



Modeling the Dynamics of COVID-19

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Data Source

- ☒ Local
☐ Our World In Data

Continent

Europe

Country

Italy

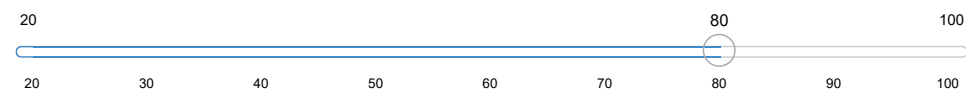
Modeling Period

2020-04-04

to

2020-06-01

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



Variable of Interest

- ☒ New Cases
☐ New Deaths

Italy

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

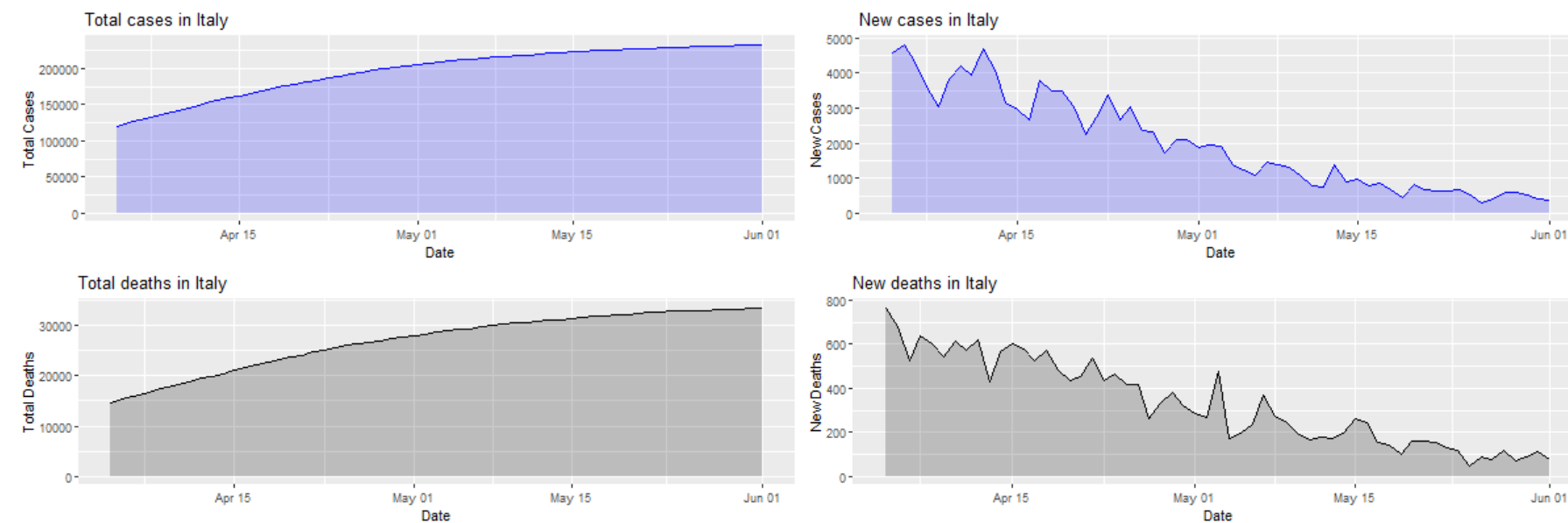
The first case was reported on: **2020-04-04**

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

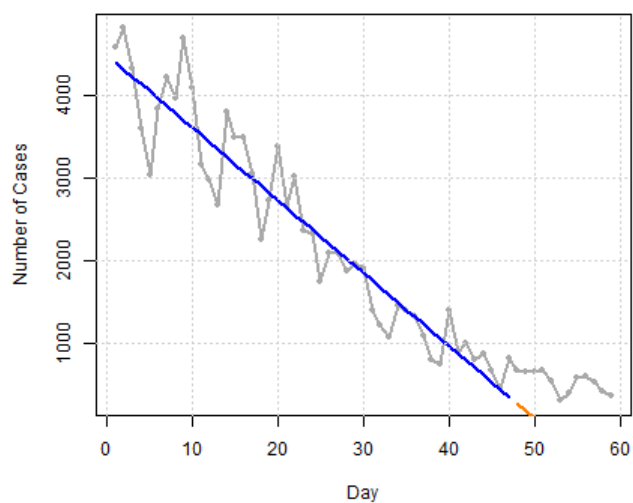
The total cumulative number of cases by the last day in the selected period is **233019** cases.

