

# Response and Coping Measures of Various Countries to Attenuate the Spread of Covid-19

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### Abstract:

The headlines of the year, the coronavirus pandemic is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) also popularly known as covid 19. The news of the outbreak first originated from Wuhan, China in 2019 December.

The modes by which the virus can spread are various, including small droplets released into the surrounding on coughing sneezing or talking. These small droplets land on various surfaces or any object known as fomites and in some cases can also remain in the air as suspended particles infecting many others breathing the same. On touching these contaminated surfaces, most people acquire the virus on their hands which can enter the body when these unwashed hands are brought to face. The virus is capable of spreading throughout the course of infection or even before one has developed symptoms but it is the most communicable during the first three days of infection. In some cases, patients may remain asymptomatic but can still spread the virus to other healthy contacts.

The virus is manifested in the form of influenza-like symptoms mostly as fever and cough. Some also complain of shortness of breath and loss of sense of taste and smell. Complications can occur like pneumonia with severe shortness of breath and also acute respiratory distress syndrome. The incubation period, which is the time taken for the symptoms to appear from the day of entry of the virus into one's symptoms is 5 days but can also range from around 2 to 14 days. Vaccines and definitive treatment are still undergoing human trials but none are known to show any proven cure. Primary treatments are symptomatic and supportive therapy.

**Keywords:** lockdown, social distancing, economy, confirmed cases

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### Introduction:

Confusion, fear, anxiety and grief strike everywhere by lane and compound of all countries. Our world battles against an invisible enemy, making every effort to survive with this hazardous virus. Our televisions, social media, newspapers and even our phone call conversations are flooded with devastating news about corona. And the common emotion that we all face is terror. The issue faced by everyone is how to respond and manage oneself in this stressful situation which has taken over our lives and communities so rapidly. Countries all around the world are taking the best measures to halt the coronavirus outbreak that has infected innumerable lives across the globe. Lockdowns were implemented by various countries struck gravely by the pandemic to minimize the spread of infection. Limiting on-site meetings, maintaining minimal social contact and laying back at one's own apartment were given as a part of the lockdown.

### China:

The start of the pandemic originated from China. In the wake of the pandemic, the Chinese government had to choose between their financial crisis or the people's lives. The Chinese were the pandemic's first major victim. By the 22<sup>nd</sup> of January, the entire number of confirmed cases had spiked to 581 throughout the world, of which 571 were from China and 375 of which were from Hubei province. [1].

The Chinese government believed that its people's lives were the priority. Xiao et al. stated that nearly 11 million people were placed in lockdown in Wuhan city [2]. The Chinese government then immediately quarantined Wuhan. Wuhan is popularly known as the capital of Hubei and the area most majorly hit by the infectious virus. The residents of the city were strictly prohibited from leaving the city while the basic

daily essential needs and all the medical equipment were constantly supplied to the city. The ability to treat the many affected by the pandemic was also significantly increased by the hundreds of medical teams with thousands of medical staff who volunteered from other provinces to help the disease struck city between 25 January to 9 March. Within 10 days, a few COVID-19 specialized hospitals with established 5G system hospital families and 3000 beds were set up to treat people with mild symptoms. And as an additional measure, all the 14 million residents of Wuhan were screened to identify all those infected. However, according to a study performed in the Wuhan city there was a major time gap between the appearance of the first few symptoms and the establishment of the final diagnosis was 20 days [3]. The lockdown measures were then slowly followed by the entire country. In a study carried out by Wei et al., it was stated that after 14 February 2020, the virus transmission differed from previous result due to the implementation of universal symptom surveys [4]. Wearing a face mask, avoiding unnecessary travel, social activities and maintaining the normal body temperature were made compulsory for anyone having access to any public area. Additional measures were taken by the Chinese government like delaying activities involving large crowds and also by extending the holiday of educational institutions and work places by further extending leave [5]. Those people with the symptoms were then transported to the COVID Hospitals of Wuhan in negative pressure ambulances for their further management. Chinese government strongly believed in norms like transparency of information, employing apt anti-epidemic measures and to make sure that there is an availability of all necessary medications and equipment. The residents showed strong dedication in abiding by the newly imposed guidelines and restrictions by the government. There

sidents of Wuhan could buy all their necessities online. They did not have to suffer because the new and improved system was immediately and accurately put into effect by the government. But despite being a healthcare manufacturing powerhouse, it could not meet the extensive demand of personal protection equipment, disinfectants and drugs required by the people to overcome this situation, the Chinese government took two steps. Firstly, all the Chinese producers were motivated to improve the capacity or change to manufacturing other items like masks and personal protection equipment which were required on a large scale. As a measure to relax the question of the large scale personal protection equipment, the government had even passed a decision stating that it would economically cover the losses of all the face mask producers. Secondly, the government also prohibited any sudden hike in prices through strict regulations. It also later set up various hotlines to register any consumer complaints and in no time, the Chinese producers were soon competent enough to meet its people's demands and even to supply other countries. In no time, the results were seen. By 23<sup>rd</sup> March 2020 the rate of domestic transmission of virus was greatly reduced. It had also begun a systematic continuation of work and production, and at the same time taking all the measures to prevent a domestic rebound in infections. Since 8 April 2020, even Wuhan has come back to normal with minimal transmission.

