

A Detailed Descriptive Analysis and Inference Report of Covid-19 in India

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Abstract - Corona virus is a serious public health problems in terms of its morbidity and mortality. It reports from almost all states and it is endemic in districts and few union territory. This present the national as well as state study aim to describe the frequency, distribution and case fatality of corona virus based on the variables such as age, cases, cured and death rates^[1]. It is a state-based retrospective study of 5 months in southern states in South India. The data were collected from the reports given by hospitals, update data's from media and from The Hindu newspaper and analyzed by using Microsoft Excel. Out of total 9,68,876 reported confirmed cases of corona virus, 3,31,146 reported active cases, 6,12,815 of recovered cases and 24,915 of deaths. In the mentioned above all age groups, the higher proportion of cases were reported in adult age groups (31-40 years)^[2]. In India, Case fatality rate of Corona virus is 2.81 percent with a health expenditure as a share of GDP is 3.1% with per capita public health expenditure of 1,657INR^[3]. More cases of corona virus were reported in the adult age group (31-40 years) greater than (21-30 years) It highlights the involvement of work component in occurrence of virus. Community based action program is required for source reduction activities in the outdoor area for sneezing by social distancing and usage of mask and umbrellas, One-to-many usage of towels, handkerchief, water, etc and thereby to reduce the morbidity and mortality of Corona virus^[10]. As outbreaks of Corona virus is increasing in India, one state after other getting affected, it is very essential to know more about this disease and prevalence, any change in the Corona strain, severity in the disease pattern, early detection of virus and early management of spread of virus which would result in good recovery^{[11][2][3]}. Travel from endemics and improper screening has resulted in this type of wide-spread disease. Measures should be taken into account for prevention of aforementioned causes to reduce flare-up of virus^{[5][8]}. In the illustrative case study aim to describe the frequency, distribution and case fatality of corona virus based on the variables such as age, cases, cured and death rates and approach to prediction and management.

Key words : Confirmed cases, Active cases, Recovered cases, Deaths, GDP, Age group.

I. INTRODUCTION

Corona virus is an infectious RNA virus caused from mammals and birds. This may result in respiratory tract infections ranging from mild to lethal. While classical Corona cases sometimes develop to more severe life-threatening stage with more lethal quantity such as SARS, MERS, and COVID-19. The disease is transmitted by the person having common cold such as fever, sore throat and swollen adenoids. Subsequent infection with different types of pneumonia increases the complications among Infants, older adults and people with other illness or weak immune system which results in respiratory tract infection. The control measures of the Corona virus include source reduction activities and also personal social distancing measures. This study aimed for finding out the frequency distribution, stringency index and case fatality of corona virus based on the variables such as age, cases, cured and

death rates over the time period of 5 months. The virus contains of 7 types and been classified into two further types namely common human corona virus (229E, NL63, OC43, HKU1) and other human corona virus (SARS-CoV, MERS-CoV, SARS-CoV-2)^[8]. The symptoms are also been categorized further as Primary and Less common symptoms. The Primary symptoms includes Cough, Fever, Shortness of breath, Fatigue. Less common symptoms includes Sore throat, Nasal congestion, Muscle aches and pains, Diarrhoea, Loss of taste/smell, Headache, Chill/Repeated shaking. Since it is Zoonotic viruses they most affect animals such as Birds, Bats, Camels and Pigs. These are also called “Zoonotic spill over”^[9].

II.LITERATURE SURVEY

1)“ Propagation analysis and prediction of the COVID 19” by Lixiang Li, Zihang Yang, Zhongkai Dang, Cui Meng, Jingze Huang, Haotian Meng, Deyu Wang, Guanhua Chen, Jiaxuan Zhang,Haipeng Peng, Yiming Shao proposed the transmission of Coronovirus diseases 2019 [covid 19] based of the official data modeling. The analysis shows that the error between the model and the official data curve is quite small. it realized forward prediction and backward inference of the epidemic situation, and the relevant analysis help relevant countries to make decisions.

2)” A comparative-descriptive analysis of clinical characteristics in 2019-coronavirus-infected children and adults” by Ya-nan Han, Zhan-wei Feng, Li-na Sun, Xiao-xia Ren ,Hua Wang, Yong-ming Xue Yi and Wang Ying Fang did a research paper on covid 19 in China . Children and adults show a different clinical course. The purpose of the current study is to comparatively analyze the clinical characteristics of 2019-nCoV infection in children and adults and to explore the possible causes for the discrepancies present. It proposed and compared the clinical symptoms of Covid-19 among children and adults and also the analysis of percentage of diseases.

3)” ArtificialIntelligence(AI)andBigDataforCorona virus(COVID-19)Pandemic:A Survey on the State-of-the-Arts” by Quoc-Viet Pham, Dinh C. Nguyen, Thien Huynh-The, Won-Joo Hwang, and Pubudu N. Pathiran proposed that At the time of writing this article, the numbers of infected cases and deaths still increase significantly and have no sign of a well-controlled situation. Motivated by recent advances and applications of artificial intelligence (AI) and big data in various areas, this paper aims at emphasizing their importance in responding to the COVID-19 outbreak and preventing the severe effects of the COVID-19 pandemic.

4) “Reducing the Spread of COVID-19: A Social Marketing Perspective” by Nancy R. Lee, MBA is a journal which comprises of perspectives on what social marketing principles, strategies, and best practices appear to have been applied to reducing the spread of the Corona virus disease 2019 (COVID-19), even if they were not labelled as such.