The total number of deaths by the last day in the selected period is **33415** deaths.

Cases vs. Deaths Overview

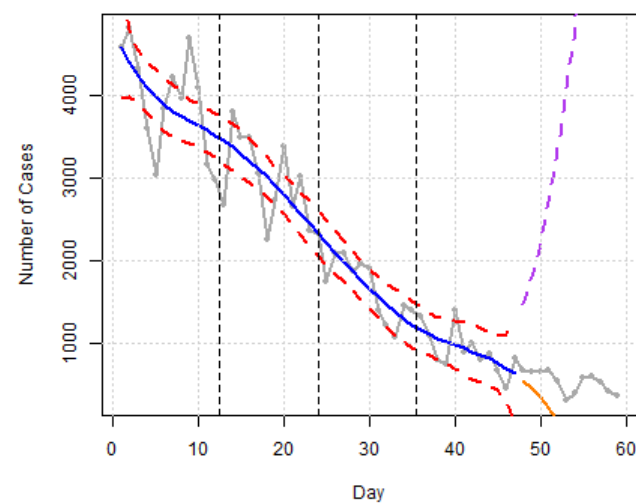


New Cases in Italy (Actual vs. LR)



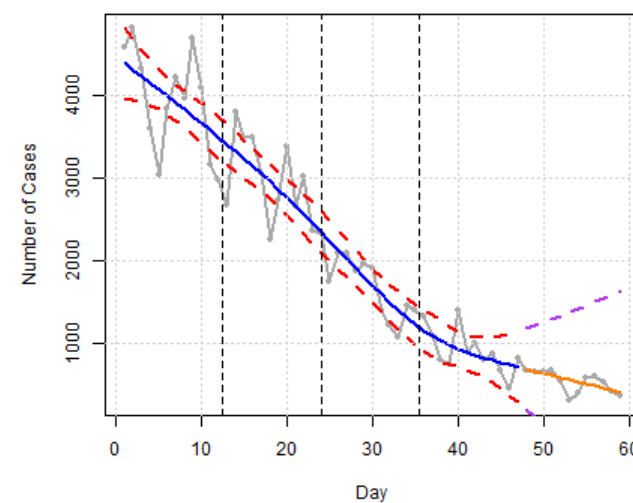
AIC = 700.067
BIC = 705.618
Training MSE = 151,677
Testing MSE = 626,993.7

New Cases in Italy (Actual vs. Cubic Spline)



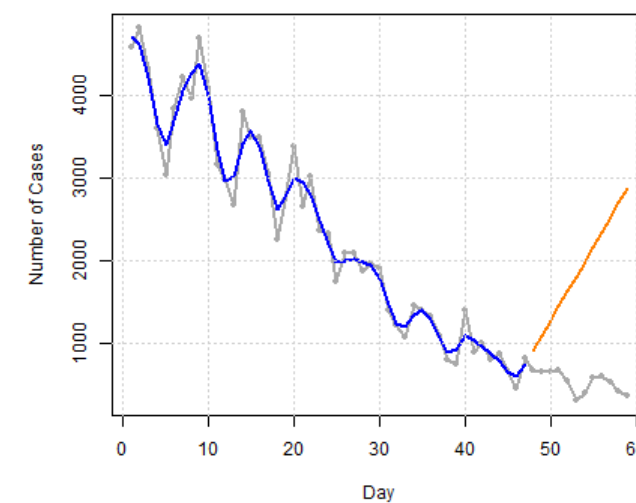
AIC = 704.352
BIC = 719.153
Training MSE = 134,310
Testing MSE = 1,125,986

New Cases in Italy (Actual vs. Natural Spline)



AIC = 701.41
BIC = 712.511
Training MSE = 137,368.9
Testing MSE = 9,635.34

New Cases in Italy (Actual vs. Smoothing Spline)



Degrees of Freedom = 23.105
AIC = 3,061,588
BIC = 3,061,631
Training MSE = 32,569.59
Testing MSE = 2,354,076