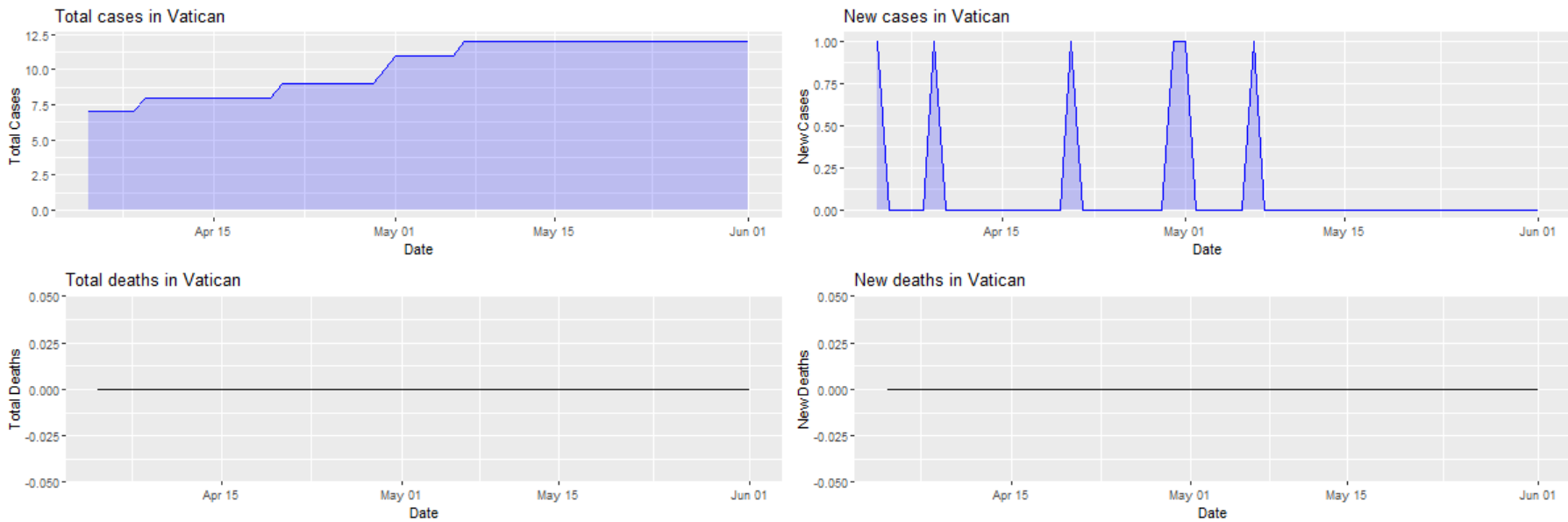
The first case was reported on: **2020-04-04**

The first death was reported on: **NA**

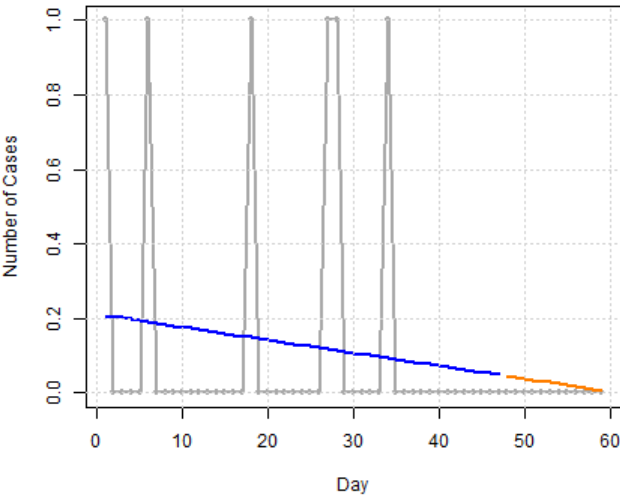
The total cumulative number of cases by the last day in the selected period is **12** cases.

