

Review Article

Potential impact of COVID-19 on Indian population, confirmed, deceased and recuperations from novel coronavirus: a current evidence-based review

Ravi Chandra Ravi^{1*}, Charishma Chowdary Ponugubati²

¹Department of Conservative Dentistry and Endodontics, ²Department of Periodontics and Oral Implantology, GITAM Dental College and Hospital, Visakhapatnam, Andhra Pradesh, India

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*Correspondence:

Dr. Ravichandra Ravi,

E-mail: raavi.ravi13@gmail.com

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ABSTRACT

In the ending of 2019 China has shattered the world by bring up news of pneumonia of unfamiliar aetiology in Wuhan, Hubei. The amount of cases with similar presentation began to strike high. It was formerly addressed as 2019 novel coronavirus (2019-nCoV) and currently called as severe acute respiratory syndrome coronavirus 2 (SARSCoV-2). The virus has affected 209 countries globally and was declared to be a pandemic issue by WHO. India was no less. Cases in India increased at an exponential rate. In order to curb this the Indian government halted the intercountry travel. This review enlightens the potential impact of COVID-19 on the Indians and people capitulated by the virus and fought back successfully.

Keywords: COVID-19, Coronaviruses, Lock down, SARSCoV-2, Transmission

INTRODUCTION

The disease is declared to be pandemic by WHO due to its global spread costing the lives of thousands of people. The evidence-based information on corona virus is extracted from the epidemiological findings of China, Italy, Korea, United Kingdom and USA. This information helped the zealous researchers and extrapolate to the outside world.^{1,2}

Following China, Italy and USA and now its India. The first plight in India, was reported on 30th January, 2020 who was a student from Wuhan University in China. Since then, the virus spread expeditiously reached a whopping number, in order to curb this the Indian government has halted all the intercountry travel. The Prime Minister Narendra Modi, on 22nd March, called for self-imposed Janata curfew lasted for 14 hours marking the beginning of long battle.^{2,3}

This was followed by a nationwide lockdown for 21 days as announced on 24 March 2020, barring movement of 1.3 billion Indians, as a pre-emptive measure against the pandemic spread of COVID-19. The lockdown was imposed when the positive cases were approximately 657. It can be inferred that lockdown had decelerated the growth rate by 6 April to a rate of doubling every six days, and by 18 April, to a rate of doubling every eight days. At the termination of the first lockdown period, it was recommended by various state governments and other advisory committees to extend it.⁴⁻⁶

Phases of lock down in India

- Phase 1: 25 March 2020 to 14 April (21 days).
- Phase 2: 15 April 2020 to 3 May 2020 (19 days).
- Phase 3: 4 May 2020 to 17 May 2020 (14 days).
- Phase 4: 18 May 2020 to 31 May 2020 (14 days).

ZONAL DIVISIONS

The entire nation was allocated into three zones based on the number of Covid-19 positive cases into green, red and orange with applicable relaxations during the 3rd and 4th phases of lockdown.⁸

- **Red zone (hotspots):** with highest active cases and doubling rate.
- **Orange zone (non-hotspots):** with fewer cases.
- **Green zone:** without confirmed cases or without new cases in last 21 days.

MULTIPLICATION OF CORONA VIRUS

Though lockdown was intended to restrict all the activities pan India, particular guidelines and timings were given to procure their essentials. Despite, all these efforts the virus spread at a rampant rate, costing many people lives.^{8,9}

Table 1: Number of new cases registered in the specific lock down period.^{8,9}

S. no.	Lockdown dates	Number of new cases registered
Phase 1	25 March 2020 to 14 April 2020	10,830
Phase 2	15 April 2020 to 3 May 2020	31,018
Phase 3	4 May 2020 to 17 May 2020	53,193
Phase 4	18 May 2020 to 31 May 2020	5242 (only on 18 th May)

AAROGYA SETU

The intent of this app is to create awareness of COVID-19 and other related health queries across India. This app displays latest advisories and practice. This app uses the person's location to detect the coronavirus infection. It also displays the risk if one has been in proximity to (within six feet of) a COVID-19 - infected person. Tracing the location, it determines whether it belongs to one of the infected areas based on the data available.¹⁰

