DATA SCIENCE PROJECT

STUDY ON CORONA VIRUS CASES AND NUMBER OF DEATHS SINCE IT STARTED

THE DATA IS ARRANGED IN CHART AND GRAPH FORM CREATED IN EXCEL SHEETS

Highlights of the Analysis • Data considered for analysis: up to 16 April 2020. • One model can mislead us. Here, we consider the exponential, the logistic and the SIS models along with daily infection-rate (DIR). We interpret the results jointly from all models rather than individually. • We expect DIR to be zero or negative to conclude that COVID-19 is not spreading in a state. Even a small positive DIR (say 0.01) indicates virus is spreading in the community. The virus can potentially increase the DIR anytime. • The states without a decreasing trend in DIR are Maharashtra, Delhi, Gujarat, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal. • The states with an almost decreasing trend in DIR are Kerala, Andhra Pradesh, Haryana, Jammu and Kashmir, Karnataka, Punjab, Tamil Nadu and Telangana. • States with non-decreasing DIR need to do much more in terms of the preventive measures immediately to combat the COVID-19 pandemic. On the other hand, the states with decreasing DIR can maintain the same status to see the DIR to become zero or negative for consecutive 14 days to be able to declare end of the pandemic.

Introduction

The world is now facing an unprecedented crisis due to the novel coronavirus, first detected in Wuhan, China, in December 2019 [1 ]. World Health Organization (WHO) defined coronavirus as a family of viruses that range from the common cold to the Middle East Respiratory Syndrome (MERS) coronavirus and the Severe acute respiratory syndrome (SARS) coronavirus [2 ]. Coronaviruses circulate in some wild animals and have the capability to transmit from animals to humans. These viruses can cause respiratory symptoms

in humans, along with other symptoms of common cold and fever [3 ]. There are no specific treatments for coronaviruses to date. However, one can avoid infection by maintaining basic personal hygiene and social distancing from infected persons. WHO declared Coronavirus disease 2019 (COVID-19) as a global pandemic on 11 March 2020 [4 ]. The disease has spread across 210 countries and territories around the world, with a total of more than two million confirmed cases [5,6]. In India, the disease was first detected on 30 January 2020 in Kerala in a student who returned from Wuhan [7,8]. The total (cumulative) number of confirmed infected people is 17615 till now (19 April 2020) across India [9 ]. The bar chart in Figure 1 shows the daily growth of the COVID-19 cases in India. After the first three cases during 30 January-3 February 2020, there were no more confirmed COVID-19 cases for about a month. The COVID-19 cases appeared again from 2 March 2020 onwards. These cases are related to people who have been evacuated or have arrived from COVID19 affected countries. From 20 March 2020, there is an exponential growth in the daily number of COVID19 cases at pan India level.

Coronavirus (COVID-19) in India - statistics & facts

India witnessed an [outbreak of the coronavirus](https://www.statista.com/page/covid-19-coronavirus), otherwise known as COVID-19, or SARS-CoV-2 in late January 2020 when three Indian students travelled to the southern state of Kerala from Wuhan in China - the epicenter of the outbreak. All three tested positive for COVID-19, confirming a local contagion. At the same time, several other cases were detected in other parts of the country, most of which were linked to people with a travel history to affected countries. Infections [increased rapidly since March](https://www.statista.com/statistics/1104054/india-coronavirus-covid-19-daily-confirmed-recovered-death-cases/), with a significant [growth in testing](https://www.statista.com/statistics/1113465/india-coronavirus-covid-19-tests-cumulative/). In June 2020, India’s fatality rate for positive COVID-19 cases stood at about 2.8 percent. However, like in other regions of the world, this does not include unreported infections or delays from illness to death.

The state of Kerala has been commended for acting speedily in containing further spread of the virus. Thousands were consistently [being placed in home or institutional quarantine](https://www.statista.com/statistics/1101107/india-number-novel-coronavirus-patients-in-kerala-by-quarantine-type/), monitored for symptoms and infections. However, India had [one of the lowest testing rates](https://www.statista.com/statistics/1104645/covid19-testing-rate-select-countries-worldwide/) for the virus compared to other countries, despite ramping up over recent months.  
  
India’s frontline healthcare workers and public officials were vigilant in their fight against the virus. Despite that, the country’s healthcare infrastructure may not be enough in the face of an epidemic. Data from 2017 showed India had less than [0.5 hospital beds per 1,000 people](https://www.statista.com/statistics/283273/oecd-countries--hospital-bed-density/) Moreover, the country’s [population density](https://www.statista.com/statistics/640612/asia-pacific-population-density-by-country/) was one of the highest in the world, making it harder to contain local transmissions if strict precaution measures are not followed. A [lacking healthcare infrastructure](https://www.statista.com/topics/5191/state-of-health-in-india/) also remains a major cause for concern. This was because of an inadequate public system leading to shifting the weight to the private sector, which was not prepared for an emergency of this magnitude.  
  
[The Modi-led government](https://www.statista.com/topics/5752/modi-administration-in-india/) announced a nation-wide lockdown in the end of March. This continued into May, when [districts were divided into zones](https://www.statista.com/statistics/1114402/india-districts-in-covid-19-zones-by-state/)depending on the level of infections. With the responsibility lying mainly with state governments, red zones saw intensified checking and pool testing. Relaxations on lockdown measures varied depending on the status of zonal infections. [Maharashtra, Gujarat, and Delhi](https://www.statista.com/statistics/1103458/india-novel-coronavirus-covid-19-cases-by-state/) reported worrying numbers, with Tamil Nadu also seeing a spike in June resulting in strict mobility restrictions.  
  
Despite increasing infection numbers, India has been commended for introducing a lockdown at an early stage. On the other hand, the vast population affected by it was given four hours’ notice, causing widespread panic and chaos, especially for migrant workers in the informal sector. Nearly two months in, [the economic impact of the virus](https://www.statista.com/topics/6304/covid-19-economic-impact-on-india/) and preventive measures were devastating, urgently requiring the economy to reopen.  
  
*This text provides general information. Statista assumes no liability for the information given being complete or correct. Due to varying update cycles, statistics can display more up-to-date data than referenced in the text.*

Above the links will provide you the data for covid19 till now and can be accessed anytime to see the increase in cases the condition of states

And also the excel sheet containing the data about the cases of covid19 ,

Thank you!!!