

Delineation of public health risk factor associate with the mortality ratio in covid-19 pandemic situation during legislative assembly elections from Indian states

BIJAY HALDER (✉ halder06bijay@gmail.com)

Vidyasagar University <https://orcid.org/0000-0002-4279-5214>

Research Article

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Abstract

The coronavirus is an accurate disease and this virus-related pandemic is hammering human health and increased the public health emergency till now. The main objective of this study is to find out the death, mortality ratio, new cases, and recoveries case identification and correlation analysis between them using regression technique on legislative assembly elections from India. This study encompassed the present disorder of India throughout the elections time in India from 27th March 2021 to 29th April 2020. Statistical analysis was developed by the covid-19 database for monitoring and analyzing the health statutes during elections. Mortality ratio, the relation between active and death cases, active cases and recover cases in India are calculating corona affected data. The results show that death cases were high in the second wave of coronavirus in India. The correlation between daily death and new cases was strong positive ($R^2= 0.9306$). The relationship between recoveries and death was stronger positive ($R^2=0.9832$). The daily death and active cases collation indicated that strong positive ($R^2= 0.9703$). The COVID-19 is dangerous to people's health. The virus is more life-threatening and if people will not follow the WHO guidelines, and it strength demonstration additional havoc very shortly.

Introduction

The coronavirus (Covid-19) pandemic was already considered a global pandemic and gradually increased and affecting many countries in the world (Singal 2020; Asyary and Veruswati 2020). It was first determined in Wuhan, Hubei area, China in December 2019 (Gorbalenya et al. 2020; Wu et al. 2020). But the pandemic was spreading worldwide and increased the public health-related problem and increased health emergency (Chen et al. 2020, Xu et al 2020). Afterward, this pandemic is grabbed the world community health and challenge the health facility worldwide. Numerous countries are tried to build the vaccine to handle this deadly virus and after that many vaccines were present in the time of the second wave of coronavirus in India but the spreading of coronavirus cases is increased on daily basis. The world has to face a huge amount of public health-related challenges and can't stop this pandemic anymore (Arora et al. 2020; Ghosh and Sarkar 2020, Halder et al. 2021a). Health experts are building some strategies to protect public health in this situation. Many industries were locked during the country lockdown phase (Mahato et al. 2020; Patel et al. 2020). The daily labour and small-scale industries are most affected during the lockdown and its cause's food scarcity in an area (<https://economictimes.indiatimes.com/topic/coronavirus-impact-on-indian-industries>). Indian migrant workers have strained the global attention, with thousands of worker forced to walk miles to reach their home (<https://scroll.in/article/961926/lakhs-of-homeless-indians-are-getting-no-lockdown-relief-this-is-how-it-can-be-fixed>). Most of the predictable over four million homeless people in India have had no way of creating a living since the lockdown initiated on March 25 (Bera et al. 2020). With roads abandoned, they currently even have no habitation for begging. Many health specialists said the homeless are among the most at risk from the virus or pandemic as many previously suffer from infections such as tuberculosis, and their morbidity rates are sophisticated than for the common population (Gowda et al. 2020).

Numerous factors were estimated for the cause of coronavirus transmission and infection (Arif and Sengupta 2020; Chakrabarti et al. 2020a, b; Pramanik et al. 2020). The coronavirus was transmitted through numerous bio-aerosols, direct contact with the affected people and large droplets (Li et al. 2005; Qi et al. 2020). The transmission of virus influences the climatic condition due to lockdown (Dalziel et al. 2018; Casanova et al. 2010). During the coronavirus spreading time lockdown was necessary for build a barrier to reduce the public health emergency. Also the lockdown increased the air quality and improve the public health. Many researchers have been prove that during lockdown the air quality was much improved like India (Gautam 2020; Sikarwar and Rani 2020; Srivastava et al. 2020), Iran (Abdul Halim et al 2018), the USA (Berman and Ebisu 2020), China (Fan et al. 2020; Zambrano-monserrate et al. 2020), Wuhan (Cole et al. 2020; Lu et al. 2020; Sicard et al. 2020; Song et al 2016; Wang and Su 2020) and Morocco (Otmani et al. 2020).