5) “A Comprehensive Review of theCOVID-19Pandemic and the Role of IoT, Drones, AI, Block chain, and 5G in Managing Its Impact” by VINAY CHAMOLA , VIKAS HASSIJA , VATSAL GUPTA , AND MOHSEN GUIZANI proposed The scarcity of resources to endure the COVID-19 outbreak combined with the fear of overburdened healthcare systems has forced a majority of these countries into a state of partial or complete lockdown. The number of laboratory-confirmed Corona virus cases has been increasing at an alarming rate throughout the world, with reportedly more than 3 million confirmed cases as of 30 April 2020. This gave me the idea of graphs.

III. MATERIALS AND MEASURES

It is a retrospective study of five months conducted by government as well private oriented camp in allocated areas with homeopathic doctors, South India. The medical records follow the guidelines of Government of Tamil Nadu Health and Family Welfare Department. It is believed to infect millions of people world-wide within a year. The case fatality rate ranges between 2.6 percent with treatment to 4.4 percent without treatment. Severe case fatality rate can be carried around 8.8 to 10 percent. The incidence of Corona is increased and affected by 30,000

fold between 2019 and 2020. This rapid increase is believed to be due to multiple factors such as Lack of social distancing, sneezing in public places, irregularity of cleanliness, and proper screening over people coming from other countries. These geographical distributions are nearby the Equatorial regions and most affected countries such as USA, India, China, etc.

IV.INFERENCE

This paperwork intrigues, history of rampant which has been inherited from other country to India has its first outbreak which has been reported on 30th January 2020 in state of Kerala, the affected had a travel history from (Wuhan) China. Yet it was found that another outbreak ranked second to India on 13th March 2020 reported at Maharashtra. Another case who is an employee of (Google) Bangalore, confirmed positive in Noida on same day. In India, First death was been reported in Karnataka on 12th March 2020^[2]. Among Kottayam, Kasaragod, Pathanamthitta and Ernakulam, Kasaragod most affected region in the country recorded more than 90 cases on 8th March 2020. According to the Characteristics of Epidemics shown above in graph at different stages, this paper uses prediction interval and Confidence interval theory to construct the new model of Corona virus transmission. By stimulating the propagation process from the extracted dataset, we tend to know the curves of the proposed model are being well stimulated from the official database provided by The Hindu, Times of India, World Health Organization and Ministry of Health and Family welfare. The study points out the key factors, initial value, peak values and consistent variables. At the same time, we predict the development trend of virus in regional locality of India and Infer the time span of virus to diminish from the surface of the earth. Furthermore, analyzation of dataset of cured, active and death rate of states and districts impacts and spread over the rampant pandemic ^[1]. The main contribution of this paper answers the following questions and been summarized:

This desk work believes, first thing to be considered is the massive pandemic affected by a huge community of people with morbidity and mortality from invasive fungal infections remains unacceptably high at the start of year and gradual incubation period has a prompt decline over it for past 1 month after hard challenges and medication infrastructure with higher cost potential for vaccines and auto-immunity drugs against the organism being developed in all developmental stages. With the developed stories evolved all over the nation which has been declared as pandemic by Heath organizations how to pursue state or region responding to the outbreak of virus? How could this narrow down factors correlated to it? Yes, this would be a problematic careers of transition of virus from mammals to humans and this got spread all over the nation with minor symptoms like sore throat, fever, cold, diarrhoea with 95% recovered cases, whereas some has been proven with cases of SARS and MERS which led to death with a case fatality rate ranging from 2.81% - 4.40%^[1]. Urgent steps have been taken by the Health organization and awareness camps and mass media has acquainted to motivate all people to stabilize and sustain populous growth and death toll but whether this branch study based on effect of mapped concept of causes and its prevention may help patients from further pneumonic kind of disorders? In survey report produced below, a concept mapped data has been extracted which organizes regular analyzes and represent dataset of patients over the incubation period, death rate, cured and active cases which is been broken down into specific areas. Over the specified hard times there is decline of death rate and large no of space has been consumed by the cured cases and report depicts there is damage over the further continual of virus, perhaps after a month and would get scrapped off soon.

As far as many researches in this paperwork, currently looking into correlations of primary and pre-existing vital datasets to be evaluated in both positive and negative scenario and how to compensate the calcification or benefits of this technique and selection of active cases? Positively, it is highly focused on selective disorders and rate of cured and death analysis and untreated source of increment of screening methodology over the identified human body which tends to back spread to blood and glands and spectators over the recorded case of SARS-COVID-19 and high risk of respiratory tract issues with age limit (31-40 yrs). This persistent infection provokes notion over the steady reach among all the southern states, how prudent is that? In continuation of survey, a few remarkable points are been ordered and been fluctuated over the past few months and are been speculated to evolve

over the biological platform with preventive measures, this normalized the digastric scale of public interest over the new cleanliness platform. As a part of globe, we cannot be an exception to it but, should that be considering changes in habitat types and travel over endemic locations? In the sustained populous growth this barriers bear losses aside and to not cope up with problematic issues we have to stop fixations over this lateral entry of virus in future by usage of mask, social distancing and productivity of man-made products with quite proper disposal system and community must adapt to the ambience provided in global scale by Health organizations in the forthcoming era. What would be the effect towards the public if the antibiotic or antiviral drug to cure virus is furnished, boon or bane? Rampant virus role played a major role in death crisis as well adversely affected the nominal life strategy of people and their sustainable transition of lifestyle after lockdown 2.0. This would transform the decline of agricultural resources and those Farmers are plunged with debt without source of income as their goods aren't sold out on time namely flowerets, fodders and footages even though there is a huge demand ^[1]. Has anyone the economic states of India after Virus pandemic? Does this cumulative dosage of lockdown plays a vital role in Transportation? Is economy GDP is a shoot up or tail off? This disasters and infections has been in existence for many years, but the general procedures remains unchanged, despite of its enormous people getting affected but this made a time-consuming steps.

