# Manuscript Type: Perspective

# Title of Manuscript: Challenges and Opportunities for India: The Other Side of COVID-19 Pandemic.

**Authors’ Information:**

1. Dr. CHANDRAMANI KUMAR (Corresponding Author)

Affiliation: Assistant Professor, Department of Community Medicine, Hazaribag Medical College, Vinoba Bhave University, Hazaribag, Jharkhand, India. PIN – 825319.

Email: [drchandramani82@gmail.com](mailto:drchandramani82@gmail.com)

ORCID: https://orcid.org/0000-0003-4926-1108

1. Dr. DEWESH KUMAR

Affiliation: Assistant Professor, Department of Preventive and Social Medicine, Rajendra Institute of Medical Sciences, Ranchi University, Ranchi, Jharkhand, India. PIN – 834009.

Email: [dr.dewesh@gmail.com](mailto:dr.dewesh@gmail.com)

1. Dr. ERUM YASMIN

Affiliation: Tutor, Department of Community Medicine, Palamu Medical College, Nilamber Pitamber University, Medininagar Palamu, Jharkhand, India. PIN – 822101.

Email: [dr.erumyasmin@gmail.com](mailto:dr.erumyasmin@gmail.com)

**Source(s) of support/funding:** NIL

**Word count:** 1330

**Disclosure of relationships and activities:** No Conflict of Interest.

**Acknowledgements:** To my senior faculties and colleagues.

**Authors’ contributions:** In conceptualizing, writing and finalizing the manuscript.

**Abstract**

Outbreak of COVID - 19 in early December of 2019 in China led to a pandemic in 2020 despite taking measures to check the spread of disease. More than 200 countries and territories were affected with more than 5.5 million infected people all around the world. India is currently battling COVID – 19 with standard guidelines and also relying upon its indigenous system of medicine. Barring initial limitations in testing capacity, India has enhanced its testing capacity by establishing chain of laboratories across the country. Present pandemic has exposed the lacunae in existing health policy and investment in health sector in India. It has provided an opportunity for not only seriously reviewing the existing health policy but also the availability and utilization of public health experts in India. A dedicated public health cadre and strong public health policy is the need of hour. This pandemic may help people to adopt healthy lifestyle and hygiene practice among them which will contribute in reducing the other health problems too in community in long run. With strong political will, India can turn this challenge into an opportunity for a healthy India.

**Main article with references**

Only a few weeks away from a fresh start when people were talking about second chances and new beginnings, none thought that this last month of 2019 will have something whimsical to offer. COVID-19; a new disease caused by mysterious SARS-CoV-2, appeared in early December of 2019 in Wuhan city of China and spread all over the world in such a short time, that before anyone could think to curb this menace this SARS-CoV-2 infection damaged the world more than what SARS did in 2003. In nearly five months span, more than 5.5 million people got infected with SARS-CoV-2 virus across more than 200 countries and territories with more than 3.5 lac deaths.**1** Since it is a novel corona virus outbreak, containment of spread is much more challenging as one has to understand its epidemiology, clinical characteristics and possible treatment apart from taking measures to limit the spread of infection. Currently, all countries in the world are struggling against this infection and fighting on all fronts with available resources and possible measures. Although China has claimed to control COVID-19 disease, many developed and developing countries are still battling against it in absence of proper drug and vaccine. Present pandemic has put a question to all countries regarding capability of existing health care system and health policies to minimize the effect of any sudden, unprecedented outbreak of a disease.

In a resource constrained country like India; implementation of control measures against COVID-19 is a challenging task. Huge and diverse population, social and cultural diversity, lack of awareness among public, and migrant population make this task tougher. India took the measures to control COVID-19 by announcing nationwide lockdown, appeal for adoption of social distancing by public and ban on international travel as soon as government sense the alarming bell.**2** These could be the possible reasons for slow transmission of SARS-CoV-2 in India till April 2020. However, cases grew at a faster rate in May 2020 and there were more than 1.5 lac reported cases of COVID – 19 cases in India.**3** Gradual relaxation in norms of lockdown and partial resumption of travel could be the possible reasons behind this. It seems India is fighting against COVID-19 in slightly different way compared to rest of the world with adoption of holistic approach. Apart from following lockdown, social distancing, detection and management of cases, promotion of hand hygiene and cough etiquette; govt. of India has also sought some help from its indigenous system of medicine i.e. Ayurveda, Yoga and other systems. Based upon evidence from all over the world regarding severity of disease and mortality, Indian govt. endorsed an advisory by Ministry of AYUSH for immunity boosting measures for self care during COVID-19 in assumption of minimizing its effect.**4** Yoga and Ayurveda are centuries old practice in India and ayurvedic medicines and practices has proven role in immune-modulation in human beings.**5** Traditional Indian foods which are also considered as functional foods are rich in body healing chemicals, antioxidants and probiotics.**6** This approach may encourage people to adopt a healthy diet and lifestyle which may protect not only from severe effect of COVID-19 but also from many other lifestyle related disorders in future.