The total number of deaths by the last day in the selected period is **0** deaths.

Cases vs. Deaths Overview



New Cases in Vatican (Actual vs. LR)



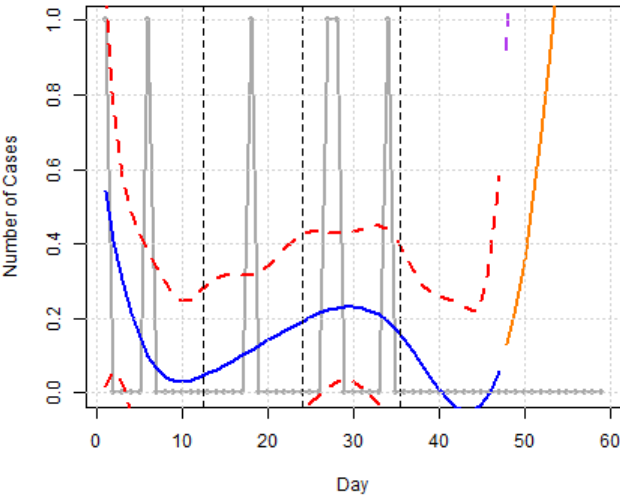
AIC = 35.273

BIC = 40.823

Training MSE = 0.11

Testing MSE = 0

New Cases in Vatican (Actual vs. Cubic Spline)



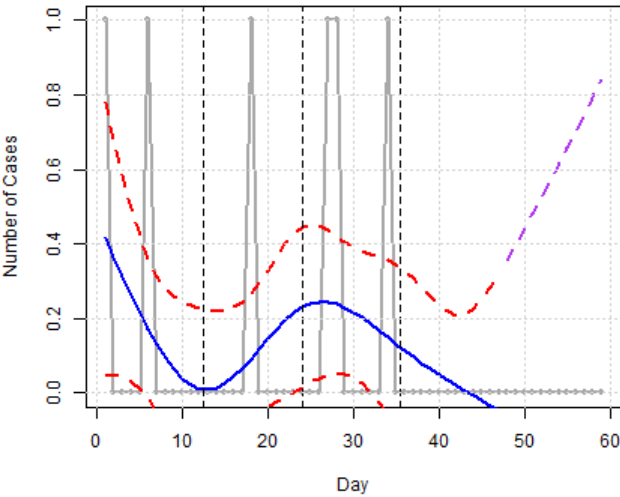
AIC = 40.208

BIC = 55.009

Training MSE = 0.1

Testing MSE = 2.51

New Cases in Vatican (Actual vs. Natural Spline)



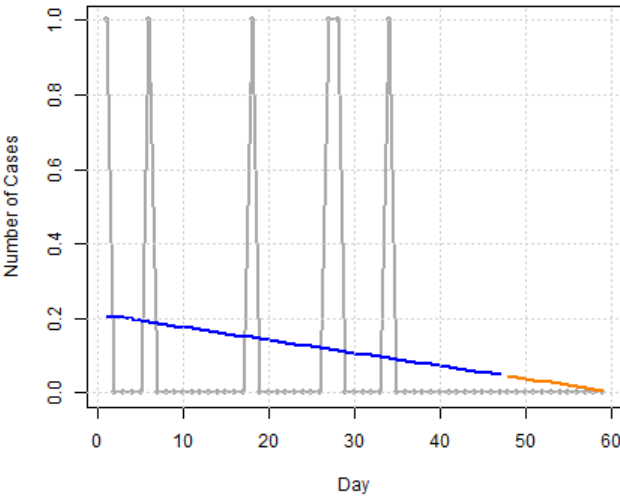
AIC = 37.11

BIC = 48.211

Training MSE = 0.1

Testing MSE = 0.02

New Cases in Vatican (Actual vs. Smoothing Spline)



Degrees of Freedom = 2

AIC = 14.261

BIC = 17.962

Training MSE = 0.11

Testing MSE = 0