Government of India gave a entirely anonymous opportunity for “people with making a slew of policy announcing, No of financial measures such as Easing of digital filling of tax, GST returns and ease impact of virtual lockdown in country to avoid financial distress to local incomes community”^{[8][5]}. Government has decided to introduce stimulus for industry affected due to current crisis, the last date for filling has been released free and interest rate has been reduced from 9% to 12%. Is this still a dilemma that automobile requires some sort of consensus to push on with production or not? As far as familiar with, automobile came to seek together to restart operations by entire chain including manufacturing, component supply, dealer and service. Henceforth, Industry bodies reasoned “if any one of its suppliers is unable to undertake production we cannot commence above operations on fixed era. These lag are substantial to compensate in this complex, integrated and interdependent in this elemental segmentation of value chain. Is it common trend analysis to have more virus in age-standardize rate (31-40 yrs) ? Are they mostly getting affected? Why doesn't the cured cases urge more when compared to death rate? Will it changes over time? To explain better think of this way ^{[8][6]}. It is condition where those age group affected by virus have a better immune and respiratory tract system and body ease recovered easily and act normally over the special treatment after this disease. According to survey viewpoint, based on analysis is most of active and new cases found all over the nation had symptoms of primary corona virus or many faced the initial period of virus which tends to be cured easily whereas in specific subversive SARS-COVID-19 can be cured but slight destruction or lose may occur due to he/she personal habitats on or before treatment after symptoms findings the cells or tissues destruction may have already occurred.

A short inference to the COVID 19 according is done as follows using the data sets:

1] When COVID 19 started in India?

COVID 19 started in India on 31st January 2020 in Kerala (Thrissur District), a student who returned from Wuhan University, China for vacation.

2] How did COVID 19 spread in India?

COVID 19 started in Kerala and lasted in January and February. From there it got spread to Delhi and Hyderabad on March.

3] When was the rapid increase in India?

Rapid increase was on 3rd week of March.

4] When was the new cases reached its peak in India?

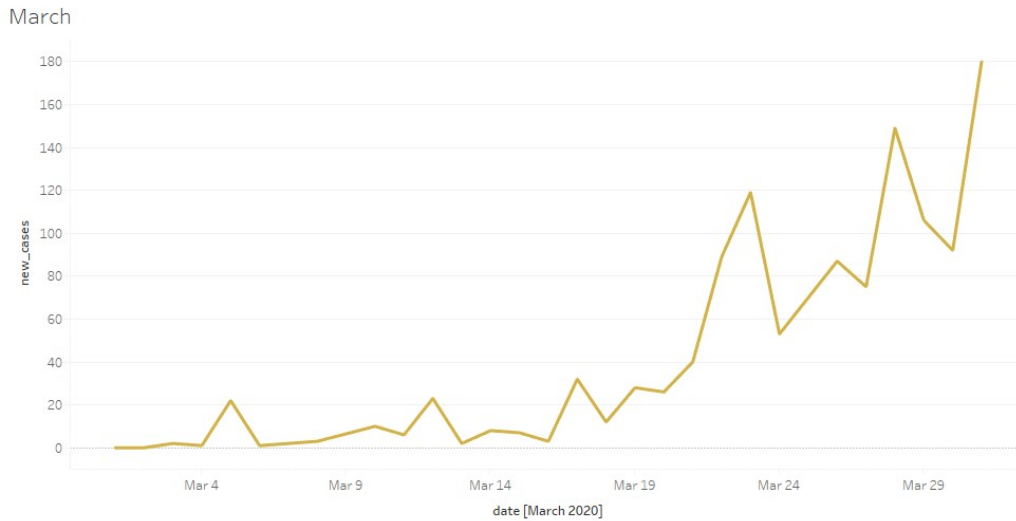


Figure 4.1.1

This Figure 4.1.1 depicts about the new cases Vs date of persons being admitted on the Incubation period

Figure 1 shows that on March 16, 2020 had less new cases where as on 23rd March reached its peak and then decreased gradually and again reached its peak of 180 new cases on 31st March.

5] When was the highest new death from January to July?

The highest new death occurred on 17th June which was reached as 2003.

6] When was the new case increased?

On March, it started to increase and got into a rapid drop on July 5th - July 7th was the peak to get increased again^[3].

7] On September, what will be the total cases?

It is predicted that it will get decreased as Government has undertaken various steps to control the COVID 19 like lockdown in whole or particular city, wearing masks, spraying medicine and maintaining social distancing ^[2].

8] Than active cases and death cases, the recovered case rate is high why?

Since because the pneumonia disorder is been spread due to lack of screening and it has been controlled very promptly after prediction of COVID 19 such cases, thus this was spread virally with minor symptoms of corona or initial stages of this viral. The patients weren't allowed to isolate themselves and they were admitted in the hospital immediately by ambulance. Which made the prevention of spread rate low and minor symptoms at the initial stages were denied to step to other surfaces of the earth. This preventive step taken by the government and awareness among the people made this strategy with less active and death rate and increase in cured cases.

9] Among South India, which state has the highest case?

The state that has the highest case is Tamil Nadu.

10] In South India, which state has a various fluctuation in active cases?

The South Indian state which had a various fluctuation is Andhra Pradesh.

