

COVID-19 PANDEMIC CONTROL AND PREVENTION – LEARNING FROM KERALA

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Abstract

The MHRD (Ministry of Health and Family Welfare) declared the rise of COVID-19 virus, which was spreading in China on 17-01-2020. The first case of COVID-19 was reported in the state of Kerala on January 30, 2020. Kerala's success in the health sector is declared as a role model for the rest of the country. During the pandemic Kerala state has appreciated by the international organizations for their response to COVID-19 through the good health system and strong governance. This paper discusses the important policy steps made by the Kerala state to control the pandemic in 2021.

Keywords: COVID-19, Policy Measures, Health System

INTRODUCTION

The first case of SARS CoV-2 disease was reported in Kerala on January, 2020. The total of 4189 COVID-19 cases has reported in the state with the population of 35 million on June, 2020. As per the report of 2020 June shows that, there is 23 deaths with 51.7 per cent of recovery rate. In the year 2018, the outbreak of Nipah Virus infection emphasized the threat perception and from that period itself the state used advanced measure and its experience in disaster management planning came in to sudden arrange resources and place up a timely and total response in connection with key stakeholders. The main policy strategies were implemented by the Kerala government are continuous surveillance, set up of district control rooms for monitoring, capacity building of frontline health workers, risk communication and strong community engagement, and addressing the psycho social needs of the vulnerable population for controlling the wide spread of the virus.

Table 1: Statistical Information of COVID-19 Affected Persons in Kerala

Sl. No	30 January 2020 to 2 May 2020	Place in Home Quarantine	Isolation in Hospitals	Tested Cases	Positive Cases Under treatment (Causalities)	Discharged After Cured
1	30/01 to 15/02	3430	207	415	3	0
2	15/02 to 29/02	289	30	70	0	3
3	01/03 to 07/03	433	62	197	0	0
4	08/03 to 14/03	6863	549	1215	19	0
5	15/03 to 21/03	46301	452	1819	30	0
6	22/03 to 28/03	83792	926	2351	130	13
7	29/03 to 04/04	52218	1007	3677	124	34
8	05/04 to 11/04	10160	1090	4419	67	93
9	12/04 to 18/04	534	725	4611	26	114
10	19/04 to 25/04	2260	755	3586	58	81
11	26/04 to 02/05	4424	719	8823	42	62

Source: Directorate of Health Services-Government of Kerala

The table shows the Statistical Information of COVID-19 Affected Persons in Kerala. It describes the data regarding COVID-19 cases reported from 30 January to 2 May, 2020. The table highlights the number of persons who were in quarantine, number of persons who were hospitalized, number of tested cases of COVID-19, number of positive cases under treatment in hospitals, and number of persons who were discharged after cured from COVID-19. As on January 29, Kerala has 415 total tested cases of COVID-19, of which 3 positive cases under treatment and no recovered cases. As on February 29, Kerala has 70 tested cases of COVID-19, of which zero positive cases and 3 have discharged after cured. As on March 29, Kerala has no positive cases under treatment and 3 have discharged. As on April 26, Kerala has 8823 tested cases of COVID-19, of which 42 positive cases under treatment and 62 have discharged after cured. Only 3 deaths have been recorded in these periods.

HealthCare

Kerala's successes in the health sector have frequently been mentioned as a role model for the rest of the country. AARDRAM, the Kerala Government's patient-friendly hospital mission, provides quality services at all health levels. As a result, it is planned to gradually convert primary health centers into family health centers in order to achieve effective family-centered health services. Kerala's improved health indicators are attributed to both supply-side interventions by governments and other organizations and demand-side interventions by social movements. The spread of education, particularly among women, also had a positive impact on health services (Jeffrey 1992). Kerala has consistently been one of the strongest performers in health care, with indicators comparable to those of advanced economies, owing largely to consistent investment in education and health care infrastructure by various administrations over time (Kutty, 2000; Madore et al., 2018). NITI Aayog, India's planning and policy think tank, has repeatedly recognized the state as leading the nation in health care (Paliwal, 2019).