In the time of medicine and vaccine is not available, the Covid-19 pandemic was grip the public health-related problem and increased the health emergency (Roy et al. 2020; Rahman et al. 2020). India is a very large population, which was more than 1.3 million, and on the 10th September 2020, India is recorded second maximum pandemic affected country after the USA (Bhadra et al. 2021). The population density and mobility were the main reason for spreading the coronavirus in public and the prediction was the main recent findings for the second wave of coronavirus (Hamidi et al. 2020; Carozzi et al. 2020). Gupta et al. (2020) show that population density and other geographic factors were used to predict the coronavirus conditions. The mortality ratio was increased gradually from the first to last date of the election in India. Basically, the fore states and one UT were more affected due to election time and the death cases were increased ten times more in the initial phase of election time. The first-day death cases were registered 311 and at the end of the election it was increased by 3501 persons in just 34 days (Halder et al. 2021b). At first, SARS viruses were infested around 8000 people and 774 people have expired in the world during the year 2000 to 2003. In 2012, World Health Organisation (WHO) registered the 2494 people infected and 858 kills by additional coronavirus named MERS-CoV (Middle East Respiratory Syndrome-Coronavirus) and scattering about 27 countries (WHO report, 2003; 2013). Coronaviruses are a group of associated ribonucleic acid (RNA) (Biswas and Majumder 2020) viruses and this disease is produced in mammals and birds (Halder et al. 2021a).

During election time unstoppable election related rally and people gathering was increased to change the spread of coronavirus into the human body. The densely populated country India does not achieved to protect the public for this deadliest virus. During election time, public health related problem was increased the mortality ratio was increased gradually. Hospital bed was limited and government and private hospital were not admitted to the people for mid condition and also the serious condition as well. Vaccination also not distributed properly due to overwhelming population pressure and spread of

spreading virus. Government and policy makers were build a sustainable development of coronavirus vaccine distribution but the area and population pressure were reducing the total achievement of distribution of vaccine all over the India. During election time oxygen demand was increased and people was dying due to unavailability of oxygen and proper medical treatment. Only election is the main reason for spreading the coronavirus again in India because of people can nit stop their rally and election related program. Every day people were dying and election related programs were increased gradually. Many people lost their presents and family members but the election related programs cannot stop any more. The GDP was destroyed and the low and middle income families in India lost their jobs and earning source during lockdown but after the second wave of coronavirus increase the lockdown process again and increased the daily food related problem to the lower income families. Limited hospitals and private centres were not arranged proper bed or allocation of each corona effected present and sometimes people were lost their life due to deficiency of oxygen, proper treatment and unavailability of hospitals beds. The common symptoms of COVID-19 in the human body are the common cold, chest pain and many more (Holshus et al. 2020; Perman 2020, Tosepu et al 2020). It was first determined in Wuhan, Hubai area, China in December 2019. Subsequently, this pandemic is grabbed the world public health and challenge the health facility worldwide. Novel coronavirus indicates a “new pathogen of a previous know type” of the virus (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/>). The acute disease was first originated in Wuhan, China in December 2019. After that, COVID-19 is spread over the world, also India does not get relief from this. On 30th January Indian reported its first case of COVID-19 or novel coronavirus (Andrews et al. 2020). Restriction in Public transportation, the industrial sector, and human mobility are reducing the emission of pollutants. Researchers have been shows a huge amount of air quality fluctuation during lockdown phases (Nakada and Urban 2020; Mahato et al. 2020; Mondal et al. 2020; Tobías et al. 2020).

Election is the democratic power of each people of every country or union territory but when election was build a health related emergency the public health condition was disrupted. Many country was stop their election related work but in India the state and UT election was increased the public health related emergency and also the GDP has been decreased due to crises. Half of the rural households in India are depend on manual labour for their livelihood. 75 percent of the rural population in India, or 133.5 million families are earn less than Rs.5,000 per month. But it is not only described to be an assessment of poverty approximations, the SECC data (<https://secc.gov.in/welcome>) discloses that approximately 670 million Indians in rural areas only living on Rs.33 per day (75 percent of rural households is around 134,373,569 households; five members per household gives us a total of 671,867,845 people). This economic problem can't overcome the COVID-19 pandemic in Indian low income families. The numerous methods to the management of elections during a pandemic increase a numeral of queries around the dangers to democracy in the attendance of an exterior threat of the sympathetic the world has knowledgeable with the spread of coronavirus and join a wide range of questions concerning risk, democracy, and public participation (Webler and Tuler 2018; Landman and Splendore 2020). In this study, the main findings were a risk, mortality ratio, and correlation analysis between active cases, death cases, and recoveries during election time of five states and UTs of India. This time conduct election may have

significant impacts on public health-related problems and election reliability. Elections were a backbone feature and 'basic predicate of democracy (Ginsburg and Huq 2018), which introduced the nominated political leaders for the states and UTs in India (Table 1).

The guideline for election time in India

The Election Commission of India was declared some guidelines at the time of the covid-19 pandemic. To reducing the pandemic and control to spread the pandemic in public areas the Election Commission of India adopted some strategies and declares that all the people maintained the guidelines. The main guidelines were.