TESTING

On 17th March, the Union Ministry of Health gave allowance to private pathology labs for COVID-19 testing so that testing can be doubled. The ministry said that NABL (national accreditation board for testing and calibration laboratories) accredited laboratories may soon be approved. Once accomplished, a person can get tested at a private lab if insisted by a government physician. The

ICMR has requested to offer free testing to the private labs, as the government does.¹¹

Roche diagnostics, swiss private company has attained the food and drug administration (FDA) emergency approval to conduct testing. Two Indian diagnostic companies have also pursued approval for the coronavirus testing kits. The government has also announced guidelines to private labs to price cap at ₹4,500 for testing sample.^{11,12}

111 additional labs for testing became functional on 21 March and in the month of April, the institute of genomics and integrative biology developed, a paper-strip test at a most affordable cost that can detect corona virus within an hour and at a cost of 500 INR (Indian rupee). In meantime ICMR ordered for pool testing method especially in the less infected areas to surge the volume of the testing and save resources.¹³⁻¹⁵

Rapid antibody test and RNA extraction kits were shipped from china on April 16th, after that there are some states in the country complained about the results that are obtained from these rapid testing kits were inconclusive. Later, ICMR directed all the states to halt using rapid testing kits.¹⁶⁻¹⁸

TESTING COMMUNITY TRANSMISSION

65 laboratories of DHR-ICMR for knowing the extent of community spread they have tested samples of random people who exhibit flu-like symptoms and without any travel history or contact with infected persons. As of 18th March, no evidence of community transmission was reported as 500 random samples tested negative. Nonetheless, 104 were tested positive of which 40% of the identified patients did not have travel history or any history of contact with a positive patient.¹⁹

IMPACT OF MASS EVENTS DURING LOCK DOWN PHASES

The two mass events which were reported in India sparked huge rage. One was related to the migration of the labourers to their states and the other was a religious event which happened in New Delhi. There are 25% of citizens living below poverty line and dependent only on their daily wages to feed their families. As the lockdown commenced, they still bear the brunt of poverty. The government of India has come up with a special package of more than 22 billion USD to help these workers and labourers. All the state governments provided shelter with food and other amenities to the quarantined labourers. Yet, the numbers of infected cases were not influenced by these migrant workers as they were most likely free of COVID-19.²⁰

Table 2: Total number of cases till 18th May 2020 according to ministry of health and family welfare, GOI.^{8,9}

S. no.	Name of state/union territory	Total confirmed cases*	Cured/discharged/migrated	Deaths**
1	Andaman and Nicobar Islands	33	33	0
2	Andhra Pradesh	2407	1456	50
3	Arunachal Pradesh	1	1	0
4	Assam	101	41	2
5	Bihar	1262	475	8
6	Chandigarh	191	51	3
7	Chhattisgarh	86	59	0
8	Dadar Nagar Haveli	1	0	0
9	Delhi	10054	4485	160
10	Goa	29	7	0
11	Gujarat	11379	4499	659
12	Haryana	910	562	14
13	Himachal Pradesh	80	44	3
14	Jammu and Kashmir	1183	575	13
15	Jharkhand	223	113	3
16	Karnataka	1147	509	37
17	Kerala	601	497	4
18	Ladakh	43	24	0
19	Madhya Pradesh	4977	2403	248
20	Maharashtra	33053	7688	1198
21	Manipur	7	2	0
22	Meghalaya	13	11	1
23	Mizoram	1	1	0
24	Odisha	828	220	4
25	Puducherry	13	9	1
26	Punjab	1964	1366	35
27	Rajasthan	5202	2992	131
28	Tamil Nadu	11224	4172	78
29	Telangana	1551	992	34
30	Tripura	167	85	0
31	Uttarakhand	92	52	1
32	Uttar Pradesh	4259	2441	104
33	West Bengal	2677	959	238
34	Total number of confirmed cases in India	96169#	36824	3029

CONCLUSION

Compared to severely-affected nations, India's COVID-19 growth rate has been at a slower pace. It took 64 days to rise from 100 to 100,000 cases in India. India enforced strict lockdown from 22nd march, when the cases were over 600 cases, has done really well in curbing the virus spread compared to other countries. It also very important to emphasize the role of every citizen in utilizing the phase of relaxation sagely.

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