

## Coronavirus Disease 2019: The Public Health Challenge and Our Preparedness

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### ABSTRACT

Coronavirus disease 2019 (Covid-19) is the most dreadful among all types of corona viruses so far, whose first wave is currently invading the world, and countries are struggling to fight for a low morbidity and mortality, aiming to reduce the overall tension on their health-care as well their nationals. Nevertheless, the control of the epidemic, with regard to less mortality and morbidity as found in some Asian countries, including China, South Korea and others has been perhaps accomplished by certain important factors including immediate response to the calamity under instructions of WHO as well as its directions to the international community via strict social distancing, quarantines and global lock downs. In this communication, a literature based analysis has been made using the Internet, Pub Med and other data bases to explore the status of the pandemic between January and June 2020 in order to have an idea of the steps various countries have taken for combating the corona virus disease. It has been observed that the principle of over-reaction all over the world was preferred, than under reacting, showing positive results. The summary is, we have to be prepared for such catastrophic events at all times and for a huge population, its necessary for their respective governments to allocate funds for such crisis management without the stigma of corruption, dishonesty, procrastination and irresponsibility. One thing is clear, we have to save ourselves, no matter the tall claims, as in case of health care in any developing country, it's always the out of pocket expenditure which comes first, for any health related emergency.

### INTRODUCTION

Coronavirus Disease 19 is the most dreadful among all types of Corona viruses so far, whose first wave is currently invading the world, and several countries are struggling to fight for a low morbidity and mortality, aiming to reduce the overall tension on their health-care as well their nationals. Since the coronavirus disease 2019 outbreak began in late months of 2019, spreading

to different parts of the world, early information showed that the USA ranked first, and the UK second; South Korea was ranked ninth, and China 51<sup>st</sup>; most African countries were at the bottom of the ranking. Things look different now with more deaths in the US and UK, where the governments have not been, able to provide adequate responses to the pandemic, with errors and flaws infecting the already burdened health systems globally.

Literature review suggests that since Co-vid 19 outbreak and despite implementation of tough measures such as strict lockdowns, the success in containing the disease were marked by varied results. According to the latest statistics with >10.2 million cases reported till date, the top 10 countries affected are USA being ranked first followed by Brazil, India and UK being ranked fourth and fifth respectively, Italy at ninth and Iran at tenth position, (Ritchie et al., 2020).

### ARTICLE INFORMATION

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Looking to the severity of the sudden worldwide gripping of the population by the less known virus, the World Health Organization (WHO) has done its job quite well, in issuing the preparedness instructions, (Thorp 2020). Though, losing over five hundred thousand people and afflicting over a million is heart-breaking, destroying the world's economy, starving millions worldwide is indeed a paradox in the 21st century. The curves are not showing signs of flattening for now, but will certainly disappear sooner or later, with a determined effort of all of us. The present paper describes the current scenario of world preparedness focusing on certain countries which have shown positive responses to the pandemic.

## METHODOLOGY

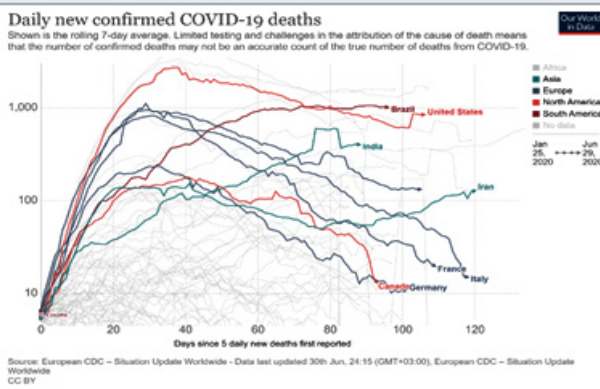
In the present study a literature based analysis has been made using the Internet resources, Pub Med and other data bases to explore the status of the corona virus pandemic of late, between January and June 2020 in order to have an idea of the steps various countries have taken for the preparation of combating the corona virus disease. The compiling of literature is an attempt to short list vital precautionary steps under taken in the back ground of the world wide recommendations proposed by the World Health Organization (WHO) in its hurried strategies to face boldly the worlds most unprecedented onslaught of the viral epidemic killing more than half a million and affecting over a million people all over the globe, (JHU 2020).