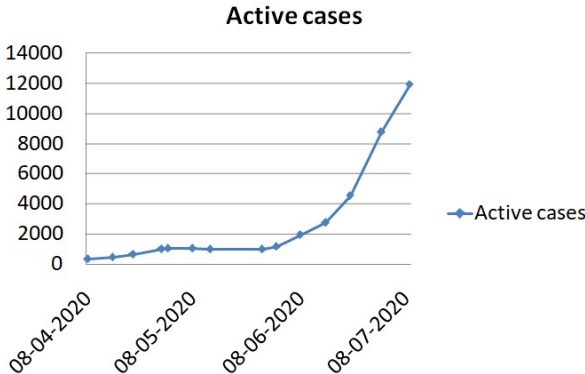


Figure 4.2.1

11] Among the South Indian States, which has the lowest death case?

The lowest death case is Kerala though it has more active cases as well as more recovered cases.

12] Among the South Indian States, which has the highest cured cases?

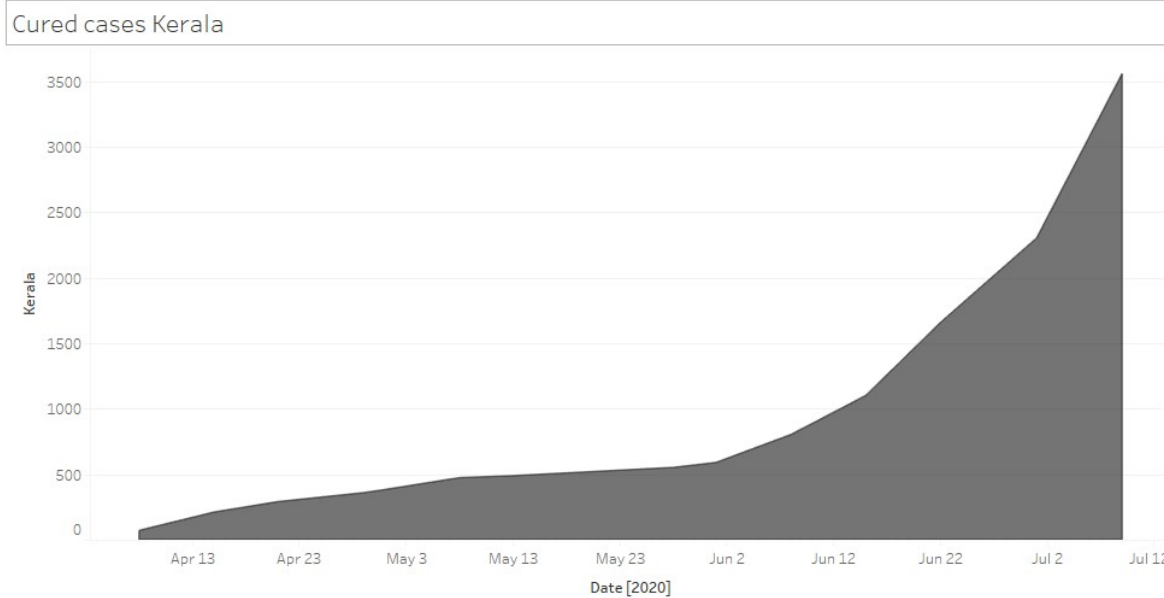


Figure 4.3.1

Kerala is the state which has the highest cured cases as shown in figure 4.3.1.

13] Among the South Indian States, how does the case fertility rate and economic growth remain consistent?

The fertility state and economic growth is high in Tamil Nadu, maintained by Kerala and fluctuation in Andhra Pradesh, Karnataka and Telangana.

V.DISCUSSION

Corona virus reports from many parts of the India including Maharashtra, Madhya Pradesh, Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu and Kerala. The last few months witnesses this pandemic all over the country. As far as India is concerned major metropolitan cities such as Mumbai, Kolkata, Bangalore, Chennai, Hyderabad and Trivandrum

A total of about 9,68,876 have been reported in the World Health Organization and Ministry of Health and Family Welfare during the time period from January 30th to July 12th. Of 9,68,876 cases, 3,31,146 reported active cases, 6,12,815 of recovered cases and 24,915 of deaths. The proportion of death ratio were been increasing from 31 – 40 yrs and then from 21 – 30 yrs later consequently. Stringency index rate of Corona virus initialized with a value of 5.56 and reaches it value the next value to 10.19. Out of 968k reported cases the most recent carries a larger section of around 97.25% were due to SARS-CoV-2 and a small proportion of it been exhibited by other common virus categories such as 229E, NL63, OC43, HKU1 with a mild symptoms which can be cured easily in initial stages. The trend of stringency index rate of Corona virus of India has been given in Figure 5.1 below.