Kerala was one of two Indian states in 2011 where females were greater than males (1,084 females

per 1,000 males), indicating improved conditions for girls and women. Life expectancy averaged 74.9 years from 2010 to 2014 (77.8 for females and 72.0 for males), compared to the national average of 67.9. Kerala had India's eighth-largest economy and seventh-highest per-capita net state domestic product in 2016. Growth in real-estate, tourism, constructions, and remittance from Keralites working abroad (approximately 2.25 million people in 2016) aided the economy's recovery in the 2000s following several decades of low growth. Remittance accounted for approximately 33.6 per cent of state GDP in 2014, helping to keep the state's poverty rate (7.05 per cent in 2012) low in comparison to national income (21.92 per cent). Kerala had the highest total health expenditure in India in 2014-2015, at USD 125 (U.S. dollar) per-capita. Government health spending accounted for 17.8 per cent of total health spending in the sixth lowest among Indian states, and 5.6 per cent of general government spending. Kerala had twice the national average proportion of household spending dedicated to health.

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Measures to Control Covid-19

Kerala had a comparable edge due to its experience in controlling two instances of Nipah. Health staff were trained to detect, track, and transport patients experiencing symptoms of illness, isolation beds and processes for providing supportive care were in place, and people were conscious of the importance of practicing house quarantine. After the state registered India's first COVID-19 case on January 30, 2020, the government declared a health emergency in the state after two further cases were confirmed on February 2 and 3, 2020. Kerala has begun carefully preparing for a future epidemic. Infection prevention and control for ambulances, management of bio-medical waste, handling of body fluid spills, disinfection and sanitization, hand washing, management of dead bodies, use of personal protection equipment (PPE), and sample collection and transportation were all covered by the state's standard operating procedures. A set of consolidated guidelines covering testing, quarantine, hospital admissions, treatment, and discharge was also established, and was frequently revised to account for changing perceptions and strategies. Training modules were provided in addition to the

guidelines. The following are the strategies used by the Kerala government to fight the pandemic.

- 1. Health Set-up:** The government has been steadily spending on infrastructure improvements. During the pandemic, the state government created at least two COVID-19 functional hospitals in each district to treat positive cases with a multidisciplinary team and well-trained staff. States and district medical boards were formed to develop treatment and discharge protocols as well as to evaluate each positive case. All incoming passengers were examined early at all airports and sea ports, and interstate bus and train stations were also screened.
- 2. Creating Containment Zones:** Due the increase in the number of cases, the state strengthened surveillance and disease control steps. The state's COVID-19 strategy relies heavily on intense contact tracing and testing. The state followed WHO guidelines by tracing, testing, and isolating as many people as feasible. Kerala had received 171846 samples for testing as of June 30th, 2020. Furthermore, more than 46689 samples were collected from high-risk groups such as health care professionals as part of the Sentinel Surveillance programme, which was implemented in all 14 districts across the state to assess the prevalence of disease in a community. Furthermore, as part of the ICMR Sero-Surveillance Study, 1193 samples were tested from three districts in Kerala: Ernakulum, Trissur, and Palakkad. True NAAT and CBNAAT (Xpert- SARS- COV testing) has been initiated in eight government institution for testing and nine private institutions for testing samples for patients undergoing an emergency surgery, symptomatic health workers, sick patients or COVID suspected death.
- 3. Isolation:** Initially, the government imposed a 28-day quarantine and prepared thousands of shelters for migrant workers stranded by the nationwide shutdown. In addition, COVID case centers were established in all districts to serve non-residents such as visitors and individuals in transit. Adequate infrastructure has been provided at all designated isolation facilities for accommodating residents returning from other states. As on 29th June 2020, 180617 people are under surveillance out of which, 177955 are under home and institutional quarantine and 2662 are in designated isolation facilities. Regular monitoring, a mix of phone calls and home visits, is being undertaken to ensure strict adherence.
- 4. Ottakkalla Oppamundu:** Tele medicine portal e-sanjeevani for tele consultation across the state and Ottakkalla Oppamundu for providing psychosocial support are in place and 1143 mental health professionals, including psychiatrist, psychiatric social workers, clinical psychologists and counselor have been arranged to provide support to people in quarantine. Counseling support also provided to frontline workers working in corona outbreak control activities. The government has adopted an inclusive approach and addressed the special needs of mentally ill-patients, children with special needs, migrant labors and elderly people living alone.
- 5. Attention of the People:** During the time of crisis, people value reliable information even if it is not relevant. The willingness of the government to share information with the people

