Strategy Note: India fights COVID-19

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COVID-19 has changed the lives of people across the globe and has forced humankind to acclimatize themselves to the current worldwide crisis. Over the past few weeks, Covid-19 has infected more than **3,308,643[1]** people worldwide and has taken **234,123 lives**. The brunt of this global pandemic has hit the Indian subcontinent as well. The total COVID-19 cases in India stands at 35,043[2]. However, when compared to the global scenario the cases in India are much lower vis-à-vis it's per capita population.

USA which is a global leader and has better health care system in place and **1/4th of the population in US** has a larger proportion of cases as opposed to India, which has just **2% the number of COVID-19** affected cases.

This could be a result of the graded, pre-emptive and pro-active approach taken by the Government of India along with the States/UTs for prevention, containment and management of COVID-19 which include some tough decisions like:

1. **Nationwide lockdown**
2. **Closing schools and public gathering sites**
3. **Suspension of domestic and international flights**

This strategy note aims to outline the steps taken by the Government of India and Ministry of Health including different actors within the sector to contain the spread of the virus. This note captures a synopsis of the decisions and initiatives taken by govt. officials, private partners and other non-government entities.

Inception:

India encountered its first COVID-19 case towards the end of January, when infected travellers from Wuhan had reached Kerala. Initially, Kerala's proactive response mechanism stemming from its previous experience of countering Nipah virus was instrumental in guiding the authorities on a rapid action response. However, gradually as the global numbers started shooting up, more carriers reached India from abroad and the nationwide tally started gaining pace towards early March.

The Indian Government along with its public health experts took to restructure their mechanisms, closely monitored the global scenario and were of opinion that in a country with a population of 1.3 billion, the pandemic could result into a catastrophe. As a result of which India took to a nationwide lockdown since 25th March to break the chain of Covid-19 infection across the country and 'flatten the curve'. The Indian Prime Minister Narendra Modi

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[1] Till 1st May 2020
[2] Till 1st May 2020

announced this to be a prerequisite to ensure the nation wins the battle against the novel corona virus.

Rapid response:

The apex medical body **Indian Council Medical Research (ICMR)** along with Government of India initially identified tracking and testing of people who had international travel history with symptoms, symptomatic contacts of laboratory-confirmed COVID-19 patients and symptomatic healthcare workers managing respiratory distress as pivotal to this fight against COVID-19.

Additionally, in line with WHO guidelines ICMR undertook some steps to curtail the spread of the virus which included:

- **Testing of 2019-nCoV**
- **Contact Tracing and isolation/quarantine**
- **Prevent transmission**
- **Identifying and supply of essential items to fight the virus**
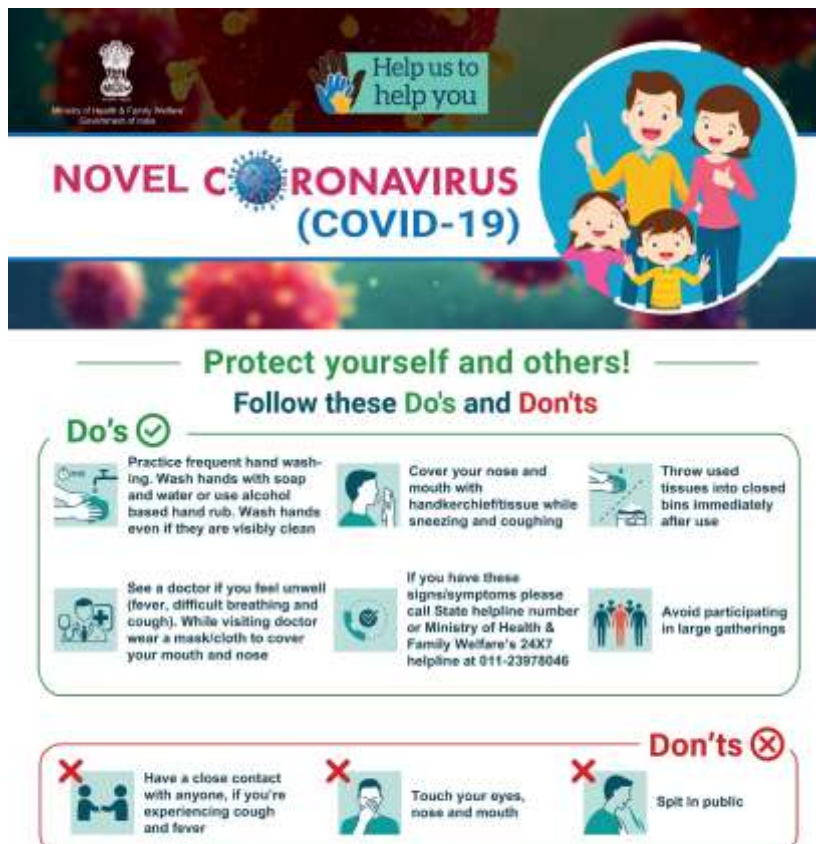- **Guidelines for the citizens stating Do's & Don'ts to contain the spread of the virus.**

[3]

Figure 1 MoHFW started circulating these posters to generate awareness among citizens

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[3] Image source: https://www.mohfw.gov.in/pdf/Poster_Corona_ad_Eng.pdf

Testing Strategy by ICMR & DHR:

India initially had a thermal screening mechanism in place to identify potential patients affected by Covid-19. However, with the rise in cases the Government on-boarded private labs along with the already established government labs to undertake **Covid RT-PCR test** (This is the globally accepted test that is being conducted by nations to identify the virus).