#### **United States:**

After China the US was among the first countries hit by the COVID-19 infection. A public health emergency was announced on 21 January 2020 after the confirmed reports of the first case in the country arrived. Following this, the US government and embassy had immediately declared the highest level 4 travel advisory, restricting its people's travel to China. In the month of June 2020, US has the highest number of confirmed

asesreachingapeakofabout2,996,000affected. According to the data decoded, as of July 13, 2020 more than 3.3 million U.S residents were diagnosed with Covid-19 of which 135,000 had died [6]. The US government had announced early measures in the month of January to avoid imports from the other infected areas, by prohibiting travel strictly, and also by evacuating all of the US citizens who were present in other countries which were stuck by the corona virus. On the 4<sup>th</sup> March 2020, the United States passed a \$8.3bn emergency bill to combat the spread. The US government then declared COVID-19 as a national emergency in the country on 13 March 2020. The government implemented in the country social distancing rules that banned more than 10 people from forming a gathering and also began screening at the major airports of the country, which dealt with most of the travelers from China. A ban was imposed for the entry of any individual from China or even on those who have traveled through China in the 14 days before they enter the US, excluding the permanent residents and the remnant visa holders. The US then passed a bill on 13 March 2020 according to which the coronavirus test RT-PCR would be free of cost for the residents of the country. The CDC established the RT-PCR as a modality for diagnosis for testing for throats swabs of the suspected patients. Even though the number of confirmed cases are on a rapid rise in the country, the US continues to fight against the invisible enemy with utmost tenacity.

#### **Brazil:**

The second worst hit country by corona in the month July 2020 was Brazil with around 1,668,000 confirmed cases. The ministry of economy, Paulo Guedes announced on March 26, 2020 that the economy stimulus package, by the Economic Ministry, financial in charges and banks, both Public and Central will be US\$150 billion, to compete with the economic crisis due to Covid 19. The volume of the funds was to support the most vulnerable population, release of the labor laws to

some extent to maintain the citizens jobs, which was mainly meant for all the daily wage workers and other small scale workers, as an extension of the payment of tax and as a financial support to the airline industry and various other small and medium sized companies.

#### **India:**

India, being the second most populated city in the world, stands as the third most affected country by corona with 769,052 confirmed cases. In India on March 12 confirmed its 73<sup>rd</sup> case of novel coronavirus, with Kerala reporting the most number of confirmed cases according to the Ministry of Health and Family Welfare. The initial three cases of the novel corona virus happened on the 30th January and 3rd February in Kerala as they had come back from Wuhan China [7]. On their return, they were quarantined for a period of 14 days. Narendra Modi, the prime minister of India announced a nationwide curfew for 14 hours [8]. A nationwide lockdown was observed from 25th March 2020 till the 31st May 2020. A ban was imposed on people from stepping out of their homes throughout this period and all the services and shops were closed except for the pharmacies, hospitals, banks, groceries and other necessary services. All the commercial and private establishments were closed and all educational, training and research institutions were suspended. This ban was also applicable on all places of worship and non-essential public and private transport. In the beginning, it was considered that India had the virus well in control within its boundaries due to the implication of lockdown and social distancing [9], but, on the contrary once the curfew phases of lockdown had ended, India had a total of 1,90,648 confirmed cases among which there were 5407 deaths due to covid-19 [10]. A medical insurance of worth 500 million was provided to all healthcare workers at the front line. Following this, the Indian government then arranged for a special Air India flight for 324 Indian citizens from Wuhan on 31<sup>st</sup> January 2020 who were then quarantined for 14 days. A

