Modeling the Dynamics of COVID-19

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Data Source

- ◉ Local
- ○ Our World In Data

Continent

Europe ▾
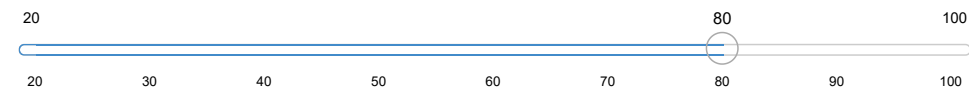
Country

Portugal ▾

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

Portugal

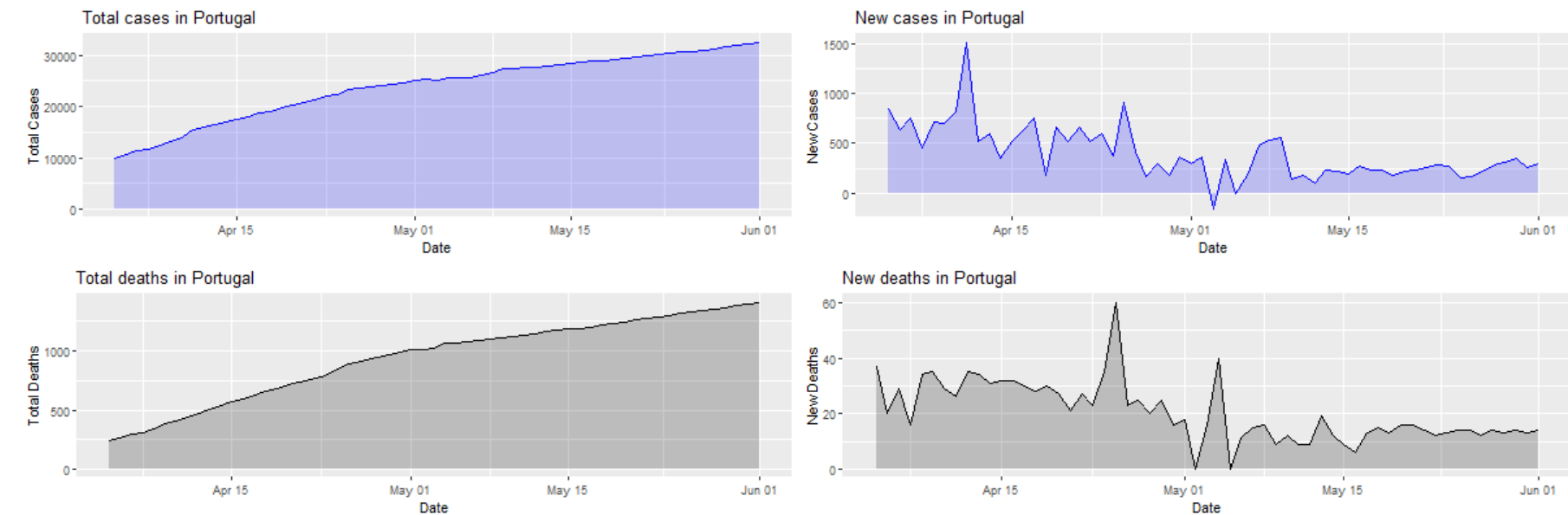The study timeframe starts from **2020-04-04** until **2020-06-01** covering **59** days.
The first case was reported on: **2020-04-04**
The first death was reported on: **2020-04-04**
The total cumulative number of cases by the last day in the selected period is **32500** cases.
The total number of deaths by the last day in the selected period is **1410** deaths.

Cases vs. Deaths Overview

The data contains negative values which have been set as zero (0).

New Cases in Portugal (Actual vs. LR)

AIC = 640.978
BIC = 646.528
Training MSE = 43,143.32
Testing MSE = 61,184.44

New Cases in Portugal (Actual vs. Cubic Spline)

AIC = 648.535
BIC = 663.336
Training MSE = 40,958.35
Testing MSE = 53,594.74

New Cases in Portugal (Actual vs. Natural Spline)

AIC = 644.629
BIC = 655.729
Training MSE = 41,040.08
Testing MSE = 8,812.68

New Cases in Portugal (Actual vs. Smoothing Spline)

Degrees of Freedom = 2.555
AIC = 3,969,271
BIC = 3,969,276
Training MSE = 42,226.25
Testing MSE = 37,951.46