While conducting the Covid RT-PCR test, ICMR and Department of Health Research (DHR) following a set rigorous testing strategies which include:

- *Home quarantine of all **asymptomatic** people who have undertaken international travel*
- *RT-PCR test of **symptomatic** patients (fever, cough, difficulty in breathing etc.) including health care workers managing respiratory distress and **Severe Acute Respiratory Illnesses**.*
- ***Symptomatic contacts of laboratory** confirmed cases. Followed by Antibody test **after 7 days of illness** (If negative, confirmed by rRT-PCR)*
- *All hospitalised patients with Severe Acute Respiratory Illness (SARI)*

Labs in place:

Currently, **304** government labs and **105** private labs are testing for COVID-19 across the country. As per recent updates, **75000 samples are being tested each day.**

To dole out relief in this time of crisis COVID-19, tests in government labs are being carried out free of cost. While private labs are charging Rs. 4500, post cost regulation by the government. India is cognizant of the possible economic distress the price of the test would impose to the economically weaker section of the society. As a result of which the Ayushman Bharat (AB) scheme launched under the **Prime Minister Jan Arogya Yojna** to provide health benefits to the underprivileged has included certain provisions to facilitate rapid response to contain the virus. The ones enrolled under PMJAY will be receiving free tests in private labs. Additionally, any other category of economically weaker sections of the society as notified by the government, will also be able to test in private labs for free.

Role of NHA in the picture:

NHA (National Health Authority) the implementation wing of AB-PMJAY is focusing on:
- Free testing and treatment to people covered under this scheme including SARI patients who may be getting admitted under AB PM-JAY.
- Inclusion of private laboratories under the scheme so that virus spread can be contained

- Provision of cashless and paperless services to the insured to avoid any exchange of cash as paper money can be a disease carrier.

Isolation Wards and NCDC:

National Centre for Disease Control (NCDC) was prepared for containment, including active surveillance, early detection, isolation and case management, contact tracing and prevention of onward spread of SARS-CoV-2 infection in accordance to WHO's guidelines. Among the factors affecting cluster containment, *isolation of cases and quarantine of contacts* was identified as the mainstay of cluster containment.

This resulted into setting up of special Covid hospitals in every state to avoid spreading of disease among OPD patients and denoting a massive **1.86 lakh beds with 24000 ICU beds** *facility for COVID patients*.

All suspect cases detected in the containment/buffer zones (till a diagnosis is made), were hospitalized and kept in isolation in a designated facility till such time they were tested negative. Persons testing positive for COVID-19 remained hospitalized till such time 2 of their samples are tested negative as per MoHFW's discharge policy. About 15% of the patients were likely to develop pneumonia, 5 % of whom required ventilator management. Hence dedicated intensive care beds were identified and earmarked.

All positive COVID-19 cases were cohorted in a ward with good ventilation. Similarly, all suspect cases were kept in a separate ward. A minimum distance of 1 meter was maintained between adjacent beds. All such patients also wore a triple layer surgical mask at all times. NCDC advised all health practitioners to set up:

- **State level:** A minimum of **50 bed isolation wards** at the State level
- **District level**: A minimum of **10 bed isolation wards** at the isolation ward.

Use of Arogya Setu App for Contact Tracing:

To keep the fight against COVID-19 rolling, the Indian Government took to technological solutions to establish an application based tracking mechanism, facilitating contact tracing and tracking of citizens who might have come in contact with a COVID-19 positive patient.

Arogya Setu the COVID-19 contact tracing app was developed by the Ministry of Electronics and IT. Its function is to detect and track the user's movement with the help of GPS and Bluetooth sensors. In case a user has come in contact with infected people it sends out a

notification by using its database and algorithms. Users will have to enter their personal information while registering on the app and the data is shared solely with the Government of India for contact tracing. The app is available in **11 languages** including English, Hindi, Punjabi, Bengali, Gujarati, Marathi, Tamil, Kannada, Malayalam and Odiya to ensure holistic usage by citizens across the country.

