

COVIDPositiveTestingSA

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Introduction

to be updated

Methods

Data

We downloaded data from Coronavirus COVID-19 (2019-nCoV) Data Repository for South Africa maintained by Data Science for Social Impact research group at the University of Pretoria [ref]. The data repository captures the daily number of new cases, number of tests, number of deaths and recoveries. Our primary outcome of interest was the daily number of newly diagnosed COVID-19 cases and the unit of time used in modelling was a day. We used the daily case reports from March 12, 2020, until February 27, 2021, in our analysis.

Statistical analysis

Results

Figure 1 presents the daily number of reported COVID-19 cases from 12 March 2020 to 27 February 2021. Similar to elsewhere in the world, South Africa pass through a two-wave pandemic. The pandemic's first peak was on 07 July 2020, where up to 13944 new COVID-19 cases reported, followed by a second peak in January 2021, where more than 21,000 daily cases reported. Figure 2 presents the cumulative number of new reported COVID-19 cases and tests performed. To date, 8,838,937 tests have been conducted, and a total of 1,500,677 cases reported.

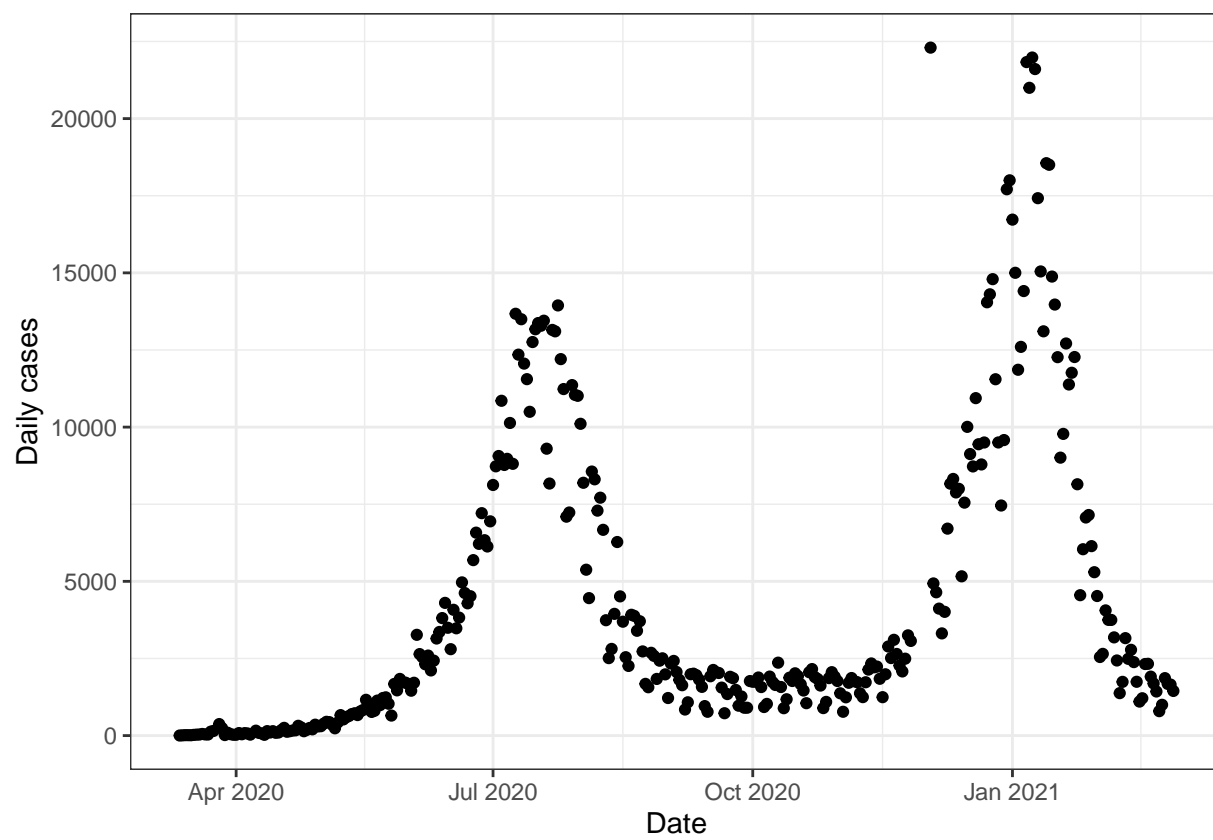


Figure 1: Daily number of COVID-19 cases in South Africa from 12/03/2020-27/02/2021.