- 1) All people shall wear face masks during each election connected activity like Election rally, Helping hands, during the election, and many other criteria.
- 2) The entry of election hall, room, or premises used the thermal scanner, hand gloves, sanitizer, and social distancing.
- 3) Social distancing was the main guideline for maintaining the covid-19 protocol and the guidelines of the State Government and Ministry of Home Affairs declared.
- 4) The election room, hall, or premises were large in size, and all the polling officers, people, and other administrative officers maintained the social distancing and proper guidelines.
- 5) The vehicles shall be mobilized for every movement of polling personnel and security personal to manage and maintain the covid-19 guidelines. (<https://eci.gov.in/>).

The election commission of India, states and UT government and administrators build a proper guild line for fighting with coronavirus during election time in India. But the deathliest virus affected the public health and increased gradually. The daily new cases were recoded highly and death cases also increased. Active and recoveries were simultaneously increased during 27th March to 29th April in India. This study focus were (1) Mortality ratio calculation of different time periods; (2) Statistical data analysis during election time over India; (3) correlation analysis of new cases, death cases, recoveries and active cases. This study is to helpful for the planners, developer and administrator for proper management and planning during coronavirus pandemic situated in India.

Study area

The developing country, India is facing a huge amount of coronavirus cases at the beginning of 30th January 2020. The populated country India bounded by the Indian Ocean in the south, the Arabian Sea in the southwest, and the Bay of Bengal in the southeast parts (Halder et al. 2021a). The enormous populated nation, India has 121 million people situated with 382 per sq.km (<https://censusindia.gov.in/>). This enormous volume of inhabitants during COVID-19 can't stop spreading over the country and even the state or UTs (Fig. 1). The Government of India gives some initial to stage for a fight with this deathliest coronavirus pandemic, which is affected the world population and increased the health emergency. In this study, we estimated the mortality rate, correlation analysis, and statistical data analysis during the election time in India. Some states like Assam, Tamilnadu, West Bengal, Kerala, and Puducherry.

Materials And Method

Data source

In this study, the coronavirus data like, active cases, daily death, daily recovery and daily new cases have been collected from World Health Organization (WHO) (<https://covid19.who.int/>), Worldometer website (<https://www.worldometers.info/coronavirus/>) and Ministry of Health and Family Welfare (<https://www.mohfw.gov.in/>). The data were used for correlation analysis, mortality rate analysis and statistical data analysis over the India during the election time of five states of India (27th March 2021 to 29th April 2021). WHO and worldometer provided free data service for mapping, monitoring and identifying the actual condition of coronavirus over the world. The data were derived from that website.

Statistical correlation analysis

The active cases of coronavirus has been decreased during November to February, after that the active cases were increased regularly. The government and administrator try to build proper barricade between people and the virus but the overwhelming population country India don't stop the virus and election time the active cases, death and new cases were regularly increased. The data were acquiring WHO and worldometer website for statistical data analysis. The active and daily death cases relation has been shows that the actual condition over an area. This study was used for data to build the correlation between active cases and daily death cases in MS-office. Similarly recoveries and daily death, active and new cases and new and death cases correlation have calculated.

Correlation analysis

Daily death vs. daily new cases

The daily death and new cases were increased gradually during election time in India and the death cases were registered huge also the new cases were increased. To understand the correlation between daily death and daily new cases during election time scatter plot was used.

Daily recoveries vs. daily death

Daily recoveries and daily death number was build a proper aspect of coronavirus condition around India and election time the recoveries and daily death cases also increased gradually. To understand the correlation between recoveries and daily death cases, we used MS-office.

Daily death vs. active cases

The Daily death and active cases were shows the actual situation on the pandemic. To monitoring the status of daily death and active cases, the scatter plot was used. Same the active cases and daily recoveries, Daily recoveries and daily new cases were used for calculating and monitoring the status of the coronavirus pandemic situation in India during election time. The bar graphs were used for monitoring the recoveries and new cases using MS-office.

Mortality ratio calculation

The mortality rate was calculated for the death ratio estimation overlaying by the total death cases over an area. The estimating mortality ratio was calculated by daily death and total daily death cases of coronavirus pandemic during election period. The mortality rate calculation was estimated using the Equation 1

$$\text{Mortality Ratio} = \frac{\text{No.of death cases from a specific time}*100}{\text{Total No.of death in the population}} \quad \text{Eq. 1}$$

The mortality ratio has been increased gradually due to high rate of death cases were registered during election time over India. The five states and UT like Assam, Tamil Nadu, Kerala, West Bengal and Puducherry have been experience huge amount of mortality rate during election periods. The data were processed in MS-Office using notified formula.