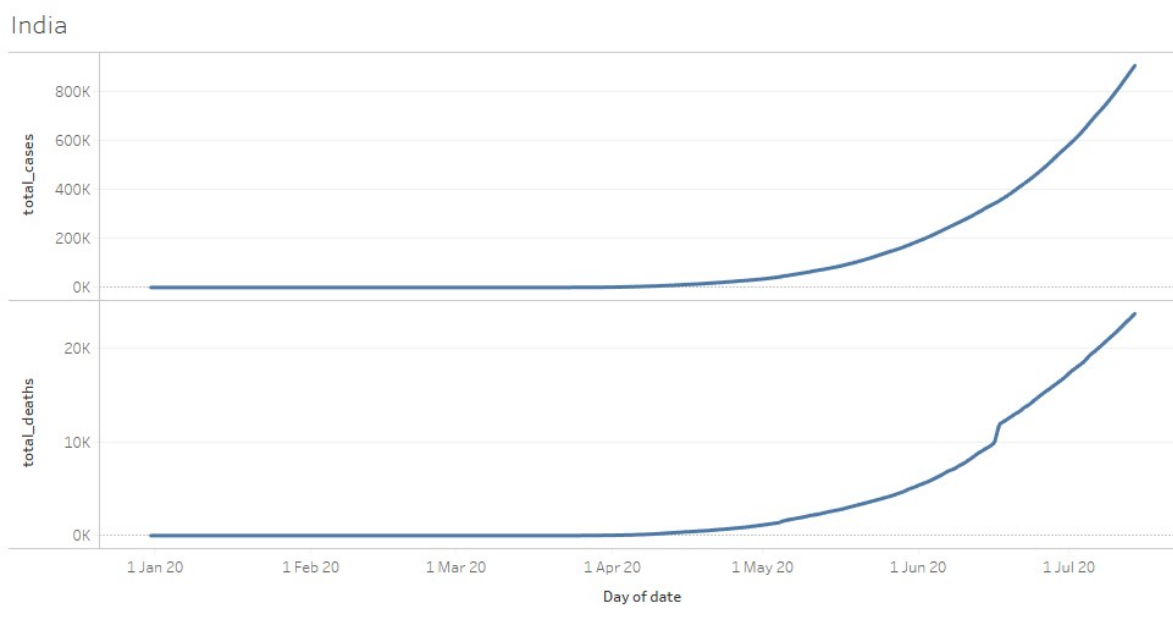


Figure 5.1

In the present study 968k confirmed Corona cases were reported at the Government of Health and Family welfare department during this 5month time period. Out of 968k, 24k deaths were been reported with a case fatality rate of 2.8% and with a stringency index of 74.07%. The Stringency index of Corona virus in present state on Jan 2020 is been initialized to (5.56) and been increased to value of (10.19) on 26th Jan and later demonstrates a increase in value from (10.19 to 26.85) on 4th Mar 2020. This report presents the higher value of (50) dated on 18th

March 2020 and doubles the amount by around (100) within 22nd March 2020. The value consequently gets repeatedly for upcoming one month (till 19th Apr 2020) and further we can see can a decline nearly about (74.07).

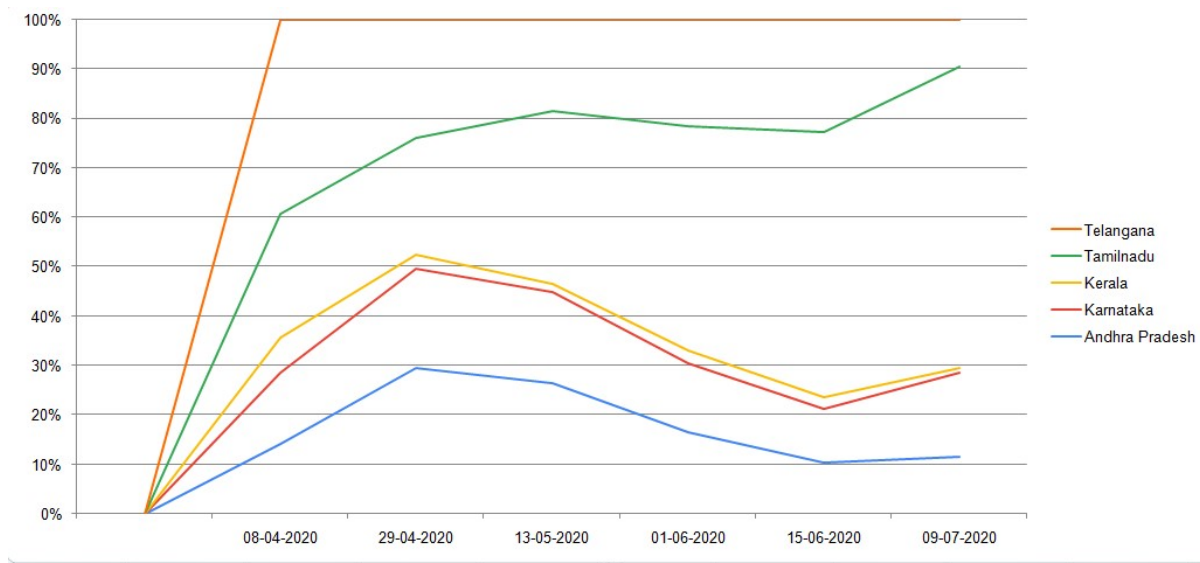


Figure 5.2

In the present study to be depicted Figure 5.2 above, we infer the major factor Case fatality rate. When compared with Global fatality rate of about 6.13 percent “Our covid-19” ranges almost around 2.81 percent which is been achieved by identification of cases and proper clinical management system. The most recent fatality rate per lakh population was exhibited by Government of health and Family welfare to be around 0.41 and says to be the lowest among the world about the span of 5months.

As per the World health organization report, rising new case rate among Indian population leads to wide-spread of this virus which tends to increase in demand of hospitality centers and clinics, especially in most affected urban and rural areas as concerned.