constantly increases transparency and generates trust. The Chief Minister of Kerala, after reviewing the data and discussing policy decisions, share the important information with the people every day through a live press conference, which has been most viewed show in recent days in Kerala. The government has borne the entire cost of testing and treating COVID-19 in the state. These actions have earned the trust of the people of Kerala, which creates an environment for people to cooperate with the government, for they are prepared to subject themselves to restrictions imposed by the government to control the epidemic.

6. **Break the Chain:** It's an awareness campaign was success fully promoting the importance of washing hands properly, physical distancing and coughing manner. In every railway station and mobilized places, there is a hand washing stations were installed. Arogyam portal was launched by the government through the Department of Health and Family Welfare with complete information about the virus. The website for Directorate of Health Service and Jagartha Portal were launched by the Department of Health and Family Welfare with comprehensive information on COVID-19.
7. **Kudumbashree's self-help** team formed nearly 1.9 lakh what's App Groups with 22 lakh Neighbor Hood Groups (NHGs) to educate on key safety actions implemented by the government during lockdown. During the pandemic lockdowns, the community kitchens were to provide food to the people who are needed that spread up in less than three days across the state. They were managed the kitchens in the closed-down hotels, school kitchens, and marriage halls. Most of the things for cooking, such as rice, pulses, condiments, vegetables, and even meat and fish were collected through donations. Also, the community kitchens saved more than five lakh meals per day. Empowerment of women and high literacy among the people were helped to implement the plans smoothly.

Health departments are worked hardly to control the pandemic and in addition, other departments such as, police, disaster management, and education departments were also issued the same guide lines to control the epidemic. And the Chief Minister of Kerala were share the results of the analysis to the people about the performance monitoring and coordination of the functioning of different departments accurate results.

Exit Strategy: Kerala is attempted an exit strategy from full lockdown. A main task was faced by the government was tracking and testing and quarantine facilities for the migrant Malayalee people (Kerala peoples from abroad) from gulf and other foreign countries, and also from other states in India. For identifying all return migrants in their areas, the local governments and public work departments were found hotels, unoccupied flats and large houses to quarantine them. The people who returned were quarantined safely and tested. Those who found positive were isolated and treated. There was an option for the return migrants to use hostel accommodation for quarantine on payment basis.

Another exit strategy is Reverse Quarantine. Those who were suffering from chronic diseases and major health issues in the age above 65 who are at high risk of adverse consequences. If they affected by the virus were to stay indoors and emergency were put in the isolation rooms

in the houses. With 13.5 percent of the population over the age of 65 and a high incidence of diabetics and hypertension, Kerala faced a daunting task. More than 40 lakh people were quarantined in houses, and big analytics were required to develop regional strategies. It is also critical that local governments plan to give medicine, counselling, and, if required, free food to people who have been confined. Personnel hygiene, hand washing practices, and mask usage will need to be improved.

The third component of an exit strategy would be to gradually expand **livelihood activities**. Agriculture and associated sectors, as well as cottage and small-scale enterprises, were the first to open up. Even during the lockdown, vegetable cultivation was pushed and will be used as a campaign. The budget for 2020-2021 called for generations to create new jobs in the non-agriculture sector for every 1000 people in each specific government region.

CONCLUSION

It is clear that Kerala have excellent model of controlling the pandemic. The change is still going on. Kerala is move up to meet and may adversely impact the disease situation. Vaccination is critical for COVID-19 protection, but it is not a panacea for the immediate problem of the second wave. Only a temporary and significant reduction in disease transmission among humans, furthermore, if the virus is not eradicated everywhere, it can continue to mutate, posing a challenge to vaccinations, which will need to be adjusted to account for the mutations. As a result, a global viewpoint and ongoing research and development are essential.

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