## RESULTS AND DISCUSSION

While the situation in some of the developed economies namely United States and UK is grim, other nations Germany, France, Italy and Canada have been able to control the pandemic quite successfully, after the initial exponential rise, as depicted in Fig.1, (Ritchie et al., 2020). Comparing it with the developing economies such as Brazil and India, continuous elevation in the graph is visible as steady increase among the Co-Vid positive cases is witnessed. Universally, the commonest medical strategy for countering the Co-Vid 19 challenge is trace, test, isolate and quarantine, since it will take quite a while to prepare vaccination and anti-viral medicine to treat the disease. Countries like China, Taiwan, South Korea, Singapore have provided rapid, effective and often innovative responses by means of strictly implementing the basics with full public support, the other middle east countries like Saudi Arabia, UAE have been able to quite control well in time not only implementing the WHO recommended protocol but also because of their earlier experiences with Middle East respiratory Syndrome in 2012,(Dalgish 2020).

Countries like India and Brazil suffer from different socio-economic challenges among many fronts making it more difficult to counter the Co-vid 19. Despite these, the principle of over-reaction all over the world was preferred than under-reacting, which brought some better positive results for at least

Figure 1: Showing the country wise control of the Pandemic -19 deaths



India, which otherwise would have been graver, (WHO,2020 b, Miraj and Miraj,2020).

Source European CDC Ref. Ritchie H.,Ortiz-Ospina E., Beltekian D., Mathieu E.,Hasell J.,Macdonald B. Giattino C and Rose M (2020) Statistics and Research Coronavirus Pandemic (COVID-19).

Recently, the example of New Zealand, is an eye opener, it first went into lockdown on March 25, setting up a new four-stage alert system and going in at level four, where most businesses were shut, schools closed and people told to stay at home. This resulted in controlling the pandemic much better, of late by early June, all of New Zealand moved to level one, the lowest of a four-tier alert system. Under the new rules after moving into level one, all schools and workplaces can remain open.

In the face of this global health crisis and its struggle, yet another example is of Saudi Arabia the kingdom is bringing back traditional policy approaches. The dual qualities of firmness and determination have been the motto of the policy makers. In this spirit, the government acted decisively as the coronavirus spread to implement comprehensive and unprecedented precautionary measures that were largely applauded. The kingdom started by quarantining an entire city and later imposed local lockdowns and a strict nationwide curfew that included the two holy cities of Mecca and Medina.

Due to the corona virus pandemic, only "very limited numbers" of people will be allowed to perform the annual Hajj pilgrimage that traditionally draws around 2 million Muslims from around the world. The annual pilgrimage is to take place in July August this year. The Saudi government said its decision to drastically limit the number of pilgrims was aimed at preserving global public health due to the lack of a vaccine for the virus or a cure for those infected, as well as the risks associated with large gatherings of people.

Alleged rumour spreaders, curfew violators and opportunist suppliers in the kingdom have been prosecuted. There has been no shortages of any kind

and the execution of well - planned strategies have yielded results. Violators of these measures have been denounced as citizens, rally behind the slogan, “we are all responsible,”(Farook 2020).

Meanwhile, the health response to corona pandemic by India has probably gone as well as can be expected, given the generally not so good state of India’s infrastructure for delivering health care. Different states have responded with varying levels of effectiveness, reflecting not just their resource levels but also their institutional capacities. The crisis has highlighted the importance of state and city governments in the delivery of public services. This certainly does have challenges, but is also something as basic as getting the message out that healthcare providers should be protected rather than being ostracised.