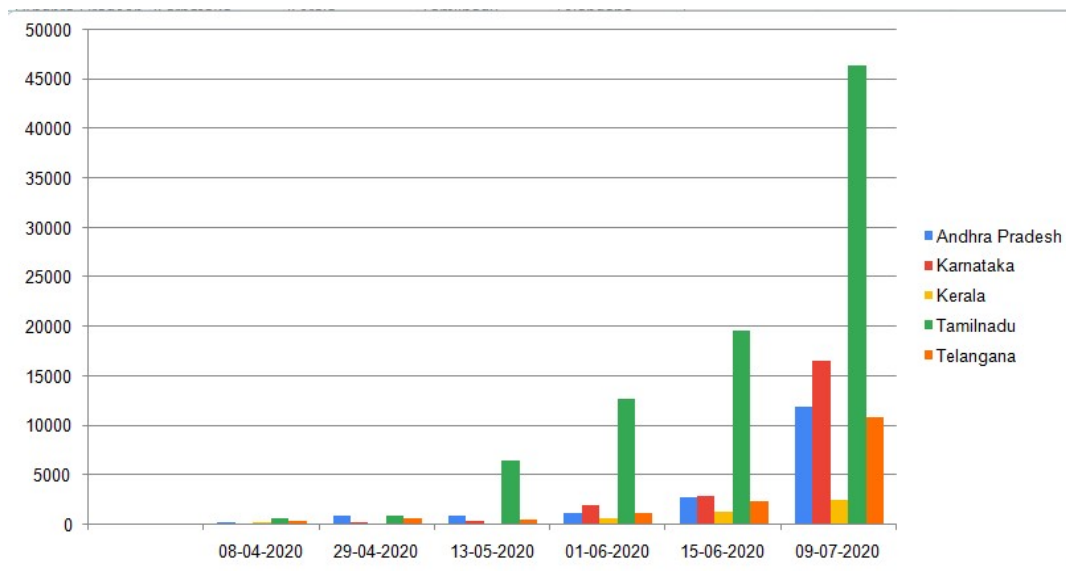


Figure 5.3

From the above Figure 5.3 it was revealed that, the new cases were emerging from 2nd March and got popular to the nation with the count of 21 on 5th March. This drastically increased from 3 cases on March 16th and March 31th to 180 cases which is said to be a unpredictable by the government. Even after the implementation of lockdown 2.0 on April the new cases started to increase, the value specified got likely enlarged with from 146 on 1st April to 568 on 2nd April and the trend got continued the whole month. Even after the newly launched lockdown and medication facilities issued by the government, the virus in return resulted out promptly in around nearly 1000cases per day on March 5th and 6th and at the same time expeditious got declined statistically with the disclosed cases of around 600 per day by end of May. This hasty decline made voluminous population with a rate of around 200 cases per day and henceforth the recovery rate started to inflate by the start of July.

According to the recent survey, the above graph (figure 5.4) disclosed that the recovery rate of the nation has been continuously improving and patients admitted in clinic has been cured in quite smooth manner without any stagnation. According to the report above the patients been recovered among 95,527 is almost around 3,708 in 24 hours period time. As far as Government of India has been concerned, it was found that Recovery rate of India on April 15th was about 11.42 percent. On May 3rd it was 26.59 percent. On May 18th it was 38.29 percent and currently it exhibits as on date as 48.07 percent [2].

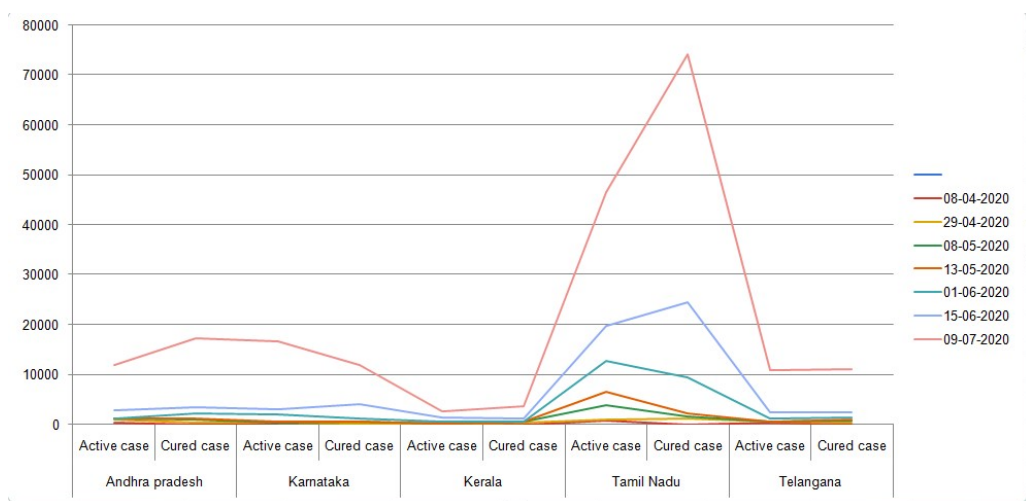


figure 5.4

From the Figure 4.3., it is depicted that there is boundless increase in rate of new test cases for past few months. The data revealed from March depicts around 900 to 3000 test cases per day. There shown in increment of 9,584 to 45,352 with a rushing upsurge dataset on April. Consequently May remains uninterrupted with no further increase followed by April. Rather sudden as the graph shows the June urges the new test cases to the peak with a value of 30,000 new test cases with widespread along the nation. By continual tireless medication facilities given by hospital and control panel by cops to avoid further widespread the rate got further persistently decreased with a recovery rate of 48.07 percent whose range is around 20,000 cases per day [2].