second batch was also evacuated after this and their health condition was monitored on a daily basis. The government also took measures to evacuate the citizens stranded in an air. A few government organizations including the National Pharmaceutical Authority in charge and Drugs Controller General of India have been instituted to make sure than an adequate supply of API and also to keep in constraint and corrupted or illegal activities. From the 4<sup>th</sup> March 2020, screening was made compulsory at all airports in the country throughout. Thermal screening was mandated at 21 airports across the country. At the same time, screening measures were also established at around 10 major seaports and 60 minor seaports. The NIV (National Institute of Virology) and around 50 other laboratories under the Indian Council of Medical Research's (ICMR) Viral Research and Diagnostics Laboratories network had all the required basic instruments required for testing the citizens presenting with symptoms. The NIV lab of Pune also was established very early with covid testing and next generation sequencing measures. Also, ICMR advised to conduct ECG (palpitations, chest pain syncope) during the course of prophylaxis [11]. The DGFT later had established a ban on the export of any personal protection equipments such as respiratory masks and other equipment of safety on the 31<sup>st</sup> January 2020. In spite of its excessively vast population and diversity, India continues to fight against the invisible virus with utmost courage with all its medical healthcare workers at its frontline. From the industrial point of view, India has grabbed its advantage particularly in the pharma industry, where India depends on 70% pharmaceutical ingredients [12]. For the purpose of building back the Indian economy the government has even taken an initiative of spending a \$266 billion package which can improve 4% of the GDP [13].

### Russia:

At the fourth place lies Russia with around 700,000 confirmed cases in July. Since March 2020, the Russian authorities took various measures to reduce the effect of COVID-19 on the Russian economy. The health system of Russia has improved a great deal by improving its disease surveillance system and also initiated a rapid increase in testing to ensure an orderly monitoring of the spread of the disease. A crucial pre-requirement for the present health issue can be deeply connected to the historical legacy of Semashko health system [14]. The number of tests possible in a day increased from an initial 2,200 per day at the beginning of crisis to 216,500 per day on May 11 2020. Soon the passage of foreigners through the Russian-Polish and Russian-Norwegian land borders was suspended [15]. Other measures taken include widespread testing, which was combined with contact tracing and the isolation of patients with COVID-19 in designated health institutions or even at homes [16,17]. New hospitals were also set up in some regions which even included a few temporary hospitals for patients with mild symptoms.

### Discussion:

To stop the disease from further spread is the major aim of all countries. To diagnose the positive patients in the countries need to test, trace and then isolate the infected. This has proved to be highly efficacious in decreasing the spread of the deadly virus, and the results had proved to be even better if these efforts are started earlier [19-22]. Countries across the globe have introduced various kinds of social distancing measures and months of lockdown to contain the virus, including both the developing and the developed nations [23-25] (what is known as "flattening the curve"). Nations introduced various testing measures on a large scale to identify the infected, the contacts were immediately quarantined to prevent the spread, health facilities were made available in every corner to all the people, human resources were wisely used in different aspects to

contain the virus (South Korea, China, Singapore). In some areas, telemedicine and health have also facilitated the success of health services.

Establishment of a cooperative environment among the various nations will be important, aiming to maximally utilize all the available resources and utilities, transport, energy and telecommunication modalities. Public-private cooperation along with the citizens cooperation among themselves and with the governments is extremely crucial. Civilian awareness and their voluntary participation in every aspect aiming at containing the virus, stopping the spread and saving the people is very essential.

### Conclusion:

The world that will emerge from the pandemic will be all countries together leaving behind all its anti-nationalistic policies and coming out as more closed off than before. The immediate end of the hour is rapid and systematic nationwide cooperation without which we the corona crises may not end.

For now, in most areas, the intercountry responses are very positive. The governments have not been able to show effective cooperation among each other. Financial and economic crises are not just due to lockdown, but also because of the developed world's completion for trade and supplies.

The governments will soon be required to reinforce their economic condition and achieving this will be next to impossible with a large scale international cooperation and coming as one to win this war against the virus.

The first crucial element of a COVID-19 exit strategy is testing and identifying every individual suffering from the disease. This will require testing kits and

equipment made available to every nook and corner of the nation. Ventilators, masks and access to emergency treatment and equipment is also crucial.

A second component of an exit strategy is a widespread disease surveillance and control. Most countries including India are now using a non-linear database system to keep a continuous count of the number of people affected and being treated / recovered from the disease. However, the asymptomatic and undiagnosed population still remain unaddressed.

Third, a global COVID-19 exit strategy aims at providing an appropriate vaccine for the people. On the brighter side, international scientific cooperation is increasing the pace of progress towards development.

Finally, the major effect of this pandemic is on the weaker and poorer sections of our society and it is up to the governments of different countries to effectively manage this crisis and uplift its society from the wrath of the pandemic.

The COVID-19 pandemic puts up an uncalculable threat to the health of the nations' people as well as the wealth of every country. Only by putting aside nationalistic rhetoric and promoting stronger international cooperation, will the governments be able to come out successful from the pandemic and will be able to safeguard its citizens from the deadly virus.

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