The timing of lock down in India has been controversial, lockdown when infection levels are low, but in such a manner that produces intensified infection among the forcibly disrupted millions of informal workers. Then, when the infection has been properly incubated and intensified, through some combination of incompetence and callousness, allow millions to be at greater risk. In this way, the actual policy, as enacted on the ground, maximises both the economic catastrophe, and the ferocity of the epidemic. For countries around the world, there is a difficult choice to be made between two broad policy options: Containment, possibly via lockdown; or, alternatively, allowing the infection to spread, in the hope of achieving “herd immunity.” There are costs involved in both strategies, (Singh 2020 IE 2020).

India's 'cluster-containment' strategy means focusing on early detection of cases. In India, Kerala a developed and highly educated state flattened the infection curve via the creation of a contagion route map. Similarly, Odisha's susceptibility to natural disaster gave it an advantage in crisis preparedness. The state with experiences of fighting the natural calamities like the cyclones, hurricanes and tornadoes has developed a one year contingency plan for the corona virus combat, using the Zero Causality Advanced Planning and Community Control formula, which has been highly successful.

The Odisha government fought its battle against the Covid-19 pandemic by using high-end analytic tools, AI-based questionnaire and WhatsApp chatbot, among other technologies, to flatten the curve. Even before the entire country bore the Covid-19 brunt; Odisha became the first state to enforce lockdown and incentivise self-declaration. It incentivised the quarantine scheme and offered INR 15,000 to people coming from abroad and who declared their travel history on the portal.

The government of Odisha received an overwhelming response from the travellers largely because of the incentive. The state deployed all its resources to ensure travellers complete the quarantine period. The call centre team called them up thrice a day for thorough monitoring of their quarantine. Incentivisation literally helped them to keep travellers inside quarantine centres. Odisha has

always been a pioneer in managing disasters through cutting edge technology, (Dass 2020).

In a large country like India, thus different responses have been noted some with responsibility, swift decision making and its implementation with corruption free systems ably supported by well aware and educated public as seen in these states which have shown different positive results. Recently, the WHO praised India for its tough and timely efforts to control the spread of coronavirus. There has been no community transmission of coronavirus since the country went into lockdown, and the growth factor of cases has declined by 40%, according to recent press briefings from the Indian Union Health Ministry.

A good sign which has emerged globally is of our awareness to frequent hand -washing, social distancing, use of masks, gloves and avoiding spitting, a menace of pre-lock down era, showing that pandemics have always been the paradigmatic example of diseases, that show how our health is interlinked on a large scale. This impulse is laudable and, indeed, useful. It has helped, for example, ensuring that during this pandemic an enormous number of people worldwide have followed guidance and orders to physically distance with relatively little demonstrable social disturbance. The people by large have learned important lessons of living, believing a modified Cannons Law: of fright and fight and survive.

The summary is, we have to be ourselves prepared for such catastrophic events at all times though its necessary for the governments to come forward and allocate special funds for such crisis management without the stigma of corruption, dishonesty, procrastination and irresponsibility. One thing is clear, we have to save ourselves, no matter the tall claims, as in case of health care in any developing country, it's always the out of pocket expenditure which comes first for any emergency.

As world experts struggle to deal with the new coronavirus and its aftermath, they will have to confront the fact that the global economy doesn't work as they thought it did. For developing economies, the economic impact from the corona pandemic is multiple. Even for the affluent class, residential lockdown, travel bans, loss of jobs have resulted in a greater social vacuum. In this hour of crisis, the worst may be yet to be seen and therefore it would be wise to be pragmatic and start afresh where ever possible. Meticulous planning taking into confidence the real experts of public health, epidemiologists, physicians, scientists and academicians with corporate industries, a plan for the future is the need of the hour, rather than a team of sycophants which may lead to disaster.