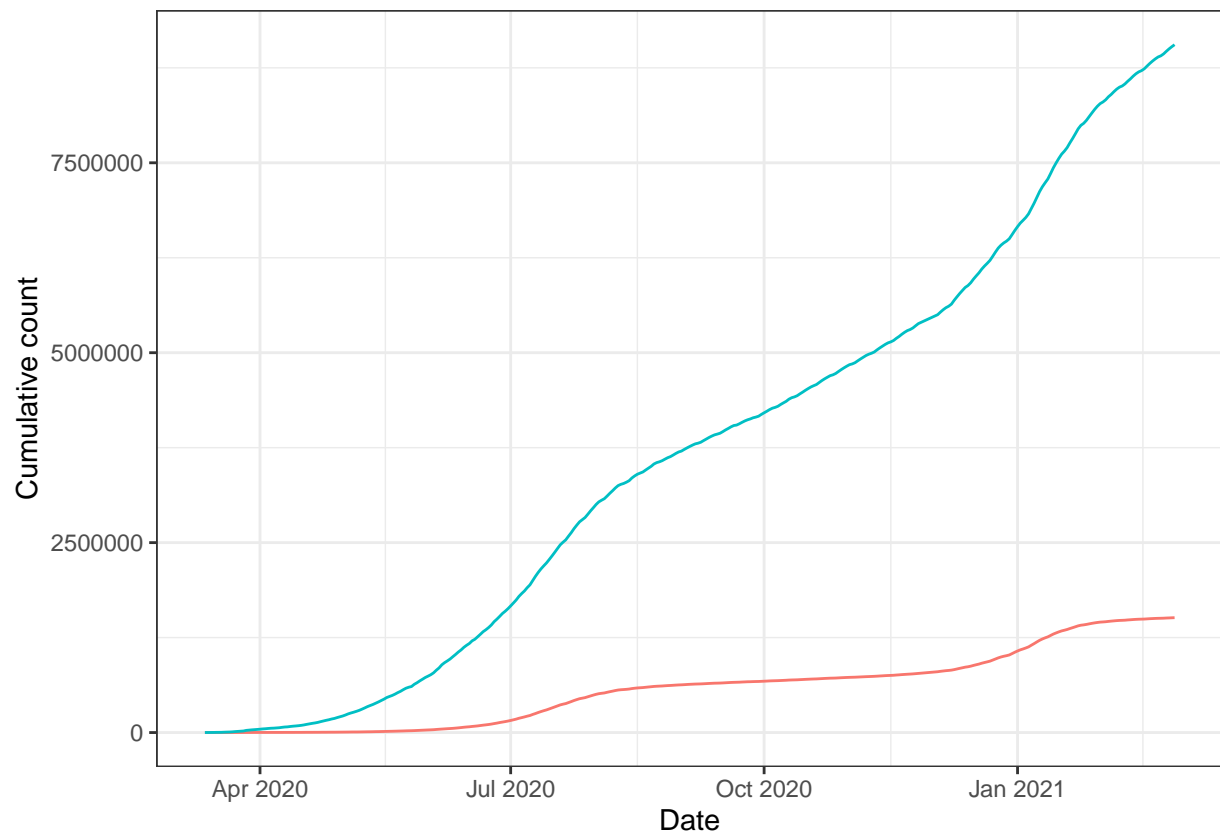


Figure 2: The cummulative number of COVID-19 cases and Cummmulative number of tests in South Africa from 12/03/2020-27/02/2021. Red-line denote the number of cases and blue-line denotes the number of tests.

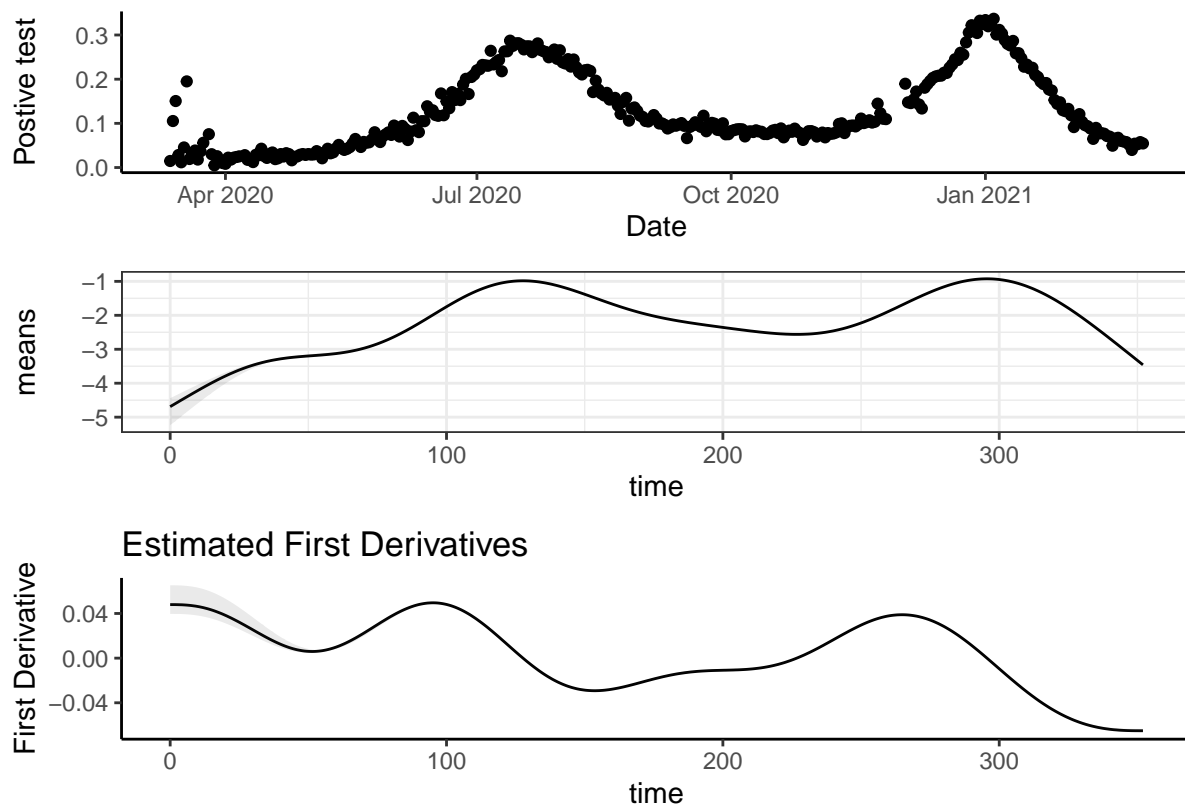


Figure 3: Fitted and observed data AR1 model