Present infrastructure of healthcare and available manpower in India is another area of concern to fight against COVID-19. An estimated 10,926 Indian population is served by one government allopathic doctor.**7** In fact, doctors from alternative system of medicine and private allopathic doctors compensate for the gap. If a large proportion of Indian population get infected with SARS-CoV-2, it will be really challenging to combat it with existing health care system. Anticipating the probable long battle against COVID-19, Indian govt. came out with a 100% centrally funded ‘India COVID-19 Emergency Response and Health System Preparedness Packages’ to be end in March 2024 through three phases.**8** This immediate response for present threat must be utilized for strengthening existing healthcare system in India. This could be done by improving infrastructure and deployment of well trained manpower in government health care system. India has made tremendous progress in testing capacity for SARS-CoV-2 infection and till date more than 33.6 lac test have been done in different parts of the country.**9** Indian Council of Medical Research (ICMR) is supporting in establishment of laboratories for detection of SARS-CoV-2 across the country by providing guidelines and technical support. Because of these efforts, there are more than 600 laboratories functioning in India and many more in pipeline.**10** At present government has issued a guidance document on appropriate management of suspect/confirmed cases of COVID-19 for health facilities to be categorized into three level**11**, in long run a more comprehensive and flexible strategy will be needed for smooth functioning of general health care services, COVID-19 cases and medical education. One possible approach may be the set-up of a dedicated isolation facility in each district and deployment of dedicated medical and paramedical professionals in that facility. Number of beds in those isolation facilities should be proportionate to population of that particular district. Availability of dedicated isolation facility will strengthen our preparedness for any future outbreak of any other infectious disease too. It would be a wise decision to think about increasing budgetary allocation to health sector to 2.5% - 5.0% from existing less than 2.0% of its GDP. This crisis must be taken as an opportunity by government to look seriously into gap in existing health care system and invest generously in health sector.

Public health policy in India is another area where a lot of work has to be done. Although government announced ‘India COVID-19 Emergency Response and Health System Preparedness Packages’ to combat this disease, a strong public health policy is required in a long run to face any outbreak, locally or globally. India is among one of the countries where public health professionals are on back seats compared to other clinical departments of medical science. Present data suggest that there are only about 1100 medical postgraduate seats for public health/community medicine specialist in comparison to more than 3300 seats for general medicine, more than 2300 seats for child health care and more than 2800 seats for obstetrics and gynecology in India.**7** This figure itself shows the present situation on availability of public health experts in India. Though government has proposed to increase the number of seats for public health and family medicine experts in its national health policy 2002 and 2017, ground reality is different. It is possible that lack of a public health cadre fails to attract the medical graduate to pursue public health/community medicine course. A detailed planning can be undertaken to use public health/ community medicine experts wisely to build a strong public health scaffold at national and state level. It would also be worth recalling the recommendation of The Health Survey and Planning Committee (August 1959 – October 1961) about development of All India Health Services Cadre for medical personnel in line of Indian Administrative Services from central level to state level and below.**12** Perhaps right time has arrived to think about this and give responsibility of health system to competent medical professionals. An independent vertical system for healthcare services primarily run by medical professionals may become boon for a healthy India.

To conclude; apart from challenges, COVID-19 outbreak has brought some opportunities for future too. Post outbreak, Indian population may show persistent behavior change in the form of adoption of proper hand hygiene, cough etiquette, and practice of healthy lifestyle. These behavioral practices may change the pattern of many diseases including nutritional health problems. Government must take initiatives to make theses behavioral changes persistent in Indian population. Other opportunities include more investment in health sector infrastructure and manpower, development of a strong vertical system of healthcare services, putting the public health professionals in policy making and implementation in a structured manner and promotion of research in indigenous system of medicine. In current situation, combat against COVID-19 with restoration of public life to normalcy is a very challenging task; but government has to take this challenge as an opportunity for building a strong health care system in India.

**References:**

1. Corona virus disease (COVID-19) outbreak situation, WHO data as on 28.05.2020. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
2. Advisory on Social Distancing Measure in view of spread of COVID-19 disease.<https://www.mohfw.gov.in/pdf/SocialDistancingAdvisorybyMOHFW.pdf>
3. COVID -19 India as on 28.05.2020, Ministry of Health and Family Welfare, Govt. of India. <https://www.mohfw.gov.in/>
4. Ayurveda’s immunity boosting measures for self care during COVID 19 crisis. Ministry of AYUSH. <https://www.mohfw.gov.in/pdf/ImmunityBoostingAYUSHAdvisory.pdf>
5. Tripathi JS, Singh RS. The concept and practice of Immunomodulation In Ayurveda and role of Rasayanas as Immunomodulators. Anc Sci of Life, Vol. No. XIX (1&2) July, August, September, October 99.
6. Sarkar P, DH L K, Dhumal C, Panigrahi S S, Choudhary R. Traditional and Ayurvedic foods of Indian Origin. J Ethn Foods; 2 (2015) 97-109.
7. National Health Profile 2019, 14th Issue. Central Bureau of Health Intelligence, DGHS, Ministry of Health and Family Welfare, Govt. of India.
8. Release of funds to states/UTs under NHM for Emergency Response and Health System Preparedness Packages for COVID – 19. Advisory by MoHFW, Govt. of India. <https://www.mohfw.gov.in/pdf/DOASMDCOVID19MD.pdf>
9. SARS-CoV-2 (COVID -19) testing status as on 28.05.2020. Indian Council of Medical Research. <https://www.icmr.gov.in/>
10. List of Total Operational (initiated independent testing) government and private Laboratories reporting to ICMR as on 28.05.2020. <https://www.icmr.gov.in/pdf/covid/labs/COVID_Testing_Labs_28052020.pdf>
11. Guidance document on appropriate management of suspect/confirmed cases of COVID-19.Ministry of Health & Family Welfare, Directorate General of Health Services, EMR division. <https://www.mohfw.gov.in/pdf/FinalGuidanceonMangaementofCovidcasesversion2.pdf>
12. Report of the health survey and planning committee, August 1959 – October 1961. Volume 1, Government of India, Ministry of Health.