It is also found that, in view of new death rate (Figure 5.2) the value plotted above illustrates from March 28th and 29th were 0.001 to 0.006. There noticed a new increase in death rate on April from about 0.002 to 0.053. There came a further increase in death rate once-over ranging from 0.052 to 0.192. It was found that after time of lockdown the new death rate varied with a range of about 0.198 to 0.337 throughout June [8]. Finally it was revised that on July had a death rate ranging between 0.32-0.44 which is been drastically reduced when compared to June. The table also depicts the death toll rate of state-wise prediction which intimates the decline of death rate. On July

16th at Tamil Nadu is noticed out that there came about 1515 new cases and 49 deaths whereas 1438 were been discharged after 2 days of social distancing in hospitals and with proper medication facilities and ventilators. Thus it was noticed with, in view of around 48,019 total cases while 528 were death toll and among total inhabitants 26,782 were discharged today^{[2][8]}. This clearly depicts that there is decline of death toll all over the nation.

From the above reports it was disclosed that there is fine increment of recovery rate all over the nation from Corona virus. It was also revealed that there should be analysis over the Southern states of India to enhance our future predictability. As a part of data collection and integration from The Hindu publication environment aggregated with the National level Region with appropriate analysis. The mentioned dataset includes recorded data on a daily level basis and been analyzed by potential influence level and trends, while some data were extracted from tweets research given by normalized normal in each week. The data mentioned here includes prediction model to explore whether it provides a leading indicator for future virus intensity. In addition to the directly available datasets, a no of derived sets were been inserted for inclusion of prediction model. (COVID STATE SURVEY 001)

The above stated prediction model states that for end of March positive cases all over Southern states of India were around reaching 35 percent of new cases over Period 1 and Period 2 (Jan 30-Mar 24) & (Mar 25-Apr 10) whereas death burden included only Andhra Pradesh and Tamil Nadu which totally counted for 5% only over the period 1 duration (Jan 30-Apr 10)^{[2][8]}.

The Medication facility provided by the Government for State Tamil Nadu was unbounded limitlessly after this widespread virus all over the state. To prevent spread this was made with homeopathic doctors and clinics as well with available beds and proper ventilators as well all over the state to enhance better medical infrastructure in cities such as Chennai and Coimbatore. Traditional way of hospital contains 5% bed than ICU but whereas this widespread crisis made government to provide 196 to 200 beds per hospital and have 16 private hospitals working all over the time and all along 58 total number of hospitals in inclusive of Government hospitals (GH). Total bed capacity has been intensified from 39.1% from 52.3%^{[2][8]}. The backup of Bed capacity in private hospitals has been enhanced with proper disposal blankets and protection wears with ventilators to almost around 90% for COVID-19 community. The total number of ICU beds in Chennai has been increased to 71.1% (~=378) and improvement of supply of ventilators to be 44.6% (~=242). From the inferred data we extract that Availability of bed has been in range of about 9,951 and been occupied by public with a count of 31%, we also infer that No of ICU beds count to be around 1,214 and been occupied with a range of around 38.3% and Ventilators of availability limit of 687 whereas occupied range is around 28.7%. So we came to know that Government of India provides allowance to Ministry of Health and Family Welfare to enhance and abundantly and comfort to Public with better infrastructure. Since the death toll is drastically decreased with increase in recovery rate by 48.07percent nationwide the availability of medical infrastructure can be slightly reduced for upcoming less demand by 10% - 15% and demand of mask, and other medical equipment prices can be raised slighter to meet the financial status of our country to compensate. I hereby there to conclude that by the consequent data inferred above I expect the virus gets through our nation by September or November 2020.

Thus I hereby, discussed about the Frequency, Death toll, Case fatality and Stringency Index of Virus in complete. I hereby conclude that there is reduction and better treatment provided by homeopathic doctors all over the nation with better providence of medical facilities as well. According to the calculation made by advance health stake holders and proactive management efforts made by Ministry of Health and Family Welfare and WHO, these functionality provides exploratory, temporal analysis, modelling and intervention analysis. It also provides infrastructure for prediction of transmission and evaluation of interventions made by resources available from above datasets. We believe that the continued development of Ministry of health and family welfare of comprehensive dataset library would integrate our architecture to allow us better pandemic preparedness and planning at local, regional and national level.

In the distribution, satisfy distribution of data in sequential order primary actual peak at Karnataka appeared on 15th April 2020 and the highest peak with a new case dated on 22nd Jan to 1st July 2020 with a Total test cases which ranges between the value (9,150 – 15,242). At this time, the table above depicts the inflation of death rate by 2 times on July (1-9) which is about ranging from (250 – 474)^[2].

The table provides, almost 17.1 percent of persons being recovered among persons tested positive on same day and has been around 14.28 percent of recovery from the total no of cases.

In addition to it, the same graph which depicts almost 71.8 percent of persons being recovered among persons tested positive on same day and has been around 41.12 percent of recovery from the total no of cases.

From the above indicated output ratios we tend to know that there is gradual decline of recoveries even though there is large no of test cases. When compared to the April death ratio and recovery ratio July has enhanced it in better multiple way with enhanced peak.

At present, the situation in Kerala is basically under control. According to the depiction made over through the graph they were under control by start of June. It was found on 1st May to 13th May there was decline in active cases ranging from (111-32). This drastic drop made Death tolls to reduce on the same day with nearly 500 cured cases.

In addition to it, the same graph which extracted depicts almost 26.9 percent of persons being recovered among persons tested positive on same day and has been around 21.13 percent of recovery from the total no of cases.

From the above indicated output ratios we tend to know that there is gradual decline of recoveries even though there is large no of test cases. When compared to the April death ratio and recovery ratio of July remains consistent with almost slight differences with gradual value and here high peak has been neglected. We came to know that the percentage of active and cured cases is slightly less and stabilized in Kerala than Karnataka.