Result

The coronavirus pandemic is an acute disease, and the symptoms are cough, fatigue, breathing problem, loss of sense smell, high fever and some cases finally death. All over the world are facing the public health relation problem and increased the emergency. Many vaccines were build but the overwhelming population does not covering by the administrator. Every day the coronavirus infected graph were increased and the death ratio were increased gradually. Also the recovered news is high due to proper planning and development of health care system. But the election time of India, the coronavirus cases increased and increased the death cases gradually (Table 2). The election time coronavirus pandemic was increased due to election related rally and many others reason. The guidelines have not been

maintained by the people. Central and states government were trying to build some strategies and increased the health related work. But the pandemic was increased gradually and the death and active cases were increased regularly. In 27th March, the death cases was registered 311 and the end of the election (29th May 2020) death cases was registered 3501 people. That results shows that death cases were increased ten times due to election, public gathering and not maintain the Election Commission of India, State government and Central government guidelines.

Statistical data analysis

The coronavirus data were derived from WHO and worldometer website and Health, Ministry of India. In the developing country India the trends line of new cases and daily death were increased gradually also the recovery ratio was increased but the health emergency were increased. The people do not maintain the social distancing and guidelines of Election Commission of India during the election time. That's way the ratio of mortality has been increased during election time in India. The statistical data were processed in MS-Office and the correlation analysis were developed monitoring the actual condition over the election time in India. The relationship between daily death cases and daily new cases was strong positive and the R^2 value was 0.9306 (Fig. 2a). This ratio has been denoted that the death cases registered high numbers with the respect of daily new cases. Also the daily recoveries and daily death was strong positive and the R^2 value was 0.9832 (Fig 2b). The daily death and active cases were indicated the actual condition of the pandemic. The correlation between daily death and active cases was high positive and the R^2 value was 0.9703 (Fig 2c). Other correlation were active cases and recoveries ($R^2=0.9803$) and Daily recoveries and daily new cases ($R^2= 0.9398$) (Fig 2d-e). Those correlations were shoes that the actual condition of coronavirus in India during election time of four states and one UT.

The recoveries rate was high but the death ratio also increased during election time in India. The figure 3 shows that the numbers of people recoveries and death in the daily cases over India during election time. The blue colour indicated the recoveries numbers and the red colour was indicated the death numbers during election (Fig 3). Figures 4 indicated the date wise death cases registered in India during election time. In the initial state of election the death cases was registered 355 persons in 27th March 2021 and the last date 3501 death cases were registered. This condition indicated the death cases were registered ten times more in just 34 days.

Mortality ratio calculation

The mortality ratio has been calculated the daily death cases multiply 100 divided into total death cases register in a particular time intervals. The figures 5 show that the mortality ratio of coronavirus cases in India during 27th March 2021 to 29th April 2021. The mortality ratio was low during the initial phases but after that the ratio was increased the one time the ratio have been increased 8 for a day. This low

mortality ratio was 0.66 and after 34 days the mortality ratio was increased 7.44 in 29th April 2021. The high mortality ratio shows 7.75 in 28th April 2021 and the low mortality ratio shows 0.57 in 29th March 2021. These cases were indicated that the election time was very much hammering the people lives and again increased the health emergency in India during 27th March 2021 to 29th April 2021. The mortality ratio was calculated by total days and affected numbers of people, which was multiply by handed. In the mortality ratio graph of India, regularly increased the ratio due to election related rally and programs. In the initial phase of election time the morality ratio was low but after that the mortality ratio was increased and the main reason was election of four state and one UT of India.

Discussion

In the present study, we justify the covid-19 situation during election time in India. Because many parts of India people were gathering and uncontrolled rally during election time. The Election Commission of India, States, and Central government were trying to reducing the pandemic effect but the densely populated country India has registered a huge amount of death cases and new cases during election time on 27th March 2020 to 29th April 2020. The new cases were registered on the date of 27th March 2020 were 62631 and at the end of the election, new cases were registered 386888 (29th April 2020). The new cases were increased 6 times more to the initial phase of election time. These results show that the pandemic condition, uncontrolled election-related rally, overwhelming population, and poor health care system were increased the affectability of this deadliest pandemic. The densely populated country India cannot control the pandemic spreading during election time. People were the main reason for spreading this pandemic again in India. In the month between November to February, the graph of daily new cases and daily death have been decreased but the unpredicted situations and population density have again increased the spreading of coronavirus in India. Many people were affected by this pandemic and lost their lives during the election.

