

A Study on the Infection Rate of COVID-19

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Abstract

The COVID-19 pandemic, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has led to a persistent public health crisis and has become one of the deadliest pandemics in human history. Due to its high transmissibility, scientists have been researching vaccines and effective treatments while also investigating its pathogenicity to better understand and dissect the virus. This understanding will help determine the appropriate preventive measures needed to protect human health and collectively combat the pandemic. The statistical analysis data used in this study are primarily sourced from the Kaggle platform (Note: Kaggle is a data modeling and analysis competition platform where companies and researchers can post data, and statisticians and data mining experts can compete to generate the best models), ensuring its credibility. In the mathematical models developed for this study, key concepts from the field of statistics such as the Poisson process and normal distribution were employed. Calculations and graphical representations were carried out using Matlab software.

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