In the present study, the proportion of cases in Andhra is basically under control. According to the depiction made over through the graph they were inflated with 300+ new cases dated on 8th April 2020. There indicated a urge increase of test cases on same day supplemented to the total new cases.

From the above table, identified almost 1.97 percent of persons being recovered among persons tested positive on same day and has been around 1.88 percent of recovery from the total no of cases in turnover.

In addition to it, among the chart shown almost 69.06 percent of persons being recovered among persons tested positive on same day which is terribly immense and has been around 58.50 percent of recovery from total no of cases.

From the above indicated, output ratios we tend to know that there is moderate downturn of recoveries even though there is large no of test cases. When compared to the May month death ratio and recovery ratio July has enhanced it in better multiple way with enhanced peak.

The statistical analysis of Telangana dated on 8th April 2020 depicted an outcome, which were indicated a trice increase of test cases on same day. There defines the recovery of about 12.93 percent.

The survey shows that almost 12.9 percent of persons being recovered among persons tested positive on same day and has been around 11.13 percent of recovery from the total no of cases' Incorporated to the same graph were almost 49.87 percent at the end of July.

At present, the situation in Tamil Nadu is basically under intermediate control. According to the depiction made over through the graph they were inflated with 500+ new cases dated on 8th April 2020. There indicated longing increase of test cases on same day. It is observed that almost 32.73 percent of persons being recovered among persons tested positive on same day and has been around 24.48 percent of recovery from the total no of cases:

In computing to draw-up almost 37.99 percent of persons being recovered among persons tested positive on same day from total no of cases. Whereas the recovery rate is more than the cured rate that means that there is more discharge of patients than the active cases that is been admitted on particular this defines that there is increase in value of recovery rate when compared to active case rate. Since the cured strategy increases death toll is inversely proportional.

VI.CONCLUSION

The conclusion about the survey and diagnostic depends on what you find and adoption of ambience. I recently began looking into my own safety and prevention methods and steps to prevent the possibility of virus or any infectious disease. I do not think this is meant as elevated survey for nation has not much with more details and clinical history and general examination data ^[10]. As the prevention of Corona virus lacks proper vaccination, the main preventive strategy is the awareness propaganda in the civilization regarding the reduction process by social distancing, wearing of mask when entering into public, by emptying man-made products and containers and disposing them in a systematic proper way. Much efforts to be taken to promote even more in cream of society of action program to eliminate the virus (COVID-19)

REFERENCES

- [1] Gaetano Ruocco ,Mauro Feola and Alberto Palazzuoli “Hypertension prevalence in human coronavirus disease: the role of ACE system in infection spread and severity” in International Journal of Infectious Diseases published on april 23,2020 Available:<https://doi.org/10.1016/j.ijid.2020.04.058>
- [2] The Hindu Newspaper (<https://www.thehindu.com/business/Industry/auto-industry-seeks-govtnod-to-restart-operations/article31484403.ece>)
- [3] The Indian Times (<https://government.economictimes.indiatimes.com/news/economy/covid-19-virus-scare-govt-announces-financial-reforms-amid-lockdown/74794569>)
- [4] Li Yan, Hai-Tao Zhang, Jorge Goncalves, Yang Xiao, Maolin Wang, Yuqi Guo, Chuan Sun, Xiuchuan Tang, Liang Jin, Mingyang Zhang, Xiang Huang, Ying Xiao, Haosen Cao, Yanyan Chen, Tongxin Ren, Fang Wang, Yaru Xiao, Sufang Huang, Xi Tan, Niannian Huang, Bo Jiao, Yong Zhang, Ailin Luo, Laurent Mombaerts, Junyang Jin, Zhiguo Cao, Shusheng Li, Hui Xu, “Prediction of criticality in patients with severe Covid-19 infection using three clinical features: a machine learning-based prognostic model with clinical data in Wuhan” Available:<https://doi.org/10.1101/2020.02.27.20028027>
- [5] Jimmy Antony “A descriptive study on dengue fever reported in a Medical College Hospital” Sahel Medical Journal published January 2014 Available: DOI: 10.4103/1118-8561.140285
- [6] Jatin Chaudhary “Data Modelling & Analysing Coronavirus (COVID19) Spread using Data Science & Data Analytics in Python Code” published on april 2, 2020.
- [7] The Times of India https://www.google.com/amp/s/m.timesofindia.com/india/indias-fatality-rate-due-to-covid-19-at-2-82-says-centre/amp_articleshow/76155707.cms
- [8] Madhav Erraguntla, Josef zapletal and Mark Lawley “Framework for Infectious Disease Analysis: A comprehensive and integrative multi-modeling approach to disease prediction and management” published on December 27, 2017 Available : <https://doi.org/10.1177/1460458217747112>
- [9] Gordon Ondego, Lawrence Muchemi “A Machine learning Approach to predict cause of death from Verbal Autopsy Data” published on December 2015. Available : DOI: 10.13140/RG.2.2.14557.92643
- [10] Estimation of the reproductive number of novel coronavirus (COVID-19) and the probable outbreak size on the Diamond Princess cruise ship: A data-driven analysis published online on February 22. Available: doi: 10.1016/j.ijid.2020.02.033
- [11] Ya-nan Han , Zhan-wei Feng, Li-na Sun,Xiao-xia Ren, Hua Wang,Yong-ming Xue, Yi Wang, Ying Fang “A comparative descriptive analysis of clinical characteristics in 2019-coronavirus-infected children and adults” accepted on march 29,2020 (DOI: 10.1002/jmv-25835)