The active cases were registered in the election starting data 487840 persons and the end date 29th April 2020 were 3172906, these numbers were shows that the actual condition affecting by the election (Table 2). On the first date of the election (27th March 2020) the death cases were registered 311 people in a day, after that two days the death cases were less to the respect of the first day (295 and 266), but then the virus grips the public health and people were lost their lives in very high amount. At the end of the election date 29th April, the death cases were registered 3501 persons, which was indicated the actual condition of the coronavirus situation in India during election time. The mortality ratio was increased gradually. On the first day, the mortality ratio was 0.66 and at the end of the election, the mortality ratio was 7.44, which was indicated the pandemic grass public health and again increased the public health emergency during and after the election in India. The lowest mortality ratio was identified 0.57 on 29th March and after one month the mortality ratio was shown highest that's was 7.44. In between 34 days many people were lost their life, increased health crisis, and mental health-related problems. The Central and state government declared many areas or whole states were under lockdown or partial lockdown. But the increasing pandemic was increased the health emergency in India. Oxygen deficiency, limited hospital

beds, poor health care system, and many other health-related problems were increased during this time. Mental health was the other health-related problem that arises during a covid-19 pandemic. Jobless people, homeless people were hopeless during this pandemic. Daily food was not essential for healthy living; also the health facility is the other reason for healthy livelihood. During coronavirus, many people lost their job because of lockdown, partial lockdown, and transportation inaccessibility. Obviously, the lockdown was increased the air quality but decreased the people's mental health, which is more affected to the body. Climate change and environmental degradation were decreased during a pandemic and increased the health-related problem and many people were lost their lives during the coronavirus pandemic and election was increased the numbers of affected people in India. Democracy is the main criterion to living a healthy life but when this energy pressed to the throat people cannot develop their healthy life anymore.

Conclusion

The study focuses on the coronavirus situation on election time in India from 27th March to 29th April 2021. The coronavirus is very harmful to public health-related problems and this pandemic was grape the world population health and increased the alert for a health emergency. The populated country India is fighting this 30th January 2020, when the first case was registered. Health emergency, Janta curfew, lockdown, and social distancing, and many other initiatives have been taken by the administrators and policymaker to stop the spreading of the coronavirus in India. One time the ratio of daily infracted and daily death cases was less and after that lockdown was finally dismissed by the government. During the lockdown, many industrial works have been stopping and the air quality was a good situation for health. But Election Commission of India decided the states and UTs legislative assembly elections were done on this pandemic situation. The negative impacts of this decision were the high rate of coronavirus spreading over India. The states like Tamil Nadu and West Bengal were the most affected states during the election time also Maharashtra was more affecting the virus. Election was not require for this time, if the government and policymakers were increased the vaccine distribution and stop the spreading of coronavirus that will be increased the public health and after that the election was require. But the decision and public condition were increased the spreading the coronavirus in India again and the mortality rate was increased gradually. The second wave was grip the public health related problem and increased the mortality ratio and GDP also destroyed by this pandemic time.

West Bengal has 8 phases of voting opportunities and the Election Commission of India build a proper strategy to control the pandemic during this long-term voting system. But the virus was spreading over India and the ratio of new cases and daily death has been increased daily. The democratic system failed down and again the virus grape the public health and increased the health emergency over India. Also increased the Oxygen demand for the coronavirus infracted persons in India. Delhi, the capital city of India is facing a huge amount of oxygen deficiency. In this case, huge questions have arrived but new build some strategies for controlling the virus. People also reason for spreading the virus because they do not maintain the social distancing and Election Commission of India guideline. This study is helpful for

the administrators, planners, and others stakeholders to build proper management and stop spreading the coronavirus in India otherwise this pandemic again triggered the public health emergency.

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Declarations

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Ethical Approval: This work does not involve the personal data. This is the review of published data and literatures. This study based on World Health Organization (WHO), Health, Ministry of India and Worldometer COVID-19 data and literature review. Also the all data is available in their provided website.

Also this manuscript has not been published, accepted for publication or under review for publication elsewhere.

Consent of Participant: Not Applicable.

Consent of Publication: Not Applicable.

Availability of data and materials: All the data and materials are available in World Health Organization (WHO), Health, Ministry of India and Worldometer website.

Code availability: Not Applicable.

Tables

Table 1 States and UTs names, term of assemble and numbers of assembly seats.

Table 2 Date wise different cases registered and mortality ratio calculation data during election time in India.