Hope of humanity also now lies in the concentrated efforts of all of us, leading from the front, especially countries like US, Canada, UK, China, Russia, Europe and India who can make the difference in tackling this calamity. We also will have to develop the same

attitude of being determinant, strong and confident of combating the pandemics, no matter what the system is prevailing.

If the various nations of the world do their job well in areas of public health, hygiene, sanitation, environmental awareness, cleanliness, rest assured, the epidemics will not enter in the first place and if they do so, we will as a strong public health entity through that of public-private partnership, should be ready to support the existing systems of health care by our own sustained combined efforts. Beyond the health system, social determinants of health, including adequate housing, safe drinking water and food, social security, and protection from violence, are also the central elements of the right to health and must be protected under international law as interconnected rights, rightly suggested by WHO (2020c) and Puras et al (2020).

I wonder is this a God's way to tell us, that the time has come to limit the nuclear weapons and invest more on healthcare facilities for a better and a healthier world. I wish these exorbitant atomic weapons could kill the virus!

## CONCLUSION

It has been observed that the principle of over-reaction all over the world was preferred, than under reacting, showing positive results. The summary is, we have to be prepared for such catastrophic events at all times and for a huge population, it's necessary for their respective governments to allocate funds for such crisis management without the stigma of corruption, dishonesty, procrastination and irresponsibility. One thing is clear, we have to save ourselves, no matter the tall claims, as in case of health care in any developing country, it's always the out of pocket expenditure which comes first, for any health related emergency.

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## REFERENCES

Dalglis S L (2020). COVID-19 gives the lie to global health expertise. *The Lancet*, 2020 Vol 395 1189 [https://doi.org/10.1016/S0140-6736\(20\)30739-X](https://doi.org/10.1016/S0140-6736(20)30739-X)

Dass V (2020) Odisha fights Covid-19 with advance tech tools, planning and effective execution *Express Computers* 2020

Farouk Y (2020). *Carnegie Endowment for International Peace Commentary*, April 7 2020

Flahault A (2020). COVID-19 cacophony: is there any orchestra conductor? *The Lancet*, Vol 394 March 2020 [https://doi.org/10.1016/S0140-6736\(20\)30675-9](https://doi.org/10.1016/S0140-6736(20)30675-9)

Johns Hopkins University (2020). [coronavirus.jhu.edu](https://coronavirus.jhu.edu)

Miraj M and SA Miraj (2020). Corona Virus Disease-19: The New Challenge for Saving the Human Race *Bioscience Res. Comm.* Vol 13 Number (1) Jan-Feb-March 2020 Pp- I-V DOI: 10.21786/bbrc/13.1/2

Puras D, J B de Mesquita, L Cabal, A Maleche and B M Meier (2020). The right to health must guide responses to COVID-19 *The Lancet* Vol 395, Issue 10241, P 1888-1890

Ritchie H, Ortiz-Ospina E, Beltekian D, Mathieu E, Hasell J, Macdonald B, Giattino C, and Rose M. (2020) *Statistics and Research Coronavirus Pandemic (COVID-19) Our World in Data*. Last assessed from <https://ourworldindata.org/coronavirus#coronavirus-country-profiles>

Singh N (2020). Corona virus pandemic: India's response to Covid-19 *Indian Express* May 28

TE *The Indian Express* (2020). Indian inflection of herd immunity' has deep cultural roots *Ind Exp* 23rd June 2020

Thorp HH (2020) Why WHO? *Science* 2020: Vol. 368, Issue 6489, pp. 341, DOI: 10.1126/science.abc3400

WHO (2020a) Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). Statement on the second meeting of the international health regulations (2005)-emergency-committee regarding the outbreak of novel coronavirus-(2019-ncov) (accessed April 22nd, 2020).

WHO (2020b) Critical preparedness, readiness and response actions for COVID-19. Geneva: World Health Organization, 2020.

WHO (2020c) Addressing human rights as key to the COVID-19 response. World Health Organization, Geneva 2020