One can scan and download the app from here[4]

Steps taken to prevent transmission:

Ministry of Home Affairs (MHA):

The MHA is playing an important role in handling the pandemic. The Government has suspended all international travel, national and inter-state travel within the sub-continent. **There is a nationwide lockdown in place since March 25 which has been extended till May 17th after close monitoring of the COVID situation across the nation.** It has collaborated with the Police force, paramilitary staff to ensure there is restricted mobility. However, the government has made special provisions for mobility of workers engaged in delivering essential services which includes daily essentials, health workers, staff engaged in financial services and people in charge of looking after the law & order of the country. In a nutshell, MHA has taken the following steps:

- Establishing of **Helpline service** for various states to report Covid cases and seek help in terms of food, travel for migrant workers, shelter or any other essentials during the lockdown
- **Spitting in public has been declared as a punishable offense** and has been banned under Section 51 (b) of the Disaster Management Act.
- Barring of **e-commerce websites to sell non-essential items** to facilitate timely delivery of essential items to citizens and prevent people from stepping outside their homes to contain transmission
- **Closure of places involving public gatherings** to maintain social distancing such as bars, gyms theatres etc.
- Ensuring **proper availability of essential items** with proper social distancing and sanitization at dairies, grocery shops, mandis etc.

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[4] Image source: https://www.mygov.in/aarogya-setu-app/

State Governments:

All State governments have created Emergency Relief Fund for Covid-19 to protect their respective territories under the guidance from the Union Ministry. **The PMO is working closely with the states, the PM himself is engaging with state official via video conferencing to monitor the situation himself.**

Additionally, states are also working with the MHA to ensure effective implementation of the nationwide lockdown. States are stepping up their healthcare systems, arranging for PPE kits and masks, ramping up their isolation ward facilities among other steps.

Moreover, **door to door delivery of essentials in sealed areas** or containment zones are being carried out by youth and volunteers of the state government.

It is also worth mentioning that the current months collide with the harvesting season of crops in India, as a result of which the State and Central Governments are stepping forward to help farmers to continue their harvesting operations post following the social distancing protocols.

The state governments have also encouraged people and domestic producers to carry out production of masks, gloves and sanitizers at home so that maximum needs can be fulfilled at the domestic front promoting our, **"Make in India" initiative.**

Steps have been taken by the state government, local NGOs and corporates to feed the poor. Shelter homes have been created by converting schools to provide shelter to the destitute and migrant labourers.

Steps taken by the Government in a nutshell

- Nationwide lockdown
- Closing schools and public gathering sites
- Suspension of domestic and international flights
- Testing of 2019-nCoV
- Contact Tracing and isolation/quarantine
- Prevent transmission
- Identifying and supply of essential items to fight the virus

Sanitization drives:

Ministry of Health and Family Welfare (MoHFW) had released guidelines for daily screening of healthcare workers involved in treatment of COVID patients. The guidelines focussed on wearing of PPE kits, masks and gloves by health workers, proper disposal of biochemical waste and daily sanitization of hands and surroundings.

Steps have been taken to ensure proper sanitization and spraying of disinfectants at quarantine centers. Hospitals hosting COVID-19 patients are also strictly following these protocols during treatment/ diagnosis/ quarantine of patients.

Additionally, the Union Health Ministry has listed districts across the country in the **red zone, orange zone and green zones** based on coronavirus spread.

State governments are also taking part in sanitization drives in their respective cities specially in the 'Covid-19' containment areas with special focus on high risk Red and Orange Zones to prevent the spread of coronavirus.

Understanding the Covid Zones:

Green Zone
1. The districts with no coronavirus positive cases would fall under the green zone.
2. Mobility is not restricted in these zones. however, handwashing & social distancing needs to be continued

Orange Zone
1. Area with limited number of cases in the past and with no surge in positive cases recently would be included under the orange zone.
2. Only restricted activities such as limited public transport and farm product harvesting is expected to be allowed in coronavirus orange zone.

Red Zone
1. The districts with substantial numbers of positive cases would fall under the red zone
2. The coronavirus red zone will see no activity
3. Areas that show a high rate of infection, which double in less than four days - will also come under this category.

Supply of essential items like PPE, masks and rides:

Personal protective equipment (PPE) is used every day by healthcare personnel (HCP) to protect themselves, patients, and others when providing care. MoHFW has stepped up its services to provide PPE kits to various hospitals**. GoI has allocated Rs 15000 crore for India's COVID-19 Emergency Response & Health System Preparedness Package**. This is a stimulus to the health sector and would aid in greater care of the infected in addition to those who run the risk of getting infected.

*Almost **30.32 lakh N95 masks** and about **5.11 lakh PPEs** have been supplied to central/state government hospitals to fight the pandemic*

MoHFW has collaborated with Ministry of Textile to produce PPE kits domestically in order to fulfil the high demand for PPE kits to hospital and provide proper treatment to patients; avoid spreading of disease among health workers.

NHA has partnered with UberMedic to offer free rides to healthcare workers in select locations for the next month. This partnership will initially facilitate the provision of 150 cars free of cost to support medical facilities in New Delhi, Noida, Ghaziabad, Kanpur, Lucknow, Prayagraj and Patna. All UberMedic cars supplied to NHA are equipped with roof-to-floor plastic sheeting enclosing the driver's seat, thereby acting as a protective barrier between the rider and driver.

The fight against COVID-19 is far from over. However, the Indian Government along with its different divisions including private entities are determined to work together and extend their support to curtail the situation such that India could again restore itself as a beaming economy. In the meantime, let's all pledge to support the government and non-government initiatives, practice washing of hands, maintain social distancing and contribute to this nationwide fight against COVID-19.

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