Table 1 (Source: Election Commission of India)

Name of State/ UT	Term of Assemble	No. of Assembly Seats
Assam	01.06.2016 to 31.05.2021	126
Tamil Nadu	25.05.2016 to 24.05.2021	234
West Bengal	31.05.2016 to 30.05.2021	294
Kerala	02.06.2016 to 01.06.2021	140
Puducherry	09.06.2016 to 08.06.2021	30

Table 2

Month	New Cases	Active Cases	Death Cases	Daily Death	Recovery Cases	Mortality Ratio
27-03-2021	62631	487840	161586	311	28729	0.66
28-03-2021	68206	523602	161881	295	32149	0.63
29-03-2021	56119	542353	162147	266	37102	0.57
30-03-2021	53158	553933	162502	355	41223	0.75
31-03-2021	72182	585215	162960	458	40442	0.97
01-04-2021	81441	615798	163428	468	50390	0.99
02-04-2021	89019	659928	164141	713	44176	1.52
03-04-2021	92998	692350	164655	514	60062	1.09
04-04-2021	103793	742830	165132	477	52836	1.01
05-04-2021	96557	788855	165577	445	50087	0.95
06-04-2021	115269	843779	166208	631	59714	1.34
07-04-2021	126315	910264	166892	684	59146	1.45
08-04-2021	131893	979519	167694	802	61836	1.71
09-04-2021	144829	1046376	168467	773	77199	1.64
10-04-2021	152682	1107827	169305	838	90393	1.78
11-04-2021	169914	1201457	170209	904	75380	1.92
12-04-2021	160694	1264544	171089	880	96272	1.87
13-04-2021	185248	1366518	172115	1026	82248	2.18
14-04-2021	199569	1471592	173152	1037	93458	2.20
15-04-2021	216850	1569427	174335	1183	117832	2.51
16-04-2021	233943	1679121	175673	1338	122911	2.84
17-04-2021	260778	1800199	177168	1495	138205	3.18
18-04-2021	275306	1930126	178793	1625	143754	3.45
19-04-2021	256947	2030944	180550	1757	154372	3.74
20-04-2021	294290	2156571	182570	2020	166643	4.29
21-04-2021	315802	2290728	184672	2102	179543	4.47
22-04-2021	332503	2428775	186928	2256	192200	4.80
23-04-2021	345147	2550788	189549	2621	220513	5.57
24-04-2021	349313	2681378	192310	2761	215962	5.87
25-04-2021	354531	2814544	195116	2806	218559	5.97
26-04-2021	319435	2882513	197880	2764	248702	5.88
27-04-2021	362902	2979768	201165	3285	262362	6.98
28-04-2021	379459	3085008	204812	3647	270572	7.75
29-04-2021	386888	3172906	208313	3501	295489	7.44

Figures

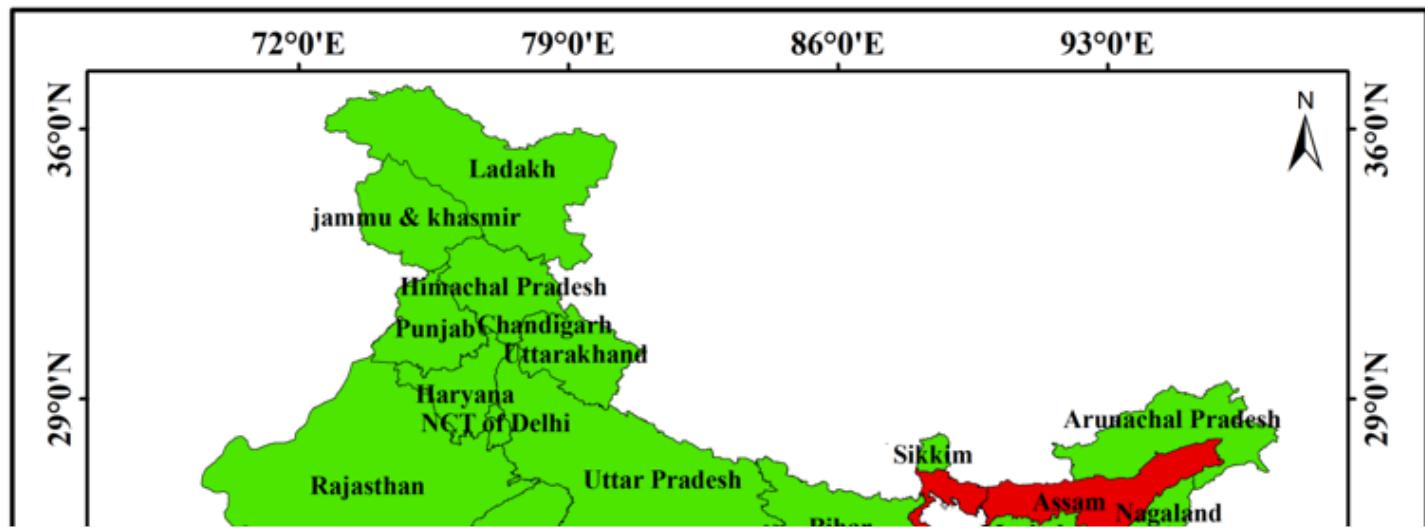


Figure 1

The study area shows that the geographical situation of India.

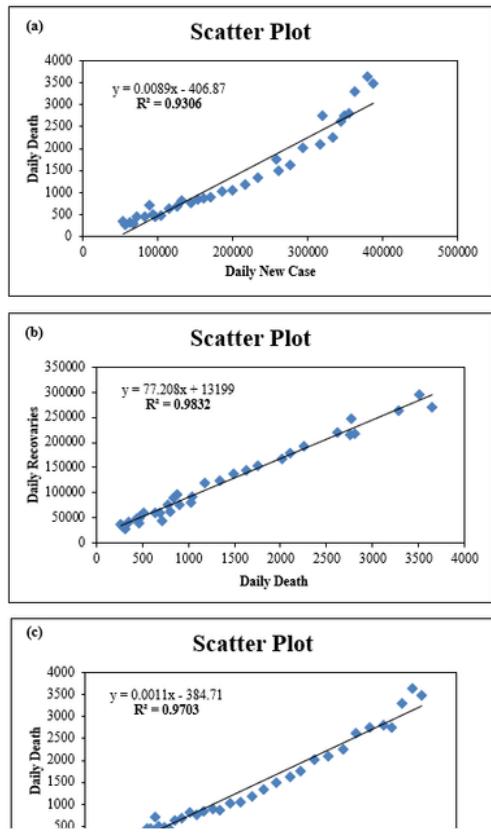


Figure 2

Correlation analysis, (a) Daily death vs. Daily new cases; (b) Daily recoveries vs. Daily death; (c) Daily death vs. Active cases; (d) Active cases vs. Daily recoveries; (e) Daily recoveries vs. Daily new cases.

Bar Graph

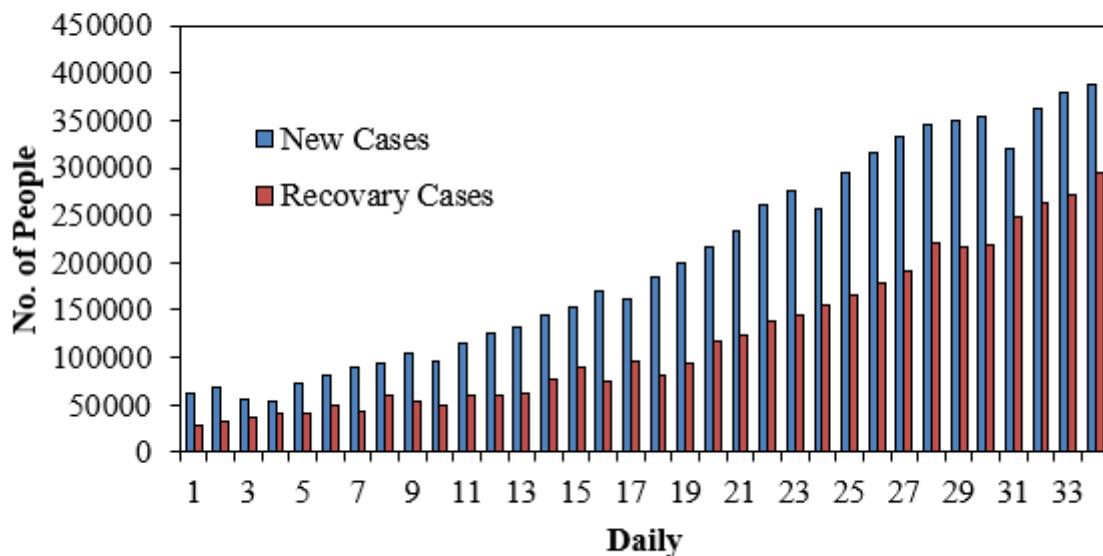


Figure 3

Bar graph showing the daily new cases and daily recoveries.

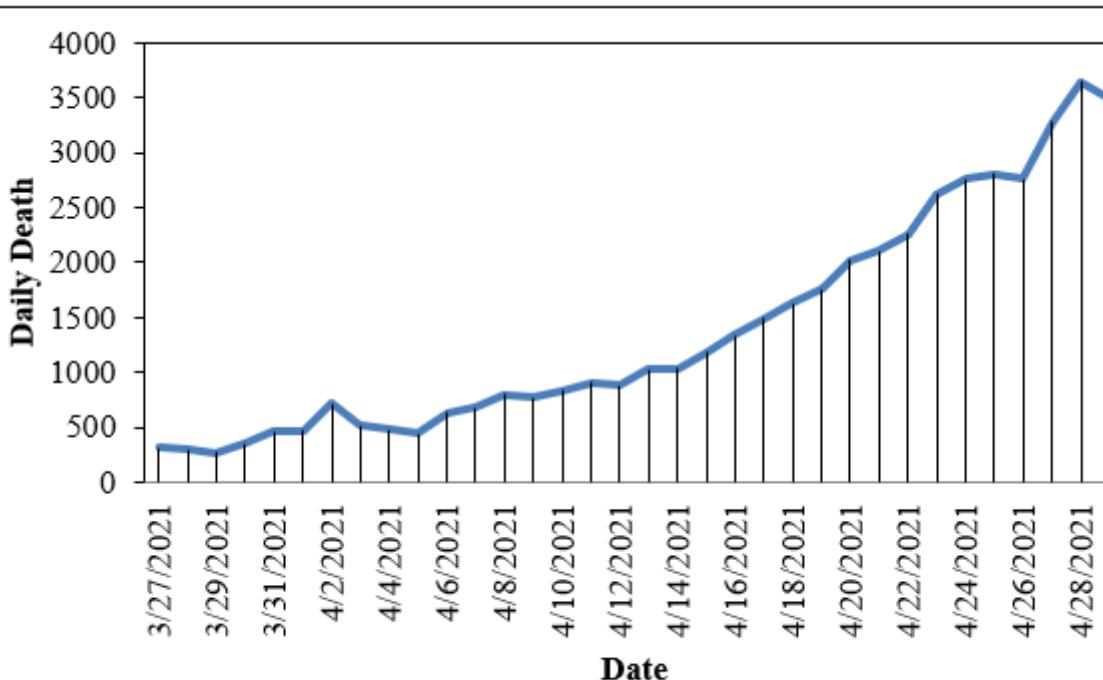


Figure 4

Date wise death cases registered during election time in India.

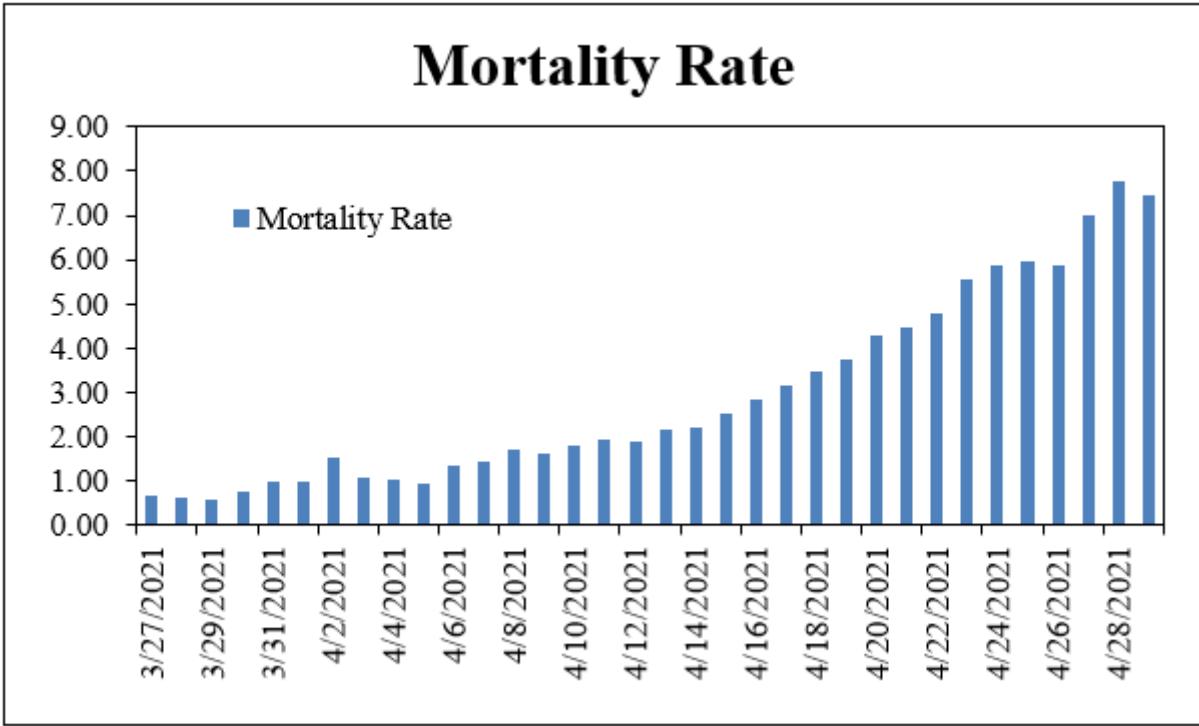


Figure 5

Date wise Mortality ratio during election time.